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2024 Annual PFAS Sampling Report

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This letter report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) to document the 2024 annual per- and polyfluoroalkyl substances (PFAS) groundwater sampling event conducted in June 2024 at the Coldwater Road facility located in Flint, Michigan (Site).

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PFAS Sampling Protocol

For this sampling event, the sample team followed the protocol set forth in the EGLE Michigan PFAS Action Response Team (MPART) Groundwater PFAS Sampling Guidance dated October 2018 and Ramboll's PFAS Sampling Field Guidance Document Number 1.07.

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Special care was taken during sampling and transport of the samples to avoid contamination from clothing, sampling material, and storage containers due to the extremely low detection limits for PFAS (<2 ng/l), because PFAS are used in a variety of applications and products, such as fire retardants, water repellent clothing, microwavable food wrappers, cosmetics, etc.

The sample team wore natural fiber (predominantly 100% cotton, or as near to 100% as possible) clothing (especially no water repellent materials [coats, gloves, shoes, etc.]) and avoided bathing with or applying particular products (deodorants/antiperspirants, lotions, cosmetics, etc.) prior to sampling to minimize the potential for cross contamination.

Sampling Methods

Annual PFAS samples were collected in conjunction with the routine landfill operations, maintenance, and monitoring (OMM) June 2024 Semiannual Groundwater Monitoring event. During this annual PFAS groundwater sampling event samples were collected from the following locations:

Perched Zones (Fourteen Monitoring Wells)

- B-7, B-9, OBG MW-9, OBG MW-11, OBG MW-12S, OBG MW-13, OBG MW-14, OBG MW-17S, OBG MW-18S, OBG MW-21, OBG MW-22, OBG MW-24, OBG MW-26R, and OBG MW-28

Drift Unit (Four Monitoring Wells)

- B-27D, OBG MW-23 (D), OBG MW-27R (D), and OBG MW-29 (D)

Leak Detection Vaults

- Vault A, Vault C, and Vault E.

Samples were collected during the weeks of June 2, 2024, and June 9, 2024. See **Figure 1** for monitoring well locations.

In addition to the EGLE MPART Groundwater PFAS Sampling Guidance and Ramboll's PFAS Sampling Field Guidance Document Number 1.07., the groundwater sampling was performed in accordance with USEPA, *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures (EPA/540/S-95/504)* and the USEPA Region 1 (July 30, 1996, Revision 4, revised September 19, 2017) *Low Stress (Low-Flow) Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells*.

Groundwater samples from the perched zone were collected using a peristaltic pump. Groundwater samples from the drift unit were collected using a bladder pump. Groundwater sampling logs are included in **Appendix A**.

Monitoring wells (B-7, and B-9) were purged "dry", with a submersible Whale pump, allowed to recharge, and the samples were collected as soon as sufficient water was present to obtain the necessary sample volume in accordance with Ramboll procedures and the EGLE approved site-specific Field Method Guide.

Groundwater sampling was performed using high density polyethylene (HDPE) sample tubing attached to the appropriate sampling pump (a Whale, peristaltic, or bladder pump) lowered approximately to the midpoint of the well screen. The tubing was then attached to a flow-through cell attached to a physical parameter measurement instrument capable of measuring temperature, conductivity, pH, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Turbidity was collected with a separate turbidity meter.

Purging continued until the water quality parameters stabilized within the USEPA Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells values over three consecutive 5-minute periods, except at wells that were purged "dry" where physical parameter measurements were collected when possible.

Once stabilized, the flow-through cell was disconnected and the samples were collected directly into laboratory supplied containers, placed in an ice-filled cooler, and transported to Merit Laboratories in

East Lansing, Michigan under appropriate chain-of-custody (COC) protocols. The samples were submitted to the laboratory for analysis on a standard turnaround time.

Samples were analyzed for the presence of PFAS by ASTM Method D7979 – 19 Modified (no preservation). The PFAS constituent list provided by the laboratory increased from 28 to 34 constituents in 2023. The following QC samples were collected: three field duplicates, and three field (ambient) blanks. A peristaltic pump was used for sample collection with tubing dedicated to each well; except for the drift unit location B-27D, where a bladder pump was used; therefore, no equipment blank was collected.

Prior to sampling, water level measurements were collected from monitoring wells at the Site and the offsite wells. Groundwater elevation data is included on **Table 1**. A groundwater potentiometric surface map was completed for the shallow wells (**Figure 2**) and for the deeper drift unit (**Figure 3**).

As discussed in the March 8, 2024, Technical Memorandum to EGLE, OBG MW-26 and OBG MW-27 were abandoned and replaced in October 2023. OBG MW-26 was abandoned due to the discovery of sand pack material within the well indicating a faulty well installation. OBG MW-27 was abandoned due to the suspicion of a potentially bad seal. The replacement wells were installed approximately 10 feet northwest of the existing well locations, and the top of casing and ground surface elevations were surveyed in May 2024 prior to the sampling event.

A groundwater elevation contour map was prepared for the perched zone (**Figure 2**) and a potentiometric surface contour map was prepared for the deeper drift unit (**Figure 3**). Additional site monitoring wells (not part of the landfill monitoring program) were used to aid in the creation of the contour maps. When reviewing the groundwater elevation contour map for the perched zone, please keep in mind that groundwater in the perched zone includes discontinuous perched saturated zones within an otherwise clayey matrix.

Based on these contours, the groundwater flow direction in the perched zone appears to be consistent with previously observed flow directions and be predominantly toward the northwest but turning toward the west in the westward extension of the Site. The perched zone static water elevations were generally higher compared to the previous gauging event (November 2023), yet consistent with historical data.

The drift unit static water elevations were consistent with historical data and the previous gauging event (November 2023). Groundwater in the drift unit flows in a southerly direction.

Analytical Results

The analytical results for the samples collected at the Coldwater Road Landfill facility are presented in **Table 2** – PFAS Sample Results- Perched Monitoring Well Sampling, **Table 3** – PFAS Sample Results- Drift Monitoring Well Sampling, and **Table 4** – PFAS Sample Results- Sump and Vault Samples. The results are also shown on **Figure 4** – Perched Data, **Figure 5** – Drift Data, **Figure 6** – Vault Data. The complete analytical laboratory report is contained in **Appendix B**.

The results were compared to EGLE’s October 12, 2023, Part 201 Groundwater Generic Cleanup Criteria and Screening Levels and the Rule 57 Surface Water Quality Value.

The relative percent difference (RPD) for the duplicate sample results for OBG MW-11 and MW-DUP-1-06122024 (OBG MW-11), OBG MW-14 and MW-DUP-2-06122024 (OBG MW-14), and Vault C and Vault-DUP-060424 (Vault-C) were within acceptable limits.

No PFAS were detected in the field blanks or equipment blank associated with the field procedures/methods for this sampling event.

Perched Analytical Results

As indicated in both **Table 2** and **Figure 4** PFAS results in the perched zone were generally comparable to previous sampling events (i.e., are stable or decreasing).

PFAS detections above EGLE Screening Levels for the June 2024 event in the perched zone were limited to the following:

Perfluorooctanoic Acid (PFOA) at three wells: OBG MW-11 (27 ng/l), MW-DUP-1-06122024 (OBG MW-11 (28 ng/l)), OBG MW-14 (29 ng/l), MW-DUP-2-06122024 (OBG MW-14 (28 ng/l)), and OBG MW-26R (22 ng/l);

Perfluorohexane Sulfonic Acid (PFHxS) at two wells: OBG MW-11 (310 ng/l), MW-DUP-1-06122024 (OBG MW-11 (320 ng/l)) and OBG MW-14 (170 ng/l) and MW-DUP-06122024 (170 ng/l);

Perfluorooctane Sulfonic Acid (PFOS) at seven wells: B-7, B-9, OBG MW-11, MW-DUP-1-06122024 (OBG MW-11), OBG MW-12S, OBG MW-14, MW-DUP-2-06122024 (OBG MW-14), OBG MW-17S, OBG MW-22, and OBG MW-26R with concentrations ranging up to 2,100 ng/l at OBG MW-14.

Drift Unit Analytical Results

As indicated in both **Table 3** and **Figure 5** PFAS results from B-27D, OBG MW-23 and OBG MW-29 in the drift unit were not detected above the reporting limit and are considered stable. At OBG MW-27 PFAS concentrations were similar to last sample collected in November 2023. The analytical result at OBG MW-27R detected PFOS at a concentration of 14 ng/l. OBG MW-27R is delineated to the south by non-detect or below criteria PFAS concentrations at OBG MW-29. The results from OBG MW-29 continue to be below the EGLE Screening Levels.

Vault Analytical Results

As indicated in both **Table 4** and **Figure 6** PFAS results in the vaults were generally comparable to previous sampling events (i.e., are stable or decreasing). PFAS detections above EGLE Cleanup Criteria for the June 2023 event were limited to PFOA at Vault-A (12 ng/l) and Vault-E (12 ng/l) and PFOS at Vault-A (410 ng/l), Vault-C (390 ng/l), Vault-DUP-060424 (390 ng/l), and Vault-E (470 ng/l).

It is noted that one of the new PFAS analytes reported by the lab, Perfluoro-4-ethylcyclohexanesulfonate (PFECHS), was detected in several samples at concentrations similar to or greater than reported PFOS concentrations. There currently is no criterion for PFECHS.

Summary

PFAS concentrations do not appear to have expanded and generally appear to be stable, and concentrations are not significantly different from previous monitoring events, except as previously noted. Continued annual PFAS monitoring is recommended.

The next annual PFAS sampling event is currently scheduled for June 2025. If you have any questions, please feel free to contact Clifford Yantz at (313) 333-0211.

Very truly yours,

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.



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Tables

Table 1 – Depth to Groundwater Levels
Table 2 – Perched Zone Results
Table 3 – Drift Unit Results
Table 4 – Leak Detection Vault Results

Figures

Figure 1 – Monitoring Well Location Map
Figure 2 – Perched Zone Groundwater Elevation Map
Figure 3 – Drift Unit Groundwater Elevation Map
Figure 4 – Perched Zone Monitoring Well PFAS Sample Results
Figure 5 – Drift Unit Monitoring Well PFAS Sample Results
Figure 6 – Leak Detection Vaults PFAS Sample Results

Appendix

Appendix A – Groundwater Sampling Logs
Appendix B – Analytical Laboratory Results

TABLES



TABLE 1
RACER Trust - Coldwater Road
Depth to Groundwater Levels in Monitoring Wells

June 3, 2024

Well ID	Top of Casing Elevation (ft)*	Depth to Water (ft)	Static Water Elevation (ft)
<i>Landfill Monitoring Wells</i>			
B-7	813.67	16.50	797.17
B-9	807.37	3.00	804.37
B-18A	810.99	20.44	790.55
B-19A	812.66	8.38	804.28
B-19AR	811.78	38.05	773.73
B-20D	815.13	68.77	746.36
B-21D	821.01	79.21	741.80
B-22D	822.16	83.39	738.77
B-23DR	812.09	80.01	732.08
B-24R	816.09	12.38	803.71
B-27D	812.62	74.67	737.95
B-28	816.33	4.18	812.15
OBG MW-16D	807.42	56.62	750.80
<i>former WWTP Monitoring Wells</i>			
OBG MW-1	811.56	4.90	806.66
OBG MW-2	813.77	7.35	806.42
OBG MW-3	810.09	4.20	805.89
OBG MW-4	812.66	5.60	807.06
OBG MW-5	816.04	7.38	808.66
OBG MW-6	815.75	11.45	804.30
OBG MW-7	813.47	7.35	806.12
OBG MW-8	817.50	9.60	807.90
OBG MW-9	809.97	3.70	806.27
OBG MW-10	811.54	--	--
<i>Additional Site Monitoring Wells</i>			
OBG MW-11	801.94	4.62	797.32
OBG MW-12D	797.13	46.15	750.98
OBG MW-12S	796.88	7.84	789.04
OBG MW-13	801.81	5.19	796.62
OBG MW-14	810.98	6.15	804.83
OBG MW-15D	810.68	78.70	731.98
OBG MW-17D	800.09	49.20	750.89
OBG MW-17S	800.51	10.62	789.89
OBG MW-18D	800.17	49.10	751.07
OBG MW-18S	799.32	12.72	786.60
OBG MW-19D	795.37	47.60	747.77
OBG MW-20	783.93	27.20	756.73
OBG MW-21	797.49	4.82	792.67
OBG MW-22	794.11	3.71	790.40
OBG MW-23 (D)	776.76	27.12	749.64
OBG MW-24	781.50	5.35	776.15
OBG MW-25R	786.61	5.50	781.11
OBG MW-26R	772.38	4.19	768.19
OBG MW-27R (D)	772.46	22.58	749.88
OBG MW-28	800.35	11.60	788.75
OBG MW-29 (D)	773.28	24.01	749.27
<i>Piezometers</i>			
PZ-3R	788.37	8.65	779.72
<i>Peregrine Site Wells</i>			
MW-19-13	807.85	2.40	805.45
MW-20-13	810.81	4.78	806.03
MW-15-10	808.15	75.98	732.17
MW-16-10	798.64	66.36	732.28
PFW-1	809.51	76.92	732.59

Notes

Casing elevations were provided by Norwy & Hale Surveyors and are in feet relative to National Geodetic Vertical Datum.

-- No data.

R - Indicates a replacement well location.

Monitoring wells OBG MW-25, PZ-2, and PZ-3 were abandon on July 7, 2020 as part of the onsite berm construction. OBG MW-25 and PZ-3 were replaced in December 2022.

Monitoring wells OBG MW-26, and OBG MW-27 were abandon and replaced in October 2023.



TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		B-7	B-7 (Collocated)	B-7	B-7	B-7	B-7	B-7	B-7	B-7
		GSI										
		Drinking Water	GSI	11/30/2016	11/30/2016	6/12/2018	5/30/2019	6/18/2020	6/11/2021	6/8/2022	6/9/2023	6/6/2024
Perfluorobutanoic Acid (PFBA)	--	--	9.2 J	7.1 J	8.2 B	<20	10	<9.9	<10	<9.9	10	
Perfluoropentanoic Acid (PFPeA)	--	--	2.6	1.7 J	4.2	<9.8	1.2 J	2.2 J	2.3 J	1.6 J	2.0 J	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	--	--	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluorohexanoic Acid (PFHxA)	400,000	--	3.9	3.1	3.3	<9.8	2.0 J	3.1	3.2	2.1	2.5	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	5.7	5.8	4.1	<9.8	4.8	5.4	4.4	3.5	3.5	
Perfluoroheptanoic Acid (PFHpA)	--	--	2.4	1.6 J	2.3	<9.8	<2	<2.0	1.4 J	<2.0	0.86 J	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	--	--	<9.8	5.1	5.4	4.8	5.2	5.3	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<3.8	<3.7	--	<20	<2.0	8.6	<2.1	9.6	<2.0	
Perfluorooctanoic Acid (PFOA)	8	170	9.2 JN	7.6 JN	9.2	<9.8	5.6	5.3	5.1	4.9	5.2	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	23	22 JN	18 B	<19	17	15	16	12	12	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	--	--	<14	13	12	13	9.9	9.7	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	--	--	<9.8	3.3	2.7	2.6	2.1	2.3	
Perfluorononanoic Acid (PFNA)	6	30	0.87 J	0.79 J	0.82 J	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	--	--	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	3.8	3.9	3.0	<9.8	2.4	2.0	2.4	<2.0	2.0	
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.0	<2.0	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	--	--	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	--	--	<9.8	<4.1	<3.9	<4.1	<4.0	<3.9	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	220	230	130	140	140	90	87	89	120	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	--	--	72	84	46	48	50	71	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	--	--	20	57	42	38	35	46	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.0	<2.0	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	--	--	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.0	<2.0	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.0	<2.0	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluorotridecanoic Acid (PFTDA)	--	--	<2.0	<2.0	<2.0	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluorooctane Sulfonamide (FOSA)	--	--	<0.64 UJ	<0.62 UJ	<0.34	<9.8	<2.0	<2.0	<2.1	<2.0	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<2.0 U	<2.0 U	<0.28	<9.8	<4.1	<3.9	<4.1	<4.0	<3.9	
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30Uds)	--	--	--	--	--	--	<2.0	<2.0	<2.1	<2.0	<2.0	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	--	--	--	<2.0	<2.0	<2.1	<2.0	<2.0	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	<2.0	<2.0	<2.1	<2.0	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	<2.0	<9.9	<10	<4.0	<9.8	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	<4.0	<9.8	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	<4.0	<9.8	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	<4.0	<9.8	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	<2.0	<2.0	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	240	260	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	<2.0	<2.0	
Total Per-and Polyfluoroalkyl Substances	--	--	280.7	283.6	183.1	140.0	188.1	137.0	--	367.9	423.4	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		B-9	B-9	B-9	B-9	B-9	B-9	B-9	B-9	
		Sample Date:	Drinking Water	GSI	6/20/2017	6/12/2018	6/3/2019	6/17/2020	6/11/2021	6/8/2022	6/9/2023	6/6/2024
Perfluorobutanoic Acid (PFBA)		--	--	14 B	9.5 B	<1.9	28	16	22	<1.0	12	
Perfluoropentanoic Acid (PFPeA)		--	--	2.2	1.7 J	<9.4	1.0 J	3.2 J	3.6 J	<4.0	1.9 J	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	--	--	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluorohexanoic Acid (PFHxA)		400,000	--	9.3	7.0	<9.4	4.3	9.5	14	3.9	4.6	
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	2.3	2.1	<9.4	2.3	3.6	2.9	2.1	2.1	
Perfluoroheptanoic Acid (PFHpA)		--	--	4.2	<0.24	<9.4	<2.0	1.8 J	2.6	<2.0	1.0 J	
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	--	--	<9.4	<2.0	1.8 J	<2.1	<2.0	<1.3	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	<3.7	--	<9.4	<2.0	2.9 J	<2.1	<2.0	<1.3	
Perfluorooctanoic Acid (PFOA)		8	170	15	12	<9.4	<2.0	8.2	8.3	5.0	5.8	
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	6.9	3.7 B	<9.4	5.1	6.4	9.1	5.8	3.8	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	--	--	<9.4	4.2	5.5	7.7	4.5	3.0	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	--	--	<9.4	<2.0	<1.9	<2.1	<2.0	0.67 J	
Perfluorononanoic Acid (PFNA)		6	30	<0.64	<0.26	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	--	--	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	0.70 J	0.33 J	<9.4	<2.0	<1.9	<2.1	<2.0	0.75 J	
Perfluorodecanoic Acid (PFDA)		--	--	<0.43	<1.9	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	--	--	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	--	--	<9.4	<4.1	<3.9	<4.1	<4.0	<2.6	
Perfluorooctane Sulfonic Acid (PFOS)		16	12	13	9.3	16	16	21	21	13	18	
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	--	--	--	<9.4	<2.0	<1.9	2.5	<2.0	1.4	
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	--	--	--	13	13	18	18	11	16	
Perfluoroundecanoic Acid (PFUnDA)		--	--	<0.73	<1.9	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluorononane Sulfonic Acid (PFNS)		--	--	--	--	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluorododecanoic Acid (PFDoDA)		--	--	<0.57	<1.9	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<1.2	<1.9	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluorotridecanoic Acid (PFTrDA)		--	--	<0.54	<1.9	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluorooctane Sulfonamide (FOSA)		--	--	3.3 J H	<0.33	<9.4	<2.0	<1.9	<2.1	<2.0	<1.3	
Perfluorotetradecanoic Acid (PFTeDA)		--	--	1.2 J B	<0.27	<9.4	<4.1	<3.9	<4.1	<4.0	<2.6	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	--	--	--	--	<2.0	<1.9	<2.1	<2.0	<1.3	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	--	--	--	--	<2.0	<1.9	<2.1	<2.0	<1.3	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)		--	--	--	--	--	<2.0	<1.9	<2.1	<2.0	<1.3	
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	--	<2.0	<9.7	<10	<4.0	<6.6	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	--	<4.0	<6.6	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	--	<4.0	<6.6	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	--	<4.0	<6.6	
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	--	<2.0	<1.3	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	--	140	120	
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	--	<2.0	<1.3	
Total Per-and Polyfluoroalkyl Substances		--	--	72.1	45.6	16.0	56.7	74.4	83.5	169.8	170.0	

Notes

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- 6) Dup = Duplicate sample.
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- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
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- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		B-18A	B-18A	B-18A	B-18A (GW-DUP-1)	B-18A	B-18A (DUP-1)
		GSI							
		Drinking Water	GSI						
Sample Date:		6/20/2017	6/12/2018	6/3/2019	6/3/2019	6/18/2020	6/18/2020		
Perfluorobutanoic Acid (PFBA)	--	--	4.2 B	1.1 J/B	<19	<20	12 U	<9.7	
Perfluoropentanoic Acid (PFPeA)	--	--	<0.94	0.51 J	<9.5	<9.8	<4.0	<3.9	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<0.75	<0.56	<9.5	<9.8	<2.0	<1.9	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<0.87	<0.19	<9.5	<9.8	<2.0	<1.9	
Perfluoroheptanoic Acid (PFHpA)	--	--	<0.76	<0.24	<9.5	<9.8	<2.0	<1.9	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<3.6	--	<9.5	<9.8	2.1	2.3	
Perfluorooctanoic Acid (PFOA)	8	170	1.2 J	<0.82	<9.5	<9.8	<2.0	<1.9	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	<0.83	0.27 J/B	<9.5	<9.8	<2.0	<1.9	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
Perfluorononanoic Acid (PFNA)	6	30	<0.62	<0.26	<9.5	<9.8	<2.0	<1.9	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<0.68	<0.18	<9.5	<9.8	<2.0	<1.9	
Perfluorodecanoic Acid (PFDA)	--	--	<0.42	<1.9	<9.5	<9.8	<2.0	<1.9	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	--	<9.5	<9.8	<4.0	<3.9	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	1.3 J	<0.52	<9.5	<9.8	<2.0	<1.9	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<0.71	<1.9	<9.5	<9.8	<2.0	<1.9	
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	--	<9.5	<9.8	<2.0	<1.9	
Perfluorododecanoic Acid (PFDoDA)	--	--	<0.56	<1.9	<9.5	<9.8	<2.0	<1.9	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<1.2	<1.9	<9.5	<9.8	<2.0	<1.9	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<0.52	<1.9	<9.5	<9.8	<2.0	<1.9	
Perfluorooctane Sulfonamide (FOSA)	--	--	<0.61	<0.34	<9.5	<9.8	<2.0	<1.9	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<0.19	<0.28	<9.5	<9.8	<4.0	<3.9	
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30Uds)	--	--	--	--	--	--	<2.0	<1.9	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	--	--	--	<2.0	<1.9	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	<2.0	<1.9	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	<2.0	<1.9	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	
Total Per-and Polyfluoroalkyl Substances	--	--	6.7	1.9	0.0	0.0	14.1	2.3	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
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- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		B-19Ar	B-19Ar	B-19Ar	B-19Ar	B-24r	B-24r	B-24r	B-24r	
		Sample Date:	Drinking Water	GSI	11/30/2016	6/12/2018	6/3/2019	6/18/2020	6/20/2017	6/12/2018	5/30/2019	6/17/2020
Perfluorobutanoic Acid (PFBA)		--	--	1.0 J	1.2 J/B	<2.0	14 U	14 B	8.9 B	<17	18 U	
Perfluoropentanoic Acid (PFPeA)		--	--	<0.98 U	1.1 J	<9.9	<3.8	<0.93	2.0	<8.5	<3.9	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	--	--	<9.9	<1.9	--	--	<8.5	<2.0	
Perfluorohexanoic Acid (PFHxA)		400,000	--	<0.78 U	<0.54	<9.9	<1.9	3.9	2.7	<8.5	<2.0	
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	<0.91 U	0.28 J	<9.9	<1.9	3.7	1.5 J	<8.5	2.4	
Perfluoroheptanoic Acid (PFHpA)		--	--	<0.80 U	0.33 J	<9.9	<1.9	1.7 J	<0.23	<8.5	<2.0	
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	--	--	<9.9	<1.9	--	--	<8.5	<2.0	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	<3.8	--	<9.9	5.7	<3.6	--	<17	<2.0	
Perfluorooctanoic Acid (PFOA)		8	170	0.84 JN	0.93 J	<9.9	<1.9	3.9	3.4	<8.5	<2.0	
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	<2.0 U	0.89 J/B	<9.9	<1.9	5.4	2.6 B	<8.5	3.3	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	--	--	<9.9	<1.9	--	--	<8.5	2.4	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	--	--	<9.9	<1.9	--	--	<8.5	<2.0	
Perfluorononanoic Acid (PFNA)		6	30	<0.65 U	<0.25	<9.9	<1.9	<0.62	<0.25	<8.5	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	--	--	<9.9	<1.9	--	--	<8.5	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	1.0 J	0.31 J	<9.9	<1.9	<0.67	<0.18	<8.5	<2.0	
Perfluorodecanoic Acid (PFDA)		--	--	<2.0	<1.9	<9.9	<1.9	<0.41	<1.9	<8.5	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	--	--	<9.9	<1.9	--	--	<8.5	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	--	--	<9.9	<3.8	--	--	<8.5	<3.9	
Perfluorooctane Sulfonic Acid (PFOS)		16	12	3.9	4.1	10	3.2	5.0	2.5	<8.5	3.8	
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	--	--	--	<9.9	<1.9	--	--	<8.5	3.3	
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	--	--	--	<9.9	<1.9	--	--	<8.5	<2.0	
Perfluoroundecanoic Acid (PFUnDA)		--	--	<2.0	<1.9	<9.9	<1.9	<0.70	<1.9	<8.5	<2.0	
Perfluorononane Sulfonic Acid (PFNS)		--	--	--	--	<9.9	<1.9	--	--	<8.5	<2.0	
Perfluorododecanoic Acid (PFDoDA)		--	--	<2.0	<1.9	<9.9	<1.9	<0.55	<1.9	<8.5	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<2.0	<1.9	<9.9	<1.9	<1.1	<1.9	<8.5	<2.0	
Perfluorotridecanoic Acid (PFTrDA)		--	--	<2.0	<1.9	<9.9	<1.9	<0.52	<1.9	<8.5	<2.0	
Perfluorooctane Sulfonamide (FOSA)		--	--	<0.63 UJ	<0.33	<9.9	<1.9	0.66 J	<0.32	<8.5	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)		--	--	<2.0 U	<0.27	<9.9	<3.8	<0.19	<0.27	<8.5	<3.9	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	--	--	--	--	<1.9	--	--	--	<2.0	
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)		--	--	--	--	--	<1.9	--	--	--	<2.0	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	--	--	--	--	<1.9	--	--	--	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	--	<1.9	--	--	--	<2.0	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	--	--	--	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	--	--	--	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	--	--	--	
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	--	--	--	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	--	--	--	
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	--	--	--	
Total Per-and Polyfluoroalkyl Substances		--	--	6.7	9.1	10.0	22.9	38.3	23.6	0.0	27.5	

Notes

- 1) Detections in **bold**.
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RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		B-28	B-28	B-28	B-28	OBG MW-6	OBG-MW-7	OBG MW-7
		GSI								
		Drinking Water	GSI							
Sample Date:			6/20/2017	6/12/2018	5/29/2019	6/16/2020	9/20/2018	6/20/2017	9/20/2018	
Perfluorobutanoic Acid (PFBA)	--	--	--	2.9 B	1.5 J/B	<18	<10	30	8.0 B	<20
Perfluoropentanoic Acid (PFPeA)	--	--	--	<0.96	0.47 J	<8.9	<4.0	<10	<0.96	<10
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	0.92 J	<0.55	<8.9	<2.0	<10	1.0 J	<10
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	<0.89	<0.19	<8.9	<2.0	<10	<0.86	<10
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<0.78	<0.24	<8.9	<2.0	<10	<0.78	<10
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<3.7	--	<18	<2.0	<10	<3.7	<10
Perfluorooctanoic Acid (PFOA)	8	170	--	0.79 J	0.84 J	<8.9	<2.0	<10	<0.72	<10
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	<0.84	0.27 J/B	<8.9	<2.0	<10	<0.84	<10
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
Perfluorononanoic Acid (PFNA)	6	30	--	<0.63	<0.26	<8.9	<2.0	<10	<0.63	<10
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	<0.69	<0.18	<8.9	<2.0	<10	<0.69	<10
Perfluorodecanoic Acid (PFDA)	--	--	--	<0.43	<1.9	<8.9	<2.0	<10	<0.43	<10
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	--	--	<8.9	<4.0	<10	--	<10
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	1.7 J	<0.51	<8.9	<2.0	<10	<1.9	<10
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<0.73	<1.9	<8.9	<2.0	<10	<0.72	<10
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	--	--	<8.9	<2.0	<10	--	<10
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<0.57	<1.9	<8.9	<2.0	<10	<0.57	<10
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<1.2	<1.9	<8.9	<2.0	<10	<1.2	<10
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<0.53	<1.9	<8.9	<2.0	<10	<0.53	<10
Perfluorooctane Sulfonamide (FOSA)	--	--	--	1.2 J	<0.33	<8.9	<2.0	<10	<0.62	<10
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<0.19	<0.28	<8.9	<4.0	<10	1.0 J B	<10
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	--	--	--	<2.0	--	--	--
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	--	--	--	<2.0	--	--	--
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	<2.0	--	--	--
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	<2.0	--	--	--
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	7.5	3.1	0.0	0.0	30.0	10.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) I - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-8	OBG-MW-9	OBG MW-9	OBG MW-9 REPLICATE 01	OBG MW-9	OBG MW-9	OBG MW-9	OBG MW-9	OBG MW-9	
		Sample Date:	Drinking Water										GSI
Perfluorobutanoic Acid (PFBA)	--	--	<20	1.4 J B	<20	<20	<20	24	<9.8	<10	<9.8	<10	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<0.94	<10	<10	<10	<3.8	<3.9	<4.1	<3.9	<4.0	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	--	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<0.75	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	2.0	<10	<10	<10	1.7 J	2.1	1.8 J	<2.0	1.8 J	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<0.76	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	--	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<3.6	<10	<10	<10	6.4	<3.9	<2.1	<2.0	<2.0	
Perfluorooctanoic Acid (PFOA)	8	170	20	1.1 J	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	1.0 J	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	70	5.0	<10	<10	<10	3.2	2.4	3.4 1	2.5	2.7	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	60	--	<10	<10	<10	2.5	1.7 J	2.5 1	1.7 J	2.2	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	--	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorononanoic Acid (PFNA)	6	30	<10	<0.62	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	--	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	30	<0.68	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorodecanoic Acid (PFDA)	--	--	<10	<0.42	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	--	<10	<10	<10	<1.9	<2.0	<2.1 I	<2.0	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	--	<10	<10	<10	<3.8	<3.9	3.3 J	<3.9	<4.0	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	2710	2.9	<10	<10	<10	11	3.1	4.0	3.5	2.8	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	1570	--	<10	<10	<10	6.4	<2.0	<2.1	<2.0	<2.0	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	1270	--	<10	<10	<10	3.7	<2.0	2.1	<2.0	<2.0	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<0.71	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	--	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<0.55	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<1.1	<10	<10	<10	<1.9	<2.0	4.9	<2.0	<2.0	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<0.52	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<0.61	<10	<10	<10	<1.9	<2.0	<2.1	<2.0	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<0.19	<10	<10	<10	<3.8	<3.9	<4.1	<3.9	<4.0	
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	--	--	--	--	--	<1.9	<2.0	<2.1	<2.0	<2.0	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	--	--	--	--	--	<1.9	<2.0	<2.1	<2.0	<2.0	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	--	<1.9	<2.0	<2.1	<2.0	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	--	<1.9	<9.8	<10	<2.0	<10	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	--	<3.9	<10	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	--	<3.9	<10	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	--	<3.9	<10	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	--	<2.0	<2.0	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	--	32	35	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	--	<2.0	<2.0	
Total Per-and Polyfluoroalkyl Substances	--	--	2830.0	12.4	0.0	0.0	0.0	46.3	7.6	17.4	38.0	43.3	

Notes

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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-11 7/19/2018	OBG MW-11 5/30/2019	OBG MW-11 6/24/2020	OBG MW-11 6/15/2021	OBG MW-11 6/14/2022	OBG MW-11 6/14/2023	OBG MW-11 6/12/2024	MW-DUP-1-06122024 (OBG MW-11) 6/12/2024	
		Sample Date:	Drinking Water									GSI
Perfluorobutanoic Acid (PFBA)	--	--	--	29 B	<19	34	24	49	25	23	24	
Perfluoropentanoic Acid (PFPeA)	--	--	--	5.7	<9.7	6.6	6.8	4.9	8.8	5.9	6.4	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	--	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	29	17	19	16	17	15	13	14	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	79	350	190	52	74	74	54	55	
Perfluoroheptanoic Acid (PFHpA)	--	--	--	14	<9.7	8.8	7.3	7.4	5.5	4.6	5.5	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	160	94	98	94	120	94	87	92	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	5.4 JB	<9.7	<2.0	<4.2	<2.0	<1.9	<2.0	<2.1	
Perfluorooctanoic Acid (PFOA)	8	170	54	34	25	27	31	27	27	28		
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	450 B	370	440	380	410 1	310	310	310	320	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	310	370	310	350 1	260	260	270	270	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	58	71	61	67	55	52	53	53	
Perfluorononanoic Acid (PFNA)	6	30	<0.22	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<9.7	<2.0	<2.1	<2.0 I	<1.9	<2.0	<2.1	<2.1	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	13	<12	13	9.9	10 1	8.0	8.1	8.7	
Perfluorodecanoic Acid (PFDA)	--	--	<1.6	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<9.7	<2.0	<2.1	<2.0 I	<1.9	<2.0	<2.1	<2.1	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<9.7	<3.9	<4.2	<4.0	<3.9	<4.0	<4.1	<4.1	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	110	130	160	110	120	100	94	97		
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	19	26	18	17	16	14	16	16	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	110	130	85	100	82	75	76	76	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<1.6	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
Perfluorododecanoic Acid (PFDoDA)	--	--	<1.6	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<1.6	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<1.6	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
Perfluorooctane Sulfonamide (FOSA)	--	--	<0.28	<9.7	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<0.24	<9.7	<3.9	<4.2	<4.0	<3.9	<4.0	<4.1	<4.1	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	--	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	--	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<2.0	<2.1	<2.0	<1.9	<2.0	<2.1	<2.1	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<2.0	<10	<10	<1.9	<9.9	<10	<10	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	<3.9	<9.9	<10	<10	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<3.9	<9.9	<10	<10	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<3.9	<9.9	<10	<10	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<1.9	<2.0	<2.1	<2.1	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	2400	2200	2100	2100	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<1.9	<2.0	<2.1	<2.1	
Total Per-and Polyfluoroalkyl Substances	--	--	949.1	995.0	994.4	727.0	843.3	3067.3	2826.6	2750.6	2750.6	

Notes

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RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-12S	OBG MW-12S	OBG MW-12S	OBG MW-12S	OBG MW-12S	OBG MW-12S	OBG MW-12S	
		Sample Date:	Drinking Water								GSI
			1/2/2019								6/5/2019
Perfluorobutanoic Acid (PFBA)	--	--	<20	<19	19	<10	<10	<10	<10	<10	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<9.5	<3.9	<4.1	<4.1	<4.0	<4.1	<4.1	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	<9.5	3.7	4.1	3.9 1	3.4	2.7	2.7	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	<9.5	5.1	4.6	5.5	4.0	3.8	3.8	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<9.5	5.6	2.1 J	<2.1	<2.0	<2.1	<2.1	
Perfluorooctanoic Acid (PFOA)	8	170	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	20	15	17	14	19 1	14	13	13	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	10	12	15	11	16 1	11	10	10	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<9.5	2.4	2.3	2.8 1	2.3	1.8 J	1.8 J	
Perfluorononanoic Acid (PFNA)	6	30	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<9.5	<2.0	<2.0	<2.1 I	<2.0	<2.1	<2.1	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<10	<9.5	4.9	5.0	5.9	4.8	4.1	4.1	
Perfluorodecanoic Acid (PFDA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<9.5	<3.9	<4.1	<4.2	<4.0	<4.1	<4.1	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	300	150	220	180	210	170	160	160	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	50	23	42	32	39	36	31	31	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	250	130	180	140	170	130	120	120	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<9.5	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<9.5	<3.9	<4.1	<4.2	<4.0	<4.1	<4.1	
11-chloroicosafauro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	--	--	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	--	--	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<2.0	<2.0	<2.1	<2.0	<2.1	<2.1	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<2.0	<10	<10	<2.0	<10	<10	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	<4.0	<10	<10	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<4.0	<10	<10	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<4.0	<10	<10	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0	<2.1	<2.1	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	1000	740	740	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0	<2.1	<2.1	
Total Per-and Polyfluoroalkyl Substances	--	--	320.0	165.0	275.3	209.8	244.3	1196.2	923.6	923.6	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
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- 15) J - Estimated value less than reporting limit, but greater than MDL.
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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		OBG MW-13	OBG MW-13	OBG MW-13	OBG MW-13	OBG MW-13	OBG MW-13	OBG MW-13
		GSI								
		Drinking Water	GSI	10/19/2018	6/6/2019	6/19/2020	6/14/2021	6/10/2022	6/12/2023	6/11/2024
Perfluorobutanoic Acid (PFBA)	--	--	<20	<19	13	<10	<10	<9.8	<9.7	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<9.7	<3.8	<4.1	<4.1	<3.9	<3.9	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<9.7	2.3	5.1	<2.1	<2.0	<1.9	
Perfluorooctanoic Acid (PFOA)	8	170	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorononanoic Acid (PFNA)	6	30	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorodecanoic Acid (PFDA)	--	--	<20	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<9.7	<3.8	<4.1	<4.1	<3.9	<3.9	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<9.7	<1.9	<2.1	<2.1	<2.0	<1.9	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<9.7	<3.8	<4.1	<4.1	<3.9	<3.9	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	--	--	<1.9	<2.1	<2.1	<2.0	<1.9	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	--	<1.9	<2.1	<2.1	<2.0	<1.9	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<1.9	<2.1	<2.1	<2.0	<1.9	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<1.9	<10	<10	<2.0	<9.7	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	<3.9	<9.7	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<3.9	<9.7	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<2.0	<1.9	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0	<1.9	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	<2.0	<1.9	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0	<1.9	
Total Per-and Polyfluoroalkyl Substances	--	--	0.0	0.0	15.3	5.1	0.0	0.0	0.0	

Notes

- 1) Detections in **bold**.
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- 6) Dup = Duplicate sample.
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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		OBG MW-14	OBG MW-14	OBG MW-14	OBG MW-14	OBG MW-14	OBG MW-14 TOPs Analysis	OBG MW-14	MW-DUP-061423 (OBG MW-14)	OBG MW-14	MW-DUP-2-06122024 (OBG MW-14)
		GSI											
		Drinking Water	GSI										
Sample Date:		10/19/2018	6/6/2019	6/25/2020	6/15/2021	6/14/2022	6/14/2022	6/14/2023	6/14/2023	6/12/2024	6/12/2024		
Perfluorobutanoic Acid (PFBA)	--	--	<20	<20	36	23	21	51	21	18	21	22	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<10	5.5	6.7	7.1	51	8.5	6.1	6.3	6.1	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<10	4.9	5.6	8.3 1	44	6.0	4.5	5.0	4.2	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	10	18	23	21	27	19	22	20	19	16	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<10	3.1	3.9	3.8	6.5	3.3	3.5	2.8	2.8	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	20	32	45	42	53 1	37	49	45	45	43	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<10	6.5	<4.0	<2.1	<6.0	12	10	<2.1	<2.1	
Perfluorooctanoic Acid (PFOA)	8	170	20	18	26	24	35	29	28	22	29	28	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	100	120	130	180	240 1	180	170	150	170	170	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	100	100	110	160	210 1	150	150	130	150	150	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	10	18	20	29	37 1	28	26	24	29	25	
Perfluorononanoic Acid (PFNA)	6	30	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<10	<2.0	<2.0	<2.1 I	<6.0 I	<2.0	<2.1	<2.1	<2.1	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	20	32	28	44	44 1	42	38	36	46	46	
Perfluorodecanoic Acid (PFDA)	--	--	<20	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<10	<2.0	<2.0	<2.1 I	<6.0	<2.0	<2.1	<2.1	<2.1	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<10	<4.1	<4.0	<4.2	<12	<4.0	<4.1	<4.2	<4.2	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	540	1100	1300	1500	1800	1300	1600	1500	2100	1700	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	230	450	580	670	840	540	760	680	940	790	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	300	700	730	830	1000	680	860	770	1200	920	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Perfluorotridecanoic Acid (PFTriDA)	--	--	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<10	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<10	<4.1	<4.0	<4.2	<12	<4.0	<4.1	<4.2	<4.2	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	--	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	--	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<2.0	<2.0	<2.1	<6.0	<2.0	<2.1	<2.1	<2.1	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<2.0	<10	<10	<6.0	<2.0	<2.1	<10	<10	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	<4.0	<4.1	<10	<10	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	<4.0	<4.1	<10	<10	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	<4.0	<4.1	<10	<10	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	<2.0	<2.1	<2.1	<2.1	
Perfluoro-4-ethylcyclohexanesulfonate (PFECBS)	--	--	--	--	--	--	--	--	5700	5500	6100	4900	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	<2.0	<2.1	<2.1	<2.1	
Total Per-and Polyfluoroalkyl Substances	--	--	710.0	1320.0	1608.0	1850.2	2239.2	1759.5	7657.8	7315.1	8544.1	6938.1	

Notes

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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:		EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	OBG MW-17S	OBG MW-17S	OBG MW-17S (GW-DUP-2)	OBG MW-17S	OBG MW-17S (DUP-2)	OBG MW-17S	OBG MW-17S	OBG MW-17S	OBG MW-17S	MW-DUP-061323 (OBG MW-17S)	OBG MW-17S
	Sample Date:	Drinking Water												
			1/2/2019	6/6/2019	6/6/2019	6/22/2020	6/22/2020	6/15/2021	6/13/2022	6/13/2023	6/13/2023	6/11/2024		
Perfluorobutanoic Acid (PFBA)	--	--	<20	<20	<20	26	27	11	11	<9.9	<10	<10	6.4 J	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<9.8	<10	<3.9	<3.9	2.0 J	<3.9	<3.9	<4.0	<4.0	<3.9	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<9.8	<10	<1.9	<1.9	1.9 J	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	<9.8	<10	2.0	1.9 J	2.6	2.7	2.1	2.3	2.7	2.7	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	<9.8	<10	1.7 J	1.8 J	3.0	2.8	2.6	2.6	2.6	2.5	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<9.8	<10	<1.9	<1.9	<4.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorooctanoic Acid (PFOA)	8	170	<10	<9.8	<10	1.6 J	<1.9	2.0	2.2	2.9	2.2	3.3	3.3	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	<10	11	15	9.7	8.7	9.7	13 1	9.6	8.7	8.9	8.9	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<10	9.9	13	8.5	7.1	7.8	11 1	7.8	7.3	7.2	7.2	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<9.8	<10	<1.9	1.8 J	1.7 J	1.7 J1	<2.0	<2.0	<2.0	1.7 J	
Perfluorononanoic Acid (PFNA)	6	30	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<10	<9.8	<10	5.2	4.7	3.7	5.0 1	4.2	2.9	4.6	4.6	
Perfluorodecanoic Acid (PFDA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<9.8	<10	<3.9	<3.9	<4.0	<3.9	<3.9	<4.0	<3.9	<3.9	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	460	430	470	580	590	460	540	380	400	480	480	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	210	210	240	310	330	260	300	220	230	270	270	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	250	220	240	290	280	200	240	160	170	190	190	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<9.8	<10	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<9.8	<10	<3.9	<3.9	<4.0	<3.9	<3.9	<4.0	<3.9	<3.9	
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	<1.9	<1.9	<9.9	<9.7	<2.0	<2.0	<9.9	<9.9	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	<3.9	<4.0	<9.9	<9.9	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	<3.9	<4.0	<9.9	<9.9	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	<3.9	<4.0	<9.9	<9.9	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	580	580	660	660	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	
Total Per-and Polyfluoroalkyl Substances	--	--	460.0	441.0	485.0	626.2	634.1	495.9	576.7	981.4	998.7	1168.4	1168.4	

