

SUBJECT

RACER Pontiac North Campus
Storm Sewer Sampling Results - July

DATE

April 10, 2026

DEPARTMENT

Environment

COPIES TO

Project File
Brendan Mullen, RACER
Dave Favero, RACER

TO

Jennifer Stanhope
United States Environmental
Protection Agency (USEPA)

PROJECT NUMBER

30321425

NAME

Tiffany Linder
Tiffany.Linder@arcadis.com

Introduction

This memo summarizes the results of per- and polyfluoroalkyl substances (PFAS) storm sewer sampling completed downgradient of Revitalizing Auto Communities Environmental Response (RACER) Trust Pontiac North Campus properties (Site). A *Proposed Storm Sewer Sampling Work Plan* was submitted to the United States Environmental Protection Agency (USEPA) on December 19th, 2024, and approved via email transmittal on December 23rd, 2024. The objective of the sampling was to assess the presence of Site-related PFAS in storm water at a location downgradient of the Site prior to discharging to Harris Lake. A sample was collected on January 13th, 2025, and the results were summarized in the *Storm Sewer Sampling Results* memo submitted to USEPA on June 20th, 2025. The memo recommended additional sample collection in July 2025 using the same methods to confirm results. This memo summarizes the results of the July sampling event. The storm water sampling location is shown in **Figure 1**. The storm water sample collected was compared to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Groundwater-Surface Water Interface (GSI) Criteria for regulated PFAS constituents.

Sampling Procedure

On July 16th, 2025, an off-site storm sewer manhole was sampled at a location downgradient of the contributing storm sewers that may have Site-related PFAS-impacted groundwater infiltrating into them. The sewers also have other inputs including E. Montcalm Street right-of-way (ROW), adjacent properties, and the N. Saginaw Street ROW, including the Pontiac School Board property. A grab sample was collected using a peristaltic pump at the Saginaw Street manhole location (MHOS-01) shown on **Figure 1**. The sample was collected during baseflow conditions with no precipitation preceding the sampling event for at least 48-hours. The pump tubing was weighted at one end and lowered into the water column taking care not to stir up sediment. All sampling equipment and materials were PFAS-free and the stormwater sample was collected in accordance with the Arcadis PFAS sampling Technical Guidance Instructions.

For laboratory quality control, a duplicate sample was collected at the time of sampling and an equipment blank was collected to verify that no PFAS was present in the sampling equipment. The samples were submitted to Pace Analytical Services in Minneapolis, Minnesota and analyzed by modified USEPA Method 537M. The modified method includes analysis of 28 PFAS, including perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS) and the five other PFAS for which EGLE has an established GSI Criteria, as well as the six compounds with USEPA Maximum Contaminant Levels.

Analytical Results

Results from the storm sewer sampling were compared to GSI criteria and are provided in **Table 1** and **Figure 1**. One PFAS compound, PFOS, was detected in the storm water sample at a concentration of 4.0 ng/L. This concentration is below the EGLE GSI criteria of 12 ng/L for PFOS. A Level II QC was completed on the analytical report (10742639) associated with this sampling event. The duplicate was found to be within an acceptable relative percent difference (RPD) of the parent and there were no detections in the associated QC blanks. If the data was fully validated, due to the extraction internal standard (EIS) recoveries being below the control limit, results from sample MHOS-01_W_07162025 for HFPO-DA, ADONA, 9CI-PF3ONS, 11CI-PF3OUdS, PFPeA and PFOSA would be qualified as estimated, as would results from sample DUP-01_07162025 for HFPO-DA, ADONA, 9CI-PF3ONS, 11CI-PF3OUdS, PFPeA and PFOSA. The laboratory analytical report is provided in **Attachment 1** and data validation report is provided in **Attachment 2**.

Recommendation

Based on results from the January 2025 and July 2025 sampling events, no further sampling of storm water is recommended at this time.

Enc.

