

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673



231-773-5998 Phone
888-979-4469 Fax
www.trace-labs.com

October 22, 2024

Mr. Dale Clark
Clare, City of
202 W. Fifth St.
Clare, Mi 48617

RE: Trace Project 24J0184
Client Project PFAS Testing - 10/2/24

Dear Mr. Clark:

Enclosed are your analytical results. The results of this report relate only to the samples listed in the body of this report.

All reports were examined through Trace's validation process to ensure that requirements for quality and completeness were satisfied. All reported analytical results were obtained in accordance with the methods referenced on the reports. Every practical effort was made to meet the reporting limit specifications for this work, however, some results may have raised reporting limits to correct for percent solids.

The results were obtained from Prein and Newhof.

If you have questions concerning this report, please contact me at 231.773.5998 or by email at tbrewer@trace-labs.com.

Sincerely,

A handwritten signature in black ink that reads "Timothy W. Brewer". The signature is written in a cursive style with a long, sweeping underline.

Tim Brewer
Project Manager

Enclosures

October 22, 2024

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673

RE: 24J0184

Order No.: 2410583

Dear Mr. Jon Mink:

[Guide to Reading Lab Result](#)

Prein&Newhof Laboratory received 2 sample(s) on 10/7/2024 on your behalf. Your test results are provided in your Prein&Newhof Laboratory analytical report. Please carefully review your analytical report, noting the following.

- You can be assured that the sample results meet the Safe Drinking Water Criteria as no analyte tested exceeds the EPA Maximum Contaminant Level unless indicated by an " * " in the "Qual" column.
- You can be assured that all samples were received and analyzed within required holding times unless noted by a "H" in the "Qual" column.
- You can be assured that all quality control data is within laboratory-defined or method-specified acceptance limits unless defined by the addition of an attached Case Narrative document.
- When testing for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA results include both branched and linear isotopes. We extract a Method Blank and analyze it with the preparation batch. Method Blank analytes are within the Reporting Limit (RL).

We use EPA Approved Methods for all regulated parameters. EPA Lab #: MI000014

We are certified by the State of Michigan for Drinking Water Analysis for: Coliform Bacteria, Metals, Cyanide, Minerals, Anions, Volatile Organics, THM's, Haloacetic Acids, and PFAS.
Michigan Lab ID#: 0020

To learn more about interpreting your Drinking Water Test Results and reading your Lab Report, follow the link above to view our "Guide to Reading Lab Results". If you have any concerns about your test results or need additional help, please call: 616-364-7600 or email me: sbylsma@preinnewhof.com.

Thank you for trusting Prein&Newhof with your testing needs.

Sincerely,



Steve Bylsma
Laboratory Manager

CLIENT:	Trace Analytical Laboratories, Inc.	Collection Date	10/3/2024
Project:	24J0184	Received Date:	10/7/2024 1:25:00 PM
Lab ID:	2410583-01	Matrix:	DRINKING WATER
Client Sample ID:	24J0184-01	Sampled By:	Unknown
Location:	City of Clare- Plant Tap		

Analyses	Result	RL	Qual	Units	MCL	Date Analyzed
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FIELD PARAMETERS

WSSN# 1420

PFAS, DRINKING WATER

EPA 537.1

Analyst: **JS**

PFBS	3.1	2.0		ng/L		10/10/2024 11:02:00 PV
PFHxA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
HFPO-DA	< 2.0	2.0		ng/L	10	10/10/2024 11:02:00 PV
PFHxS	5.8	2.0		ng/L	10	10/10/2024 11:02:00 PV
PFHpA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
ADONA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
PFOA	< 2.0	2.0		ng/L	4.0	10/10/2024 11:02:00 PV
PFOS	3.7	2.0		ng/L	4.0	10/10/2024 11:02:00 PV
PFNA	< 2.0	2.0		ng/L	10	10/10/2024 11:02:00 PV
9CI-PF3ONS	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
PFDA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
NMeFOSAA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
NEtFOSAA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
PFUnA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
11CI-PF3OUdS	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
PFDoA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
PFTTrDA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
PFTA	< 2.0	2.0		ng/L		10/10/2024 11:02:00 PV
PFAS Hazard Index	0.58	0.20		ng/L	1.0	10/10/2024 11:02:00 PV
Surr: d5-N-EtFOSAA	104	70 - 130		%Rec		10/10/2024 11:02:00 PV
Surr: M3HFPO-DA	94.7	70 - 130		%Rec		10/10/2024 11:02:00 PV
Surr: MPFDA	103	70 - 130		%Rec		10/10/2024 11:02:00 PV
Surr: MPFHxA	93.2	70 - 130		%Rec		10/10/2024 11:02:00 PV

