

Transmitted via email

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Ms. Nicole Sanabria & Ms. Christina Hebert
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PO Box 30241
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RE: Corrective Action Plan – South and West of Site Storm Sewer Evaluation Update
Coldwater Road Site
6220 Horton Street, Mount Morris, MI
MID 005 356 860

Date January 10, 2025

Dear Mr. Zuber, Ms. Sanabria, & Ms. Hebert:

On behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, Ramboll Americas Engineering Solutions, Inc. (Ramboll) is providing the following update to present results of sampling of storm sewers south and west of the RACER Coldwater Road Facility located at 6220 Horton Street, Mount Morris, Genesee County, Michigan (Site).

Additional sample collection was completed to provide further information to the South of Site Evaluation Letter and Task 1 of the June 3, 2022, Corrective Action Plan (CAP) submitted to the Michigan Department of Environmental, Great Lakes, and Energy (EGLE) Water Resources Division, via MiEnviro to address Violation Notice (No. VN-012757) dated May 4, 2022.

The evaluation was also conducted in response to the analytical results from per- and polyfluoroalkyl substances (PFAS), specifically perfluorooctanesulfonic acid (PFOS), samples collected on September 22, 2021, by EGLE along the Cornwell Drain.

This letter provides a summary of the additional sample collection information related to the storm sewer system along the southern Site boundary east of the middle entry drive and south of Coldwater Road, summarizes the results collected west of the Site from the storm sewer line along the eastern side of Saginaw Road, and provides a summary of the storm water inspection which was conducted during the sample collection. The storm water matrix and figure are included as **Appendix A**.

Storm water inspections have been completed quarterly since August 2019 to monitor the corrective measures performed to the storm water system to mitigate the discharge from the Site of PFAS-impacted water via storm sewers.

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During the storm water inspection conducted on October 14, 2024, no dripping water was observed from the plugs at MH-10E, SS-02, and the plugged clay tile pipe within the SS-02 manhole, so previous plugging efforts continue to prevent discharges of PFAS-impacted water. No flow was observed from the Site in manhole MH-17A so the previous activities to plug the sewer line and seal the section of storm sewer between manholes MH-16 (which is east of MH-17A) and MH-17A continues to prevent discharge of PFAS-impacted water.

Water was flowing from MH-18A into MH-18, which empties into the 72-inch storm water sewer along Klein Street as the temporary pond water discharge system was operating at the time the storm water inspection was conducted.

Sample Collection

On October 14, 2024, six storm water samples were collected from the storm water system south of the southern Site boundary. MW-10E-W, SS-14, and SS-23 were collected along Coldwater Road near the southern Site boundary. SS-12, SS-15, and SS-16 were collected along Harry Street south of Coldwater Road from storm water flowing away from the Site (**Figure 1**). A storm water sample was also collected from SS-10 (see **Figure 2** for SS-10 sample location) from the storm sewer line along the eastern side of Saginaw Road west of Site, which was part of the lining activities. This location is sampled to further evaluate the effectiveness of the lining activities.

Prior to collecting the samples for the events there was approximately 0.70 inches of precipitation on October 13, 2024 and October 14, 2024 in the area. The sample location SS-11 on East Kurtz Avenue west of Harry Street (and EGLE's CD-10 sample location) had no flow or standing water and was not sampled. The storm water flow rate was a little less than average during this most recent event. A graduated 5-gallon bucket was used to estimate the flow rate at sample locations SS-14 and SS-15. The approximate flow rate at SS-14 of the municipal stormwater flowing west to east along Coldwater Road was 6 gallons per minute (gpm). The approximate flow rate at SS-15 of the stormwater flowing north to south along Harry Street was 20 gpm.

The sample collection was completed following the protocols set forth in the EGLE Michigan PFAS Action Response Team (MPART) Surface Water PFAS Sampling Guidance dated October 2022 and Ramboll's PFAS Sampling Field Guidance Document Number 1.07.

Samples were collected either by using the direct sampling method of collecting the water directly into the sample container or by using a peristaltic pump and high-density polyethylene tubing that was weighted down with a stainless-steel weight and lowered into the manhole.

The samples were labeled, packed on ice, and shipped via courier under routine chain-of-custody protocols to Merit Laboratories, Inc. (Merit) of East Lansing, Michigan.

Analytical Results

The storm water samples were analyzed for PFAS by method ASTM D7979-19 (no preservative). The analytical results for the recent storm water samples and historical storm water samples collected south of the Site are summarized in **Table 1**, the samples collected west of the Site are summarized in **Table 2**, and the analytical laboratory report is included in **Appendix B**.

During the October 14, 2024 sampling event, the following samples collected along Harry Street from storm water flowing away from the Site contained concentrations above the October 12, 2023 Part 201 Groundwater Generic Cleanup Criteria and Screening Levels and the Rule 57 Surface Water Quality Value of 12 ng/l for PFOS: SS-12 (85 ng/l PFOS), SS-15 (73 ng/l PFOS), and SS-16 (59 ng/l PFOS), and the following storm water samples collected along Coldwater Road near the southern Site boundary contained concentrations above 12 ng/l PFOS: SS-14 (50 ng/l PFOS) and SS-23 (120 ng/l). The sample from MH-10E-W contained a PFOS concentration of 11 ng/l.

PFAS were not detected field blank (Field Blank-20241014) associated with the samples.

The PFOS concentrations at MH-10E-W, SS-12, SS-14, SS-15, and SS-16 decreased compared to the last sampling event, and the PFOS concentrations at SS-23 increased compared to the last sampling event. The results were within range of historical results.

The PFOS concentration at SS-10 collected along Saginaw Road west of the Site was 9.2 ng/l, which is a decrease compared to the last sampling event and consistent with historical post-lining sample results.

Conclusions and Recommendations

The PFOS concentrations in the storm sewer system south of Coldwater Road were comparable to the results that have been collected since the most recent plugging activities completed in October and November 2023. It does appear that plugging activities along the north side of Coldwater Road have successfully improved the quality of the sewer results and decreased the PFOS mass (i.e., a significant reduction in the concentrations detected in the sewers and the flow rate of PFOS-impacted water into the sewers) since storm water modifications began in January 2019.

The PFOS concentration at SS-10 collected along Saginaw Road west of the Site have remained consistent with historical post-lining sample results since the lining was completed in December 2021.

To allow for continued evaluation of concentration variability and trends, we propose to collect another round of samples from sample location SS-10 west of the Site, and from sample locations SS-12, SS-14, SS-15, SS-16, MH-10E-W, and SS-23 in March 2024. An update similar to this one will be provided within approximately four weeks of receipt of the analytical results from the laboratory.

If you would like a paper copy of any of the attached information let me know. Please contact me at clifford.yantz@ramboll.com or Brendan Mullen with RACER at bmullen@racertrust.org or 201-247-4890, if you have any questions.

Yours sincerely,

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

A handwritten signature in blue ink that reads "Clifford Scott Yantz".

Clifford Yantz

Project Manager

1943864 - MIDWEST EAST Resources 056

M 313-333-0211

clifford.yantz@ramboll.com

CC:

Brendan Mullen (RACER Trust)

David Favero (RACER Trust)

Kevin Schneider (Ramboll)

EGLE MMD-HWS Electronic Mailbox

Enclosures:

Table 1 – South of Site Storm Water PFAS Sample Results

Table 2 – West of Site Storm Water PFAS Sample Results

Figure 1 – Storm Water Sewers – Horton Street to Dort Highway

Figure 2 – Storm Water Sewers – West of Site

Appendix A – Storm Water Monitoring Matrix and Figure

Appendix B – Analytical Laboratory Report

TABLES

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-02 (Storm Sewer)	SS-02 (DUP-1) (Storm Sewer)	SS-02 (Storm Sewer)	SS-04 (Storm Sewer)	SS-DUP-2/SS-04 (Storm Sewer)	SS-08 (Storm Sewer)	SS-11 (Storm Water)
Sample Date:			11/12/2018	11/12/2018	12/21/2021	3/19/2020	3/19/2020	8/28/2020	4/14/2022
Precipitation Inches			0.0"	0.0"	0.0"	0.01"	0.01"	1.58"	0.0"
Perfluorobutanoic Acid (PFBA)	--	--	20	20	13	<100	<100	<10	<9.8
Perfluoropentanoic Acid (PFPeA)	--	--	<10	<10	6.1	<10	<10	<4.1	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorohexanoic Acid (PFHxA)	--	--	10	10	4.5	<10	<10	<2.1	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	670,000	--	<10	<10	3.1	<10	<10	<2.1	82
Perfluoroheptanoic Acid (PFHpA)	--	--	<10	<10	2.2	<10	<10	<2.1	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<10	<10	<4.2	<10	<10	<2.1	<2.0
Perfluorooctanoic Acid (PFOA)	170	--	20	20	4.8	<10	<10	1.9 J	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	210	--	20	20	3.7	<10	<10	<2.1	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	20	20	2.8	<10	<10	<2.1	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorononanoic Acid (PFNA)	30	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<10	<10	<4.2	<10	<10	<2.1	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<10	<10	<4.2	<10	<10	<4.1	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	12	--	1520	1250	86	<10	<10	7.3	4.8
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	1160	950	62	<10	<10	4.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	380	280	24	<10	<10	2.8	4.1
Perfluoroundecanoic Acid (PFUnDA)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorotridecanoic Acid (PFTriDA)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<10	<10	<2.1	<10	<10	<2.1	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<10	<10	<4.2	<10	<10	<4.1	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	--	--	<2.1	<10	<10	<2.1	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	--	--	<2.1	<10	<10	<2.1	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	--	<2.1	<10	<10	<2.1	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--	--	--	--	<10	<10	<10	<2.1	<3.9
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	--	--	1600.0	1320.0	123.4	0.0	0.0	9.2	86.8

Notes

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

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-12 (Storm Sewer)	SS-12 (Storm Sewer)	SS-12 (Storm Sewer)	SS-12 (Storm Sewer)	SS-12 (Storm Sewer)	SS-12 (Storm Sewer)	SS-12 (Storm Sewer)
	Sample Date:		4/14/2022	6/22/2022	8/4/2022	1/4/2023	3/23/2023	6/27/2023	8/7/2023
	Precipitation Inches		0.0"	0.03"	1.72"	0.15"	0.15"	0.42"	0.64"
Perfluorobutanoic Acid (PFBA)	--		<9.8	<11	<10	<10.0	<10	<10.0	<15 X
Perfluoropentanoic Acid (PFPeA)	--		2.1 J	4.0 J	4.2	1.1 J	<4.0	2.9 J	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	--		3.3	5.2	4.2	2.6	2.0 J	2.7	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	670,000		2.0	5.6	3.9	2.6	<2.0	4.4	2.3
Perfluoroheptanoic Acid (PFHpA)	--		2.1	2.7	2.7	<2.0	<2.0	1.7	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	170		5.8	11	7.5	2.1	<2.0	3.6	4.2
Perfluorohexane Sulfonic Acid (PFHxS)	210		2.8	3.5	3.0	1.6 J	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--		1.7 J	2.8	2.4	<2.0	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	30		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--		<3.9	<4.2	<4.1	<4.0	<4.0	<4.0	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	12		140	91	190	86	34	64	93
Perfluorooctane Sulfonic Acid (PFOS-LN)	--		100	63	140	68	28	46	71
Perfluorooctane Sulfonic Acid (PFOS-BR)	--		34	28	44	17	6	17	19
Perfluoroundecanoic Acid (PFUnDA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--		<3.9	<4.2	<4.1	<4.0	<4.0	<4.0	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--		<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--		<3.9	<11	<10	<10.0	<2.0	<2.0	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--		--	--	--	--	--	<4.0	<3.9
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--		--	--	--	--	--	<4.0	<3.9
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--		--	--	--	--	--	<4.0	<3.9
Perfluorobutanesulfonamide (PFBSA)	--		--	--	--	--	--	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--		--	--	--	--	--	19	17
Perfluorohexanesulfonamide (PFHxSA)	--		--	--	--	--	--	<2.0	<2.0
Total Per-and Polyfluoroalkyl Substances	--		158.1	123.0	215.5	96.0	36.0	98.3	116.5