Figure 1 – Storm Sewer Sampling Location and Results

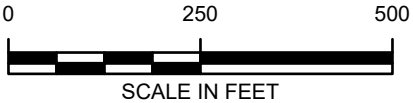
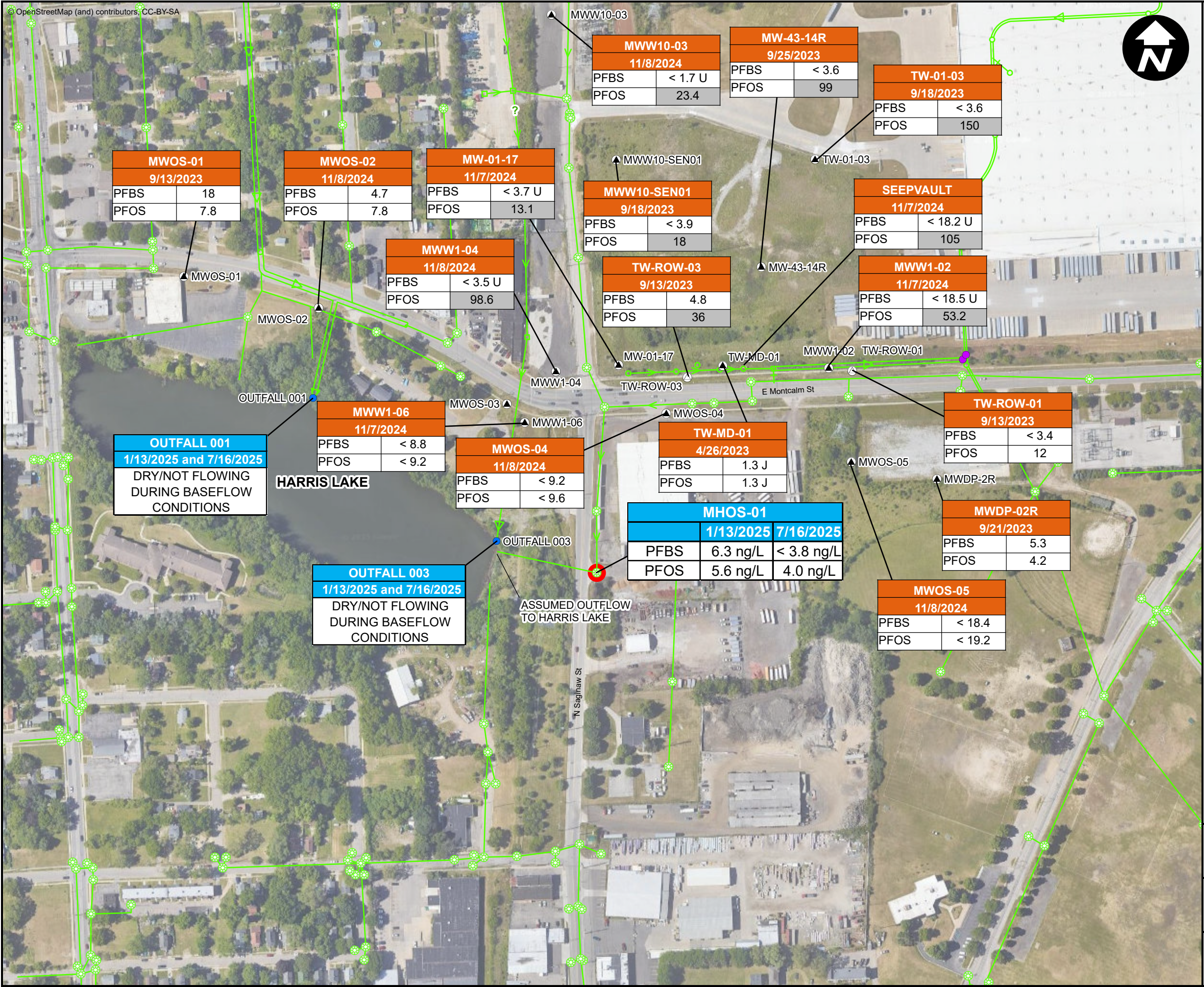
Table 1 – Summary of PFAS Storm Water Analytical Results

Attachment 1 – Laboratory Analytical Results

Attachment 2 – Data Validation Report

FIGURES

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\PontiacNorthCampusDocuments\Former_Piero_Property\SitenInvestigator_2025\MonitoringPlan_2025.aprx Layout: Racer_PNC SewerLayout_WaterTable_Analytical_2025 PLOTTED: 9/11/2025 2:58 PM BY: TYarborough



RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

STORM SEWER SAMPLING
LOCATION AND RESULTS



TABLES

Table 1
Summary of PFAS Storm Water Analytical Results
RACER Pontiac North Campus
Pontiac, Michigan



Location ID:	Units	Groundwater Surface Water Interface	MHOS-01	MHOS-01
Date Collected:			1/13/2025	7/16/2025
PFAS				
11CI-PF3OUdS	ng/L	--	< 4.0 U [< 3.8 U]	< 4.0 U [< 3.8 U]
4:2 FTS	ng/L	--	< 4.0 U [< 3.8 U]	< 4.0 U [< 3.8 U]
6:2 FTS	ng/L	--	< 4.0 U [< 3.9 U]	< 4.0 U [< 3.8 U]
8:2 FTS	ng/L	--	< 4.1 U [< 3.9 U]	< 4.1 U [< 3.9 U]
9CI-PF3ONS	ng/L	--	< 4.0 U [< 3.8 U]	< 4.0 U [< 3.8 U]
ADONA	ng/L	--	< 4.0 U [< 3.8 U]	< 4.0 U [< 3.8 U]
GenX	ng/L	--	< 4.3 UJ [< 4.1 UJ]	< 4.3 U [< 4.1 U]
NEtFOSAA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
NMeFOSAA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFBS	ng/L	670,000	6.3 [< 3.6 U]	< 3.8 U [< 3.6 U]
PFBA	ng/L	--	< 4.3 UJ [< 4.1 UJ]	< 4.3 U [< 4.1 U]
PFDS	ng/L	--	< 4.1 U [< 3.9 U]	< 4.1 U [< 3.9 U]
PFDA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFDoA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFHpS	ng/L	--	< 4.0 U [< 3.9 U]	< 4.0 U [< 3.8 U]
PFHpA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFHxS	ng/L	210	< 3.9 U [< 3.7 U]	< 3.9 U [< 3.7 U]
PFHxA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFNS	ng/L	--	< 4.1 U [< 3.9 U]	< 4.1 U [< 3.9 U]
PFNA	ng/L	30	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
FOSA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFOS	ng/L	12	5.6 [4.9]	4.0 [< 3.7 U]
PFOA	ng/L	170	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFPeS	ng/L	--	< 4.0 U [< 3.8 U]	< 4.0 U [< 3.8 U]
PFPeA	ng/L	--	< 4.3 UJ [< 4.1 UJ]	< 4.3 U [< 4.1 U]
PFTeA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFTriA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]
PFUnA	ng/L	--	< 4.3 U [< 4.1 U]	< 4.3 U [< 4.1 U]

Notes on following page.

