



TABLE 1
RACER Trust - Coldwater Road
Per-and Polyfluoroalkyl Substances Sampling Results
1320 E. Stanley Road Residential Drinking Water Results

Coldwater Road - 1320 E. Stanley Road Residential Well

Perfluorinated Compound	Well/Sample ID:	USEPA PFAS National Primary Drinking Water Regulation (NPDWR)	EGLE Part 201 Generic Cleanup Criteria and Screening Levels	1320 E. Stanley Rd - RAW	1320 E. Stanley Rd - SINK	1320 E. Stanley Rd - RAW	1320 E. Stanley Rd - SINK	1320 E. Stanley Rd - RAW	1320 E. Stanley Rd - RAW	1320 E. Stanley Rd - RAW	1320 E. Stanley Rd - SINK
	Sample Date:	Drinking Water	Drinking Water	6/28/2024	6/28/2024	3/21/2024	3/21/2024	1/4/2024	10/11/2023	10/11/2023	10/11/2023
Perfluorohexanoic Acid (PFHxA)	--	--	400,000	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorobutane Sulfonic Acid (PFBS)	--	--	420	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorooctanoic Acid (PFOA)	4	8	8	<2	<2	<2	<2	<2	<2 z	2 6z	<2
Perfluorohexane Sulfonic Acid (PFHxS)	10	51	51	2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorononanoic Acid (PFNA)	10	6	6	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorodecanoic Acid (PFDA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorooctane Sulfonic Acid (PFOS)	4	16	16	15	<2	6	<2	12	4 z	4 z	<2
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorotridecanoic Acid (PFTriDA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
11-chloroheptacosafuoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Hexafluoropropylene oxide dimer (HFPO-DA)	10	370	370	<2	<2	<2	<2	<2	<2 z	<2 z	<2
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, & PFBS	Hazard Index of 1 (unitless)	--	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	17.0	0.0	6.0	0.0	12.0	4.0	6.0	0.0

- Notes
- 1) Detections in **bold**.
 - 2) Concentrations reported in nanograms per liter (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 EGLE drinking water criteria are highlighted in yellow.
 - 8) The United States Environmental Protection Agency (USEPA) enacted new maximum contaminant levels (MCLs) for PFOS of 4 ng/l; however, EGLE has not yet adopted those standards.
 - 9) The Hazard Index is a long-established approach that EPA regularly uses to understand health risk from a chemical mixture (i.e., exposure to multiple chemicals). The HI is made up of a sum of fractions. Each fraction compares the level of each PFAS measured in the water to the health-based water concentration.
 - 10) SINK samples collected after treatment from under sink PFAS removal unit.
 - 11) Light gray header is most recent sampling event result.
 - 12) QA/QC Samples were either not detected above the reporting limit or below the EGLE Part 201 Groundwater Generic Cleanup Criteria.
 - 13) 1 - Suspect due to matrix effects.
 - 14) 6-suspect -- contaminated Trizma. Trizma is a sample preservative for EPA Method 537.1.
 - 15) z - Results for PFAS are suspect. Recovery for the surrogate d5-NETFOSAA is outside method required quality control acceptance limits due to possible matrix interference. Sample was reanalyzed and reported per method requirements. Due to low bias surrogate recovery the result should be considered estimated.



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Perfluorinated Compound	Well/Sample ID:	USEPA PFAS National Primary Drinking Water Regulation (NPDWR)	EGLE Part 201 Generic Cleanup Criteria and Screening Levels	1320 E. Stanley Rd	1320 E. Stanley Rd	1320 E. Stanley Rd	1320 E. Stanley Rd	1320 E. Stanley Rd	1320 E. Stanley Rd	1320 E. Stanley Rd	1320 E. Stanley Rd
	Sample Date:	Drinking Water	Drinking Water	7/7/2023	4/6/2023	1/4/2023	10/6/2022	7/7/2022	3/16/2022	1/5/2022	9/30/2021
Perfluorohexanoic Acid (PFHxA)	--	--	400,000	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorobutane Sulfonic Acid (PFBS)	--	--	420	<2	<2	<2	<2	<2	<2	<2	<2
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorooctanoic Acid (PFOA)	4	8	8	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorohexane Sulfonic Acid (PFHxS)	10	51	51	<2	<2	<2	<2	<2	<2	<2	2
Perfluorononanoic Acid (PFNA)	10	6	6	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorodecanoic Acid (PFDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorooctane Sulfonic Acid (PFOS)	4	16	16	5	7	6	6	6	7	8	12
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Hexafluoropropylene oxide dimer (HFPO-DA)	10	370	370	<2	<2	<2	<2	<2	<2	<2	<2
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, & PFBS	Hazard Index of 1 (unitless)	--	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	5.0	7.0	6.0	6.0	6.0	7.0	8.0	14.0