Notes

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TABLE 1
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Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-12 (Storm Sewer)	SS-12 (Storm Sewer)	SS-12-20241014 (Storm Sewer)	SS-13 (Storm Sewer)	SS-13 (Storm Sewer)	SS-14 (Storm Sewer)	SS-14 (Storm Sewer)
	Sample Date:		12/18/2023	6/17/2024	10/14/2024	5/16/2022	8/4/2022	5/16/2022	6/22/2022
	Precipitation Inches		0.24"	0.45"	0.70"	0.71"	1.72"	0.71"	0.03"
Perfluorobutanoic Acid (PFBA)	--	--	<9.8	8.8 J	4.4 J	<39	<10	14	12
Perfluoropentanoic Acid (PFPeA)	--	--	<3.9	1.7 J	<3.9	<3.9	1.6 J	2.1 J	5.2
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorohexanoic Acid (PFHxA)	--	--	2.0	4.3	2.7	2.5	3.2	4.3	7.0
Perfluorobutane Sulfonic Acid (PFBS)	670,000	--	2.1	2.5	1.9 J	<2.0	3.5	2.8	6.7
Perfluoroheptanoic Acid (PFHpA)	--	--	<3.9	1.4 J	<2.0	<2.0	1.8 J	2.3	5.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.0	<2.1	0.84 J	<2.0	<2.0	<2.1	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorooctanoic Acid (PFOA)	170	--	1.5 J	4.7	1.9 J	<2.0	4.8	8.4	15
Perfluorohexane Sulfonic Acid (PFHxS)	210	--	<2.0	3.0	2.3	<2.0	3.5	1.8 J	4.5
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<2.0	2.3	1.9 J	<2.0	2.5	<2.1	3.7
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorononanoic Acid (PFNA)	30	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<3.9	<4.1	<3.9	<3.9	<4.0	<4.1	<4.1
Perfluorooctane Sulfonic Acid (PFOS)	12	--	22	100	85	20	25	30	39
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	16	74	62	16	17	20	24
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	5.7	25	22	4.0	6.7	9.1	14
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<3.9	<4.1	<3.9	<3.9	<4.0	<4.1	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	--	--	<9.8	<10	<9.8	<3.9	<10	<4.1	<10
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	<9.8	<10	<9.8	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	<9.8	<10	<9.8	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	<9.8	<10	<9.8	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	0.71 J	0.81 J	<2.0	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	11	41	38	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	<2.0	<2.1	<2.0	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	39.3	168.2	137.0	22.5	43.4	65.7	94.4

Notes

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

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-14 (Storm Sewer)	SS-14 (Storm Sewer)	SS-14 (Storm Sewer)	SS-14 (Storm Sewer)	SS-14 (Storm Sewer)	SS-14 (Storm Sewer)	SS-14 (Storm Sewer)	SS-14-20241014 (Storm Sewer)
	Sample Date:		8/4/2022	1/4/2023	3/23/2023	6/27/2023	8/7/2023	12/18/2023	6/17/2024	10/14/2024
	Precipitation Inches		1.72"	0.15"	0.15"	0.42"	0.64"	0.24"	0.45"	0.70"
Perfluorobutanoic Acid (PFBA)	--		<10	<10	<10	<9.7	<21 X	<10	7.9 J	<11
Perfluoropentanoic Acid (PFPeA)	--		3.5 J	<4.0	<4.0	3.0 J	<3.8	<4.1	1.8 J	1.5 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)	--		3.5	2.2	2.0	2.7	3.0	1.7 J	2.7	2.2
Perfluorobutane Sulfonic Acid (PFBS)	670,000		3.5	2.5	<2.0	6.3	3.3	2.3	3.1	2.3
Perfluoroheptanoic Acid (PFHpA)	--		2.9	<2.0	<2.0	2.4	2.7	<4.1	0.91 J	1.2 J
Perfluoropentane Sulfonic Acid (PFPeS)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorooctanoic Acid (PFOA)	170		5.1	2.1	<2.0	4.7	6.0	1.6 J	3.4	2.3
Perfluorohexane Sulfonic Acid (PFHxS)	210		2.1	<2.0	<2.0	<1.9	<1.9	<2.1	1.7 J	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	1.1 J	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	30		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	1.2 J	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--		<4.0	<4.0	<4.0	<3.9	<3.8	<4.1	<4.0	<4.2
Perfluorooctane Sulfonic Acid (PFOS)	12		21	12	6.3	24	33	17	52	50
Perfluorooctane Sulfonic Acid (PFOS-LN)	--		13	7.1	3.8	14	22	12	38	36
Perfluorooctane Sulfonic Acid (PFOS-BR)	--		8	5.4	2.5	9.3	10	4.3	13	13
Perfluoroundecanoic Acid (PFUnDA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorododecanoic Acid (PFDDA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorotridecanoic Acid (PFTDA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--		<4.0	<4.0	<4.0	<3.9	<3.8	<4.1	<4.0	<4.2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--		<2.0	<2.0	<2.0	<1.9	<1.9	<2.1	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	--		<10	<10	<2.0	<1.9	<1.9	<10	<10	<11
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--		--	--	--	<3.9	<3.8	<10	<10	<11
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--		--	--	--	<3.9	<3.8	<10	<10	<11
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--		--	--	--	<3.9	<3.8	<10	<10	<11
Perfluorobutanesulfonamide (PFBSA)	--		--	--	--	<1.9	<1.9	0.70 J	<2.0	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECBS)	--		--	--	--	9.0	5.4	4.6	12	14
Perfluorohexanesulfonamide (PFHxSA)	--		--	--	--	<1.9	<1.9	<2.1	<2.0	<2.1
Total Per-and Polyfluoroalkyl Substances	--		41.6	18.8	8.3	52.1	53.4	27.9	86.7	73.5

Notes

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

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-15 (Storm Sewer)	SS-15 (Storm Sewer)	SS-15 (Storm Sewer)	SS-15 (Storm Sewer)	SS-15 (Storm Sewer)	SS-15 (Storm Sewer)	SS-15-20241014 (Storm Sewer)
	Sample Date:		8/4/2022	1/4/2023	3/23/2023	6/27/2023	12/18/2023	6/17/2024	10/14/2024
	Precipitation Inches		1.72"	0.15"	0.15"	0.42"	0.24"	0.45"	0.70"
Perfluorobutanoic Acid (PFBA)	--		<10	<10	<9.8	10	<9.8	<9.6	<9.7
Perfluoropentanoic Acid (PFPeA)	--		4.1 J	1.8 J	<3.9	<3.9	<3.9	<4.6 X	2.1 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorohexanoic Acid (PFHxA)	--		3.5	3.2	1.7 J	1.9 J	2.0	3.2	2.6
Perfluorobutane Sulfonic Acid (PFBS)	670,000		3.5	3.1	1.7 J	4.3	1.4 J	1.9	1.9 J
Perfluoroheptanoic Acid (PFHpA)	--		1.8 J	1.6 J	<2.0	<2.0	<3.9	1.0 J	<1.9
Perfluoropentane Sulfonic Acid (PFPeS)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorooctanoic Acid (PFOA)	170		5.5	2.9	<2.0	3.2	0.99 J	3.6	1.6 J
Perfluorohexane Sulfonic Acid (PFHxS)	210		2.9	<2.0	<2.0	<2.0	<2.0	0.99 J	1.9 J
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--		2.2	<2.0	<2.0	<2.0	<2.0	0.96 J	1.4 J
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorononanoic Acid (PFNA)	30		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorodecanoic Acid (PFDA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--		<4.1	<4.1	<3.9	<3.9	<3.9	<3.8	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	12		220	100	29	86	23	100	73
Perfluorooctane Sulfonic Acid (PFOS-LN)	--		170	72	22	56	17	79	52
Perfluorooctane Sulfonic Acid (PFOS-BR)	--		50	27	6.8	28	5.3	21	19
Perfluoroundecanoic Acid (PFUnDA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorododecanoic Acid (PFDoDA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorooctane Sulfonamide (FOSA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Perfluorotetradecanoic Acid (PFTeDA)	--		<4.1	<4.1	<4.1	<3.9	<3.9	<3.8	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--		<2.1	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	--		<10	<10	<2.0	<2.0	<9.8	<9.6	<9.7
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--		--	--	--	<3.9	<9.8	<9.6	<9.7
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--		--	--	--	<3.9	<9.8	<9.6	<9.7
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--		--	--	--	<3.9	<9.8	<9.6	<9.7
Perfluorobutanesulfonamide (PFBSA)	--		--	--	--	1.2 J	0.62 J	<1.9	<1.9
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--		--	--	--	20	6.0	27	27
Perfluorohexanesulfonamide (PFHxSA)	--		--	--	--	<2.0	<2.0	<1.9	<1.9
Total Per-and Polyfluoroalkyl Substances	--		241.3	112.6	32.4	126.6	34.0	137.7	110.1

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) B - Compound also found in associated method blank.
- 9) I - Matrix interference with internal standard.
- 10) J - Estimated value less than reporting limit, but greater than MDL.
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- 12) Light gray header is most recent sampling event result.
- 13) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-16 (Storm Sewer)	SS-16 (Storm Sewer)	SS-16 (Storm Sewer)	SS-16 (Storm Sewer)	SS-16 (Storm Sewer)	SS-16-20241014 (Storm Sewer)
	Sample Date:		1/4/2023	3/23/2023	6/27/2023	12/18/2023	6/17/2024	10/14/2024
	Precipitation Inches		0.15"	0.15"	0.42"	0.24"	0.45"	0.70"
Perfluorobutanoic Acid (PFBA)	--	--	<10	<11	10	<9.4	<10	4.5 J
Perfluoropentanoic Acid (PFPeA)	--	--	<4.2	<4.3	<3.8	<3.8	2.8 J	2.2 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorohexanoic Acid (PFHxA)	--	--	2.8	<2.1	<1.9	2.1	2.6	2.4
Perfluorobutane Sulfonic Acid (PFBS)	670,000	--	2.3	<2.1	2.5	1.2 J	1.5 J	1.7 J
Perfluoroheptanoic Acid (PFHpA)	--	--	<2.1	<2.1	<1.9	<3.8	0.96 J	<1.9
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorooctanoic Acid (PFOA)	170	--	3.2	<2.1	2.0	1.6 J	3.4	1.9
Perfluorohexane Sulfonic Acid (PFHxS)	210	--	<2.1	<2.1	<1.9	<1.9	1.6 J	1.8 J
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	1.2 J
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorononanoic Acid (PFNA)	30	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	1.1 J
Perfluorodecanoic Acid (PFDA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.2	<4.3	<3.8	<3.8	<4.0	<3.8
Perfluorooctane Sulfonic Acid (PFOS)	12	--	99	27	63	30	82	59
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	72	21	39	23	66	42
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	27	5.1	23	7.3	13	16
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<4.2	<4.3	<3.8	<3.8	<4.0	<3.8
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<2.1	<2.1	<1.9	<1.9	<2.0	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	--	--	<10	<2.0	<1.9	<9.4	<10	<9.5
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	<3.8	<9.4	<10	<9.5
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	<3.8	<9.4	<10	<9.5
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	<3.8	<9.4	<10	<9.5
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	<1.9	0.62 J	<2.0	<1.9
Perfluoro-4-ethylcyclohexanesulfonate (PFECBS)	--	--	--	--	15	9.1	17	25
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	<1.9	<1.9	<2.0	<1.9
Total Per-and Polyfluoroalkyl Substances	--	--	107.3	27.0	92.5	44.6	111.9	99.6

Notes

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

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-19 (Storm Sewer)	SS-20 (Storm Sewer)	SS-22 (Storm Sewer)	SS-23 (Storm Sewer)	SS-23 (Storm Sewer)	SS-23 (Storm Sewer)	SS-23-20241014 (Storm Sewer)
	Sample Date:		3/23/2023	3/23/2023	8/7/2023	8/7/2023	12/18/2023	6/17/2024	10/14/2024
	Precipitation Inches		0.15"	0.15"	0.64"	0.64"	0.24"	0.45"	0.70"
Perfluorobutanoic Acid (PFBA)	--	--	<10	<9.7	<10	<15 X	<9.6	6.8 J	5.7 J
Perfluoropentanoic Acid (PFPeA)	--	--	1.9 J	<3.9	<4.0	2.2 J	<3.8	2.0 J	1.6 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)	--	--	2.0 J	<1.9	2.0 J	1.8 J	1.5 J	3.9	3.0
Perfluorobutane Sulfonic Acid (PFBS)	670,000	--	<2.0	<1.9	2.3	2.5	2.2	2.6	2.3
Perfluoroheptanoic Acid (PFHpA)	--	--	1.5 J	<2.3 X	<2.0	1.9 J	<3.8	0.82 J	1.2 J
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	0.89 J
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	4.3	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorooctanoic Acid (PFOA)	170	--	<2.0	<1.9	3.2	5.3	1.6 J	4.1	2.3
Perfluorohexane Sulfonic Acid (PFHxS)	210	--	<2.0	<1.9	<2.0	<2.0	1.1 J	3.1	2.5
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<2.0	<1.9	<2.0	<2.0	1.1 J	2.0	1.9 J
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	30	--	<2.0	<1.9	<2.0	<2.0	<1.9	0.98 J	0.97 J
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	1.0 J	<2.1
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	0.64 J
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.0	<3.9	<4.0	<3.9	<3.8	<3.9	<4.1
Perfluorooctane Sulfonic Acid (PFOS)	12	--	5.6	3.6	320	60	32	92	120
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	3.3	1.9 J	260	45	22	66	86
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	2.2	<1.9	61	14	9.4	23	29
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<4.0	<3.9	<4.0	<3.9	<3.8	<3.9	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	--	--	<2.0	<1.9	<2.0	<2.0	<9.6	<9.8	<10
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	<4.0	<3.9	<9.6	<9.8	<10
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	<4.0	<3.9	<9.6	<9.8	<10
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	<4.0	<3.9	<9.6	<9.8	<10
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	<2.0	<2.0	0.74 J	<2.0	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	49	14	20	51	49
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	<2.0	<2.0	<1.9	<2.0	<2.1
Total Per-and Polyfluoroalkyl Substances	--	--	11.0	7.9	376.5	87.7	59.1	168.3	190.1