Table 1
Summary of PFAS Storm Water Analytical Results
RACER Trust Pontiac North Campus
Pontiac, Michigan



Notes:

- 1) Criteria listed are from the State of Michigan's groundwater clean-up rules, Michigan Department of Environment Great Lakes and Energy (EGLE) updated on October 12, 2023
- 2) Samples were analyzed by LC-MS/MS with isotope dilution by modified USEPA Method 537M.
The modified method includes analysis of 28 per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) and all other PFAS for which EGLE has a Part 201 Drinking Water Criteria and USEPA has proposed a Maximum Contaminant Level.
- 3) Duplicate analyses are presented in []

Abbreviations

<	Not detected above the laboratory reporting limit
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
ng/L	Nanograms per liter
MI	Michigan
PFAS	per- and polyfluoroalkyl substances
U	Indicates the compound was analyzed for, but not detected

Attachment 1

Laboratory Analytical Results



August 08, 2025

Tiffany Linder
Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

RE: Project: 30267726.00031 Racer PNC
Pace Project No.: 10742639

Dear Tiffany Linder:

Enclosed are the analytical results for sample(s) received by the laboratory on July 17, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bryan Nguyen
bryan.nguyen@pacelabs.com
612-656-2286
Project Manager

Enclosures

cc: Madison Olender, Arcadis U.S., Inc.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

DoD Certification via A2LA #: 2926.01

EPA Region 8 Tribal Water Systems+Wyoming DW
Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

ISO/IEC 17025 Certification via A2LA #: 2926.01

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification via A2LA #: R-036

North Dakota Certification via MN #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification via A2LA #: 2926.01

USDA Permit #: P330-19-00208

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SAMPLE SUMMARY

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10742639001	MHOS-01_W_07162025	Water	07/16/25 09:56	07/17/25 08:50
10742639002	DUP-01_07162025	Water	07/16/25 00:00	07/17/25 08:50
10742639003	EB-01_07162025	Water	07/16/25 10:17	07/17/25 08:50

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SAMPLE ANALYTE COUNT

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10742639001	MHOS-01_W_07162025	ENV-SOP-MIN4-0178	MJL	53	PASI-M
10742639002	DUP-01_07162025	ENV-SOP-MIN4-0178	MJL	53	PASI-M
10742639003	EB-01_07162025	ENV-SOP-MIN4-0178	MJL	53	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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ANALYTICAL RESULTS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Sample: MHOS-01_W_07162025		Lab ID: 10742639001		Collected: 07/16/25 09:56		Received: 07/17/25 08:50		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 117.461 mL Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	ND	ng/L	4.0	1	08/04/25 08:01	08/06/25 14:48	763051-92-9		
4:2 FTS	ND	ng/L	4.0	1	08/04/25 08:01	08/06/25 14:48	757124-72-4		
6:2 FTS	ND	ng/L	4.0	1	08/04/25 08:01	08/06/25 14:48	27619-97-2		
8:2 FTS	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:48	39108-34-4		
9CI-PF3ONS	ND	ng/L	4.0	1	08/04/25 08:01	08/06/25 14:48	756426-58-1		
ADONA	ND	ng/L	4.0	1	08/04/25 08:01	08/06/25 14:48	919005-14-4		
HFPO-DA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	13252-13-6		
NEtFOSAA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	2991-50-6		
NMeFOSAA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	2355-31-9		
PFBS	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:48	375-73-5		
PFDA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	335-76-2		
PFHxA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	307-24-4		
PFBA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	375-22-4		
PFDS	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:48	335-77-3		
PFHpS	ND	ng/L	4.0	1	08/04/25 08:01	08/06/25 14:48	375-92-8		
PFNS	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:48	68259-12-1		
PFOSA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	754-91-6		
PFPeA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	2706-90-3		
PFPeS	ND	ng/L	4.0	1	08/04/25 08:01	08/06/25 14:48	2706-91-4		
PFDoA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	307-55-1		
PFHpA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	375-85-9		
PFHxS	ND	ng/L	3.9	1	08/04/25 08:01	08/06/25 14:48	355-46-4		
PFNA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	375-95-1		
PFOS	4.0	ng/L	3.9	1	08/04/25 08:01	08/06/25 14:48	1763-23-1		
PFOA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	335-67-1		
PFTeDA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	376-06-7		
PFTrDA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	72629-94-8		
PFUnA	ND	ng/L	4.3	1	08/04/25 08:01	08/06/25 14:48	2058-94-8		
Surrogates									
13C26:2FTS (S)	173	%.	50-150	1	08/04/25 08:01	08/06/25 14:48		S0	
13C28:2FTS (S)	170	%.	50-150	1	08/04/25 08:01	08/06/25 14:48		S0	
13C24:2FTS (S)	123	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C2-PFDoA (S)	63	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C2PFHxDA (S)	34	%.	50-150	1	08/04/25 08:01	08/06/25 14:48		S0	
13C2-PFTA (S)	58	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C3HFPO-DA (S)	44	%.	50-150	1	08/04/25 08:01	08/06/25 14:48		S0	
13C3-PFBS (S)	57	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C3-PFHxS (S)	65	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C4-PFBA (S)	43	%.	50-150	1	08/04/25 08:01	08/06/25 14:48		S0	
13C4-PFHpA (S)	61	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C5-PFHxA (S)	58	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C5-PFPeA (S)	39	%.	50-150	1	08/04/25 08:01	08/06/25 14:48		S0	
13C6-PFDA (S)	68	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C7-PFUdA (S)	73	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C8-PFOA (S)	60	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			