- Notes
- 1) Detections in **bold**.
 - 2) Concentrations in ng/L.
 - 3) < = Not detected at specified reporting limit.
 - 4) -- = Not analyzed/No criteria.
 - 5) * = Monitoring well has been abandoned.
 - 6) Dup = Duplicate sample.
 - 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
 - 10) Light gray header is most recent sampling event result.
 - 11) 1 - Qualifier ion out of range.
 - 12) B - Compound also found in associated method blank.
 - 13) E - Concentration exceeds calibration range.
 - 14) I - Matrix interference with internal standard.
 - 15) J - Estimated value less than reporting limit, but greater than MDL.
 - 16) X - Elevated reporting limit due to matrix interference.
 - 17) Y - Elevated reporting limit due to high target concentration.
 - 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-18S	OBG MW-18S	OBG MW-18S	OBG MW-18S	OBG MW-18S	OBG MW-18S	OBG MW-18S	
		Sample Date:	Drinking Water	GSI	1/3/2019	6/4/2019	6/19/2020	6/10/2021	6/10/2022	6/13/2023	6/11/2024
Perfluorobutanoic Acid (PFBA)		--	--	<20	<19	16	<10	<10	<9.9	<10	
Perfluoropentanoic Acid (PFPeA)		--	--	<10	<9.5	<4.1	<4.1	<4.2	<3.9	<4.0	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorohexanoic Acid (PFHxA)		400,000	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	<10	<9.5	<2.1	<2.0	<2.1	<2.0	0.80 J	
Perfluoroheptanoic Acid (PFHpA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	<10	<9.5	<2.1	12	<2.1	<2.0	<2.0	
Perfluorooctanoic Acid (PFOA)		8	170	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	<10	<9.5	1.9 J	2.0 J	2.3	2.0	2.2	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	1.5 J	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorononanoic Acid (PFNA)		6	30	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorodecanoic Acid (PFDA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	<10	<9.5	<4.1	<4.1	<4.2	<3.9	<4.0	
Perfluorooctane Sulfonic Acid (PFOS)		16	12	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluoroundecanoic Acid (PFUnDA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorononane Sulfonic Acid (PFNS)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorododecanoic Acid (PFDoDA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorotridecanoic Acid (PFTrDA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorooctane Sulfonamide (FOSA)		--	--	<10	<9.5	<2.1	<2.0	<2.1	<2.0	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)		--	--	<10	<9.5	<4.1	<4.1	<4.2	<3.9	<4.0	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	--	--	--	<2.1	<2.0	<2.1	<2.0	<2.0	
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)		--	--	--	--	<2.1	<2.0	<2.1	<2.0	<2.0	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)		--	--	--	--	<2.1	<2.0	<2.1	<2.0	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	<2.1	<10	<10	<2.0	<10	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	<3.9	<10	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	<3.9	<10	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	<3.9	<10	
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	<2.0	<2.0	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	9.1	7.7	
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	<2.0	<2.0	
Total Per-and Polyfluoroalkyl Substances		--	--	0.0	0.0	17.9	14.0	2.3	11.1	10.7	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
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- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		OBG MW-21	OBG MW-21	OBG MW-21	OBG MW-21	OBG MW-21	OBG MW-21	OBG MW-21
		GSI								
		Drinking Water	GSI							
Sample Date:			1/2/2019	6/4/2019	6/18/2020	6/14/2021	6/12/2022	6/14/2023	6/12/2024	
Perfluorobutanoic Acid (PFBA)	--	--	<20	<20	24	<10	<9.5	<10.0	4.1 J	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<9.8	<4.1	<4.1	<3.8	<4.0	<4.0	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<9.8	<2.1	1.8 J	<1.9	1.4 J	1.2 J	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	<9.8	8.9	2.6	3.2 1	2.2	1.8 J	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	<9.8	2.2	3.3	4.3 1	2.6	<2.0	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<9.8	<2.1	5.7	<1.9	<2.0	<2.0	
Perfluorooctanoic Acid (PFOA)	8	170	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	<10	<9.8	3.2	4.3	6.2 1	3.5	2.0	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<10	<9.8	1.6 J	2.5	3.4 1	2.0	<2.0	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<9.8	1.8 J	1.7 J	2.8 1	<2.0	<2.0	
Perfluorononanoic Acid (PFNA)	6	30	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorodecanoic Acid (PFDA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<9.8	<4.1	<4.1	<1.9	<4.0	<4.0	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	<10	<9.8	<2.1	<2.1	2.1 1	<3 X	<2.0	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<3 X	<2.0	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<3 X	<2.0	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<9.8	<2.1	<2.1	<1.9	<2.0	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<9.8	<4.1	<4.1	<3.8	<4.0	<4.0	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	--	--	<2.1	<2.1	<1.9	<2.0	<2.0	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	--	<2.1	<2.1	<1.9	<2.0	<2.0	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<2.1	<2.1	<1.9	<2.0	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<2.1	<10	<9.5	<2.0	<9.9	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	<4.0	<9.9	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<4.0	<9.9	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<4.0	<9.9	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0	<2.0	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	400	190	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0	<2.0	
Total Per-and Polyfluoroalkyl Substances	--	--	0.0	0.0	38.3	17.7	15.8	409.7	199.1	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		OBG MW-22	OBG MW-22 (DUP-1)	OBG MW-22	OBG MW-22 (GW-DUP-3)	OBG MW-22	OBG MW-22	MW-DUP-061621 (OBG MW-22)
		GSI								
	Sample Date:	Drinking Water	GSI	1/3/2019	1/3/2019	6/6/2019	6/6/2019	6/24/2020	6/16/2021	6/16/2021
Perfluorobutanoic Acid (PFBA)	--	--	<20	<20	<20	<19	<9.8	<10	<10	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<10	<9.8	<9.5	<3.9	<4.1	<4.0	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	<10	<9.8	<9.5	5.1	4.7	4.8	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	10	10	9.6	6.9	5.8	5.7	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<10	<9.8	<9.5	<2.0	<4.1	<4.0	
Perfluorooctanoic Acid (PFOA)	8	170	<10	10	<9.8	<9.5	7.2	7.2	7.1	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	50	50	43	47	38	33	34	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	40	40	39	41	34	28	30	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<10	<9.8	<9.5	3.8	4.7	3.5	
Perfluorononanoic Acid (PFNA)	6	30	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	30	30	31	22	30	18	19	
Perfluorodecanoic Acid (PFDA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<10	<9.8	<9.5	<3.9	<4.1	<4.0	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	1620	1800	1800	1800	2300	1900	1900	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	590	670	810	800	1200	1000	1000	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	1020	1110	1000	1000	1200	840	900	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorooctane Sulfonamide (PFOSA)	--	--	<10	<10	<9.8	<9.5	<2.0	<2.1	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<10	<9.8	<9.5	<3.9	<4.1	<4.0	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	--	--	--	--	<2.0	<2.1	<2.0	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	--	--	--	<2.0	<2.1	<2.0	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	<2.0	<2.1	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	<2.0	<10	<10	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	
Total Per-and Polyfluoroalkyl Substances	--	--	1700.0	1900.0	1884.0	1878.6	2387.2	1968.7	1970.6	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
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- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) I - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-22 6/14/2022	MW-DUP-061422 (OBG MW-22) 6/14/2022	OBG MW-22 Replicate 6/14/2022	MW-DUP-061422 (OBG MW-22) Replicate 6/14/2022	OBG MW-22 TOPs Analysis 6/14/2022	OBG MW-22 6/14/2023	OBG MW-22 6/12/2024
		Drinking Water	GSI							
		Sample Date:								
Perfluorobutanoic Acid (PFBA)	--	--	<10	13	<100 Y	<100 Y	<100 Y	35	<10	8.0 J
Perfluoropentanoic Acid (PFPeA)	--	--	<4.0	<4.1	<40 Y	<41 Y	<41 Y	46 I	<4.0	<3.8
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<21 Y	<6.0	<2.0	<1.9
Perfluorohexanoic Acid (PFHxA)	400,000	--	<2.0	<2.1	<20 Y	<21 Y	<21 Y	38	<2.0	<1.9
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	5.3	5.6	<20 Y	<21 Y	<21 Y	5.0 J	6.2	4.1
Perfluoroheptanoic Acid (PFHpA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<21 Y	<6.0	<2.0	<1.9
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	6.9	8.1 1	<20 Y	<21 Y	<21 Y	6.2	7.9	5.7
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<21 Y	<6.0	<2.0	<1.9
Perfluorooctanoic Acid (PFOA)	8	170	6.0	7.4	<20 Y	<20 Y	18 JY	6.5	3.6	4.5
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	32 1	37 1	34 Y	33 Y	27	33	33	28
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	27 1	32 1	27 Y	26 Y	23	29	29	24
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	5.1	5.4	<20 Y	<21 Y	<6.0	3.7	3.7	3.4
Perfluorononanoic Acid (PFNA)	6	30	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0 I	<2.0	<2.0	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	20	21	30 Y	<21 Y	18	17	20	20
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.0	<4.1	<20 Y	<41 Y	<12	<4.0	<4.0	<3.8
Perfluorooctane Sulfonic Acid (PFOS)	16	12	2300 E	2400 E	2300 Y	2300 Y	1500	1500	1500	2000
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	1300	1400	1300 Y	1300 Y	830	880	880	1200
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	1000	1000	1000 Y	970 Y	670	630	630	770
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<4.0	<4.1	<40 Y	<41 Y	<12	<4.0	<4.0	<3.8
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<2.1	<20 Y	<21 Y	<6.0	<2.0	<2.0	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<10	<10	<100 Y	<100 Y	<6.0	<2.0	<2.0	<9.6
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	<4.0	<4.0	<9.6
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<4.0	<4.0	<9.6
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<2.0	<2.0	<1.9
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0	<2.0	<1.9
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	1800	1800	1400
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0	<2.0	<1.9
Total Per-and Polyfluoroalkyl Substances	--	--	2370.2	2492.1	2364.0	2351.0	1681.7	3367.7	3470.3	

Notes

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- 6) Dup = Duplicate sample.
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- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
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- 13) E - Concentration exceeds calibration range.
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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED ZONE

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-24	OBG MW-24	OBG MW-24	OBG MW-24	OBG MW-24	OBG MW-24	OBG MW-24	OBG MW-25* (Abandoned)	OBG MW-25* (Abandoned)	
		Sample Date:	Drinking Water	GSI	1/3/2019	6/6/2019	6/23/2020	6/10/2021	6/10/2022	6/12/2023	6/10/2024	6/5/2019	6/22/2020
Perfluorobutanoic Acid (PFBA)		--	--	<20	<20	<10	<9.8	<10.0	<10	<9.4	<20	17 U	
Perfluoropentanoic Acid (PFPeA)		--	--	<10	<10	<4.0	<3.9	<4.0	<4.0	<3.7	<10	<3.9	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorohexanoic Acid (PFHxA)		400,000	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluoroheptanoic Acid (PFHpA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	<10	<10	<2.0	11	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorooctanoic Acid (PFOA)		8	170	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorononanoic Acid (PFNA)		6	30	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorodecanoic Acid (PFDA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	<10	<10	<4.0	<3.9	<4.0	<4.0	<3.7	<10	<3.9	
Perfluorooctane Sulfonic Acid (PFOS)		16	12	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluoroundecanoic Acid (PFUnDA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorononane Sulfonic Acid (PFNS)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorododecanoic Acid (PFDoDA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorotridecanoic Acid (PFTrDA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorooctane Sulfonamide (FOSA)		--	--	<10	<10	<2.0	<2.0	<2.0	<2.0	<1.9	<10	<1.9	
Perfluorotetradecanoic Acid (PFTeDA)		--	--	<10	<10	<4.0	<3.9	<4.0	<4.0	<3.7	<10	<3.9	
11-chloroheptafluoro-3-oxadecane-1-sulfonic acid (11Cl-PF3OUdS)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	--	<1.9	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	--	<1.9	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	--	<1.9	
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	<2.0	<9.8	<10	<2.0	<9.4	--	<1.9	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	<4.0	<9.4	--	--	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	<4.0	<9.4	--	--	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	<4.0	<9.4	--	--	
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	<2.0	<1.9	--	--	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	1.3 J	<1.9	--	--	
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	<2.0	<1.9	--	--	
Total Per-and Polyfluoroalkyl Substances		--	--	0.0	0.0	0.0	11.0	0.0	1.3	0.0	0.0	17.0	

Notes

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- 6) Dup = Duplicate sample.
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- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
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TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-26	OBG MW-26	OBG MW-26	OBG MW-26	OBG MW-26 TOPs Analysis	OBG MW-26	OBG MW-26R	OBG MW-26R	
		Sample Date:	Drinking Water	GSI	6/6/2019	6/24/2020	6/15/2021	6/14/2022	6/14/2022	6/13/2023	11/13/2023	6/12/2024
			--	--								
Perfluorobutanoic Acid (PFBA)		--	--	25	48	13	27	<30	15	48	41	
Perfluoropentanoic Acid (PFPeA)		--	--	79	53	26	43	120 I	23	64	37	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	<9.9	<1.9	<2.0	<2.1	<6.0 I	<1.9	<2.1	<2.0	
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	64	43	25	34	92	23	46	20	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	<9.9	5.4	4.7	4.7 1	<6.0	4.5	6.4	5.4	
Perfluoroheptanoic Acid (PFHpA)	--	--	--	11	7.5	4.7	6.1	9.7	3.4	12	5.4	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	<9.9	8.5	6.3	9.9	7.1	7.7	9.8	9.2	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<9.9	<1.9	<4.0	<2.1	<6.0 I	<1.9	<2.1	<2.0	
Perfluorooctanoic Acid (PFOA)	8	170		41	32	31	37	23	21	48	22	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210		40	34	33	41 1	39	41	38	38	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	36	31	29	36 1	33	36	33	33	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	<9.9	3.1	3.7	4.4	<6.0	4.3	4.7	2.7	
Perfluorononanoic Acid (PFNA)	6	30		<9.9	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0 I	<1.9	<2.1	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	18	12	11	13	12	13	16	10	
Perfluorodecanoic Acid (PFDA)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0 I	<1.9	<2.1	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<9.9	<3.8	<4.0	<4.1	<12 I	<3.9	<4.1	<4.1	
Perfluorooctane Sulfonic Acid (PFOS)	16	12		490	530	490	560	380	440	290	270	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	170	190	190	200	150	150	53	56	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	320	330	300	360	220	280	240	210	
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<9.9	<1.9	<2.0	2.6	<6.0	<1.9	<2.1	<2.0	
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<9.9	<1.9	<2.0	<2.1	<6.0 I	<1.9	<2.1	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<9.9	<3.8	<4.0	<4.1	<12	<3.9	<4.1	<4.1	
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	--	--	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	--	--	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<1.9	<2.0	<2.1	<6.0	<1.9	<2.1	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	<1.9	<10	<10	<10	<6.0	<1.9	<2.1	<10	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	<3.9	<4.1	<10	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	<3.9	<4.1	<10	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	<3.9	<4.1	<10	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	<1.9	<2.1	<2.0	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	1200	1100	1100	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	<1.9	<2.1	<2.0	
Total Per-and Polyfluoroalkyl Substances				768.0	773.4	644.7	778.3	682.8	1791.6	1670.9	1670.9	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		OBG MW-28	OBG MW-28 (DUP-3)	OBG MW-28	OBG MW-28	OBG MW-28	OBG MW-28	
		Sample Date:	Drinking Water	GSI	6/24/2020	6/24/2020	6/14/2021	6/13/2022	6/12/2023	6/11/2024
Perfluorobutanoic Acid (PFBA)	--	--	--	14	12	<10	<10	<9.9	<8.6	
Perfluoropentanoic Acid (PFPeA)	--	--	--	<3.8	<3.8	<4.2	<4.1	<3.9	<3.4	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	1.9 J	2.4	2.4	<2.1	2.4	2.3	1.4 J	
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<1.9	<1.9	<2.1	1.5 J	<2.0	<1.7	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<1.9	<1.9	<4.2	<2.1	<2.0	<1.7	
Perfluorooctanoic Acid (PFOA)	8	170	7.2	6.1	6.1	<2.1	8.9	3.1	4.7	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	2.3	2.1	2.1	<2.1	1.8 J	<2.0	<1.7	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	1.9	1.8 J	<2.1	<2.1	<2.0	<1.7	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorononanoic Acid (PFNA)	6	30	<1.9	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<1.9	<1.9	<2.1	<2.1 I	<2.0	<1.7	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorodecanoic Acid (PFDA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<3.8	<3.8	<4.2	<4.1	<3.9	<3.4	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	<1.9	<1.9	<2.1	<2.1	2.8	<2.0	<1.7	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	<1.9	<1.9	<2.1	2.7	<2.0	<1.7	
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<3.8	<3.8	<4.2	<4.1	<3.9	<3.4	
11-chloroicosafauro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	<1.9	<1.9	<2.1	<2.1	<2.0	<1.7	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	<1.9	<1.9	<10	<10	<2.0	<8.6	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	<3.9	<8.6	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<3.9	<8.6	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<3.9	<8.6	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0	<1.7	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	4.6	3.5	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0	<1.7	
Total Per-and Polyfluoroalkyl Substances	--	--	--	25.4	22.6	0.0	17.4	10.0	9.6	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels		PZ-1	PZ-1	PZ-1	PZ-3* (Abandoned)	PZ-3* (Abandoned)	PZ-3* (Abandoned)
		GSI							
		Drinking Water	GSI						
Sample Date:			1/2/2019	6/6/2019	6/23/2020	1/3/2019	6/5/2019	6/24/2020	
Perfluorobutanoic Acid (PFBA)	--	--	<20	<20	17 U	<20	<19	33 U	
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<10	<3.8	<10	<9.6	<3.8	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorohexanoic Acid (PFHxA)	400,000	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	<10	<1.9	10	14	8.9	
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	<10	<1.9	10	11	13	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<10	2.6	<10	<9.6	<1.9	
Perfluorooctanoic Acid (PFOA)	8	170	<10	<10	<1.9	<10	<9.6	11	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	<10	<10	<1.9	50	42	46	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<10	<10	<1.9	40	37	39	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<10	<1.9	<10	<9.6	7.3	
Perfluorononanoic Acid (PFNA)	6	30	<10	<10	<1.9	<10	<9.6	<1.9	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<10	<10	<1.9	10	18	15	
Perfluorodecanoic Acid (PFDA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<10	<3.8	<10	<9.6	<3.8	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	<10	<10	<1.9	300	620	860	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	<10	<10	<1.9	80	210	370	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	<10	<10	<1.9	210	410	490	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<10	<1.9	<10	<9.6	<1.9	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<10	<3.8	<10	<9.6	<3.8	
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	--	<1.9	--	--	<1.9	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	--	<1.9	--	--	<1.9	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<1.9	--	--	<1.9	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<1.9	--	--	<1.9	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	
3-Perfluoropentyl propanoic acid (FPpPA (5:3 FTCA))	--	--	--	--	--	--	--	--	
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))	--	--	--	--	--	--	--	--	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	
Total Per-and Polyfluoroalkyl Substances	--	--	0.0	0.0	19.6	380.0	705.0	986.9	

- Notes
- 1) Detections in **bold**.
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 - 6) Dup = Duplicate sample.
 - 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
 - 10) Light gray header is most recent sampling event result.
 - 11) I - Qualifier ion out of range.
 - 12) B - Compound also found in associated method blank.
 - 13) E - Concentration exceeds calibration range.
 - 14) I - Matrix interference with internal standard.
 - 15) J - Estimated value less than reporting limit, but greater than MDL.
 - 16) X - Elevated reporting limit due to matrix interference.
 - 17) Y - Elevated reporting limit due to high target concentration.
 - 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

TABLE 2
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Perched Monitoring Well Sampling

Coldwater Road - Monitoring Wells - PERCHED Zone

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI		MW-4-02* (Abandoned)	MW-18-13* (Abandoned)	MW-19-13	MW-19-13	
		Sample Date:	Drinking Water	GSI	11/30/2016	11/29/2016	11/30/2016	6/12/2018
Perfluorobutanoic Acid (PFBA)		--	--	4.7	5.0	13	5.0 B	
Perfluoropentanoic Acid (PFPeA)		--	--	<0.94 U	<0.93 U	16	3.0	
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	--	--	--	--	
Perfluorohexanoic Acid (PFHxA)		400,000	--	<0.75 U	<0.74 U	29	6.0	
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	0.92 J	2.8	13	9.0	
Perfluoroheptanoic Acid (PFHpA)		--	--	<0.76 U	<0.76 U	18	6.7	
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	--	--	--	--	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	<3.5	<3.6	<3.7	--	
Perfluorooctanoic Acid (PFOA)		8	170	<0.71 U	3.9	39	16	
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	<0.83 U	4.3	31	14 B	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	--	--	--	--	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	--	--	--	--	
Perfluorononanoic Acid (PFNA)		6	30	<0.62 U	<0.62 U	<0.63	<0.25	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	--	--	--	--	
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	<0.68 U	0.78 J	1.3 J	0.46 J	
Perfluorodecanoic Acid (PFDA)		--	--	<0.42	<0.42	<0.42	<0.29	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	--	--	--	--	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	--	--	--	--	
Perfluorooctane Sulfonic Acid (PFOS)		16	12	3.5	27	19	4.9	
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	--	--	--	--	--	
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	--	--	--	--	--	
Perfluoroundecanoic Acid (PFUnDA)		--	--	<0.71	<0.71	<0.72	<1.0	
Perfluorononane Sulfonic Acid (PFNS)		--	--	--	--	--	--	
Perfluorododecanoic Acid (PFDODA)		--	--	<0.56	<0.55	<0.56	<0.51	
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<1.9	<1.9	<1.9	<1.9	
Perfluorotridecanoic Acid (PFTTrDA)		--	--	<1.9	<1.9	<1.9	<1.9	
Perfluorooctane Sulfonamide (FOSA)		--	--	<1.9	<1.9	<1.9	<1.9	
Perfluorotetradecanoic Acid (PFTeDA)		--	--	0.65 J F1 B	0.60 J B	0.54 J B	<0.27	
11-chloroicosafafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)		--	--	--	--	--	--	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)		--	--	--	--	--	--	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	--	--	--	--	--	
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	--	--	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	
Total Per-and Polyfluoroalkyl Substances		--	--	9.8	44.4	179.8	65.1	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 3
RACER Trust - Coldwater Road
Per- and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		B-20D	B-21D	B-22D	B-22D (DUP-2)	B-23Dr	B-23Dr (DUP-01-GW)
		Drinking Water	GSI						
Sample Date:				9/19/2018	9/19/2018	6/13/2018	6/13/2018	9/21/2018	9/21/2018
Perfluorobutanoic Acid (PFBA)		--	--	<20	<20	0.72 J/B	0.63 J/B	<20	<20
Perfluoropentanoic Acid (PFPeA)		--	--	<10	<10	<0.48	<0.45	<10	<10
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	<10	<10	--	--	<10	<10
Perfluorohexanoic Acid (PFHxA)		400,000	--	<10	<10	<0.57	<0.53	<10	<10
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	<10	<10	<0.20	<0.18	<10	<10
Perfluoroheptanoic Acid (PFHpA)		--	--	<10	<10	<0.25	<0.23	<10	<10
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	<10	<10	--	--	<10	<10
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	<10	<10	--	--	<10	<10
Perfluorooctanoic Acid (PFOA)		8	170	<10	<10	<0.83	<0.78	<10	<10
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	<10	<10	<0.17	0.29 J/B	<10	<10
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	<10	<10	--	--	<10	<10
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	<10	<10	--	--	<10	<10
Perfluorononanoic Acid (PFNA)		6	30	<10	<10	<2.0	<1.8	<10	<10
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	<10	<10	--	--	<10	<10
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	<10	<10	<0.19	<0.17	<10	<10
Perfluorodecanoic Acid (PFDA)		--	--	<10	<10	<2.0	<1.8	<10	<10
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	<10	<10	--	--	<10	<10
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	<10	<10	--	--	<10	<10
Perfluorooctane Sulfonic Acid (PFOS)		16	12	<10	<10	<0.53	<0.49	<10	<10
Perfluorooctane Sulfonic Acid (PFOS -LN)		--	--	<10	<10	--	--	<10	<10
Perfluorooctane Sulfonic Acid (PFOS -BR)		--	--	<10	<10	--	--	<10	<10
Perfluoroundecanoic Acid (PFUnDA)		--	--	<10	<10	<1.1	<1.0	<10	<10
Perfluorononane Sulfonic Acid (PFNS)		--	--	<10	<10	--	--	<10	<10
Perfluorododecanoic Acid (PFDoDA)		--	--	<10	<10	<2.0	<1.8	<10	<10
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<10	<10	<2.0	<1.8	<10	<10
Perfluorotridecanoic Acid (PFTrDA)		--	--	<10	<10	<2.0	<1.8	<10	<10
Perfluorooctane Sulfonamide (FOSA)		--	--	<10	<10	--	--	<10	<10
Perfluorotetradecanoic Acid (PFTeDA)		--	--	<10	<10	<2.0	<1.8	<10	<10
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)		--	--	--	--	--	--	--	--
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)		--	--	--	--	--	--	--	--
4,8-dioxo-3H-perfluorononanoic acid (ADONA)		--	--	--	--	--	--	--	--
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	--	--	--	--
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	--
Total Per- and Polyfluoroalkyl Substances		--	--	0.0	0.0	0.7	0.9	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		B-27D	B-27D	B-27D	B-27D	MW-DUP-061121 (B-27D)	B-27D	B-27D	B-27D
		Sample Date:	Drinking Water	GSI	6/20/2017	6/12/2018	6/17/2020	6/11/2021	6/11/2021	6/9/2022	6/8/2023
Perfluorobutanoic Acid (PFBA)		--	--	2.0 B	0.47 J/B	12	<10	<10	<10	<10	<9.8
Perfluoropentanoic Acid (PFPeA)		--	--	<0.95	0.26 J	<3.9	<4.1	<4.1	<4.0	<4.1	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)		400,000	--	<0.75	<0.53	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	<0.88	<0.18	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluoroheptanoic Acid (PFHpA)		--	--	<0.77	<0.23	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	--	--	<2.0	<4.1	<4.1	<2.0	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)		8	170	<0.72	<0.78	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	<0.83	0.23 J/B	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)		6	30	<0.63	<1.8	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	<0.68	<0.17	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)		--	--	<0.42	<1.8	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	--	--	<3.9	<4.1	<4.1	<4.0	<4.1	<3.9
Perfluorooctane Sulfonic Acid (PFOS)		16	12	<1.2	<0.49	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)		--	--	1.4 J	<1.0	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)		--	--	<0.56	<1.8	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<1.2	<1.8	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)		--	--	<0.53	<1.8	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)		--	--	<0.19	<1.8	<3.9	<4.1	<4.1	<4.0	<4.1	<3.9
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
4,8-dioxo-3H-perfluorononanoic acid (ADONA)		--	--	--	--	<2.0	<2.1	<2.1	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	<2.0	<10	<10	<10	<4.1	<9.8
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	--	<4.1	<9.8
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	--	<4.1	<9.8
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	--	<4.1	<9.8
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	--	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	--	<2.0	<2.0
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	--	<2.0	<2.0
Total Per-and Polyfluoroalkyl Substances		--	--	3.4	1.0	12.0	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
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- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 3
RACER Trust - Coldwater Road
Per- and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		OBG MW-12D	OBG MW-12D	OBG MW-12D	OBG MW-15D	OBG MW-15D (DUP-1)	OBG MW-15D	OBG MW-15D
	Sample Date:	Drinking Water	GSI	10/22/2018	6/5/2019	6/22/2020	10/23/2018	10/23/2018	6/6/2019	6/19/2020
Perfluorobutanoic Acid (PFBA)	--	--	--	<20	<20	9.9 U	<20	<20	<19	<10
Perfluoropentanoic Acid (PFPeA)	--	--	--	<10	<9.8	<3.9	<10	<10	<9.6	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorooctanoic Acid (PFOA)	8	170	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorononanoic Acid (PFNA)	6	30	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<10	<9.8	<3.9	<10	<10	<9.6	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<10	<9.8	<1.9	<10	<10	<9.6	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<10	<9.8	<3.9	<10	<10	<9.6	<4.0
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	--	--	--	<1.9	--	--	--	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	--	--	--	<1.9	--	--	--	<2.0
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	<1.9	--	--	--	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	<1.9	--	--	--	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	--
Total Per- and Polyfluoroalkyl Substances	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
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- 15) J - Estimated value less than reporting limit, but greater than MDL.
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TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values	B-2D* (Abandoned)	B-2D* (Abandoned)	B-2D* (DUP-071918) (Abandoned)	OBG MW-16D	OBG MW-16D	OBG MW-16D
	Sample Date:	Drinking Water	GSI	6/13/2018	7/19/2018	7/19/2018	10/22/2018	6/4/2019
Perfluorobutanoic Acid (PFBA)	--	--	1.8 J/B	2.7 B	2.8 B	<20	<20	16 U
Perfluoropentanoic Acid (PFPeA)	--	--	1.2 J	<0.41	0.44 J	<10	<10	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	--	--	<10	<10	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	0.78 J	<0.49	0.70 J	<10	<10	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	1.5 J	1.0 J	0.97 J	<10	<10	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	0.52 J	0.47 J	0.42 J	<10	<10	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	3.2	2.9	<10	<10	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	--	--	<10	<10	<2.0
Perfluorooctanoic Acid (PFOA)	8	170	3.3	3.1	3.7	<10	<10	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	13 B	13 B	12 B	<10	<10	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	--	--	<10	<10	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	--	--	<10	<10	<2.0
Perfluorononanoic Acid (PFNA)	6	30	<1.9	<1.7	<1.7	<10	<10	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	--	--	<10	<10	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	2.9	2.4	2.6	<10	<10	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<1.9	<1.7	<1.7	<10	<10	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	--	--	<10	<10	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	--	--	<10	<10	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	16	12	110	99	98	<10	<10	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	--	--	<10	<10	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	--	--	<10	<10	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	<1.0	<0.93	<0.92	<10	<10	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	--	--	<10	<10	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<1.9	<1.7	<1.7	<10	<10	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<1.9	<1.7	<1.7	<10	<10	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	<1.9	<1.7	<1.7	<10	<10	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	--	--	--	<10	<10	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<1.9	<1.7	<1.7	<10	<10	<3.9
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	--	--	--	--	--	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	--	--	--	--	<2.0
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	--	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	--	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	135.0	124.9	124.5	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) 1 - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		OBG MW-17D	OBG MW-17D	OBG MW-17D	OBG MW-18D	OBG MW-18D	OBG MW-18D
	Sample Date:	Drinking Water	GSI	10/22/2018	6/5/2019	6/22/2020	10/19/2018	6/6/2019	6/23/2020
Perfluorobutanoic Acid (PFBA)	--	--	--	<20	<19	17 U	<20	<20	11
Perfluoropentanoic Acid (PFPeA)	--	--	--	<10	<9.6	<3.8	<10	<10	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<10	<9.6	<1.9	<10	<10	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	<10	<9.6	<1.9	<10	<10	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorooctanoic Acid (PFOA)	8	170	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorononanoic Acid (PFNA)	6	30	<10	<9.6	<1.9	<10	<10	<10	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<10	<9.6	<1.9	<20	<10	<10	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<9.6	<3.8	<10	<10	<10	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	12	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<9.6	<1.9	<10	<10	<10	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<9.6	<3.8	<10	<10	<10	<4.0
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF30UdS)	--	--	--	--	<1.9	--	--	--	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF30NS)	--	--	--	--	<1.9	--	--	--	<2.0
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<1.9	--	--	--	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<1.9	--	--	--	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECBS)	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	0.0	0.0	0.0	0.0	0.0	0.0	11.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
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- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
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- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		OBG MW-19D	OBG MW-19D	OBG MW-19D	MW-15-10	MW-15-10
	Sample Date:	Drinking Water	GSI	10/23/2018	6/5/2019	6/23/2020	9/21/2018	6/19/2020
Perfluorobutanoic Acid (PFBA)	--	--	--	<20	<19	<9.7	<20	21 U
Perfluoropentanoic Acid (PFPeA)	--	--	--	<10	<9.7	<3.9	<10	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	<10	<9.7	<1.9	<10	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	<10	<9.7	<1.9	<10	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorooctanoic Acid (PFOA)	8	170	--	<10	<9.7	<1.9	<10	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	<10	<9.7	<1.9	<10	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorononanoic Acid (PFNA)	6	30	--	<10	<9.7	<1.9	<10	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<10	<9.7	<3.9	<10	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	<10	<9.7	<1.9	<10	<2.0
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<10	<9.7	<1.9	<10	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<10	<9.7	<3.9	<10	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	--	--	--	<1.9	--	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	--	--	<1.9	--	<2.0
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	<1.9	--	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	<1.9	--	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) I - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
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- 14) I - Matrix interference with internal standard.
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TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		PFW-1	PFW-1	MW-16-10	MW-16-10 (Duplicate)	MW-16-10	MW-16-10
	Sample Date:	Drinking Water	GSI	9/21/2018	6/23/2020	11/29/2016	11/29/2016	6/13/2018	6/19/2020
Perfluorobutanoic Acid (PFBA)	--	--	--	<20	18 U	<0.45 U	0.87 J	0.40 J/B	<9.7
Perfluoropentanoic Acid (PFPeA)	--	--	--	<10	<4.0	<0.98 U	<0.97 U	<0.46	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<10	<2.0	--	--	--	<1.9
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	<10	<2.0	<0.78 U	<0.77 U	<0.55	<1.9
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	<10	<2.0	<0.91 U	<0.90 U	<0.19	<1.9
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<10	<2.0	<0.79 U	<0.79 U	<0.24	<1.9
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	<10	<2.0	--	--	--	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<10	<2.0	<3.8	<3.7	--	<1.9
Perfluorooctanoic Acid (PFOA)	8	170	--	<10	<2.0	<0.74 U	<0.73 U	<0.80	<1.9
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	<10	<2.0	<0.86 U	<0.85 U	0.30 J/B	<1.9
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	<10	<2.0	--	--	--	<1.9
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	<10	<2.0	--	--	--	<1.9
Perfluorononanoic Acid (PFNA)	6	30	--	<10	<2.0	<0.65 U	<0.64 U	<0.26	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<10	<2.0	--	--	--	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	<10	<2.0	<0.71 U	<0.70 U	<0.18	<1.9
Perfluorodecanoic Acid (PFDA)	--	--	--	<10	<2.0	<0.44	<0.43	<0.29	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<10	<2.0	--	--	--	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<10	<4.0	--	--	--	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	<10	<2.0	<1.3 U	<1.3 U	<0.51	<1.9
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	<10	<2.0	--	--	--	<1.9
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	<10	<2.0	--	--	--	<1.9
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<10	<2.0	<0.74	<0.73	<1.0	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<10	<2.0	--	--	--	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<10	<2.0	<0.58	<0.57	<0.52	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<10	<2.0	<2.0 U	<2.0 U	<1.9	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<10	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<10	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorotetradecanoic Acid (PFTEdA)	--	--	--	<10	<4.0	0.42 J B	0.50 J B	<0.27	<3.9
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF30UdS)	--	--	--	--	<2.0	--	--	--	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF30NS)	--	--	--	--	<2.0	--	--	--	<1.9
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<2.0	--	--	--	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	<2.0	--	--	--	<1.9
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECBS)	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	0.0	0.0	0.4	1.4	0.7	0.0

Notes

- 1) Detections in **bold**.
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- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
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TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		OBG MW-23	OBG MW-23	OBG MW-23	OBG MW-23	OBG MW-23	OBG MW-23	OBG MW-23
	Sample Date:	Drinking Water	GSI	1/3/2019	6/4/2019	6/23/2020	6/14/2021	6/13/2022	6/13/2023	6/11/2024
Perfluorobutanoic Acid (PFBA)	--	--	--	<20	<19	22 U	<11	<10	<10	<10.0
Perfluoropentanoic Acid (PFPeA)	--	--	--	<10	<9.7	<4.1	<4.2	<4.1	<4.0	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<10	<9.7	<2.1	<4.2	<2.1	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	8	170	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	6	30	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<10	<9.7	<4.1	<4.2	<4.1	<4.0	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<10	<9.7	<2.1	<2.1	<2.1	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTEaDA)	--	--	--	<10	<9.7	<4.1	<4.2	<4.1	<4.0	<4.0
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	--	--	--	<2.1	<2.1	<2.1	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	--	--	--	<2.1	<2.1	<2.1	<2.0	<2.0
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	<2.1	<2.1	<2.1	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	<2.1	<11	<10	<4.0	<10.0
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	<4.0	<10.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	<4.0	<10.0
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	<4.0	<10.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	<2.0	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	<2.0	<2.0
Total Per-and Polyfluoroalkyl Substances	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) I - Qualifier ion out of range.
- 12) B - Compound also found in associated method blank.
- 13) E - Concentration exceeds calibration range.
- 14) I - Matrix interference with internal standard.
- 15) J - Estimated value less than reporting limit, but greater than MDL.
- 16) X - Elevated reporting limit due to matrix interference.
- 17) Y - Elevated reporting limit due to high target concentration.
- 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		OBG MW-27	OBG MW-27	OBG MW-27	OBG MW-27	OBG MW-27	OBG MW-27	OBG MW-27R	OBG MW-27R
		Drinking Water	GSI	11/21/2019	1/16/2020	6/24/2020	6/15/2021	6/14/2022	11/1/2022	6/13/2023	11/13/2023
Perfluorobutanoic Acid (PFBA)	--	--	<20	<20	33 U	<10	35	<10	16	4.9 J	5.1 J
Perfluoropentanoic Acid (PFPeA)	--	--	19	<10	3.3 J	5.6	46	<4.0	21	<3.9	<3.8
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorohexanoic Acid (PFHxA)	400,000	--	18	<10	3.5	5.6	35	2.1	19	1.9 J	2.1
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	12	12	18	15	5.0	10	5.9	8.3	8.8
Perfluoroheptanoic Acid (PFHpA)	--	--	<9.9	<10	<1.9	<2.0	4.4 1	<2.0	3.3	<2.0	<1.9
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	17	18	21	16	9.2	17	8.0	14	16
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<9.9	<10	<1.9	4.4	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorooctanoic Acid (PFOA)	8	170	12	<10	5.6	4.7	15	3.4	11	4.8	5.2
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	41	40	40	38	42 1	38	36	35	30
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	31	30	28	28	38 1	29	32	27	22
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	10	<10	9.7	9.4	3.3	8.5	3.6	8.2	7.4
Perfluorononanoic Acid (PFNA)	6	30	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<9.9	<10	1.9	2.6	15	2.7	12	1.4 J	<1.9
Perfluorodecanoic Acid (PFDA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<9.9	<10	<3.9	<4.0	<3.9	<4.0	<3.9	<3.9	<3.8
Perfluorooctane Sulfonic Acid (PFOS)	16	12	25	18	28	84	480	68	450	14	14
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	<9.9	<10	3.5	17	130	22	250	<2.0	<1.9
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	20	18	24	66	350	46	200	13	13
Perfluoroundecanoic Acid (PFUnDA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<9.9	<10	<3.9	<4.0	<3.9	<4.0	<3.9	<3.9	<3.8
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF30NS)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	<9.9	<10	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<9.9	<10	<1.9	<10	<9.8	<10	<2.0	<2.0	<9.6
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	<3.9	<3.9	<9.6
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	<3.9	<3.9	<9.6
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	<3.9	<3.9	<9.6
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	<2.0	<2.0	<1.9
Perfluoro-4-ethylcyclohexanesulfonate (PFECBS)	--	--	--	--	--	--	--	--	1100	970	1000
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	<2.0	<2.0	<1.9
Total Per-and Polyfluoroalkyl Substances	--	--	144.0	88.0	121.3	175.9	651.6	141.2	566.2	1083.7	1083.7

- Notes
- 1) Detections in **bold**.
 - 2) Concentrations in ng/L.
 - 3) < = Not detected at specified reporting limit.
 - 4) -- = Not analyzed/No criteria.
 - 5) * = Monitoring well has been abandoned.
 - 6) Dup = Duplicate sample.
 - 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
 - 10) Light gray header is most recent sampling event result.
 - 11) 1 - Qualifier ion out of range.
 - 12) B - Compound also found in associated method blank.
 - 13) E - Concentration exceeds calibration range.
 - 14) I - Matrix interference with internal standard.
 - 15) J - Estimated value less than reporting limit, but greater than MDL.
 - 16) X - Elevated reporting limit due to matrix interference.
 - 17) Y - Elevated reporting limit due to high target concentration.
 - 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 3
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Drift Monitoring Well Sampling

Coldwater Road - Monitoring Wells - DRIFT Unit

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		OBG MW-29	OBG MW-29	OBG MW-29	MW-DUP-061322 (OBG MW-29)	OBG MW-29	OBG MW-29	PZ-2* (Abandoned)	PZ-2* (Abandoned)	PZ-2* (Abandoned)
	Sample Date:	Drinking Water	GSI	12/18/2020	6/14/2021	6/13/2022	6/13/2022	6/12/2023	6/11/2024	1/3/2019	6/4/2019	6/23/2020
Perfluorobutanoic Acid (PFBA)	--	--	--	<10	<11	<14 X	<9.8	<10.0	<10	<20	<19	<10
Perfluoropentanoic Acid (PFPeA)	--	--	--	<4.0	<4.3	<3.8	<3.9	1.4 J	<4.1	<10	<9.6	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	2.2	2.4	<1.9	4.6	2.0	2.6	<10	<9.6	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	17	8.7	15	17	12	9.8	<10	<9.6	<4.1 X	
Perfluoroheptanoic Acid (PFHpA)	--	--	<2.0	<2.1	<1.9	1.5 J	<2.0	<2.1	<10	<9.6	<2.0	
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	18	12	21	24.1	19	16	<10	<9.6	<2.0	
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	3.3 J	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorooctanoic Acid (PFOA)	8	170	<2.0	2.8	<1.9	<2.0	2.9	3.6	<10	<9.6	<2.0	
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	27	22	37.1	38.1	29	27	<10	<9.6	<2.0	
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	20	16	25.1	26.1	20	19	<10	<9.6	<2.0	
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	6.7	5.9	12	12	7.9	8.1	<10	<9.6	<2.0	
Perfluorononanoic Acid (PFNA)	6	30	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<2.1	<1.9 I	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.0	<4.3	<3.8	<3.9	<4.0	<4.1	<10	<9.6	<4.1	
Perfluorooctane Sulfonic Acid (PFOS)	16	12	<4.0 X	<2.1	3.0 I	3.7 I	<2.0	<2.7 X	<10	<9.6	<2.0	
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	<4.0 X	<2.1	2.6 I	3.4 I	<2.0	<2.3 X	<10	<9.6	<2.0	
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	<10	<9.6	<2.0	
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<2.0	<4.3	<3.8	<3.9	<4.0	<4.1	<10	<9.6	<4.1	
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	--	--	<2.0	
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	--	--	<2.0	
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<2.1	<1.9	<2.0	<2.0	<2.1	--	--	<2.0	
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<2.0	<11	<9.6	<9.8	<2.0	<10	--	--	<2.0	
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	<4.0	<10	--	--	--	
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	<4.0	<10	--	--	--	
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	<4.0	<10	--	--	--	
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	<2.0	<2.1	--	--	--	
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	940	900	--	--	--	
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	<2.0	<2.1	--	--	--	
Total Per-and Polyfluoroalkyl Substances	--	--	64.2	51.2	76.0	88.8	66.3	59.0	0.0	0.0	0.0	

- Notes
- 1) Detections in **bold**.
 - 2) Concentrations in ng/L.
 - 3) < = Not detected at specified reporting limit.
 - 4) -- = Not analyzed/No criteria.
 - 5) * = Monitoring well has been abandoned.
 - 6) Dup = Duplicate sample.
 - 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
 - 10) Light gray header is most recent sampling event result.
 - 11) I - Qualifier ion out of range.
 - 12) B - Compound also found in associated method blank.
 - 13) E - Concentration exceeds calibration range.
 - 14) I - Matrix interference with internal standard.
 - 15) J - Estimated value less than reporting limit, but greater than MDL.
 - 16) X - Elevated reporting limit due to matrix interference.
 - 17) Y - Elevated reporting limit due to high target concentration.
 - 18) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 4
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Sump and Vault Samples

Coldwater Rd - SUMP and VAULT Samples

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		SUMP A	SUMP B	SUMP C	SUMP D	SUMP E	SUMP F
		Drinking Water	GSI	6/19/2017	6/19/2017	6/19/2017	11/29/2016	6/19/2017	6/19/2017
	Sample Date:								
Perfluorobutanoic Acid (PFBA)	--	--	--	220 B	480 B	490 B	440 J	48 B	260 B
Perfluoropentanoic Acid (PFPeA)	--	--	--	260	410	1100 CI	300 J	86	330
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	--	--	--	--	--	--
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	110	280	390	99 JN	65	150
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	310 CI	190 J	410	74	57	100
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<0.78	17	80	24	77	67
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	--	--	--	--	--	--
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	--	--	--	--	--	--
Perfluorooctanoic Acid (PFOA)	8	170	--	54	230	230	130 JN	95	80
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	410	650	1200	370	170	390
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	--	--	--	--	--	--
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	--	--	--	--	--	--
Perfluorononanoic Acid (PFNA)	6	30	--	<0.64	29 CI	18	7.1 JN	21	9.7
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	--	--	--	--	--	--
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	150	140	200	83	55	82
Perfluorodecanoic Acid (PFDA)	--	--	--	<0.43	<0.43	<0.43	<4.2	1.6 J	1.0 J
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	--	--	--	--	--	--
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	--	--	--	--	--	--
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	13000	9600	12000	5800	3400	5400
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	--	--	--	--	--	--
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	--	--	--	--	--	--
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<0.73	<0.73	<0.73	<7.2	1.7 J	<0.74
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	--	--	--	--	--	--
Perfluorododecanoic Acid (PFDDA)	--	--	--	<0.57	<0.57	<0.57	<19	<0.57	<0.57
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	4.3	2.6	1.9	<12	1.2 J	<1.2
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<0.54	<0.54	<0.54	<19	<0.53	<0.54
Perfluorooctane Sulfonamide (FOSA)	--	--	--	8.1 J B	6.1 J B	8.2 J B	<6.1	4.7 J B	6.1 J B
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<0.19	0.37 J B	<0.19	<1.9	0.21 J B	<0.20
11-chloroheptafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	--	--	--	--	--	--
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	--	--	--	--	--	--
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	--	--	--
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	--	--	--
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	14526.4	12035.1	16128.1	7327.1	4083.4	6875.8

Notes

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TABLE 4
RACER Trust - Coldwater Road
Per- and Polyfluoroalkyl Substances Sampling Results - Sump and Vault Samples