Notes

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	Sample Date:	Drinking Water	Drinking Water	7/22/2021	3/26/2021	12/18/2020	8/14/2020	12/19/2019	6/7/2019	12/18/2018	12/4/2018
Perfluorohexanoic Acid (PFHxA)	--	--	400,000	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorobutane Sulfonic Acid (PFBS)	--	--	420	0.17 J	0.2 J	<2	<2	<2	<2	<2	<2
Perfluoroheptanoic Acid (PFHpA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorooctanoic Acid (PFOA)	4	8	8	<2	0.5 J	<2	<2	<2	<2	<2	<2
Perfluorohexane Sulfonic Acid (PFHxS)	10	51	51	0.86 J	1.6 J	<2	<2	<2	<2	<2	<2
Perfluorononanoic Acid (PFNA)	10	6	6	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorodecanoic Acid (PFDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorooctane Sulfonic Acid (PFOS)	4	16	16	5	9	5	10	6	8	8	7
Perfluoroundecanoic Acid (PFUnDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorododecanoic Acid (PFDoDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorotridecanoic Acid (PFTrDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
Perfluorotetradecanoic Acid (PFTeDA)	--	--	--	<2	<2	<2	<2	<2	<2	<2	<2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	--	<2	<2	<2	<2	--	--	--	--
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	--	<2	<2	<2	<2	--	--	--	--
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	--	<2	<2	<2	<2	--	--	--	--
Hexafluoropropylene oxide dimer (HFPO-DA)	10	370	370	<2	<2	<2	<2	--	--	--	--
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, & PFBS	Hazard Index of 1 (unitless)	--	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	--	6.0	11.3	5.0	10.0	6.0	8.0	8.0	7.0

Notes

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Analytical Laboratory Report

Report ID: S63683.01(01)
Generated on 07/23/2024

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Report Summary

Lab Sample ID(s): S63683.01-S63683.03
Project: RACER Coldwater Road
Collected Date(s): 06/28/2024
Submitted Date/Time: 06/28/2024 15:30
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

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

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

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

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

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

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

Starred (*) analytes are not NY NELAP accredited.

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

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

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

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

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

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

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

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

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

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Accreditations (For Reference Only)

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

Qualifier Descriptions

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

Glossary of Abbreviations

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



Analytical Laboratory Report

Method Summary

Method	Version
E537.1	EPA Method 537.1 Version 1.0 November 2018
N/A	Not Applicable



Analytical Laboratory Report

Parameter Summary

Parameter	Synonym	Cas #
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFNA	Perfluorononanoic Acid	375-95-1
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
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFTTrDA	Perfluorotridecanoic Acid	72629-94-8
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6



Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S63683.01	1320 E. Stanley Rd - SINK - 06282024	Drinking Water	06/28/24 10:38
S63683.02	1320 E. Stanley Rd - RAW - 06282024	Drinking Water	06/28/24 10:45
S63683.03	Field Blank - 06282024	Drinking Water	06/28/24 00:01



Analytical Laboratory Report

Lab Sample ID: S63683.01

Sample Tag: 1320 E. Stanley Rd - SINK - 06282024

Collected Date/Time: 06/28/2024 10:38

Matrix: Drinking Water

COC Reference: 153319

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	250mL Plastic	Trizma	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample Amount*	301.89 ml	E537.1	07/09/24 12:00	KYD	
Sample Amount*	300.79 ml	E537.1	07/11/24 14:00	KYD	
pH check for DW PFAs*	7	N/A	07/09/24 12:00	KYD	

Organics

PFAs Drinking Water, Method: E537.1, Run Date: 07/12/24 19:38, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags	Limits
PFHxA	Not detected	2		ng/L	1	307-24-4		400,000
PFBS	Not detected	2		ng/L	1	375-73-5		420
PFHpA	Not detected	2		ng/L	1	375-85-9		
PFOA	Not detected	2		ng/L	1	335-67-1		8
PFHxS	Not detected	2		ng/L	1	355-46-4		51
PFNA	Not detected	2		ng/L	1	375-95-1		6
PFDA	Not detected	2		ng/L	1	335-76-2		
N-MeFOSAA	Not detected	2		ng/L	1	2355-31-9		
EtFOSAA*	Not detected	2		ng/L	1	2991-50-6		
PFOS	Not detected	2		ng/L	1	1763-23-1		16
PFUnDA	Not detected	2		ng/L	1	2058-94-8		
PFDoDA	Not detected	2		ng/L	1	307-55-1		
PFTTrDA	Not detected	2		ng/L	1	72629-94-8		
PFTeDA	Not detected	2		ng/L	1	376-06-7		
11Cl-PF3OUdS	Not detected	2		ng/L	1	763051-92-9		
9Cl-PF3ONS	Not detected	2		ng/L	1	756426-58-1		
ADONA	Not detected	2		ng/L	1	919005-14-4		
HFPO-DA	Not detected	2		ng/L	1	13252-13-6		370