Qualifiers: < Not Detected at the Reporting Limit
 MCL Maximum Contaminant Level
 RL Reporting Limit

H Holding times for preparation or analysis exceeded
 PL Permit Limit
 S Spike Recovery outside accepted recovery limits

CLIENT:	Trace Analytical Laboratories, Inc.	Collection Date	10/3/2024
Project:	24J0184	Received Date:	10/7/2024 1:25:00 PM
Lab ID:	2410583-02	Matrix:	BLANK
Client Sample ID:	Field Blank	Sampled By:	Unknown
Location:			

Analyses	Result	RL	Qual	Units	MCL	Date Analyzed
PFAS, DRINKING WATER		EPA 537.1			Analyst: JS	
PFBS	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFHxA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
HFPO-DA	< 2.0	2.0		ng/L	10	10/22/2024 1:20:00 AM
PFHxS	< 2.0	2.0		ng/L	10	10/22/2024 1:20:00 AM
PFHpA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
ADONA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFOA	< 2.0	2.0		ng/L	4.0	10/22/2024 1:20:00 AM
PFOS	< 2.0	2.0		ng/L	4.0	10/22/2024 1:20:00 AM
PFNA	< 2.0	2.0		ng/L	10	10/22/2024 1:20:00 AM
9CI-PF3ONS	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFDA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
NMeFOSAA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
NEtFOSAA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFUnA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
11CI-PF3OUdS	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFDaA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFTrDA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFTA	< 2.0	2.0		ng/L		10/22/2024 1:20:00 AM
PFAS Hazard Index	< 0.20	0.20		ng/L	1.0	10/22/2024 1:20:00 AM
Surr: d5-N-EtFOSAA	72.1	70 - 130		%Rec		10/22/2024 1:20:00 AM
Surr: M3HFPO-DA	118	70 - 130		%Rec		10/22/2024 1:20:00 AM
Surr: MPFDA	75.4	70 - 130		%Rec		10/22/2024 1:20:00 AM
Surr: MPFHxA	95.3	70 - 130		%Rec		10/22/2024 1:20:00 AM

Qualifiers: < Not Detected at the Reporting Limit
MCL Maximum Contaminant Level
RL Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit
S Spike Recovery outside accepted recovery limits

WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: MB-L7-7359	SampType: MBLK	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/9/2024	RunNo: 41474						
Client ID: PBW	Batch ID: 7359	TestNo: EPA 537.1		Analysis Date: 10/10/2024	SeqNo: 830659						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	< 1.8	1.8									
PFHxA	< 1.8	1.8									
HFPO-DA	< 1.8	1.8									
PFHxS	< 1.8	1.8									
PFHpA	< 1.8	1.8									
ADONA	< 1.8	1.8									
PFOA	< 1.8	1.8									
PFOS	< 1.8	1.8									
PFNA	< 1.8	1.8									
9CI-PF3ONS	< 1.8	1.8									
PFDA	< 1.8	1.8									
NMeFOSAA	< 1.8	1.8									
NEtFOSAA	< 1.8	1.8									
PFUnA	< 1.8	1.8									
11CI-PF3OUdS	< 1.8	1.8									
PFDoA	< 1.8	1.8									
PFTTrDA	< 1.8	1.8									
PFTA	< 1.8	1.8									
PFAS Hazard Index	< 0.20	0.20									
Surr: d5-N-EtFOSAA	330		320.0		104	70	130				
Surr: M3HFPO-DA	210		200.0		104	70	130				
Surr: MPFDA	82		80.00		103	70	130				
Surr: MPFHxA	85		80.00		107	70	130				

