

ANALYTICAL REPORT

Eurofins Eaton Analytical - South Bend
110 S Hill Street
South Bend, IN 46617
Tel: (574)233-4777

Laboratory Job ID: 810-4807-1

Client Project/Site: PFAS - Georgetown Water

For:

Georgetown Water Department
1 Moulton Street
Georgetown, Massachusetts 01833

Attn: Marlene Ladderbush



Authorized for release by:
10/29/2021 2:03:45 PM

Nathan Trowbridge, Manager of Project Management
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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.



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Definitions/Glossary

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Job ID: 810-4807-1

Laboratory: Eurofins Eaton Analytical - South Bend

Narrative

Job Narrative
810-4807-1

Comments

No additional comments.

Receipt

The samples were received on 10/13/2021 9:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 6.4° C.

LCMS

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

Organic Prep

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



Detection Summary

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Client Sample ID: 3105000 Entry Pt
PWSID Number: 3105000

Lab Sample ID: 810-4807-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0		ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	0.93	J	2.0		ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	1.9	J	2.0		ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.63	J	2.0		ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.87	J	2.0		ng/L	1		537.1	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.68	J	2.0		ng/L	1		537.1	Total/NA
PFAS Total	2.30		2.00		ng/L	1		PFAS6	Total/NA

Client Sample ID: 3105000 Entry Pt FTB
PWSID Number: 3105000

Lab Sample ID: 810-4807-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical - South Bend

Client Sample Results

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Client Sample ID: 3105000 Entry Pt

Lab Sample ID: 810-4807-1

Date Collected: 10/12/21 08:00

Matrix: Drinking Water

Date Received: 10/13/21 09:15

PWSID Number: 3105000

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorohexanoic acid (PFHxA)	0.93	J	2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorooctanoic acid (PFOA)	1.9	J	2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorohexanesulfonic acid (PFHxS)	0.63	J	2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorobutanesulfonic acid (PFBS)	0.87	J	2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluoroheptanoic acid (PFHpA)	0.68	J	2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 08:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	105		70 - 130	10/15/21 05:15	10/19/21 08:17	1
13C2 PFDA	104		70 - 130	10/15/21 05:15	10/19/21 08:17	1
13C3 HFPO-DA	105		70 - 130	10/15/21 05:15	10/19/21 08:17	1
d5-NEtFOSAA	92		70 - 130	10/15/21 05:15	10/19/21 08:17	1

Method: PFAS6 - PFAS6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PFAS Total	2.30		2.00		ng/L			10/19/21 08:17	1

Client Sample ID: 3105000 Entry Pt FTB

Lab Sample ID: 810-4807-2

Date Collected: 10/12/21 08:00

Matrix: Drinking Water

Date Received: 10/13/21 09:15

PWSID Number: 3105000

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluoroundecanoic acid (PFUnA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorohexanoic acid (PFHxA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorododecanoic acid (PFDoA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorooctanoic acid (PFOA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorodecanoic acid (PFDA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluoroheptanoic acid (PFHpA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1

Eurofins Eaton Analytical - South Bend

Client Sample Results

Client: Georgetown Water Department
 Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Client Sample ID: 3105000 Entry Pt FTB

Lab Sample ID: 810-4807-2

Date Collected: 10/12/21 08:00

Matrix: Drinking Water

Date Received: 10/13/21 09:15

PWSID Number: 3105000

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.8		ng/L		10/15/21 05:15	10/19/21 08:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	101		70 - 130	10/15/21 05:15	10/19/21 08:43	1
13C2 PFDA	104		70 - 130	10/15/21 05:15	10/19/21 08:43	1
13C3 HFPO-DA	91		70 - 130	10/15/21 05:15	10/19/21 08:43	1
d5-NEtFOSAA	93		70 - 130	10/15/21 05:15	10/19/21 08:43	1

Method: PFAS6 - PFAS6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PFAS Total	ND		2.00		ng/L			10/19/21 08:43	1



Per- and Polyfluoroalkyl Substances (PFAS) Report

Page 1 of 2

I. PWS INFORMATION: Please refer to your MassDEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: 3105000 City / Town: Georgetown
 PWS Name: GEORGETOWN WATER DEPARTMENT PWS Class: COM NTNC TNC

MassDEP LOCATION (LOC) ID#	MassDEP Location Name	Sample Information		Date Collected	Collected By
10010	WEST ST. WTP (3G,4G,5G) FINISHED WATER	<input checked="" type="checkbox"/> (M)ultiple <input type="checkbox"/> (S)ingle	<input type="checkbox"/> (R)aw <input checked="" type="checkbox"/> (F)inished	10/12/2021	M. Ladderbush
Routine or Special Sample	Original, Resubmitted or Confirmation Report	If Resubmitted Report, list below:			
		(1) Reason for Resubmission		(2) Collection Date of Original Sample	
<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation	<input type="checkbox"/> Resample	<input type="checkbox"/> Reanalysis	<input type="checkbox"/> Report Correction	
SAMPLE COMMENTS — Such as, if a Manifold/Multiple sample, list the source(s) that were on-line during sample collection or if this is a field reagent blank.					