Analytical Laboratory Report

Lab Sample ID: S63683.02

Sample Tag: 1320 E. Stanley Rd - RAW - 06282024

Collected Date/Time: 06/28/2024 10:45

Matrix: Drinking Water

COC Reference: 153319

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	250mL Plastic	Trizma	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample Amount*	282.10 ml	E537.1	07/09/24 12:00	KYD	
Sample Amount*	274.57 ml	E537.1	07/11/24 14:00	KYD	
pH check for DW PFAs*	7	N/A	07/09/24 12:00	KYD	

Organics

PFAs Drinking Water, Method: E537.1, Run Date: 07/12/24 19:53, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags	Limits
PFHxA	Not detected	2		ng/L	1	307-24-4		400,000
PFBS	Not detected	2		ng/L	1	375-73-5		420
PFHpA	Not detected	2		ng/L	1	375-85-9		
PFOA	Not detected	2		ng/L	1	335-67-1		8
PFHxS	2	2		ng/L	1	355-46-4		51
PFNA	Not detected	2		ng/L	1	375-95-1		6
PFDA	Not detected	2		ng/L	1	335-76-2		
N-MeFOSAA	Not detected	2		ng/L	1	2355-31-9		
EtFOSAA*	Not detected	2		ng/L	1	2991-50-6		
PFOS	15	2		ng/L	1	1763-23-1		16
PFUnDA	Not detected	2		ng/L	1	2058-94-8		
PFDoDA	Not detected	2		ng/L	1	307-55-1		
PFTTrDA	Not detected	2		ng/L	1	72629-94-8		
PFTeDA	Not detected	2		ng/L	1	376-06-7		
11Cl-PF3OUdS	Not detected	2		ng/L	1	763051-92-9		
9Cl-PF3ONS	Not detected	2		ng/L	1	756426-58-1		
ADONA	Not detected	2		ng/L	1	919005-14-4		
HFPO-DA	Not detected	2		ng/L	1	13252-13-6		370



Analytical Laboratory Report

Lab Sample ID: S63683.03

Sample Tag: Field Blank - 06282024

Collected Date/Time: 06/28/2024 00:01

Matrix: Drinking Water

COC Reference: 153319

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	250mL Plastic	Trizma	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample Amount*	285.54 ml	E537.1	07/09/24 12:00	KYD	
pH check for DW PFAs*	7	N/A	07/09/24 12:00	KYD	

Organics

PFAs Drinking Water, Method: E537.1, Run Date: 07/10/24 17:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags	Limits
PFHxA	Not detected	2		ng/L	1	307-24-4		400,000
PFBS	Not detected	2		ng/L	1	375-73-5		420
PFHpA	Not detected	2		ng/L	1	375-85-9		
PFOA	Not detected	2		ng/L	1	335-67-1		8
PFHxS	Not detected	2		ng/L	1	355-46-4		51
PFNA	Not detected	2		ng/L	1	375-95-1		6
PFDA	Not detected	2		ng/L	1	335-76-2		
N-MeFOSAA	Not detected	2		ng/L	1	2355-31-9		
EtFOSAA*	Not detected	2		ng/L	1	2991-50-6		
PFOS	Not detected	2		ng/L	1	1763-23-1		16
PFUnDA	Not detected	2		ng/L	1	2058-94-8		
PFDoDA	Not detected	2		ng/L	1	307-55-1		
PFTTrDA	Not detected	2		ng/L	1	72629-94-8		
PFTeDA	Not detected	2		ng/L	1	376-06-7		
11Cl-PF3OUdS	Not detected	2		ng/L	1	763051-92-9		
9Cl-PF3ONS	Not detected	2		ng/L	1	756426-58-1		
ADONA	Not detected	2		ng/L	1	919005-14-4		
HFPO-DA	Not detected	2		ng/L	1	13252-13-6		370

Merit Laboratories Login Checklist

Lab Set ID:S63683

Client:RAMBOLL (Ramboll Americas)

Project: RACER Coldwater Road

Submitted:06/28/2024 15:30 Login User: MMC

Attention: Clifford Yantz

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

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

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

Sample Receiving

- | | | |
|-----|--|--|
| 01. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples are received at 4C +/- 2C Thermometer # IR 4.6 |
| 02. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Received on ice/ cooling process begun |
| 03. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples shipped |
| 04. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples left in 24 hr. drop box |
| 05. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Are there custody seals/tape or is the drop box locked |