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

H Holding times for preparation or analysis exceeded
RL Reporting Limit

MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: LCS-high-7359 A	SampType: LCS-HIGH	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/9/2024	RunNo: 41474						
Client ID: BatchQC	Batch ID: 7359	TestNo: EPA 537.1		Analysis Date: 10/10/2024	SeqNo: 830661						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	200	1.8	200.0	0	100	70	130				
PFHxA	210	1.8	200.0	0	107	70	130				
HFPO-DA	210	1.8	200.0	0	103	70	130				
PFHxS	210	1.8	200.0	0	104	70	130				
PFHpA	210	1.8	200.0	0	103	70	130				
ADONA	200	1.8	200.0	0	102	70	130				
PFOA	210	1.8	200.0	0	103	70	130				
PFOS	200	1.8	200.0	0	99.8	70	130				
PFNA	200	1.8	200.0	0	101	70	130				
9CI-PF3ONS	200	1.8	200.0	0	98.5	70	130				
PFDA	190	1.8	200.0	0	96.8	70	130				
NMeFOSAA	200	1.8	200.0	0	98.4	70	130				
NEtFOSAA	190	1.8	200.0	0	94.9	70	130				
PFUnA	180	1.8	200.0	0	90.6	70	130				
11CI-PF3OUdS	200	1.8	200.0	0	98.0	70	130				
PFDoA	180	1.8	200.0	0	91.8	70	130				
PFTTrDA	190	1.8	200.0	0	93.2	70	130				
PFTA	190	1.8	200.0	0	93.6	70	130				
Surr: d5-N-EtFOSAA	300		320.0		94.3	70	130				
Surr: M3HFPO-DA	200		200.0		101	70	130				
Surr: MPFDA	74		80.00		92.3	70	130				
Surr: MPFHxA	82		80.00		102	70	130				

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

H Holding times for preparation or analysis exceeded
RL Reporting Limit

MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: 2410549-01AMS	SampType: MS-LOW	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/9/2024	RunNo: 41474						
Client ID: BatchQC	Batch ID: 7359	TestNo: EPA 537.1		Analysis Date: 10/10/2024	SeqNo: 830682						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	6.7	1.7	3.774	3.389	86.7	50	150				
PFHxA	5.5	1.7	3.774	1.985	93.7	50	150				
HFPO-DA	3.6	1.7	3.774	0	96.7	50	150				
PFHxS	4.6	1.7	3.774	1.233	89.6	50	150				
PFHpA	4.0	1.7	3.774	0.5927	91.6	50	150				
ADONA	3.4	1.7	3.774	0	91.0	50	150				
PFOA	5.0	1.7	3.774	1.462	93.4	50	150				
PFOS	5.2	1.7	3.774	1.811	88.8	50	150				
PFNA	3.4	1.7	3.774	0	90.9	50	150				
9CI-PF3ONS	3.3	1.7	3.774	0	86.9	50	150				
PFDA	3.4	1.7	3.774	0	89.8	50	150				
NMeFOSAA	3.4	1.7	3.774	0	90.8	50	150				
NEtFOSAA	3.5	1.7	3.774	0	92.7	50	150				
PFUnA	3.2	1.7	3.774	0	84.4	50	150				
11CI-PF3OUdS	3.3	1.7	3.774	0	86.8	50	150				
PFDoA	3.4	1.7	3.774	0	89.5	50	150				
PFTTrDA	3.5	1.7	3.774	0	93.8	50	150				
PFTA	3.8	1.7	3.774	0	99.9	50	150				
Surr: d5-N-EtFOSAA	260		301.9		85.6	70	130				
Surr: M3HFPO-DA	160		188.7		85.0	70	130				
Surr: MPFDA	61		75.47		80.5	70	130				
Surr: MPFHxA	71		75.47		93.6	70	130				

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

H Holding times for preparation or analysis exceeded
RL Reporting Limit

MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: 2410579-02ADUP	SampType: DUP	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/9/2024	RunNo: 41474						
Client ID: BatchQC	Batch ID: 7359	TestNo: EPA 537.1		Analysis Date: 10/10/2024	SeqNo: 830686						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	< 1.8	1.8						0	0	30	
PFHxA	< 1.8	1.8						0	0	30	
HFPO-DA	< 1.8	1.8						0	0	30	
PFHxS	< 1.8	1.8						0	0	30	
PFHpA	< 1.8	1.8						0	0	30	
ADONA	< 1.8	1.8						0	0	30	
PFOA	< 1.8	1.8						0	0	30	
PFOS	< 1.8	1.8						0	0	30	
PFNA	< 1.8	1.8						0	0	30	
9CI-PF3ONS	< 1.8	1.8						0	0	30	
PFDA	< 1.8	1.8						0	0	30	
NMeFOSAA	< 1.8	1.8						0	0	30	
NEtFOSAA	< 1.8	1.8						0	0	30	
PFUnA	< 1.8	1.8						0	0	30	
11CI-PF3OUdS	< 1.8	1.8						0	0	30	
PFDoA	< 1.8	1.8						0	0	30	
PFTTrDA	< 1.8	1.8						0	0	30	
PFTA	< 1.8	1.8						0	0	30	
PFAS Hazard Index	< 0.20	0.20						0	0	0	
Surr: d5-N-EtFOSAA	190		320.0		58.6	70	130		0	0	S
Surr: M3HFPO-DA	180		200.0		92.5	70	130		0	0	
Surr: MPFDA	47		80.00		58.9	70	130		0	0	S
Surr: MPFHxA	73		80.00		91.9	70	130		0	0	