Coldwater Rd - SUMP and VAULT Samples

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		Vault A	Vault A	Vault A	Vault A	Vault A	Vault A	Vault A	Vault B
		Sample Date:	Drinking Water	GSI	6/19/2017	6/12/2018	6/25/2020	6/16/2021	6/6/2022	6/6/2023	6/4/2024
Perfluorobutanoic Acid (PFBA)		--	--	18 B	13 B	30	<10	12	<9.8	16	4.6 B
Perfluoropentanoic Acid (PFPeA)		--	--	1.9	3.1	<4.0	1.7 J	<3.9	1.7 J	2.7 J	<0.98
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
Perfluorohexanoic Acid (PFHxA)		400,000	--	4.9	4.7	2.4	2.7	2.2	3.1	4.1	0.79 J
Perfluorobutane Sulfonic Acid (PFBS)		420	670,000	9.3	8.5	5.4	5.2	4.9	5.7	6.9	4.1
Perfluoroheptanoic Acid (PFHpA)		--	--	4.4	3.4	1.7 J	<2.0	2.3	1.5 J	1.7 J	<0.79
Perfluoropentane Sulfonic Acid (PFPeS)		--	--	--	--	6.8	6.9	9.5	6.9	9.5	--
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	--	--	--	<2.0	<4.0	<2.0	<2.0	<2.0	--
Perfluorooctanoic Acid (PFOA)		8	170	16	15	9.7	7.4	4.8	6.3	12	4.1
Perfluorohexane Sulfonic Acid (PFHxS)		51	210	32	27 B	21	18	19	21	27	12
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	--	--	--	17	15	18	22	22	--
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	--	--	--	3.1	3.0	3.2	3.5	5.0	--
Perfluorononanoic Acid (PFNA)		6	30	<0.64	<0.24	<2.0	<2.0	<2.0	<2.0	<2.0	<0.65
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
Perfluoroheptane Sulfonic Acid (PFHpS)		--	--	7.2	6.5	6.2	4.1	5.5	5.1	6.8	2.4
Perfluorodecanoic Acid (PFDA)		--	--	<0.43	<0.28	<2.0	<2.0	<2.0	2.3	<2.0	<0.44
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	--	--	--	<4.0	<4.0	<3.9	<3.9	<4.1	--
Perfluorooctane Sulfonic Acid (PFOS)		16	12	450	460	430	410	360	370	410	150
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	--	--	--	220	200	180	200	210	--
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	--	--	--	220	200	180	170	210	--
Perfluoroundecanoic Acid (PFUnDA)		--	--	<0.73	<0.98	<2.0	<2.0	<2.0	<2.0	<2.0	<0.74
Perfluorononane Sulfonic Acid (PFNS)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
Perfluorododecanoic Acid (PFDoDA)		--	--	<0.57	<1.8	<2.0	<2.0	<2.0	<2.0	<2.0	<0.58
Perfluorodecane Sulfonic Acid (PFDS)		--	--	<1.2	<0.29	<2.0	<2.0	<2.0	<2.0	<2.0	<1.2
Perfluorotridecanoic Acid (PFTrDA)		--	--	<0.54	<1.8	<2.0	<2.0	<2.0	<2.0	<2.0	<0.55
Perfluorooctane Sulfonamide (FOSA)		--	--	<0.62	<0.31	<2.0	<2.0	<2.0	<2.0	<2.0	<0.63
Perfluorotetradecanoic Acid (PFTeDA)		--	--	<0.19	0.45 J	<4.0	<4.0	<3.9	<3.9	<4.1	<0.20
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF30Uds)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF30NS)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	--
Hexafluoropropylene oxide dimer (HFPO-DA)		370	--	--	--	<2.0	<10	<9.9	<3.9	<10	--
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))		--	--	--	--	--	--	--	<3.9	<10	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--	<3.9	<10	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--	<3.9	<10	--
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--	<2.0	<2.0	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--	1100	1600	--
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--	<2.0	<2.0	--
Total Per- and Polyfluoroalkyl Substances		--	--	543.7	541.7	513.2	456.0	420.2	1523.6	2096.7	178.0

Notes

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TABLE 4
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Sump and Vault Samples

Coldwater Rd - SUMP and VAULT Samples

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		Vault C	Vault C	Vault C (DUP-1)	Vault C	Vault C	Vault-DUP-061621 (Vault-C)
		Sample Date:	Drinking Water	GSI	6/19/2017	6/12/2018	6/12/2018	6/25/2020	6/16/2021
Perfluorobutanoic Acid (PFBA)	--	--	--	19 B	13 B	13 B	34	13	14
Perfluoropentanoic Acid (PFPeA)	--	--	--	<0.94	1.7 J	2.4	<4.0	<4.0	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	--	--	--	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	6.0	2.4	2.4	1.9 J	2.8	2.3
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	<0.88	7.4	4.7	5.5	6.1	5.6
Perfluoroheptanoic Acid (PFHpA)	--	--	--	3.3	2.7	2.2	1.5 J	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	--	--	--	6.1	5.6	6.3
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	--	--	--	<2.0	<4.0	<4.1
Perfluorooctanoic Acid (PFOA)	8	170	--	12	12	12	9.0	7.7	8.6
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	<0.83	19 B	19 B	17	18	19
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	--	--	--	13	14	15
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	--	--	--	3.5	2.9	3.9
Perfluorononanoic Acid (PFNA)	6	30	--	<0.62	<0.26	<0.26	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	--	--	--	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	<0.68	6.0	5.6	4.0	5.1	5.3
Perfluorodecanoic Acid (PFDA)	--	--	--	<0.42	<0.30	<0.30	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	--	--	--	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	--	--	--	<4.0	<4.0	<4.1
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	440	380	400	430	400	390
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	--	--	--	240	220	220
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	--	--	--	180	170	170
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<0.71	<1.1	<1.1	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	--	--	--	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDDA)	--	--	--	<0.56	<1.9	<1.9	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<1.2	<0.31	<0.31	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTDA)	--	--	--	<0.53	<1.9	<1.9	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<0.61	0.65 J	0.71 J	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	0.21 J B	<0.28	<0.28	<4.0	<4.0	<4.1
11-chloroheptafluoro-3-oxadecanoic acid (11Cl-PF3OUdS)	--	--	--	--	--	--	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxadecanoic acid (9Cl-PF3ONS)	--	--	--	--	--	--	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	--	--	--	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	--	--	--	<2.0	<10	<10
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	480.5	444.9	462.0	509.0	458.3	451.1

Notes

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Coldwater Rd - SUMP and VAULT Samples

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values		Vault C	Vault-DUP-060722 (Vault-C)	Vault C	Vault-DUP-060623 (Vault-C)	Vault C	Vault-DUP-060424 (Vault-C)	Vault D	Vault E	Vault E (DUP-1)
	Sample Date:	Drinking Water	GSI	6/7/2022	6/7/2022	6/6/2023	6/6/2023	6/4/2024	6/4/2024	6/19/2017	6/19/2017	6/19/2017
Perfluorobutanoic Acid (PFBA)	--	--	--	13	15	12	<9.9	14	15	5.3 B	8.6 B	8 B
Perfluoropentanoic Acid (PFPeA)	--	--	--	<4.2	<4.2	1.3 J	1.3 J	<4.0	2.1 J	6.5	<0.96	4.7
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	--	--	--	--
Perfluorohexanoic Acid (PFHxA)	400,000	--	--	3.2	3.2	1.6 J	1.9 J	2.3	2.1	<0.80	6.5	6.3
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	--	5.8	5.1	4.7	5.9	4.3	4.5	11	13	12
Perfluoroheptanoic Acid (PFHpA)	--	--	--	1.7 J	2.2	<2.0	<2.0	0.83 J	<2.0	0.96 J	5.5	5.3
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	7.5	6.4	5.4	5.9	4.7	6.1	--	--	--
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	--	--	--
Perfluorooctanoic Acid (PFOA)	8	170	--	7.9	5.6	8.3	7.6	7.9	8.6	9.9	24	25
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	--	23	17	16	17	17	20	33	65	63
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	18	13	13	14	14	16	--	--	--
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	3.8	3.9	2.9	3.2	3.0	3.5	--	--	--
Perfluorononanoic Acid (PFNA)	6	30	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<0.67	<0.63	0.64 J
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	--	--	--
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	--	5.1	4.4	5.2	4.5	4.5	5.4	8.4	15	15
Perfluorodecanoic Acid (PFDA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<0.45	<0.43	<0.43
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	--	--	--
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<4.2	<4.2	<4.1	<4.0	<4.0	<4.0	--	--	--
Perfluorooctane Sulfonic Acid (PFOS)	16	12	--	390	340	360	330	390	390	350	730	730
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	220	180	200	180	230	220	--	--	--
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	160	150	160	150	170	180	--	--	--
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<0.76	<0.72	<0.74
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	--	--	--
Perfluorododecanoic Acid (PFDDA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<0.59	<0.56	<0.57
Perfluorodecane Sulfonic Acid (PFDS)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<1.2	<1.2	<1.2
Perfluorotridecanoic Acid (PFTDA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<0.56	<0.53	<0.54
Perfluorooctane Sulfonamide (FOSA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	1.1 J	<0.65	3.5 J H	16 J B
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<4.2	<4.2	<4.1	<4.0	<4.0	<4.0	0.25 J B	<0.19	0.43 J B
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	--	--	--
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	--	--	--
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	--	--	--
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	<10	<10	<4.1	<4.0	<9.9	<10	--	--	--
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	<4.1	<4.0	<9.9	<10	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	<4.1	<4.0	<9.9	<10	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	<4.1	<4.0	<9.9	<10	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	970	920	1100	1100	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	457.2	398.9	414.5	374.1	445.5	454.9	425.3	871.1	886.4

- Notes
- 1) Detections in **bold**.
 - 2) Concentrations in ng/L.
 - 3) < = Not detected at specified reporting limit.
 - 4) -- = Not analyzed/No criteria.
 - 5) * = Monitoring well has been abandoned.
 - 6) Dup = Duplicate sample.
 - 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
 - 10) Light gray header is most recent sampling event result.
 - 11) B - Compound also found in associated method blank.
 - 12) I - Matrix interference with internal standard.
 - 13) J - Estimated value less than reporting limit, but greater than MDL.
 - 14) X - Elevated reporting limit due to matrix interference.
 - 15) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.



TABLE 4
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results - Sump and Vault Samples

Coldwater Rd - SUMP and VAULT Samples

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria / Rule 57 Surface Water Quality Values	Vault E	Vault E	Vault E	Vault E	Vault E	Vault E	Vault F	
	Sample Date:	Drinking Water	GSI	6/12/2018	6/25/2020	6/16/2021	6/7/2022	6/7/2023	6/4/2024	6/19/2017
Perfluorobutanoic Acid (PFBA)	--	--	6.3 B	24	<10.0	<10.0	<10.0	<10.0	6.0 J	6.8 B
Perfluoropentanoic Acid (PFPeA)	--	--	4.1	2.6 J	2.8 J	1.6 J	1.9 J	2.0 J	1.5	--
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
Perfluorohexanoic Acid (PFHxA)	400,000	--	4.5	2.5	2.4	2.0 J	2.9	2.5	1.3	--
Perfluorobutane Sulfonic Acid (PFBS)	420	670,000	11	7.6	9.0	7.4	9.5	6.1	1.2	1.2
Perfluoroheptanoic Acid (PFHpA)	--	--	4.1	2.6	1.7 J	2.2	2.9	1.2 J	1.2	1.2
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	--	12	11	8.4	14	8.5	--	--
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
Perfluorooctanoic Acid (PFOA)	8	170	22	15	13	9.6	14	12	57	--
Perfluorohexane Sulfonic Acid (PFHxS)	51	210	53 B	33	33	29	46	31	35	--
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	--	28	28	23	37	25	--	--
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	--	5.8	5.2	5.7	8.1	5.8	--	--
Perfluorononanoic Acid (PFNA)	6	30	0.60 J	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	1.2 J
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	15	9.5	6.7	6.7	11	9.5	7.3	--
Perfluorodecanoic Acid (PFDA)	--	--	<0.28	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	<0.42
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<3.9	<4.0	<4.1	<4.0	<3.9	--	--
Perfluorooctane Sulfonic Acid (PFOS)	16	12	680	480	480	440	520	470	300	--
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	--	240	270	230	270	260	210	--
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	--	240	210	210	260	210	--	--
Perfluoroundecanoic Acid (PFUnDA)	--	--	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	<0.71
Perfluorononane Sulfonic Acid (PFNS)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
Perfluorododecanoic Acid (PFDDoDA)	--	--	<1.8	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	<0.56
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<0.29	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	<1.2
Perfluorotridecanoic Acid (PFTrDA)	--	--	<1.8	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	<0.53
Perfluorooctane Sulfonamide (FOSA)	--	--	1.2 J	<2.0	<2.0	<2.0	<2.0	2.8	2.2 J H	--
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<0.27	<3.9	<4.0	<4.1	<4.0	<3.9	<0.19	--
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	<2.0	<2.0	<2.0	<2.0	<2.0	<1.9	--
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	--	<2.0	<10.0	<10.0	<4.0	<4.0	<9.7	--
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	<4.0	<9.7	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	<4.0	<9.7	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	<4.0	<9.7	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	1.6 J	1.5 J	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	1300	1100	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	<2.0	0.60 J	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	801.8	588.8	559.6	506.9	622.2	551.6	481.3	--

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) * = Monitoring well has been abandoned.
- 6) Dup = Duplicate sample.
- 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
- 9) The PFAS constituent list increased from 28 to 34 constituents in 2023.
- 10) Light gray header is most recent sampling event result.
- 11) B - Compound also found in associated method blank.
- 12) I - Matrix interference with internal standard.
- 13) J - Estimated value less than reporting limit, but greater than MDL.
- 14) X - Elevated reporting limit due to matrix interference.
- 15) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

FIGURES



LEGEND

- PERCHED MONITORING WELL / PIEZOMETER
- DRIFT MONITORING WELL / PIEZOMETER
- ABANDONED MONITORING WELL / PIEZOMETER
- PROPERTY BOUNDARY
- ▭ FORMER BUILDING



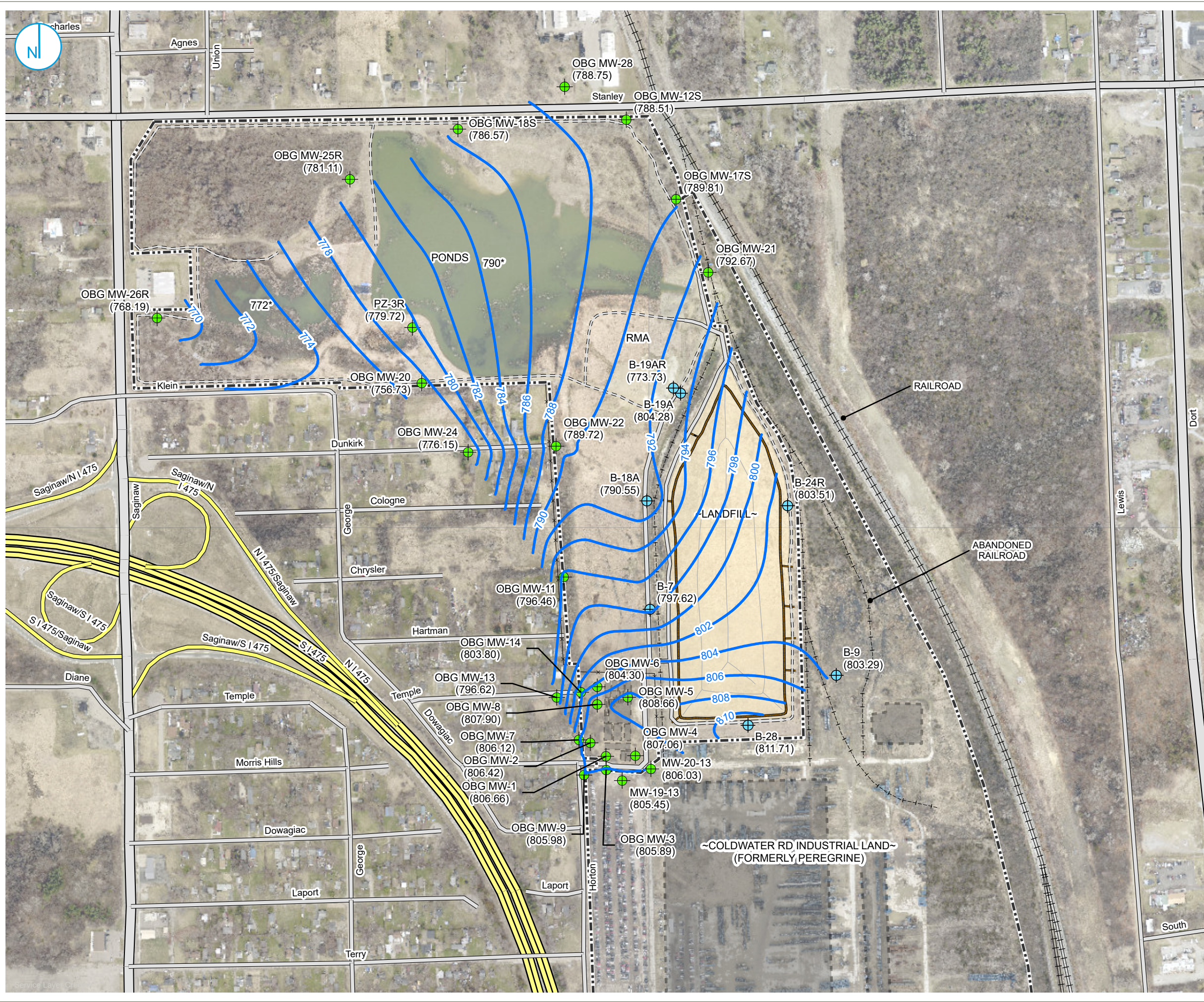
MONITORING WELL LOCATION MAP

FIGURE 1

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY





- ⊕ LANDFILL MONITORING WELL / PIEZOMETER
 - ⊕ OTHER MONITORING WELL / PIEZOMETER
 - GROUNDWATER CONTOUR (JUNE 3, 2024)
 - PROPERTY BOUNDARY
 - FORMER BUILDING
- (800.93) GROUNDWATER ELEVATION

NOTES
 THE GROUNDWATER ELEVATION FOR MONITORING WELL B-19AR WAS NOT USED IN DEVELOPING THE GROUNDWATER POTENTIOMETRIC SURFACE DUE TO THE DEPTH OF THIS WELL AND VERTICAL GRADIENTS AT THE SITE.

THE GROUNDWATER ELEVATION FOR MONITORING WELL OBG MW-20 WAS NOT USED IN DEVELOPING THE GROUNDWATER POTENTIOMETRIC SURFACE DUE TO AN ANOMOUS READING.

THE ADDITIONAL SITE MONITORING WELLS WERE USED IN THE CREATION OF THE GROUNDWATER CONTOURS BUT ARE NOT PART OF THE LANDFILL MONITORING PROGRAM.

772* - TRIGGER ELEVATION FOR POND DEWATERING.



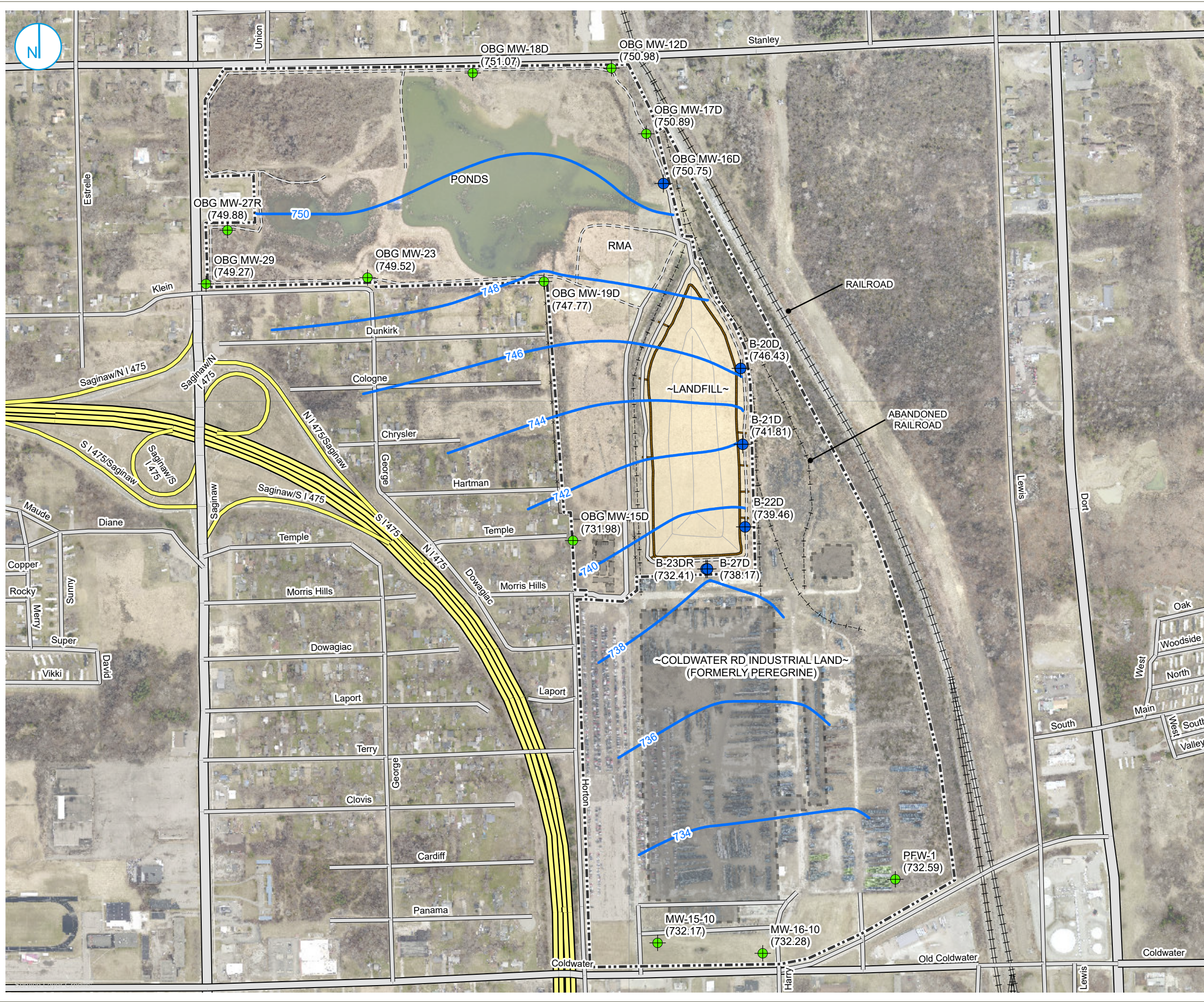
PERCHED ZONE GROUNDWATER ELEVATION MAP
 JUNE 3, 2024

RACER TRUST
 COLDWATER ROAD
 FLINT, MICHIGAN

FIGURE 2

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY





- LANDFILL MONITORING WELL / PIEZOMETER
 - OTHER MONITORING WELL / PIEZOMETER
 - GROUNDWATER CONTOUR (JUNE 3, 2024)
 - PROPERTY BOUNDARY
 - FORMER BUILDING
- (800.93) GROUNDWATER ELEVATION

NOTES
 THE GROUNDWATER ELEVATIONS FOR MONITORING WELLS B-23DR AND OBG MW-15D WERE NOT USED IN DEVELOPING THE GROUNDWATER POTENTIOMETRIC SURFACE DUE TO THE DEPTH OF THESE WELLS AND APPARENT VERTICAL GRADIENT WITHIN THE DRIFT UNIT.
 THE ADDITIONAL SITE MONITORING WELLS WERE USED IN THE CREATION OF THE GROUNDWATER CONTOURS BUT ARE NOT PART OF THE LANDFILL MONITORING PROGRAM.



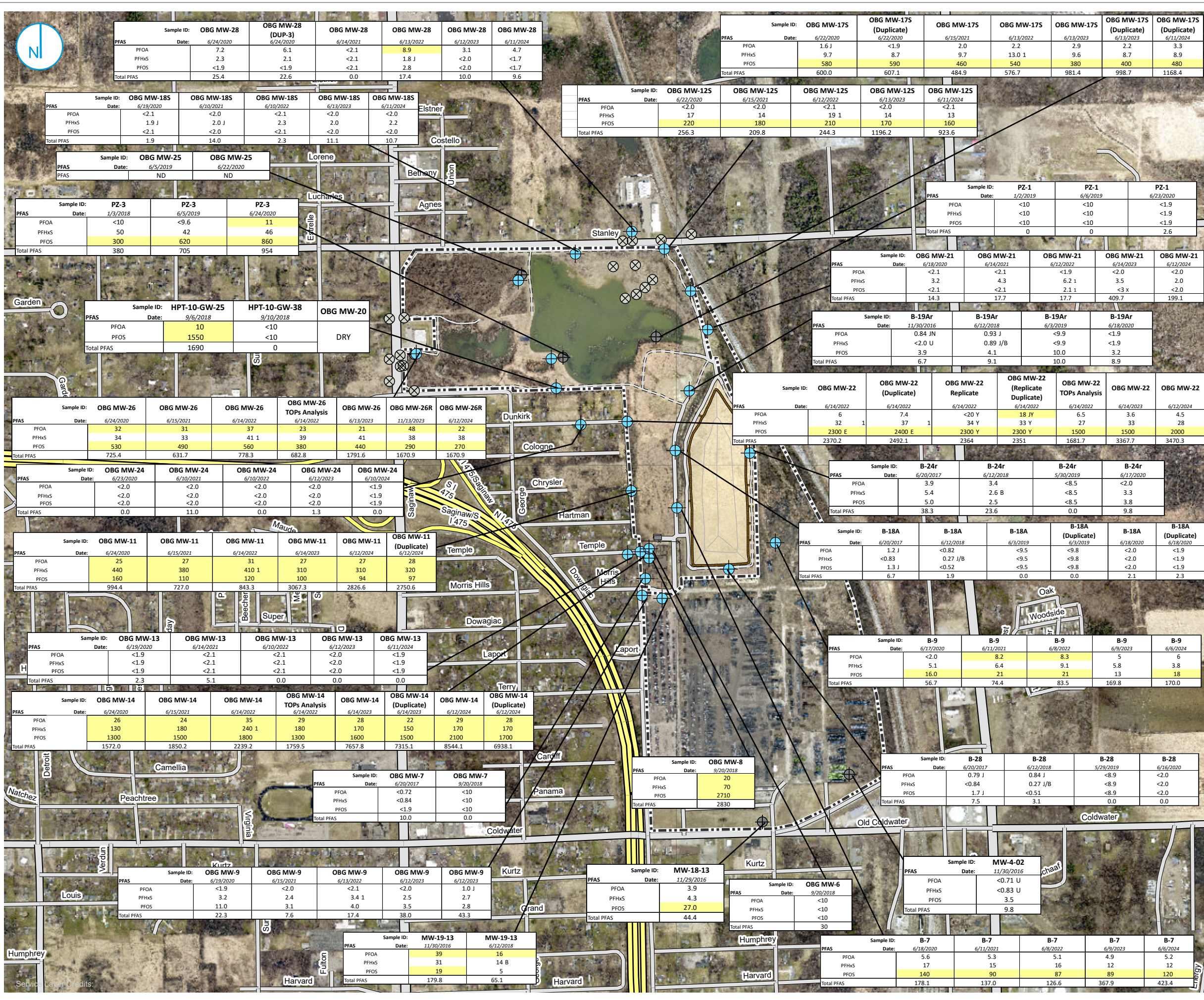
DRIFT UNIT GROUNDWATER ELEVATION MAP
 JUNE 3, 2024

RACER TRUST
 COLDWATER ROAD
 FLINT, MICHIGAN

FIGURE 3

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY





- MONITORING WELL / PIEZOMETER
- ABANDONED WELL
- TEMPORARY WELL / BORING
- PROPERTY BOUNDARY
- FORMER BUILDING

Perfluorinated Compound (PFAS)	Well/Sample ID: EGLE Part 201 Generic Cleanup Criteria and Screening Levels	Drinking Water GSI
Perfluorooctanoic Acid (PFOA)	8	170
Perfluorohexane Sulfonic Acid (PFHxS)	51	210
Perfluorooctane Sulfonic Acid (PFOS)	16	12
Total Per- and Polyfluoroalkyl Substances	--	--

- Notes
- 1) Last 4 results shown at certain wells to conserve space.
 - 2) Concentrations in ng/l.
 - 3) < = Not detected at specified reporting limit.
 - 4) -- = Not analyzed/No criteria.
 - 5) ND = Not detected.
 - 6) Dup = Duplicate sample.
 - 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 9) 1 - Qualifier ion out of range.
 - 10) B - Compound also found in associated method blank.
 - 11) E - Concentration exceeds calibration range.
 - 12) I - Matrix interference with internal standard.
 - 13) J - Estimated value less than reporting limit, but greater than MDL.
 - 14) X - Elevated reporting limit due to matrix interference.
 - 15) The PFAS constituent list increased from 28 to 34 constituents in 2023.



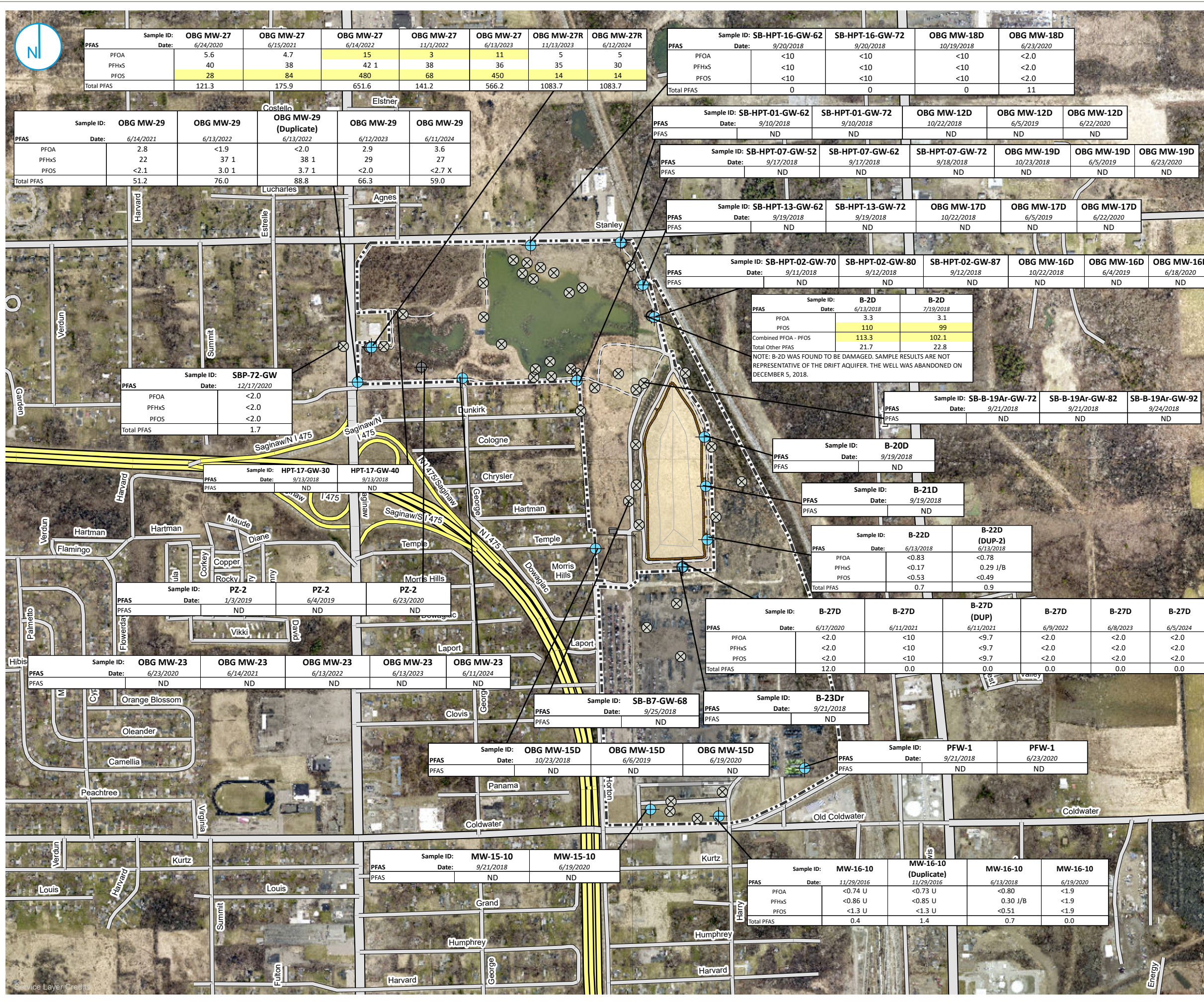
PERCHED ZONE MONITORING WELL PFAS SAMPLE RESULTS (NOVEMBER 2016 - JUNE 2024)

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 4

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY





- MONITORING WELL / PIEZOMETER
- ABANDONED WELL
- TEMPORARY WELL / BORING
- PROPERTY BOUNDARY
- FORMER BUILDING

Perfluorinated Compound (PFAS)	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels	Drinking Water GSI
Perfluorooctanoic Acid (PFOA)		8	170
Perfluorohexane Sulfonic Acid (PFHxS)		51	210
Perfluorooctane Sulfonic Acid (PFOS)		16	12
Total Per- and Polyfluoroalkyl Substances		--	--

- Notes
- 1) Last 4 results shown at certain wells to conserve space.
 - 2) Concentrations in ng/l.
 - 3) < = Not detected at specified reporting limit.
 - 5) ND = Not detected.
 - 6) Dup = Duplicate sample.
 - 7) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 8) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 9) 1 - Qualifier ion out of range.
 - 10) B - Compound also found in associated method blank.
 - 13) J - Estimated value less than reporting limit, but greater than MDL.
 - 14) U - Indicates that the analyte was not detected and the sample RL is presented.
 - 15) The PFAS constituent list increased from 28 to 34 constituents in 2023.



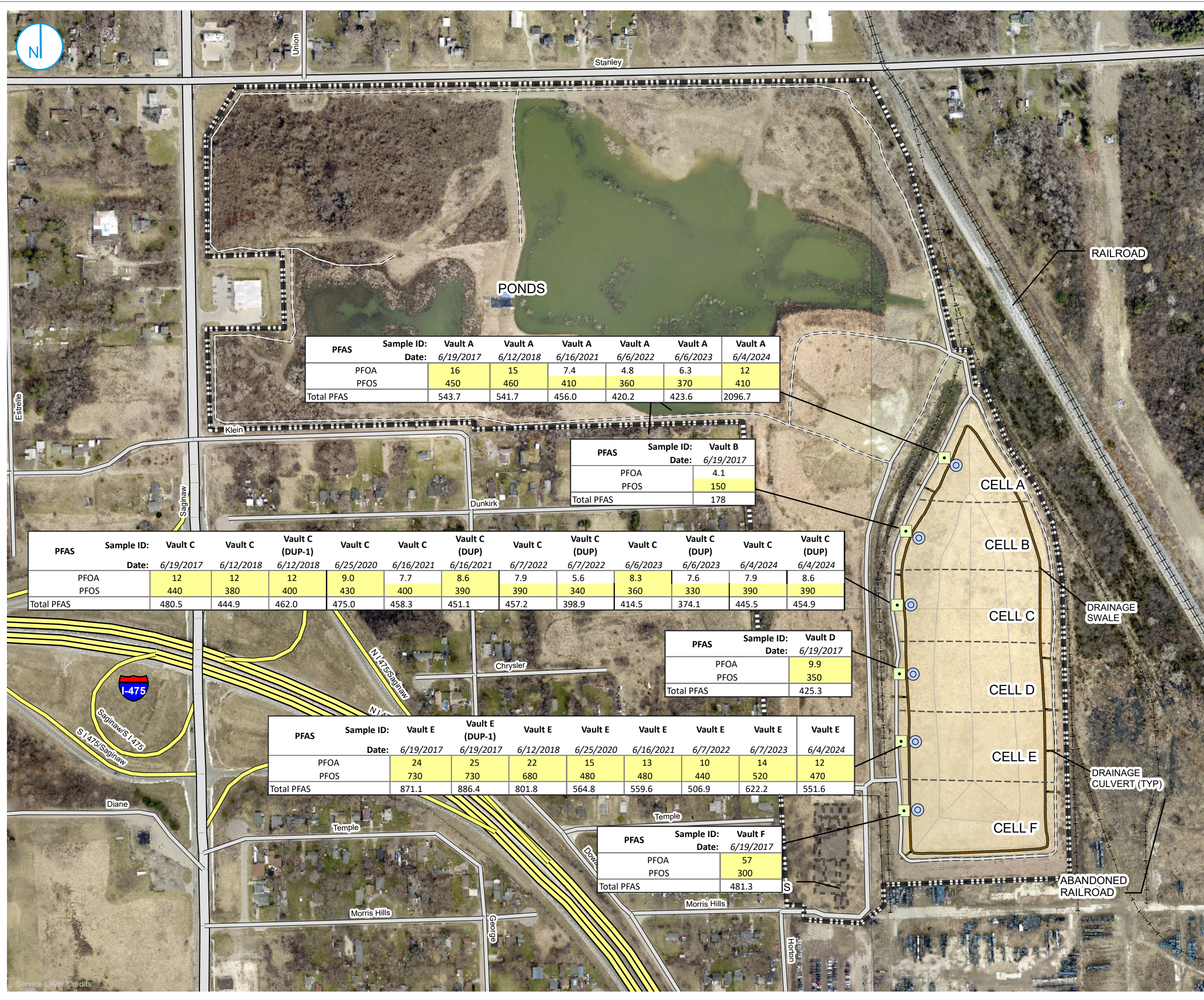
DRIFT UNIT PFAS SAMPLE RESULTS (JUNE 2017 - JUNE 2024)

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 5

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY





- ⊙ LEACHATE COLLECTION SUMP
- ACCESS PORT FOR LEAK DETECTION VAULT
- ▭ PROPERTY BOUNDARY

Perfluorinated Compound (PFAS)	Well/Sample ID: Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels	Drinking Water GSI
Perfluorooctanoic Acid (PFOA)		8	170
Perfluorooctane Sulfonic Acid (PFOS)		16	12
Total Per- and Polyfluoroalkyl Substances		--	--

- Notes**
- 1) Concentrations in ng/l.
 - 2) Dup = Duplicate sample.
 - 3) Concentration above the drinking water and/or groundwater surface water interface (GSI) criteria are highlighted in yellow.
 - 4) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023 and Rule 57 Surface Water Quality Values.
 - 5) The PFAS constituent list increased from 28 to 34 constituents in 2023.



**LEAK DETECTION VAULTS PFAS
 SAMPLE RESULTS
 (JUNE 2017 - JUNE 2024)**

RACER TRUST
 COLDWATER ROAD
 FLINT, MICHIGAN

FIGURE 6

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY



Service Layer Credits:

**APPENDIX A
GROUNDWATER SAMPLING LOGS**

Standard Groundwater Sampling Log

Date 6/3/2024 | 6/6/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel _____

Weather Sunny, 70's °F
 Well # B-7
 Evacuation Method Whale Pump-Peristaltic
 Sampling Method Purged Dry

Well Information:

Depth of Well * 29.98 ft.
 Depth to Water * 16.05 | 20.20 ft.
 Length of Water Column 13.93 ft.
 Volume of Water in Well 2.27 gal.(s)
 3X Volume of Water in Well 6.81 gal.(s)

Water Volume /ft. for:
<input checked="" type="checkbox"/> 2" Diameter Well = 0.163 X LWC
<input type="checkbox"/> 4" Diameter Well = 0.653 X LWC
<input type="checkbox"/> 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 4.0 gal.(s)
 Did well go dry? yes

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial		initial <u>26.56</u>	initial <u>0.77</u>	initial <u>3.58</u>	initial <u>6.47</u>	initial <u>131.4</u>	initial _____
5 min		<u>11.75</u>	<u>0.99</u>	<u>1.20</u>	<u>7.04</u>	<u>65.8</u>	
10 min		<u>11.51</u>	<u>0.99</u>	<u>3.79</u>	<u>7.12</u>	<u>76.0</u>	
15 min							
20 min	<u>6/6/2024</u>						
25 min	<u>20.80</u>	<u>24.69</u>	<u>1.86</u>	<u>4.10</u>	<u>7.13</u>	<u>41.4</u>	<u>47</u>
30 min	<u>21.11</u>	<u>17.03</u>	<u>1.97</u>	<u>0.98</u>	<u>7.09</u>	<u>42.3</u>	<u>22.7</u>
35 min	<u>21.17</u>	<u>16.21</u>	<u>1.99</u>	<u>0.84</u>	<u>7.07</u>	<u>40.7</u>	<u>19.7</u>
40 min							
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 11:25

Physical Appearance at Start

Physical Appearance at Sampling

Color Murky
 Odor None
 Turbidity (> 100 NTU) 465
 Sheen/Free Product None

Color Slightly Cloudy
 Odor None
 Turbidity (> 100 NTU) 19.7
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:

RAMBOLL **Standard Groundwater Sampling Log**

Date 6/4/2024 | 6/6/2024
 Site Name RACER Coldwater Rd Weather Sunny, 80's °F
 Location Flint, MI Well # B-9
 Project No. 1940107203 Evacuation Method Whale Pump-Peristaltic
 Personnel ST Sampling Method Purged Dry

Well Information:
 Depth of Well * 25.20 ft.
 Depth to Water * 4.08 | 3.75 ft.
 Length of Water Column 21.12 ft.
 Volume of Water in Well 3.44 gal.(s)
 3X Volume of Water in Well 10.33 gal.(s)

Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 5.0 gal.(s)
 Did well go dry? yes
 (Other, Specify) _____

* Measurements taken from Well Casing Protective Casing _____

Instrument Calibration: Calibrated within range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>6.00</u>	initial <u>22.68</u>	initial <u>3.75</u>	initial <u>5.03</u>	initial <u>6.85</u>	initial <u>63.8</u>	initial <u>306</u>
5 min	<u>10.60</u>	<u>12.26</u>	<u>4.52</u>	<u>0.12</u>	<u>6.72</u>	<u>57.0</u>	<u>108</u>
10 min	<u>17.85</u>	<u>11.85</u>	<u>4.57</u>	<u>0.15</u>	<u>6.72</u>	<u>39.8</u>	<u>107</u>
15 min	<u>20.42</u>	<u>12.21</u>	<u>4.57</u>	<u>0.28</u>	<u>6.72</u>	<u>36.0</u>	<u>140</u>
20 min	<u>22.50</u>	<u>12.28</u>	<u>4.54</u>	<u>0.81</u>	<u>6.72</u>	<u>27.2</u>	<u>150</u>
25 min	<u>Dry</u>						
30 min							
35 min	<u>6/6/2024</u>						
40 min	<u>4.35</u>	<u>20.72</u>	<u>3.85</u>	<u>6.75</u>	<u>7.08</u>	<u>69.0</u>	<u>430</u>
45 min	<u>4.89</u>	<u>16.80</u>	<u>4.07</u>	<u>4.08</u>	<u>6.85</u>	<u>63.9</u>	<u>462</u>
50 min		<u>15.21</u>	<u>4.15</u>	<u>3.67</u>	<u>6.82</u>	<u>57.0</u>	<u>438</u>
55 min	<u>5.66</u>	<u>14.87</u>	<u>4.15</u>	<u>3.35</u>	<u>6.79</u>	<u>53.1</u>	<u>297</u>
60 min	<u>6.05</u>	<u>14.64</u>	<u>4.13</u>	<u>2.56</u>	<u>6.76</u>	<u>50.6</u>	<u>105</u>
65 min							<u>68.6</u>
70 min						<u>After Filter</u>	<u>16.6</u>
75 min							
80 min							
85 min							
90 min							

Water Sample:
 Time Collected 10:18
 Physical Appearance at Start Physical Appearance at Sampling

Color <u>Foggy</u>	Color <u>light brownish gray</u>
Odor <u>None</u>	Odor <u>None</u>
Turbidity (> 100 NTU) <u>306</u>	Turbidity (> 100 NTU) <u>68.6</u>
Sheen/Free Product <u>None</u>	Sheen/Free Product <u>None</u>

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	<u>3</u>	<u>15 ml plastic</u>	<u>None</u>	<u>No</u>

Notes:

Standard Groundwater Sampling Log

Date 6/5/2024
 Site Name RACER Coldwater Rd Weather Partly Cloudy, 70s
 Location Flint, MI Well # B-27D
 Project No. 1940107203 Evacuation Method Bladder Pump
 Personnel ST Sampling Method Low Flow

Well Information:

Depth of Well * 89.93 ft.
 Depth to Water * 74.45 ft.
 Length of Water Column 15.48 ft.
 Volume of Water in Well 2.52 gal.(s)
 3X Volume of Water in Well 7.57 gal.(s)

Water Volume /ft. for:
 X 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 7.5 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>75.04</u>	initial <u>15.52</u>	initial <u>0.48</u>	initial <u>0.22</u>	initial <u>7.52</u>	initial <u>-54.3</u>	initial <u>362</u>
5 min	<u>75.09</u>	<u>13.62</u>	<u>0.50</u>	<u>0.05</u>	<u>7.47</u>	<u>-106</u>	<u>305</u>
10 min	<u>75.10</u>	<u>13.56</u>	<u>0.50</u>	<u>0.04</u>	<u>7.45</u>	<u>-78.9</u>	<u>780</u>
15 min	<u>75.10</u>	<u>13.20</u>	<u>0.50</u>	<u>0.03</u>	<u>7.45</u>	<u>-114.5</u>	<u>900</u>
20 min	<u>75.18</u>	<u>13.13</u>	<u>0.50</u>	<u>0.02</u>	<u>7.45</u>	<u>-85.6</u>	<u>1000</u>
25 min	<u>75.20</u>	<u>13.11</u>	<u>0.50</u>	<u>0.01</u>	<u>7.45</u>	<u>-125.0</u>	<u>970</u>
30 min	<u>75.14</u>	<u>13.10</u>	<u>0.50</u>	<u>0.01</u>	<u>7.44</u>	<u>-128.1</u>	<u>749</u>
35 min	<u>75.10</u>	<u>13.44</u>	<u>0.51</u>	<u>0.01</u>	<u>7.44</u>	<u>-87.1</u>	<u>657</u>
40 min	<u>75.10</u>	<u>13.52</u>	<u>0.50</u>	<u>0.00</u>	<u>7.44</u>	<u>-124.2</u>	<u>433</u>
45 min	<u>75.10</u>	<u>13.20</u>	<u>0.50</u>	<u>0.01</u>	<u>7.44</u>	<u>-85.7</u>	<u>337</u>
50 min	<u>75.10</u>	<u>13.33</u>	<u>0.50</u>	<u>0.00</u>	<u>7.43</u>	<u>-85.0</u>	<u>271</u>
55 min	<u>75.14</u>	<u>13.11</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.44</u>	<u>-82.0</u>	<u>220</u>
60 min	<u>75.12</u>	<u>13.25</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.42</u>	<u>-120.9</u>	<u>195</u>
65 min	<u>75.14</u>	<u>13.27</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.43</u>	<u>-83.7</u>	<u>159</u>
70 min	<u>75.14</u>	<u>13.42</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.44</u>	<u>-119.6</u>	<u>139</u>
75 min	<u>75.14</u>	<u>13.75</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.43</u>	<u>-120.6</u>	<u>120</u>
80 min	<u>75.12</u>	<u>13.56</u>	<u>0.50</u>	<u>-0.02</u>	<u>7.44</u>	<u>-81.5</u>	<u>102</u>
85 min	<u>75.12</u>	<u>13.47</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.43</u>	<u>-82.1</u>	<u>91.8</u>
90 min	<u>75.12</u>	<u>13.93</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.43</u>	<u>-81.5</u>	<u>93.1</u>
95 min	<u>75.12</u>	<u>13.57</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.43</u>	<u>-80.0</u>	<u>78.5</u>
100 min	<u>75.12</u>	<u>13.61</u>	<u>0.50</u>	<u>-0.01</u>	<u>7.43</u>	<u>-79.4</u>	<u>69.5</u>
105 min	<u>75.12</u>	<u>13.71</u>	<u>0.50</u>	<u>0.00</u>	<u>7.43</u>	<u>-78.5</u>	<u>67.1</u>
110 min	<u>75.12</u>	<u>13.74</u>	<u>0.50</u>	<u>0.00</u>	<u>7.42</u>	<u>-77.1</u>	<u>58.7</u>
115 min	<u>75.12</u>	<u>13.66</u>	<u>0.50</u>	<u>0.01</u>	<u>7.43</u>	<u>-76.3</u>	<u>59.1</u>
120 min							