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ANALYTICAL RESULTS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Sample: MHOS-01_W_07162025		Lab ID: 10742639001		Collected: 07/16/25 09:56		Received: 07/17/25 08:50		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW		Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Initial Volume/Weight: 117.461 mL Final Volume/Weight: 1 mL Pace Analytical Services - Minneapolis							
Surrogates									
13C8-PFOS (S)	63	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
13C8-PFOSA (S)	27	%.	50-150	1	08/04/25 08:01	08/06/25 14:48	S0		
13C9-PFNA (S)	61	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
d3-MeFOSAA (S)	55	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
d3-NMeFOSA (S)	4	%.	10-150	1	08/04/25 08:01	08/06/25 14:48	S0		
d5-EtFOSAA (S)	63	%.	50-150	1	08/04/25 08:01	08/06/25 14:48			
d5-NEtFOSA (S)	5	%.	10-150	1	08/04/25 08:01	08/06/25 14:48	S0		
d7-NMeFOSE (S)	10	%.	10-150	1	08/04/25 08:01	08/06/25 14:48			
d9-NEtFOSE (S)	10	%.	10-150	1	08/04/25 08:01	08/06/25 14:48			

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ANALYTICAL RESULTS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Sample: DUP-01_07162025		Lab ID: 10742639002		Collected: 07/16/25 00:00		Received: 07/17/25 08:50		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW		Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Initial Volume/Weight: 123.43 mL Final Volume/Weight: 1 mL Pace Analytical Services - Minneapolis							
11CI-PF3OUdS	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:55	763051-92-9		
4:2 FTS	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:55	757124-72-4		
6:2 FTS	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:55	27619-97-2		
8:2 FTS	ND	ng/L	3.9	1	08/04/25 08:01	08/06/25 14:55	39108-34-4		
9CI-PF3ONS	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:55	756426-58-1		
ADONA	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:55	919005-14-4		
HFPO-DA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	13252-13-6		
NEtFOSAA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	2991-50-6		
NMeFOSAA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	2355-31-9		
PFBS	ND	ng/L	3.6	1	08/04/25 08:01	08/06/25 14:55	375-73-5		
PFDA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	335-76-2		
PFHxA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	307-24-4		
PFBA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	375-22-4		
PFDS	ND	ng/L	3.9	1	08/04/25 08:01	08/06/25 14:55	335-77-3		
PFHpS	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:55	375-92-8		
PFNS	ND	ng/L	3.9	1	08/04/25 08:01	08/06/25 14:55	68259-12-1		
PFOSA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	754-91-6		
PFPeA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	2706-90-3		
PFPeS	ND	ng/L	3.8	1	08/04/25 08:01	08/06/25 14:55	2706-91-4		
PFDoA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	307-55-1		
PFHpA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	375-85-9		
PFHxS	ND	ng/L	3.7	1	08/04/25 08:01	08/06/25 14:55	355-46-4		
PFNA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	375-95-1		
PFOS	ND	ng/L	3.7	1	08/04/25 08:01	08/06/25 14:55	1763-23-1		
PFOA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	335-67-1		
PFTeDA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	376-06-7		
PFTrDA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	72629-94-8		
PFUnA	ND	ng/L	4.1	1	08/04/25 08:01	08/06/25 14:55	2058-94-8		
Surrogates									
13C26:2FTS (S)	186	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			S3
13C28:2FTS (S)	195	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			S3
13C24:2FTS (S)	142	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C2-PFDoA (S)	64	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C2PFHxDA (S)	21	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			S0
13C2-PFTA (S)	48	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			S0
13C3HFPO-DA (S)	45	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			S0
13C3-PFBS (S)	61	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C3-PFHxS (S)	68	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C4-PFBA (S)	45	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			S0
13C4-PFHpA (S)	65	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C5-PFHxA (S)	61	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C5-PFPeA (S)	42	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			S0
13C6-PFDA (S)	73	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C7-PFUDa (S)	75	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C8-PFOA (S)	65	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			

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ANALYTICAL RESULTS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Sample: DUP-01_07162025		Lab ID: 10742639002		Collected: 07/16/25 00:00		Received: 07/17/25 08:50		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW		Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Initial Volume/Weight: 123.43 mL Final Volume/Weight: 1 mL Pace Analytical Services - Minneapolis							
Surrogates									
13C8-PFOS (S)	67	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
13C8-PFOSA (S)	38	%.	50-150	1	08/04/25 08:01	08/06/25 14:55	S0		
13C9-PFNA (S)	64	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
d3-MeFOSAA (S)	56	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
d3-NMeFOSA (S)	6	%.	10-150	1	08/04/25 08:01	08/06/25 14:55	S0		
d5-EtFOSAA (S)	63	%.	50-150	1	08/04/25 08:01	08/06/25 14:55			
d5-NEtFOSA (S)	5	%.	10-150	1	08/04/25 08:01	08/06/25 14:55	S0		
d7-NMeFOSE (S)	14	%.	10-150	1	08/04/25 08:01	08/06/25 14:55			
d9-NEtFOSE (S)	15	%.	10-150	1	08/04/25 08:01	08/06/25 14:55			