Notes

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

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	MH-10E (Storm Sewer)	MH-10E (Storm Sewer)	MH-10E-W (Storm Sewer)	MH-10E-W (Storm Sewer)	MH-10E-W (Storm Sewer)	MH-10E-W (Storm Sewer)	MH-10E-W (Storm Sewer)
	Sample Date:		3/19/2020	8/3/2020	8/3/2020	12/18/2020	3/11/2021	8/4/2022	1/4/2023
	Precipitation Inches		0.01"	1.02"	1.02"	0.01"	0.07"	1.72"	0.15"
Perfluorobutanoic Acid (PFBA)	--		<98	<9.9	<9.8	<10	<10	<9.8	<9.8
Perfluoropentanoic Acid (PFPeA)	--		<9.8	1.4 J	1.3 J	<4.2	<4.1	3.5 J	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	--		<9.8	2.9	2.2	<2.1	<2.1	3.2	2.9
Perfluorobutane Sulfonic Acid (PFBS)	670,000		<9.8	1.9 J	4.0	4.7	<2.1	3.5	1.9 J
Perfluoroheptanoic Acid (PFHpA)	--		<9.8	2.0	1.6 J	<2.1	<2.1	2.1	1.4 J
Perfluoropentane Sulfonic Acid (PFPeS)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	170		<9.8	4.8	5.8	<2.1	<2.1	6.6	2.7
Perfluorohexane Sulfonic Acid (PFHxS)	210		<9.8	<2.0	2.2	<2.1	<2.1	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--		<9.8	<2.0	1.7 J	<2.1	<2.1	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	30		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--		<9.8	<3.9	<3.9	<4.2	<4.1	<3.9	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	12		70	61	39	10	3.2	15	8.1
Perfluorooctane Sulfonic Acid (PFOS-LN)	--		49	44	24	3.5	<2.1	8.3	4.5
Perfluorooctane Sulfonic Acid (PFOS-BR)	--		19	14	12	5.9	<2.1	6.1	3.4
Perfluoroundecanoic Acid (PFUnDA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorododecanoic Acid (PFDDoA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--		<9.8	<3.9	<3.9	<4.2	<4.1	<3.9	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--		<9.8	<2.0	<2.0	<2.1	<2.1	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--		<9.8	<2.0	<2.0	<2.0	<2.1	<9.8	<9.8
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	--		70.0	74.0	56.1	14.7	3.2	33.9	17.0

Notes

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

TABLE 1
RACER Trust - Coldwater Road Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results - Storm Water Samples South Portion of Site

Coldwater Road - Storm Water Samples - South Portion of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	MH-10E-W (Storm Sewer)	MH-10E-W (Storm Sewer)	MH-10E-W (Storm Sewer)	MH-10E-W (Storm Sewer)	MH-10E-W-20241014 (Storm Sewer)
	Sample Date:		3/23/2023	6/27/2023	12/18/2023	6/17/2024	10/14/2024
	Precipitation Inches		0.15"	0.42"	0.24"	0.45"	0.70"
Perfluorobutanoic Acid (PFBA)	--		<10	10	<9.8	8.0 J	<10
Perfluoropentanoic Acid (PFPeA)	--		1.1 J	3.5 J	<3.9	1.9 J	1.6 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorohexanoic Acid (PFHxA)	--		<2.0	3.5	2.2	2.6	2.1
Perfluorobutane Sulfonic Acid (PFBS)	670,000		<2.0	7.2	3.7	3.5	2.6
Perfluoroheptanoic Acid (PFHpA)	--		<2.0	2.5	<3.9	1.5 J	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)	--		<2.0	<1.9	<2.0	<1.9	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorooctanoic Acid (PFOA)	170		<2.0	6.9	3.4	5.5	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)	210		<2.0	1.5 J	<2.0	1.1 J	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--		<2.0	1.5 J	<2.0	<1.9	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorononanoic Acid (PFNA)	30		<2.0	2.0	<2.0	1.0 J	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorodecanoic Acid (PFDA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--		<4.0	<3.8	<3.9	<3.9	<4.1
Perfluorooctane Sulfonic Acid (PFOS)	12		5.7	58	22	27	11
Perfluorooctane Sulfonic Acid (PFOS-LN)	--		3.9	39	14	17	6.4
Perfluorooctane Sulfonic Acid (PFOS-BR)	--		<2.0	18	7.2	8.4	5.0
Perfluoroundecanoic Acid (PFUnDA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorododecanoic Acid (PFDoDA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorooctane Sulfonamide (FOSA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--		<4.0	<3.8	<3.9	<3.9	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--		<2.0	<1.9	<2.0	<1.9	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--		<2.0	<1.9	<2.0	<1.9	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--		<2.0	<1.9	<2.0	<1.9	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	--		<2.0	<1.9	<9.8	<9.7	<10
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--		--	<3.8	<9.8	<9.7	<10
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--		--	<3.8	<9.8	<9.7	<10
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--		--	<3.8	<9.8	<9.7	<10
Perfluorobutanesulfonamide (PFBSA)	--		--	<1.9	0.82	<1.9	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECBS)	--		--	9.5	2.6	2.9	2.3
Perfluorohexanesulfonamide (PFHxSA)	--		--	<1.9	<2.0	<1.9	<2.1
Total Per-and Polyfluoroalkyl Substances	--		6.8	104.6	34.7	55.0	19.6

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) B - Compound also found in associated method blank.
- 9) I - Matrix interference with internal standard.
- 10) J - Estimated value less than reporting limit, but greater than MDL.
- 11) X - Elevated reporting limit due to matrix interference.
- 12) Light gray header is most recent sampling event result.
- 13) 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 Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results
Storm Water Samples - West of Site

Coldwater Rd - Storm Water Samples West of Site

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-06 (Storm Sewer)	SS-06 (Storm Sewer)	SS-06 (Storm Sewer)	SS-DUP- 031121 (SS-06) Storm Sewer	SS-06 (Storm Sewer)	SS-10	SS-10	SS-10
Sample Date:			8/28/2020	12/18/2020	3/11/2021	3/11/2021	6/29/2021	9/7/2022	1/4/2023	3/23/2023
Perfluorobutanoic Acid (PFBA)	--	--	<10	<9.9	<10	<11	<11	11	<9.7	<9.5
Perfluoropentanoic Acid (PFPeA)	--	--	<4.1	20	1.4 J	1.9 J	3.1 J	7.9	<3.9	1.7 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorohexanoic Acid (PFHxA)	--	--	1.8 J	<2.0	<2.1	1.5 J	3.2	7.2	<1.9	1.4 J
Perfluorobutane Sulfonic Acid (PFBS)	670,000	--	2.1	1.6 J	3.3	3.4	4.8	23	<1.9	2.4
Perfluoroheptanoic Acid (PFHpA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	5.1	<1.9	<1.9
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.0	<2.0	3.2	2.2	<2.1	<2.1	<1.9	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	<2.0	<2.1	<2.1	<4.2	<2.1	<1.9	<1.9
Perfluorooctanoic Acid (PFOA)	170	--	2.6	<2.0	<2.1	<2.1	2.0 J	9.7	<1.9	<1.9
Perfluorohexane Sulfonic Acid (PFHxS)	210	--	3.4	<2.0	9.3	9.4	2.9	4.2	<1.9	1.5 J
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	2.4	<2.0	7.3	7.3	2.1 J	3.0	<1.9	<1.9
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorononanoic Acid (PFNA)	30	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<2.0	2.2	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.1	<3.9	<4.1	<4.2	<4.2	<4.1	<3.9	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	12	--	85	3.6	180	160	14	17	<1.9	12
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	49	<2.0	88	81	5.7	3.8	<1.9	4.8
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	37	<2.0	86	76	8.5	13	<1.9	6.8
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorotridecanoic Acid (PFTriDA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<4.1	<3.9	<4.1	<4.2	<4.2	<4.1	<3.9	<3.8
11-chloroheptafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.1	<1.9	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	--	--	<2.0	<2.0	<2.1	<2.1	<11	<10	<9.7	<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	--	--	94.9	25.2	199.4	178.4	30.0	85.1	0.0	19.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) The detection of PFBA in Field Blank-062520 was caused from the centrifuge tubes leaching out PFBA during the extraction process. The 5X Rule was applied to PFBA detections. If the sample value(s) is less than 5 times the blank concentration (5X Rule), then positive results are qualified "U,"undetected.
- 9) B - Compound also found in associated method blank.
- 10) I - Matrix interference with internal standard.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
- 12) X - Elevated reporting limit due to matrix interference.
- 13) Light gray header is most recent sampling event result.
- 14) OA/OC 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 Peregrine Facilities
Per-and Polyfluoroalkyl Substances Sampling Results
Storm Water Samples - West of Site

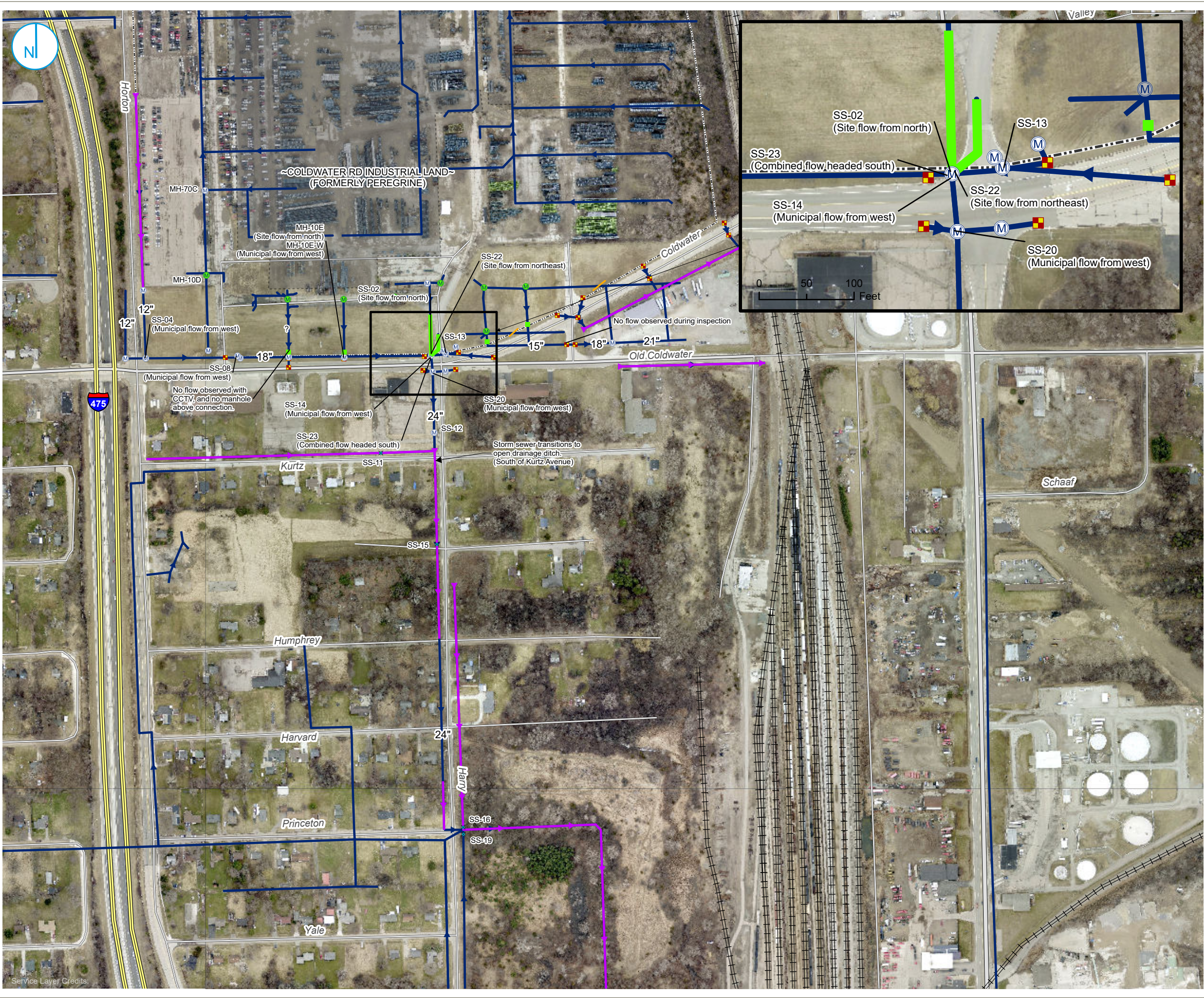
Coldwater Rd - Storm Water Samples West of Site