Water Sample:

Time Collected 12:30
 Physical Appearance at Start _____ Physical Appearance at Sampling _____
 Color Cloudy Brown Color Clear
 Odor None Odor None
 Turbidity (> 100 NTU) 362 Turbidity (> 100 NTU) 59.1
 Sheen/Free Product None Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	<u>3</u>	<u>15 ml plastic</u>	<u>None</u>	<u>No</u>

Notes:
 Rate at start 300 mL/min- Start 10:25
 Rate at 11:05- 300 mL/min
 Rate at 12:00- 300 mL/min
 Low DO readings on meter

Standard Groundwater Sampling Log

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel KBS

Weather Sunny 70s °F
 Well # OBG MW-9
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 18.15 ft.
 Depth to Water * 3.99 ft.
 Length of Water Column 14.16 ft.
 Volume of Water in Well 2.31 gal.(s)
 3X Volume of Water in Well 6.92 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>4.31</u>	initial <u>22.63</u>	initial <u>2.57</u>	initial <u>0.87</u>	initial <u>7.06</u>	initial <u>59.8</u>	initial <u>12.40</u>
5 min	<u>4.41</u>	<u>22.02</u>	<u>2.62</u>	<u>0.29</u>	<u>7.07</u>	<u>40.8</u>	<u>5.81</u>
10 min	<u>4.49</u>	<u>22.16</u>	<u>2.58</u>	<u>0.23</u>	<u>7.07</u>	<u>44.9</u>	<u>4.44</u>
15 min	<u>4.54</u>	<u>21.79</u>	<u>2.56</u>	<u>0.21</u>	<u>7.08</u>	<u>36.0</u>	<u>2.74</u>
20 min	<u>4.57</u>	<u>21.85</u>	<u>2.57</u>	<u>0.20</u>	<u>7.08</u>	<u>36.0</u>	<u>2.64</u>
25 min	<u>4.59</u>	<u>22.13</u>	<u>2.55</u>	<u>0.19</u>	<u>7.08</u>	<u>35.7</u>	<u>2.68</u>
30 min	<u>4.62</u>	<u>21.79</u>	<u>2.54</u>	<u>0.18</u>	<u>7.09</u>	<u>33.8</u>	<u>0.34</u>
35 min							
40 min							
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 14:00

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear
 Odor None
 Turbidity (> 100 NTU) 12.4
 Sheen/Free Product None

Color Clear
 Odor None
 Turbidity (> 100 NTU) 0.34
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 Start 13:27

Date 6/12/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel KBS

Weather Sunny, 70's °F
 Well # OBG MW-11
 Evacuation Method peristaltic
 Sampling Method low flow

Well Information:

Depth of Well * 24.63 ft.
 Depth to Water * 5.48 ft.
 Length of Water Column 19.15 ft.
 Volume of Water in Well 3.12 gal.(s)
 3X Volume of Water in Well 9.36 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>5.68</u>	initial <u>22.01</u>	initial <u>1.56</u>	initial <u>2.39</u>	initial <u>7.00</u>	initial <u>-115.2</u>	initial <u>218</u>
5 min	<u>5.81</u>	<u>16.72</u>	<u>1.73</u>	<u>0.43</u>	<u>7.01</u>	<u>-172.2</u>	<u>35.2</u>
10 min	<u>5.99</u>	<u>16.38</u>	<u>1.75</u>	<u>0.26</u>	<u>7.00</u>	<u>-122.5</u>	<u>16.5</u>
15 min	<u>6.05</u>	<u>16.29</u>	<u>1.74</u>	<u>0.21</u>	<u>7.00</u>	<u>-123.4</u>	<u>12.5</u>
20 min	<u>6.12</u>	<u>15.67</u>	<u>1.74</u>	<u>0.19</u>	<u>7.00</u>	<u>-124.9</u>	<u>8.72</u>
25 min	<u>6.14</u>	<u>15.88</u>	<u>1.76</u>	<u>0.19</u>	<u>6.99</u>	<u>-126.9</u>	<u>5.52</u>
30 min	<u>6.16</u>	<u>16.07</u>	<u>1.75</u>	<u>0.17</u>	<u>6.99</u>	<u>-127.2</u>	<u>4.09</u>
35 min	_____	_____	_____	_____	_____	_____	_____
40 min	_____	_____	_____	_____	_____	_____	_____
45 min	_____	_____	_____	_____	_____	_____	_____
50 min	_____	_____	_____	_____	_____	_____	_____
55 min	_____	_____	_____	_____	_____	_____	_____
60 min	_____	_____	_____	_____	_____	_____	_____
65 min	_____	_____	_____	_____	_____	_____	_____
70 min	_____	_____	_____	_____	_____	_____	_____
75 min	_____	_____	_____	_____	_____	_____	_____
80 min	_____	_____	_____	_____	_____	_____	_____
85 min	_____	_____	_____	_____	_____	_____	_____
90 min	_____	_____	_____	_____	_____	_____	_____

Water Sample:

Time Collected 11:50

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Clear
 Odor None, Slight Sulfate Odor
 Turbidity (> 100 NTU) 21.80
 Sheen/Free Product None

Color Clear
 Odor None
 Turbidity (> 100 NTU) 4.09
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:

Started 11:19
 Collected MW-DUP-1-06122024
 Rust color sediment on probe

Standard Groundwater Sampling Log

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel JMK, LRT

Weather Sunny, 80's °F
 Well # OBG MW-12S
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 21.42 ft.
 Depth to Water * 8.37 ft.
 Length of Water Column 13.05 ft.
 Volume of Water in Well 2.13 gal.(s)
 3X Volume of Water in Well 6.38 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 2/3 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>8.37</u>	initial <u>24.54</u>	initial <u>1.07</u>	initial <u>3.45</u>	initial <u>7.04</u>	initial <u>-81.4</u>	initial <u>12.8</u>
5 min	<u>9.75</u>	<u>13.34</u>	<u>0.86</u>	<u>0.10</u>	<u>7.11</u>	<u>0.4</u>	<u>1.85</u>
10 min	<u>10.07</u>	<u>13.10</u>	<u>0.88</u>	<u>0.06</u>	<u>7.11</u>	<u>2.4</u>	<u>0.98</u>
15 min	<u>10.26</u>	<u>12.92</u>	<u>0.87</u>	<u>0.03</u>	<u>7.11</u>	<u>7.1</u>	<u>2.10</u>
20 min	<u>10.40</u>	<u>12.88</u>	<u>0.87</u>	<u>0.01</u>	<u>7.12</u>	<u>0.2</u>	<u>0.74</u>
25 min	<u>10.43</u>	<u>12.96</u>	<u>0.87</u>	<u>0.00</u>	<u>7.12</u>	<u>0.6</u>	<u>0.85</u>
30 min	<u>10.48</u>	<u>13.07</u>	<u>0.87</u>	<u>0.02</u>	<u>7.12</u>	<u>-9.5</u>	<u>1.20</u>
35 min							
40 min							
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 15:15

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear
 Odor None
 Turbidity (> 100 NTU) 12.8
 Sheen/Free Product NA

Color Clear
 Odor None
 Turbidity (> 100 NTU) 1.2
 Sheen/Free Product NA

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:

OBG-MW12S-06112024

Standard Groundwater Sampling Log

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel KBS

Weather Sunny, 70s °F
 Well # OBG MW-13
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 23.70 ft.
 Depth to Water * 5.26 ft.
 Length of Water Column 18.44 ft.
 Volume of Water in Well 3.01 gal.(s)
 3X Volume of Water in Well 9.02 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 1/2 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>5.55</u>	initial <u>20.22</u>	initial <u>1.50</u>	initial <u>4.48</u>	initial <u>6.85</u>	initial <u>60.8</u>	initial _____
5 min	<u>5.68</u>	<u>19.55</u>	<u>1.59</u>	<u>6.84</u>	<u>7.25</u>	<u>41.7</u>	<u>434</u>
10 min	<u>5.99</u>	<u>15.44</u>	<u>1.55</u>	<u>2.36</u>	<u>6.83</u>	<u>38.0</u>	<u>348</u>
15 min	<u>6.23</u>	<u>14.59</u>	<u>1.58</u>	<u>1.17</u>	<u>6.20</u>	<u>35.2</u>	<u>246</u>
20 min	<u>6.56</u>	<u>14.27</u>	<u>1.59</u>	<u>1.09</u>	<u>6.81</u>	<u>34.8</u>	<u>189</u>
25 min	<u>6.80</u>	<u>14.05</u>	<u>1.59</u>	<u>1.04</u>	<u>6.81</u>	<u>34.1</u>	<u>124</u>
30 min	<u>7.17</u>	<u>13.94</u>	<u>1.60</u>	<u>1.09</u>	<u>6.81</u>	<u>33.7</u>	<u>94.6</u>
35 min	<u>7.39</u>	<u>13.64</u>	<u>1.60</u>	<u>0.99</u>	<u>6.81</u>	<u>33.5</u>	<u>94.3</u>
40 min	<u>7.61</u>	<u>13.68</u>	<u>1.61</u>	<u>0.97</u>	<u>6.81</u>	<u>33.1</u>	<u>62.5</u>
45 min	<u>7.89</u>	<u>13.59</u>	<u>1.60</u>	<u>0.93</u>	<u>6.81</u>	<u>32.7</u>	<u>73.4</u>
50 min	<u>8.14</u>	<u>13.68</u>	<u>1.60</u>	<u>0.94</u>	<u>6.81</u>	<u>32.7</u>	<u>71.8</u>
55 min	<u>8.33</u>	<u>13.50</u>	<u>1.60</u>	<u>0.91</u>	<u>6.81</u>	<u>32.3</u>	<u>56.7</u>
60 min	<u>8.69</u>	<u>13.50</u>	<u>1.60</u>	<u>0.91</u>	<u>6.81</u>	<u>32.3</u>	<u>52.1</u>
65 min	<u>8.85</u>	<u>13.62</u>	<u>1.61</u>	<u>0.92</u>	<u>6.81</u>	<u>32.4</u>	<u>53.4</u>
70 min	_____	_____	_____	_____	_____	_____	_____
75 min	_____	_____	_____	_____	_____	_____	_____
80 min	_____	_____	_____	_____	_____	_____	_____
85 min	_____	_____	_____	_____	_____	_____	_____
90 min	_____	_____	_____	_____	_____	_____	_____

Water Sample:

Time Collected 11:24

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Cloudy/ Light Gray
 Odor None
 Turbidity (> 100 NTU) 434
 Sheen/Free Product None

Color Cloudy
 Odor None
 Turbidity (> 100 NTU) 53.4
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 Water not pumping during first reading

Standard Groundwater Sampling Log

Date 6/12/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel KBS

Weather Sunny, 70s °F
 Well # OBG MW-14
 Evacuation Method Bladder Pump
 Sampling Method Low Flow

Well Information:

Depth of Well * 17.76 ft.
 Depth to Water * 7.18 ft.
 Length of Water Column 10.58 ft.
 Volume of Water in Well 1.72 gal.(s)
 3X Volume of Water in Well 5.17 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1/2 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>7.74</u>	initial <u>22.68</u>	initial <u>1.35</u>	initial <u>4.47</u>	initial <u>7.18</u>	initial <u>2.2</u>	initial <u>48.7</u>
5 min	<u>8.21</u>	<u>16.78</u>	<u>1.48</u>	<u>1.38</u>	<u>7.13</u>	<u>17.6</u>	<u>23.9</u>
10 min	<u>8.55</u>	<u>17.20</u>	<u>1.48</u>	<u>1.48</u>	<u>7.13</u>	<u>21.1</u>	<u>31.9</u>
15 min	<u>8.88</u>	<u>18.28</u>	<u>1.48</u>	<u>1.48</u>	<u>7.14</u>	<u>22.7</u>	<u>14.4</u>
20 min	<u>9.2</u>	<u>18.59</u>	<u>1.47</u>	<u>2.07</u>	<u>7.14</u>	<u>24.2</u>	<u>23.4</u>
25 min	<u>9.51</u>	<u>19.02</u>	<u>1.48</u>	<u>2.34</u>	<u>7.15</u>	<u>24.1</u>	<u>14.7</u>
30 min	<u>9.79</u>	<u>19.59</u>	<u>1.47</u>	<u>2.47</u>	<u>7.16</u>	<u>26.4</u>	<u>17.4</u>
35 min	<u>10.02</u>	<u>20.13</u>	<u>1.47</u>	<u>2.49</u>	<u>7.15</u>	<u>27.2</u>	<u>13.8</u>
40 min	<u>10.39</u>	<u>20.22</u>	<u>1.47</u>	<u>2.54</u>	<u>7.16</u>	<u>28.7</u>	<u>9.38</u>
45 min	<u>10.63</u>	<u>20.40</u>	<u>1.47</u>	<u>2.63</u>	<u>7.16</u>	<u>30.1</u>	<u>9.55</u>
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 13:04

Physical Appearance at Start

Physical Appearance at Sampling

Color Cloudy Color Clear
 Odor None Odor None
 Turbidity (> 100 NTU) 48.7 Turbidity (> 100 NTU) 9.55
 Sheen/Free Product None Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 MW-DUP-2-06122024

Standard Groundwater Sampling Log

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel JMK, LRT

Weather Sunny, 70s °F
 Well # OBG MW-17S
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 22.27 ft.
 Depth to Water * 10.90 ft.
 Length of Water Column 11.37 ft.
 Volume of Water in Well 1.85 gal.(s)
 3X Volume of Water in Well 5.56 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 3/5 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>10.90</u>	initial <u>26.94</u>	initial <u>0.72</u>	initial <u>4.54</u>	initial <u>7.21</u>	initial <u>-113.8</u>	initial <u>163</u>
5 min	<u>11.60</u>	<u>13.58</u>	<u>0.85</u>	<u>0.38</u>	<u>6.98</u>	<u>-106.1</u>	<u>39.2</u>
10 min	<u>11.68</u>	<u>12.67</u>	<u>0.86</u>	<u>0.86</u>	<u>7.00</u>	<u>-116.1</u>	<u>16.2</u>
15 min	<u>11.69</u>	<u>12.51</u>	<u>0.86</u>	<u>0.82</u>	<u>7.02</u>	<u>-115.0</u>	<u>12.9</u>
20 min	<u>11.68</u>	<u>12.42</u>	<u>0.86</u>	<u>0.51</u>	<u>7.02</u>	<u>-116.6</u>	<u>9.97</u>
25 min	<u>11.68</u>	<u>12.28</u>	<u>0.87</u>	<u>0.27</u>	<u>7.03</u>	<u>-118.4</u>	<u>8.97</u>
30 min	<u>11.68</u>	<u>12.25</u>	<u>0.88</u>	<u>0.17</u>	<u>7.03</u>	<u>-105.9</u>	<u>7.06</u>
35 min	<u>11.68</u>	<u>12.35</u>	<u>0.88</u>	<u>0.09</u>	<u>7.03</u>	<u>-108.4</u>	<u>6.57</u>
40 min	<u>11.68</u>	<u>12.29</u>	<u>0.88</u>	<u>0.04</u>	<u>7.03</u>	<u>-108.7</u>	<u>3.82</u>
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 16:10

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear Color Clear
 Odor None Odor None
 Turbidity (> 100 NTU) 163 Turbidity (> 100 NTU) 3.82
 Sheen/Free Product NA Sheen/Free Product NA

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 OBG-MW-17S-06112024

Standard Groundwater Sampling Log

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel JMK, LRT

Weather Sunny, 70s °F
 Well # OBG MW-18S
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 30.86 ft.
 Depth to Water * 13.00 ft.
 Length of Water Column 17.86 ft.
 Volume of Water in Well 2.91 gal.(s)
 3X Volume of Water in Well 8.73 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 3/4 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>13.00</u>	initial <u>24.93</u>	initial <u>0.95</u>	initial <u>7.50</u>	initial <u>7.38</u>	initial <u>67.4</u>	initial <u>23.9</u>
5 min	<u>13.29</u>	<u>13.40</u>	<u>1.12</u>	<u>0.23</u>	<u>7.00</u>	<u>41.4</u>	<u>13.9</u>
10 min	<u>13.30</u>	<u>12.73</u>	<u>1.21</u>	<u>0.17</u>	<u>7.00</u>	<u>21.0</u>	<u>14.5</u>
15 min	<u>13.30</u>	<u>12.65</u>	<u>1.23</u>	<u>0.14</u>	<u>7.01</u>	<u>22.5</u>	<u>9.09</u>
20 min	<u>13.30</u>	<u>12.56</u>	<u>1.26</u>	<u>0.13</u>	<u>7.01</u>	<u>21.4</u>	<u>8.16</u>
25 min	<u>13.31</u>	<u>12.47</u>	<u>1.28</u>	<u>0.11</u>	<u>7.01</u>	<u>19.2</u>	<u>6.69</u>
30 min	<u>13.31</u>	<u>12.56</u>	<u>1.29</u>	<u>0.10</u>	<u>7.01</u>	<u>15.5</u>	<u>6.12</u>
35 min	<u>13.31</u>	<u>12.53</u>	<u>1.29</u>	<u>0.09</u>	<u>7.01</u>	<u>13.2</u>	<u>5.49</u>
40 min	<u>13.31</u>	<u>12.47</u>	<u>1.30</u>	<u>0.09</u>	<u>7.01</u>	<u>10.4</u>	<u>4.72</u>
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 11:05

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear
 Odor None
 Turbidity (> 100 NTU) 23.9
 Sheen/Free Product NA

Color Clear
 Odor None
 Turbidity (> 100 NTU) 0.72
 Sheen/Free Product NA

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 OBG MW-18S-06112024

Standard Groundwater Sampling Log

Date 6/12/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel _____

Weather Sunny, 70s °F
 Well # OBG MW-21
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 17.36 ft.
 Depth to Water * 5.51 ft.
 Length of Water Column 11.85 ft.
 Volume of Water in Well 1.93 gal.(s)
 3X Volume of Water in Well 5.79 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 1/2 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>5.89</u>	initial <u>24.49</u>	initial <u>1.19</u>	initial <u>3.56</u>	initial <u>6.92</u>	initial <u>-6.9</u>	initial <u>229</u>
5 min	<u>5.98</u>	<u>19.69</u>	<u>1.30</u>	<u>0.41</u>	<u>6.91</u>	<u>-39.7</u>	<u>238</u>
10 min	<u>6.14</u>	<u>19.61</u>	<u>1.30</u>	<u>0.29</u>	<u>6.91</u>	<u>-16.3</u>	<u>203</u>
15 min	<u>6.11</u>	<u>19.76</u>	<u>1.30</u>	<u>0.28</u>	<u>6.91</u>	<u>-17.6</u>	<u>160</u>
20 min	<u>6.13</u>	<u>20.63</u>	<u>1.29</u>	<u>0.27</u>	<u>6.91</u>	<u>-18.2</u>	<u>135</u>
25 min	<u>6.14</u>	<u>20.66</u>	<u>1.29</u>	<u>0.24</u>	<u>6.91</u>	<u>-17.8</u>	<u>106</u>
30 min	<u>6.16</u>	<u>20.71</u>	<u>1.29</u>	<u>0.23</u>	<u>6.91</u>	<u>-17.8</u>	<u>99.1</u>
35 min	<u>6.18</u>	<u>20.93</u>	<u>1.29</u>	<u>0.22</u>	<u>6.91</u>	<u>-18.7</u>	<u>90.1</u>
40 min	<u>6.18</u>	<u>20.80</u>	<u>1.28</u>	<u>0.20</u>	<u>6.91</u>	<u>-18.4</u>	<u>75.8</u>
45 min	<u>6.20</u>	<u>20.62</u>	<u>1.28</u>	<u>0.19</u>	<u>6.91</u>	<u>-18.5</u>	<u>65.8</u>
50 min	<u>6.22</u>	<u>20.47</u>	<u>1.28</u>	<u>0.20</u>	<u>6.91</u>	<u>-18.5</u>	<u>49.5</u>
55 min	<u>6.25</u>	<u>20.40</u>	<u>1.28</u>	<u>0.18</u>	<u>6.91</u>	<u>-18.4</u>	<u>45.9</u>
60 min	<u>6.26</u>	<u>2.53</u>	<u>1.29</u>	<u>0.20</u>	<u>6.91</u>	<u>-18.9</u>	<u>43.1</u>
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 10:42

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Cloudy / Light Gray
 Odor None
 Turbidity (> 100 NTU) 229.0
 Sheen/Free Product None

Color Cloudy
 Odor None
 Turbidity (> 100 NTU) 43.1
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 Start 9:38

Standard Groundwater Sampling Log

Date 6/12/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel JMK

Weather Sunny, 70s °F
 Well # OBG MW-22
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 26.64 ft.
 Depth to Water * 4.39 ft.
 Length of Water Column 22.25 ft.
 Volume of Water in Well 3.63 gal.(s)
 3X Volume of Water in Well 10.88 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 2 1/2 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>4.39</u>	initial <u>20.04</u>	initial <u>0.79</u>	initial <u>1.63</u>	initial <u>6.83</u>	initial <u>13.2</u>	initial <u>270</u>
5 min	<u>4.62</u>	<u>14.02</u>	<u>0.86</u>	<u>0.06</u>	<u>6.75</u>	<u>36.4</u>	<u>80.2</u>
10 min	<u>4.65</u>	<u>13.35</u>	<u>0.87</u>	<u>0.03</u>	<u>6.77</u>	<u>90.3</u>	<u>82.5</u>
15 min	<u>4.68</u>	<u>12.81</u>	<u>0.87</u>	<u>0.01</u>	<u>6.78</u>	<u>54.6</u>	<u>19.9</u>
20 min	<u>4.69</u>	<u>12.59</u>	<u>0.88</u>	<u>0.00</u>	<u>6.77</u>	<u>46.7</u>	<u>28.4</u>
25 min	<u>4.72</u>	<u>12.22</u>	<u>0.88</u>	<u>0.00</u>	<u>6.78</u>	<u>46.9</u>	<u>13.1</u>
30 min	<u>4.77</u>	<u>12.04</u>	<u>0.87</u>	<u>0.00</u>	<u>6.78</u>	<u>58.6</u>	<u>23.6</u>
35 min	<u>4.77</u>	<u>11.96</u>	<u>0.87</u>	<u>0.00</u>	<u>6.78</u>	<u>47.5</u>	<u>6.80</u>
40 min	<u>4.77</u>	<u>11.94</u>	<u>0.88</u>	<u>0.00</u>	<u>6.78</u>	<u>48.4</u>	<u>7.07</u>
45 min	<u>4.77</u>	<u>11.97</u>	<u>0.88</u>	<u>0.00</u>	<u>6.78</u>	<u>59.8</u>	<u>2.24</u>
50 min	<u>4.77</u>	<u>11.93</u>	<u>0.88</u>	<u>0.00</u>	<u>6.78</u>	<u>61.0</u>	<u>0.91</u>
55 min	<u>4.77</u>	<u>11.96</u>	<u>0.87</u>	<u>0.00</u>	<u>6.78</u>	<u>61.4</u>	<u>7.04</u>
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 12:20

Physical Appearance at Start

Physical Appearance at Sampling

Color Tan Color Clear
 Odor None Odor None
 Turbidity (> 100 NTU) 270 Turbidity (> 100 NTU) 7.04
 Sheen/Free Product NA Sheen/Free Product NA

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 Low DO readings

Standard Groundwater Sampling Log

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel JMK, LRT

Weather Sunny, 70s °F
 Well # OBG MW-23
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 33.42 ft.
 Depth to Water * 27.24 ft.
 Length of Water Column 6.18 ft.
 Volume of Water in Well 1.01 gal.(s)
 3X Volume of Water in Well 3.02 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 2 3/4 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>27.24</u>	initial <u>24.85</u>	initial <u>1.10</u>	initial <u>1.82</u>	initial <u>7.00</u>	initial <u>-113.0</u>	initial <u>36.9</u>
5 min	<u>27.42</u>	<u>14.87</u>	<u>1.02</u>	<u>0.30</u>	<u>6.99</u>	<u>-10.1</u>	<u>26.5</u>
10 min	<u>27.42</u>	<u>13.66</u>	<u>1.04</u>	<u>0.17</u>	<u>7.01</u>	<u>-28.5</u>	<u>11.1</u>
15 min	<u>27.42</u>	<u>13.71</u>	<u>1.04</u>	<u>0.12</u>	<u>7.04</u>	<u>-36.8</u>	<u>8.22</u>
20 min	<u>27.42</u>	<u>13.66</u>	<u>1.04</u>	<u>0.17</u>	<u>7.03</u>	<u>-31.2</u>	<u>4.41</u>
25 min	<u>27.42</u>	<u>13.79</u>	<u>1.04</u>	<u>0.15</u>	<u>7.03</u>	<u>-56.5</u>	<u>3.86</u>
30 min	<u>27.42</u>	<u>13.76</u>	<u>1.04</u>	<u>0.11</u>	<u>7.04</u>	<u>-45.0</u>	<u>2.42</u>
35 min	<u>27.42</u>	<u>13.88</u>	<u>1.04</u>	<u>0.11</u>	<u>7.03</u>	<u>-65.9</u>	<u>0.55</u>
40 min	<u>27.42</u>	<u>13.81</u>	<u>1.04</u>	<u>0.10</u>	<u>7.05</u>	<u>-66.9</u>	<u>2.39</u>
45 min	<u>27.42</u>	<u>13.82</u>	<u>1.03</u>	<u>0.07</u>	<u>7.06</u>	<u>-51.9</u>	<u>1.40</u>
50 min	<u>27.42</u>	<u>13.78</u>	<u>1.03</u>	<u>0.06</u>	<u>7.06</u>	<u>-72.9</u>	<u>1.90</u>
55 min	<u>27.42</u>	<u>13.74</u>	<u>1.03</u>	<u>0.05</u>	<u>7.05</u>	<u>-53.8</u>	<u>1.60</u>
60 min	<u>27.42</u>	<u>13.65</u>	<u>1.03</u>	<u>0.05</u>	<u>7.06</u>	<u>-54.0</u>	<u>0.45</u>
65 min	<u>27.42</u>	<u>13.84</u>	<u>1.04</u>	<u>0.05</u>	<u>7.07</u>	<u>-75.6</u>	<u>2.16</u>
70 min	<u>27.42</u>	<u>13.87</u>	<u>1.04</u>	<u>0.05</u>	<u>7.07</u>	<u>-56.7</u>	<u>1.29</u>
75 min	<u>27.42</u>	<u>14.09</u>	<u>1.03</u>	<u>0.04</u>	<u>7.06</u>	<u>-57.0</u>	<u>1.34</u>
80 min	<u>27.42</u>	<u>13.83</u>	<u>1.03</u>	<u>0.03</u>	<u>7.07</u>	<u>-58.4</u>	<u>0.84</u>
85 min							
90 min							

Water Sample:

Time Collected 14:20

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear
 Odor None
 Turbidity (> 100 NTU) 36.9
 Sheen/Free Product NA

Color Clear
 Odor None
 Turbidity (> 100 NTU) 0.84
 Sheen/Free Product NA

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:

OBG-MW-23-06112024

Standard Groundwater Sampling Log

Date 6/10/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel KBS

Weather Sunny, 60s °F
 Well # OBG MW-24
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 23.84 ft.
 Depth to Water * 4.91 ft.
 Length of Water Column 18.93 ft.
 Volume of Water in Well 3.09 gal.(s)
 3X Volume of Water in Well 9.26 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>4.91</u>	initial <u>24.20</u>	initial <u>0.90</u>	initial <u>6.40</u>	initial <u>7.22</u>	initial <u>51.9</u>	initial <u>40.7</u>
5 min		<u>17.13</u>	<u>0.96</u>	<u>0.97</u>	<u>7.19</u>	<u>44.2</u>	<u>86.3</u>
10 min	<u>4.94</u>	<u>15.70</u>	<u>0.98</u>	<u>0.44</u>	<u>7.19</u>	<u>29.4</u>	<u>51.2</u>
15 min	<u>5.00</u>	<u>15.32</u>	<u>0.98</u>	<u>0.34</u>	<u>7.19</u>	<u>25.7</u>	<u>45.3</u>
20 min	<u>5.05</u>	<u>15.26</u>	<u>0.99</u>	<u>0.42</u>	<u>7.19</u>	<u>24.8</u>	<u>42.8</u>
25 min	<u>5.15</u>	<u>15.43</u>	<u>0.99</u>	<u>0.31</u>	<u>7.19</u>	<u>24.9</u>	<u>30.1</u>
30 min	<u>5.25</u>	<u>15.02</u>	<u>0.98</u>	<u>0.20</u>	<u>7.19</u>	<u>25.2</u>	<u>39.8</u>
35 min	<u>5.39</u>	<u>14.77</u>	<u>0.99</u>	<u>0.20</u>	<u>7.19</u>	<u>24.9</u>	<u>24.1</u>
40 min	<u>5.42</u>	<u>14.77</u>	<u>0.98</u>	<u>0.18</u>	<u>7.19</u>	<u>24.7</u>	<u>24.5</u>
45 min	<u>5.47</u>	<u>14.93</u>	<u>0.99</u>	<u>0.18</u>	<u>7.19</u>	<u>24.8</u>	<u>26.2</u>
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 15:06

Physical Appearance at Start

Physical Appearance at Sampling

Color Slightly Cloudy Color Clear
 Odor None Odor None
 Turbidity (> 100 NTU) 40.7 Turbidity (> 100 NTU) 26.2
 Sheen/Free Product None Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:

Date 6/12/2024
 Site Name RACER Coldwater Rd Weather Sunny, 70s °F
 Location Flint, MI Well # OBG MW-26R
 Project No. 1940107203 Evacuation Method Peristaltic
 Personnel JMK Sampling Method Low Flow

Well information:

Depth of Well * 13.38 ft.
 Depth to Water * 5.04 ft.
 Length of Water Column 8.34 ft.
 Volume of Water in Well 1.36 gal.(s)
 3X Volume of Water in Well 4.08 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 1/2 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>5.04</u>	initial <u>29.22</u>	initial <u>1.19</u>	initial <u>7.15</u>	initial <u>7.18</u>	initial <u>73.0</u>	initial <u>976</u>
5 min	<u>5.24</u>	<u>16.77</u>	<u>2.89</u>	<u>0.48</u>	<u>6.72</u>	<u>-24.8</u>	<u>81.4</u>
10 min	<u>5.28</u>	<u>15.77</u>	<u>2.59</u>	<u>0.09</u>	<u>6.72</u>	<u>-20.3</u>	<u>57.3</u>
15 min	<u>5.28</u>	<u>16.06</u>	<u>2.36</u>	<u>0.07</u>	<u>6.66</u>	<u>-15.1</u>	<u>44.8</u>
20 min	<u>5.28</u>	<u>16.20</u>	<u>2.31</u>	<u>0.09</u>	<u>6.64</u>	<u>-20.3</u>	<u>21.1</u>
25 min	<u>5.28</u>	<u>16.35</u>	<u>2.28</u>	<u>0.08</u>	<u>6.63</u>	<u>-25.8</u>	<u>12.2</u>
30 min	<u>5.28</u>	<u>16.36</u>	<u>2.27</u>	<u>0.08</u>	<u>6.63</u>	<u>-34.2</u>	<u>8.61</u>
35 min	<u>5.28</u>	<u>16.46</u>	<u>2.27</u>	<u>0.07</u>	<u>6.62</u>	<u>-38.9</u>	<u>6.27</u>
40 min	<u>5.28</u>	<u>16.50</u>	<u>2.27</u>	<u>0.06</u>	<u>6.62</u>	<u>-41.2</u>	<u>3.00</u>
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							
95 min							
100 min							

Water Sample:

Time Collected 10:15

Physical Appearance at Start

Color Tan Tint
 Odor None
 Turbidity (> 100 NTU) 97.6
 Sheen/Free Product None

Physical Appearance at Sampling

Color Clear
 Odor None
 Turbidity (> 100 NTU) 3.00
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:
 OBG-MW-26R-06122024



Standard Groundwater Sampling Log

Date 6/12/2024
 Site Name RACER Coldwater Rd Weather Sunny, 70s °F
 Location Flint, MI Well # OBG MW-27R
 Project No. 1940107203 Evacuation Method Peristaltic
 Personnel JMK Sampling Method Low Flow

Well Information:

Depth of Well * 33.18 ft. Water Volume /ft. for:
 Depth to Water * 22.65 ft. X 2" Diameter Well = 0.163 X LWC
 Length of Water Column 10.53 ft. 4" Diameter Well = 0.653 X LWC
 Volume of Water in Well 1.72 gal.(s) 6" Diameter Well = 1.469 X LWC
 3X Volume of Water in Well 5.15 gal.(s)
 Volume removed before sampling 1 1/2 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range
 pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>22.65</u>	initial <u>23.20</u>	initial <u>0.88</u>	initial <u>4.16</u>	initial <u>7.49</u>	initial <u>-170.8</u>	initial <u>152</u>
5 min	<u>22.70</u>	<u>14.33</u>	<u>1.00</u>	<u>0.33</u>	<u>7.20</u>	<u>-89.2</u>	<u>282</u>
10 min	<u>22.70</u>	<u>13.77</u>	<u>1.04</u>	<u>0.28</u>	<u>7.14</u>	<u>-105.1</u>	<u>27.9</u>
15 min	<u>22.70</u>	<u>13.78</u>	<u>1.04</u>	<u>0.23</u>	<u>7.11</u>	<u>-107.7</u>	<u>16.7</u>
20 min	<u>22.70</u>	<u>13.71</u>	<u>1.05</u>	<u>0.21</u>	<u>7.10</u>	<u>-117.7</u>	<u>11.8</u>
25 min	<u>22.70</u>	<u>13.84</u>	<u>1.06</u>	<u>0.20</u>	<u>7.09</u>	<u>-110.1</u>	<u>11.0</u>
30 min	_____	_____	_____	_____	_____	_____	_____
35 min	_____	_____	_____	_____	_____	_____	_____
40 min	_____	_____	_____	_____	_____	_____	_____
45 min	_____	_____	_____	_____	_____	_____	_____
50 min	_____	_____	_____	_____	_____	_____	_____
55 min	_____	_____	_____	_____	_____	_____	_____
60 min	_____	_____	_____	_____	_____	_____	_____
65 min	_____	_____	_____	_____	_____	_____	_____
70 min	_____	_____	_____	_____	_____	_____	_____
75 min	_____	_____	_____	_____	_____	_____	_____
80 min	_____	_____	_____	_____	_____	_____	_____
85 min	_____	_____	_____	_____	_____	_____	_____
90 min	_____	_____	_____	_____	_____	_____	_____

Water Sample:

Time Collected 10:55
 Physical Appearance at Start _____ Physical Appearance at Sampling _____
 Color Brown Color Clear
 Odor None Odor None
 Turbidity (> 100 NTU) 152 Turbidity (> 100 NTU) 11.0
 Sheen/Free Product NA Sheen/Free Product NA

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	<u>3</u>	<u>15 ml plastic</u>	<u>None</u>	<u>No</u>

Notes:

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel KBS

Weather Sunny, 70s °F
 Well # OBG MW-28
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 17.25 ft.
 Depth to Water * 11.84 ft.
 Length of Water Column 5.41 ft.
 Volume of Water in Well 0.88 gal.(s)
 3X Volume of Water in Well 2.65 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>11.86</u>	initial <u>37.62</u>	initial <u>0.00</u>	initial <u>6.12</u>	initial <u>7.8</u>	initial <u>82.4</u>	initial <u>13.7</u>
5 min	<u>11.88</u>	<u>18.32</u>	<u>0.37</u>	<u>2.97</u>	<u>7.11</u>	<u>70.3</u>	<u>10.2</u>
10 min	<u>11.86</u>	<u>15.88</u>	<u>0.38</u>	<u>2.89</u>	<u>7.09</u>	<u>42.9</u>	<u>7.84</u>
15 min	<u>11.86</u>	<u>15.25</u>	<u>0.39</u>	<u>3.11</u>	<u>7.09</u>	<u>39.4</u>	<u>5.58</u>
20 min	<u>11.86</u>	<u>14.89</u>	<u>0.39</u>	<u>3.24</u>	<u>7.09</u>	<u>37.7</u>	<u>3.56</u>
25 min	<u>11.86</u>	<u>14.71</u>	<u>0.39</u>	<u>3.27</u>	<u>7.08</u>	<u>37.2</u>	<u>3.50</u>
30 min	<u>11.86</u>	<u>14.54</u>	<u>0.38</u>	<u>3.28</u>	<u>7.08</u>	<u>36.4</u>	<u>3.50</u>
35 min							
40 min							
45 min							
50 min							
55 min							
60 min							
65 min							
70 min							
75 min							
80 min							
85 min							
90 min							

Water Sample:

Time Collected 15:28

Physical Appearance at Start

Physical Appearance at Sampling

Color Clear
 Odor None
 Turbidity (> 100 NTU) 13.7
 Sheen/Free Product None

Color Clear
 Odor None
 Turbidity (> 100 NTU) 3.50
 Sheen/Free Product None

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:

14:55

Standard Groundwater Sampling Log

Date 6/11/2024
 Site Name RACER Coldwater Rd
 Location Flint, MI
 Project No. 1940107203
 Personnel JMK, LRT

Weather Sunny, 70s °F
 Well # OBG MW-29
 Evacuation Method Peristaltic
 Sampling Method Low Flow

Well Information:

Depth of Well * 33.98 ft.
 Depth to Water * 24.14 ft.
 Length of Water Column 9.84 ft.
 Volume of Water in Well 1.60 gal.(s)
 3X Volume of Water in Well 4.81 gal.(s)

Water Volume /ft. for:
 2" Diameter Well = 0.163 X LWC
 4" Diameter Well = 0.653 X LWC
 6" Diameter Well = 1.469 X LWC

Volume removed before sampling 1 2/3 gal.(s)
 Did well go dry? No

* Measurements taken from Well Casing Protective Casing (Other, Specify) _____

Instrument Calibration:

Calibrated within range

pH Yes
 ORP Yes
 Conductivity Yes
 DO Yes

Water parameters:

	Drawdown measured 0.3 feet or less	Temperature Celsius ±3 percent	Conductivity mS/cm ±3 percent	Dissolved Oxygen mg/L ±10 percent	pH ±0.1 pH units	ORP mV ±10 millivolts	Turbidity NTUs ±10 percent
initial	<u>24.14</u>	initial <u>33.99</u>	initial <u>0.00</u>	initial <u>6.44</u>	initial <u>6.87</u>	initial <u>76.5</u>	initial <u>130.0</u>
5 min	<u>24.17</u>	<u>16.31</u>	<u>1.00</u>	<u>0.46</u>	<u>7.05</u>	<u>-14.0</u>	<u>24.0</u>
10 min	<u>24.17</u>	<u>14.66</u>	<u>1.03</u>	<u>0.28</u>	<u>7.04</u>	<u>-62.0</u>	<u>22.2</u>
15 min	<u>24.17</u>	<u>14.36</u>	<u>1.04</u>	<u>0.22</u>	<u>7.06</u>	<u>-76.3</u>	<u>10.6</u>
20 min	<u>24.17</u>	<u>14.13</u>	<u>1.04</u>	<u>0.18</u>	<u>7.06</u>	<u>-84.8</u>	<u>8.76</u>
25 min	<u>24.17</u>	<u>14.29</u>	<u>1.04</u>	<u>0.16</u>	<u>7.06</u>	<u>-91.8</u>	<u>6.4</u>
30 min	<u>24.17</u>	<u>13.81</u>	<u>1.04</u>	<u>0.11</u>	<u>7.07</u>	<u>-119.5</u>	<u>5.1</u>
35 min	<u>24.17</u>	<u>13.54</u>	<u>1.05</u>	<u>0.09</u>	<u>7.06</u>	<u>-100.5</u>	<u>4.48</u>
40 min	<u>24.17</u>	<u>13.60</u>	<u>1.05</u>	<u>0.08</u>	<u>7.06</u>	<u>-100.7</u>	<u>3.47</u>
45 min	<u>24.17</u>	<u>13.61</u>	<u>1.06</u>	<u>0.07</u>	<u>7.07</u>	<u>-103.9</u>	<u>2.63</u>
50 min	_____	_____	_____	_____	_____	_____	_____
55 min	_____	_____	_____	_____	_____	_____	_____
60 min	_____	_____	_____	_____	_____	_____	_____
65 min	_____	_____	_____	_____	_____	_____	_____
70 min	_____	_____	_____	_____	_____	_____	_____
75 min	_____	_____	_____	_____	_____	_____	_____
80 min	_____	_____	_____	_____	_____	_____	_____
85 min	_____	_____	_____	_____	_____	_____	_____
90 min	_____	_____	_____	_____	_____	_____	_____

Water Sample:

Time Collected 12:45

Physical Appearance at Start _____

Physical Appearance at Sampling _____

Color Clear
 Odor None
 Turbidity (> 100 NTU) 130
 Sheen/Free Product NA

Color Clear
 Odor None
 Turbidity (> 100 NTU) 2.63
 Sheen/Free Product NA

Samples collected:

Analyses	# Bottles	Bottle size/type	Preservative	Field Filtered
PFAS (7979)	3	15 ml plastic	None	No

Notes:

110-150 mL/min changed to 150 @ 25 min
 MW-29-06112024

**APPENDIX B
ANALYTICAL LABORATORY RESULTS**



Analytical Laboratory Report

Report ID: S63111.01(01)
Generated on 06/25/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Additional Contacts: Kevin Schneider, Nicole Pitkorchemny

Report produced by

Merit Laboratories, Inc.
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Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S63111.01-S63111.18
Project: RACER Coldwater Road
Collected Date(s): 06/10/2024 - 06/12/2024
Submitted Date/Time: 06/12/2024 15:00
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

Table of Contents

- Cover Page (Page 1)
- General Report Notes (Page 2)
- Report Narrative (Page 2)
- Laboratory Accreditations (Page 3)
- Qualifier Descriptions (Page 3)
- Glossary of Abbreviations (Page 3)
- Method Summary (Page 4)
- Parameter Summary (Page 5)
- Sample Summary (Page 6)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Starred (*) analytes are not NY NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.