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ANALYTICAL RESULTS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Sample: EB-01_07162025		Lab ID: 10742639003		Collected: 07/16/25 10:17		Received: 07/17/25 08:50		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Initial Volume/Weight: 251.912 mL Final Volume/Weight: 1 mL								
	Pace Analytical Services - Minneapolis								
11CI-PF3OUdS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	763051-92-9		
4:2 FTS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	757124-72-4		
6:2 FTS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	27619-97-2		
8:2 FTS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	39108-34-4		
9CI-PF3ONS	ND	ng/L	1.8	1	08/04/25 08:01	08/06/25 15:16	756426-58-1		
ADONA	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	919005-14-4		
HFPO-DA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	13252-13-6		
NEtFOSAA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	2991-50-6		
NMeFOSAA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	2355-31-9		
PFBS	ND	ng/L	1.8	1	08/04/25 08:01	08/06/25 15:16	375-73-5		
PFDA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	335-76-2		
PFHxA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	307-24-4		
PFBA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	375-22-4		
PFDS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	335-77-3		
PFHpS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	375-92-8		
PFNS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	68259-12-1		
PFOSA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	754-91-6		
PFPeA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	2706-90-3		
PFPeS	ND	ng/L	1.9	1	08/04/25 08:01	08/06/25 15:16	2706-91-4		
PFDoA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	307-55-1		
PFHpA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	375-85-9		
PFHxS	ND	ng/L	1.8	1	08/04/25 08:01	08/06/25 15:16	355-46-4		
PFNA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	375-95-1		
PFOS	ND	ng/L	1.8	1	08/04/25 08:01	08/06/25 15:16	1763-23-1		
PFOA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	335-67-1		
PFTeDA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	376-06-7		
PFTrDA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	72629-94-8		
PFUnA	ND	ng/L	2.0	1	08/04/25 08:01	08/06/25 15:16	2058-94-8		
Surrogates									
13C26:2FTS (S)	53	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C28:2FTS (S)	101	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C24:2FTS (S)	51	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C2-PFDoA (S)	66	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C2PFHxDA (S)	59	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C2-PFTA (S)	62	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C3HFPO-DA (S)	73	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C3-PFBS (S)	76	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C3-PFHxS (S)	69	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C4-PFBA (S)	59	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C4-PFHpA (S)	73	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C5-PFHxA (S)	77	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C5-PFPeA (S)	68	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C6-PFDA (S)	76	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C7-PFUdA (S)	75	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C8-PFOA (S)	70	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

Sample: EB-01_07162025		Lab ID: 10742639003		Collected: 07/16/25 10:17		Received: 07/17/25 08:50		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
PFAS ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Initial Volume/Weight: 251.912 mL Final Volume/Weight: 1 mL									
Pace Analytical Services - Minneapolis									
Surrogates									
13C8-PFOS (S)	70	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C8-PFOSA (S)	63	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
13C9-PFNA (S)	76	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
d3-MeFOSAA (S)	74	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
d3-NMeFOSA (S)	17	%.	10-150	1	08/04/25 08:01	08/06/25 15:16			
d5-EtFOSAA (S)	70	%.	50-150	1	08/04/25 08:01	08/06/25 15:16			
d5-NEtFOSA (S)	13	%.	10-150	1	08/04/25 08:01	08/06/25 15:16			
d7-NMeFOSE (S)	41	%.	10-150	1	08/04/25 08:01	08/06/25 15:16			
d9-NEtFOSE (S)	39	%.	10-150	1	08/04/25 08:01	08/06/25 15:16			

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QUALITY CONTROL DATA

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

QC Batch:	1021420	Analysis Method:	ENV-SOP-MIN4-0178
QC Batch Method:	ENV-SOP-MIN4-0178	Analysis Description:	PFAS Compounds, Water
		Laboratory:	Pace Analytical Services - Minneapolis