Chain of Custody

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

Preservation

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

Bottle Conditions

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



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

C.O.C. PAGE # 1 OF 1 153319

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RACER Coldwater Road SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider

TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____

DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

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

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER
	DATE	TIME										
<u>03683.01</u>	<u>6/28/24</u>	<u>1038</u>	<u>1320 E. Stanley Rd - SINK - 06282024</u>	<u>DW</u>	<u>3</u>							<u>X</u>
<u>.02</u>	<u>6/28/24</u>	<u>1045</u>	<u>1320 E. Stanley Rd - RAW - 06282024</u>	<u>DW</u>	<u>3</u>							<u>X</u>
<u>.03</u>												

PFAS (537)

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

Please report sample "Field Blank - 06282024" from COL # 153317 on this report in same cooler

RELINQUISHED BY: [Signature] Sampler DATE 6/28/24 TIME 1143
 RECEIVED BY: [Signature] DATE 6/28/24 TIME 1145
 RELINQUISHED BY: [Signature] DATE 6/28/24 TIME 15:22
 RECEIVED BY: [Signature] DATE 6/28/24 TIME 1530

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____
 NOTES: TEMP. ON ARRIVAL 4.6

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



Quality Control Report

Report ID: QC-S63683-01
Generated on 07/23/2024

Report to

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

Phone: 313-333-0211 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S63683.01-S63683.03
Project: RACER Coldwater Road
Submitted Date/Time: 06/28/2024 15:30
Sampled by: Kevin Schneider
P.O. #: 1940008845 TASK37

QC Report Sections

- Cover Page (Page 1)
- Analysis Summary (Pages 2-4)
- Prep Batch Summary (Page 5)
- Surrogates per Lab Sample (Pages 6-8)
- Surrogates per QC Sample (Pages 9-11)
- Internal Standards per Lab Sample (Pages 12-14)
- Internal Standards per QC Sample (Pages 15-17)
- Batch QC Results (Pages 18-24)

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: S63683.01

Sample Tag: 1320 E. Stanley Rd - SINK - 06282024

Collected Date/Time: 06/28/2024 10:38

Matrix: Drinking Water

COC Reference: 153319

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
PFAs Drinking Water	E537.1	07/12/24 19:38	CI240712DW	PD240711W1	Yes	BLK/LCS/MS/DUP

QC Report - Analysis Summary

Lab Sample ID: S63683.02

Sample Tag: 1320 E. Stanley Rd - RAW - 06282024

Collected Date/Time: 06/28/2024 10:45

Matrix: Drinking Water

COC Reference: 153319

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
PFAs Drinking Water	E537.1	07/12/24 19:53	CI240712DW	PD240711W1	Yes	BLK/LCS/MS/DUP

QC Report - Analysis Summary

Lab Sample ID: S63683.03

Sample Tag: Field Blank - 06282024

Collected Date/Time: 06/28/2024 00:01

Matrix: Drinking Water

COC Reference: 153319

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
PFAs Drinking Water	E537.1	07/10/24 17:40	CI240710DW	PD240709W1	Yes	BLK/LCS/LCSD/MS

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PD240709W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S63683.03	PFAs Drinking Water	E537.1	07/10/24 17:40	CI240710DW

Organics - Volatiles, Prep Batch ID: PD240711W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S63683.01	PFAs Drinking Water	E537.1	07/12/24 19:38	CI240712DW
S63683.02	PFAs Drinking Water	E537.1	07/12/24 19:53	CI240712DW

QC Report - Surrogates per Lab Sample

Lab Sample ID: S63683.01

Sample Tag: 1320 E. Stanley Rd - SINK - 06282024

Collected Date/Time: 06/28/2024 10:38

Matrix: Drinking Water

COC Reference: 153319

Organics - Volatiles, Analysis: PFAs Drinking Water

Run in Batch: CI240712DW, Run Date: 07/12/2024 19:38, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		95.3	70.0	130.0
C13PFHxA		99.9	70.0	130.0
d5NEtFOSAA		95.1	70.0	130.0
13C-HFPO-DA		104.4	70.0	130.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S63683.02

Sample Tag: 1320 E. Stanley Rd - RAW - 06282024

Collected Date/Time: 06/28/2024 10:45

Matrix: Drinking Water

COC Reference: 153319

Organics - Volatiles, Analysis: PFAs Drinking Water

Run in Batch: CI240712DW, Run Date: 07/12/2024 19:53, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		106.1	70.0	130.0
C13PFHxA		110.2	70.0	130.0
d5NEtFOSAA		93.2	70.0	130.0
13C-HFPO-DA		112.3	70.0	130.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: **S63683.03**