Perfluorinated Compound	Well/Sample ID: Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels GSI	SS-10 6/27/2023	SS-10 12/18/2023	SS-10 6/17/2024	SS-10- 20241014 10/14/2024	MH-18 (Storm Sewer) 11/5/2019	MH-18 (Storm Sewer) 8/3/2020	MH-18 (Storm Sewer) 12/18/2020	MH-18 (Storm Sewer) 3/11/2021	MH-18 (Storm Sewer) 6/29/2021
Perfluorobutanoic Acid (PFBA)	--	--	<14 X	<10	<10	<10	<20	<10	<10	<9.9	15
Perfluoropentanoic Acid (PFPeA)	--	--	<6.4 X	2.0 J	<4.1	<4.1	<10	<4.0	<4.1	<3.9	2.4 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	--	--	3.5	2.0	2.2	<2.1	<10	<2.0	<2.0	1.9 J	2.7
Perfluorobutane Sulfonic Acid (PFBS)	670,000	--	3.5	2.4	3.7	4.5	<10	<2.0	4.8	6.8	6.3
Perfluoroheptanoic Acid (PFHpA)	--	--	1.9 J	<4.1	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<1.9	<2.0	<2.0	<2.1	<10	2.2	8.1	14	13
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<3.9
Perfluorooctanoic Acid (PFOA)	170	--	2.2	0.99 J	2.1	1.7 J	<10	<2.0	1.8 J	<2.0	3.7
Perfluorohexane Sulfonic Acid (PFHxS)	210	--	<1.9	1.1 J	1.6 J	<2.1	15	8.6	33	40	30
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<1.9	1.1 J	<2.0	<2.1	12	7.4	28	31	24
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	4.3	7.9	5.3
Perfluorononanoic Acid (PFNA)	30	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<1.9	<2.0	<2.0	<2.1	<10	2.5	9.8	5.5	4.8
Perfluorodecanoic Acid (PFDA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<3.9	<4.1	<4.1	<4.1	<10	<4.0	<4.1	<3.9	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	12	--	11	11	14	9.2	210	240	460	280	310
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	3.9	2.8	4.0	4.0	110	150	230	130	180
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	6.8	7.7	9.0	5.8	91	88	230	140	130
Perfluoroundecanoic Acid (PFUnDA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTriDA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<3.9	<4.1	<4.1	<4.1	<10	<4.0	<4.1	<3.9	<3.9
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9CI-PF3ONS)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
4,8-dioxo-3H-perfluorononanoic acid (ADONA)	--	--	<1.9	<2.0	<2.0	<2.1	<10	<2.0	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--	--	<1.9	<10	<10	<10	<10	<2.0	<2.0	<2.0	<9.9
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	<3.9	<10	<10	<10	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	<3.9	<10	<10	<10	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	<3.9	<10	<10	<10	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	2.7	1.0 J	1.6 J	2.5	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	9.7	19	13	6.9	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	<1.9	<2.0	<2.0	<2.1	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	34.5	39.5	38.2	24.8	225.0	253.3	517.5	348.2	387.9

Notes

- 1) Detections in **bold**.
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- 4) -- = Not analyzed/No criteria.
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- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, October 12, 2023.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
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- 9) B - Compound also found in associated method blank.
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- 13) Light gray header is most recent sampling event result.
- 14) OA/OC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.

FIGURES



- ABANDONED MANHOLE
- STORM SEWER DRAIN
- STORM SEWER MANHOLE
- PIPE PLUG
- SURFACE WATER
- OPEN DRAINAGE DITCH
- STORM SEWER
- TEST PIT
- FORMER BUILDING
- PROPERTY BOUNDARY

0 175 350
Feet

GENESEE STORM SEWERS
(HORTON ST TO N DORT HWY)

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 01

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY





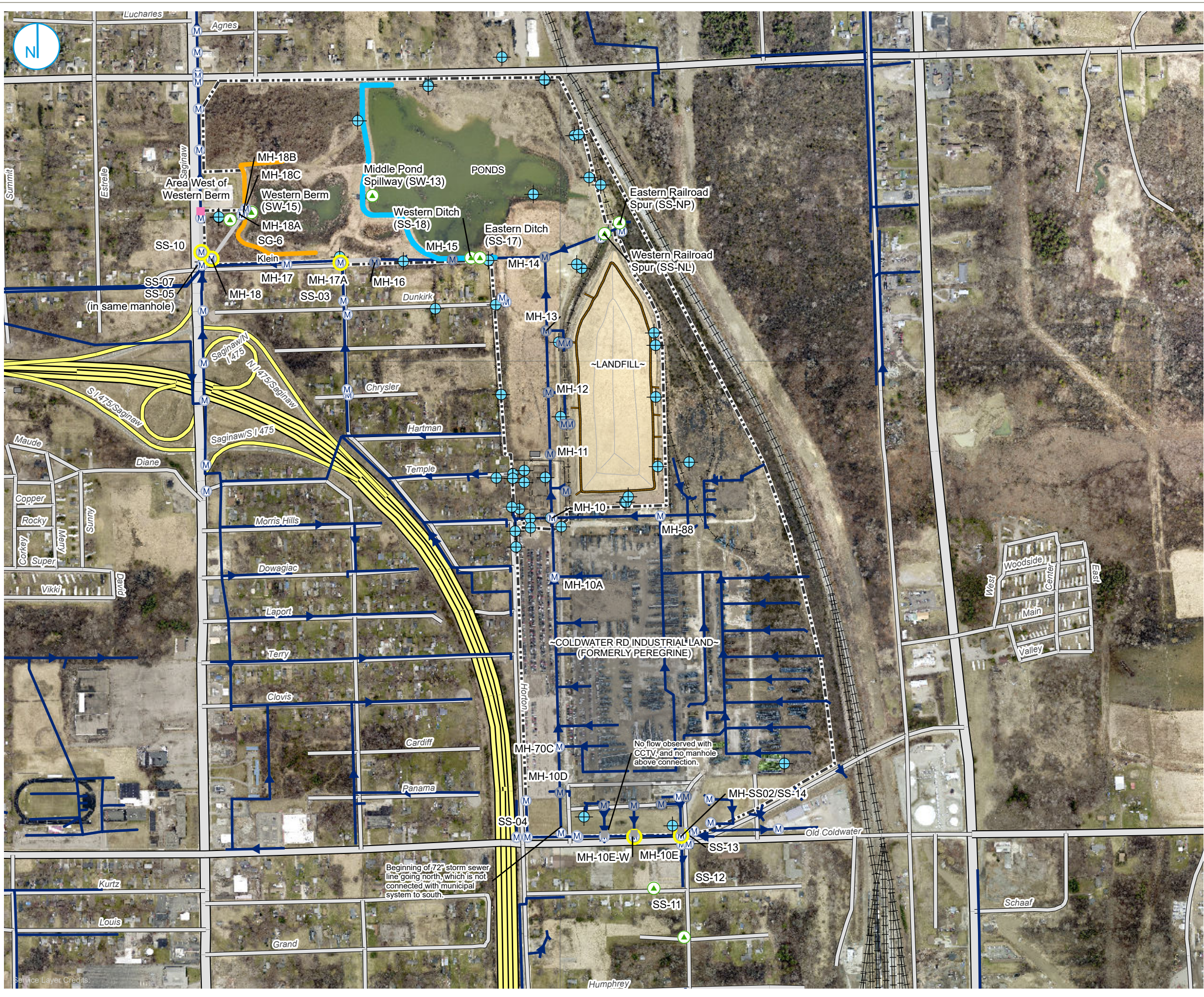
APPENDIX A
STORM WATER MONITORING
MATRIX AND FIGURE

TABLE 1
RACER Trust - Coldwater Road
Per- and Polyfluoroalkyl Substances Stormwater Monitoring Matrix

STORM WATER MONITORING LOCATIONS SAMPLE ID / DESCRIPTION	VISUAL FLOW OBSERVATION (YES/NO)	FLOW RATE ESTIMATE (GPM)	SAMPLE COLLECTED FOR PFAS ANALYSIS (YES/NO)	OTHER OBSERVATIONS
SITE & POND AREA	DATE:	Monday, October 14, 2024		
Middle Pond to Western Pond Spillway - Discharge to Western Pond (Sample ID: SW-13)	No flow	--	--	
Western Pond Berm (Sample ID: SW-15)	No flow	--	--	
Area West of Western Pond Berm - Check for Ponded Water in Area	Yes	--	--	
MH-18C - Receives discharge, if any, from Western pond	No flow	--	--	
MH-18B - Receives water from MH-18C	No flow	--	--	little water in manhole, no flow
MH-18A - Receives water from MH-18B	No flow	--	--	Water discharging from temp system
MH-18 - Receives water from MH-18A, discharge monitoring point (Sample ID: MH-18)	Yes	150-200 gpm	--	Flow due to pond discharge
MH-10 - East of Entrance Gate Along Drive (near OBG MW-4) - Check Water Level	10" below rim	--	--	
RAILROAD SPURS EAST OF PONDS				
Eastern RR Spur - Flow from South to North from Peregrine Property (Sample ID: SS-NP)	Yes	--	--	
Western RR Spur - Flow from South to North from West of Landfill (Sample ID: SS-NL)	Yes	--	--	
DRAINAGE DITCHES WEST OF RMA				
Eastern Ditch - Flow from South (Sample ID: SS-17)	No flow	--	--	
Western Ditch - Flow from South (Sample ID: SS-18)	No flow	--	--	
INDIVIDUAL STORM WATER MANHOLES - Klein Street				
Corner of George St and E Klein St - 72-Inch Line from East - Downstream of MH-16 plug (Sample ID: MH-17A)	No flow from plug	--	--	
Corner of George St and E Klein St - Flow from the South From Neighborhood	Yes	1-2 gpm average	--	
INDIVIDUAL STORM WATER MANHOLES - Saginaw Road				
Northeast Corner of Saginaw Rd and E Klein St - Flow from the South (Sample ID: SS-05)	Yes	--	--	
Northeast Corner of Saginaw Rd and E Klein St - Flow from the East	Yes	--	--	
Northeast Corner of Saginaw Rd and E Klein St - Combined flow toward West Sample ID: SS-07)	Yes	--	--	
North of E Klein St on Eastside of Saginaw Rd - Municipal Flow from North (Sample ID: SS-10)	Yes	1-2 gpm average	YES	
North of E Klein St on Eastside of Saginaw Rd (west of OBG MW-26) - Flow Coming from Site	No flow	--	--	
INDIVIDUAL STORM WATER MANHOLES - Coldwater Road				
Corner of Coldwater Rd and Horton Ave - Municipal Flow from West (Sample ID: SS-04)	No flow	--	--	
Coldwater Rd Approx. 170 ft West of MH-10E - Municipal Flow from West (Sample ID: SS-08)	Yes	--	--	
Coldwater Rd Approx. 300 ft West of SS-02 - Municipal Flow from West (Sample ID: MH-10E-W)	Yes	--	YES	
Coldwater Rd Approx. 300 ft West of SS-02 - Check Plugged Pipe - Flow from RACER Site (Sample ID: MH-10E)	No flow from plug	--	--	
Coldwater Rd for Peregrine Site - Municipal Flow from West (Sample ID: SS-14)	Yes	approx. 6 gpm	YES	
Coldwater Rd for Peregrine Site - Check Plugged Pipe - Flow from RACER Site (Sample ID: SS-02)	No flow from plug	--	--	

Precipitation Past 24 hours: 0.70"

Note: -- No sample/information was collected.