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

H Holding times for preparation or analysis exceeded
RL Reporting Limit

MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

Original
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WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: LCS-high-7359 B	SampType: LCS-HIGH	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/9/2024	RunNo: 41474						
Client ID: BatchQC	Batch ID: 7359	TestNo: EPA 537.1		Analysis Date: 10/11/2024	SeqNo: 830692						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	200	1.8	200.0	0	100	70	130				
PFHxA	210	1.8	200.0	0	107	70	130				
HFPO-DA	200	1.8	200.0	0	97.9	70	130				
PFHxS	210	1.8	200.0	0	104	70	130				
PFHpA	200	1.8	200.0	0	102	70	130				
ADONA	200	1.8	200.0	0	102	70	130				
PFOA	210	1.8	200.0	0	103	70	130				
PFOS	200	1.8	200.0	0	99.1	70	130				
PFNA	200	1.8	200.0	0	100	70	130				
9CI-PF3ONS	200	1.8	200.0	0	98.2	70	130				
PFDA	190	1.8	200.0	0	94.2	70	130				
NMeFOSAA	190	1.8	200.0	0	96.2	70	130				
NEtFOSAA	190	1.8	200.0	0	94.9	70	130				
PFUnA	180	1.8	200.0	0	88.8	70	130				
11CI-PF3OUdS	200	1.8	200.0	0	97.8	70	130				
PFDoA	180	1.8	200.0	0	92.4	70	130				
PFTTrDA	190	1.8	200.0	0	93.9	70	130				
PFTA	200	1.8	200.0	0	99.9	70	130				
Surr: d5-N-EtFOSAA	300		320.0		92.6	70	130				
Surr: M3HFPO-DA	190		200.0		96.7	70	130				
Surr: MPFDA	72		80.00		89.7	70	130				
Surr: MPFHxA	82		80.00		102	70	130				

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

H Holding times for preparation or analysis exceeded
RL Reporting Limit

MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: MB-L8-7384	SampType: MBLK	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/14/2024	RunNo: 41629						
Client ID: PBW	Batch ID: 7384	TestNo: EPA 537.1		Analysis Date: 10/21/2024	SeqNo: 833878						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	< 1.8	1.8									
PFHxA	< 1.8	1.8									
HFPO-DA	< 1.8	1.8									
PFHxS	< 1.8	1.8									
PFHpA	< 1.8	1.8									
ADONA	< 1.8	1.8									
PFOA	< 1.8	1.8									
PFOS	< 1.8	1.8									
PFNA	< 1.8	1.8									
9CI-PF3ONS	< 1.8	1.8									
PFDA	< 1.8	1.8									
NMeFOSAA	< 1.8	1.8									
NEtFOSAA	< 1.8	1.8									
PFUnA	< 1.8	1.8									
11CI-PF3OUdS	< 1.8	1.8									
PFDoA	< 1.8	1.8									
PFTTrDA	< 1.8	1.8									
PFTA	< 1.8	1.8									
PFAS Hazard Index	< 0.20	0.20									
Surr: d5-N-EtFOSAA	310		320.0		97.2	70	130				
Surr: M3HFPO-DA	240		200.0		120	70	130				
Surr: MPFDA	81		80.00		101	70	130				
Surr: MPFHxA	80		80.00		99.6	70	130				