Sample Tag: Field Blank - 06282024

Collected Date/Time: 06/28/2024 00:01

Matrix: Drinking Water

COC Reference: 153319

Organics - Volatiles, Analysis: PFAs Drinking Water

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:40, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		92.9	70.0	130.0
C13PFHxA		90.3	70.0	130.0
d5NEtFOSAA		91.5	70.0	130.0
13C-HFPO-DA		92.2	70.0	130.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: PD240709W1

QC Types: BLK/LCS/LCSD/MS

Blank (BLK)

Lab Sample ID: CI240710DW.BLK240710

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:11, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		88.0	70.0	130.0
C13PFHxA		90.1	70.0	130.0
d5NEtFOSAA		86.5	70.0	130.0
13C-HFPO-DA		91.2	70.0	130.0

Laboratory Control Sample (LCS)

Lab Sample ID: CI240710DW.LCS240709

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:25, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		97.0	70.0	130.0
C13PFHxA		92.2	70.0	130.0
d5NEtFOSAA		85.9	70.0	130.0
13C-HFPO-DA		92.1	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: CI240710DW.LCSD240709, Parent Sample ID: CI240710DW.LCS240709

Run in Batch: CI240710DW, Run Date: 07/10/2024 22:37, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		93.6	70.0	130.0
C13PFHxA		92.9	70.0	130.0
d5NEtFOSAA		84.6	70.0	130.0
13C-HFPO-DA		95.1	70.0	130.0

Matrix Spike (MS)

Lab Sample ID: CI240710DW.6368301D, Parent Sample ID: S63683.01

Run in Batch: CI240710DW, Run Date: 07/10/2024 18:54, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		98.3	70.0	130.0
C13PFHxA		92.7	70.0	130.0
d5NEtFOSAA		78.4	70.0	130.0
13C-HFPO-DA		95.7	70.0	130.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: PD240711W1

QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: CI240712DW.BLK240711

Run in Batch: CI240712DW, Run Date: 07/12/2024 18:24, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		100.2	70.0	130.0
C13PFHxA		97.4	70.0	130.0
d5NEtFOSAA		101.0	70.0	130.0
13C-HFPO-DA		104.1	70.0	130.0

Laboratory Control Sample (LCS)

Lab Sample ID: CI240712DW.LCS240711

Run in Batch: CI240712DW, Run Date: 07/12/2024 18:39, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		98.0	70.0	130.0
C13PFHxA		99.7	70.0	130.0
d5NEtFOSAA		106.0	70.0	130.0
13C-HFPO-DA		100.0	70.0	130.0

Matrix Spike (MS)

Lab Sample ID: CI240712DW.6393701M, Parent Sample ID: S63937.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 23:50, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		103.9	70.0	130.0
C13PFHxA		110.3	70.0	130.0
d5NEtFOSAA		87.4	70.0	130.0
13C-HFPO-DA		111.5	70.0	130.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6368203D, Parent Sample ID: S63682.03

Run in Batch: CI240712DW, Run Date: 07/12/2024 19:23, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		97.7	70.0	130.0
C13PFHxA		101.4	70.0	130.0
d5NEtFOSAA		93.3	70.0	130.0
13C-HFPO-DA		100.8	70.0	130.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6368302D, Parent Sample ID: S63683.02

Run in Batch: CI240712DW, Run Date: 07/12/2024 20:08, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		109.9	70.0	130.0
C13PFHxA		114.9	70.0	130.0
d5NEtFOSAA		102.3	70.0	130.0
13C-HFPO-DA		114.4	70.0	130.0

QC Report - Surrogates per QC Sample

Duplicate (DUP)

Lab Sample ID: CI240712DW.6370701D, Parent Sample ID: S63707.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 20:37, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		114.8	70.0	130.0
C13PFHxA		114.6	70.0	130.0
d5NEtFOSAA		106.0	70.0	130.0
13C-HFPO-DA		109.2	70.0	130.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6370801D, Parent Sample ID: S63708.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 21:07, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		106.4	70.0	130.0
C13PFHxA		101.8	70.0	130.0
d5NEtFOSAA		93.4	70.0	130.0
13C-HFPO-DA		93.5	70.0	130.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6371001D, Parent Sample ID: S63710.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 21:37, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		99.5	70.0	130.0
C13PFHxA		102.3	70.0	130.0
d5NEtFOSAA		95.8	70.0	130.0
13C-HFPO-DA		108.1	70.0	130.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6371101D, Parent Sample ID: S63711.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 22:06, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		102.1	70.0	130.0
C13PFHxA		104.1	70.0	130.0
d5NEtFOSAA		98.1	70.0	130.0
13C-HFPO-DA		105.8	70.0	130.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6387901D, Parent Sample ID: S63879.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 23:05, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
C13PFDA		109.7	70.0	130.0
C13PFHxA		115.5	70.0	130.0
d5NEtFOSAA		101.0	70.0	130.0
13C-HFPO-DA		115.1	70.0	130.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63683.01