For a specific list of accredited analytes, please feel free to contact the laboratory or visit <https://www.meritlabs.com/certifications>.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
PFBSA	Perfluorobutanesulfonamide	30334-69-1
PFECHS	Perfluoro-4-ethylcyclohexanesulfonate	67584-42-3
PFHxSA	Perfluorohexanesulfonamide	41997-13-1



Analytical Laboratory Report

Sample Summary (18 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S63111.01	OBG MW-24-06102024	Groundwater	06/10/24 15:06
S63111.02	OBG MW-18S-06112024	Groundwater	06/11/24 11:05
S63111.03	OBG MW-13-06112024	Groundwater	06/11/24 11:24
S63111.04	OBG MW-9-06112024	Groundwater	06/11/24 14:00
S63111.05	OBG MW-29-06112024	Groundwater	06/11/24 12:45
S63111.06	OBG MW-23-06112024	Groundwater	06/11/24 14:20
S63111.07	OBG MW-12S-06112024	Groundwater	06/11/24 15:15
S63111.08	OBG MW-28-06112024	Groundwater	06/11/24 15:28
S63111.09	OBG MW-17S-06112024	Groundwater	06/11/24 16:10
S63111.10	OBG MW-21-06122024	Groundwater	06/12/24 10:42
S63111.11	OBG MW-26R-06122024	Groundwater	06/12/24 10:15
S63111.12	OBG MW-27R-06122024	Groundwater	06/12/24 10:55
S63111.13	MW-DUP-1-06122024	Groundwater	06/12/24 00:01
S63111.14	MW-DUP-2-06122024	Groundwater	06/12/24 00:01
S63111.15	OBG MW-11-06122024	Groundwater	06/12/24 11:50
S63111.16	Field Blank-06122024	Liquid	06/12/24 11:48
S63111.17	OBG MW-22-06122024	Groundwater	06/12/24 12:20
S63111.18	OBG MW-14-06122024	Groundwater	06/12/24 13:04



Analytical Laboratory Report

Lab Sample ID: S63111.01

Sample Tag: OBG MW-24-06102024

Collected Date/Time: 06/10/2024 15:06

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.74/6.40/10	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 17:20, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.4	1.9	ng/L	1.87	375-22-4	
PFPeA*	Not detected	3.7	1.1	ng/L	1.87	2706-90-3	
4:2 FTSA*	Not detected	1.9	0.19	ng/L	1.87	757124-72-4	
PFHxA*	Not detected	1.9	1.1	ng/L	1.87	307-24-4	
PFBS*	Not detected	1.9	0.56	ng/L	1.87	375-73-5	
PFHpA*	Not detected	1.9	0.75	ng/L	1.87	375-85-9	
PFPeS*	Not detected	1.9	1.7	ng/L	1.87	2706-91-4	
6:2 FTSA*	Not detected	1.9	0.94	ng/L	1.87	27619-97-2	
PFOA*	Not detected	1.9	0.75	ng/L	1.87	335-67-1	
PFHxS*	Not detected	1.9	0.94	ng/L	1.87	355-46-4	
PFHxS-LN*	Not detected	1.9	0.94	ng/L	1.87	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	0.94	ng/L	1.87	355-46-4-BR	
PFNA*	Not detected	1.9	0.94	ng/L	1.87	375-95-1	
8:2 FTSA*	Not detected	1.9	1.1	ng/L	1.87	39108-34-4	
PFHpS*	Not detected	1.9	0.75	ng/L	1.87	375-92-8	
PFDA*	Not detected	1.9	1.1	ng/L	1.87	335-76-2	
N-MeFOSAA*	Not detected	1.9	0.94	ng/L	1.87	2355-31-9	
EtFOSAA*	Not detected	3.7	0.94	ng/L	1.87	2991-50-6	
PFOS*	Not detected	1.9	0.75	ng/L	1.87	1763-23-1	
PFOS-LN*	Not detected	1.9	0.75	ng/L	1.87	1763-23-1-LN	
PFOS-BR*	Not detected	1.9	0.75	ng/L	1.87	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.75	ng/L	1.87	2058-94-8	
PFNS*	Not detected	1.9	0.94	ng/L	1.87	68259-12-1	
PFDODA*	Not detected	1.9	0.56	ng/L	1.87	307-55-1	
PFDS*	Not detected	1.9	0.94	ng/L	1.87	335-77-3	
PFTTrDA*	Not detected	1.9	0.75	ng/L	1.87	72629-94-8	
FOSA*	Not detected	1.9	0.75	ng/L	1.87	754-91-6	
PFTeDA*	Not detected	3.7	0.56	ng/L	1.87	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.94	ng/L	1.87	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.94	ng/L	1.87	756426-58-1	
ADONA*	Not detected	1.9	0.56	ng/L	1.87	919005-14-4	
HFPO-DA*	Not detected	9.4	1.9	ng/L	1.87	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.4	7.5	ng/L	1.87	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.4	3.7	ng/L	1.87	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.4	3.7	ng/L	1.87	356-02-5	
PFBSA*	Not detected	1.9	0.56	ng/L	1.87	30334-69-1	
PFCHS*	Not detected	1.9	0.75	ng/L	1.87	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.01 (continued)

Sample Tag: OBG MW-24-06102024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 17:20, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	1.9	0.56	ng/L	1.87	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.02

Sample Tag: OBG MW-18S-06112024

Collected Date/Time: 06/11/2024 11:05

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.02/6.52/11	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 18:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.0	ng/L	2	375-22-4	
PFPeA*	Not detected	4.0	1.2	ng/L	2	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	2	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	2	307-24-4	
PFBS*	0.80	2.0	0.60	ng/L	2	375-73-5	J
PFHpA*	Not detected	2.0	0.80	ng/L	2	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.0	ng/L	2	27619-97-2	
PFOA*	Not detected	2.0	0.80	ng/L	2	335-67-1	
PFHxS*	2.2	2.0	1.0	ng/L	2	355-46-4	
PFHxS-LN*	1.5	2.0	1.0	ng/L	2	355-46-4-LN	J
PFHxS-BR*	Not detected	2.0	1.0	ng/L	2	355-46-4-BR	
PFNA*	Not detected	2.0	1.0	ng/L	2	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	2	39108-34-4	
PFHpS*	Not detected	2.0	0.80	ng/L	2	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	2	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.0	ng/L	2	2355-31-9	
EtFOSAA*	Not detected	4.0	1.0	ng/L	2	2991-50-6	
PFOS*	Not detected	2.0	0.80	ng/L	2	1763-23-1	
PFOS-LN*	Not detected	2.0	0.80	ng/L	2	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	0.80	ng/L	2	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.80	ng/L	2	2058-94-8	
PFNS*	Not detected	2.0	1.0	ng/L	2	68259-12-1	
PFDODA*	Not detected	2.0	0.60	ng/L	2	307-55-1	
PFDS*	Not detected	2.0	1.0	ng/L	2	335-77-3	
PFTTrDA*	Not detected	2.0	0.80	ng/L	2	72629-94-8	
FOSA*	Not detected	2.0	0.80	ng/L	2	754-91-6	
PFTeDA*	Not detected	4.0	0.60	ng/L	2	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.0	ng/L	2	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.0	ng/L	2	756426-58-1	
ADONA*	Not detected	2.0	0.60	ng/L	2	919005-14-4	
HFPO-DA*	Not detected	10	2.0	ng/L	2	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.0	ng/L	2	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.0	ng/L	2	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.0	ng/L	2	356-02-5	
PFBSA*	Not detected	2.0	0.60	ng/L	2	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.02 (continued)

Sample Tag: OBG MW-18S-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 18:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	7.7	2.0	0.80	ng/L	2	67584-42-3	
PFHxSA*	Not detected	2.0	0.60	ng/L	2	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.03

Sample Tag: OBG MW-13-06112024

Collected Date/Time: 06/11/2024 11:24

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.59/6.44/10	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 18:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.7	1.9	ng/L	1.94	375-22-4	
PFPeA*	Not detected	3.9	1.2	ng/L	1.94	2706-90-3	
4:2 FTSA*	Not detected	1.9	0.19	ng/L	1.94	757124-72-4	
PFHxA*	Not detected	1.9	1.2	ng/L	1.94	307-24-4	
PFBS*	Not detected	1.9	0.58	ng/L	1.94	375-73-5	
PFHpA*	Not detected	1.9	0.78	ng/L	1.94	375-85-9	
PFPeS*	Not detected	1.9	1.7	ng/L	1.94	2706-91-4	
6:2 FTSA*	Not detected	1.9	0.97	ng/L	1.94	27619-97-2	
PFOA*	Not detected	1.9	0.78	ng/L	1.94	335-67-1	
PFHxS*	Not detected	1.9	0.97	ng/L	1.94	355-46-4	
PFHxS-LN*	Not detected	1.9	0.97	ng/L	1.94	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	0.97	ng/L	1.94	355-46-4-BR	
PFNA*	Not detected	1.9	0.97	ng/L	1.94	375-95-1	
8:2 FTSA*	Not detected	1.9	1.2	ng/L	1.94	39108-34-4	
PFHpS*	Not detected	1.9	0.78	ng/L	1.94	375-92-8	
PFDA*	Not detected	1.9	1.2	ng/L	1.94	335-76-2	
N-MeFOSAA*	Not detected	1.9	0.97	ng/L	1.94	2355-31-9	
EtFOSAA*	Not detected	3.9	0.97	ng/L	1.94	2991-50-6	
PFOS*	Not detected	1.9	0.78	ng/L	1.94	1763-23-1	
PFOS-LN*	Not detected	1.9	0.78	ng/L	1.94	1763-23-1-LN	
PFOS-BR*	Not detected	1.9	0.78	ng/L	1.94	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.78	ng/L	1.94	2058-94-8	
PFNS*	Not detected	1.9	0.97	ng/L	1.94	68259-12-1	
PFDODA*	Not detected	1.9	0.58	ng/L	1.94	307-55-1	
PFDS*	Not detected	1.9	0.97	ng/L	1.94	335-77-3	
PFTTrDA*	Not detected	1.9	0.78	ng/L	1.94	72629-94-8	
FOSA*	Not detected	1.9	0.78	ng/L	1.94	754-91-6	
PFTeDA*	Not detected	3.9	0.58	ng/L	1.94	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.97	ng/L	1.94	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.97	ng/L	1.94	756426-58-1	
ADONA*	Not detected	1.9	0.58	ng/L	1.94	919005-14-4	
HFPO-DA*	Not detected	9.7	1.9	ng/L	1.94	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.7	7.8	ng/L	1.94	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.7	3.9	ng/L	1.94	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.7	3.9	ng/L	1.94	356-02-5	
PFBSA*	Not detected	1.9	0.58	ng/L	1.94	30334-69-1	
PFECHS*	Not detected	1.9	0.78	ng/L	1.94	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.03 (continued)

Sample Tag: OBG MW-13-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 18:40, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	1.9	0.58	ng/L	1.94	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.04

Sample Tag: OBG MW-9-06112024

Collected Date/Time: 06/11/2024 14:00

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.40/6.43/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 19:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.0	ng/L	2.01	375-22-4	
PFPeA*	Not detected	4.0	1.2	ng/L	2.01	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	2.01	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	2.01	307-24-4	
PFBS*	1.8	2.0	0.60	ng/L	2.01	375-73-5	J
PFHpA*	Not detected	2.0	0.80	ng/L	2.01	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2.01	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.0	ng/L	2.01	27619-97-2	
PFOA*	1.0	2.0	0.80	ng/L	2.01	335-67-1	J
PFHxS*	2.7	2.0	1.0	ng/L	2.01	355-46-4	
PFHxS-LN*	2.2	2.0	1.0	ng/L	2.01	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.0	ng/L	2.01	355-46-4-BR	
PFNA*	Not detected	2.0	1.0	ng/L	2.01	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	2.01	39108-34-4	
PFHpS*	Not detected	2.0	0.80	ng/L	2.01	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	2.01	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.0	ng/L	2.01	2355-31-9	
EtFOSAA*	Not detected	4.0	1.0	ng/L	2.01	2991-50-6	
PFOS*	2.8	2.0	0.80	ng/L	2.01	1763-23-1	
PFOS-LN*	Not detected	2.0	0.80	ng/L	2.01	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	0.80	ng/L	2.01	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.80	ng/L	2.01	2058-94-8	
PFNS*	Not detected	2.0	1.0	ng/L	2.01	68259-12-1	
PFDODA*	Not detected	2.0	0.60	ng/L	2.01	307-55-1	
PFDS*	Not detected	2.0	1.0	ng/L	2.01	335-77-3	
PFTTrDA*	Not detected	2.0	0.80	ng/L	2.01	72629-94-8	
FOSA*	Not detected	2.0	0.80	ng/L	2.01	754-91-6	
PFTeDA*	Not detected	4.0	0.60	ng/L	2.01	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.0	ng/L	2.01	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.0	ng/L	2.01	756426-58-1	
ADONA*	Not detected	2.0	0.60	ng/L	2.01	919005-14-4	
HFPO-DA*	Not detected	10	2.0	ng/L	2.01	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.0	ng/L	2.01	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.0	ng/L	2.01	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.0	ng/L	2.01	356-02-5	
PFBSA*	Not detected	2.0	0.60	ng/L	2.01	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.04 (continued)

Sample Tag: OBG MW-9-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 19:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	35	2.0	0.80	ng/L	2.01	67584-42-3	
PFHxSA*	Not detected	2.0	0.60	ng/L	2.01	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.05

Sample Tag: OBG MW-29-06112024

Collected Date/Time: 06/11/2024 12:45

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.26/6.45/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 19:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.1	ng/L	2.07	375-22-4	
PFPeA*	Not detected	4.1	1.2	ng/L	2.07	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.07	757124-72-4	
PFHxA*	2.6	2.1	1.2	ng/L	2.07	307-24-4	
PFBS*	9.8	2.1	0.62	ng/L	2.07	375-73-5	
PFHpA*	Not detected	2.1	0.83	ng/L	2.07	375-85-9	
PFPeS*	16	2.1	1.9	ng/L	2.07	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.07	27619-97-2	
PFOA*	3.6	2.1	0.83	ng/L	2.07	335-67-1	
PFHxS*	27	2.1	1.0	ng/L	2.07	355-46-4	
PFHxS-LN*	19	2.1	1.0	ng/L	2.07	355-46-4-LN	
PFHxS-BR*	8.1	2.1	1.0	ng/L	2.07	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.07	375-95-1	
8:2 FTSA*	Not detected	2.1	1.2	ng/L	2.07	39108-34-4	
PFHpS*	Not detected	2.1	0.83	ng/L	2.07	375-92-8	
PFDA*	Not detected	2.1	1.2	ng/L	2.07	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.07	2355-31-9	
EtFOSAA*	Not detected	4.1	1.0	ng/L	2.07	2991-50-6	
PFOS*	Not detected	2.7	0.83	ng/L	2.07	1763-23-1	X
PFOS-LN*	Not detected	2.1	0.83	ng/L	2.07	1763-23-1-LN	
PFOS-BR*	Not detected	2.3	0.83	ng/L	2.07	1763-23-1-BR	X
PFUnDA*	Not detected	2.1	0.83	ng/L	2.07	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.07	68259-12-1	
PFDODA*	Not detected	2.1	0.62	ng/L	2.07	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.07	335-77-3	
PFTTrDA*	Not detected	2.1	0.83	ng/L	2.07	72629-94-8	
FOSA*	Not detected	2.1	0.83	ng/L	2.07	754-91-6	
PFTeDA*	Not detected	4.1	0.62	ng/L	2.07	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.07	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.07	756426-58-1	
ADONA*	Not detected	2.1	0.62	ng/L	2.07	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.07	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.3	ng/L	2.07	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.1	ng/L	2.07	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.1	ng/L	2.07	356-02-5	
PFBSA*	Not detected	2.1	0.62	ng/L	2.07	30334-69-1	

X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S63111.05 (continued)

Sample Tag: OBG MW-29-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 19:40, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	900	2.1	0.83	ng/L	2.07	67584-42-3	
PFHxSA*	Not detected	2.1	0.62	ng/L	2.07	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.06

Sample Tag: OBG MW-23-06112024

Collected Date/Time: 06/11/2024 14:20

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.45/6.43/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 20:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10.0	2.0	ng/L	1.99	375-22-4	
PFPeA*	Not detected	4.0	1.2	ng/L	1.99	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.99	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	1.99	307-24-4	
PFBS*	Not detected	2.0	0.60	ng/L	1.99	375-73-5	
PFHpA*	Not detected	2.0	0.80	ng/L	1.99	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.99	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.00	ng/L	1.99	27619-97-2	
PFOA*	Not detected	2.0	0.80	ng/L	1.99	335-67-1	
PFHxS*	Not detected	2.0	1.00	ng/L	1.99	355-46-4	
PFHxS-LN*	Not detected	2.0	1.00	ng/L	1.99	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.00	ng/L	1.99	355-46-4-BR	
PFNA*	Not detected	2.0	1.00	ng/L	1.99	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.99	39108-34-4	
PFHpS*	Not detected	2.0	0.80	ng/L	1.99	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.99	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.00	ng/L	1.99	2355-31-9	
EtFOSAA*	Not detected	4.0	1.00	ng/L	1.99	2991-50-6	
PFOS*	Not detected	2.0	0.80	ng/L	1.99	1763-23-1	
PFOS-LN*	Not detected	2.0	0.80	ng/L	1.99	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	0.80	ng/L	1.99	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.80	ng/L	1.99	2058-94-8	
PFNS*	Not detected	2.0	1.00	ng/L	1.99	68259-12-1	
PFDODA*	Not detected	2.0	0.60	ng/L	1.99	307-55-1	
PFDS*	Not detected	2.0	1.00	ng/L	1.99	335-77-3	
PFTTrDA*	Not detected	2.0	0.80	ng/L	1.99	72629-94-8	
FOSA*	Not detected	2.0	0.80	ng/L	1.99	754-91-6	
PFTeDA*	Not detected	4.0	0.60	ng/L	1.99	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.00	ng/L	1.99	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.00	ng/L	1.99	756426-58-1	
ADONA*	Not detected	2.0	0.60	ng/L	1.99	919005-14-4	
HFPO-DA*	Not detected	10.0	2.0	ng/L	1.99	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10.0	8.0	ng/L	1.99	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10.0	4.0	ng/L	1.99	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10.0	4.0	ng/L	1.99	356-02-5	
PFBSA*	Not detected	2.0	0.60	ng/L	1.99	30334-69-1	
PFCHS*	Not detected	2.0	0.80	ng/L	1.99	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.06 (continued)

Sample Tag: OBG MW-23-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 20:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.60	ng/L	1.99	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.07

Sample Tag: OBG MW-12S-06112024

Collected Date/Time: 06/11/2024 15:15

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.81/6.44/11	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 20:20, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.1	ng/L	2.05	375-22-4	
PFPeA*	Not detected	4.1	1.2	ng/L	2.05	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.05	757124-72-4	
PFHxA*	Not detected	2.1	1.2	ng/L	2.05	307-24-4	
PFBS*	2.7	2.1	0.62	ng/L	2.05	375-73-5	
PFHpA*	Not detected	2.1	0.82	ng/L	2.05	375-85-9	
PFPeS*	3.8	2.1	1.8	ng/L	2.05	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.05	27619-97-2	
PFOA*	Not detected	2.1	0.82	ng/L	2.05	335-67-1	
PFHxS*	13	2.1	1.0	ng/L	2.05	355-46-4	
PFHxS-LN*	10	2.1	1.0	ng/L	2.05	355-46-4-LN	
PFHxS-BR*	1.8	2.1	1.0	ng/L	2.05	355-46-4-BR	J
PFNA*	Not detected	2.1	1.0	ng/L	2.05	375-95-1	
8:2 FTSA*	Not detected	2.1	1.2	ng/L	2.05	39108-34-4	
PFHpS*	4.1	2.1	0.82	ng/L	2.05	375-92-8	
PFDA*	Not detected	2.1	1.2	ng/L	2.05	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.05	2355-31-9	
EtFOSAA*	Not detected	4.1	1.0	ng/L	2.05	2991-50-6	
PFOS*	160	2.1	0.82	ng/L	2.05	1763-23-1	
PFOS-LN*	31	2.1	0.82	ng/L	2.05	1763-23-1-LN	
PFOS-BR*	120	2.1	0.82	ng/L	2.05	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.82	ng/L	2.05	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.05	68259-12-1	
PFDODA*	Not detected	2.1	0.62	ng/L	2.05	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.05	335-77-3	
PFTTrDA*	Not detected	2.1	0.82	ng/L	2.05	72629-94-8	
FOSA*	Not detected	2.1	0.82	ng/L	2.05	754-91-6	
PFTeDA*	Not detected	4.1	0.62	ng/L	2.05	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.05	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.05	756426-58-1	
ADONA*	Not detected	2.1	0.62	ng/L	2.05	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.05	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.2	ng/L	2.05	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.1	ng/L	2.05	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.1	ng/L	2.05	356-02-5	
PFBSA*	Not detected	2.1	0.62	ng/L	2.05	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.07 (continued)

Sample Tag: OBG MW-12S-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 20:20, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	740	2.1	0.82	ng/L	2.05	67584-42-3	
PFHxSA*	Not detected	2.1	0.62	ng/L	2.05	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.08

Sample Tag: OBG MW-28-06112024

Collected Date/Time: 06/11/2024 15:28

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.27/6.46/10	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 20:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	8.6	1.7	ng/L	1.72	375-22-4	
PFPeA*	Not detected	3.4	1.0	ng/L	1.72	2706-90-3	
4:2 FTSA*	Not detected	1.7	0.17	ng/L	1.72	757124-72-4	
PFHxA*	Not detected	1.7	1.0	ng/L	1.72	307-24-4	
PFBS*	1.4	1.7	0.52	ng/L	1.72	375-73-5	J
PFHpA*	Not detected	1.7	0.69	ng/L	1.72	375-85-9	
PFPeS*	Not detected	1.7	1.5	ng/L	1.72	2706-91-4	
6:2 FTSA*	Not detected	1.7	0.86	ng/L	1.72	27619-97-2	
PFOA*	4.7	1.7	0.69	ng/L	1.72	335-67-1	
PFHxS*	Not detected	1.7	0.86	ng/L	1.72	355-46-4	
PFHxS-LN*	Not detected	1.7	0.86	ng/L	1.72	355-46-4-LN	
PFHxS-BR*	Not detected	1.7	0.86	ng/L	1.72	355-46-4-BR	
PFNA*	Not detected	1.7	0.86	ng/L	1.72	375-95-1	
8:2 FTSA*	Not detected	1.7	1.0	ng/L	1.72	39108-34-4	
PFHpS*	Not detected	1.7	0.69	ng/L	1.72	375-92-8	
PFDA*	Not detected	1.7	1.0	ng/L	1.72	335-76-2	
N-MeFOSAA*	Not detected	1.7	0.86	ng/L	1.72	2355-31-9	
EtFOSAA*	Not detected	3.4	0.86	ng/L	1.72	2991-50-6	
PFOS*	Not detected	1.7	0.69	ng/L	1.72	1763-23-1	
PFOS-LN*	Not detected	1.7	0.69	ng/L	1.72	1763-23-1-LN	
PFOS-BR*	Not detected	1.7	0.69	ng/L	1.72	1763-23-1-BR	
PFUnDA*	Not detected	1.7	0.69	ng/L	1.72	2058-94-8	
PFNS*	Not detected	1.7	0.86	ng/L	1.72	68259-12-1	
PFDODA*	Not detected	1.7	0.52	ng/L	1.72	307-55-1	
PFDS*	Not detected	1.7	0.86	ng/L	1.72	335-77-3	
PFTTrDA*	Not detected	1.7	0.69	ng/L	1.72	72629-94-8	
FOSA*	Not detected	1.7	0.69	ng/L	1.72	754-91-6	
PFTeDA*	Not detected	3.4	0.52	ng/L	1.72	376-06-7	
11Cl-PF3OUdS*	Not detected	1.7	0.86	ng/L	1.72	763051-92-9	
9Cl-PF3ONS*	Not detected	1.7	0.86	ng/L	1.72	756426-58-1	
ADONA*	Not detected	1.7	0.52	ng/L	1.72	919005-14-4	
HFPO-DA*	Not detected	8.6	1.7	ng/L	1.72	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	8.6	6.9	ng/L	1.72	812-70-4	
FPePA (5:3 FTCA)*	Not detected	8.6	3.4	ng/L	1.72	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	8.6	3.4	ng/L	1.72	356-02-5	
PFBSA*	Not detected	1.7	0.52	ng/L	1.72	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.08 (continued)

Sample Tag: OBG MW-28-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 20:40, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	3.5	1.7	0.69	ng/L	1.72	67584-42-3	
PFHxSA*	Not detected	1.7	0.52	ng/L	1.72	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.09

Sample Tag: OBG MW-17S-06112024

Collected Date/Time: 06/11/2024 16:10

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.04/6.46/11	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 21:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	6.4	9.9	2.0	ng/L	1.97	375-22-4	J
PFPeA*	Not detected	3.9	1.2	ng/L	1.97	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.97	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	1.97	307-24-4	
PFBS*	2.7	2.0	0.59	ng/L	1.97	375-73-5	
PFHpA*	Not detected	2.0	0.79	ng/L	1.97	375-85-9	
PFPeS*	2.5	2.0	1.8	ng/L	1.97	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.99	ng/L	1.97	27619-97-2	
PFOA*	3.3	2.0	0.79	ng/L	1.97	335-67-1	
PFHxS*	8.9	2.0	0.99	ng/L	1.97	355-46-4	
PFHxS-LN*	7.2	2.0	0.99	ng/L	1.97	355-46-4-LN	
PFHxS-BR*	1.7	2.0	0.99	ng/L	1.97	355-46-4-BR	J
PFNA*	Not detected	2.0	0.99	ng/L	1.97	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.97	39108-34-4	
PFHpS*	4.6	2.0	0.79	ng/L	1.97	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.97	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.99	ng/L	1.97	2355-31-9	
EtFOSAA*	Not detected	3.9	0.99	ng/L	1.97	2991-50-6	
PFOS*	480	2.0	0.79	ng/L	1.97	1763-23-1	
PFOS-LN*	270	2.0	0.79	ng/L	1.97	1763-23-1-LN	
PFOS-BR*	190	2.0	0.79	ng/L	1.97	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.79	ng/L	1.97	2058-94-8	
PFNS*	Not detected	2.0	0.99	ng/L	1.97	68259-12-1	
PFDODA*	Not detected	2.0	0.59	ng/L	1.97	307-55-1	
PFDS*	Not detected	2.0	0.99	ng/L	1.97	335-77-3	
PFTTrDA*	Not detected	2.0	0.79	ng/L	1.97	72629-94-8	
FOSA*	Not detected	2.0	0.79	ng/L	1.97	754-91-6	
PFTeDA*	Not detected	3.9	0.59	ng/L	1.97	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.99	ng/L	1.97	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.99	ng/L	1.97	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.97	919005-14-4	
HFPO-DA*	Not detected	9.9	2.0	ng/L	1.97	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.9	7.9	ng/L	1.97	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.9	3.9	ng/L	1.97	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.9	3.9	ng/L	1.97	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.97	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.09 (continued)

Sample Tag: OBG MW-17S-06112024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 21:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	660	2.0	0.79	ng/L	1.97	67584-42-3	
PFHxSA*	Not detected	2.0	0.59	ng/L	1.97	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.10

Sample Tag: OBG MW-21-06122024

Collected Date/Time: 06/12/2024 10:42

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.51/6.45/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 21:20, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	4.1	9.9	2.0	ng/L	1.98	375-22-4	J
PFPeA*	Not detected	4.0	1.2	ng/L	1.98	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.98	757124-72-4	
PFHxA*	1.2	2.0	1.2	ng/L	1.98	307-24-4	J
PFBS*	1.8	2.0	0.59	ng/L	1.98	375-73-5	J
PFHpA*	Not detected	2.0	0.79	ng/L	1.98	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.98	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.99	ng/L	1.98	27619-97-2	
PFOA*	Not detected	2.0	0.79	ng/L	1.98	335-67-1	
PFHxS*	2.0	2.0	0.99	ng/L	1.98	355-46-4	
PFHxS-LN*	Not detected	2.0	0.99	ng/L	1.98	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	0.99	ng/L	1.98	355-46-4-BR	
PFNA*	Not detected	2.0	0.99	ng/L	1.98	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.98	39108-34-4	
PFHpS*	Not detected	2.0	0.79	ng/L	1.98	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.98	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.99	ng/L	1.98	2355-31-9	
EtFOSAA*	Not detected	4.0	0.99	ng/L	1.98	2991-50-6	
PFOS*	Not detected	2.0	0.79	ng/L	1.98	1763-23-1	
PFOS-LN*	Not detected	2.0	0.79	ng/L	1.98	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	0.79	ng/L	1.98	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.79	ng/L	1.98	2058-94-8	
PFNS*	Not detected	2.0	0.99	ng/L	1.98	68259-12-1	
PFDODA*	Not detected	2.0	0.59	ng/L	1.98	307-55-1	
PFDS*	Not detected	2.0	0.99	ng/L	1.98	335-77-3	
PFTTrDA*	Not detected	2.0	0.79	ng/L	1.98	72629-94-8	
FOSA*	Not detected	2.0	0.79	ng/L	1.98	754-91-6	
PFTeDA*	Not detected	4.0	0.59	ng/L	1.98	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.99	ng/L	1.98	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.99	ng/L	1.98	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.98	919005-14-4	
HFPO-DA*	Not detected	9.9	2.0	ng/L	1.98	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.9	7.9	ng/L	1.98	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.9	4.0	ng/L	1.98	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.9	4.0	ng/L	1.98	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.98	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.10 (continued)

Sample Tag: OBG MW-21-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 21:20, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	190	2.0	0.79	ng/L	1.98	67584-42-3	
PFHxSA*	Not detected	2.0	0.59	ng/L	1.98	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.11

Sample Tag: OBG MW-26R-06122024

Collected Date/Time: 06/12/2024 10:15

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.37/6.45/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 21:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	41	10	2.0	ng/L	2.03	375-22-4	
PFPeA*	37	4.1	1.2	ng/L	2.03	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	2.03	757124-72-4	
PFHxA*	20	2.0	1.2	ng/L	2.03	307-24-4	
PFBS*	5.4	2.0	0.61	ng/L	2.03	375-73-5	
PFHpA*	5.4	2.0	0.81	ng/L	2.03	375-85-9	
PFPeS*	9.2	2.0	1.8	ng/L	2.03	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.0	ng/L	2.03	27619-97-2	
PFOA*	22	2.0	0.81	ng/L	2.03	335-67-1	
PFHxS*	38	2.0	1.0	ng/L	2.03	355-46-4	
PFHxS-LN*	33	2.0	1.0	ng/L	2.03	355-46-4-LN	
PFHxS-BR*	2.7	2.0	1.0	ng/L	2.03	355-46-4-BR	
PFNA*	Not detected	2.0	1.0	ng/L	2.03	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	2.03	39108-34-4	
PFHpS*	10	2.0	0.81	ng/L	2.03	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	2.03	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.0	ng/L	2.03	2355-31-9	
EtFOSAA*	Not detected	4.1	1.0	ng/L	2.03	2991-50-6	
PFOS*	270	2.0	0.81	ng/L	2.03	1763-23-1	
PFOS-LN*	56	2.0	0.81	ng/L	2.03	1763-23-1-LN	
PFOS-BR*	210	2.0	0.81	ng/L	2.03	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.81	ng/L	2.03	2058-94-8	
PFNS*	Not detected	2.0	1.0	ng/L	2.03	68259-12-1	
PFDODA*	Not detected	2.0	0.61	ng/L	2.03	307-55-1	
PFDS*	Not detected	2.0	1.0	ng/L	2.03	335-77-3	
PFTTrDA*	Not detected	2.0	0.81	ng/L	2.03	72629-94-8	
FOSA*	Not detected	2.0	0.81	ng/L	2.03	754-91-6	
PFTeDA*	Not detected	4.1	0.61	ng/L	2.03	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.0	ng/L	2.03	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.0	ng/L	2.03	756426-58-1	
ADONA*	Not detected	2.0	0.61	ng/L	2.03	919005-14-4	
HFPO-DA*	Not detected	10	2.0	ng/L	2.03	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.1	ng/L	2.03	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.1	ng/L	2.03	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.1	ng/L	2.03	356-02-5	
PFBSA*	Not detected	2.0	0.61	ng/L	2.03	30334-69-1	
PFCHS*	1,100	2.0	0.81	ng/L	2.03	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.11 (continued)

Sample Tag: OBG MW-26R-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 21:40, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.61	ng/L	2.03	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.12

Sample Tag: OBG MW-27R-06122024

Collected Date/Time: 06/12/2024 10:55

Matrix: Groundwater

COC Reference: 167394

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.69/6.47/10	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 22:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	5.1	9.6	1.9	ng/L	1.92	375-22-4	J
PFPeA*	Not detected	3.8	1.2	ng/L	1.92	2706-90-3	
4:2 FTSA*	Not detected	1.9	0.19	ng/L	1.92	757124-72-4	
PFHxA*	2.1	1.9	1.2	ng/L	1.92	307-24-4	
PFBS*	8.8	1.9	0.58	ng/L	1.92	375-73-5	
PFHpA*	Not detected	1.9	0.77	ng/L	1.92	375-85-9	
PFPeS*	16	1.9	1.7	ng/L	1.92	2706-91-4	
6:2 FTSA*	Not detected	1.9	0.96	ng/L	1.92	27619-97-2	
PFOA*	5.2	1.9	0.77	ng/L	1.92	335-67-1	
PFHxS*	30	1.9	0.96	ng/L	1.92	355-46-4	
PFHxS-LN*	22	1.9	0.96	ng/L	1.92	355-46-4-LN	
PFHxS-BR*	7.4	1.9	0.96	ng/L	1.92	355-46-4-BR	
PFNA*	Not detected	1.9	0.96	ng/L	1.92	375-95-1	
8:2 FTSA*	Not detected	1.9	1.2	ng/L	1.92	39108-34-4	
PFHpS*	Not detected	1.9	0.77	ng/L	1.92	375-92-8	
PFDA*	Not detected	1.9	1.2	ng/L	1.92	335-76-2	
N-MeFOSAA*	Not detected	1.9	0.96	ng/L	1.92	2355-31-9	
EtFOSAA*	Not detected	3.8	0.96	ng/L	1.92	2991-50-6	
PFOS*	14	1.9	0.77	ng/L	1.92	1763-23-1	
PFOS-LN*	Not detected	1.9	0.77	ng/L	1.92	1763-23-1-LN	
PFOS-BR*	13	1.9	0.77	ng/L	1.92	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.77	ng/L	1.92	2058-94-8	
PFNS*	Not detected	1.9	0.96	ng/L	1.92	68259-12-1	
PFDODA*	Not detected	1.9	0.58	ng/L	1.92	307-55-1	
PFDS*	Not detected	1.9	0.96	ng/L	1.92	335-77-3	
PFTTrDA*	Not detected	1.9	0.77	ng/L	1.92	72629-94-8	
FOSA*	Not detected	1.9	0.77	ng/L	1.92	754-91-6	
PFTeDA*	Not detected	3.8	0.58	ng/L	1.92	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.96	ng/L	1.92	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.96	ng/L	1.92	756426-58-1	
ADONA*	Not detected	1.9	0.58	ng/L	1.92	919005-14-4	
HFPO-DA*	Not detected	9.6	1.9	ng/L	1.92	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.6	7.7	ng/L	1.92	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.6	3.8	ng/L	1.92	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.6	3.8	ng/L	1.92	356-02-5	
PFBSA*	Not detected	1.9	0.58	ng/L	1.92	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.12 (continued)

Sample Tag: OBG MW-27R-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 22:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	1,000	1.9	0.77	ng/L	1.92	67584-42-3	
PFHxSA*	Not detected	1.9	0.58	ng/L	1.92	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.13

Sample Tag: MW-DUP-1-06122024

Collected Date/Time: 06/12/2024 00:01

Matrix: Groundwater

COC Reference: 155555

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.79/6.46/11	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 22:20, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	24	10	2.1	ng/L	2.06	375-22-4	
PFPeA*	6.4	4.1	1.2	ng/L	2.06	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.06	757124-72-4	
PFHxA*	14	2.1	1.2	ng/L	2.06	307-24-4	
PFBS*	55	2.1	0.62	ng/L	2.06	375-73-5	
PFHpA*	5.5	2.1	0.82	ng/L	2.06	375-85-9	
PFPeS*	92	2.1	1.9	ng/L	2.06	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.06	27619-97-2	
PFOA*	28	2.1	0.82	ng/L	2.06	335-67-1	
PFHxS*	320	2.1	1.0	ng/L	2.06	355-46-4	
PFHxS-LN*	270	2.1	1.0	ng/L	2.06	355-46-4-LN	
PFHxS-BR*	53	2.1	1.0	ng/L	2.06	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.06	375-95-1	
8:2 FTSA*	Not detected	2.1	1.2	ng/L	2.06	39108-34-4	
PFHpS*	8.7	2.1	0.82	ng/L	2.06	375-92-8	
PFDA*	Not detected	2.1	1.2	ng/L	2.06	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.06	2355-31-9	
EtFOSAA*	Not detected	4.1	1.0	ng/L	2.06	2991-50-6	
PFOS*	97	2.1	0.82	ng/L	2.06	1763-23-1	
PFOS-LN*	16	2.1	0.82	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	76	2.1	0.82	ng/L	2.06	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.82	ng/L	2.06	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.06	68259-12-1	
PFDODA*	Not detected	2.1	0.62	ng/L	2.06	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.06	335-77-3	
PFTTrDA*	Not detected	2.1	0.82	ng/L	2.06	72629-94-8	
FOSA*	Not detected	2.1	0.82	ng/L	2.06	754-91-6	
PFTeDA*	Not detected	4.1	0.62	ng/L	2.06	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.06	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.06	756426-58-1	
ADONA*	Not detected	2.1	0.62	ng/L	2.06	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.06	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.2	ng/L	2.06	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.1	ng/L	2.06	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.1	ng/L	2.06	356-02-5	
PFBSA*	Not detected	2.1	0.62	ng/L	2.06	30334-69-1	
PFECHS*	2,100	2.1	0.82	ng/L	2.06	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.13 (continued)

Sample Tag: MW-DUP-1-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 22:20, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.1	0.62	ng/L	2.06	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.14

Sample Tag: MW-DUP-2-06122024

Collected Date/Time: 06/12/2024 00:01

Matrix: Groundwater

COC Reference: 155555

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.25/6.48/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 22:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	22	10	2.1	ng/L	2.08	375-22-4	
PFPeA*	6.1	4.2	1.2	ng/L	2.08	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.08	757124-72-4	
PFHxA*	4.2	2.1	1.2	ng/L	2.08	307-24-4	
PFBS*	16	2.1	0.62	ng/L	2.08	375-73-5	
PFHpA*	2.8	2.1	0.83	ng/L	2.08	375-85-9	
PFPeS*	43	2.1	1.9	ng/L	2.08	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.08	27619-97-2	
PFOA*	28	2.1	0.83	ng/L	2.08	335-67-1	
PFHxS*	170	2.1	1.0	ng/L	2.08	355-46-4	
PFHxS-LN*	150	2.1	1.0	ng/L	2.08	355-46-4-LN	
PFHxS-BR*	25	2.1	1.0	ng/L	2.08	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.08	375-95-1	
8:2 FTSA*	Not detected	2.1	1.2	ng/L	2.08	39108-34-4	
PFHpS*	46	2.1	0.83	ng/L	2.08	375-92-8	
PFDA*	Not detected	2.1	1.2	ng/L	2.08	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.08	2355-31-9	
EtFOSAA*	Not detected	4.2	1.0	ng/L	2.08	2991-50-6	
PFOS*	1,700	2.1	0.83	ng/L	2.08	1763-23-1	
PFOS-LN*	790	2.1	0.83	ng/L	2.08	1763-23-1-LN	
PFOS-BR*	920	2.1	0.83	ng/L	2.08	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.83	ng/L	2.08	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.08	68259-12-1	
PFDODA*	Not detected	2.1	0.62	ng/L	2.08	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.08	335-77-3	
PFTTrDA*	Not detected	2.1	0.83	ng/L	2.08	72629-94-8	
FOSA*	Not detected	2.1	0.83	ng/L	2.08	754-91-6	
PFTeDA*	Not detected	4.2	0.62	ng/L	2.08	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.08	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.08	756426-58-1	
ADONA*	Not detected	2.1	0.62	ng/L	2.08	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.08	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.3	ng/L	2.08	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.2	ng/L	2.08	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.2	ng/L	2.08	356-02-5	
PFBSA*	Not detected	2.1	0.62	ng/L	2.08	30334-69-1	
PFECHS*	4,900	2.1	0.83	ng/L	2.08	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.14 (continued)

Sample Tag: MW-DUP-2-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 22:40, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.1	0.62	ng/L	2.08	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.15

Sample Tag: OBG MW-11-06122024

Collected Date/Time: 06/12/2024 11:50

Matrix: Groundwater

COC Reference: 155555

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.48/6.43/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 23:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	23	9.9	2.0	ng/L	1.98	375-22-4	
PFPeA*	5.9	4.0	1.2	ng/L	1.98	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.98	757124-72-4	
PFHxA*	13	2.0	1.2	ng/L	1.98	307-24-4	
PFBS*	54	2.0	0.59	ng/L	1.98	375-73-5	
PFHpA*	4.6	2.0	0.79	ng/L	1.98	375-85-9	
PFPeS*	87	2.0	1.8	ng/L	1.98	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.99	ng/L	1.98	27619-97-2	
PFOA*	27	2.0	0.79	ng/L	1.98	335-67-1	
PFHxS*	310	2.0	0.99	ng/L	1.98	355-46-4	
PFHxS-LN*	260	2.0	0.99	ng/L	1.98	355-46-4-LN	
PFHxS-BR*	52	2.0	0.99	ng/L	1.98	355-46-4-BR	
PFNA*	Not detected	2.0	0.99	ng/L	1.98	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.98	39108-34-4	
PFHpS*	8.1	2.0	0.79	ng/L	1.98	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.98	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.99	ng/L	1.98	2355-31-9	
EtFOSAA*	Not detected	4.0	0.99	ng/L	1.98	2991-50-6	
PFOS*	94	2.0	0.79	ng/L	1.98	1763-23-1	
PFOS-LN*	14	2.0	0.79	ng/L	1.98	1763-23-1-LN	
PFOS-BR*	75	2.0	0.79	ng/L	1.98	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.79	ng/L	1.98	2058-94-8	
PFNS*	Not detected	2.0	0.99	ng/L	1.98	68259-12-1	
PFDODA*	Not detected	2.0	0.59	ng/L	1.98	307-55-1	
PFDS*	Not detected	2.0	0.99	ng/L	1.98	335-77-3	
PFTTrDA*	Not detected	2.0	0.79	ng/L	1.98	72629-94-8	
FOSA*	Not detected	2.0	0.79	ng/L	1.98	754-91-6	
PFTeDA*	Not detected	4.0	0.59	ng/L	1.98	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.99	ng/L	1.98	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.99	ng/L	1.98	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.98	919005-14-4	
HFPO-DA*	Not detected	9.9	2.0	ng/L	1.98	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.9	7.9	ng/L	1.98	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.9	4.0	ng/L	1.98	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.9	4.0	ng/L	1.98	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.98	30334-69-1	
PFECHS*	2,200	2.0	0.79	ng/L	1.98	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.15 (continued)

Sample Tag: OBG MW-11-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 23:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.59	ng/L	1.98	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.16

Sample Tag: Field Blank-06122024

Collected Date/Time: 06/12/2024 11:48

Matrix: Liquid

COC Reference: 155555

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.59/6.49/10	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 23:20, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.8	2.0	ng/L	1.96	375-22-4	
PFPeA*	Not detected	3.9	1.2	ng/L	1.96	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.96	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	1.96	307-24-4	
PFBS*	Not detected	2.0	0.59	ng/L	1.96	375-73-5	
PFHpA*	Not detected	2.0	0.78	ng/L	1.96	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.96	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.98	ng/L	1.96	27619-97-2	
PFOA*	Not detected	2.0	0.78	ng/L	1.96	335-67-1	
PFHxS*	Not detected	2.0	0.98	ng/L	1.96	355-46-4	
PFHxS-LN*	Not detected	2.0	0.98	ng/L	1.96	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	0.98	ng/L	1.96	355-46-4-BR	
PFNA*	Not detected	2.0	0.98	ng/L	1.96	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.96	39108-34-4	
PFHpS*	Not detected	2.0	0.78	ng/L	1.96	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.96	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.98	ng/L	1.96	2355-31-9	
EtFOSAA*	Not detected	3.9	0.98	ng/L	1.96	2991-50-6	
PFOS*	Not detected	2.0	0.78	ng/L	1.96	1763-23-1	
PFOS-LN*	Not detected	2.0	0.78	ng/L	1.96	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	0.78	ng/L	1.96	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.78	ng/L	1.96	2058-94-8	
PFNS*	Not detected	2.0	0.98	ng/L	1.96	68259-12-1	
PFDODA*	Not detected	2.0	0.59	ng/L	1.96	307-55-1	
PFDS*	Not detected	2.0	0.98	ng/L	1.96	335-77-3	
PFTTrDA*	Not detected	2.0	0.78	ng/L	1.96	72629-94-8	
FOSA*	Not detected	2.0	0.78	ng/L	1.96	754-91-6	
PFTeDA*	Not detected	3.9	0.59	ng/L	1.96	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.98	ng/L	1.96	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.98	ng/L	1.96	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.96	919005-14-4	
HFPO-DA*	Not detected	9.8	2.0	ng/L	1.96	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.8	7.8	ng/L	1.96	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.96	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.96	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.96	30334-69-1	
PFECHS*	Not detected	2.0	0.78	ng/L	1.96	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.16 (continued)

Sample Tag: Field Blank-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 23:20, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.59	ng/L	1.96	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.17

Sample Tag: OBG MW-22-06122024

Collected Date/Time: 06/12/2024 12:20

Matrix: Groundwater

COC Reference: 155555

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.67/6.44/10	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 23:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	8.0	9.6	1.9	ng/L	1.91	375-22-4	J
PFPeA*	Not detected	3.8	1.1	ng/L	1.91	2706-90-3	
4:2 FTSA*	Not detected	1.9	0.19	ng/L	1.91	757124-72-4	
PFHxA*	Not detected	1.9	1.1	ng/L	1.91	307-24-4	
PFBS*	4.1	1.9	0.57	ng/L	1.91	375-73-5	
PFHpA*	Not detected	1.9	0.76	ng/L	1.91	375-85-9	
PFPeS*	5.7	1.9	1.7	ng/L	1.91	2706-91-4	
6:2 FTSA*	Not detected	1.9	0.96	ng/L	1.91	27619-97-2	
PFOA*	4.5	1.9	0.76	ng/L	1.91	335-67-1	
PFHxS*	28	1.9	0.96	ng/L	1.91	355-46-4	
PFHxS-LN*	24	1.9	0.96	ng/L	1.91	355-46-4-LN	
PFHxS-BR*	3.4	1.9	0.96	ng/L	1.91	355-46-4-BR	
PFNA*	Not detected	1.9	0.96	ng/L	1.91	375-95-1	
8:2 FTSA*	Not detected	1.9	1.1	ng/L	1.91	39108-34-4	
PFHpS*	20	1.9	0.76	ng/L	1.91	375-92-8	
PFDA*	Not detected	1.9	1.1	ng/L	1.91	335-76-2	
N-MeFOSAA*	Not detected	1.9	0.96	ng/L	1.91	2355-31-9	
EtFOSAA*	Not detected	3.8	0.96	ng/L	1.91	2991-50-6	
PFOS*	2,000	1.9	0.76	ng/L	1.91	1763-23-1	
PFOS-LN*	1,200	1.9	0.76	ng/L	1.91	1763-23-1-LN	
PFOS-BR*	770	1.9	0.76	ng/L	1.91	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.76	ng/L	1.91	2058-94-8	
PFNS*	Not detected	1.9	0.96	ng/L	1.91	68259-12-1	
PFDODA*	Not detected	1.9	0.57	ng/L	1.91	307-55-1	
PFDS*	Not detected	1.9	0.96	ng/L	1.91	335-77-3	
PFTTrDA*	Not detected	1.9	0.76	ng/L	1.91	72629-94-8	
FOSA*	Not detected	1.9	0.76	ng/L	1.91	754-91-6	
PFTeDA*	Not detected	3.8	0.57	ng/L	1.91	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.96	ng/L	1.91	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.96	ng/L	1.91	756426-58-1	
ADONA*	Not detected	1.9	0.57	ng/L	1.91	919005-14-4	
HFPO-DA*	Not detected	9.6	1.9	ng/L	1.91	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.6	7.6	ng/L	1.91	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.6	3.8	ng/L	1.91	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.6	3.8	ng/L	1.91	356-02-5	
PFBSA*	Not detected	1.9	0.57	ng/L	1.91	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S63111.17 (continued)

