

## ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento  
880 Riverside Parkway  
West Sacramento, CA 95605  
Tel: (916)373-5600

Laboratory Job ID: 320-82750-1  
Client Project/Site: PFAS Testing

**For:**

City of Eau Claire  
1000 Ferry Street  
Eau Claire, Wisconsin 54703

Attn: Ty Fadness



*Authorized for release by:  
12/21/2021 1:22:30 PM*

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandra.fredrick@eurofinset.com](mailto:sandra.fredrick@eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	6
Isotope Dilution Summary . . . . .	8
QC Sample Results . . . . .	10
QC Association Summary . . . . .	15
Lab Chronicle . . . . .	16
Certification Summary . . . . .	17
Method Summary . . . . .	18
Sample Summary . . . . .	19
Chain of Custody . . . . .	20
Receipt Checklists . . . . .	21

# Definitions/Glossary

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Qualifiers

### LCMS

Qualifier	Qualifier Description
J	Reported value was between the limit of detection and the limit of quantitation.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

---

**Job ID: 320-82750-1**

---

**Laboratory: Eurofins TestAmerica, Sacramento**

## Narrative

**Job Narrative**  
**320-82750-1**

### Comments

No additional comments.

### Receipt

The sample was received on 12/9/2021 11:25 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.5° C.

### Receipt Exceptions

Sample containers has two Tizma lot numbers. One container lot number lists 19410205, and the other lists 19310137. Entry Point-Line 1 (320-82750-1)

### LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-551273. 320-551273 Method: 3535 PFC-W

Method 3535: The following sample was preserved with trizma: Entry Point-Line 1 (320-82750-1). Thus, the MB, LCS and LCSD also contain trizma. 320-551273 Method: 3535 PFC-W

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

Client Sample ID: Entry Point-Line 1

Lab Sample ID: 320-82750-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.8	J	4.7	2.3	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.54	J	1.9	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.63	J	1.9	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.36	J	1.9	0.24	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.26	J	1.9	0.26	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.9		1.9	0.19	ng/L	1		537 (modified)	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	1.4	J	1.9	0.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	6.4		1.9	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		1.9	0.51	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