Sample Tag: 1320 E. Stanley Rd - SINK - 06282024

Collected Date/Time: 06/28/2024 10:38

Matrix: Drinking Water

COC Reference: 153319

Organics - Volatiles, Analysis: PFAs Drinking Water

Run in Batch: CI240712DW, Run Date: 07/12/2024 19:38, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		86.4	50.0	150.0
C13PFOS		84.9	50.0	150.0
d3NMeFOSAA		79.0	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63683.02

Sample Tag: 1320 E. Stanley Rd - RAW - 06282024

Collected Date/Time: 06/28/2024 10:45

Matrix: Drinking Water

COC Reference: 153319

Organics - Volatiles, Analysis: PFAs Drinking Water

Run in Batch: CI240712DW, Run Date: 07/12/2024 19:53, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		100.3	50.0	150.0
C13PFOS		95.3	50.0	150.0
d3NMeFOSAA		91.8	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S63683.03

Sample Tag: Field Blank - 06282024

Collected Date/Time: 06/28/2024 00:01

Matrix: Drinking Water

COC Reference: 153319

Organics - Volatiles, Analysis: PFAs Drinking Water

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:40, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		87.4	50.0	150.0
C13PFOS		89.1	50.0	150.0
d3NMeFOSAA		79.7	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PD240709W1

QC Types: BLK/LCS/LCSD/MS

Blank (BLK)

Lab Sample ID: CI240710DW.BLK240710

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:11, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		89.0	50.0	150.0
C13PFOS		92.1	50.0	150.0
d3NMeFOSAA		83.6	50.0	150.0

Laboratory Control Sample (LCS)

Lab Sample ID: CI240710DW.LCS240709

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:25, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		91.7	50.0	150.0
C13PFOS		85.4	50.0	150.0
d3NMeFOSAA		83.6	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: CI240710DW.LCSD240709, Parent Sample ID: CI240710DW.LCS240709

Run in Batch: CI240710DW, Run Date: 07/10/2024 22:37, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		91.9	50.0	150.0
C13PFOS		91.5	50.0	150.0
d3NMeFOSAA		90.2	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: CI240710DW.6368301D, Parent Sample ID: S63683.01

Run in Batch: CI240710DW, Run Date: 07/10/2024 18:54, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		94.9	50.0	150.0
C13PFOS		87.0	50.0	150.0
d3NMeFOSAA		84.9	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PD240711W1

QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: CI240712DW.BLK240711

Run in Batch: CI240712DW, Run Date: 07/12/2024 18:24, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		86.5	50.0	150.0
C13PFOS		87.4	50.0	150.0
d3NMeFOSAA		83.4	50.0	150.0

Laboratory Control Sample (LCS)

Lab Sample ID: CI240712DW.LCS240711

Run in Batch: CI240712DW, Run Date: 07/12/2024 18:39, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		84.4	50.0	150.0
C13PFOS		85.8	50.0	150.0
d3NMeFOSAA		79.2	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: CI240712DW.6393701M, Parent Sample ID: S63937.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 23:50, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		80.5	50.0	150.0
C13PFOS		86.5	50.0	150.0
d3NMeFOSAA		85.0	50.0	150.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6368203D, Parent Sample ID: S63682.03

Run in Batch: CI240712DW, Run Date: 07/12/2024 19:23, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		87.0	50.0	150.0
C13PFOS		87.4	50.0	150.0
d3NMeFOSAA		81.2	50.0	150.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6368302D, Parent Sample ID: S63683.02

Run in Batch: CI240712DW, Run Date: 07/12/2024 20:08, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		88.0	50.0	150.0
C13PFOS		87.2	50.0	150.0
d3NMeFOSAA		84.3	50.0	150.0

QC Report - Internal Standards per QC Sample

Duplicate (DUP)