II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #: M-IN035 Primary Lab Name: Eurofins Eaton Analytical - South Bend Subcontracted? (Y/N) N
 Analysis Lab MA Cert. #: M-IN035 Analysis Lab Name: Eurofins Eaton Analytical - South Bend
 If Analysis Lab is not certified by MassDEP or U.S. EPA, list certification authority:

Lab Method	Date Extracted	Date Analyzed	Dilution Factor	Lab Sample ID#	
537.1	10/15/2021	10/19/2021	1	Primary Lab:	810-4807-1
				Subcontracted Lab:	810-4807-1

CAS#	REGULATED PFAS CONTAMINANTS	Result ¹ ng/L	Result ² Qualifier	MCL* ng/L	MDL ng/L	MRL ng/L
1763-23-1	Perfluorooctane Sulfonic Acid (PFOS)	2.3		-	0.39	2.0
335-67-1	Perfluorooctanoic Acid (PFOA)	1.9	J	-	0.39	2.0
355-46-4	Perfluorohexane Sulfonic Acid (PFHxS)	0.63	J	-	0.49	2.0
375-95-1	Perfluorononanoic Acid (PFNA)	ND		-	0.49	2.0
375-85-9	Perfluorohepatanoic Acid (PFHpA)	0.68	J	-	0.39	2.0
335-76-2	Perfluorodecanoic acid (PFDA)	ND		-	0.49	2.0
PFAS6 (sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and PFDA; only include Results at or above the MRL; do not include estimated Results as described by a Result Qualifier in the next column)		2.30	--	20	-	-
UNREGULATED PFAS CONTAMINANTS						
375-73-5	Perfluorobutane sulfonic acid (PFBS)	0.87	J	-	0.39	2.0
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		-	0.39	2.0
307-24-4	Perfluorohexanoic acid (PFHxA)	0.93	J	-	0.39	2.0
376-06-7	Perfluorotetradecanoic acid (PFTA)	ND		-	0.59	2.0
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		-	0.49	2.0
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		-	0.49	2.0
2991-50-6	N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		-	0.59	2.0
2355-31-9	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		-	0.49	2.0
763051-92-9	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		-	0.49	2.0
756426-58-1	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	ND		-	0.49	2.0
919005-14-4	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND		-	0.60	2.0
13252-13-6	Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND		-	0.49	2.0

¹ A field reagent blank (FRB) must be analyzed and reported on a separate PFAS form if any PFAS are detected above the MRL.

² All qualifiers must be described under Lab Analysis Comments on page 2.



Per- and Polyfluoroalkyl Substances (PFAS) Report

Page 2 of 2

PWS ID #:

3105000

Lab Sample ID #:

Primary Lab: 810-4807-1

Subcontracted Lab: 810-4807-1

Table with 7 columns: CAS#, UNREGULATED PFAS CONTAMINANTS, Result ng/L, Result Qualifier, MCL* ng/L, MDL ng/L, MRL ng/L. All MCL, MDL, and MRL values are currently blank or marked with a dash.

Table with 3 columns: Surrogate Name, % Recovery (70 — 130%), Alternate Surrogate (must document reason for change). Rows include 13C2-PFHxA (105%), 13C2-PFDA (104%), d5-NEtFOSAA (92%), and 13C3-HFPO-DA (105%).

Note: 13C3-HFDO-DA is not required for EPA Method 537 v1.1

In addition to the SUR above you must attach the results of the ongoing QC results as specified by the method for the sample's extraction batch.

☑ Laboratory analytical report with QC attached (check one item below).

☑ All associated QC criteria reported within control limits including Lab Reagent/Method Blank (LRB), Field Reagent Blank (FRB), Surrogate Standards (SUR), Laboratory Fortified Blank (LFB), Matrix Spike/Duplicate (LFSM/LFSMD or FD) and RPD.

☐ All associated sample and/or QC batch criteria not met. See Lab Analysis Comments below and narrative in attached report.

Lab Analysis Comments: (include sample/method parameters outside of or affecting QC controls/limits and result qualifiers)

Table with 2 columns: Result Qualifier, Qualifier Description. Row 1: J, Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. Row 2: Other Analysis Comments.