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

H Holding times for preparation or analysis exceeded
RL Reporting Limit

MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: LCS-LOW-7384A	SampType: LCS-LOW	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/14/2024	RunNo: 41629						
Client ID: BatchQC	Batch ID: 7384	TestNo: EPA 537.1		Analysis Date: 10/21/2024	SeqNo: 833879						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	4.0	1.8	4.000	0	99.8	50	150				
PFHxA	3.8	1.8	4.000	0	94.5	50	150				
HFPO-DA	5.3	1.8	4.000	0	133	50	150				
PFHxS	3.9	1.8	4.000	0	97.0	50	150				
PFHpA	3.8	1.8	4.000	0	94.4	50	150				
ADONA	3.6	1.8	4.000	0	90.8	50	150				
PFOA	3.7	1.8	4.000	0	92.7	50	150				
PFOS	3.9	1.8	4.000	0	96.7	50	150				
PFNA	3.6	1.8	4.000	0	90.9	50	150				
9CI-PF3ONS	3.7	1.8	4.000	0	92.0	50	150				
PFDA	3.9	1.8	4.000	0	97.7	50	150				
NMeFOSAA	4.5	1.8	4.000	0	112	50	150				
NEtFOSAA	5.0	1.8	4.000	0	124	50	150				
PFUnA	4.0	1.8	4.000	0	101	50	150				
11CI-PF3OUdS	3.6	1.8	4.000	0	90.0	50	150				
PFDoA	4.4	1.8	4.000	0	110	50	150				
PFTTrDA	4.2	1.8	4.000	0	104	50	150				
PFTA	4.2	1.8	4.000	0	104	50	150				
Surr: d5-N-EtFOSAA	290		320.0		89.4	70	130				
Surr: M3HFPO-DA	260		200.0		130	70	130				
Surr: MPFDA	82		80.00		102	70	130				
Surr: MPFHxA	80		80.00		100	70	130				

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

H Holding times for preparation or analysis exceeded
RL Reporting Limit

MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: 2410666-01ADUP	SampType: DUP	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/14/2024	RunNo: 41629						
Client ID: BatchQC	Batch ID: 7384	TestNo: EPA 537.1		Analysis Date: 10/22/2024	SeqNo: 833891						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	< 1.7	1.7						0	0	30	
PFHxA	< 1.7	1.7						0	0	30	
HFPO-DA	< 1.7	1.7						0	0	30	
PFHxS	< 1.7	1.7						0	0	30	
PFHpA	< 1.7	1.7						0	0	30	
ADONA	< 1.7	1.7						0	0	30	
PFOA	< 1.7	1.7						0	0	30	
PFOS	< 1.7	1.7						0	0	30	
PFNA	< 1.7	1.7						0	0	30	
9CI-PF3ONS	< 1.7	1.7						0	0	30	
PFDA	< 1.7	1.7						0	0	30	
NMeFOSAA	< 1.7	1.7						0	0	30	
NEtFOSAA	< 1.7	1.7						0	0	30	
PFUnA	< 1.7	1.7						0	0	30	
11CI-PF3OUdS	< 1.7	1.7						0	0	30	
PFDoA	< 1.7	1.7						0	0	30	
PFTTrDA	< 1.7	1.7						0	0	30	
PFTA	< 1.7	1.7						0	0	30	
PFAS Hazard Index	< 0.19	0.19						0	0	0	
Surr: d5-N-EtFOSAA	180		307.7		59.9	70	130		0	0	S
Surr: M3HFPO-DA	190		192.3		101	70	130		0	0	
Surr: MPFDA	52		76.92		67.4	70	130		0	0	S
Surr: MPFHxA	64		76.92		83.0	70	130		0	0	

Qualifiers: < Not Detected at the Reporting Limit
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WO#: 2410583

10/22/2024

Client: Trace Analytical Laboratories, Inc.

Project: 24J0184

TestCode: PFAS-DW

Sample ID: 2410657-01AMS	SampType: MS	TestCode: PFAS-DW	Units: ng/L	Prep Date: 10/14/2024	RunNo: 41629						
Client ID: BatchQC	Batch ID: 7384	TestNo: EPA 537.1		Analysis Date: 10/22/2024	SeqNo: 833897						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
PFBS	78	1.7	78.43	0	99.5	70	130				
PFHxA	73	1.7	78.43	0	93.3	70	130				
HFPO-DA	93	1.7	78.43	0	118	70	130				
PFHxS	79	1.7	78.43	0	101	70	130				
PFHpA	75	1.7	78.43	0	95.5	70	130				
ADONA	69	1.7	78.43	0	87.7	70	130				
PFOA	76	1.7	78.43	0	97.0	70	130				
PFOS	69	1.7	78.43	0	88.3	70	130				
PFNA	73	1.7	78.43	0	93.4	70	130				
9CI-PF3ONS	80	1.7	78.43	0	102	70	130				
PFDA	80	1.7	78.43	0	101	70	130				
NMeFOSAA	72	1.7	78.43	0	92.4	70	130				
NEtFOSAA	73	1.7	78.43	0	92.8	70	130				
PFUnA	81	1.7	78.43	0	104	70	130				
11CI-PF3OUdS	75	1.7	78.43	0	96.1	70	130				
PFDoA	100	1.7	78.43	0	130	70	130				
PFTTrDA	93	1.7	78.43	0	118	70	130				
PFTA	68	1.7	78.43	0	87.0	70	130				
Surr: d5-N-EtFOSAA	280		313.7		90.3	70	130				
Surr: M3HFPO-DA	220		196.1		110	70	130				
Surr: MPFDA	80		78.43		103	70	130				
Surr: MPFHxA	74		78.43		94.3	70	130				