**Client Sample ID: Entry Point-Line 1**

**Lab Sample ID: 320-82750-1**

Date Collected: 12/08/21 12:46

Matrix: Water

Date Received: 12/09/21 11:25

**Method: 537 (modified) - Fluorinated Alkyl Substances**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.8	J	4.7	2.3	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluoropentanoic acid (PFPeA)	0.54	J	1.9	0.47	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorohexanoic acid (PFHxA)	0.63	J	1.9	0.55	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluoroheptanoic acid (PFHpA)	0.36	J	1.9	0.24	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorooctanoic acid (PFOA)	<0.81		1.9	0.81	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorononanoic acid (PFNA)	0.26	J	1.9	0.26	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorodecanoic acid (PFDA)	<0.29		1.9	0.29	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluoroundecanoic acid (PFUnA)	<1.0		1.9	1.0	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorododecanoic acid (PFDoA)	<0.52		1.9	0.52	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorotridecanoic acid (PFTrDA)	<1.2		1.9	1.2	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorotetradecanoic acid (PFTeA)	<0.69		1.9	0.69	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.85		1.9	0.85	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.89		1.9	0.89	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorobutanesulfonic acid (PFBS)	1.9		1.9	0.19	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluoropentanesulfonic acid (PFPeS)	1.4	J	1.9	0.28	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorohexanesulfonic acid (PFHxS)	6.4		1.9	0.54	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.18		1.9	0.18	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorooctanesulfonic acid (PFOS)	2.1		1.9	0.51	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorononanesulfonic acid (PFNS)	<0.35		1.9	0.35	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorodecanesulfonic acid (PFDS)	<0.30		1.9	0.30	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorododecanesulfonic acid (PFDoS)	<0.92		1.9	0.92	ng/L		12/16/21 05:02	12/20/21 20:42	1
Perfluorooctanesulfonamide (FOSA)	<0.93		1.9	0.93	ng/L		12/16/21 05:02	12/20/21 20:42	1
NEtFOSA	<0.83		1.9	0.83	ng/L		12/16/21 05:02	12/20/21 20:42	1
NMeFOSA	<0.41		1.9	0.41	ng/L		12/16/21 05:02	12/20/21 20:42	1
NMeFOSAA	<1.1		4.7	1.1	ng/L		12/16/21 05:02	12/20/21 20:42	1
NEtFOSAA	<1.2		4.7	1.2	ng/L		12/16/21 05:02	12/20/21 20:42	1
NMeFOSE	<1.3		3.8	1.3	ng/L		12/16/21 05:02	12/20/21 20:42	1
NEtFOSE	<0.81		1.9	0.81	ng/L		12/16/21 05:02	12/20/21 20:42	1
4:2 FTS	<0.23		1.9	0.23	ng/L		12/16/21 05:02	12/20/21 20:42	1
6:2 FTS	<2.4		4.7	2.4	ng/L		12/16/21 05:02	12/20/21 20:42	1
8:2 FTS	<0.44		1.9	0.44	ng/L		12/16/21 05:02	12/20/21 20:42	1
10:2 FTS	<0.64		1.9	0.64	ng/L		12/16/21 05:02	12/20/21 20:42	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.38		1.9	0.38	ng/L		12/16/21 05:02	12/20/21 20:42	1
HFPO-DA (GenX)	<1.4		3.8	1.4	ng/L		12/16/21 05:02	12/20/21 20:42	1
9Cl-PF3ONS	<0.23		1.9	0.23	ng/L		12/16/21 05:02	12/20/21 20:42	1
11Cl-PF3OUdS	<0.30		1.9	0.30	ng/L		12/16/21 05:02	12/20/21 20:42	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C4 PFBA	80		25 - 150				12/16/21 05:02	12/20/21 20:42	1
13C5 PFPeA	92		25 - 150				12/16/21 05:02	12/20/21 20:42	1
13C2 PFHxA	90		25 - 150				12/16/21 05:02	12/20/21 20:42	1
13C4 PFHpA	97		25 - 150				12/16/21 05:02	12/20/21 20:42	1
13C4 PFOA	96		25 - 150				12/16/21 05:02	12/20/21 20:42	1

Eurofins TestAmerica, Sacramento

# Client Sample Results

Client: City of Eau Claire  
 Project/Site: PFAS Testing

Job ID: 320-82750-1

**Client Sample ID: Entry Point-Line 1**

**Lab Sample ID: 320-82750-1**

Date Collected: 12/08/21 12:46

Matrix: Water

Date Received: 12/09/21 11:25

**Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C5 PFNA	90		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C2 PFDA	83		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C2 PFUnA	78		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C2 PFDoA	81		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C2 PFTeDA	68		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C2 PFHxDA	58		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C3 PFBS	100		25 - 150	12/16/21 05:02	12/20/21 20:42	1
18O2 PFHxS	91		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C4 PFOS	88		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C8 FOSA	76		10 - 150	12/16/21 05:02	12/20/21 20:42	1
d3-NMeFOSAA	63		25 - 150	12/16/21 05:02	12/20/21 20:42	1
d5-NEtFOSAA	68		25 - 150	12/16/21 05:02	12/20/21 20:42	1
d-N-MeFOSA-M	67		10 - 150	12/16/21 05:02	12/20/21 20:42	1
d-N-EtFOSA-M	64		10 - 150	12/16/21 05:02	12/20/21 20:42	1
d7-N-MeFOSE-M	71		10 - 150	12/16/21 05:02	12/20/21 20:42	1
d9-N-EtFOSE-M	71		10 - 150	12/16/21 05:02	12/20/21 20:42	1
M2-4:2 FTS	105		25 - 150	12/16/21 05:02	12/20/21 20:42	1
M2-6:2 FTS	76		25 - 150	12/16/21 05:02	12/20/21 20:42	1
M2-8:2 FTS	70		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C3 HFPO-DA	74		25 - 150	12/16/21 05:02	12/20/21 20:42	1
13C2 10:2 FTS	72		25 - 150	12/16/21 05:02	12/20/21 20:42	1