- MONITORING WELL / PIEZOMETER
- STORM SEWER MANHOLE
- MANHOLE ABANDONED AND PLUGGED
- STORM SEWER SAMPLE LOCATION TO BE SAMPLED
- SURFACE WATER SAMPLE LOCATION
- CATCH BASIN
- STORM SEWER PIPE PLUG
- STORM SEWER
- SEALED STORM SEWER
- PROPERTY BOUNDARY
- FORMER BUILDING
- COMPLETED BERM
- MIDDLE POND BERM - ELEV. 792.5

0 325 650
Feet

STORM SEWER / MANHOLE
INSPECTION / SAMPLE
LOCATIONS

RACER TRUST
COLDWATER ROAD
FLINT, MICHIGAN

FIGURE 01

RAMBOLL AMERICAS ENGINEERING
SOLUTIONS, INC



APPENDIX B

LABORATORY ANALYTICAL REPORTS



Analytical Laboratory Report

Report ID: S67374.01(01)
Generated on 10/29/2024

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.
2680 East Lansing Drive
East Lansing, MI 48823

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): S67374.01-S67374.08
Project: RACER Coldwater Road
Collected Date(s): 10/14/2024
Submitted Date/Time: 10/14/2024 14:15
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

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

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-chloroeicosafluoro-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



Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S67374.01	SS-16-20241014	Liquid	10/14/24 11:08
S67374.02	SS-15-20241014	Liquid	10/14/24 11:16
S67374.03	SS-12-20241014	Liquid	10/14/24 11:30
S67374.04	SS-14-20241014	Liquid	10/14/24 11:45
S67374.05	SS-23-20241014	Liquid	10/14/24 11:55
S67374.06	MH-10E-W-20241014	Liquid	10/14/24 12:10
S67374.07	SS-10-20241014	Liquid	10/14/24 12:30
S67374.08	Field Blank-20241014	Liquid	10/14/24 12:35



Analytical Laboratory Report

Lab Sample ID: S67374.01
Sample Tag: SS-16-20241014
Collected Date/Time: 10/14/2024 11:08
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.74/6.48/10	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 15:41, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	4.5	9.5	1.5	ng/L	1.9	375-22-4	J
PFPeA*	2.2	3.8	0.76	ng/L	1.9	2706-90-3	J
4:2 FTSA*	Not detected	1.9	0.76	ng/L	1.9	757124-72-4	
PFHxA*	2.4	1.9	0.38	ng/L	1.9	307-24-4	
PFBS*	1.7	1.9	0.76	ng/L	1.9	375-73-5	J
PFHpA*	Not detected	1.9	0.95	ng/L	1.9	375-85-9	
PFPeS*	Not detected	1.9	0.76	ng/L	1.9	2706-91-4	
6:2 FTSA*	Not detected	1.9	1.1	ng/L	1.9	27619-97-2	
PFOA*	1.9	1.9	1.5	ng/L	1.9	335-67-1	
PFHxS*	1.8	1.9	1.1	ng/L	1.9	355-46-4	J
PFHxS-LN*	1.2	1.9	1.1	ng/L	1.9	355-46-4-LN	J
PFHxS-BR*	Not detected	1.9	1.1	ng/L	1.9	355-46-4-BR	
PFNA*	Not detected	1.9	0.76	ng/L	1.9	375-95-1	
8:2 FTSA*	Not detected	1.9	0.95	ng/L	1.9	39108-34-4	
PFHpS*	1.1	1.9	1.1	ng/L	1.9	375-92-8	J
PFDA*	Not detected	1.9	0.57	ng/L	1.9	335-76-2	
N-MeFOSAA*	Not detected	1.9	1.3	ng/L	1.9	2355-31-9	
EtFOSAA*	Not detected	3.8	1.9	ng/L	1.9	2991-50-6	
PFOS*	59	1.9	1.1	ng/L	1.9	1763-23-1	
PFOS-LN*	42	1.9	1.1	ng/L	1.9	1763-23-1-LN	
PFOS-BR*	16	1.9	1.1	ng/L	1.9	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.95	ng/L	1.9	2058-94-8	
PFNS*	Not detected	1.9	0.95	ng/L	1.9	68259-12-1	
PFDODA*	Not detected	1.9	0.57	ng/L	1.9	307-55-1	
PFDS*	Not detected	1.9	1.1	ng/L	1.9	335-77-3	
PFTTrDA*	Not detected	1.9	0.95	ng/L	1.9	72629-94-8	
FOSA*	Not detected	1.9	0.76	ng/L	1.9	754-91-6	
PFTeDA*	Not detected	3.8	0.38	ng/L	1.9	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.76	ng/L	1.9	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.76	ng/L	1.9	756426-58-1	
ADONA*	Not detected	1.9	0.95	ng/L	1.9	919005-14-4	
HFPO-DA*	Not detected	9.5	1.9	ng/L	1.9	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	9.5	1.9	ng/L	1.9	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.5	1.9	ng/L	1.9	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.5	0.95	ng/L	1.9	356-02-5	
PFBSA*	Not detected	1.9	1.1	ng/L	1.9	30334-69-1	

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



Analytical Laboratory Report

Lab Sample ID: S67374.01 (continued)
Sample Tag: SS-16-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 15:41, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	25	1.9	0.95	ng/L	1.9	67584-42-3	
PFHxSA*	Not detected	1.9	0.76	ng/L	1.9	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S67374.02
Sample Tag: SS-15-20241014
Collected Date/Time: 10/14/2024 11:16
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.66/6.48/10	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 16:21, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.7	1.5	ng/L	1.93	375-22-4	
PFPeA*	2.1	3.9	0.77	ng/L	1.93	2706-90-3	J
4:2 FTSA*	Not detected	1.9	0.77	ng/L	1.93	757124-72-4	
PFHxA*	2.6	1.9	0.39	ng/L	1.93	307-24-4	
PFBS*	1.9	1.9	0.77	ng/L	1.93	375-73-5	J
PFHpA*	Not detected	1.9	0.97	ng/L	1.93	375-85-9	
PFPeS*	Not detected	1.9	0.77	ng/L	1.93	2706-91-4	
6:2 FTSA*	Not detected	1.9	1.2	ng/L	1.93	27619-97-2	
PFOA*	1.6	1.9	1.5	ng/L	1.93	335-67-1	J
PFHxS*	1.9	1.9	1.2	ng/L	1.93	355-46-4	J
PFHxS-LN*	1.4	1.9	1.2	ng/L	1.93	355-46-4-LN	J
PFHxS-BR*	Not detected	1.9	1.2	ng/L	1.93	355-46-4-BR	
PFNA*	Not detected	1.9	0.77	ng/L	1.93	375-95-1	
8:2 FTSA*	Not detected	1.9	0.97	ng/L	1.93	39108-34-4	
PFHpS*	Not detected	1.9	1.2	ng/L	1.93	375-92-8	
PFDA*	Not detected	1.9	0.58	ng/L	1.93	335-76-2	
N-MeFOSAA*	Not detected	1.9	1.4	ng/L	1.93	2355-31-9	
EtFOSAA*	Not detected	3.9	1.9	ng/L	1.93	2991-50-6	
PFOS*	73	1.9	1.2	ng/L	1.93	1763-23-1	
PFOS-LN*	52	1.9	1.2	ng/L	1.93	1763-23-1-LN	
PFOS-BR*	19	1.9	1.2	ng/L	1.93	1763-23-1-BR	
PFUnDA*	Not detected	1.9	0.97	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	1.2	ng/L	1.93	335-77-3	
PFTTrDA*	Not detected	1.9	0.97	ng/L	1.93	72629-94-8	
FOSA*	Not detected	1.9	0.77	ng/L	1.93	754-91-6	
PFTeDA*	Not detected	3.9	0.39	ng/L	1.93	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	0.77	ng/L	1.93	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	0.77	ng/L	1.93	756426-58-1	
ADONA*	Not detected	1.9	0.97	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	1.9	ng/L	1.93	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.7	1.9	ng/L	1.93	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.7	0.97	ng/L	1.93	356-02-5	
PFBSA*	Not detected	1.9	1.2	ng/L	1.93	30334-69-1	

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



Analytical Laboratory Report

Lab Sample ID: S67374.02 (continued)
Sample Tag: SS-15-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 16:21, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	27	1.9	0.97	ng/L	1.93	67584-42-3	
PFHxSA*	Not detected	1.9	0.77	ng/L	1.93	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S67374.03
Sample Tag: SS-12-20241014
Collected Date/Time: 10/14/2024 11:30
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.60/6.48/12	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 16:41, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	4.4	9.8	1.6	ng/L	1.96	375-22-4	J
PFPeA*	Not detected	3.9	0.78	ng/L	1.96	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.78	ng/L	1.96	757124-72-4	
PFHxA*	2.7	2.0	0.39	ng/L	1.96	307-24-4	
PFBS*	1.9	2.0	0.78	ng/L	1.96	375-73-5	J
PFHpA*	Not detected	2.0	0.98	ng/L	1.96	375-85-9	
PFPeS*	0.84	2.0	0.78	ng/L	1.96	2706-91-4	J
6:2 FTSA*	Not detected	2.0	1.2	ng/L	1.96	27619-97-2	
PFOA*	1.9	2.0	1.6	ng/L	1.96	335-67-1	J
PFHxS*	2.3	2.0	1.2	ng/L	1.96	355-46-4	
PFHxS-LN*	1.9	2.0	1.2	ng/L	1.96	355-46-4-LN	J
PFHxS-BR*	Not detected	2.0	1.2	ng/L	1.96	355-46-4-BR	
PFNA*	Not detected	2.0	0.78	ng/L	1.96	375-95-1	
8:2 FTSA*	Not detected	2.0	0.98	ng/L	1.96	39108-34-4	
PFHpS*	Not detected	2.0	1.2	ng/L	1.96	375-92-8	
PFDA*	Not detected	2.0	0.59	ng/L	1.96	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.4	ng/L	1.96	2355-31-9	
EtFOSAA*	Not detected	3.9	2.0	ng/L	1.96	2991-50-6	
PFOS*	85	2.0	1.2	ng/L	1.96	1763-23-1	
PFOS-LN*	62	2.0	1.2	ng/L	1.96	1763-23-1-LN	
PFOS-BR*	22	2.0	1.2	ng/L	1.96	1763-23-1-BR	
PFUnDA*	Not detected	2.0	0.98	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	1.2	ng/L	1.96	335-77-3	
PFTTrDA*	Not detected	2.0	0.98	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	0.39	ng/L	1.96	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.78	ng/L	1.96	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.78	ng/L	1.96	756426-58-1	
ADONA*	Not detected	2.0	0.98	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	2.0	ng/L	1.96	812-70-4	
FPePA (5:3 FTCA)*	Not detected	9.8	2.0	ng/L	1.96	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	9.8	0.98	ng/L	1.96	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	1.96	30334-69-1	

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



Analytical Laboratory Report

Lab Sample ID: S67374.03 (continued)
Sample Tag: SS-12-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 16:41, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	38	2.0	0.98	ng/L	1.96	67584-42-3	
PFHxSA*	Not detected	2.0	0.78	ng/L	1.96	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S67374.04
Sample Tag: SS-14-20241014
Collected Date/Time: 10/14/2024 11:45
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.72/6.48/11	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 17:21, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	11	1.7	ng/L	2.1	375-22-4	
PFPeA*	1.5	4.2	0.84	ng/L	2.1	2706-90-3	J
4:2 FTSA*	Not detected	2.1	0.84	ng/L	2.1	757124-72-4	
PFHxA*	2.2	2.1	0.42	ng/L	2.1	307-24-4	
PFBS*	2.3	2.1	0.84	ng/L	2.1	375-73-5	
PFHpA*	1.2	2.1	1.1	ng/L	2.1	375-85-9	J
PFPeS*	Not detected	2.1	0.84	ng/L	2.1	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.3	ng/L	2.1	27619-97-2	
PFOA*	2.3	2.1	1.7	ng/L	2.1	335-67-1	
PFHxS*	Not detected	2.1	1.3	ng/L	2.1	355-46-4	
PFHxS-LN*	Not detected	2.1	1.3	ng/L	2.1	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.3	ng/L	2.1	355-46-4-BR	
PFNA*	Not detected	2.1	0.84	ng/L	2.1	375-95-1	
8:2 FTSA*	Not detected	2.1	1.1	ng/L	2.1	39108-34-4	
PFHpS*	Not detected	2.1	1.3	ng/L	2.1	375-92-8	
PFDA*	Not detected	2.1	0.63	ng/L	2.1	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.5	ng/L	2.1	2355-31-9	
EtFOSAA*	Not detected	4.2	2.1	ng/L	2.1	2991-50-6	
PFOS*	50	2.1	1.3	ng/L	2.1	1763-23-1	
PFOS-LN*	36	2.1	1.3	ng/L	2.1	1763-23-1-LN	
PFOS-BR*	13	2.1	1.3	ng/L	2.1	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.1	ng/L	2.1	2058-94-8	
PFNS*	Not detected	2.1	1.1	ng/L	2.1	68259-12-1	
PFDODA*	Not detected	2.1	0.63	ng/L	2.1	307-55-1	
PFDS*	Not detected	2.1	1.3	ng/L	2.1	335-77-3	
PFTTrDA*	Not detected	2.1	1.1	ng/L	2.1	72629-94-8	
FOSA*	Not detected	2.1	0.84	ng/L	2.1	754-91-6	
PFTeDA*	Not detected	4.2	0.42	ng/L	2.1	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	0.84	ng/L	2.1	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	0.84	ng/L	2.1	756426-58-1	
ADONA*	Not detected	2.1	1.1	ng/L	2.1	919005-14-4	
HFPO-DA*	Not detected	11	2.1	ng/L	2.1	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	11	2.1	ng/L	2.1	812-70-4	
FPePA (5:3 FTCA)*	Not detected	11	2.1	ng/L	2.1	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	11	1.1	ng/L	2.1	356-02-5	
PFBSA*	Not detected	2.1	1.3	ng/L	2.1	30334-69-1	