Associated Lab Samples: 10742639001, 10742639002, 10742639003

METHOD BLANK: 5323382 Matrix: Water

Associated Lab Samples: 10742639001, 10742639002, 10742639003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	ND	1.9	08/06/25 13:28	
4:2 FTS	ng/L	ND	1.9	08/06/25 13:28	
6:2 FTS	ng/L	ND	1.9	08/06/25 13:28	
8:2 FTS	ng/L	ND	1.9	08/06/25 13:28	
9CI-PF3ONS	ng/L	ND	1.9	08/06/25 13:28	
ADONA	ng/L	ND	1.9	08/06/25 13:28	
HFPO-DA	ng/L	ND	2.0	08/06/25 13:28	
NEtFOSAA	ng/L	ND	2.0	08/06/25 13:28	
NMeFOSAA	ng/L	ND	2.0	08/06/25 13:28	
PFBA	ng/L	ND	2.0	08/06/25 13:28	
PFBS	ng/L	ND	1.8	08/06/25 13:28	
PFDA	ng/L	ND	2.0	08/06/25 13:28	
PFDaA	ng/L	ND	2.0	08/06/25 13:28	
PFDS	ng/L	ND	1.9	08/06/25 13:28	
PFHpA	ng/L	ND	2.0	08/06/25 13:28	
PFHpS	ng/L	ND	1.9	08/06/25 13:28	
PFHxA	ng/L	ND	2.0	08/06/25 13:28	
PFHxS	ng/L	ND	1.8	08/06/25 13:28	
PFNA	ng/L	ND	2.0	08/06/25 13:28	
PFNS	ng/L	ND	1.9	08/06/25 13:28	
PFOA	ng/L	ND	2.0	08/06/25 13:28	
PFOS	ng/L	ND	1.8	08/06/25 13:28	
PFOSA	ng/L	ND	2.0	08/06/25 13:28	
PFPeA	ng/L	ND	2.0	08/06/25 13:28	
PFPeS	ng/L	ND	1.9	08/06/25 13:28	
PFTeDA	ng/L	ND	2.0	08/06/25 13:28	
PFTTrDA	ng/L	ND	2.0	08/06/25 13:28	
PFUnA	ng/L	ND	2.0	08/06/25 13:28	
13C2-PFDaA (S)	%.	91	50-150	08/06/25 13:28	
13C2-PFTA (S)	%.	82	50-150	08/06/25 13:28	
13C24:2FTS (S)	%.	101	50-150	08/06/25 13:28	
13C26:2FTS (S)	%.	99	50-150	08/06/25 13:28	
13C28:2FTS (S)	%.	144	50-150	08/06/25 13:28	
13C2PFHxDA (S)	%.	50	50-150	08/06/25 13:28	
13C3-PFBS (S)	%.	87	50-150	08/06/25 13:28	
13C3-PFHxS (S)	%.	86	50-150	08/06/25 13:28	
13C3HFPO-DA (S)	%.	92	50-150	08/06/25 13:28	
13C4-PFBA (S)	%.	89	50-150	08/06/25 13:28	
13C4-PFHpA (S)	%.	91	50-150	08/06/25 13:28	
13C5-PFHxA (S)	%.	91	50-150	08/06/25 13:28	

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QUALITY CONTROL DATA

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

METHOD BLANK: 5323382

Matrix: Water

Associated Lab Samples: 10742639001, 10742639002, 10742639003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C5-PFPeA (S)	%	86	50-150	08/06/25 13:28	
13C6-PFDA (S)	%	93	50-150	08/06/25 13:28	
13C7-PFUDa (S)	%	96	50-150	08/06/25 13:28	
13C8-PFOA (S)	%	93	50-150	08/06/25 13:28	
13C8-PFOS (S)	%	87	50-150	08/06/25 13:28	
13C8-PFOSA (S)	%	75	50-150	08/06/25 13:28	
13C9-PFNA (S)	%	95	50-150	08/06/25 13:28	
d3-MeFOSAA (S)	%	99	50-150	08/06/25 13:28	
d3-NMeFOSA (S)	%	8	10-150	08/06/25 13:28	S0
d5-EtFOSAA (S)	%	88	50-150	08/06/25 13:28	
d5-NEtFOSA (S)	%	6	10-150	08/06/25 13:28	S0
d7-NMeFOSE (S)	%	37	10-150	08/06/25 13:28	
d9-NEtFOSE (S)	%	34	10-150	08/06/25 13:28	

LABORATORY CONTROL SAMPLE & LCSD: 5323383

5323384

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11CI-PF3OUdS	ng/L	3.8	3.1	3.3	83	88	70-140	6	30	
4:2 FTS	ng/L	3.7	3.3	3.4	87	90	63-143	3	30	
6:2 FTS	ng/L	3.8	3.3	3.6	87	94	64-140	8	30	
8:2 FTS	ng/L	3.8	3.5	3.6	92	94	67-138	3	30	
9CI-PF3ONS	ng/L	3.7	3.5	3.7	92	99	70-140	7	30	
ADONA	ng/L	3.8	3.3	3.3	88	87	70-140	1	30	
HFPO-DA	ng/L	4	3.6	3.8	89	95	70-140	7	30	
NEtFOSAA	ng/L	4	3.6	3.6	90	91	61-135	1	30	
NMeFOSAA	ng/L	4	3.9	3.6	96	90	65-136	6	30	
PFBA	ng/L	4	4.1	3.9	102	97	73-129	5	30	
PFBS	ng/L	3.5	3.2	3.4	91	96	72-130	6	30	
PFDA	ng/L	4	3.5	3.4	89	85	71-129	4	30	
PFDoA	ng/L	4	3.6	3.6	89	89	72-134	0	30	
PFDS	ng/L	3.9	2.9	3.4	76	89	53-142	16	30	
PFHpA	ng/L	4	3.8	3.8	95	95	72-130	0	30	
PFHpS	ng/L	3.8	3.6	3.6	94	95	69-134	1	30	
PFHxA	ng/L	4	3.4	3.7	84	92	72-129	9	30	
PFHxS	ng/L	3.7	3.5	3.4	95	92	68-131	3	30	
PFNA	ng/L	4	3.9	3.8	98	95	69-130	4	30	
PFNS	ng/L	3.8	3.6	3.4	95	88	69-127	7	30	
PFOA	ng/L	4	3.7	3.7	93	91	71-133	2	30	
PFOS	ng/L	3.7	3.3	3.6	89	97	65-140	9	30	
PFOSA	ng/L	4	3.6	3.6	90	91	67-137	1	30	
PFPeA	ng/L	4	4.0	3.7	99	92	72-129	7	30	
PFPeS	ng/L	3.8	3.5	3.3	93	89	71-127	4	30	
PFTeDA	ng/L	4	3.5	3.2	87	81	71-132	7	30	
PFTTrDA	ng/L	4	3.0	3.7	75	92	65-144	20	30	