# Isotope Dilution Summary

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
320-82750-1	Entry Point-Line 1	80	92	90	97	96	90	83	78
LCS 320-551273/2-A	Lab Control Sample	96	95	96	98	92	83	81	83
LCSD 320-551273/3-A	Lab Control Sample Dup	90	100	94	102	100	93	83	87
MB 320-551273/1-A	Method Blank	95	99	100	105	102	96	90	89

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	PFHxDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)
320-82750-1	Entry Point-Line 1	81	68	58	100	91	88	76	63
LCS 320-551273/2-A	Lab Control Sample	88	77	71	101	91	98	81	70
LCSD 320-551273/3-A	Lab Control Sample Dup	86	77	72	106	98	97	79	69
MB 320-551273/1-A	Method Blank	87	82	73	101	99	101	82	73

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
320-82750-1	Entry Point-Line 1	68	67	64	71	71	105	76	70
LCS 320-551273/2-A	Lab Control Sample	76	75	71	80	83	88	74	79
LCSD 320-551273/3-A	Lab Control Sample Dup	78	76	72	78	84	101	76	73
MB 320-551273/1-A	Method Blank	83	81	78	87	87	108	84	80

### Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
320-82750-1	Entry Point-Line 1	74	72
LCS 320-551273/2-A	Lab Control Sample	77	75
LCSD 320-551273/3-A	Lab Control Sample Dup	86	80
MB 320-551273/1-A	Method Blank	81	90

#### Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFDaA = 13C2 PFDaA
- PFTDA = 13C2 PFTeDA
- PFHxDA = 13C2 PFHxDA
- C3PFBS = 13C3 PFBS
- PFHxS = 18O2 PFHxS
- PFOS = 13C4 PFOS
- PFOSA = 13C8 FOSA
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- dMeFOSA = d-N-MeFOSA-M
- dEtFOSA = d-N-EtFOSA-M
- NMFM = d7-N-MeFOSE-M
- NEFM = d9-N-EtFOSE-M
- M242FTS = M2-4:2 FTS



# Isotope Dilution Summary

Client: City of Eau Claire  
Project/Site: PFAS Testing  
M262FTS = M2-6:2 FTS  
M282FTS = M2-8:2 FTS  
HFPODA = 13C3 HFPO-DA  
M102FTS = 13C2 10:2 FTS

Job ID: 320-82750-1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# QC Sample Results

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Method: 537 (modified) - Fluorinated Alkyl Substances

**Lab Sample ID: MB 320-551273/1-A**  
**Matrix: Water**  
**Analysis Batch: 552547**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 551273**