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



Analytical Laboratory Report

Lab Sample ID: S67374.04 (continued)
Sample Tag: SS-14-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 17:21, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	14	2.1	1.1	ng/L	2.1	67584-42-3	
PFHxSA*	Not detected	2.1	0.84	ng/L	2.1	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S67374.05
Sample Tag: SS-23-20241014
Collected Date/Time: 10/14/2024 11:55
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.81/6.48/11	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 17:41, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	5.7	10	1.6	ng/L	2.06	375-22-4	J
PFPeA*	1.6	4.1	0.82	ng/L	2.06	2706-90-3	J
4:2 FTSA*	Not detected	2.1	0.82	ng/L	2.06	757124-72-4	
PFHxA*	3.0	2.1	0.41	ng/L	2.06	307-24-4	
PFBS*	2.3	2.1	0.82	ng/L	2.06	375-73-5	
PFHpA*	1.2	2.1	1.0	ng/L	2.06	375-85-9	J
PFPeS*	0.89	2.1	0.82	ng/L	2.06	2706-91-4	J
6:2 FTSA*	Not detected	2.1	1.2	ng/L	2.06	27619-97-2	
PFOA*	2.3	2.1	1.6	ng/L	2.06	335-67-1	
PFHxS*	2.5	2.1	1.2	ng/L	2.06	355-46-4	
PFHxS-LN*	1.9	2.1	1.2	ng/L	2.06	355-46-4-LN	J
PFHxS-BR*	Not detected	2.1	1.2	ng/L	2.06	355-46-4-BR	
PFNA*	0.97	2.1	0.82	ng/L	2.06	375-95-1	J
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.06	39108-34-4	
PFHpS*	Not detected	2.1	1.2	ng/L	2.06	375-92-8	
PFDA*	0.64	2.1	0.62	ng/L	2.06	335-76-2	J
N-MeFOSAA*	Not detected	2.1	1.4	ng/L	2.06	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.06	2991-50-6	
PFOS*	120	2.1	1.2	ng/L	2.06	1763-23-1	
PFOS-LN*	86	2.1	1.2	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	29	2.1	1.2	ng/L	2.06	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.0	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	1.2	ng/L	2.06	335-77-3	
PFTTrDA*	Not detected	2.1	1.0	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	0.41	ng/L	2.06	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	0.82	ng/L	2.06	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	0.82	ng/L	2.06	756426-58-1	
ADONA*	Not detected	2.1	1.0	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	2.1	ng/L	2.06	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	2.1	ng/L	2.06	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	1.0	ng/L	2.06	356-02-5	
PFBSA*	Not detected	2.1	1.2	ng/L	2.06	30334-69-1	

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



Analytical Laboratory Report

Lab Sample ID: S67374.05 (continued)
Sample Tag: SS-23-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 17:41, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	49	2.1	1.0	ng/L	2.06	67584-42-3	
PFHxSA*	Not detected	2.1	0.82	ng/L	2.06	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S67374.06
Sample Tag: MH-10E-W-20241014
Collected Date/Time: 10/14/2024 12:10
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.34/6.48/12	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 18:01, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	1.6	ng/L	2.05	375-22-4	
PFPeA*	1.6	4.1	0.82	ng/L	2.05	2706-90-3	J
4:2 FTSA*	Not detected	2.1	0.82	ng/L	2.05	757124-72-4	
PFHxA*	2.1	2.1	0.41	ng/L	2.05	307-24-4	
PFBS*	2.6	2.1	0.82	ng/L	2.05	375-73-5	
PFHpA*	Not detected	2.1	1.0	ng/L	2.05	375-85-9	
PFPeS*	Not detected	2.1	0.82	ng/L	2.05	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.2	ng/L	2.05	27619-97-2	
PFOA*	Not detected	2.1	1.6	ng/L	2.05	335-67-1	
PFHxS*	Not detected	2.1	1.2	ng/L	2.05	355-46-4	
PFHxS-LN*	Not detected	2.1	1.2	ng/L	2.05	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.2	ng/L	2.05	355-46-4-BR	
PFNA*	Not detected	2.1	0.82	ng/L	2.05	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.05	39108-34-4	
PFHpS*	Not detected	2.1	1.2	ng/L	2.05	375-92-8	
PFDA*	Not detected	2.1	0.62	ng/L	2.05	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.4	ng/L	2.05	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.05	2991-50-6	
PFOS*	11	2.1	1.2	ng/L	2.05	1763-23-1	
PFOS-LN*	6.4	2.1	1.2	ng/L	2.05	1763-23-1-LN	
PFOS-BR*	5.0	2.1	1.2	ng/L	2.05	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.0	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	1.2	ng/L	2.05	335-77-3	
PFTTrDA*	Not detected	2.1	1.0	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	0.41	ng/L	2.05	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	0.82	ng/L	2.05	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	0.82	ng/L	2.05	756426-58-1	
ADONA*	Not detected	2.1	1.0	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	2.1	ng/L	2.05	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	2.1	ng/L	2.05	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	1.0	ng/L	2.05	356-02-5	
PFBSA*	Not detected	2.1	1.2	ng/L	2.05	30334-69-1	

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



Analytical Laboratory Report

Lab Sample ID: S67374.06 (continued)
Sample Tag: MH-10E-W-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 18:01, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	2.3	2.1	1.0	ng/L	2.05	67584-42-3	
PFHxSA*	Not detected	2.1	0.82	ng/L	2.05	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S67374.07
Sample Tag: SS-10-20241014
Collected Date/Time: 10/14/2024 12:30
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.29/6.48/12	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 18:22, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	1.7	ng/L	2.07	375-22-4	
PFPeA*	Not detected	4.1	0.83	ng/L	2.07	2706-90-3	
4:2 FTSA*	Not detected	2.1	0.83	ng/L	2.07	757124-72-4	
PFHxA*	Not detected	2.1	0.41	ng/L	2.07	307-24-4	
PFBS*	4.5	2.1	0.83	ng/L	2.07	375-73-5	
PFHpA*	Not detected	2.1	1.0	ng/L	2.07	375-85-9	
PFPeS*	Not detected	2.1	0.83	ng/L	2.07	2706-91-4	
6:2 FTSA*	Not detected	2.1	1.2	ng/L	2.07	27619-97-2	
PFOA*	1.7	2.1	1.7	ng/L	2.07	335-67-1	J
PFHxS*	Not detected	2.1	1.2	ng/L	2.07	355-46-4	
PFHxS-LN*	Not detected	2.1	1.2	ng/L	2.07	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.2	ng/L	2.07	355-46-4-BR	
PFNA*	Not detected	2.1	0.83	ng/L	2.07	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.07	39108-34-4	
PFHpS*	Not detected	2.1	1.2	ng/L	2.07	375-92-8	
PFDA*	Not detected	2.1	0.62	ng/L	2.07	335-76-2	
N-MeFOSAA*	Not detected	2.1	1.4	ng/L	2.07	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.07	2991-50-6	
PFOS*	9.2	2.1	1.2	ng/L	2.07	1763-23-1	
PFOS-LN*	4.0	2.1	1.2	ng/L	2.07	1763-23-1-LN	
PFOS-BR*	5.8	2.1	1.2	ng/L	2.07	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.0	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	1.2	ng/L	2.07	335-77-3	
PFTTrDA*	Not detected	2.1	1.0	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	0.41	ng/L	2.07	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	0.83	ng/L	2.07	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	0.83	ng/L	2.07	756426-58-1	
ADONA*	Not detected	2.1	1.0	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	2.1	ng/L	2.07	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	2.1	ng/L	2.07	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	1.0	ng/L	2.07	356-02-5	
PFBSA*	2.5	2.1	1.2	ng/L	2.07	30334-69-1	

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



Analytical Laboratory Report

Lab Sample ID: S67374.07 (continued)
Sample Tag: SS-10-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 18:22, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	6.9	2.1	1.0	ng/L	2.07	67584-42-3	
PFHxSA*	Not detected	2.1	0.83	ng/L	2.07	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S67374.08
Sample Tag: Field Blank-20241014
Collected Date/Time: 10/14/2024 12:35
Matrix: Liquid
COC Reference: 172737

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	5.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	10.90/6.48/9	ASTMD7979-19M	10/16/24 13:00	CED	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 18:42, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	1.6	ng/L	2.04	375-22-4	
PFPeA*	Not detected	4.1	0.82	ng/L	2.04	2706-90-3	
4:2 FTSA*	Not detected	2.0	0.82	ng/L	2.04	757124-72-4	
PFHxA*	Not detected	2.0	0.41	ng/L	2.04	307-24-4	
PFBS*	Not detected	2.0	0.82	ng/L	2.04	375-73-5	
PFHpA*	Not detected	2.0	1.0	ng/L	2.04	375-85-9	
PFPeS*	Not detected	2.0	0.82	ng/L	2.04	2706-91-4	
6:2 FTSA*	Not detected	2.0	1.2	ng/L	2.04	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	2.04	335-67-1	
PFHxS*	Not detected	2.0	1.2	ng/L	2.04	355-46-4	
PFHxS-LN*	Not detected	2.0	1.2	ng/L	2.04	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.2	ng/L	2.04	355-46-4-BR	
PFNA*	Not detected	2.0	0.82	ng/L	2.04	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2.04	39108-34-4	
PFHpS*	Not detected	2.0	1.2	ng/L	2.04	375-92-8	
PFDA*	Not detected	2.0	0.61	ng/L	2.04	335-76-2	
N-MeFOSAA*	Not detected	2.0	1.4	ng/L	2.04	2355-31-9	
EtFOSAA*	Not detected	4.1	2.0	ng/L	2.04	2991-50-6	
PFOS*	Not detected	2.0	1.2	ng/L	2.04	1763-23-1	
PFOS-LN*	Not detected	2.0	1.2	ng/L	2.04	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	1.2	ng/L	2.04	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.0	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	1.2	ng/L	2.04	335-77-3	
PFTTrDA*	Not detected	2.0	1.0	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	0.41	ng/L	2.04	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	0.82	ng/L	2.04	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	0.82	ng/L	2.04	756426-58-1	
ADONA*	Not detected	2.0	1.0	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	2.0	ng/L	2.04	812-70-4	
FPePA (5:3 FTCA)*	Not detected	10	2.0	ng/L	2.04	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	10	1.0	ng/L	2.04	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	2.04	30334-69-1	
PFECHS*	Not detected	2.0	1.0	ng/L	2.04	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S67374.08 (continued)
Sample Tag: Field Blank-20241014

34 PFAs, Method: ASTMD7979-19M, Run Date: 10/16/24 18:42, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	0.82	ng/L	2.04	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID:S67374

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted: 10/14/2024 14:15 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.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 5.2
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☐ No ☒ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain

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

Client Review By: _____ Date: _____

REPORT TO

CONTACT NAME clifford Vantz / Kevin Schander			
COMPANY Ramboll			
ADDRESS 2090 Commonwealth Blvd			
CITY Ann Arbor		STATE MI	ZIP CODE 48105
PHONE NO.		CELL NO. 313-733-0211	P.O. NO. 194008845 Task 37
E-MAIL ADDRESS clifford.vantz@ramboll.com kevin.schander@ramboll.com		QUOTE NO.	

CHAIN OF CUSTODY RECORD

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

INVOICE TO

PROJECT NO./NAME RACER Cddw+tv Road	SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider <i>[Signature]</i>
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____	
DELIVERABLES REQUIRED ☒ 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=WIPE	A=AIR	WS=WASTE

Containers & Preservatives

[illegible]

RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	☒ Sampler	DATE 10/19/24	TIME 1750
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 10/19/24	TIME 1850
RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 10/14/24	TIME 1410
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 10/14/24	TIME 1415

RELINQUISHED BY:				DATE	TIME
SIGNATURE/ORGANIZATION					
RECEIVED BY:				DATE	TIME
SIGNATURE/ORGANIZATION					
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES:	TEMP. ON ARRIVAL	5.2
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS			

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

Rev. 05/24



Quality Control Report

Report ID: QC-S67374-01
Generated on 10/31/2024

Report to

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

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Report Produced by

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Report Summary

Lab Sample ID(s): S67374.01-S67374.08
Project: RACER Coldwater Road
Submitted Date/Time: 10/14/2024 14:15
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

QC Report Sections

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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: S67374.01
Sample Tag: SS-16-20241014
Collected Date/Time: 10/14/2024 11:08
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 15:41	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S67374.02
Sample Tag: SS-15-20241014
Collected Date/Time: 10/14/2024 11:16
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 16:21	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S67374.03
Sample Tag: SS-12-20241014
Collected Date/Time: 10/14/2024 11:30
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 16:41	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S67374.04
Sample Tag: SS-14-20241014
Collected Date/Time: 10/14/2024 11:45
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 17:21	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S67374.05
Sample Tag: SS-23-20241014
Collected Date/Time: 10/14/2024 11:55
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 17:41	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S67374.06
Sample Tag: MH-10E-W-20241014
Collected Date/Time: 10/14/2024 12:10
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 18:01	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S67374.07
Sample Tag: SS-10-20241014
Collected Date/Time: 10/14/2024 12:30
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 18:22	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S67374.08
Sample Tag: Field Blank-20241014
Collected Date/Time: 10/14/2024 12:35
Matrix: Liquid
COC Reference: 172737