Lab Sample ID: CI240712DW.6370701D, Parent Sample ID: S63707.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 20:37, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		86.0	50.0	150.0
C13PFOS		87.9	50.0	150.0
d3NMeFOSAA		84.1	50.0	150.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6370801D, Parent Sample ID: S63708.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 21:07, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		92.4	50.0	150.0
C13PFOS		87.4	50.0	150.0
d3NMeFOSAA		87.2	50.0	150.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6371001D, Parent Sample ID: S63710.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 21:37, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		100.7	50.0	150.0
C13PFOS		98.9	50.0	150.0
d3NMeFOSAA		94.1	50.0	150.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6371101D, Parent Sample ID: S63711.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 22:06, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		93.2	50.0	150.0
C13PFOS		91.9	50.0	150.0
d3NMeFOSAA		86.2	50.0	150.0

Duplicate (DUP)

Lab Sample ID: CI240712DW.6387901D, Parent Sample ID: S63879.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 23:05, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
C13PFOA		82.9	50.0	150.0
C13PFOS		85.4	50.0	150.0
d3NMeFOSAA		79.6	50.0	150.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PD240709W1

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

Blank (BLK)

Lab Sample ID: CI240710DW.BLK240710

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:11, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBS		ND	2	ng/l
PFHxA		ND	2	ng/l
HFPO-DA		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHpA		ND	2	ng/l
ADONA		ND	2	ng/l
PFOA		ND	2	ng/l
PFOS		ND	2	ng/l
PFNA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFDA		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
EtFOSAA		ND	2	ng/l
PFUnDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFTTrDA		ND	2	ng/l
PFTeDA		ND	2	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: CI240710DW.LCS240709

Run in Batch: CI240710DW, Run Date: 07/10/2024 17:25, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBS		90.5	70.0	130.0
PFHxA		89.5	70.0	130.0
HFPO-DA		90.5	70.0	130.0
PFHxS		92.0	70.0	130.0
PFHpA		89.5	70.0	130.0
ADONA		82.5	70.0	130.0
PFOA		92.5	70.0	130.0
PFOS		91.5	70.0	130.0
PFNA		97.0	70.0	130.0
9CL-PF3ONS		81.0	70.0	130.0
PFDA		96.0	70.0	130.0
N-MeFOSAA		84.0	70.0	130.0
EtFOSAA		87.0	70.0	130.0
PFUnDA		84.5	70.0	130.0
11CL-PF3OUdS		79.0	70.0	130.0
PFDoDA		86.0	70.0	130.0
PFTTrDA		92.0	70.0	130.0
PFTeDA		89.5	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PD240709W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: CI240710DW.LCSD240709, Parent Sample ID: CI240710DW.LCS240709

Run in Batch: CI240710DW, Run Date: 07/10/2024 22:37, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBS		90.0	70.0	130.0	0.6	30.0
PFHxA		91.5	70.0	130.0	2.2	30.0
HFPO-DA		92.5	70.0	130.0	2.2	30.0
PFHxS		90.5	70.0	130.0	1.6	30.0
PFHpA		91.0	70.0	130.0	1.7	30.0
ADONA		84.0	70.0	130.0	1.8	30.0
PFOA		92.0	70.0	130.0	0.5	30.0
PFOS		90.0	70.0	130.0	1.7	30.0
PFNA		98.0	70.0	130.0	1.0	30.0
9CL-PF3ONS		80.5	70.0	130.0	0.6	30.0
PFDA		95.0	70.0	130.0	1.0	30.0
N-MeFOSAA		79.5	70.0	130.0	5.5	30.0
EtFOSAA		85.0	70.0	130.0	2.3	30.0
PFUnDA		90.5	70.0	130.0	6.9	30.0
11CL-PF3OUdS		76.0	70.0	130.0	3.9	30.0
PFDoDA		90.5	70.0	130.0	5.1	30.0
PFTTrDA		96.0	70.0	130.0	4.3	30.0
PFTTeDA		93.0	70.0	130.0	3.8	30.0

Matrix Spike (MS)

Lab Sample ID: CI240710DW.6368301D, Parent Sample ID: S63683.01

Run in Batch: CI240710DW, Run Date: 07/10/2024 18:54, Prep Date: 07/09/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFHxA		90.4	70.0	130.0
PFBS		92.2	70.0	130.0
PFHpA		91.0	70.0	130.0
PFOA		91.6	70.0	130.0
PFHxS		92.8	70.0	130.0
PFNA		97.6	70.0	130.0
PFDA		92.2	70.0	130.0
N-MeFOSAA		80.7	70.0	130.0
EtFOSAA		86.1	70.0	130.0
PFOS		91.0	70.0	130.0
PFUnDA		88.0	70.0	130.0
PFDoDA		83.7	70.0	130.0
PFTTrDA		88.6	70.0	130.0
PFTTeDA		91.0	70.0	130.0
11CL-PF3OUdS		77.7	70.0	130.0
9CL-PF3ONS		79.5	70.0	130.0
ADONA		82.5	70.0	130.0
HFPO-DA		90.4	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PD240711W1