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QUALITY CONTROL DATA

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

LABORATORY CONTROL SAMPLE & LCSD: 5323383			5323384							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFUnA	ng/L	4	3.8	3.9	94	97	69-133	3	30	
13C2-PFDoA (S)	%.				64	73	50-150			
13C2-PFTA (S)	%.				37	68	50-150			S0
13C24:2FTS (S)	%.				64	59	50-150			
13C26:2FTS (S)	%.				71	62	50-150			
13C28:2FTS (S)	%.				125	72	50-150			
13C2PFHxDA (S)	%.				9	26	50-150			S0
13C3-PFBS (S)	%.				81	71	50-150			
13C3-PFHxS (S)	%.				77	71	50-150			
13C3HFPO-DA (S)	%.				83	70	50-150			
13C4-PFBA (S)	%.				83	75	50-150			
13C4-PFHpA (S)	%.				81	73	50-150			
13C5-PFHxA (S)	%.				79	72	50-150			
13C5-PFPeA (S)	%.				79	70	50-150			
13C6-PFDA (S)	%.				81	76	50-150			
13C7-PFUdA (S)	%.				74	73	50-150			
13C8-PFOA (S)	%.				82	73	50-150			
13C8-PFOS (S)	%.				78	68	50-150			
13C8-PFOSA (S)	%.				56	43	50-150			S0
13C9-PFNA (S)	%.				81	77	50-150			
d3-MeFOSAA (S)	%.				84	62	50-150			
d3-NMeFOSA (S)	%.				4	1	10-150			S0
d5-EtFOSAA (S)	%.				74	69	50-150			
d5-NEtFOSA (S)	%.				3	1	10-150			S0
d7-NMeFOSE (S)	%.				20	7	10-150			S0
d9-NEtFOSE (S)	%.				17	9	10-150			S0

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QUALIFIERS

Project: 30267726.00031 Racer PNC

Pace Project No.: 10742639

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

S0 Surrogate recovery outside laboratory control limits.

S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 30267726.00031 Racer PNC
Pace Project No.: 10742639

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10742639001	MHOS-01_W_07162025	ENV-SOP-MIN4-0178	1021420	ENV-SOP-MIN4-0178	1022575
10742639002	DUP-01_07162025	ENV-SOP-MIN4-0178	1021420	ENV-SOP-MIN4-0178	1022575
10742639003	EB-01_07162025	ENV-SOP-MIN4-0178	1021420	ENV-SOP-MIN4-0178	1022575

REPORT OF LABORATORY ANALYSIS

ENV-FRM-MIN4-0150 v19_Sample Condition Upon Receipt

Person Examining & Date: Jmw1 7/17/25

PROJECT #:

WO# : 10742639

PM: BN2

Due Date: 08/07/25

CLIENT: Arcadis-MI

Client Name: Arcadis

Custody Seal Present: ☒ YES ☐ NO

Seals Intact: ☒ YES ☐ NO

Tracking Number: 4519 49916 0304

☐ See Exceptions form ENV-FRM-MIN4-0142.

Courier: ☐ Client

☐ Commercial

☒ FedEx

☐ Pace Courier/Field

☐ Speedee

☐ UPS

☐ USPS

Packing Material: ☐ Bubble Bags

☒ Bubble Wrap

☒ None

Jmw1 7/17/25

☐ Other:

Biological Tissue Frozen: ☐ YES ☒ NO

Thermometer: ☐ T1 (0461)

☐ T2 (0431)

☒ T3 (0459)

☐ T4 (0402)

Type of Ice: ☐ Blue

☐ Dry

☒ Wet

☐ Melted

☐ None

☐ T5 (0187)

☐ T6 (0396)

☐ T7 (0377)

☐ T8 (0775)

☐ T9 (0428)

☐ 01339252 (0710)

Temp Blank: ☒ YES ☐ NO

NOTE: Temp should be $\leq 6^{\circ}\text{C}$, but above freezing.

Read Temp w/Temp Blank: 2.2 $^{\circ}\text{C}$

Correction Factor: -0.5

Corrected Temp w/Temp Blank: 1.7 $^{\circ}\text{C}$

Did Samples Originate in West Virginia: ☐ YES ☒ NO (list temps on exception)

Were All Container Temps Taken: ☐ YES ☐ NO ☒ N/A

Average Corrected Temp (No Temp Blank Only):

☐ See Exceptions form ENV-FRM-MIN4-0142.

☐ 1 Container

USDA Regulated Soil: ☒ N/A - Water Sample/Other (describe):