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	10/16/24 18:42	SE241016	PF241016W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF241016W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S67374.01	34 PFAs	ASTMD7979-19M	10/16/24 15:41	SE241016
S67374.02	34 PFAs	ASTMD7979-19M	10/16/24 16:21	SE241016
S67374.03	34 PFAs	ASTMD7979-19M	10/16/24 16:41	SE241016
S67374.04	34 PFAs	ASTMD7979-19M	10/16/24 17:21	SE241016
S67374.05	34 PFAs	ASTMD7979-19M	10/16/24 17:41	SE241016
S67374.06	34 PFAs	ASTMD7979-19M	10/16/24 18:01	SE241016
S67374.07	34 PFAs	ASTMD7979-19M	10/16/24 18:22	SE241016
S67374.08	34 PFAs	ASTMD7979-19M	10/16/24 18:42	SE241016

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.01

Sample Tag: SS-16-20241014

Collected Date/Time: 10/14/2024 11:08

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 15:41, Matrix: WW, Dilution: 1.9

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		119.1	50.0	150.0
M2-6:2FTSA		112.1	50.0	150.0
M2-8:2FTSA		94.7	50.0	150.0
M2PFTeDA		101.2	12.0	218.0
M3PFBS		101.0	50.0	150.0
M3PFHxS		103.6	50.0	150.0
M4PFHpA		101.8	50.0	150.0
M5PFHxA		101.4	50.0	150.0
M5PFPeA		106.4	50.0	150.0
M6PFDA		96.7	50.0	150.0
M7PFUnDA		100.4	50.0	150.0
M8FOSA		99.5	50.0	150.0
M8PFOA		102.4	50.0	150.0
M8PFOS		93.8	50.0	150.0
M9-PFNA		108.0	50.0	150.0
MPFBA		105.4	50.0	150.0
MPFDoDA		98.6	50.0	150.0
d3N-MeFOSAA		110.8	50.0	150.0
d5EtFOSAA		110.9	50.0	150.0
MHFPO-DA		102.7	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.02

Sample Tag: SS-15-20241014

Collected Date/Time: 10/14/2024 11:16

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 16:21, Matrix: WW, Dilution: 1.93

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		123.1	50.0	150.0
M2-6:2FTSA		110.8	50.0	150.0
M2-8:2FTSA		102.1	50.0	150.0
M2PFTeDA		103.7	12.0	218.0
M3PFBS		104.5	50.0	150.0
M3PFHxS		106.3	50.0	150.0
M4PFHpA		101.6	50.0	150.0
M5PFHxA		107.5	50.0	150.0
M5PFPeA		109.3	50.0	150.0
M6PFDA		103.6	50.0	150.0
M7PFUnDA		101.2	50.0	150.0
M8FOSA		102.3	50.0	150.0
M8PFOA		104.7	50.0	150.0
M8PFOS		103.4	50.0	150.0
M9-PFNA		107.6	50.0	150.0
MPFBA		106.7	50.0	150.0
MPFDoDA		101.2	50.0	150.0
d3N-MeFOSAA		118.1	50.0	150.0
d5EtFOSAA		115.3	50.0	150.0
MHFPO-DA		101.1	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.03

Sample Tag: SS-12-20241014

Collected Date/Time: 10/14/2024 11:30

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 16:41, Matrix: WW, Dilution: 1.96

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		121.6	50.0	150.0
M2-6:2FTSA		105.2	50.0	150.0
M2-8:2FTSA		86.4	50.0	150.0
M2PFTeDA		102.8	12.0	218.0
M3PFBS		96.4	50.0	150.0
M3PFHxS		104.9	50.0	150.0
M4PFHpA		99.3	50.0	150.0
M5PFHxA		104.9	50.0	150.0
M5PFPeA		105.5	50.0	150.0
M6PFDA		96.3	50.0	150.0
M7PFUnDA		105.6	50.0	150.0
M8FOSA		95.3	50.0	150.0
M8PFOA		102.0	50.0	150.0
M8PFOS		99.5	50.0	150.0
M9-PFNA		103.9	50.0	150.0
MPFBA		104.4	50.0	150.0
MPFDoDA		101.3	50.0	150.0
d3N-MeFOSAA		106.5	50.0	150.0
d5EtFOSAA		102.4	50.0	150.0
MHFPO-DA		103.5	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.04

Sample Tag: SS-14-20241014

Collected Date/Time: 10/14/2024 11:45

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 17:21, Matrix: WW, Dilution: 2.1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		123.2	50.0	150.0
M2-6:2FTSA		123.7	50.0	150.0
M2-8:2FTSA		101.1	50.0	150.0
M2PFTeDA		114.3	12.0	218.0
M3PFBS		104.4	50.0	150.0
M3PFHxS		107.8	50.0	150.0
M4PFHpA		110.3	50.0	150.0
M5PFHxA		101.9	50.0	150.0
M5PFPeA		110.0	50.0	150.0
M6PFDA		100.1	50.0	150.0
M7PFUnDA		107.2	50.0	150.0
M8FOSA		103.4	50.0	150.0
M8PFOA		107.6	50.0	150.0
M8PFOS		104.1	50.0	150.0
M9-PFNA		111.2	50.0	150.0
MPFBA		109.9	50.0	150.0
MPFDoDA		104.0	50.0	150.0
d3N-MeFOSAA		116.0	50.0	150.0
d5EtFOSAA		118.7	50.0	150.0
MHFPO-DA		109.7	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.05

Sample Tag: SS-23-20241014

Collected Date/Time: 10/14/2024 11:55

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 17:41, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		127.4	50.0	150.0
M2-6:2FTSA		115.7	50.0	150.0
M2-8:2FTSA		100.0	50.0	150.0
M2PFTeDA		101.4	12.0	218.0
M3PFBS		102.2	50.0	150.0
M3PFHxS		107.2	50.0	150.0
M4PFHpA		104.9	50.0	150.0
M5PFHxA		103.5	50.0	150.0
M5PFPeA		109.8	50.0	150.0
M6PFDA		105.4	50.0	150.0
M7PFUnDA		106.4	50.0	150.0
M8FOSA		100.2	50.0	150.0
M8PFOA		110.7	50.0	150.0
M8PFOS		103.5	50.0	150.0
M9-PFNA		99.2	50.0	150.0
MPFBA		110.6	50.0	150.0
MPFDoDA		104.0	50.0	150.0
d3N-MeFOSAA		115.0	50.0	150.0
d5EtFOSAA		115.4	50.0	150.0
MHFPO-DA		102.0	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.06

Sample Tag: MH-10E-W-20241014

Collected Date/Time: 10/14/2024 12:10

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 18:01, Matrix: WW, Dilution: 2.05

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		123.1	50.0	150.0
M2-6:2FTSA		113.5	50.0	150.0
M2-8:2FTSA		94.5	50.0	150.0
M2PFTeDA		109.2	12.0	218.0
M3PFBS		100.3	50.0	150.0
M3PFHxS		106.3	50.0	150.0
M4PFHpA		105.7	50.0	150.0
M5PFHxA		103.5	50.0	150.0
M5PFPeA		108.2	50.0	150.0
M6PFDA		103.6	50.0	150.0
M7PFUnDA		106.8	50.0	150.0
M8FOSA		100.9	50.0	150.0
M8PFOA		109.8	50.0	150.0
M8PFOS		105.1	50.0	150.0
M9-PFNA		109.6	50.0	150.0
MPFBA		109.3	50.0	150.0
MPFDoDA		104.8	50.0	150.0
d3N-MeFOSAA		115.4	50.0	150.0
d5EtFOSAA		112.4	50.0	150.0
MHFPO-DA		105.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.07

Sample Tag: SS-10-20241014

Collected Date/Time: 10/14/2024 12:30

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 18:22, Matrix: WW, Dilution: 2.07

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		118.1	50.0	150.0
M2-6:2FTSA		116.6	50.0	150.0
M2-8:2FTSA		106.8	50.0	150.0
M2PFTeDA		122.0	12.0	218.0
M3PFBS		102.2	50.0	150.0
M3PFHxS		106.2	50.0	150.0
M4PFHpA		105.4	50.0	150.0
M5PFHxA		105.0	50.0	150.0
M5PFPeA		107.8	50.0	150.0
M6PFDA		103.6	50.0	150.0
M7PFUnDA		109.6	50.0	150.0
M8FOSA		98.5	50.0	150.0
M8PFOA		105.3	50.0	150.0
M8PFOS		97.0	50.0	150.0
M9-PFNA		107.0	50.0	150.0
MPFBA		109.0	50.0	150.0
MPFDoDA		105.8	50.0	150.0
d3N-MeFOSAA		116.1	50.0	150.0
d5EtFOSAA		118.7	50.0	150.0
MHFPO-DA		106.7	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S67374.08

Sample Tag: Field Blank-20241014

Collected Date/Time: 10/14/2024 12:35

Matrix: Liquid

COC Reference: 172737

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: SE241016, Run Date: 10/16/2024 18:42, Matrix: WW, Dilution: 2.04

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		120.3	50.0	150.0
M2-6:2FTSA		118.2	50.0	150.0
M2-8:2FTSA		105.1	50.0	150.0
M2PFTeDA		101.3	12.0	218.0
M3PFBS		96.7	50.0	150.0
M3PFHxS		104.4	50.0	150.0
M4PFHpA		102.2	50.0	150.0
M5PFHxA		98.5	50.0	150.0
M5PFPeA		108.1	50.0	150.0
M6PFDA		103.7	50.0	150.0
M7PFUnDA		101.5	50.0	150.0
M8FOSA		96.5	50.0	150.0
M8PFOA		104.9	50.0	150.0
M8PFOS		98.8	50.0	150.0
M9-PFNA		105.9	50.0	150.0
MPFBA		107.1	50.0	150.0
MPFDoDA		99.5	50.0	150.0
d3N-MeFOSAA		120.6	50.0	150.0
d5EtFOSAA		109.4	50.0	150.0
MHFPO-DA		105.3	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF241016W1

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

Blank (BLK)

Lab Sample ID: SE241016.BLK241016

Run in Batch: SE241016, Run Date: 10/16/2024 14:13, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		100.3	50.0	150.0
M2-6:2FTSA		105.8	50.0	150.0
M2-8:2FTSA		90.6	50.0	150.0
M2PFTeDA		98.8	12.0	218.0
M3PFBS		93.2	50.0	150.0
M3PFHxS		102.9	50.0	150.0
M4PFHpA		99.7	50.0	150.0
M5PFHxA		101.4	50.0	150.0
M5PFPeA		104.4	50.0	150.0
M6PFDA		101.8	50.0	150.0
M7PFUnDA		104.6	50.0	150.0
M8FOSA		97.2	50.0	150.0
M8PFOA		104.5	50.0	150.0
M8PFOS		100.4	50.0	150.0
M9-PFNA		103.1	50.0	150.0
MPFBA		99.2	50.0	150.0
MPFDoDA		96.3	50.0	150.0
d3N-MeFOSAA		106.8	50.0	150.0
d5EtFOSAA		107.5	50.0	150.0
MHFPO-DA		99.9	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: SE241016.LCS241016

Run in Batch: SE241016, Run Date: 10/16/2024 13:33, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		103.9	50.0	150.0
M2-6:2FTSA		95.5	50.0	150.0
M2-8:2FTSA		105.6	50.0	150.0
M2PFTeDA		95.4	12.0	218.0
M3PFBS		97.0	50.0	150.0
M3PFHxS		103.8	50.0	150.0
M4PFHpA		98.8	50.0	150.0
M5PFHxA		100.7	50.0	150.0
M5PFPeA		103.0	50.0	150.0
M6PFDA		97.4	50.0	150.0
M7PFUnDA		98.3	50.0	150.0
M8FOSA		99.9	50.0	150.0
M8PFOA		101.9	50.0	150.0
M8PFOS		96.0	50.0	150.0
M9-PFNA		101.4	50.0	150.0
MPFBA		97.9	50.0	150.0
MPFDoDA		94.3	50.0	150.0
d3N-MeFOSAA		108.9	50.0	150.0
d5EtFOSAA		100.4	50.0	150.0
MHFPO-DA		96.6	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: SE241016.LCSD241016, Parent Sample ID: SE241016.LCS241016

Run in Batch: SE241016, Run Date: 10/16/2024 13:53, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		100.7	50.0	150.0
M2-6:2FTSA		95.5	50.0	150.0
M2-8:2FTSA		95.5	50.0	150.0
M2PFTeDA		100.4	12.0	218.0
M3PFBS		96.7	50.0	150.0
M3PFHxS		95.3	50.0	150.0
M4PFHpA		97.1	50.0	150.0
M5PFHxA		97.0	50.0	150.0
M5PFPeA		99.9	50.0	150.0
M6PFDA		90.3	50.0	150.0
M7PFUnDA		101.3	50.0	150.0
M8FOSA		94.1	50.0	150.0
M8PFOA		101.2	50.0	150.0
M8PFOS		105.3	50.0	150.0
M9-PFNA		102.2	50.0	150.0
MPFBA		96.1	50.0	150.0
MPFDoDA		98.0	50.0	150.0
d3N-MeFOSAA		96.5	50.0	150.0
d5EtFOSAA		106.1	50.0	150.0
MHFPO-DA		96.5	50.0	150.0