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<2.4		5.0	2.4	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluoropentanoic acid (PFPeA)	<0.49		2.0	0.49	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorohexanoic acid (PFHxA)	<0.58		2.0	0.58	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluoroheptanoic acid (PFHpA)	<0.25		2.0	0.25	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorooctanoic acid (PFOA)	<0.85		2.0	0.85	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorononanoic acid (PFNA)	<0.27		2.0	0.27	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	0.31	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluoroundecanoic acid (PFUnA)	<1.1		2.0	1.1	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorododecanoic acid (PFDoA)	<0.55		2.0	0.55	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorotridecanoic acid (PFTrDA)	<1.3		2.0	1.3	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorotetradecanoic acid (PFTeA)	<0.73		2.0	0.73	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.89		2.0	0.89	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.94		2.0	0.94	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		2.0	0.20	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluoropentanesulfonic acid (PFPeS)	<0.30		2.0	0.30	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorohexanesulfonic acid (PFHxS)	<0.57		2.0	0.57	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.19		2.0	0.19	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorooctanesulfonic acid (PFOS)	<0.54		2.0	0.54	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorononanesulfonic acid (PFNS)	<0.37		2.0	0.37	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorodecanesulfonic acid (PFDS)	<0.32		2.0	0.32	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorododecanesulfonic acid (PFDoS)	<0.97		2.0	0.97	ng/L		12/16/21 05:02	12/20/21 20:11	1
Perfluorooctanesulfonamide (FOSA)	<0.98		2.0	0.98	ng/L		12/16/21 05:02	12/20/21 20:11	1
NEtFOSA	<0.87		2.0	0.87	ng/L		12/16/21 05:02	12/20/21 20:11	1
NMeFOSA	<0.43		2.0	0.43	ng/L		12/16/21 05:02	12/20/21 20:11	1
NMeFOSAA	<1.2		5.0	1.2	ng/L		12/16/21 05:02	12/20/21 20:11	1
NEtFOSAA	<1.3		5.0	1.3	ng/L		12/16/21 05:02	12/20/21 20:11	1
NMeFOSE	<1.4		4.0	1.4	ng/L		12/16/21 05:02	12/20/21 20:11	1
NEtFOSE	<0.85		2.0	0.85	ng/L		12/16/21 05:02	12/20/21 20:11	1
4:2 FTS	<0.24		2.0	0.24	ng/L		12/16/21 05:02	12/20/21 20:11	1
6:2 FTS	<2.5		5.0	2.5	ng/L		12/16/21 05:02	12/20/21 20:11	1
8:2 FTS	<0.46		2.0	0.46	ng/L		12/16/21 05:02	12/20/21 20:11	1
10:2 FTS	<0.67		2.0	0.67	ng/L		12/16/21 05:02	12/20/21 20:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.40		2.0	0.40	ng/L		12/16/21 05:02	12/20/21 20:11	1
HFPO-DA (GenX)	<1.5		4.0	1.5	ng/L		12/16/21 05:02	12/20/21 20:11	1
9Cl-PF3ONS	<0.24		2.0	0.24	ng/L		12/16/21 05:02	12/20/21 20:11	1
11Cl-PF3OUdS	<0.32		2.0	0.32	ng/L		12/16/21 05:02	12/20/21 20:11	1
Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
13C4 PFBA	95		25 - 150	12/16/21 05:02	12/20/21 20:11	1			
13C5 PFPeA	99		25 - 150	12/16/21 05:02	12/20/21 20:11	1			
13C2 PFHxA	100		25 - 150	12/16/21 05:02	12/20/21 20:11	1			
13C4 PFHpA	105		25 - 150	12/16/21 05:02	12/20/21 20:11	1			
13C4 PFOA	102		25 - 150	12/16/21 05:02	12/20/21 20:11	1			
13C5 PFNA	96		25 - 150	12/16/21 05:02	12/20/21 20:11	1			

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: MB 320-551273/1-A**  
**Matrix: Water**  
**Analysis Batch: 552547**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 551273**

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFDA	90		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C2 PFUnA	89		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C2 PFDoA	87		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C2 PFTeDA	82		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C2 PFHxDA	73		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C3 PFBS	101		25 - 150	12/16/21 05:02	12/20/21 20:11	1
18O2 PFHxS	99		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C4 PFOS	101		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C8 FOSA	82		10 - 150	12/16/21 05:02	12/20/21 20:11	1
d3-NMeFOSAA	73		25 - 150	12/16/21 05:02	12/20/21 20:11	1
d5-NEtFOSAA	83		25 - 150	12/16/21 05:02	12/20/21 20:11	1
d-N-MeFOSA-M	81		10 - 150	12/16/21 05:02	12/20/21 20:11	1
d-N-EtFOSA-M	78		10 - 150	12/16/21 05:02	12/20/21 20:11	1
d7-N-MeFOSE-M	87		10 - 150	12/16/21 05:02	12/20/21 20:11	1
d9-N-EtFOSE-M	87		10 - 150	12/16/21 05:02	12/20/21 20:11	1
M2-4:2 FTS	108		25 - 150	12/16/21 05:02	12/20/21 20:11	1
M2-6:2 FTS	84		25 - 150	12/16/21 05:02	12/20/21 20:11	1
M2-8:2 FTS	80		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C3 HFPO-DA	81		25 - 150	12/16/21 05:02	12/20/21 20:11	1
13C2 10:2 FTS	90		25 - 150	12/16/21 05:02	12/20/21 20:11	1