Sample Tag: OBG MW-22-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/14/24 23:40, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	1,400	1.9	0.76	ng/L	1.91	67584-42-3	
PFHxSA*	Not detected	1.9	0.57	ng/L	1.91	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S63111.18

Sample Tag: OBG MW-14-06122024

Collected Date/Time: 06/12/2024 13:04

Matrix: Groundwater

COC Reference: 155555

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.22/6.48/12	ASTMD7979-19M	06/13/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/15/24 00:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	21	10	2.1	ng/L	2.09	375-22-4	
PFPeA*	6.3	4.2	1.3	ng/L	2.09	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.09	757124-72-4	
PFHxA*	5.0	2.1	1.3	ng/L	2.09	307-24-4	
PFBS*	19	2.1	0.63	ng/L	2.09	375-73-5	
PFHpA*	2.8	2.1	0.84	ng/L	2.09	375-85-9	
PFPeS*	45	2.1	1.9	ng/L	2.09	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.09	27619-97-2	
PFOA*	29	2.1	0.84	ng/L	2.09	335-67-1	
PFHxS*	170	2.1	1.0	ng/L	2.09	355-46-4	
PFHxS-LN*	150	2.1	1.0	ng/L	2.09	355-46-4-LN	
PFHxS-BR*	29	2.1	1.0	ng/L	2.09	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.09	375-95-1	
8:2 FTSA*	Not detected	2.1	1.3	ng/L	2.09	39108-34-4	
PFHpS*	46	2.1	0.84	ng/L	2.09	375-92-8	
PFDA*	Not detected	2.1	1.3	ng/L	2.09	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.09	2355-31-9	
EtFOSAA*	Not detected	4.2	1.0	ng/L	2.09	2991-50-6	
PFOS*	2,100	2.1	0.84	ng/L	2.09	1763-23-1	
PFOS-LN*	940	2.1	0.84	ng/L	2.09	1763-23-1-LN	
PFOS-BR*	1,200	2.1	0.84	ng/L	2.09	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.84	ng/L	2.09	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.09	68259-12-1	
PFDoDA*	Not detected	2.1	0.63	ng/L	2.09	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.09	335-77-3	
PFTTrDA*	Not detected	2.1	0.84	ng/L	2.09	72629-94-8	
FOSA*	Not detected	2.1	0.84	ng/L	2.09	754-91-6	
PFTeDA*	Not detected	4.2	0.63	ng/L	2.09	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.09	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.09	756426-58-1	
ADONA*	Not detected	2.1	0.63	ng/L	2.09	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.09	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.4	ng/L	2.09	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.2	ng/L	2.09	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.2	ng/L	2.09	356-02-5	
PFBSA*	Not detected	2.1	0.63	ng/L	2.09	30334-69-1	
PFECHS*	6,100	2.1	0.84	ng/L	2.09	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S63111.18 (continued)

Sample Tag: OBG MW-14-06122024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/15/24 00:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.1	0.63	ng/L	2.09	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID:S63111

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/12/2024 15:00 Login User: MMC

Attention: Clifford Yantz

Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211

FAX:

Email: Clifford.Yantz@ramboll.com

Selection	Description	Note
-----------	-------------	------

Sample Receiving

- | | | |
|-----|--|--|
| 01. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples are received at 4C +/- 2C Thermometer # IR 4.0 |
| 02. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Received on ice/ cooling process begun |
| 03. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples shipped |
| 04. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples left in 24 hr. drop box |
| 05. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Are there custody seals/tape or is the drop box locked |

Chain of Custody

- | | | |
|-----|--|--|
| 06. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC adequately filled out |
| 07. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC signed and relinquished to the lab |
| 08. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sample tag on bottles match COC |
| 09. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Subcontracting needed? Subcontracted to: |

Preservation

- | | | |
|-----|--|---|
| 10. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Do sample have correct chemical preservation |
| 11. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Completed pH checks on preserved samples? (no VOAs) |
| 12. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Did any samples need to be preserved in the lab? |

Bottle Conditions

- | | | |
|-----|--|---|
| 13. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | All bottles intact |
| 14. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Appropriate analytical bottles are used |
| 15. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Merit bottles used |
| 16. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sufficient sample volume received |
| 17. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples require laboratory filtration |
| 18. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples submitted within holding time |
| 19. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Do water VOC or TOX bottles contain headspace |

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 2

167394

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Kartz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE MI ZIP CODE 48105
 PHONE NO. _____ CELL NO. 313-333-0211 P.O. NO. 1940008845 Task 37
 E-MAIL ADDRESS Kevin.Schneider@Ramboll.com QUOTE NO. _____
Clifford.Kartz@Ramboll.com

CONTACT NAME SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RACER Cedarwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

- Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other _____
 Special Instructions

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PFAS (7/25)							
	DATE	TIME																		
63111.01	6/16/24	1506	086 MW-24-06162024	GW	3	X							X							
.02	6/11/24	1105	086 MW-185-06112024	GW	3	X							X							
.03	6/11/24	1124	086 MW-13-06112024	GW	3	X							X							
.04	6/11/24	1400	086 MW-9-06112024	GW	3	X							X							34 PFAS List
.05	6/11/24	1245	086 MW-29-06112024	GW	3	X							X							
.06	6/11/24	1420	086 MW-23-06112024	GW	3	X							X							
.07	6/11/24	1515	086 MW-125-06112024	GW	3	X							X							
.08	6/11/24	1528	086 MW-28-06112024	GW	3	X							X							
.09	6/11/24	1610	086 MW-175-06112024	GW	3	X							X							
.10	6/12/24	1042	086 MW-21-06122024	GW	3	X							X							
.11	6/12/24	1015	086 MW-26R-06122024	GW	3	X							X							
.12	6/12/24	1055	086 MW-27R-06122024	GW	3	X							X							

RELINQUISHED BY: [Signature] Sampler DATE 6/12/24 TIME 1328
 RECEIVED BY: [Signature] DATE 6/12/24 TIME 1325
 RELINQUISHED BY: [Signature] DATE 6/12/24 TIME 1500
 RECEIVED BY: [Signature] DATE 6/12/24 TIME 1500

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 NOTES: TEMP. ON ARRIVAL 4.0

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Quality Control Report

Report ID: QC-S63111-01
Generated on 06/25/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S63111.01-S63111.18
Project: RACER Coldwater Road
Submitted Date/Time: 06/12/2024 15:00
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

QC Report Sections

- Cover Page (Page 1)
- Analysis Summary (Pages 2-19)
- Prep Batch Summary (Page 20)
- Internal Standards per Lab Sample (Pages 21-38)
- Internal Standards per QC Sample (Pages 39-43)
- Batch QC Results (Pages 44-48)

Report Flag Descriptions

- *: QC result is outside of indicated control limits
- W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S63111.01

Sample Tag: OBG MW-24-06102024

Collected Date/Time: 06/10/2024 15:06

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 17:20	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.02

Sample Tag: OBG MW-18S-06112024

Collected Date/Time: 06/11/2024 11:05

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 18:00	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.03

Sample Tag: OBG MW-13-06112024

Collected Date/Time: 06/11/2024 11:24

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 18:40	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.04

Sample Tag: OBG MW-9-06112024

Collected Date/Time: 06/11/2024 14:00

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 19:00	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.05

Sample Tag: OBG MW-29-06112024

Collected Date/Time: 06/11/2024 12:45

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 19:40	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.06

Sample Tag: OBG MW-23-06112024

Collected Date/Time: 06/11/2024 14:20

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 20:00	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.07

Sample Tag: OBG MW-12S-06112024

Collected Date/Time: 06/11/2024 15:15

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 20:20	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.08

Sample Tag: OBG MW-28-06112024

Collected Date/Time: 06/11/2024 15:28

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 20:40	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.09

Sample Tag: OBG MW-17S-06112024

Collected Date/Time: 06/11/2024 16:10

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 21:00	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.10

Sample Tag: OBG MW-21-06122024

Collected Date/Time: 06/12/2024 10:42

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 21:20	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.11

Sample Tag: OBG MW-26R-06122024

Collected Date/Time: 06/12/2024 10:15

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 21:40	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.12

Sample Tag: OBG MW-27R-06122024

Collected Date/Time: 06/12/2024 10:55

Matrix: Groundwater

COC Reference: 167394

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 22:00	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.13

Sample Tag: MW-DUP-1-06122024

Collected Date/Time: 06/12/2024 00:01

Matrix: Groundwater

COC Reference: 155555

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 22:20	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.14

Sample Tag: MW-DUP-2-06122024

Collected Date/Time: 06/12/2024 00:01

Matrix: Groundwater

COC Reference: 155555

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 22:40	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.15

Sample Tag: OBG MW-11-06122024

Collected Date/Time: 06/12/2024 11:50

Matrix: Groundwater

COC Reference: 155555

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 23:00	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.16

Sample Tag: Field Blank-06122024

Collected Date/Time: 06/12/2024 11:48

Matrix: Liquid

COC Reference: 155555

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 23:20	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.17

Sample Tag: OBG MW-22-06122024

Collected Date/Time: 06/12/2024 12:20

Matrix: Groundwater

COC Reference: 155555

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/14/24 23:40	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S63111.18

Sample Tag: OBG MW-14-06122024

Collected Date/Time: 06/12/2024 13:04

Matrix: Groundwater

COC Reference: 155555

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/15/24 00:00	AK240614	PF240613W2	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF240613W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S63111.01	34 PFAs	ASTMD7979-19M	06/14/24 17:20	AK240614
S63111.02	34 PFAs	ASTMD7979-19M	06/14/24 18:00	AK240614
S63111.03	34 PFAs	ASTMD7979-19M	06/14/24 18:40	AK240614
S63111.04	34 PFAs	ASTMD7979-19M	06/14/24 19:00	AK240614
S63111.05	34 PFAs	ASTMD7979-19M	06/14/24 19:40	AK240614
S63111.06	34 PFAs	ASTMD7979-19M	06/14/24 20:00	AK240614
S63111.07	34 PFAs	ASTMD7979-19M	06/14/24 20:20	AK240614
S63111.08	34 PFAs	ASTMD7979-19M	06/14/24 20:40	AK240614
S63111.09	34 PFAs	ASTMD7979-19M	06/14/24 21:00	AK240614
S63111.10	34 PFAs	ASTMD7979-19M	06/14/24 21:20	AK240614
S63111.11	34 PFAs	ASTMD7979-19M	06/14/24 21:40	AK240614
S63111.12	34 PFAs	ASTMD7979-19M	06/14/24 22:00	AK240614
S63111.13	34 PFAs	ASTMD7979-19M	06/14/24 22:20	AK240614
S63111.14	34 PFAs	ASTMD7979-19M	06/14/24 22:40	AK240614
S63111.15	34 PFAs	ASTMD7979-19M	06/14/24 23:00	AK240614
S63111.16	34 PFAs	ASTMD7979-19M	06/14/24 23:20	AK240614
S63111.17	34 PFAs	ASTMD7979-19M	06/14/24 23:40	AK240614
S63111.18	34 PFAs	ASTMD7979-19M	06/15/24 00:00	AK240614

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.01

Sample Tag: OBG MW-24-06102024

Collected Date/Time: 06/10/2024 15:06

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 17:20, Matrix: WW, Dilution: 1.87

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		90.4	50.0	150.0
M2-6:2FTSA		92.4	50.0	150.0
M2-8:2FTSA		94.8	50.0	150.0
M2PFTeDA		131.2	12.0	218.0
M3PFBS		108.0	50.0	150.0
M3PFHxS		94.6	50.0	150.0
M4PFHpA		108.2	50.0	150.0
M5PFHxA		113.0	50.0	150.0
M5PFPeA		102.8	50.0	150.0
M6PFDA		113.6	50.0	150.0
M7PFUnDA		108.0	50.0	150.0
M8FOSA		103.6	50.0	150.0
M8PFOA		107.0	50.0	150.0
M8PFOS		109.7	50.0	150.0
M9-PFNA		106.9	50.0	150.0
MPFBA		95.1	50.0	150.0
MPFDoDA		105.3	50.0	150.0
d3N-MeFOSAA		98.9	50.0	150.0
d5EtFOSAA		98.9	50.0	150.0
MHFPO-DA		108.3	50.0	150.0
d-N-EtFOSA-M		96.3	50.0	150.0
d-N-MeFOSA-M		111.0	50.0	150.0
d7-N-MeFOSE-M		104.2	50.0	150.0
d9-N-EtFOSE-M		106.1	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.02

Sample Tag: OBG MW-18S-06112024

Collected Date/Time: 06/11/2024 11:05

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 18:00, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		96.5	50.0	150.0
M2-6:2FTSA		90.9	50.0	150.0
M2-8:2FTSA		118.4	50.0	150.0
M2PFTeDA		141.8	12.0	218.0
M3PFBS		118.8	50.0	150.0
M3PFHxS		103.4	50.0	150.0
M4PFHpA		111.5	50.0	150.0
M5PFHxA		111.9	50.0	150.0
M5PFPeA		105.3	50.0	150.0
M6PFDA		125.7	50.0	150.0
M7PFUnDA		112.5	50.0	150.0
M8FOSA		107.1	50.0	150.0
M8PFOA		112.8	50.0	150.0
M8PFOS		113.3	50.0	150.0
M9-PFNA		119.2	50.0	150.0
MPFBA		98.7	50.0	150.0
MPFDoDA		109.2	50.0	150.0
d3N-MeFOSAA		98.3	50.0	150.0
d5EtFOSAA		100.3	50.0	150.0
MHFPO-DA		97.5	50.0	150.0
d-N-EtFOSA-M		113.6	50.0	150.0
d-N-MeFOSA-M		109.6	50.0	150.0
d7-N-MeFOSE-M		104.5	50.0	150.0
d9-N-EtFOSE-M		106.0	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.03

Sample Tag: OBG MW-13-06112024

Collected Date/Time: 06/11/2024 11:24

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 18:40, Matrix: WW, Dilution: 1.94

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		125.7	50.0	150.0
M2-6:2FTSA		100.1	50.0	150.0
M2-8:2FTSA		130.4	50.0	150.0
M2PFTeDA		162.7	12.0	218.0
M3PFBS		112.4	50.0	150.0
M3PFHxS		106.0	50.0	150.0
M4PFHpA		118.9	50.0	150.0
M5PFHxA		115.2	50.0	150.0
M5PFPeA		104.0	50.0	150.0
M6PFDA		116.8	50.0	150.0
M7PFUnDA		124.2	50.0	150.0
M8FOSA		109.0	50.0	150.0
M8PFOA		107.6	50.0	150.0
M8PFOS		116.1	50.0	150.0
M9-PFNA		118.4	50.0	150.0
MPFBA		92.7	50.0	150.0
MPFDoDA		117.1	50.0	150.0
d3N-MeFOSAA		99.9	50.0	150.0
d5EtFOSAA		105.6	50.0	150.0
MHFPO-DA		114.0	50.0	150.0
d-N-EtFOSA-M		109.0	50.0	150.0
d-N-MeFOSA-M		109.9	50.0	150.0
d7-N-MeFOSE-M		107.5	50.0	150.0
d9-N-EtFOSE-M		109.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.04

Sample Tag: OBG MW-9-06112024

Collected Date/Time: 06/11/2024 14:00

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 19:00, Matrix: WW, Dilution: 2.01

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		106.0	50.0	150.0
M2-6:2FTSA		96.7	50.0	150.0
M2-8:2FTSA		126.2	50.0	150.0
M2PFTeDA		151.2	12.0	218.0
M3PFBS		110.5	50.0	150.0
M3PFHxS		106.7	50.0	150.0
M4PFHpA		110.4	50.0	150.0
M5PFHxA		118.6	50.0	150.0
M5PFPeA		106.5	50.0	150.0
M6PFDA		113.9	50.0	150.0
M7PFUnDA		113.1	50.0	150.0
M8FOSA		110.2	50.0	150.0
M8PFOA		105.8	50.0	150.0
M8PFOS		112.4	50.0	150.0
M9-PFNA		111.1	50.0	150.0
MPFBA		99.3	50.0	150.0
MPFDoDA		114.7	50.0	150.0
d3N-MeFOSAA		100.5	50.0	150.0
d5EtFOSAA		116.1	50.0	150.0
MHFPO-DA		104.8	50.0	150.0
d-N-EtFOSA-M		113.4	50.0	150.0
d-N-MeFOSA-M		114.6	50.0	150.0
d7-N-MeFOSE-M		107.3	50.0	150.0
d9-N-EtFOSE-M		108.0	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.05

Sample Tag: OBG MW-29-06112024

Collected Date/Time: 06/11/2024 12:45

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 19:40, Matrix: WW, Dilution: 2.07

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		102.1	50.0	150.0
M2-6:2FTSA		93.3	50.0	150.0
M2-8:2FTSA		118.1	50.0	150.0
M2PFTeDA		135.5	12.0	218.0
M3PFBS		120.5	50.0	150.0
M3PFHxS		113.9	50.0	150.0
M4PFHpA		125.2	50.0	150.0
M5PFHxA		122.5	50.0	150.0
M5PFPeA		113.5	50.0	150.0
M6PFDA		113.0	50.0	150.0
M7PFUnDA		123.3	50.0	150.0
M8FOSA		117.2	50.0	150.0
M8PFOA		115.0	50.0	150.0
M8PFOS		122.0	50.0	150.0
M9-PFNA		117.2	50.0	150.0
MPFBA		107.9	50.0	150.0
MPFDoDA		111.5	50.0	150.0
d3N-MeFOSAA		114.1	50.0	150.0
d5EtFOSAA		105.1	50.0	150.0
MHFPO-DA		109.4	50.0	150.0
d-N-EtFOSA-M		115.8	50.0	150.0
d-N-MeFOSA-M		117.4	50.0	150.0
d7-N-MeFOSE-M		117.1	50.0	150.0
d9-N-EtFOSE-M		115.7	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.06

Sample Tag: OBG MW-23-06112024

Collected Date/Time: 06/11/2024 14:20

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 20:00, Matrix: WW, Dilution: 1.99

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		113.7	50.0	150.0
M2-6:2FTSA		98.5	50.0	150.0
M2-8:2FTSA		122.2	50.0	150.0
M2PFTeDA		155.3	12.0	218.0
M3PFBS		115.0	50.0	150.0
M3PFHxS		122.9	50.0	150.0
M4PFHpA		128.0	50.0	150.0
M5PFHxA		118.1	50.0	150.0
M5PFPeA		111.5	50.0	150.0
M6PFDA		133.1	50.0	150.0
M7PFUnDA		123.7	50.0	150.0
M8FOSA		112.6	50.0	150.0
M8PFOA		112.4	50.0	150.0
M8PFOS		112.3	50.0	150.0
M9-PFNA		111.9	50.0	150.0
MPFBA		101.2	50.0	150.0
MPFDoDA		114.6	50.0	150.0
d3N-MeFOSAA		105.2	50.0	150.0
d5EtFOSAA		101.0	50.0	150.0
MHFPO-DA		110.1	50.0	150.0
d-N-EtFOSA-M		120.3	50.0	150.0
d-N-MeFOSA-M		110.1	50.0	150.0
d7-N-MeFOSE-M		114.4	50.0	150.0
d9-N-EtFOSE-M		111.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.07

Sample Tag: OBG MW-12S-06112024

Collected Date/Time: 06/11/2024 15:15

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 20:20, Matrix: WW, Dilution: 2.05

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		96.2	50.0	150.0
M2-6:2FTSA		88.3	50.0	150.0
M2-8:2FTSA		119.8	50.0	150.0
M2PFTeDA		158.3	12.0	218.0
M3PFBS		120.6	50.0	150.0
M3PFHxS		113.3	50.0	150.0
M4PFHpA		115.4	50.0	150.0
M5PFHxA		117.2	50.0	150.0
M5PFPeA		114.0	50.0	150.0
M6PFDA		131.9	50.0	150.0
M7PFUnDA		120.6	50.0	150.0
M8FOSA		112.7	50.0	150.0
M8PFOA		112.3	50.0	150.0
M8PFOS		121.4	50.0	150.0
M9-PFNA		121.0	50.0	150.0
MPFBA		105.3	50.0	150.0
MPFDoDA		123.2	50.0	150.0
d3N-MeFOSAA		108.9	50.0	150.0
d5EtFOSAA		111.1	50.0	150.0
MHFPO-DA		107.6	50.0	150.0
d-N-EtFOSA-M		118.1	50.0	150.0
d-N-MeFOSA-M		118.5	50.0	150.0
d7-N-MeFOSE-M		111.9	50.0	150.0
d9-N-EtFOSE-M		116.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.08

Sample Tag: OBG MW-28-06112024

Collected Date/Time: 06/11/2024 15:28

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 20:40, Matrix: WW, Dilution: 1.72

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		94.3	50.0	150.0
M2-6:2FTSA		99.1	50.0	150.0
M2-8:2FTSA		116.6	50.0	150.0
M2PFTeDA		145.7	12.0	218.0
M3PFBS		116.8	50.0	150.0
M3PFHxS		123.4	50.0	150.0
M4PFHpA		118.3	50.0	150.0
M5PFHxA		122.6	50.0	150.0
M5PFPeA		115.0	50.0	150.0
M6PFDA		126.0	50.0	150.0
M7PFUnDA		114.9	50.0	150.0
M8FOSA		116.6	50.0	150.0
M8PFOA		109.8	50.0	150.0
M8PFOS		119.3	50.0	150.0
M9-PFNA		111.5	50.0	150.0
MPFBA		111.4	50.0	150.0
MPFDoDA		120.7	50.0	150.0
d3N-MeFOSAA		113.3	50.0	150.0
d5EtFOSAA		110.9	50.0	150.0
MHFPO-DA		99.1	50.0	150.0
d-N-EtFOSA-M		113.6	50.0	150.0
d-N-MeFOSA-M		120.9	50.0	150.0
d7-N-MeFOSE-M		107.9	50.0	150.0
d9-N-EtFOSE-M		125.9	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.09

Sample Tag: OBG MW-17S-06112024

Collected Date/Time: 06/11/2024 16:10

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 21:00, Matrix: WW, Dilution: 1.97

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		92.3	50.0	150.0
M2-6:2FTSA		94.5	50.0	150.0
M2-8:2FTSA		120.5	50.0	150.0
M2PFTeDA		149.6	12.0	218.0
M3PFBS		115.9	50.0	150.0
M3PFHxS		113.9	50.0	150.0
M4PFHpA		110.0	50.0	150.0
M5PFHxA		119.5	50.0	150.0
M5PFPeA		110.1	50.0	150.0
M6PFDA		122.2	50.0	150.0
M7PFUnDA		112.2	50.0	150.0
M8FOSA		113.9	50.0	150.0
M8PFOA		112.3	50.0	150.0
M8PFOS		116.3	50.0	150.0
M9-PFNA		114.8	50.0	150.0
MPFBA		102.2	50.0	150.0
MPFDoDA		122.8	50.0	150.0
d3N-MeFOSAA		94.6	50.0	150.0
d5EtFOSAA		109.4	50.0	150.0
MHFPO-DA		104.9	50.0	150.0
d-N-EtFOSA-M		104.3	50.0	150.0
d-N-MeFOSA-M		111.6	50.0	150.0
d7-N-MeFOSE-M		112.3	50.0	150.0
d9-N-EtFOSE-M		113.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.10

Sample Tag: OBG MW-21-06122024

Collected Date/Time: 06/12/2024 10:42

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 21:20, Matrix: WW, Dilution: 1.98

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		121.8	50.0	150.0
M2-6:2FTSA		107.7	50.0	150.0
M2-8:2FTSA		119.3	50.0	150.0
M2PFTeDA		137.4	12.0	218.0
M3PFBS		121.4	50.0	150.0
M3PFHxS		114.6	50.0	150.0
M4PFHpA		115.4	50.0	150.0
M5PFHxA		123.8	50.0	150.0
M5PFPeA		122.6	50.0	150.0
M6PFDA		118.9	50.0	150.0
M7PFUnDA		115.3	50.0	150.0
M8FOSA		116.6	50.0	150.0
M8PFOA		118.8	50.0	150.0
M8PFOS		121.4	50.0	150.0
M9-PFNA		121.0	50.0	150.0
MPFBA		109.2	50.0	150.0
MPFDoDA		114.4	50.0	150.0
d3N-MeFOSAA		102.9	50.0	150.0
d5EtFOSAA		111.9	50.0	150.0
MHFPO-DA		127.3	50.0	150.0
d-N-EtFOSA-M		112.3	50.0	150.0
d-N-MeFOSA-M		113.8	50.0	150.0
d7-N-MeFOSE-M		114.8	50.0	150.0
d9-N-EtFOSE-M		112.9	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.11

Sample Tag: OBG MW-26R-06122024

Collected Date/Time: 06/12/2024 10:15

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 21:40, Matrix: WW, Dilution: 2.03

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		94.7	50.0	150.0
M2-6:2FTSA		94.0	50.0	150.0
M2-8:2FTSA		126.4	50.0	150.0
M2PFTeDA		181.0	12.0	218.0
M3PFBS		124.4	50.0	150.0
M3PFHxS		117.5	50.0	150.0
M4PFHpA		115.6	50.0	150.0
M5PFHxA		124.0	50.0	150.0
M5PFPeA		110.1	50.0	150.0
M6PFDA		118.3	50.0	150.0
M7PFUnDA		111.5	50.0	150.0
M8FOSA		122.1	50.0	150.0
M8PFOA		124.5	50.0	150.0
M8PFOS		127.7	50.0	150.0
M9-PFNA		114.1	50.0	150.0
MPFBA		102.7	50.0	150.0
MPFDoDA		123.2	50.0	150.0
d3N-MeFOSAA		90.4	50.0	150.0
d5EtFOSAA		110.0	50.0	150.0
MHFPO-DA		106.2	50.0	150.0
d-N-EtFOSA-M		116.8	50.0	150.0
d-N-MeFOSA-M		127.4	50.0	150.0
d7-N-MeFOSE-M		115.7	50.0	150.0
d9-N-EtFOSE-M		117.7	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.12

Sample Tag: OBG MW-27R-06122024

Collected Date/Time: 06/12/2024 10:55

Matrix: Groundwater

COC Reference: 167394

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 22:00, Matrix: WW, Dilution: 1.92

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		95.9	50.0	150.0
M2-6:2FTSA		85.4	50.0	150.0
M2-8:2FTSA		122.0	50.0	150.0
M2PFTeDA		121.4	12.0	218.0
M3PFBS		115.0	50.0	150.0
M3PFHxS		112.6	50.0	150.0
M4PFHpA		107.7	50.0	150.0
M5PFHxA		121.4	50.0	150.0
M5PFPeA		107.8	50.0	150.0
M6PFDA		109.4	50.0	150.0
M7PFUnDA		107.5	50.0	150.0
M8FOSA		109.5	50.0	150.0
M8PFOA		113.9	50.0	150.0
M8PFOS		118.9	50.0	150.0
M9-PFNA		120.8	50.0	150.0
MPFBA		102.3	50.0	150.0
MPFDoDA		109.5	50.0	150.0
d3N-MeFOSAA		92.1	50.0	150.0
d5EtFOSAA		97.5	50.0	150.0
MHFPO-DA		103.4	50.0	150.0
d-N-EtFOSA-M		106.3	50.0	150.0
d-N-MeFOSA-M		104.3	50.0	150.0
d7-N-MeFOSE-M		106.3	50.0	150.0
d9-N-EtFOSE-M		107.4	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.13

Sample Tag: MW-DUP-1-06122024

Collected Date/Time: 06/12/2024 00:01

Matrix: Groundwater

COC Reference: 155555

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 22:20, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		110.9	50.0	150.0
M2-6:2FTSA		96.2	50.0	150.0
M2-8:2FTSA		108.9	50.0	150.0
M2PFTeDA		141.6	12.0	218.0
M3PFBS		119.0	50.0	150.0
M3PFHxS		111.9	50.0	150.0
M4PFHpA		116.7	50.0	150.0
M5PFHxA		121.6	50.0	150.0
M5PFPeA		115.7	50.0	150.0
M6PFDA		128.2	50.0	150.0
M7PFUnDA		119.3	50.0	150.0
M8FOSA		111.9	50.0	150.0
M8PFOA		119.4	50.0	150.0
M8PFOS		136.8	50.0	150.0
M9-PFNA		119.8	50.0	150.0
MPFBA		106.5	50.0	150.0
MPFDoDA		123.4	50.0	150.0
d3N-MeFOSAA		100.1	50.0	150.0
d5EtFOSAA		116.6	50.0	150.0
MHFPO-DA		112.0	50.0	150.0
d-N-EtFOSA-M		113.8	50.0	150.0
d-N-MeFOSA-M		115.7	50.0	150.0
d7-N-MeFOSE-M		106.6	50.0	150.0
d9-N-EtFOSE-M		115.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.14

Sample Tag: MW-DUP-2-06122024

Collected Date/Time: 06/12/2024 00:01

Matrix: Groundwater

COC Reference: 155555

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 22:40, Matrix: WW, Dilution: 2.08

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		98.0	50.0	150.0
M2-6:2FTSA		98.3	50.0	150.0
M2-8:2FTSA		117.2	50.0	150.0
M2PFTeDA		150.9	12.0	218.0
M3PFBS		123.4	50.0	150.0
M3PFHxS		114.1	50.0	150.0
M4PFHpA		119.4	50.0	150.0
M5PFHxA		127.3	50.0	150.0
M5PFPeA		109.5	50.0	150.0
M6PFDA		116.4	50.0	150.0
M7PFUnDA		117.8	50.0	150.0
M8FOSA		119.4	50.0	150.0
M8PFOA		115.9	50.0	150.0
M8PFOS		128.7	50.0	150.0
M9-PFNA		115.0	50.0	150.0
MPFBA		104.6	50.0	150.0
MPFDoDA		118.2	50.0	150.0
d3N-MeFOSAA		108.8	50.0	150.0
d5EtFOSAA		117.5	50.0	150.0
MHFPO-DA		116.6	50.0	150.0
d-N-EtFOSA-M		120.9	50.0	150.0
d-N-MeFOSA-M		120.7	50.0	150.0
d7-N-MeFOSE-M		114.2	50.0	150.0
d9-N-EtFOSE-M		116.7	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.15

Sample Tag: OBG MW-11-06122024

Collected Date/Time: 06/12/2024 11:50

Matrix: Groundwater

COC Reference: 155555

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 23:00, Matrix: WW, Dilution: 1.98

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		100.0	50.0	150.0
M2-6:2FTSA		80.0	50.0	150.0
M2-8:2FTSA		118.8	50.0	150.0
M2PFTeDA		150.5	12.0	218.0
M3PFBS		119.3	50.0	150.0
M3PFHxS		113.3	50.0	150.0
M4PFHpA		124.9	50.0	150.0
M5PFHxA		129.1	50.0	150.0
M5PFPeA		117.2	50.0	150.0
M6PFDA		116.6	50.0	150.0
M7PFUnDA		122.4	50.0	150.0
M8FOSA		116.5	50.0	150.0
M8PFOA		117.8	50.0	150.0
M8PFOS		134.1	50.0	150.0
M9-PFNA		120.1	50.0	150.0
MPFBA		101.1	50.0	150.0
MPFDoDA		111.2	50.0	150.0
d3N-MeFOSAA		97.2	50.0	150.0
d5EtFOSAA		111.5	50.0	150.0
MHFPO-DA		117.7	50.0	150.0
d-N-EtFOSA-M		110.6	50.0	150.0
d-N-MeFOSA-M		115.5	50.0	150.0
d7-N-MeFOSE-M		110.5	50.0	150.0
d9-N-EtFOSE-M		118.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.16

Sample Tag: Field Blank-06122024

Collected Date/Time: 06/12/2024 11:48

Matrix: Liquid

COC Reference: 155555

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 23:20, Matrix: WW, Dilution: 1.96

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		109.8	50.0	150.0
M2-6:2FTSA		102.6	50.0	150.0
M2-8:2FTSA		121.5	50.0	150.0
M2PFTeDA		161.1	12.0	218.0
M3PFBS		114.3	50.0	150.0
M3PFHxS		111.9	50.0	150.0
M4PFHpA		128.9	50.0	150.0
M5PFHxA		121.6	50.0	150.0
M5PFPeA		112.5	50.0	150.0
M6PFDA		126.9	50.0	150.0
M7PFUnDA		113.0	50.0	150.0
M8FOSA		115.6	50.0	150.0
M8PFOA		123.5	50.0	150.0
M8PFOS		112.6	50.0	150.0
M9-PFNA		121.1	50.0	150.0
MPFBA		111.8	50.0	150.0
MPFDoDA		122.5	50.0	150.0
d3N-MeFOSAA		113.0	50.0	150.0
d5EtFOSAA		109.9	50.0	150.0
MHFPO-DA		107.6	50.0	150.0
d-N-EtFOSA-M		114.7	50.0	150.0
d-N-MeFOSA-M		107.2	50.0	150.0
d7-N-MeFOSE-M		109.5	50.0	150.0
d9-N-EtFOSE-M		110.0	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.17

Sample Tag: OBG MW-22-06122024

Collected Date/Time: 06/12/2024 12:20

Matrix: Groundwater

COC Reference: 155555

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/14/2024 23:40, Matrix: WW, Dilution: 1.91

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		108.9	50.0	150.0
M2-6:2FTSA		98.1	50.0	150.0
M2-8:2FTSA		108.6	50.0	150.0
M2PFTeDA		172.9	12.0	218.0
M3PFBS		114.7	50.0	150.0
M3PFHxS		109.9	50.0	150.0
M4PFHpA		111.0	50.0	150.0
M5PFHxA		118.2	50.0	150.0
M5PFPeA		114.0	50.0	150.0
M6PFDA		116.0	50.0	150.0
M7PFUnDA		124.4	50.0	150.0
M8FOSA		116.5	50.0	150.0
M8PFOA		126.5	50.0	150.0
M8PFOS		120.6	50.0	150.0
M9-PFNA		116.1	50.0	150.0
MPFBA		105.0	50.0	150.0
MPFDoDA		127.5	50.0	150.0
d3N-MeFOSAA		97.5	50.0	150.0
d5EtFOSAA		107.8	50.0	150.0
MHFPO-DA		107.8	50.0	150.0
d-N-EtFOSA-M		105.3	50.0	150.0
d-N-MeFOSA-M		115.2	50.0	150.0
d7-N-MeFOSE-M		113.6	50.0	150.0
d9-N-EtFOSE-M		112.5	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63111.18

Sample Tag: OBG MW-14-06122024

Collected Date/Time: 06/12/2024 13:04

Matrix: Groundwater

COC Reference: 155555

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240614, Run Date: 06/15/2024 00:00, Matrix: WW, Dilution: 2.09

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		98.7	50.0	150.0
M2-6:2FTSA		101.2	50.0	150.0
M2-8:2FTSA		127.7	50.0	150.0
M2PFTeDA		164.2	12.0	218.0
M3PFBS		117.6	50.0	150.0
M3PFHxS		127.3	50.0	150.0
M4PFHpA		124.4	50.0	150.0
M5PFHxA		118.1	50.0	150.0
M5PFPeA		113.4	50.0	150.0
M6PFDA		122.4	50.0	150.0
M7PFUnDA		117.6	50.0	150.0
M8FOSA		120.9	50.0	150.0
M8PFOA		121.6	50.0	150.0
M8PFOS		115.0	50.0	150.0
M9-PFNA		118.2	50.0	150.0
MPFBA		104.0	50.0	150.0
MPFDoDA		124.6	50.0	150.0
d3N-MeFOSAA		117.2	50.0	150.0
d5EtFOSAA		111.7	50.0	150.0
MHFPO-DA		109.3	50.0	150.0
d-N-EtFOSA-M		116.4	50.0	150.0
d-N-MeFOSA-M		122.4	50.0	150.0
d7-N-MeFOSE-M		119.2	50.0	150.0
d9-N-EtFOSE-M		117.9	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF240613W2

QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240614.BLK240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:40, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		114.4	50.0	150.0
M2-6:2FTSA		95.7	50.0	150.0
M2-8:2FTSA		119.2	50.0	150.0
M2PFTeDA		139.4	12.0	218.0
M3PFBS		105.3	50.0	150.0
M3PFHxS		107.1	50.0	150.0
M4PFHpA		112.0	50.0	150.0
M5PFHxA		113.6	50.0	150.0
M5PFPeA		108.3	50.0	150.0
M6PFDA		108.2	50.0	150.0
M7PFUnDA		109.0	50.0	150.0
M8FOSA		106.1	50.0	150.0
M8PFOA		106.6	50.0	150.0
M8PFOS		117.4	50.0	150.0
M9-PFNA		118.4	50.0	150.0
MPFBA		107.8	50.0	150.0
MPFDoDA		107.4	50.0	150.0
d3N-MeFOSAA		94.9	50.0	150.0
d5EtFOSAA		117.4	50.0	150.0
MHFPO-DA		96.2	50.0	150.0
d-N-EtFOSA-M		97.2	50.0	150.0
d-N-MeFOSA-M		96.4	50.0	150.0
d7-N-MeFOSE-M		102.4	50.0	150.0
d9-N-EtFOSE-M		106.4	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK240614.LCS240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:00, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		100.5	50.0	150.0
M2-6:2FTSA		97.4	50.0	150.0
M2-8:2FTSA		109.9	50.0	150.0
M2PFTeDA		119.4	12.0	218.0
M3PFBS		108.7	50.0	150.0
M3PFHxS		105.7	50.0	150.0
M4PFHpA		108.7	50.0	150.0
M5PFHxA		111.7	50.0	150.0
M5PFPeA		101.8	50.0	150.0
M6PFDA		98.1	50.0	150.0
M7PFUnDA		103.9	50.0	150.0
M8FOSA		96.9	50.0	150.0
M8PFOA		108.5	50.0	150.0
M8PFOS		96.6	50.0	150.0
M9-PFNA		107.3	50.0	150.0
MPFBA		101.1	50.0	150.0
MPFDoDA		106.2	50.0	150.0
d3N-MeFOSAA		102.9	50.0	150.0
d5EtFOSAA		108.3	50.0	150.0
MHFPO-DA		89.5	50.0	150.0
d-N-EtFOSA-M		96.0	50.0	150.0
d-N-MeFOSA-M		97.6	50.0	150.0
d7-N-MeFOSE-M		92.1	50.0	150.0
d9-N-EtFOSE-M		98.6	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240614.LCSD240613B, Parent Sample ID: AK240614.LCS240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		111.4	50.0	150.0
M2-6:2FTSA		90.2	50.0	150.0
M2-8:2FTSA		123.7	50.0	150.0
M2PFTeDA		131.9	12.0	218.0
M3PFBS		107.4	50.0	150.0
M3PFHxS		100.4	50.0	150.0
M4PFHpA		114.0	50.0	150.0
M5PFHxA		114.8	50.0	150.0
M5PFPeA		107.7	50.0	150.0
M6PFDA		108.8	50.0	150.0
M7PFUnDA		115.1	50.0	150.0
M8FOSA		106.2	50.0	150.0
M8PFOA		109.7	50.0	150.0
M8PFOS		111.0	50.0	150.0
M9-PFNA		113.4	50.0	150.0
MPFBA		106.4	50.0	150.0
MPFDoDA		106.9	50.0	150.0
d3N-MeFOSAA		96.2	50.0	150.0
d5EtFOSAA		102.2	50.0	150.0
MHFPO-DA		104.3	50.0	150.0
d-N-EtFOSA-M		105.8	50.0	150.0
d-N-MeFOSA-M		100.7	50.0	150.0
d7-N-MeFOSE-M		105.3	50.0	150.0
d9-N-EtFOSE-M		107.4	50.0	150.0

QC Report - Internal Standards per QC Sample

Matrix Spike (MS)

Lab Sample ID: AK240614.6311102M, Parent Sample ID: S63111.02

Run in Batch: AK240614, Run Date: 06/14/2024 18:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		93.2	50.0	150.0
M2-6:2FTSA		88.6	50.0	150.0
M2-8:2FTSA		110.8	50.0	150.0
M2PFTeDA		158.3	12.0	218.0
M3PFBS		117.9	50.0	150.0
M3PFHxS		111.0	50.0	150.0
M4PFHpA		126.8	50.0	150.0
M5PFHxA		119.0	50.0	150.0
M5PFPeA		111.2	50.0	150.0
M6PFDA		119.9	50.0	150.0
M7PFUnDA		109.8	50.0	150.0
M8FOSA		114.4	50.0	150.0
M8PFOA		127.6	50.0	150.0
M8PFOS		121.9	50.0	150.0
M9-PFNA		109.1	50.0	150.0
MPFBA		96.0	50.0	150.0
MPFDoDA		115.2	50.0	150.0
d3N-MeFOSAA		102.7	50.0	150.0
d5EtFOSAA		102.2	50.0	150.0
MHFPO-DA		106.7	50.0	150.0
d-N-EtFOSA-M		119.1	50.0	150.0
d-N-MeFOSA-M		115.3	50.0	150.0
d7-N-MeFOSE-M		111.7	50.0	150.0
d9-N-EtFOSE-M		118.7	50.0	150.0

QC Report - Internal Standards per QC Sample

Duplicate (DUP)

Lab Sample ID: AK240614.6311104D, Parent Sample ID: S63111.04

Run in Batch: AK240614, Run Date: 06/14/2024 19:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 2.01

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		107.3	50.0	150.0
M2-6:2FTSA		88.3	50.0	150.0
M2-8:2FTSA		114.6	50.0	150.0
M2PFTeDA		138.1	12.0	218.0
M3PFBS		113.3	50.0	150.0
M3PFHxS		105.2	50.0	150.0
M4PFHpA		109.5	50.0	150.0
M5PFHxA		113.4	50.0	150.0
M5PFPeA		106.9	50.0	150.0
M6PFDA		115.4	50.0	150.0
M7PFUnDA		114.8	50.0	150.0
M8FOSA		116.5	50.0	150.0
M8PFOA		115.1	50.0	150.0
M8PFOS		117.9	50.0	150.0
M9-PFNA		104.2	50.0	150.0
MPFBA		99.0	50.0	150.0
MPFDoDA		110.5	50.0	150.0
d3N-MeFOSAA		97.3	50.0	150.0
d5EtFOSAA		104.0	50.0	150.0
MHFPO-DA		97.2	50.0	150.0
d-N-EtFOSA-M		107.9	50.0	150.0
d-N-MeFOSA-M		115.3	50.0	150.0
d7-N-MeFOSE-M		107.7	50.0	150.0
d9-N-EtFOSE-M		103.7	50.0	150.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240613W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240614.BLK240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:40, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFNA		ND	2	ng/l
PFECHS		ND	2	ng/l
PFHpS		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFDA		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS		ND	2	ng/l
PFOS-LN		ND	2	ng/l
PFUnDA		ND	2	ng/l
PFHxSA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTTeDA		ND	4	ng/l
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: AK240614.BLK240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:40, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
NEtFOSE		ND	4	ng/l
NEtFOSAM		ND	2	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK240614.LCS240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:00, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		113.2	70.0	130.0
PFMPA		99.4	70.0	130.0
FPrPA (3:3 FTCA)		111.2	70.0	130.0
PFPPrS		94.2	70.0	130.0
PFPeA		104.8	70.0	130.0
PFMBA		101.0	70.0	130.0
4:2 FTSA		107.2	70.0	130.0
NFDHA		124.2	70.0	130.0
PFHxA		106.0	70.0	130.0
PFBS		98.8	70.0	130.0
HFPO-DA		95.6	70.0	130.0
FPePA (5:3 FTCA)		95.0	70.0	130.0
PFEESA		102.2	70.0	130.0
PFHpA		104.0	70.0	130.0
PFPeS		100.0	70.0	130.0
ADONA		99.2	70.0	130.0
6:2 FTSA		99.2	70.0	130.0
PFBSA		109.0	70.0	130.0
PFOA		90.4	70.0	130.0
PFHxS		93.4	70.0	130.0
FHpPA (7:3 FTCA)		93.0	70.0	130.0
PFNA		97.2	70.0	130.0
PFECHS		113.6	70.0	130.0
PFHpS		108.6	70.0	130.0
8:2 FTSA		92.8	70.0	130.0
PFDA		116.4	70.0	130.0
N-MeFOSAA		112.0	70.0	130.0
EtFOSAA		102.8	70.0	130.0
PFOS		127.6	70.0	130.0
PFUnDA		120.4	70.0	130.0
PFHxSA		94.4	70.0	130.0
9CL-PF3ONS		126.4	70.0	130.0
PFNS		122.4	70.0	130.0
PFDoDA		97.2	70.0	130.0
PFDS		128.4	70.0	130.0
PFTTrDA		100.0	70.0	130.0
11CL-PF3OUdS		113.2	70.0	130.0
FOSA		105.6	70.0	130.0
PFTeDA		97.2	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK240614.LCS240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:00, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFDOS	*	133.4	70.0	130.0
NMeFOSE		119.4	70.0	130.0
NMeFOSAM		94.4	70.0	130.0
NEtFOSE		111.8	70.0	130.0
NEtFOSAM		92.2	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240614.LCSD240613B, Parent Sample ID: AK240614.LCS240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		112.8	70.0	130.0	0.4	30.0
PFMPA		87.6	70.0	130.0	12.6	30.0
FPrPA (3:3 FTCA)		118.2	70.0	130.0	6.1	30.0
PFPPrS		96.8	70.0	130.0	2.7	30.0
PFPeA		101.8	70.0	130.0	2.9	30.0
PFMBA		92.4	70.0	130.0	8.9	30.0
4:2 FTSA		88.2	70.0	130.0	19.4	30.0
NFDHA		107.6	70.0	130.0	14.3	30.0
PFHxA		100.6	70.0	130.0	5.2	30.0
PFBS		103.6	70.0	130.0	4.7	30.0
HFPO-DA		80.2	70.0	130.0	17.5	30.0
FPePA (5:3 FTCA)		111.2	70.0	130.0	15.7	30.0
PFEESA		91.0	70.0	130.0	11.6	30.0
PFHpA		115.6	70.0	130.0	10.6	30.0
PFPeS		101.2	70.0	130.0	1.2	30.0
ADONA		104.0	70.0	130.0	4.7	30.0
6:2 FTSA		116.8	70.0	130.0	16.3	30.0
PFBSA		104.8	70.0	130.0	3.9	30.0
PFOA		91.4	70.0	130.0	1.1	30.0
PFHxS		108.0	70.0	130.0	14.5	30.0
FHpPA (7:3 FTCA)		96.6	70.0	130.0	3.8	30.0
PFNA		99.8	70.0	130.0	2.6	30.0
PFECHS		100.4	70.0	130.0	12.3	30.0
PFHpS		118.4	70.0	130.0	8.6	30.0
8:2 FTSA		91.0	70.0	130.0	2.0	30.0
PFDA		112.4	70.0	130.0	3.5	30.0
N-MeFOSAA		113.6	70.0	130.0	1.4	30.0
EtFOSAA		118.6	70.0	130.0	14.3	30.0
PFOS		105.4	70.0	130.0	19.1	30.0
PFUnDA		110.0	70.0	130.0	9.0	30.0
PFHxSA		93.2	70.0	130.0	1.3	30.0
9CL-PF3ONS		109.4	70.0	130.0	14.4	30.0
PFNS		107.0	70.0	130.0	13.4	30.0
PFDODA		99.6	70.0	130.0	2.4	30.0
PFDS		111.8	70.0	130.0	13.8	30.0
PFTTrDA		110.8	70.0	130.0	10.2	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK240614.LCSD240613B, Parent Sample ID: AK240614.LCS240613B