Qualifiers: < Not Detected at the Reporting Limit
PL Permit Limit

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MCL Maximum Contaminant Level
S Spike Recovery outside accepted recovery limits

SUBCONTRACT ORDER
24J0184

SENDING LABORATORY:

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444
Phone: 231.773.5998

RECEIVING LABORATORY:

Prein and Newhof
3260 Evergreen Drive NE
Grand Rapids, MI 49525
Phone :(616) 364-7600

Project Manager: Tim Brewer

Note Our New Email address: TraceSubOut@trace-labs.com

PO # 24J0184

Matrix: Drinking Water Sampled: 10/03/24 00:00 TAT: Standard

10583-1

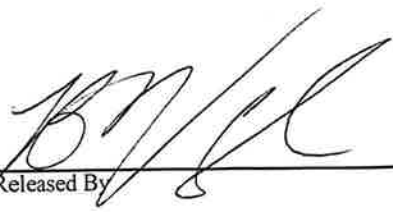

Sample ID: Plant Tap 24J0184-01

WSSN: 1420

Site Name: City of Clare

Analysis Needed:

PFAS Drinking Water- EGLE List with Field Blank

	10/3/24		
Released By	Date	Received By	Date
			10/7/24
Released By	Date	Received By	Date
			13:25

3^c

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673



231-773-5998 Phone
888-979-4469 Fax
www.trace-labs.com

SAMPLE SUMMARY

Trace Project ID: 24J0184
Client Project ID: PFAS Testing - 10/2/24

Trace ID	Sample ID	Matrix	Collected By	Date Collected	Date Received
24J0184-01	Plant Tap	Drinking Water	Client	10/03/24	10/03/24 11:30
WSSN: 1420	Site name: City of Clare				

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2241 Black Creek Road
Muskegon, MI 49444-2673



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Drinking Water Analytical Request

Page of
Trace ID: 2450184
Logged by: BM/CM
Checked by: CM

NOTE: • Samples must be received on ice and within 24 hours of collection.
• Bacteria samples are not accepted on Friday after 12pm.
• Turnaround time is 5 business days after samples are received at the lab. Results may be expedited for an additional charge, but must be approved in advance by the laboratory.

Sample Location:
System Owner / Company Name: CITY of Clare
Contact Name: Dale Clark
Address of Sample Location: 302 W. Fifth
City/State/Zip: Clare MI 48617
Email: dclark@cityofclare.gov
Phone Number: 989 386 3331
Reason for Sampling (REQUIRED): Non-Flouring
Well Permit Number (if applicable):
Sampler's Name: SM / SR

Submitting Information (if different from the property owner):
Contact Name (if different):
Company Name (if different):
Company Address (if different):
City/State/Zip (if different):
Email:
Phone Number:

Check for results to be emailed to selected local Health Department: Yes No County: _____

#	Date Collected	Time Collected	Sample Point Description and Well/Pool ID	WSSN (for Public Water Supplies)	Site Code (if applicable)															
1	10-3-24	12:10	Plant Tap-1420	1420																

RELEASED BY: _____ RECEIVED BY: _____ DATE: 10-3-24 TIME: 11:30
Sample Receipt: Received on ice: Yes No N/A
Proper containers: Received within hold time:
Air bubbles absent from VOAs: Proper chemical preservatives:
Samples preserved at Trace: Receipt Temperature (°C): 0.4
Payment: Cash Credit Card
Check Number: _____ Amount Paid \$: _____
Notes: _____

NOTE: If any of the required information is not provided, the data may be rejected by your regulating body. Trace is not liable for rejected reports due to insufficient information.
Form 70-B-13 Effective 7/21/21