**Lab Sample ID: LCS 320-551273/2-A**  
**Matrix: Water**  
**Analysis Batch: 552547**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 551273**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	40.0	41.5		ng/L		104	60 - 135
Perfluoropentanoic acid (PFPeA)	40.0	38.4		ng/L		96	60 - 135
Perfluorohexanoic acid (PFHxA)	40.0	38.5		ng/L		96	60 - 135
Perfluoroheptanoic acid (PFHpA)	40.0	38.0		ng/L		95	60 - 135
Perfluorooctanoic acid (PFOA)	40.0	37.2		ng/L		93	60 - 135
Perfluorononanoic acid (PFNA)	40.0	39.0		ng/L		97	60 - 135
Perfluorodecanoic acid (PFDA)	40.0	39.5		ng/L		99	60 - 135
Perfluoroundecanoic acid (PFUnA)	40.0	39.0		ng/L		98	60 - 135
Perfluorododecanoic acid (PFDoA)	40.0	38.4		ng/L		96	60 - 135
Perfluorotridecanoic acid (PFTTrDA)	40.0	30.6		ng/L		77	60 - 135
Perfluorotetradecanoic acid (PFTeA)	40.0	36.8		ng/L		92	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	42.1		ng/L		105	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	40.0	35.1		ng/L		88	60 - 135
Perfluorobutanesulfonic acid (PFBS)	35.4	33.5		ng/L		95	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	37.5	35.4		ng/L		94	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	36.4	37.2		ng/L		102	60 - 135

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-551273/2-A**  
**Matrix: Water**  
**Analysis Batch: 552547**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 551273**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	34.1		ng/L		90	60 - 135
Perfluorooctanesulfonic acid (PFOS)	37.1	33.3		ng/L		90	60 - 135
Perfluorononanesulfonic acid (PFNS)	38.4	34.1		ng/L		89	60 - 135
Perfluorodecanesulfonic acid (PFDS)	38.6	35.7		ng/L		93	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	38.7	29.8		ng/L		77	60 - 135
Perfluorooctanesulfonamide (FOSA)	40.0	38.5		ng/L		96	60 - 135
NEtFOSA	40.0	41.0		ng/L		103	60 - 135
NMeFOSA	40.0	44.4		ng/L		111	60 - 135
NMeFOSAA	40.0	37.4		ng/L		93	60 - 135
NEtFOSAA	40.0	36.2		ng/L		91	60 - 135
NMeFOSE	40.0	41.1		ng/L		103	60 - 135
NEtFOSE	40.0	36.4		ng/L		91	60 - 135
4:2 FTS	37.4	36.0		ng/L		96	60 - 135
6:2 FTS	37.9	32.5		ng/L		86	60 - 135
8:2 FTS	38.3	35.1		ng/L		92	60 - 135
10:2 FTS	38.6	35.9		ng/L		93	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	35.5		ng/L		94	60 - 135
HFPO-DA (GenX)	40.0	38.1		ng/L		95	60 - 135
9CI-PF3ONS	37.3	28.9		ng/L		78	60 - 135
11CI-PF3OUdS	37.7	29.4		ng/L		78	60 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	96		25 - 150
13C5 PFPeA	95		25 - 150
13C2 PFHxA	96		25 - 150
13C4 PFHpA	98		25 - 150
13C4 PFOA	92		25 - 150
13C5 PFNA	83		25 - 150
13C2 PFDA	81		25 - 150
13C2 PFUnA	83		25 - 150
13C2 PFDoA	88		25 - 150
13C2 PFTeDA	77		25 - 150
13C2 PFHxDA	71		25 - 150
13C3 PFBS	101		25 - 150
18O2 PFHxS	91		25 - 150
13C4 PFOS	98		25 - 150
13C8 FOSA	81		10 - 150
d3-NMeFOSAA	70		25 - 150
d5-NEtFOSAA	76		25 - 150
d-N-MeFOSA-M	75		10 - 150
d-N-EtFOSA-M	71		10 - 150
d7-N-MeFOSE-M	80		10 - 150
d9-N-EtFOSE-M	83		10 - 150