Did Samples originate from one of the following states (check maps): ☐ YES ☒ NO

Circle State: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, VA

Are samples from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☒ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ DULUTH ☒ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out? (i.e., Analysis/ID/Date/Time)	☒	☐	☐	1.
Chain of Custody Relinquished?	☒	☐	☐	2.
Sampler Name and/or Signature on COC?	☒	☐	☐	3.
Samples Arrived within Hold Time?	☒	☐	☐	4.
If Fecal: ☐ <8 hrs ☐ >8 hr but <24 hr ☐ >24 hr				
Short Hold Time Analysis (<72 hr)?	☐	☒	☐	5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/E. coli ☐ Turbidity ☐ Other:
Rush Turn Around Time Requested?	☐	☒	☐	6. ☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 5 Day Due Date:
Sufficient Sample Volume? (If NO, list approximate volume in section 7.)	☒	☐	☐	7.
Correct Containers Used?	☒	☐	☐	8.
- Pace Containers Used?	☐	☒	☐	
Containers Intact?	☒	☐	☐	9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☒	10.
ID/Date/Time Match? (If NO, fill out section 11.)	☒	☐	☐	11.
Matrix: ☐ Oil ☐ Soil ☒ Water ☐ Other				☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☒	12.
Sample #:				
☐ HNO3	☐ H2SO4	☐ NaOH	☐ Zinc Acetate	
pH Paper Lot #:				
☐ Residual Chlorine	☐ 0-6 Roll	☐ 0-6 Strip	☐ 0-14 Strip	
Positive for Residual Chlorine (NaOH containers only): ☐ YES ☒ NO				
Preserved containers in compliance with EPA recommendations? (HNO3, H2SO4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☒	☐ See Exceptions form ENV-FRM-MIN4-0142
EXCEPTIONS (water only): VOA, Coliform, TOC/DOC, Oil & Grease, Phenols, DRO/8015, Dioxins, and PFAS	☐	☐	☒	
Extra labels present on soil VOA or WIDRO containers? (soil only)	☐	☐	☒	13.
Headspace in Methyl Mercury Container?	☐	☐	☒	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☒	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☒	☐	15.
Trip Blank Custody Seals Present?	☐	☐	☒	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION / RESOLUTION:

Labeled By: Jmw1

Line: 3

Person Contacted & Date/Time:

PM Review & Date:

Bryan Nguyen 07/17/25

NOTE: When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office.

Pace Container Order #3273231

bryan.nguyen@pacelabs.com

Addresses

Order By :

Company Arcadis-MI
 Contact Madison Olender
 Email madison.olender@arcadis.com
 Address 28550 Cabot Drive
 Address 2 Suite 500
 City Novi
 State MI Zip 48377
 Phone 248-790-1666

Ship To :

Company Arcadis-MI
 Contact Madison Olender
 Email madison.olender@arcadis.com
 Address 28550 Cabot Drive
 Address 2 Suite 500
 City Novi
 State MI Zip 48377
 Phone 248-790-1666

Return To:

Company Minneapolis, MN (Pace Analytical)
 Contact Bryan Nguyen
 Email bryan.nguyen@pacelabs.com
 Address 1700 Elm Street
 Address 2 Suite 200
 City Minneapolis
 State MN Zip 55414
 Phone 612-656-2286

Info

Project Name RACER PNC Due Date 06/30/2025 Profile 47323 Quote _____
 Project Manager Nguyen, Bryan Return Date 7/16/2025 Carrier FedEx Ground Location MI

Return Shipping Labels

Return Label Type
☐ No Shipper
☒ With Shipper

Bottle Labels

☐ Blank
☒ Pre-Printed No Sample IDs
☐ Pre-Printed With Sample IDs

Bottles

☐ Boxed Cases
☐ Individually Wrapped
☐ Grouped By Sample ID/Matrix

Trip Blanks

☐ Include Trip Blanks

COC Options

☒ Number of Blanks 1
☐ Pre-Printed

Misc

☐ Sampling Instructions
☒ Custody Seal
☒ Temp. Blanks
☒ Coolers
☐ Syringes
☐ Extra Bubble Wrap
☐ Short Hold/Rush Stickers
☒ DI Water
☐ USDA Regulated Soils
☐ Dry Weight

# of Samp Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
2	WT PFAS ID NPW	2	250mL plastic non-teflon unpreserved	4		M503702BB	
1	WT PFAS ID NPW (Equipment Blank)	2	250mL plastic non-teflon unpreserved	2		M503702BB	

Hazard Shipping Placard In Place : N/A

*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to ensure proper billing.

Sample Notes :

LAB USE:

Ship Date : 06/30/2025

Prepared By: HWF

Verified By:

CLIENT USE (Optional):

Date Rec'd:

Received By:

Attachment 2

Data Validation Report

Data Validation Report

10742639

DUP-01 was collected as a field duplicate of MHOS-01_W_07162025. The RPDs were acceptable.

There were no detections in the associated QC blanks.

The EIS recoveries of 13C3HFPO-DA, 13C5-PFPeA, 13C8-PFOSA and 13C4-PFBA were below the recovery limit for sample MHOS-01_W_07162025. The compounds PFBA, HFPO-DA, ADONA, 9CI-PF3ONS, 11CI-PF3OUdS, PFPeA and PFOSA would be qualified as estimated (UJ) for this sample.

The EIS recoveries of 13C2-PFTA, 13C3HFPO-DA, 13C5-PFPeA, 13C8-PFOSA and 13C4-PFBA were below the recovery limit for sample DUP-01_07162025. The compounds PFBA, PFTeDA, PFTrDA, HFPO-DA, ADONA, 9CI-PF3ONS, 11CI-PF3OUdS, PFPeA and PFOSA would be qualified as estimated (UJ) for this sample.

**A cursory review was performed on (1) Level II QC reports for water samples collected from the Storm Sewer System in July, 2025. All laboratory qualifiers were evaluated. If the data were validated, results would be qualified as follows:

For PFAS

Sample MHOS-01_W_07162025 would be qualified as estimated for HFPO-DA, ADONA, 9CI-PF3ONS, 11CI-PF3OUdS, PFPeA and PFOSA due to the EIS recoveries being below the control limit.

Sample DUP-01_07162025 would be qualified as estimated for PFTeDA, PFTrDA, HFPO-DA, ADONA, 9CI-PF3ONS, 11CI-PF3OUdS, PFPeA and PFOSA due to the EIS recoveries being below the control limit.