* MCL or proposed MCL

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Authorized Signature:

[Handwritten Signature]

Nathan Trowbridge, Manager of Project Management

Date: 10/29/2021

If not submitting these results electronically, mail TWO copies of this report to your MassDEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner. Note that during the Massachusetts COVID-19 state of emergency, in addition to submitting by mail, reports may be emailed to program.director-dwp@mass.gov.

Table with 3 columns: MassDEP REVIEW STATUS (Initial and Date), Review Comments, WQTS Data Entered. Includes checkboxes for Accepted and Disapproved.

Surrogate Summary

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Drinking Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFHxA	PFDA	HFPODA	d5NEFOS
		(70-130)	(70-130)	(70-130)	(70-130)
810-4807-1	3105000 Entry Pt	105	104	105	92
810-4807-1 LMS	3105000 Entry Pt	106	105	105	91
810-4807-2	3105000 Entry Pt FTB	101	104	91	93
LLCS 810-5309/2-A	Lab Control Sample	107	109	106	106
MB 810-5309/1-A	Method Blank	104	102	94	88

Surrogate Legend

PFHxA = 13C2 PFHxA

PFDA = 13C2 PFDA

HFPODA = 13C3 HFPO-DA

d5NEFOS = d5-NEtFOSAA

QC Sample Results

Client: Georgetown Water Department
 Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MB 810-5309/1-A
Matrix: Drinking Water
Analysis Batch: 5466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5309

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		10/15/21 05:15	10/19/21 05:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	104		70 - 130	10/15/21 05:15	10/19/21 05:40	1
13C2 PFDA	102		70 - 130	10/15/21 05:15	10/19/21 05:40	1
13C3 HFPO-DA	94		70 - 130	10/15/21 05:15	10/19/21 05:40	1
d5-NEtFOSAA	88		70 - 130	10/15/21 05:15	10/19/21 05:40	1

Lab Sample ID: LLCS 810-5309/2-A
Matrix: Drinking Water
Analysis Batch: 5466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5309

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonic acid (PFOS)	1.99	1.86	J	ng/L		94	50 - 150
Perfluoroundecanoic acid (PFUnA)	1.99	1.87	J	ng/L		94	50 - 150
Perfluorohexanoic acid (PFHxA)	1.99	1.85	J	ng/L		93	50 - 150
Perfluorododecanoic acid (PFDoA)	1.99	1.84	J	ng/L		92	50 - 150
Perfluorooctanoic acid (PFOA)	1.99	1.93	J	ng/L		97	50 - 150
Perfluorodecanoic acid (PFDA)	1.99	1.82	J	ng/L		91	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	1.99	1.83	J	ng/L		92	50 - 150
Perfluorobutanesulfonic acid (PFBS)	1.99	1.67	J	ng/L		84	50 - 150
Perfluoroheptanoic acid (PFHpA)	1.99	1.82	J	ng/L		92	50 - 150
Perfluorononanoic acid (PFNA)	1.99	1.88	J	ng/L		94	50 - 150

Eurofins Eaton Analytical - South Bend

QC Sample Results

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: LLCS 810-5309/2-A
Matrix: Drinking Water
Analysis Batch: 5466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5309

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorotetradecanoic acid (PFTeDA)	1.99	1.67	J	ng/L		84	50 - 150
Perfluorotridecanoic acid (PFTrDA)	1.99	1.78	J	ng/L		89	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.99	1.72	J	ng/L		86	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.99	1.84	J	ng/L		93	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	1.99	1.76	J	ng/L		89	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	1.99	1.89	J	ng/L		95	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	1.99	1.81	J	ng/L		91	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.99	1.85	J	ng/L		93	50 - 150

Surrogate	LLCS %Recovery	LLCS Qualifier	LLCS Limits
13C2 PFHxA	107		70 - 130
13C2 PFDA	109		70 - 130
13C3 HFPO-DA	106		70 - 130
d5-NEtFOSAA	106		70 - 130