# QC Sample Results

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCS 320-551273/2-A**  
**Matrix: Water**  
**Analysis Batch: 552547**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 551273**

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
M2-4:2 FTS	88		25 - 150
M2-6:2 FTS	74		25 - 150
M2-8:2 FTS	79		25 - 150
13C3 HFPO-DA	77		25 - 150
13C2 10:2 FTS	75		25 - 150

**Lab Sample ID: LCSD 320-551273/3-A**  
**Matrix: Water**  
**Analysis Batch: 552547**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 551273**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	40.0	45.2		ng/L		113	60 - 135	9	30
Perfluoropentanoic acid (PFPeA)	40.0	36.0		ng/L		90	60 - 135	6	30
Perfluorohexanoic acid (PFHxA)	40.0	38.4		ng/L		96	60 - 135	0	30
Perfluoroheptanoic acid (PFHpA)	40.0	36.7		ng/L		92	60 - 135	4	30
Perfluorooctanoic acid (PFOA)	40.0	34.7		ng/L		87	60 - 135	7	30
Perfluorononanoic acid (PFNA)	40.0	38.1		ng/L		95	60 - 135	2	30
Perfluorodecanoic acid (PFDA)	40.0	37.3		ng/L		93	60 - 135	6	30
Perfluoroundecanoic acid (PFUnA)	40.0	40.5		ng/L		101	60 - 135	4	30
Perfluorododecanoic acid (PFDoA)	40.0	38.3		ng/L		96	60 - 135	0	30
Perfluorotridecanoic acid (PFTrDA)	40.0	33.1		ng/L		83	60 - 135	8	30
Perfluorotetradecanoic acid (PFTeA)	40.0	37.9		ng/L		95	60 - 135	3	30
Perfluoro-n-hexadecanoic acid (PFHxDA)	40.0	41.7		ng/L		104	60 - 135	1	30
Perfluoro-n-octadecanoic acid (PFODA)	40.0	32.1		ng/L		80	60 - 135	9	30
Perfluorobutanesulfonic acid (PFBS)	35.4	29.6		ng/L		84	60 - 135	12	30
Perfluoropentanesulfonic acid (PFPeS)	37.5	33.5		ng/L		89	60 - 135	5	30
Perfluorohexanesulfonic acid (PFHxS)	36.4	38.5		ng/L		106	60 - 135	3	30
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	35.8		ng/L		94	60 - 135	5	30
Perfluorooctanesulfonic acid (PFOS)	37.1	34.5		ng/L		93	60 - 135	3	30
Perfluorononanesulfonic acid (PFNS)	38.4	35.1		ng/L		91	60 - 135	3	30
Perfluorodecanesulfonic acid (PFDS)	38.6	35.8		ng/L		93	60 - 135	0	30
Perfluorododecanesulfonic acid (PFDoS)	38.7	28.9		ng/L		75	60 - 135	3	30
Perfluorooctanesulfonamide (FOSA)	40.0	40.1		ng/L		100	60 - 135	4	30
NEtFOSA	40.0	40.7		ng/L		102	60 - 135	1	30
NMeFOSA	40.0	41.4		ng/L		103	60 - 135	7	30
NMeFOSAA	40.0	37.7		ng/L		94	60 - 135	1	30
NEtFOSAA	40.0	36.0		ng/L		90	60 - 135	1	30
NMeFOSE	40.0	39.8		ng/L		99	60 - 135	3	30