Run in Batch: AK240614, Run Date: 06/14/2024 16:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
11CL-PF3OUdS		102.4	70.0	130.0	10.0	30.0
FOSA		103.8	70.0	130.0	1.7	30.0
PFTeDA		92.2	70.0	130.0	5.3	30.0
PFDOS		114.0	70.0	130.0	15.7	30.0
NMeFOSE		105.2	70.0	130.0	12.6	30.0
NMeFOSAM		97.4	70.0	130.0	3.1	30.0
NEtFOSE		94.4	70.0	130.0	16.9	30.0
NEtFOSAM		87.0	70.0	130.0	5.8	30.0

Matrix Spike (MS)

Lab Sample ID: AK240614.6311102M, Parent Sample ID: S63111.02

Run in Batch: AK240614, Run Date: 06/14/2024 18:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
PFBA		110.0	70.0	130.0
PFPeA		100.0	70.0	130.0
4:2 FTSA		100.0	70.0	130.0
PFHxA		98.0	70.0	130.0
PFBS		99.2	70.0	130.0
PFHpA		88.0	70.0	130.0
PFPeS		99.0	70.0	130.0
6:2 FTSA		110.0	70.0	130.0
PFOA		80.0	70.0	130.0
PFHxS		95.8	70.0	130.0
PFNA		120.0	70.0	130.0
8:2 FTSA		94.0	70.0	130.0
PFHpS		110.0	70.0	130.0
PFDA		100.0	70.0	130.0
N-MeFOSAA		100.0	70.0	130.0
EtFOSAA		120.0	70.0	130.0
PFOS		110.0	70.0	130.0
PFUnDA		110.0	70.0	130.0
PFNS		110.0	70.0	130.0
PFDoDA		110.0	70.0	130.0
PFDS		110.0	70.0	130.0
PFTrDA		110.0	70.0	130.0
FOSA		96.0	70.0	130.0
PFTeDA		94.0	70.0	130.0
11CL-PF3OUdS		99.0	70.0	130.0
9CL-PF3ONS		110.0	70.0	130.0
ADONA		91.0	70.0	130.0
HFPO-DA		93.0	70.0	130.0
FHpPA (7:3 FTCA)		92.0	70.0	130.0
FPePA (5:3 FTCA)		110.0	70.0	130.0
FPrPA (3:3 FTCA)		100.0	70.0	130.0
PFBSA		100.0	70.0	130.0
PFECHS		102.3	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240613W2 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Matrix Spike (MS) (continued)

Lab Sample ID: AK240614.6311102M, Parent Sample ID: S63111.02

Run in Batch: AK240614, Run Date: 06/14/2024 18:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 2

Analyte	Flags	% Rec	LCL	UCL
PFHxSA		92.0	70.0	130.0

Duplicate (DUP)

Lab Sample ID: AK240614.6311104D, Parent Sample ID: S63111.04

Run in Batch: AK240614, Run Date: 06/14/2024 19:20, Prep Date: 06/13/2024, Matrix: WW, Dilution: 2.01

Analyte	Flags	RPD	RPD CL
PFBA		NC	30.0
PFPeA		NC	30.0
4:2 FTSA		NC	30.0
PFHxA		NC	30.0
PFBS	J	5.7	30.0
PFHpA		NC	30.0
PFPeS		NC	30.0
6:2 FTSA		NC	30.0
PFOA	*	200.0	30.0
PFHxS		10.5	30.0
PFHxS-LN		8.7	30.0
PFHxS-BR		NC	30.0
PFNA		NC	30.0
8:2 FTSA		NC	30.0
PFHpS		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		11.3	30.0
PFOS-LN		NC	30.0
PFOS-BR		NC	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDoDA		NC	30.0
PFDS		NC	30.0
PFTTrDA		NC	30.0
FOSA		NC	30.0
PFTeDA		NC	30.0
11CL-PF3OUdS		NC	30.0
9CL-PF3ONS		NC	30.0
ADONA		NC	30.0
HFPO-DA		NC	30.0
FHpPA (7:3 FTCA)		NC	30.0
FPePA (5:3 FTCA)		NC	30.0
FPrPA (3:3 FTCA)		NC	30.0
PFBSA		NC	30.0
PFECHS		5.9	30.0
PFHxSA		NC	30.0



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 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 2 167394

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Kartz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE MI ZIP CODE 48105
 PHONE NO. _____ CELL NO. 313-333-0211 P.O. NO. 1940008845 Task 37
 E-MAIL ADDRESS Kevin.Schneider@Ramboll.com QUOTE NO. _____
Clifford.Kartz@Ramboll.com

CONTACT NAME SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RACER Cedarwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other _____
 Special Instructions

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PFAS (7175)							
	DATE	TIME																		
63111.01	6/16/24	1506	086 MW-24-06162024	GW	3	X							X							
.02	6/11/24	1105	086 MW-185-06112024	GW	3	X							X							
.03	6/11/24	1124	086 MW-13-06112024	GW	3	X							X							
.04	6/11/24	1400	086 MW-9-06112024	GW	3	X							X							34 PFAS List
.05	6/11/24	1245	086 MW-29-06112024	GW	3	X							X							
.06	6/11/24	1420	086 MW-23-06112024	GW	3	X							X							
.07	6/11/24	1515	086 MW-125-06112024	GW	3	X							X							
.08	6/11/24	1528	086 MW-28-06112024	GW	3	X							X							
.09	6/11/24	1610	086 MW-175-06112024	GW	3	X							X							
.10	6/12/24	1042	086 MW-21-06122024	GW	3	X							X							
.11	6/12/24	1015	086 MW-26R-06122024	GW	3	X							X							
.12	6/12/24	1055	086 MW-27R-06122024	GW	3	X							X							

RELINQUISHED BY: [Signature] Sampler DATE 6/12/24 TIME 1328
 RECEIVED BY: [Signature] DATE 6/12/24 TIME 1325
 RELINQUISHED BY: [Signature] DATE 6/12/24 TIME 15:00
 RECEIVED BY: [Signature] DATE 6/12/24 TIME 1500

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 NOTES: TEMP. ON ARRIVAL 4.0



Analytical Laboratory Report

Report ID: S62917.01(01)
Generated on 06/25/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Additional Contacts: Kevin Schneider

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Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S62917.01-S62917.04
Project: RACER Coldwater Road
Collected Date(s): 06/05/2024 - 06/06/2024
Submitted Date/Time: 06/06/2024 17:00
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

Table of Contents

- Cover Page (Page 1)
- General Report Notes (Page 2)
- Report Narrative (Page 2)
- Laboratory Accreditations (Page 3)
- Qualifier Descriptions (Page 3)
- Glossary of Abbreviations (Page 3)
- Method Summary (Page 4)
- Parameter Summary (Page 5)
- Sample Summary (Page 6)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Starred (*) analytes are not NY NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.

For a specific list of accredited analytes, please feel free to contact the laboratory or visit <https://www.meritlabs.com/certifications>.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
PFBSA	Perfluorobutanesulfonamide	30334-69-1
PFECHS	Perfluoro-4-ethylcyclohexanesulfonate	67584-42-3
PFHxSA	Perfluorohexanesulfonamide	41997-13-1



Analytical Laboratory Report

Sample Summary (4 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S62917.01	B-27D-06052024	Groundwater	06/05/24 12:30
S62917.02	B-9-06062024	Groundwater	06/06/24 10:18
S62917.03	B-7-06062024	Groundwater	06/06/24 11:25
S62917.04	Field Blank-06062024	Water	06/06/24 11:20



Analytical Laboratory Report

Lab Sample ID: S62917.01

Sample Tag: B-27D-06052024

Collected Date/Time: 06/05/2024 12:30

Matrix: Groundwater

COC Reference: 155554

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.54/6.44/10	ASTMD7979-19M	06/07/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 18:18, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.8	2.0	ng/L	1.96	375-22-4	
PFPeA*	Not detected	3.9	1.2	ng/L	1.96	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.96	757124-72-4	
PFHxA*	Not detected	2.0	1.2	ng/L	1.96	307-24-4	
PFBS*	Not detected	2.0	0.59	ng/L	1.96	375-73-5	
PFHpA*	Not detected	2.0	0.78	ng/L	1.96	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.96	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.98	ng/L	1.96	27619-97-2	
PFOA*	Not detected	2.0	0.78	ng/L	1.96	335-67-1	
PFHxS*	Not detected	2.0	0.98	ng/L	1.96	355-46-4	
PFHxS-LN*	Not detected	2.0	0.98	ng/L	1.96	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	0.98	ng/L	1.96	355-46-4-BR	
PFNA*	Not detected	2.0	0.98	ng/L	1.96	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.96	39108-34-4	
PFHpS*	Not detected	2.0	0.78	ng/L	1.96	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.96	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.98	ng/L	1.96	2355-31-9	
EtFOSAA*	Not detected	3.9	0.98	ng/L	1.96	2991-50-6	
PFOS*	Not detected	2.0	0.78	ng/L	1.96	1763-23-1	
PFOS-LN*	Not detected	2.0	0.78	ng/L	1.96	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	0.78	ng/L	1.96	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.78	ng/L	1.96	2058-94-8	
PFNS*	Not detected	2.0	0.98	ng/L	1.96	68259-12-1	
PFDODA*	Not detected	2.0	0.59	ng/L	1.96	307-55-1	
PFDS*	Not detected	2.0	0.98	ng/L	1.96	335-77-3	
PFTTrDA*	Not detected	2.0	0.78	ng/L	1.96	72629-94-8	
FOSA*	Not detected	2.0	0.78	ng/L	1.96	754-91-6	
PFTeDA*	Not detected	3.9	0.59	ng/L	1.96	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.98	ng/L	1.96	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.98	ng/L	1.96	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.96	919005-14-4	
HFPO-DA*	Not detected	9.8	2.0	ng/L	1.96	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.8	7.8	ng/L	1.96	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.96	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.96	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.96	30334-69-1	
PFCHS*	Not detected	2.0	0.78	ng/L	1.96	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S62917.01 (continued)

Sample Tag: B-27D-06052024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 18:18, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.59	ng/L	1.96	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S62917.02

Sample Tag: B-9-06062024

Collected Date/Time: 06/06/2024 10:18

Matrix: Groundwater

COC Reference: 155554

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.79/3.39/11	ASTMD7979-19M	06/07/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 18:38, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	12	6.6	1.3	ng/L	1.31	375-22-4	
PFPeA*	1.9	2.6	0.79	ng/L	1.31	2706-90-3	J
4:2 FTSA*	Not detected	1.3	0.13	ng/L	1.31	757124-72-4	
PFHxA*	4.6	1.3	0.79	ng/L	1.31	307-24-4	
PFBS*	2.1	1.3	0.39	ng/L	1.31	375-73-5	
PFHpA*	1.0	1.3	0.52	ng/L	1.31	375-85-9	J
PFPeS*	Not detected	1.3	1.2	ng/L	1.31	2706-91-4	
6:2 FTSA*	Not detected	1.3	0.66	ng/L	1.31	27619-97-2	
PFOA*	5.8	1.3	0.52	ng/L	1.31	335-67-1	
PFHxS*	3.8	1.3	0.66	ng/L	1.31	355-46-4	
PFHxS-LN*	3.0	1.3	0.66	ng/L	1.31	355-46-4-LN	
PFHxS-BR*	0.67	1.3	0.66	ng/L	1.31	355-46-4-BR	J
PFNA*	Not detected	1.3	0.66	ng/L	1.31	375-95-1	
8:2 FTSA*	Not detected	1.3	0.79	ng/L	1.31	39108-34-4	
PFHpS*	0.75	1.3	0.52	ng/L	1.31	375-92-8	J
PFDA*	Not detected	1.3	0.79	ng/L	1.31	335-76-2	
N-MeFOSAA*	Not detected	1.3	0.66	ng/L	1.31	2355-31-9	
EtFOSAA*	Not detected	2.6	0.66	ng/L	1.31	2991-50-6	
PFOS*	18	1.3	0.52	ng/L	1.31	1763-23-1	
PFOS-LN*	1.4	1.3	0.52	ng/L	1.31	1763-23-1-LN	
PFOS-BR*	16	1.3	0.52	ng/L	1.31	1763-23-1-BR	
PFUnDA*	Not detected	1.3	0.52	ng/L	1.31	2058-94-8	
PFNS*	Not detected	1.3	0.66	ng/L	1.31	68259-12-1	
PFDODA*	Not detected	1.3	0.39	ng/L	1.31	307-55-1	
PFDS*	Not detected	1.3	0.66	ng/L	1.31	335-77-3	
PFTTrDA*	Not detected	1.3	0.52	ng/L	1.31	72629-94-8	
FOSA*	Not detected	1.3	0.52	ng/L	1.31	754-91-6	
PFTeDA*	Not detected	2.6	0.39	ng/L	1.31	376-06-7	
11Cl-PF3OUdS*	Not detected	1.3	0.66	ng/L	1.31	763051-92-9	
9Cl-PF3ONS*	Not detected	1.3	0.66	ng/L	1.31	756426-58-1	
ADONA*	Not detected	1.3	0.39	ng/L	1.31	919005-14-4	
HFPO-DA*	Not detected	6.6	1.3	ng/L	1.31	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	6.6	5.2	ng/L	1.31	812-70-4	
FPePA (5:3 FTCA)*	Not detected	6.6	2.6	ng/L	1.31	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	6.6	2.6	ng/L	1.31	356-02-5	
PFBSA*	Not detected	1.3	0.39	ng/L	1.31	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S62917.02 (continued)

Sample Tag: B-9-06062024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 18:38, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	120	1.3	0.52	ng/L	1.31	67584-42-3	
PFHxSA*	Not detected	1.3	0.39	ng/L	1.31	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S62917.03

Sample Tag: B-7-06062024

Collected Date/Time: 06/06/2024 11:25

Matrix: Groundwater

COC Reference: 155554

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.56/6.44/10	ASTMD7979-19M	06/07/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 18:58, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	10	9.8	2.0	ng/L	1.95	375-22-4	
PFPeA*	2.0	3.9	1.2	ng/L	1.95	2706-90-3	J
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.95	757124-72-4	
PFHxA*	2.5	2.0	1.2	ng/L	1.95	307-24-4	
PFBS*	3.5	2.0	0.59	ng/L	1.95	375-73-5	
PFHpA*	0.86	2.0	0.78	ng/L	1.95	375-85-9	J
PFPeS*	5.3	2.0	1.8	ng/L	1.95	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.98	ng/L	1.95	27619-97-2	
PFOA*	5.2	2.0	0.78	ng/L	1.95	335-67-1	
PFHxS*	12	2.0	0.98	ng/L	1.95	355-46-4	
PFHxS-LN*	9.7	2.0	0.98	ng/L	1.95	355-46-4-LN	
PFHxS-BR*	2.3	2.0	0.98	ng/L	1.95	355-46-4-BR	
PFNA*	Not detected	2.0	0.98	ng/L	1.95	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.95	39108-34-4	
PFHpS*	2.0	2.0	0.78	ng/L	1.95	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.95	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.98	ng/L	1.95	2355-31-9	
EtFOSAA*	Not detected	3.9	0.98	ng/L	1.95	2991-50-6	
PFOS*	120	2.0	0.78	ng/L	1.95	1763-23-1	
PFOS-LN*	71	2.0	0.78	ng/L	1.95	1763-23-1-LN	
PFOS-BR*	46	2.0	0.78	ng/L	1.95	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.78	ng/L	1.95	2058-94-8	
PFNS*	Not detected	2.0	0.98	ng/L	1.95	68259-12-1	
PFDODA*	Not detected	2.0	0.59	ng/L	1.95	307-55-1	
PFDS*	Not detected	2.0	0.98	ng/L	1.95	335-77-3	
PFTTrDA*	Not detected	2.0	0.78	ng/L	1.95	72629-94-8	
FOSA*	Not detected	2.0	0.78	ng/L	1.95	754-91-6	
PFTeDA*	Not detected	3.9	0.59	ng/L	1.95	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.98	ng/L	1.95	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.98	ng/L	1.95	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.95	919005-14-4	
HFPO-DA*	Not detected	9.8	2.0	ng/L	1.95	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.8	7.8	ng/L	1.95	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.95	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.8	3.9	ng/L	1.95	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.95	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S62917.03 (continued)

Sample Tag: B-7-06062024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 18:58, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	260	2.0	0.78	ng/L	1.95	67584-42-3	
PFHxSA*	Not detected	2.0	0.59	ng/L	1.95	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S62917.04

Sample Tag: Field Blank-06062024

Collected Date/Time: 06/06/2024 11:20

Matrix: Water

COC Reference: 155554

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	4.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.74/6.45/11	ASTMD7979-19M	06/07/24 11:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 19:18, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.1	ng/L	2.08	375-22-4	
PFPeA*	Not detected	4.2	1.2	ng/L	2.08	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.08	757124-72-4	
PFHxA*	Not detected	2.1	1.2	ng/L	2.08	307-24-4	
PFBS*	Not detected	2.1	0.62	ng/L	2.08	375-73-5	
PFHpA*	Not detected	2.1	0.83	ng/L	2.08	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.08	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.08	27619-97-2	
PFOA*	Not detected	2.1	0.83	ng/L	2.08	335-67-1	
PFHxS*	Not detected	2.1	1.0	ng/L	2.08	355-46-4	
PFHxS-LN*	Not detected	2.1	1.0	ng/L	2.08	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.0	ng/L	2.08	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.08	375-95-1	
8:2 FTSA*	Not detected	2.1	1.2	ng/L	2.08	39108-34-4	
PFHpS*	Not detected	2.1	0.83	ng/L	2.08	375-92-8	
PFDA*	Not detected	2.1	1.2	ng/L	2.08	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.08	2355-31-9	
EtFOSAA*	Not detected	4.2	1.0	ng/L	2.08	2991-50-6	
PFOS*	Not detected	2.1	0.83	ng/L	2.08	1763-23-1	
PFOS-LN*	Not detected	2.1	0.83	ng/L	2.08	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	0.83	ng/L	2.08	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.83	ng/L	2.08	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.08	68259-12-1	
PFDODA*	Not detected	2.1	0.62	ng/L	2.08	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.08	335-77-3	
PFTTrDA*	Not detected	2.1	0.83	ng/L	2.08	72629-94-8	
FOSA*	Not detected	2.1	0.83	ng/L	2.08	754-91-6	
PFTeDA*	Not detected	4.2	0.62	ng/L	2.08	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.08	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.08	756426-58-1	
ADONA*	Not detected	2.1	0.62	ng/L	2.08	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.08	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.3	ng/L	2.08	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.2	ng/L	2.08	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.2	ng/L	2.08	356-02-5	
PFBSA*	Not detected	2.1	0.62	ng/L	2.08	30334-69-1	
PFECHS*	Not detected	2.1	0.83	ng/L	2.08	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S62917.04 (continued)

Sample Tag: Field Blank-06062024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/07/24 19:18, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.1	0.62	ng/L	2.08	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID:S62917

Attention: Clifford Yantz
Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/06/2024 17:00 Login User: MMC

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection	Description	Note
-----------	-------------	------

Sample Receiving

- | | | |
|-----|--|--|
| 01. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples are received at 4C +/- 2C Thermometer # IR 4.7 |
| 02. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Received on ice/ cooling process begun |
| 03. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples shipped |
| 04. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples left in 24 hr. drop box |
| 05. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Are there custody seals/tape or is the drop box locked |

Chain of Custody

- | | | |
|-----|--|--|
| 06. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC adequately filled out |
| 07. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC signed and relinquished to the lab |
| 08. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sample tag on bottles match COC |
| 09. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Subcontracting needed? Subcontracted to: |

Preservation

- | | | |
|-----|--|---|
| 10. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Do sample have correct chemical preservation |
| 11. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Completed pH checks on preserved samples? (no VOAs) |
| 12. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Did any samples need to be preserved in the lab? |

Bottle Conditions

- | | | |
|-----|--|---|
| 13. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | All bottles intact |
| 14. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Appropriate analytical bottles are used |
| 15. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Merit bottles used |
| 16. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sufficient sample volume received |
| 17. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples require laboratory filtration |
| 18. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples submitted within holding time |
| 19. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Do water VOC or TOX bottles contain headspace |

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



Quality Control Report

Report ID: QC-S62917-01
Generated on 06/25/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S62917.01-S62917.04
Project: RACER Coldwater Road
Submitted Date/Time: 06/06/2024 17:00
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

QC Report Sections

- Cover Page (Page 1)
- Analysis Summary (Pages 2-5)
- Prep Batch Summary (Page 6)
- Internal Standards per Lab Sample (Pages 7-10)
- Internal Standards per QC Sample (Pages 11-15)
- Batch QC Results (Pages 16-20)

Report Flag Descriptions

- *: QC result is outside of indicated control limits
- W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S62917.01

Sample Tag: B-27D-06052024

Collected Date/Time: 06/05/2024 12:30

Matrix: Groundwater

COC Reference: 155554

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/07/24 18:18	AK240607	PF240607W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S62917.02

Sample Tag: B-9-06062024

Collected Date/Time: 06/06/2024 10:18

Matrix: Groundwater

COC Reference: 155554

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/07/24 18:38	AK240607	PF240607W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S62917.03

Sample Tag: B-7-06062024

Collected Date/Time: 06/06/2024 11:25

Matrix: Groundwater

COC Reference: 155554

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/07/24 18:58	AK240607	PF240607W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S62917.04

Sample Tag: Field Blank-06062024

Collected Date/Time: 06/06/2024 11:20

Matrix: Water

COC Reference: 155554

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/07/24 19:18	AK240607	PF240607W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF240607W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S62917.01	34 PFAs	ASTMD7979-19M	06/07/24 18:18	AK240607
S62917.02	34 PFAs	ASTMD7979-19M	06/07/24 18:38	AK240607
S62917.03	34 PFAs	ASTMD7979-19M	06/07/24 18:58	AK240607
S62917.04	34 PFAs	ASTMD7979-19M	06/07/24 19:18	AK240607

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62917.01

Sample Tag: B-27D-06052024

Collected Date/Time: 06/05/2024 12:30

Matrix: Groundwater

COC Reference: 155554

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240607, Run Date: 06/07/2024 18:18, Matrix: WW, Dilution: 1.96

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		99.7	50.0	150.0
M2-6:2FTSA		93.8	50.0	150.0
M2-8:2FTSA		105.5	50.0	150.0
M2PFTeDA		133.7	12.0	218.0
M3PFBS		90.5	50.0	150.0
M3PFHxS		92.6	50.0	150.0
M4PFHpA		94.9	50.0	150.0
M5PFHxA		88.6	50.0	150.0
M5PFPeA		94.8	50.0	150.0
M6PFDA		94.7	50.0	150.0
M7PFUnDA		92.1	50.0	150.0
M8FOSA		95.8	50.0	150.0
M8PFOA		91.6	50.0	150.0
M8PFOS		90.3	50.0	150.0
M9-PFNA		88.1	50.0	150.0
MPFBA		83.8	50.0	150.0
MPFDoDA		102.2	50.0	150.0
d3N-MeFOSAA		101.9	50.0	150.0
d5EtFOSAA		87.1	50.0	150.0
MHFPO-DA		95.9	50.0	150.0
d-N-EtFOSA-M		98.3	50.0	150.0
d-N-MeFOSA-M		88.8	50.0	150.0
d7-N-MeFOSE-M		97.5	50.0	150.0
d9-N-EtFOSE-M		97.0	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: **S62917.02**

Sample Tag: B-9-06062024

Collected Date/Time: 06/06/2024 10:18

Matrix: Groundwater

COC Reference: 155554

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240607, Run Date: 06/07/2024 18:38, Matrix: WW, Dilution: 1.31

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		126.1	50.0	150.0
M2-6:2FTSA		106.5	50.0	150.0
M2-8:2FTSA		118.6	50.0	150.0
M2PFTeDA		124.2	12.0	218.0
M3PFBS		103.5	50.0	150.0
M3PFHxS		99.5	50.0	150.0
M4PFHpA		94.3	50.0	150.0
M5PFHxA		100.1	50.0	150.0
M5PFPeA		97.3	50.0	150.0
M6PFDA		109.1	50.0	150.0
M7PFUnDA		92.2	50.0	150.0
M8FOSA		106.3	50.0	150.0
M8PFOA		95.9	50.0	150.0
M8PFOS		91.9	50.0	150.0
M9-PFNA		105.1	50.0	150.0
MPFBA		82.2	50.0	150.0
MPFDoDA		105.6	50.0	150.0
d3N-MeFOSAA		100.7	50.0	150.0
d5EtFOSAA		93.7	50.0	150.0
MHFPO-DA		97.8	50.0	150.0
d-N-EtFOSA-M		103.2	50.0	150.0
d-N-MeFOSA-M		93.8	50.0	150.0
d7-N-MeFOSE-M		97.5	50.0	150.0
d9-N-EtFOSE-M		94.8	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62917.03

Sample Tag: B-7-06062024

Collected Date/Time: 06/06/2024 11:25

Matrix: Groundwater

COC Reference: 155554

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240607, Run Date: 06/07/2024 18:58, Matrix: WW, Dilution: 1.95

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		98.6	50.0	150.0
M2-6:2FTSA		88.4	50.0	150.0
M2-8:2FTSA		95.5	50.0	150.0
M2PFTeDA		104.3	12.0	218.0
M3PFBS		92.3	50.0	150.0
M3PFHxS		98.2	50.0	150.0
M4PFHpA		84.4	50.0	150.0
M5PFHxA		88.1	50.0	150.0
M5PFPeA		93.7	50.0	150.0
M6PFDA		105.0	50.0	150.0
M7PFUnDA		93.3	50.0	150.0
M8FOSA		99.0	50.0	150.0
M8PFOA		86.6	50.0	150.0
M8PFOS		89.3	50.0	150.0
M9-PFNA		88.2	50.0	150.0
MPFBA		84.3	50.0	150.0
MPFDoDA		99.3	50.0	150.0
d3N-MeFOSAA		99.4	50.0	150.0
d5EtFOSAA		84.0	50.0	150.0
MHFPO-DA		102.1	50.0	150.0
d-N-EtFOSA-M		92.1	50.0	150.0
d-N-MeFOSA-M		91.0	50.0	150.0
d7-N-MeFOSE-M		92.1	50.0	150.0
d9-N-EtFOSE-M		94.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62917.04

Sample Tag: Field Blank-06062024

Collected Date/Time: 06/06/2024 11:20

Matrix: Water

COC Reference: 155554

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240607, Run Date: 06/07/2024 19:18, Matrix: WW, Dilution: 2.08

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		106.6	50.0	150.0
M2-6:2FTSA		99.2	50.0	150.0
M2-8:2FTSA		106.7	50.0	150.0
M2PFTeDA		145.9	12.0	218.0
M3PFBS		95.7	50.0	150.0
M3PFHxS		91.9	50.0	150.0
M4PFHpA		99.3	50.0	150.0
M5PFHxA		102.2	50.0	150.0
M5PFPeA		101.0	50.0	150.0
M6PFDA		105.2	50.0	150.0
M7PFUnDA		98.3	50.0	150.0
M8FOSA		107.4	50.0	150.0
M8PFOA		90.8	50.0	150.0
M8PFOS		97.2	50.0	150.0
M9-PFNA		104.6	50.0	150.0
MPFBA		112.4	50.0	150.0
MPFDoDA		111.6	50.0	150.0
d3N-MeFOSAA		114.7	50.0	150.0
d5EtFOSAA		103.9	50.0	150.0
MHFPO-DA		101.1	50.0	150.0
d-N-EtFOSA-M		99.5	50.0	150.0
d-N-MeFOSA-M		102.3	50.0	150.0
d7-N-MeFOSE-M		104.3	50.0	150.0
d9-N-EtFOSE-M		96.4	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF240607W1

QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240607.BLK240607

Run in Batch: AK240607, Run Date: 06/07/2024 14:38, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		100.7	50.0	150.0
M2-6:2FTSA		84.2	50.0	150.0
M2-8:2FTSA		107.7	50.0	150.0
M2PFTeDA		115.9	12.0	218.0
M3PFBS		93.1	50.0	150.0
M3PFHxS		92.0	50.0	150.0
M4PFHpA		91.6	50.0	150.0
M5PFHxA		86.6	50.0	150.0
M5PFPeA		87.6	50.0	150.0
M6PFDA		96.0	50.0	150.0
M7PFUnDA		90.7	50.0	150.0
M8FOSA		96.4	50.0	150.0
M8PFOA		86.7	50.0	150.0
M8PFOS		88.8	50.0	150.0
M9-PFNA		92.0	50.0	150.0
MPFBA		98.4	50.0	150.0
MPFDoDA		101.7	50.0	150.0
d3N-MeFOSAA		105.2	50.0	150.0
d5EtFOSAA		85.5	50.0	150.0
MHFPO-DA		99.3	50.0	150.0
d-N-EtFOSA-M		88.9	50.0	150.0
d-N-MeFOSA-M		99.1	50.0	150.0
d7-N-MeFOSE-M		97.9	50.0	150.0
d9-N-EtFOSE-M		90.3	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK240607.LCS240607

Run in Batch: AK240607, Run Date: 06/07/2024 13:58, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		92.6	50.0	150.0
M2-6:2FTSA		90.1	50.0	150.0
M2-8:2FTSA		104.9	50.0	150.0
M2PFTeDA		120.0	12.0	218.0
M3PFBS		89.2	50.0	150.0
M3PFHxS		93.8	50.0	150.0
M4PFHpA		88.5	50.0	150.0
M5PFHxA		82.9	50.0	150.0
M5PFPeA		84.6	50.0	150.0
M6PFDA		92.1	50.0	150.0
M7PFUnDA		92.1	50.0	150.0
M8FOSA		91.0	50.0	150.0
M8PFOA		89.2	50.0	150.0
M8PFOS		85.6	50.0	150.0
M9-PFNA		97.3	50.0	150.0
MPFBA		94.9	50.0	150.0
MPFDoDA		93.2	50.0	150.0
d3N-MeFOSAA		105.6	50.0	150.0
d5EtFOSAA		81.8	50.0	150.0
MHFPO-DA		90.0	50.0	150.0
d-N-EtFOSA-M		79.0	50.0	150.0
d-N-MeFOSA-M		85.6	50.0	150.0
d7-N-MeFOSE-M		96.7	50.0	150.0
d9-N-EtFOSE-M		90.2	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240607.LCSD240607, Parent Sample ID: AK240607.LCS240607

Run in Batch: AK240607, Run Date: 06/07/2024 14:18, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		129.9	50.0	150.0
M2-6:2FTSA		111.9	50.0	150.0
M2-8:2FTSA		97.1	50.0	150.0
M2PFTeDA		110.9	12.0	218.0
M3PFBS		86.5	50.0	150.0
M3PFHxS		84.9	50.0	150.0
M4PFHpA		93.0	50.0	150.0
M5PFHxA		88.7	50.0	150.0
M5PFPeA		94.7	50.0	150.0
M6PFDA		96.0	50.0	150.0
M7PFUnDA		89.5	50.0	150.0
M8FOSA		95.8	50.0	150.0
M8PFOA		85.1	50.0	150.0
M8PFOS		90.1	50.0	150.0
M9-PFNA		95.0	50.0	150.0
MPFBA		99.8	50.0	150.0
MPFDoDA		103.7	50.0	150.0
d3N-MeFOSAA		101.5	50.0	150.0
d5EtFOSAA		93.1	50.0	150.0
MHFPO-DA		93.3	50.0	150.0
d-N-EtFOSA-M		81.8	50.0	150.0
d-N-MeFOSA-M		92.2	50.0	150.0
d7-N-MeFOSE-M		95.9	50.0	150.0
d9-N-EtFOSE-M		89.5	50.0	150.0

QC Report - Internal Standards per QC Sample

Matrix Spike (MS)

Lab Sample ID: AK240607.6289202M, Parent Sample ID: S62892.02

Run in Batch: AK240607, Run Date: 06/07/2024 15:58, Prep Date: 06/07/2024, Matrix: WW, Dilution: 2.11

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		95.3	50.0	150.0
M2-6:2FTSA		98.3	50.0	150.0
M2-8:2FTSA		107.0	50.0	150.0
M2PFTeDA		127.4	12.0	218.0
M3PFBS		91.9	50.0	150.0
M3PFHxS		95.5	50.0	150.0
M4PFHpA		89.3	50.0	150.0
M5PFHxA		95.9	50.0	150.0
M5PFPeA		88.2	50.0	150.0
M6PFDA		96.8	50.0	150.0
M7PFUnDA		90.1	50.0	150.0
M8FOSA		105.6	50.0	150.0
M8PFOA		88.0	50.0	150.0
M8PFOS		92.6	50.0	150.0
M9-PFNA		90.2	50.0	150.0
MPFBA		79.7	50.0	150.0
MPFDoDA		104.6	50.0	150.0
d3N-MeFOSAA		94.9	50.0	150.0
d5EtFOSAA		86.6	50.0	150.0
MHFPO-DA		95.9	50.0	150.0
d-N-EtFOSA-M		98.5	50.0	150.0
d-N-MeFOSA-M		97.4	50.0	150.0
d7-N-MeFOSE-M		103.0	50.0	150.0
d9-N-EtFOSE-M		94.0	50.0	150.0

QC Report - Internal Standards per QC Sample

Duplicate (DUP)

Lab Sample ID: AK240607.6289203D, Parent Sample ID: S62892.03

Run in Batch: AK240607, Run Date: 06/07/2024 16:38, Prep Date: 06/07/2024, Matrix: WW, Dilution: 2.07

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		98.3	50.0	150.0
M2-6:2FTSA		92.7	50.0	150.0
M2-8:2FTSA		108.7	50.0	150.0
M2PFTeDA		121.6	12.0	218.0
M3PFBS		92.4	50.0	150.0
M3PFHxS		96.0	50.0	150.0
M4PFHpA		87.8	50.0	150.0
M5PFHxA		89.5	50.0	150.0
M5PFPeA		91.6	50.0	150.0
M6PFDA		99.3	50.0	150.0
M7PFUnDA		98.0	50.0	150.0
M8FOSA		101.2	50.0	150.0
M8PFOA		89.2	50.0	150.0
M8PFOS		100.8	50.0	150.0
M9-PFNA		102.9	50.0	150.0
MPFBA		85.2	50.0	150.0
MPFDoDA		102.2	50.0	150.0
d3N-MeFOSAA		96.5	50.0	150.0
d5EtFOSAA		87.4	50.0	150.0
MHFPO-DA		105.6	50.0	150.0
d-N-EtFOSA-M		102.8	50.0	150.0
d-N-MeFOSA-M		96.3	50.0	150.0
d7-N-MeFOSE-M		98.7	50.0	150.0
d9-N-EtFOSE-M		94.3	50.0	150.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240607W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240607.BLK240607

Run in Batch: AK240607, Run Date: 06/07/2024 14:38, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
PFEESA		ND	2	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
PFNA		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFECHS		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFHpS		ND	2	ng/l
PFDA		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS		ND	2	ng/l
PFOS-LN		ND	2	ng/l
PFUnDA		ND	2	ng/l
PFHxSA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDODA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTTeDA		ND	4	ng/l
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240607W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: AK240607.BLK240607

Run in Batch: AK240607, Run Date: 06/07/2024 14:38, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
NEtFOSE		ND	4	ng/l
NEtFOSAM		ND	2	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK240607.LCS240607

Run in Batch: AK240607, Run Date: 06/07/2024 13:58, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		114.0	70.0	130.0
PFMPA		85.4	70.0	130.0
FPrPA (3:3 FTCA)		113.0	70.0	130.0
PFPPrS		91.0	70.0	130.0
PFPeA		105.0	70.0	130.0
PFMBA		89.6	70.0	130.0
4:2 FTSA		101.2	70.0	130.0
NFDHA		106.4	70.0	130.0
PFHxA		102.0	70.0	130.0
PFBS		101.0	70.0	130.0
HFPO-DA		88.6	70.0	130.0
PFEESA		84.6	70.0	130.0
FPePA (5:3 FTCA)		107.8	70.0	130.0
PFHpA		101.8	70.0	130.0
PFPeS		94.6	70.0	130.0
ADONA		107.0	70.0	130.0
6:2 FTSA		105.2	70.0	130.0
PFBSA		102.0	70.0	130.0
PFOA		86.0	70.0	130.0
PFHxS		94.6	70.0	130.0
PFNA		98.4	70.0	130.0
FHpPA (7:3 FTCA)		86.4	70.0	130.0
PFECHS		105.8	70.0	130.0
8:2 FTSA		90.2	70.0	130.0
PFHpS		97.4	70.0	130.0
PFDA		102.6	70.0	130.0
N-MeFOSAA		111.6	70.0	130.0
EtFOSAA		122.4	70.0	130.0
PFOS		115.8	70.0	130.0
PFUnDA		105.6	70.0	130.0
PFHxSA		95.2	70.0	130.0
9CL-PF3ONS		111.6	70.0	130.0
PFNS		106.2	70.0	130.0
PFDoDA		108.6	70.0	130.0
PFDS		111.6	70.0	130.0
PFTTrDA		118.4	70.0	130.0
11CL-PF3OUdS		103.2	70.0	130.0
FOSA		96.8	70.0	130.0
PFTeDA		95.6	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240607W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK240607.LCS240607

Run in Batch: AK240607, Run Date: 06/07/2024 13:58, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFDOS		122.6	70.0	130.0
NMeFOSE		96.4	70.0	130.0
NMeFOSAM		96.8	70.0	130.0
NEtFOSE		98.2	70.0	130.0
NEtFOSAM		110.2	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240607.LCSD240607, Parent Sample ID: AK240607.LCS240607

Run in Batch: AK240607, Run Date: 06/07/2024 14:18, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		114.4	70.0	130.0	0.4	30.0
PFMPA		87.6	70.0	130.0	2.5	30.0
FPrPA (3:3 FTCA)		110.4	70.0	130.0	2.3	30.0
PFPPrS		98.0	70.0	130.0	7.4	30.0
PFPeA		101.6	70.0	130.0	3.3	30.0
PFMBA		96.8	70.0	130.0	7.7	30.0
4:2 FTSA		83.8	70.0	130.0	18.8	30.0
NFDHA		99.0	70.0	130.0	7.2	30.0
PFHxA		105.4	70.0	130.0	3.3	30.0
PFBS		101.6	70.0	130.0	0.6	30.0
HFPO-DA		83.0	70.0	130.0	6.5	30.0
PFEESA		84.0	70.0	130.0	0.7	30.0
FPePA (5:3 FTCA)		111.6	70.0	130.0	3.5	30.0
PFHpA		104.4	70.0	130.0	2.5	30.0
PFPeS		98.8	70.0	130.0	4.3	30.0
ADONA		109.6	70.0	130.0	2.4	30.0
6:2 FTSA		107.8	70.0	130.0	2.4	30.0
PFBSA		102.4	70.0	130.0	0.4	30.0
PFOA		94.0	70.0	130.0	8.9	30.0
PFHxS		106.8	70.0	130.0	12.1	30.0
PFNA		102.4	70.0	130.0	4.0	30.0
FHpPA (7:3 FTCA)		114.2	70.0	130.0	27.7	30.0
PFECHS		102.2	70.0	130.0	3.5	30.0
8:2 FTSA		96.6	70.0	130.0	6.9	30.0
PFHpS		110.8	70.0	130.0	12.9	30.0
PFDA		109.8	70.0	130.0	6.8	30.0
N-MeFOSAA		121.6	70.0	130.0	8.6	30.0
EtFOSAA		107.2	70.0	130.0	13.2	30.0
PFOS		115.4	70.0	130.0	0.3	30.0
PFUnDA	*	130.4	70.0	130.0	21.0	30.0
PFHxSA		99.2	70.0	130.0	4.1	30.0
9CL-PF3ONS		110.0	70.0	130.0	1.4	30.0
PFNS		107.4	70.0	130.0	1.1	30.0
PFDODA		99.8	70.0	130.0	8.4	30.0
PFDS		107.6	70.0	130.0	3.6	30.0
PFTTrDA		103.2	70.0	130.0	13.7	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240607W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK240607.LCSD240607, Parent Sample ID: AK240607.LCS240607

Run in Batch: AK240607, Run Date: 06/07/2024 14:18, Prep Date: 06/07/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
11CL-PF3OUdS		108.6	70.0	130.0	5.1	30.0
FOSA		102.6	70.0	130.0	5.8	30.0
PFTeDA		92.6	70.0	130.0	3.2	30.0
PFDOS		111.8	70.0	130.0	9.2	30.0
NMeFOSE		103.6	70.0	130.0	7.2	30.0
NMeFOSAM		94.4	70.0	130.0	2.5	30.0
NEtFOSE		102.8	70.0	130.0	4.6	30.0
NEtFOSAM		101.4	70.0	130.0	8.3	30.0

Matrix Spike (MS)

Lab Sample ID: AK240607.6289202M, Parent Sample ID: S62892.02

Run in Batch: AK240607, Run Date: 06/07/2024 15:58, Prep Date: 06/07/2024, Matrix: WW, Dilution: 2.11

Analyte	Flags	% Rec	LCL	UCL
PFBA		113.2	70.0	130.0
PFPeA		103.8	70.0	130.0
4:2 FTSA		92.5	70.0	130.0
PFHxA		97.6	70.0	130.0
PFBS		103.8	70.0	130.0
HFPO-DA		91.5	70.0	130.0
PFHpA		113.2	70.0	130.0
PFPeS		103.8	70.0	130.0
ADONA		113.2	70.0	130.0
6:2 FTSA		103.8	70.0	130.0
PFOA		97.0	70.0	130.0
PFHxS		103.8	70.0	130.0
PFNA		103.8	70.0	130.0
8:2 FTSA		83.0	70.0	130.0
PFHpS		103.8	70.0	130.0
PFDA		113.2	70.0	130.0
N-MeFOSAA		113.2	70.0	130.0
EtFOSAA		103.8	70.0	130.0
PFOS		113.2	70.0	130.0
PFUnDA		113.2	70.0	130.0
9CL-PF3ONS		103.8	70.0	130.0
PFNS		113.2	70.0	130.0
PFDoDA		94.3	70.0	130.0
PFDS		113.2	70.0	130.0
PFTTrDA		113.2	70.0	130.0
11CL-PF3OUdS		103.8	70.0	130.0
FOSA		94.3	70.0	130.0
PFTeDA		94.3	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240607W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Duplicate (DUP)

Lab Sample ID: AK240607.6289203D, Parent Sample ID: S62892.03

Run in Batch: AK240607, Run Date: 06/07/2024 16:38, Prep Date: 06/07/2024, Matrix: WW, Dilution: 2.07

Analyte	Flags	RPD	RPD CL
PFBA		1.0	30.0
PFPeA		8.3	30.0
4:2 FTSA		NC	30.0
PFHxA		7.4	30.0
PFBS		NC	30.0
PFHpA		1.9	30.0
PFPeS		NC	30.0
6:2 FTSA		NC	30.0
PFOA		0.0	30.0
PFHxS		NC	30.0
PFHxS-LN		NC	30.0
PFHxS-BR		NC	30.0
PFNA		NC	30.0
8:2 FTSA		NC	30.0
PFHpS		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFOS-LN		NC	30.0
PFOS-BR		NC	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDoDA		NC	30.0
PFDS		NC	30.0
PFTTrDA		NC	30.0
FOSA		NC	30.0
PFTeDA		NC	30.0
11CL-PF3OUdS		NC	30.0
9CL-PF3ONS		NC	30.0
ADONA		NC	30.0
HFPO-DA		NC	30.0



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C.O.C. PAGE # 1 OF 1 155554

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Yeatz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Am Arbor STATE MI ZIP CODE 48105
 PHONE NO. CELL NO. 313-333-0211 P.O. NO. 1940008845 Task 37
 E-MAIL ADDRESS Kevin.Schneider@Ramboll.com QUOTE NO. 37
Clifford.Yeatz@Ramboll.com

CONTACT NAME SAME
 COMPANY
 ADDRESS
 CITY STATE ZIP CODE
 PHONE NO. E-MAIL ADDRESS

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PFAS (7579)	Certifications		Project Locations		Special Instructions
	DATE	TIME												<input type="checkbox"/> OHIO VAP	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> DoD	<input type="checkbox"/> NPDES	
62917.01	6/5/24	1230	B-27D-06052024	GW	3	X							X					Low level Reporting with estimated values
.02	6/6/24	1018	B-9-06062024	GW	3	X							X					
.03	6/6/24	1125	B-7-06062024	GW	3	X							X					
.04	6/6/24	1120	Field blank-06062024	QC	1	X							X					
/																		34 PFAS LIST

RELINQUISHED BY: [Signature] DATE 6/6/24 TIME 14:00
 SIGNATURE/ORGANIZATION
 RECEIVED BY: [Signature] DATE 6/6/24 TIME 17:00
 SIGNATURE/ORGANIZATION
 RELINQUISHED BY: [Signature] DATE 6/6/24 TIME 17:00
 SIGNATURE/ORGANIZATION
 RECEIVED BY: [Signature] DATE 6/6/24 TIME 17:00
 SIGNATURE/ORGANIZATION

RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
 RECEIVED BY: SIGNATURE/ORGANIZATION DATE TIME
 SEAL NO. SEAL INTACT YES NO INITIALS
 SEAL NO. SEAL INTACT YES NO INITIALS
 NOTES: TEMP. ON ARRIVAL 4.7

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Analytical Laboratory Report

Report ID: S62827.01(01)
Generated on 06/25/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Additional Contacts: Kevin Schneider

Report produced by

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Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S62827.01-S62827.05
Project: RACER Coldwater Road
Collected Date(s): 06/04/2024
Submitted Date/Time: 06/05/2024 13:05
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

Table of Contents

- Cover Page (Page 1)
- General Report Notes (Page 2)
- Report Narrative (Page 2)
- Laboratory Accreditations (Page 3)
- Qualifier Descriptions (Page 3)
- Glossary of Abbreviations (Page 3)
- Method Summary (Page 4)
- Parameter Summary (Page 5)
- Sample Summary (Page 6)

Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Starred (*) analytes are not NY NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the

FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.