QC Report - Internal Standards per QC Sample

Matrix Spike (MS)

Lab Sample ID: SE241016.6737401M, Parent Sample ID: S67374.01

Run in Batch: SE241016, Run Date: 10/16/2024 16:01, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1.9

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		119.1	50.0	150.0
M2-6:2FTSA		115.8	50.0	150.0
M2-8:2FTSA		106.3	50.0	150.0
M2PFTeDA		95.3	12.0	218.0
M3PFBS		104.3	50.0	150.0
M3PFHxS		111.8	50.0	150.0
M4PFHpA		110.2	50.0	150.0
M5PFHxA		109.8	50.0	150.0
M5PFPeA		109.3	50.0	150.0
M6PFDA		95.2	50.0	150.0
M7PFUnDA		106.8	50.0	150.0
M8FOSA		101.1	50.0	150.0
M8PFOA		109.2	50.0	150.0
M8PFOS		103.9	50.0	150.0
M9-PFNA		104.9	50.0	150.0
MPFBA		107.1	50.0	150.0
MPFDoDA		102.9	50.0	150.0
d3N-MeFOSAA		106.8	50.0	150.0
d5EtFOSAA		111.9	50.0	150.0
MHFPO-DA		99.7	50.0	150.0

QC Report - Internal Standards per QC Sample

Duplicate (DUP)

Lab Sample ID: SE241016.6737403D, Parent Sample ID: S67374.03

Run in Batch: SE241016, Run Date: 10/16/2024 17:01, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1.96

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		113.3	50.0	150.0
M2-6:2FTSA		107.8	50.0	150.0
M2-8:2FTSA		95.4	50.0	150.0
M2PFTeDA		99.4	12.0	218.0
M3PFBS		92.9	50.0	150.0
M3PFHxS		96.3	50.0	150.0
M4PFHpA		95.5	50.0	150.0
M5PFHxA		96.5	50.0	150.0
M5PFPeA		101.1	50.0	150.0
M6PFDA		95.1	50.0	150.0
M7PFUnDA		95.5	50.0	150.0
M8FOSA		92.1	50.0	150.0
M8PFOA		98.1	50.0	150.0
M8PFOS		92.4	50.0	150.0
M9-PFNA		99.0	50.0	150.0
MPFBA		101.0	50.0	150.0
MPFDoDA		100.3	50.0	150.0
d3N-MeFOSAA		103.6	50.0	150.0
d5EtFOSAA		101.5	50.0	150.0
MHFPO-DA		101.9	50.0	150.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF241016W1

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

Blank (BLK)

Lab Sample ID: SE241016.BLK241016

Run in Batch: SE241016, Run Date: 10/16/2024 14:13, Prep Date: 10/16/2024, 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
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
PFOS		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS-LN		ND	2	ng/l
PFHxSA		ND	2	ng/l
PFUnDA		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
PFTeDA		ND	4	ng/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF241016W1 (continued)

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

Laboratory Control Sample (LCS)

Lab Sample ID: SE241016.LCS241016

Run in Batch: SE241016, Run Date: 10/16/2024 13:33, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		99.8	70.0	130.0
PFMPA		97.8	70.0	130.0
FPrPA (3:3 FTCA)		96.6	70.0	130.0
PFPPrS		113.8	70.0	130.0
PFPeA		98.8	70.0	130.0
PFMBA		113.0	70.0	130.0
4:2 FTSA		103.8	70.0	130.0
NFDHA		98.0	70.0	130.0
PFHxA		94.4	70.0	130.0
PFBS		101.8	70.0	130.0
HFPO-DA		107.4	70.0	130.0
FPePA (5:3 FTCA)		108.4	70.0	130.0
PFEESA		121.4	70.0	130.0
PFHpA		92.6	70.0	130.0
PFPeS		105.0	70.0	130.0
ADONA		90.8	70.0	130.0
6:2 FTSA		113.2	70.0	130.0
PFBSA		107.0	70.0	130.0
PFOA		95.0	70.0	130.0
PFHxS		103.6	70.0	130.0
FHpPA (7:3 FTCA)		121.6	70.0	130.0
PFNA		87.6	70.0	130.0
PFECHS		112.8	70.0	130.0
8:2 FTSA		70.0	70.0	130.0
PFHpS		87.2	70.0	130.0
PFDA		107.0	70.0	130.0
N-MeFOSAA		86.4	70.0	130.0
PFOS		107.0	70.0	130.0
EtFOSAA		128.8	70.0	130.0
PFHxSA		107.2	70.0	130.0
PFUnDA		95.6	70.0	130.0
9CL-PF3ONS		124.2	70.0	130.0
PFNS		112.2	70.0	130.0
PFDoDA		115.8	70.0	130.0
PFDS		114.0	70.0	130.0
PFTTrDA		111.6	70.0	130.0
11CL-PF3OUdS		106.0	70.0	130.0
FOSA		109.2	70.0	130.0
PFTeDA		97.0	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: SE241016.LCSD241016, Parent Sample ID: SE241016.LCS241016

Run in Batch: SE241016, Run Date: 10/16/2024 13:53, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		107.8	70.0	130.0	7.7	30.0
PFMPA		93.4	70.0	130.0	4.6	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF241016W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: SE241016.LCSD241016, Parent Sample ID: SE241016.LCS241016

Run in Batch: SE241016, Run Date: 10/16/2024 13:53, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
FPrPA (3:3 FTCA)		99.2	70.0	130.0	2.7	30.0
PFPPrS		122.8	70.0	130.0	7.6	30.0
PFPeA		109.8	70.0	130.0	10.5	30.0
PFMBA		106.8	70.0	130.0	5.6	30.0
4:2 FTSA		108.2	70.0	130.0	4.2	30.0
NFDHA		94.2	70.0	130.0	4.0	30.0
PFHxA		104.2	70.0	130.0	9.9	30.0
PFBS		102.0	70.0	130.0	0.2	30.0
HFPO-DA		109.6	70.0	130.0	2.0	30.0
FPePA (5:3 FTCA)		114.8	70.0	130.0	5.7	30.0
PFEESA		114.4	70.0	130.0	5.9	30.0
PFHpA		99.0	70.0	130.0	6.7	30.0
PFPeS		113.0	70.0	130.0	7.3	30.0
ADONA		93.6	70.0	130.0	3.0	30.0
6:2 FTSA		122.2	70.0	130.0	7.6	30.0
PFBSA		125.2	70.0	130.0	15.7	30.0
PFOA		100.0	70.0	130.0	5.1	30.0
PFHxS		118.6	70.0	130.0	13.5	30.0
FHpPA (7:3 FTCA)		122.2	70.0	130.0	0.5	30.0
PFNA		89.8	70.0	130.0	2.5	30.0
PFECHS		100.2	70.0	130.0	11.8	30.0
8:2 FTSA		87.2	70.0	130.0	21.9	30.0
PFHpS		98.6	70.0	130.0	12.3	30.0
PFDA		113.8	70.0	130.0	6.2	30.0
N-MeFOSAA		94.0	70.0	130.0	8.4	30.0
PFOS		102.6	70.0	130.0	4.2	30.0
EtFOSAA		124.8	70.0	130.0	3.2	30.0
PFHxSA		123.8	70.0	130.0	14.4	30.0
PFUnDA		102.0	70.0	130.0	6.5	30.0
9CL-PF3ONS		120.8	70.0	130.0	2.8	30.0
PFNS		105.0	70.0	130.0	6.6	30.0
PFDoDA		115.0	70.0	130.0	0.7	30.0
PFDS		105.0	70.0	130.0	8.2	30.0
PFTTrDA		114.4	70.0	130.0	2.5	30.0
11CL-PF3OUdS		102.0	70.0	130.0	3.8	30.0
FOSA		114.6	70.0	130.0	4.8	30.0
PFTeDA		105.8	70.0	130.0	8.7	30.0

Matrix Spike (MS)

Lab Sample ID: SE241016.6737401M, Parent Sample ID: S67374.01

Run in Batch: SE241016, Run Date: 10/16/2024 16:01, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1.9

Analyte	Flags	% Rec	LCL	UCL
PFBA		100.5	70.0	130.0
PFPeA		100.8	70.0	130.0
4:2 FTSA		105.3	70.0	130.0
PFHxA		90.1	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF241016W1 (continued)

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

Matrix Spike (MS) (continued)

Lab Sample ID: SE241016.6737401M, Parent Sample ID: S67374.01

Run in Batch: SE241016, Run Date: 10/16/2024 16:01, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1.9

Analyte	Flags	% Rec	LCL	UCL
PFBS		99.3	70.0	130.0
PFHpA		85.3	70.0	130.0
PFPeS		100.0	70.0	130.0
6:2 FTSA		105.3	70.0	130.0
PFOA		93.8	70.0	130.0
PFHxS		98.1	70.0	130.0
PFNA		90.5	70.0	130.0
8:2 FTSA	*	68.4	70.0	130.0
PFHpS		85.2	70.0	130.0
PFDA		115.8	70.0	130.0
N-MeFOSAA		87.4	70.0	130.0
EtFOSAA		115.8	70.0	130.0
PFOS		95.8	70.0	130.0
PFUnDA		92.6	70.0	130.0
PFNS		100.0	70.0	130.0
PFDODA		105.3	70.0	130.0
PFDS		115.8	70.0	130.0
PFTTrDA		102.1	70.0	130.0
FOSA		115.8	70.0	130.0
PFTeDA		101.1	70.0	130.0
11CL-PF3OUdS		98.9	70.0	130.0
9CL-PF3ONS		115.8	70.0	130.0
ADONA		88.4	70.0	130.0
HFPO-DA		105.3	70.0	130.0
FHpPA (7:3 FTCA)		101.1	70.0	130.0
FPePA (5:3 FTCA)		97.9	70.0	130.0
FPrPA (3:3 FTCA)		89.5	70.0	130.0
PFBSA		115.8	70.0	130.0
PFECHS		110.5	70.0	130.0
PFHxSA		115.8	70.0	130.0

Duplicate (DUP)

Lab Sample ID: SE241016.6737403D, Parent Sample ID: S67374.03

Run in Batch: SE241016, Run Date: 10/16/2024 17:01, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1.96

Analyte	Flags	RPD	RPD CL
PFBA	J	29.1	30.0
PFPeA		NC	30.0
4:2 FTSA		NC	30.0
PFHxA		10.5	30.0
PFBS	J	0.0	30.0
PFHpA	J*	200.0	30.0
PFPeS	J	6.9	30.0
6:2 FTSA		NC	30.0
PFOA	J	5.4	30.0
PFHxS		8.3	30.0
PFHxS-LN	J	0.0	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF241016W1 (continued)

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

Duplicate (DUP) (continued)

Lab Sample ID: SE241016.6737403D, Parent Sample ID: S67374.03

Run in Batch: SE241016, Run Date: 10/16/2024 17:01, Prep Date: 10/16/2024, Matrix: WW, Dilution: 1.96

Analyte	Flags	RPD	RPD CL
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		4.6	30.0
PFOS-LN		1.6	30.0
PFOS-BR		8.7	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		10.0	30.0
PFHxSA		NC	30.0

REPORT TO

CONTACT NAME clifford Vantz / Kevin Schander			
COMPANY Ramboll			
ADDRESS 2090 Commonwealth Blvd			
CITY Ann Arbor		STATE MI	ZIP CODE 48105
PHONE NO.		CELL NO. 313-733-0211	P.O. NO. 194008845 Task 37
E-MAIL ADDRESS clifford.vantz@ramboll.com kevin.schander@ramboll.com		QUOTE NO.	

CHAIN OF CUSTODY RECORD

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

INVOICE TO

PROJECT NO./NAME RACER Cddw+tv Road	SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider <i>[Signature]</i>
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____	
DELIVERABLES REQUIRED ☒ 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=WIPE	A=AIR	WS=WASTE

Containers & Preservatives

[illegible]

RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>	X Sampler	DATE 10/19/24	TIME 1750
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 10/19/24	TIME 1850
RELINQUISHED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 10/14/24	TIME 1410
RECEIVED BY: SIGNATURE/ORGANIZATION	<i>[Signature]</i>		DATE 10/14/24	TIME 1415

RELINQUISHED BY:				DATE	TIME
SIGNATURE/ORGANIZATION					
RECEIVED BY:				DATE	TIME
SIGNATURE/ORGANIZATION					
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES:	TEMP. ON ARRIVAL	5.2
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS			

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

Rev. 05/24