Eurofins TestAmerica, Sacramento

# QC Sample Results

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

**Lab Sample ID: LCSD 320-551273/3-A**  
**Matrix: Water**  
**Analysis Batch: 552547**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 551273**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
NEtFOSE	40.0	35.8		ng/L		89	60 - 135	2	30
4:2 FTS	37.4	33.3		ng/L		89	60 - 135	8	30
6:2 FTS	37.9	35.0		ng/L		92	60 - 135	7	30
8:2 FTS	38.3	37.3		ng/L		97	60 - 135	6	30
10:2 FTS	38.6	34.0		ng/L		88	60 - 135	5	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.7	37.2		ng/L		99	60 - 135	5	30
HFPO-DA (GenX)	40.0	39.6		ng/L		99	60 - 135	4	30
9CI-PF3ONS	37.3	33.5		ng/L		90	60 - 135	15	30
11CI-PF3OUdS	37.7	30.4		ng/L		81	60 - 135	3	30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	90		25 - 150
13C5 PFPeA	100		25 - 150
13C2 PFHxA	94		25 - 150
13C4 PFHpA	102		25 - 150
13C4 PFOA	100		25 - 150
13C5 PFNA	93		25 - 150
13C2 PFDA	83		25 - 150
13C2 PFUnA	87		25 - 150
13C2 PFDoA	86		25 - 150
13C2 PFTeDA	77		25 - 150
13C2 PFHxDA	72		25 - 150
13C3 PFBS	106		25 - 150
18O2 PFHxS	98		25 - 150
13C4 PFOS	97		25 - 150
13C8 FOSA	79		10 - 150
d3-NMeFOSAA	69		25 - 150
d5-NEtFOSAA	78		25 - 150
d-N-MeFOSA-M	76		10 - 150
d-N-EtFOSA-M	72		10 - 150
d7-N-MeFOSE-M	78		10 - 150
d9-N-EtFOSE-M	84		10 - 150
M2-4:2 FTS	101		25 - 150
M2-6:2 FTS	76		25 - 150
M2-8:2 FTS	73		25 - 150
13C3 HFPO-DA	86		25 - 150
13C2 10:2 FTS	80		25 - 150

# QC Association Summary

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## LCMS

### Prep Batch: 551273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-82750-1	Entry Point-Line 1	Total/NA	Water	3535	
MB 320-551273/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-551273/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-551273/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

### Analysis Batch: 552547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-82750-1	Entry Point-Line 1	Total/NA	Water	537 (modified)	551273
MB 320-551273/1-A	Method Blank	Total/NA	Water	537 (modified)	551273
LCS 320-551273/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	551273
LCSD 320-551273/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	551273

# Lab Chronicle

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

**Client Sample ID: Entry Point-Line 1**

**Lab Sample ID: 320-82750-1**

**Date Collected: 12/08/21 12:46**

**Matrix: Water**

**Date Received: 12/09/21 11:25**

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dil Factor</u>	<u>Initial Amount</u>	<u>Final Amount</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3535			263.2 mL	10.0 mL	551273	12/16/21 05:02	EG	TAL SAC
Total/NA	Analysis	537 (modified)		1			552547	12/20/21 20:42	K1S	TAL SAC

**Laboratory References:**

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



# Accreditation/Certification Summary

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

## Laboratory: Eurofins TestAmerica, Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-22

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Method Summary

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
3535	Solid-Phase Extraction (SPE)	SW846	TAL SAC

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



# Sample Summary

Client: City of Eau Claire  
Project/Site: PFAS Testing

Job ID: 320-82750-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-82750-1	Entry Point-Line 1	Water	12/08/21 12:46	12/09/21 11:25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15



# Login Sample Receipt Checklist

Client: City of Eau Claire

Job Number: 320-82750-1

**Login Number: 82750**  
**List Number: 1**  
**Creator: Nelson, Kym D**

**List Source: Eurofins TestAmerica, Sacramento**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1656202
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