For a specific list of accredited analytes, please feel free to contact the laboratory or visit <https://www.meritlabs.com/certifications>.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)



Analytical Laboratory Report

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
PFBSA	Perfluorobutanesulfonamide	30334-69-1
PFECHS	Perfluoro-4-ethylcyclohexanesulfonate	67584-42-3
PFHxSA	Perfluorohexanesulfonamide	41997-13-1



Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S62827.01	Vault-A-060424	Wastewater	06/04/24 10:30
S62827.02	Vault-C-060424	Wastewater	06/04/24 12:55
S62827.03	Vault-E-060424	Wastewater	06/04/24 15:05
S62827.04	Vault-DUP-060424	Wastewater	06/04/24 00:01
S62827.05	Field Blank-06042024	Wastewater	06/04/24 00:01



Analytical Laboratory Report

Lab Sample ID: S62827.01

Sample Tag: Vault-A-060424

Collected Date/Time: 06/04/2024 10:30

Matrix: Wastewater

COC Reference: 171588

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.38/6.51/12	ASTMD7979-19M	06/06/24 11:00	SRP	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 20:45, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	16	10	2.0	ng/L	2.04	375-22-4	
PFPeA*	2.7	4.1	1.2	ng/L	2.04	2706-90-3	J
4:2 FTSA*	Not detected	2.0	0.20	ng/L	2.04	757124-72-4	
PFHxA*	4.1	2.0	1.2	ng/L	2.04	307-24-4	
PFBS*	6.9	2.0	0.61	ng/L	2.04	375-73-5	
PFHpA*	1.7	2.0	0.82	ng/L	2.04	375-85-9	J
PFPeS*	9.5	2.0	1.8	ng/L	2.04	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.0	ng/L	2.04	27619-97-2	
PFOA*	12	2.0	0.82	ng/L	2.04	335-67-1	
PFHxS*	27	2.0	1.0	ng/L	2.04	355-46-4	
PFHxS-LN*	22	2.0	1.0	ng/L	2.04	355-46-4-LN	
PFHxS-BR*	5.0	2.0	1.0	ng/L	2.04	355-46-4-BR	
PFNA*	Not detected	2.0	1.0	ng/L	2.04	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	2.04	39108-34-4	
PFHpS*	6.8	2.0	0.82	ng/L	2.04	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	2.04	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.0	ng/L	2.04	2355-31-9	
EtFOSAA*	Not detected	4.1	1.0	ng/L	2.04	2991-50-6	
PFOS*	410	2.0	0.82	ng/L	2.04	1763-23-1	
PFOS-LN*	210	2.0	0.82	ng/L	2.04	1763-23-1-LN	
PFOS-BR*	210	2.0	0.82	ng/L	2.04	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.82	ng/L	2.04	2058-94-8	
PFNS*	Not detected	2.0	1.0	ng/L	2.04	68259-12-1	
PFDODA*	Not detected	2.0	0.61	ng/L	2.04	307-55-1	
PFDS*	Not detected	2.0	1.0	ng/L	2.04	335-77-3	
PFTTrDA*	Not detected	2.0	0.82	ng/L	2.04	72629-94-8	
FOSA*	Not detected	2.0	0.82	ng/L	2.04	754-91-6	
PFTeDA*	Not detected	4.1	0.61	ng/L	2.04	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.0	ng/L	2.04	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.0	ng/L	2.04	756426-58-1	
ADONA*	Not detected	2.0	0.61	ng/L	2.04	919005-14-4	
HFPO-DA*	Not detected	10	2.0	ng/L	2.04	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.2	ng/L	2.04	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.1	ng/L	2.04	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.1	ng/L	2.04	356-02-5	
PFBSA*	Not detected	2.0	0.61	ng/L	2.04	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S62827.01 (continued)

Sample Tag: Vault-A-060424

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 20:45, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	1,600	2.0	0.82	ng/L	2.04	67584-42-3	
PFHxSA*	Not detected	2.0	0.61	ng/L	2.04	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S62827.02

Sample Tag: Vault-C-060424

Collected Date/Time: 06/04/2024 12:55

Matrix: Wastewater

COC Reference: 171588

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.10/6.55/11	ASTMD7979-19M	06/06/24 11:00	SRP	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 21:25, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	14	9.9	2.0	ng/L	1.98	375-22-4	
PFPeA*	Not detected	4.0	1.2	ng/L	1.98	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.20	ng/L	1.98	757124-72-4	
PFHxA*	2.3	2.0	1.2	ng/L	1.98	307-24-4	
PFBS*	4.3	2.0	0.59	ng/L	1.98	375-73-5	
PFHpA*	0.83	2.0	0.79	ng/L	1.98	375-85-9	J
PFPeS*	4.7	2.0	1.8	ng/L	1.98	2706-91-4	
6:2 FTSA*	Not detected	2.0	0.99	ng/L	1.98	27619-97-2	
PFOA*	7.9	2.0	0.79	ng/L	1.98	335-67-1	
PFHxS*	17	2.0	0.99	ng/L	1.98	355-46-4	
PFHxS-LN*	14	2.0	0.99	ng/L	1.98	355-46-4-LN	
PFHxS-BR*	3.0	2.0	0.99	ng/L	1.98	355-46-4-BR	
PFNA*	Not detected	2.0	0.99	ng/L	1.98	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	1.98	39108-34-4	
PFHpS*	4.5	2.0	0.79	ng/L	1.98	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	1.98	335-76-2	
N-MeFOSAA*	Not detected	2.0	0.99	ng/L	1.98	2355-31-9	
EtFOSAA*	Not detected	4.0	0.99	ng/L	1.98	2991-50-6	
PFOS*	390	2.0	0.79	ng/L	1.98	1763-23-1	
PFOS-LN*	230	2.0	0.79	ng/L	1.98	1763-23-1-LN	
PFOS-BR*	170	2.0	0.79	ng/L	1.98	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.79	ng/L	1.98	2058-94-8	
PFNS*	Not detected	2.0	0.99	ng/L	1.98	68259-12-1	
PFDODA*	Not detected	2.0	0.59	ng/L	1.98	307-55-1	
PFDS*	Not detected	2.0	0.99	ng/L	1.98	335-77-3	
PFTTrDA*	Not detected	2.0	0.79	ng/L	1.98	72629-94-8	
FOSA*	Not detected	2.0	0.79	ng/L	1.98	754-91-6	
PFTeDA*	Not detected	4.0	0.59	ng/L	1.98	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.99	ng/L	1.98	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.99	ng/L	1.98	756426-58-1	
ADONA*	Not detected	2.0	0.59	ng/L	1.98	919005-14-4	
HFPO-DA*	Not detected	9.9	2.0	ng/L	1.98	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.9	7.9	ng/L	1.98	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.9	4.0	ng/L	1.98	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.9	4.0	ng/L	1.98	356-02-5	
PFBSA*	Not detected	2.0	0.59	ng/L	1.98	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S62827.02 (continued)

Sample Tag: Vault-C-060424

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 21:25, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	1,100	2.0	0.79	ng/L	1.98	67584-42-3	
PFHxSA*	Not detected	2.0	0.59	ng/L	1.98	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S62827.03

Sample Tag: Vault-E-060424

Collected Date/Time: 06/04/2024 15:05

Matrix: Wastewater

COC Reference: 171588

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.25/6.54/11	ASTMD7979-19M	06/06/24 11:00	SRP	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 21:45, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	6.0	9.7	1.9	ng/L	1.93	375-22-4	J
PFPeA*	2.0	3.9	1.2	ng/L	1.93	2706-90-3	J
4:2 FTSA*	Not detected	1.9	0.19	ng/L	1.93	757124-72-4	
PFHxA*	2.5	1.9	1.2	ng/L	1.93	307-24-4	
PFBS*	6.1	1.9	0.58	ng/L	1.93	375-73-5	
PFHpA*	1.2	1.9	0.77	ng/L	1.93	375-85-9	J
PFPeS*	8.5	1.9	1.7	ng/L	1.93	2706-91-4	
6:2 FTSA*	Not detected	1.9	0.97	ng/L	1.93	27619-97-2	
PFOA*	12	1.9	0.77	ng/L	1.93	335-67-1	
PFHxS*	31	1.9	0.97	ng/L	1.93	355-46-4	
PFHxS-LN*	25	1.9	0.97	ng/L	1.93	355-46-4-LN	
PFHxS-BR*	5.8	1.9	0.97	ng/L	1.93	355-46-4-BR	
PFNA*	Not detected	1.9	0.97	ng/L	1.93	375-95-1	
8:2 FTSA*	Not detected	1.9	1.2	ng/L	1.93	39108-34-4	
PFHpS*	9.5	1.9	0.77	ng/L	1.93	375-92-8	
PFDA*	Not detected	1.9	1.2	ng/L	1.93	335-76-2	
N-MeFOSAA*	Not detected	1.9	0.97	ng/L	1.93	2355-31-9	
EtFOSAA*	Not detected	3.9	0.97	ng/L	1.93	2991-50-6	
PFOS*	470	1.9	0.77	ng/L	1.93	1763-23-1	
PFOS-LN*	260	1.9	0.77	ng/L	1.93	1763-23-1-LN	
PFOS-BR*	210	1.9	0.77	ng/L	1.93	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.77	ng/L	1.93	2058-94-8	
PFNS*	Not detected	1.9	0.97	ng/L	1.93	68259-12-1	
PFDODA*	Not detected	1.9	0.58	ng/L	1.93	307-55-1	
PFDS*	Not detected	1.9	0.97	ng/L	1.93	335-77-3	
PFTTrDA*	Not detected	1.9	0.77	ng/L	1.93	72629-94-8	
FOSA*	2.8	1.9	0.77	ng/L	1.93	754-91-6	
PFTeDA*	Not detected	3.9	0.58	ng/L	1.93	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.97	ng/L	1.93	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.97	ng/L	1.93	756426-58-1	
ADONA*	Not detected	1.9	0.58	ng/L	1.93	919005-14-4	
HFPO-DA*	Not detected	9.7	1.9	ng/L	1.93	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.7	7.7	ng/L	1.93	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.7	3.9	ng/L	1.93	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.7	3.9	ng/L	1.93	356-02-5	
PFBSA*	1.5	1.9	0.58	ng/L	1.93	30334-69-1	J

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S62827.03 (continued)

Sample Tag: Vault-E-060424

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 21:45, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	1,100	1.9	0.77	ng/L	1.93	67584-42-3	
PFHxSA*	0.60	1.9	0.58	ng/L	1.93	41997-13-1	J

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S62827.04

Sample Tag: Vault-DUP-060424

Collected Date/Time: 06/04/2024 00:01

Matrix: Wastewater

COC Reference: 171588

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.37/6.44/12	ASTMD7979-19M	06/06/24 11:00	SRP	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 22:05, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	15	10	2.0	ng/L	2.02	375-22-4	
PFPeA*	2.1	4.0	1.2	ng/L	2.02	2706-90-3	J
4:2 FTSA*	Not detected	2.0	0.20	ng/L	2.02	757124-72-4	
PFHxA*	2.1	2.0	1.2	ng/L	2.02	307-24-4	
PFBS*	4.5	2.0	0.61	ng/L	2.02	375-73-5	
PFHpA*	Not detected	2.0	0.81	ng/L	2.02	375-85-9	
PFPeS*	6.1	2.0	1.8	ng/L	2.02	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.0	ng/L	2.02	27619-97-2	
PFOA*	8.6	2.0	0.81	ng/L	2.02	335-67-1	
PFHxS*	20	2.0	1.0	ng/L	2.02	355-46-4	
PFHxS-LN*	16	2.0	1.0	ng/L	2.02	355-46-4-LN	
PFHxS-BR*	3.5	2.0	1.0	ng/L	2.02	355-46-4-BR	
PFNA*	Not detected	2.0	1.0	ng/L	2.02	375-95-1	
8:2 FTSA*	Not detected	2.0	1.2	ng/L	2.02	39108-34-4	
PFHpS*	5.4	2.0	0.81	ng/L	2.02	375-92-8	
PFDA*	Not detected	2.0	1.2	ng/L	2.02	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.0	ng/L	2.02	2355-31-9	
EtFOSAA*	Not detected	4.0	1.0	ng/L	2.02	2991-50-6	
PFOS*	390	2.0	0.81	ng/L	2.02	1763-23-1	
PFOS-LN*	220	2.0	0.81	ng/L	2.02	1763-23-1-LN	
PFOS-BR*	180	2.0	0.81	ng/L	2.02	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.81	ng/L	2.02	2058-94-8	
PFNS*	Not detected	2.0	1.0	ng/L	2.02	68259-12-1	
PFDODA*	Not detected	2.0	0.61	ng/L	2.02	307-55-1	
PFDS*	Not detected	2.0	1.0	ng/L	2.02	335-77-3	
PFTTrDA*	Not detected	2.0	0.81	ng/L	2.02	72629-94-8	
FOSA*	1.1	2.0	0.81	ng/L	2.02	754-91-6	J
PFTeDA*	Not detected	4.0	0.61	ng/L	2.02	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.0	ng/L	2.02	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.0	ng/L	2.02	756426-58-1	
ADONA*	Not detected	2.0	0.61	ng/L	2.02	919005-14-4	
HFPO-DA*	Not detected	10	2.0	ng/L	2.02	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.1	ng/L	2.02	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.0	ng/L	2.02	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.0	ng/L	2.02	356-02-5	
PFBSA*	Not detected	2.0	0.61	ng/L	2.02	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S62827.04 (continued)

Sample Tag: Vault-DUP-060424

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 22:05, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	1,100	2.0	0.81	ng/L	2.02	67584-42-3	
PFHxSA*	Not detected	2.0	0.61	ng/L	2.02	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S62827.05

Sample Tag: Field Blank-06042024

Collected Date/Time: 06/04/2024 00:01

Matrix: Wastewater

COC Reference: 171588

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.41/6.55/10	ASTMD7979-19M	06/06/24 11:00	SRP	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 22:25, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	2.1	ng/L	2.06	375-22-4	
PFPeA*	Not detected	4.1	1.2	ng/L	2.06	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.21	ng/L	2.06	757124-72-4	
PFHxA*	Not detected	2.1	1.2	ng/L	2.06	307-24-4	
PFBS*	Not detected	2.1	0.62	ng/L	2.06	375-73-5	
PFHpA*	Not detected	2.1	0.82	ng/L	2.06	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.06	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.0	ng/L	2.06	27619-97-2	
PFOA*	Not detected	2.1	0.82	ng/L	2.06	335-67-1	
PFHxS*	Not detected	2.1	1.0	ng/L	2.06	355-46-4	
PFHxS-LN*	Not detected	2.1	1.0	ng/L	2.06	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.0	ng/L	2.06	355-46-4-BR	
PFNA*	Not detected	2.1	1.0	ng/L	2.06	375-95-1	
8:2 FTSA*	Not detected	2.1	1.2	ng/L	2.06	39108-34-4	
PFHpS*	Not detected	2.1	0.82	ng/L	2.06	375-92-8	
PFDA*	Not detected	2.1	1.2	ng/L	2.06	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.0	ng/L	2.06	2355-31-9	
EtFOSAA*	Not detected	4.1	1.0	ng/L	2.06	2991-50-6	
PFOS*	Not detected	2.1	0.82	ng/L	2.06	1763-23-1	
PFOS-LN*	Not detected	2.1	0.82	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	0.82	ng/L	2.06	1763-23-1-BR	
PFUnDA*	Not detected	2.1	0.82	ng/L	2.06	2058-94-8	
PFNS*	Not detected	2.1	1.0	ng/L	2.06	68259-12-1	
PFDODA*	Not detected	2.1	0.62	ng/L	2.06	307-55-1	
PFDS*	Not detected	2.1	1.0	ng/L	2.06	335-77-3	
PFTTrDA*	Not detected	2.1	0.82	ng/L	2.06	72629-94-8	
FOSA*	Not detected	2.1	0.82	ng/L	2.06	754-91-6	
PFTeDA*	Not detected	4.1	0.62	ng/L	2.06	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.0	ng/L	2.06	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.0	ng/L	2.06	756426-58-1	
ADONA*	Not detected	2.1	0.62	ng/L	2.06	919005-14-4	
HFPO-DA*	Not detected	10	2.1	ng/L	2.06	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	10	8.2	ng/L	2.06	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	4.1	ng/L	2.06	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	4.1	ng/L	2.06	356-02-5	
PFBSA*	Not detected	2.1	0.62	ng/L	2.06	30334-69-1	
PFECHS*	Not detected	2.1	0.82	ng/L	2.06	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S62827.05 (continued)

Sample Tag: Field Blank-06042024

34 PFAs, Method: ASTMD7979-19M, Run Date: 06/06/24 22:25, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.1	0.62	ng/L	2.06	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID:S62827

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/05/2024 13:05 Login User: PFD

Attention: Clifford Yantz

Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection	Description	Note
-----------	-------------	------

Sample Receiving

- | | | |
|-----|--|--|
| 01. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples are received at 4C +/- 2C Thermometer # IR 2.6 |
| 02. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Received on ice/ cooling process begun |
| 03. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples shipped |
| 04. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples left in 24 hr. drop box |
| 05. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Are there custody seals/tape or is the drop box locked |

Chain of Custody

- | | | |
|-----|--|--|
| 06. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC adequately filled out |
| 07. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC signed and relinquished to the lab |
| 08. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sample tag on bottles match COC |
| 09. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Subcontracting needed? Subcontracted to: |

Preservation

- | | | |
|-----|--|---|
| 10. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Do sample have correct chemical preservation |
| 11. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Completed pH checks on preserved samples? (no VOAs) |
| 12. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Did any samples need to be preserved in the lab? |

Bottle Conditions

- | | | |
|-----|--|---|
| 13. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | All bottles intact |
| 14. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Appropriate analytical bottles are used |
| 15. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Merit bottles used |
| 16. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sufficient sample volume received |
| 17. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples require laboratory filtration |
| 18. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples submitted within holding time |
| 19. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Do water VOC or TOX bottles contain headspace |

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
 www.meritlabs.com

C.O.C. PAGE # 1 OF 1 171588

REPORT TO **CHAIN OF CUSTODY RECORD** **INVOICE TO**

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE MI ZIP CODE 48105
 PHONE NO. _____ CELL NO. 313-333-0211 P.O. NO. 194008845 Task 37
 E-MAIL ADDRESS Kevin.Schneider@Ramboll.com QUOTE NO. _____
Clifford.Yantz@Ramboll.com

CONTACT NAME SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider *[Signature]*
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other _____
 Special Instructions

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PFAS (7977)							
	DATE	TIME																		
62827.01	6/4/24	1030	Vault - A - 06042024	ww	3	X							X							
.02		1255	Vault - C - 06042024	ww	3	X							X							
.03		1505	Vault - E - 06042024	ww	3	X							X							
.04		-	Vault - DUP - 06042024	ww	3	X							X							
.05		-	Field Blank - 06042024	QC	1	X							X							
/																				

Low level reporting with estimated values
 34 PFAS list

RELINQUISHED BY: *[Signature]* Sampler DATE 6/5/24 TIME 11:32
 RECEIVED BY: *[Signature]* DATE 6/5/24 TIME 11:32
 RELINQUISHED BY: *[Signature]* DATE 6/5/24 TIME 13:05
 RECEIVED BY: *[Signature]* DATE 6/5/24 TIME 1305

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT _____ INITIALS _____
 YES NO
 SEAL NO. _____ SEAL INTACT _____ INITIALS _____
 YES NO
 NOTES: TEMP. ON ARRIVAL 2.6

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE



Quality Control Report

Report ID: QC-S62827-01
Generated on 06/25/2024

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S62827.01-S62827.05
Project: RACER Coldwater Road
Submitted Date/Time: 06/05/2024 13:05
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK 37

QC Report Sections

- Cover Page (Page 1)
- Analysis Summary (Pages 2-6)
- Prep Batch Summary (Page 7)
- Internal Standards per Lab Sample (Pages 8-12)
- Internal Standards per QC Sample (Pages 13-17)
- Batch QC Results (Pages 18-22)

Report Flag Descriptions

- *: QC result is outside of indicated control limits
- W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S62827.01

Sample Tag: Vault-A-060424

Collected Date/Time: 06/04/2024 10:30

Matrix: Wastewater

COC Reference: 171588

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/06/24 20:45	AK240606	PF240606W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S62827.02

Sample Tag: Vault-C-060424

Collected Date/Time: 06/04/2024 12:55

Matrix: Wastewater

COC Reference: 171588

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/06/24 21:25	AK240606	PF240606W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S62827.03

Sample Tag: Vault-E-060424

Collected Date/Time: 06/04/2024 15:05

Matrix: Wastewater

COC Reference: 171588

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/06/24 21:45	AK240606	PF240606W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S62827.04

Sample Tag: Vault-DUP-060424

Collected Date/Time: 06/04/2024 00:01

Matrix: Wastewater

COC Reference: 171588

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/06/24 22:05	AK240606	PF240606W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S62827.05

Sample Tag: Field Blank-06042024

Collected Date/Time: 06/04/2024 00:01

Matrix: Wastewater

COC Reference: 171588

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	06/06/24 22:25	AK240606	PF240606W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF240606W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S62827.01	34 PFAs	ASTMD7979-19M	06/06/24 20:45	AK240606
S62827.02	34 PFAs	ASTMD7979-19M	06/06/24 21:25	AK240606
S62827.03	34 PFAs	ASTMD7979-19M	06/06/24 21:45	AK240606
S62827.04	34 PFAs	ASTMD7979-19M	06/06/24 22:05	AK240606
S62827.05	34 PFAs	ASTMD7979-19M	06/06/24 22:25	AK240606

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62827.01

Sample Tag: Vault-A-060424

Collected Date/Time: 06/04/2024 10:30

Matrix: Wastewater

COC Reference: 171588

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240606, Run Date: 06/06/2024 20:45, Matrix: WW, Dilution: 2.04

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		110.4	50.0	150.0
M2-6:2FTSA		88.7	50.0	150.0
M2-8:2FTSA		83.8	50.0	150.0
M2PFTeDA		110.4	12.0	218.0
M3PFBS		93.4	50.0	150.0
M3PFHxS		90.0	50.0	150.0
M4PFHpA		91.2	50.0	150.0
M5PFHxA		97.0	50.0	150.0
M5PFPeA		96.9	50.0	150.0
M6PFDA		89.1	50.0	150.0
M7PFUnDA		103.3	50.0	150.0
M8FOSA		99.1	50.0	150.0
M8PFOA		92.6	50.0	150.0
M8PFOS		106.8	50.0	150.0
M9-PFNA		85.5	50.0	150.0
MPFBA		93.0	50.0	150.0
MPFDoDA		104.9	50.0	150.0
d3N-MeFOSAA		75.5	50.0	150.0
d5EtFOSAA		83.8	50.0	150.0
MHFPO-DA		93.0	50.0	150.0
d-N-EtFOSA-M		95.5	50.0	150.0
d-N-MeFOSA-M		102.0	50.0	150.0
d7-N-MeFOSE-M		102.5	50.0	150.0
d9-N-EtFOSE-M		103.1	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62827.02

Sample Tag: Vault-C-060424

Collected Date/Time: 06/04/2024 12:55

Matrix: Wastewater

COC Reference: 171588

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240606, Run Date: 06/06/2024 21:25, Matrix: WW, Dilution: 1.98

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		102.6	50.0	150.0
M2-6:2FTSA		96.2	50.0	150.0
M2-8:2FTSA		97.9	50.0	150.0
M2PFTeDA		104.9	12.0	218.0
M3PFBS		98.2	50.0	150.0
M3PFHxS		96.5	50.0	150.0
M4PFHpA		97.4	50.0	150.0
M5PFHxA		99.1	50.0	150.0
M5PFPeA		98.8	50.0	150.0
M6PFDA		95.4	50.0	150.0
M7PFUnDA		95.9	50.0	150.0
M8FOSA		107.4	50.0	150.0
M8PFOA		99.0	50.0	150.0
M8PFOS		101.3	50.0	150.0
M9-PFNA		91.0	50.0	150.0
MPFBA		89.0	50.0	150.0
MPFDoDA		101.0	50.0	150.0
d3N-MeFOSAA		86.2	50.0	150.0
d5EtFOSAA		85.0	50.0	150.0
MHFPO-DA		93.6	50.0	150.0
d-N-EtFOSA-M		106.1	50.0	150.0
d-N-MeFOSA-M		99.4	50.0	150.0
d7-N-MeFOSE-M		105.9	50.0	150.0
d9-N-EtFOSE-M		99.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62827.03

Sample Tag: Vault-E-060424

Collected Date/Time: 06/04/2024 15:05

Matrix: Wastewater

COC Reference: 171588

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240606, Run Date: 06/06/2024 21:45, Matrix: WW, Dilution: 1.93

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		92.3	50.0	150.0
M2-6:2FTSA		90.8	50.0	150.0
M2-8:2FTSA		100.6	50.0	150.0
M2PFTeDA		89.8	12.0	218.0
M3PFBS		96.3	50.0	150.0
M3PFHxS		87.7	50.0	150.0
M4PFHpA		96.5	50.0	150.0
M5PFHxA		101.1	50.0	150.0
M5PFPeA		96.7	50.0	150.0
M6PFDA		98.9	50.0	150.0
M7PFUnDA		90.8	50.0	150.0
M8FOSA		98.3	50.0	150.0
M8PFOA		104.4	50.0	150.0
M8PFOS		108.9	50.0	150.0
M9-PFNA		93.3	50.0	150.0
MPFBA		90.4	50.0	150.0
MPFDoDA		100.6	50.0	150.0
d3N-MeFOSAA		83.2	50.0	150.0
d5EtFOSAA		87.0	50.0	150.0
MHFPO-DA		92.6	50.0	150.0
d-N-EtFOSA-M		105.0	50.0	150.0
d-N-MeFOSA-M		98.2	50.0	150.0
d7-N-MeFOSE-M		102.0	50.0	150.0
d9-N-EtFOSE-M		95.7	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62827.04

Sample Tag: Vault-DUP-060424

Collected Date/Time: 06/04/2024 00:01

Matrix: Wastewater

COC Reference: 171588

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240606, Run Date: 06/06/2024 22:05, Matrix: WW, Dilution: 2.02

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		112.6	50.0	150.0
M2-6:2FTSA		99.2	50.0	150.0
M2-8:2FTSA		94.5	50.0	150.0
M2PFTeDA		110.1	12.0	218.0
M3PFBS		94.1	50.0	150.0
M3PFHxS		91.2	50.0	150.0
M4PFHpA		92.5	50.0	150.0
M5PFHxA		99.4	50.0	150.0
M5PFPeA		93.9	50.0	150.0
M6PFDA		88.8	50.0	150.0
M7PFUnDA		101.0	50.0	150.0
M8FOSA		98.5	50.0	150.0
M8PFOA		92.5	50.0	150.0
M8PFOS		105.8	50.0	150.0
M9-PFNA		85.0	50.0	150.0
MPFBA		87.3	50.0	150.0
MPFDoDA		100.3	50.0	150.0
d3N-MeFOSAA		79.9	50.0	150.0
d5EtFOSAA		79.9	50.0	150.0
MHFPO-DA		101.6	50.0	150.0
d-N-EtFOSA-M		92.7	50.0	150.0
d-N-MeFOSA-M		101.1	50.0	150.0
d7-N-MeFOSE-M		89.1	50.0	150.0
d9-N-EtFOSE-M		98.6	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S62827.05

Sample Tag: Field Blank-06042024

Collected Date/Time: 06/04/2024 00:01

Matrix: Wastewater

COC Reference: 171588

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK240606, Run Date: 06/06/2024 22:25, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		101.5	50.0	150.0
M2-6:2FTSA		92.7	50.0	150.0
M2-8:2FTSA		91.4	50.0	150.0
M2PFTeDA		109.4	12.0	218.0
M3PFBS		101.7	50.0	150.0
M3PFHxS		96.3	50.0	150.0
M4PFHpA		93.9	50.0	150.0
M5PFHxA		98.7	50.0	150.0
M5PFPeA		101.6	50.0	150.0
M6PFDA		91.3	50.0	150.0
M7PFUnDA		108.6	50.0	150.0
M8FOSA		106.5	50.0	150.0
M8PFOA		101.2	50.0	150.0
M8PFOS		102.7	50.0	150.0
M9-PFNA		99.1	50.0	150.0
MPFBA		103.5	50.0	150.0
MPFDoDA		100.2	50.0	150.0
d3N-MeFOSAA		103.1	50.0	150.0
d5EtFOSAA		96.2	50.0	150.0
MHFPO-DA		90.6	50.0	150.0
d-N-EtFOSA-M		106.5	50.0	150.0
d-N-MeFOSA-M		102.4	50.0	150.0
d7-N-MeFOSE-M		102.8	50.0	150.0
d9-N-EtFOSE-M		102.3	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF240606W1

QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240606.BLK240606

Run in Batch: AK240606, Run Date: 06/06/2024 15:24, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		105.3	50.0	150.0
M2-6:2FTSA		105.4	50.0	150.0
M2-8:2FTSA		110.3	50.0	150.0
M2PFTeDA		102.9	12.0	218.0
M3PFBS		111.2	50.0	150.0
M3PFHxS		100.1	50.0	150.0
M4PFHpA		105.0	50.0	150.0
M5PFHxA		113.6	50.0	150.0
M5PFPeA		104.5	50.0	150.0
M6PFDA		110.3	50.0	150.0
M7PFUnDA		113.0	50.0	150.0
M8FOSA		106.0	50.0	150.0
M8PFOA		116.5	50.0	150.0
M8PFOS		122.4	50.0	150.0
M9-PFNA		99.6	50.0	150.0
MPFBA		113.3	50.0	150.0
MPFDoDA		114.3	50.0	150.0
d3N-MeFOSAA		102.0	50.0	150.0
d5EtFOSAA		101.1	50.0	150.0
MHFPO-DA		108.0	50.0	150.0
d-N-EtFOSA-M		111.5	50.0	150.0
d-N-MeFOSA-M		114.3	50.0	150.0
d7-N-MeFOSE-M		110.5	50.0	150.0
d9-N-EtFOSE-M		107.3	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK240606.LCS240606

Run in Batch: AK240606, Run Date: 06/06/2024 14:44, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		100.9	50.0	150.0
M2-6:2FTSA		106.2	50.0	150.0
M2-8:2FTSA		98.4	50.0	150.0
M2PFTeDA		108.1	12.0	218.0
M3PFBS		102.8	50.0	150.0
M3PFHxS		112.9	50.0	150.0
M4PFHpA		103.8	50.0	150.0
M5PFHxA		114.1	50.0	150.0
M5PFPeA		108.2	50.0	150.0
M6PFDA		111.1	50.0	150.0
M7PFUnDA		117.1	50.0	150.0
M8FOSA		107.6	50.0	150.0
M8PFOA		118.2	50.0	150.0
M8PFOS		111.9	50.0	150.0
M9-PFNA		97.7	50.0	150.0
MPFBA		110.3	50.0	150.0
MPFDoDA		113.6	50.0	150.0
d3N-MeFOSAA		106.3	50.0	150.0
d5EtFOSAA		96.7	50.0	150.0
MHFPO-DA		113.0	50.0	150.0
d-N-EtFOSA-M		112.6	50.0	150.0
d-N-MeFOSA-M		105.6	50.0	150.0
d7-N-MeFOSE-M		105.0	50.0	150.0
d9-N-EtFOSE-M		113.6	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240606.LCSD240606, Parent Sample ID: AK240606.LCS240606

Run in Batch: AK240606, Run Date: 06/06/2024 15:04, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		103.6	50.0	150.0
M2-6:2FTSA		95.3	50.0	150.0
M2-8:2FTSA		109.4	50.0	150.0
M2PFTeDA		108.6	12.0	218.0
M3PFBS		99.6	50.0	150.0
M3PFHxS		100.2	50.0	150.0
M4PFHpA		89.8	50.0	150.0
M5PFHxA		112.3	50.0	150.0
M5PFPeA		103.3	50.0	150.0
M6PFDA		100.9	50.0	150.0
M7PFUnDA		109.5	50.0	150.0
M8FOSA		106.0	50.0	150.0
M8PFOA		108.5	50.0	150.0
M8PFOS		110.3	50.0	150.0
M9-PFNA		102.5	50.0	150.0
MPFBA		109.6	50.0	150.0
MPFDoDA		104.5	50.0	150.0
d3N-MeFOSAA		97.5	50.0	150.0
d5EtFOSAA		103.6	50.0	150.0
MHFPO-DA		100.5	50.0	150.0
d-N-EtFOSA-M		117.2	50.0	150.0
d-N-MeFOSA-M		104.0	50.0	150.0
d7-N-MeFOSE-M		99.0	50.0	150.0
d9-N-EtFOSE-M		102.9	50.0	150.0

QC Report - Internal Standards per QC Sample

Matrix Spike (MS)

Lab Sample ID: AK240606.6279801M, Parent Sample ID: S62798.01

Run in Batch: AK240606, Run Date: 06/06/2024 19:25, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1.89

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		101.6	50.0	150.0
M2-6:2FTSA		85.1	50.0	150.0
M2-8:2FTSA		94.6	50.0	150.0
M2PFTeDA		108.9	12.0	218.0
M3PFBS		93.2	50.0	150.0
M3PFHxS		97.2	50.0	150.0
M4PFHpA		97.2	50.0	150.0
M5PFHxA		105.8	50.0	150.0
M5PFPeA		93.8	50.0	150.0
M6PFDA		101.5	50.0	150.0
M7PFUnDA		94.1	50.0	150.0
M8FOSA		99.2	50.0	150.0
M8PFOA		95.6	50.0	150.0
M8PFOS		107.0	50.0	150.0
M9-PFNA		94.0	50.0	150.0
MPFBA		94.5	50.0	150.0
MPFDoDA		102.7	50.0	150.0
d3N-MeFOSAA		81.6	50.0	150.0
d5EtFOSAA		79.9	50.0	150.0
MHFPO-DA		104.6	50.0	150.0
d-N-EtFOSA-M		101.0	50.0	150.0
d-N-MeFOSA-M		107.9	50.0	150.0
d7-N-MeFOSE-M		95.8	50.0	150.0
d9-N-EtFOSE-M		97.1	50.0	150.0

QC Report - Internal Standards per QC Sample

Duplicate (DUP)

Lab Sample ID: AK240606.6282701D, Parent Sample ID: S62827.01

Run in Batch: AK240606, Run Date: 06/06/2024 21:05, Prep Date: 06/06/2024, Matrix: WW, Dilution: 2.04

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		100.1	50.0	150.0
M2-6:2FTSA		96.1	50.0	150.0
M2-8:2FTSA		82.3	50.0	150.0
M2PFTeDA		105.5	12.0	218.0
M3PFBS		109.3	50.0	150.0
M3PFHxS		93.3	50.0	150.0
M4PFHpA		94.4	50.0	150.0
M5PFHxA		97.7	50.0	150.0
M5PFPeA		95.8	50.0	150.0
M6PFDA		95.9	50.0	150.0
M7PFUnDA		93.0	50.0	150.0
M8FOSA		107.7	50.0	150.0
M8PFOA		107.8	50.0	150.0
M8PFOS		100.8	50.0	150.0
M9-PFNA		89.5	50.0	150.0
MPFBA		92.1	50.0	150.0
MPFDoDA		100.7	50.0	150.0
d3N-MeFOSAA		77.8	50.0	150.0
d5EtFOSAA		83.2	50.0	150.0
MHFPO-DA		93.5	50.0	150.0
d-N-EtFOSA-M		112.9	50.0	150.0
d-N-MeFOSA-M		97.1	50.0	150.0
d7-N-MeFOSE-M		102.8	50.0	150.0
d9-N-EtFOSE-M		107.5	50.0	150.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240606W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK)

Lab Sample ID: AK240606.BLK240606

Run in Batch: AK240606, Run Date: 06/06/2024 15:24, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	10	ng/l
PFPPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	10	ng/l
FPePA (5:3 FTCA)		ND	10	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	10	ng/l
PFNA		ND	2	ng/l
PFECHS		ND	2	ng/l
PFHpS		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFDA		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS		ND	2	ng/l
PFOS-LN		ND	2	ng/l
PFUnDA		ND	2	ng/l
PFHxSA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTTeDA		ND	4	ng/l
PFDOS		ND	6	ng/l
NMeFOSE		ND	4	ng/l
NMeFOSAM		ND	2	ng/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240606W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Blank (BLK) (continued)

Lab Sample ID: AK240606.BLK240606

Run in Batch: AK240606, Run Date: 06/06/2024 15:24, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
NEtFOSE		ND	4	ng/l
NEtFOSAM		ND	2	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK240606.LCS240606

Run in Batch: AK240606, Run Date: 06/06/2024 14:44, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		88.8	70.0	130.0
PFMPA	*	69.2	70.0	130.0
FPrPA (3:3 FTCA)		81.6	70.0	130.0
PFPPrS		78.8	70.0	130.0
PFPeA		85.0	70.0	130.0
PFMBA		73.6	70.0	130.0
4:2 FTSA		87.0	70.0	130.0
NFDHA		81.2	70.0	130.0
PFHxA		81.4	70.0	130.0
PFBS		85.0	70.0	130.0
HFPO-DA		70.2	70.0	130.0
FPePA (5:3 FTCA)		71.4	70.0	130.0
PFEESA		75.0	70.0	130.0
PFHpA		84.6	70.0	130.0
PFPeS		83.6	70.0	130.0
ADONA		78.6	70.0	130.0
6:2 FTSA		84.4	70.0	130.0
PFBSA		81.2	70.0	130.0
PFOA		70.8	70.0	130.0
PFHxS	*	68.6	70.0	130.0
FHpPA (7:3 FTCA)	*	61.8	70.0	130.0
PFNA		91.4	70.0	130.0
PFECHS		91.6	70.0	130.0
PFHpS		85.4	70.0	130.0
8:2 FTSA		87.2	70.0	130.0
PFDA		82.4	70.0	130.0
N-MeFOSAA		87.6	70.0	130.0
EtFOSAA		91.4	70.0	130.0
PFOS		93.6	70.0	130.0
PFUnDA		88.2	70.0	130.0
PFHxSA		75.0	70.0	130.0
9CL-PF3ONS		91.6	70.0	130.0
PFNS		88.0	70.0	130.0
PFDoDA		79.4	70.0	130.0
PFDS		93.0	70.0	130.0
PFTTrDA		88.4	70.0	130.0
11CL-PF3OUdS		87.4	70.0	130.0
FOSA		79.0	70.0	130.0
PFTeDA		79.8	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240606W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK240606.LCS240606

Run in Batch: AK240606, Run Date: 06/06/2024 14:44, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFDOS		90.8	70.0	130.0
NMeFOSE		84.4	70.0	130.0
NMeFOSAM		81.8	70.0	130.0
NEtFOSE		80.6	70.0	130.0
NEtFOSAM		74.8	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK240606.LCSD240606, Parent Sample ID: AK240606.LCS240606

Run in Batch: AK240606, Run Date: 06/06/2024 15:04, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		97.4	70.0	130.0	9.2	30.0
PFMPA		70.4	70.0	130.0	1.7	30.0
FPrPA (3:3 FTCA)		81.6	70.0	130.0	0.0	30.0
PFPPrS		84.4	70.0	130.0	6.9	30.0
PFPeA		87.2	70.0	130.0	2.6	30.0
PFMBA		70.6	70.0	130.0	4.2	30.0
4:2 FTSA		80.0	70.0	130.0	8.4	30.0
NFDHA		79.6	70.0	130.0	2.0	30.0
PFHxA		87.6	70.0	130.0	7.3	30.0
PFBS		92.8	70.0	130.0	8.8	30.0
HFPO-DA		83.6	70.0	130.0	17.4	30.0
PFpPA (5:3 FTCA)		90.6	70.0	130.0	23.7	30.0
PFEESA		73.8	70.0	130.0	1.6	30.0
PFHpA		107.6	70.0	130.0	23.9	30.0
PFPeS		82.4	70.0	130.0	1.4	30.0
ADONA		83.6	70.0	130.0	6.2	30.0
6:2 FTSA		86.2	70.0	130.0	2.1	30.0
PFBSA		84.6	70.0	130.0	4.1	30.0
PFOA		76.0	70.0	130.0	7.1	30.0
PFHxS		85.0	70.0	130.0	21.4	30.0
FHpPA (7:3 FTCA)		72.2	70.0	130.0	15.5	30.0
PFNA		85.4	70.0	130.0	6.8	30.0
PFECHS		95.4	70.0	130.0	4.1	30.0
PFHpS		90.6	70.0	130.0	5.9	30.0
8:2 FTSA		85.8	70.0	130.0	1.6	30.0
PFDA		88.0	70.0	130.0	6.6	30.0
N-MeFOSAA		99.0	70.0	130.0	12.2	30.0
EtFOSAA		94.8	70.0	130.0	3.7	30.0
PFOS		92.4	70.0	130.0	1.3	30.0
PFUnDA		89.0	70.0	130.0	0.9	30.0
PFHxSA		76.2	70.0	130.0	1.6	30.0
9CL-PF3ONS		90.2	70.0	130.0	1.5	30.0
PFNS		86.2	70.0	130.0	2.1	30.0
PFDODA		90.8	70.0	130.0	13.4	30.0
PFDS		97.8	70.0	130.0	5.0	30.0
PFTTrDA		97.8	70.0	130.0	10.1	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240606W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK240606.LCSD240606, Parent Sample ID: AK240606.LCS240606

Run in Batch: AK240606, Run Date: 06/06/2024 15:04, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
11CL-PF3OUdS		85.2	70.0	130.0	2.5	30.0
FOSA		81.4	70.0	130.0	3.0	30.0
PFTeDA		83.4	70.0	130.0	4.4	30.0
PFDOS		93.8	70.0	130.0	3.3	30.0
NMeFOSE		96.4	70.0	130.0	13.3	30.0
NMeFOSAM		78.8	70.0	130.0	3.7	30.0
NEtFOSE		91.4	70.0	130.0	12.6	30.0
NEtFOSAM		79.8	70.0	130.0	6.5	30.0

Matrix Spike (MS)

Lab Sample ID: AK240606.6279801M, Parent Sample ID: S62798.01

Run in Batch: AK240606, Run Date: 06/06/2024 19:25, Prep Date: 06/06/2024, Matrix: WW, Dilution: 1.89

Analyte	Flags	% Rec	LCL	UCL
PFBA		116.4	70.0	130.0
PFPeA		109.0	70.0	130.0
4:2 FTSA		100.5	70.0	130.0
PFHxA		95.4	70.0	130.0
PFBS		104.8	70.0	130.0
PFHpA		98.4	70.0	130.0
PFPeS		98.4	70.0	130.0
6:2 FTSA		116.4	70.0	130.0
PFOA		91.6	70.0	130.0
PFHxS		98.3	70.0	130.0
PFNA		108.3	70.0	130.0
8:2 FTSA		103.7	70.0	130.0
PFHpS		105.8	70.0	130.0
PFDA		103.7	70.0	130.0
N-MeFOSAA		116.4	70.0	130.0
EtFOSAA	*	137.6	70.0	130.0
PFOS		106.2	70.0	130.0
PFUnDA	*	137.6	70.0	130.0
PFNS		103.7	70.0	130.0
PFDoDA		105.8	70.0	130.0
PFDS		105.8	70.0	130.0
PFTrDA		116.4	70.0	130.0
FOSA		101.6	70.0	130.0
PFTeDA		100.5	70.0	130.0
11CL-PF3OUdS		105.8	70.0	130.0
9CL-PF3ONS		103.7	70.0	130.0
ADONA		105.8	70.0	130.0
HFPO-DA		81.5	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF240606W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/DUP

Duplicate (DUP)

Lab Sample ID: AK240606.6282701D, Parent Sample ID: S62827.01

Run in Batch: AK240606, Run Date: 06/06/2024 21:05, Prep Date: 06/06/2024, Matrix: WW, Dilution: 2.04

Analyte	Flags	RPD	RPD CL
PFBA		6.1	30.0
PFPeA	J	10.5	30.0
4:2 FTSA		NC	30.0
PFHxA		15.8	30.0
PFBS		14.0	30.0
PFHpA	J	0.0	30.0
PFPeS		18.4	30.0
6:2 FTSA		NC	30.0
PFOA		18.2	30.0
PFHxS		3.6	30.0
PFHxS-LN		4.4	30.0
PFHxS-BR		15.1	30.0
PFNA		NC	30.0
8:2 FTSA		NC	30.0
PFHpS		18.7	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		15.7	30.0
PFOS-LN		17.4	30.0
PFOS-BR		9.1	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDoDA		NC	30.0
PFDS		NC	30.0
PFTTrDA		NC	30.0
FOSA		NC	30.0
PFTeDA		NC	30.0
11CL-PF3OUdS		NC	30.0
9CL-PF3ONS		NC	30.0
ADONA		NC	30.0
HFPO-DA		NC	30.0
FHpPA (7:3 FTCA)		NC	30.0
FPePA (5:3 FTCA)		NC	30.0
FPrPA (3:3 FTCA)		NC	30.0
PFBSA		NC	30.0
PFECHS		11.8	30.0
PFHxSA		NC	30.0