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

Blank (BLK)

Lab Sample ID: CI240712DW.BLK240711

Run in Batch: CI240712DW, Run Date: 07/12/2024 18:24, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBS		ND	2	ng/l
PFHxA		ND	2	ng/l
HFPO-DA		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHpA		ND	2	ng/l
ADONA		ND	2	ng/l
PFOA		ND	2	ng/l
PFOS		ND	2	ng/l
PFNA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFDA		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
EtFOSAA		ND	2	ng/l
PFUnDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFTTrDA		ND	2	ng/l
PFTeDA		ND	2	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: CI240712DW.LCS240711

Run in Batch: CI240712DW, Run Date: 07/12/2024 18:39, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBS		86.0	50	150
PFHxA		104.0	50	150
HFPO-DA		90.0	50	150
PFHxS		98.0	50	150
PFHpA		92.0	50	150
ADONA		80.0	50	150
PFOA		102.0	50	150
PFOS		94.0	50	150
PFNA		106.0	50	150
9CL-PF3ONS		86.0	50	150
PFDA		88.0	50	150
N-MeFOSAA		74.0	50	150
EtFOSAA		98.0	50	150
PFUnDA		86.0	50	150
11CL-PF3OUdS		82.0	50	150
PFDoDA		112.0	50	150
PFTTrDA		112.0	50	150
PFTeDA		92.0	50	150

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PD240711W1 (continued)

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

Matrix Spike (MS)

Lab Sample ID: CI240712DW.6393701M, Parent Sample ID: S63937.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 23:50, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFHxA	*	172.4	50	150
PFBS		114.9	50	150
PFHpA	*	172.4	50	150
PFOA	*	172.4	50	150
PFHxS	*	172.4	50	150
PFNA	*	172.4	50	150
PFDA	*	172.4	50	150
N-MeFOSAA	*	0.0	50	150
EtFOSAA	*	0.0	50	150
PFOS	*	172.4	50	150
PFUnDA		114.9	50	150
PFDoDA		114.9	50	150
PFTTrDA		114.9	50	150
PFTeDA		114.9	50	150
11CL-PF3OUdS	*	0.0	50	150
9CL-PF3ONS	*	0.0	50	150
ADONA		114.9	50	150
HFPO-DA	*	172.4	50	150

Duplicate (DUP)

Lab Sample ID: CI240712DW.6368203D, Parent Sample ID: S63682.03

Run in Batch: CI240712DW, Run Date: 07/12/2024 19:23, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	RPD	RPD CL
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFNA		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		3.6	30.0
PFUnDA		NC	30.0
PFDoDA		NC	30.0
PFTTrDA		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

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PD240711W1 (continued)

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

Duplicate (DUP)

Lab Sample ID: CI240712DW.6368302D, Parent Sample ID: S63683.02

Run in Batch: CI240712DW, Run Date: 07/12/2024 20:08, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	RPD	RPD CL
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFOA		NC	30.0
PFHxS		0.0	30.0
PFNA		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		6.5	30.0
PFUnDA		NC	30.0
PFDoDA		NC	30.0
PFTTrDA		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

Duplicate (DUP)

Lab Sample ID: CI240712DW.6370701D, Parent Sample ID: S63707.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 20:37, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	RPD	RPD CL
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFNA		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFUnDA		NC	30.0
PFDoDA		NC	30.0
PFTTrDA		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

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PD240711W1 (continued)

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

Duplicate (DUP)

Lab Sample ID: CI240712DW.6370801D, Parent Sample ID: S63708.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 21:07, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	RPD	RPD CL
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFNA		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFUnDA		NC	30.0
PFDoDA		NC	30.0
PFTTrDA		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

Duplicate (DUP)

Lab Sample ID: CI240712DW.6371001D, Parent Sample ID: S63710.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 21:37, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	RPD	RPD CL
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFNA		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFUnDA		NC	30.0
PFDoDA		NC	30.0
PFTTrDA		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

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PD240711W1 (continued)

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

Duplicate (DUP)

Lab Sample ID: CI240712DW.6371101D, Parent Sample ID: S63711.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 22:06, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	RPD	RPD CL
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFNA		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFUnDA		NC	30.0
PFDoDA		NC	30.0
PFTTrDA		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

Duplicate (DUP)

Lab Sample ID: CI240712DW.6387901D, Parent Sample ID: S63879.01

Run in Batch: CI240712DW, Run Date: 07/12/2024 23:05, Prep Date: 07/11/2024, Matrix: WW, Dilution: 1

Analyte	Flags	RPD	RPD CL
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFNA		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFUnDA		NC	30.0
PFDoDA		NC	30.0
PFTTrDA		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