Lab Sample ID: 810-4807-1 LMS
Matrix: Drinking Water
Analysis Batch: 5466

Client Sample ID: 3105000 Entry Pt
Prep Type: Total/NA
Prep Batch: 5309

Analyte	Sample Result	Sample Qualifier	Spike Added	LMS Result	LMS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonic acid (PFOS)	2.3		1.91	4.01		ng/L		88	50 - 150
Perfluoroundecanoic acid (PFUnA)	ND		1.91	1.87	J	ng/L		98	50 - 150
Perfluorohexanoic acid (PFHxA)	0.93	J	1.91	2.63		ng/L		89	50 - 150
Perfluorododecanoic acid (PFDoA)	ND		1.91	1.73	J	ng/L		91	50 - 150
Perfluorooctanoic acid (PFOA)	1.9	J	1.91	3.64		ng/L		93	50 - 150
Perfluorodecanoic acid (PFDA)	ND		1.91	1.88	J	ng/L		99	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	0.63	J	1.91	2.34		ng/L		90	50 - 150
Perfluorobutanesulfonic acid (PFBS)	0.87	J	1.91	2.57		ng/L		89	50 - 150
Perfluoroheptanoic acid (PFHpA)	0.68	J	1.91	2.36		ng/L		88	50 - 150
Perfluorononanoic acid (PFNA)	ND		1.91	2.15		ng/L		113	50 - 150
Perfluorotetradecanoic acid (PFTeDA)	ND		1.91	1.45	J	ng/L		76	50 - 150
Perfluorotridecanoic acid (PFTrDA)	ND		1.91	1.61	J	ng/L		85	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		1.91	1.47	J	ng/L		77	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		1.91	1.63	J	ng/L		86	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		1.91	1.84	J	ng/L		97	50 - 150

Eurofins Eaton Analytical - South Bend

QC Sample Results

Client: Georgetown Water Department
 Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 810-4807-1 LMS
Matrix: Drinking Water
Analysis Batch: 5466

Client Sample ID: 3105000 Entry Pt
Prep Type: Total/NA
Prep Batch: 5309

Analyte	Sample Result	Sample Qualifier	Spike Added	LMS Result	LMS Qualifier	Unit	D	%Rec	%Rec. Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	ND		1.91	1.76	J	ng/L		92	50 - 150
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid	ND		1.91	1.62	J	ng/L		85	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.91	1.70	J	ng/L		89	50 - 150
Surrogate	LMS %Recovery	LMS Qualifier	Limits						
13C2 PFHxA	106		70 - 130						
13C2 PFDA	105		70 - 130						
13C3 HFPO-DA	105		70 - 130						
d5-NEFOSAA	91		70 - 130						



QC Association Summary

Client: Georgetown Water Department
 Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

LCMS

Prep Batch: 5309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-4807-1	3105000 Entry Pt	Total/NA	Drinking Water	537.1 DW	
810-4807-2	3105000 Entry Pt FTB	Total/NA	Drinking Water	537.1 DW	
MB 810-5309/1-A	Method Blank	Total/NA	Drinking Water	537.1 DW	
LLCS 810-5309/2-A	Lab Control Sample	Total/NA	Drinking Water	537.1 DW	
810-4807-1 LMS	3105000 Entry Pt	Total/NA	Drinking Water	537.1 DW	

Analysis Batch: 5466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-4807-1	3105000 Entry Pt	Total/NA	Drinking Water	537.1	5309
810-4807-2	3105000 Entry Pt FTB	Total/NA	Drinking Water	537.1	5309
MB 810-5309/1-A	Method Blank	Total/NA	Drinking Water	537.1	5309
LLCS 810-5309/2-A	Lab Control Sample	Total/NA	Drinking Water	537.1	5309
810-4807-1 LMS	3105000 Entry Pt	Total/NA	Drinking Water	537.1	5309

Analysis Batch: 6016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-4807-1	3105000 Entry Pt	Total/NA	Drinking Water	PFAS6	
810-4807-2	3105000 Entry Pt FTB	Total/NA	Drinking Water	PFAS6	



Lab Chronicle

Client: Georgetown Water Department
 Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Client Sample ID: 3105000 Entry Pt

Date Collected: 10/12/21 08:00

Date Received: 10/13/21 09:15

Lab Sample ID: 810-4807-1

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537.1 DW			5309	10/15/21 05:15	TR	EA SB
Total/NA	Analysis	537.1		1	5466	10/19/21 08:17	MH	EA SB
Total/NA	Analysis	PFAS6		1	6016	10/19/21 08:17	MH	EA SB

Client Sample ID: 3105000 Entry Pt FTB

Date Collected: 10/12/21 08:00

Date Received: 10/13/21 09:15

Lab Sample ID: 810-4807-2

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537.1 DW			5309	10/15/21 05:15	TR	EA SB
Total/NA	Analysis	537.1		1	5466	10/19/21 08:43	MH	EA SB
Total/NA	Analysis	PFAS6		1	6016	10/19/21 08:43	MH	EA SB

Laboratory References:

EA SB = Eurofins Eaton Analytical - South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777



Accreditation/Certification Summary

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Laboratory: Eurofins Eaton Analytical - South Bend

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-IN035	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
PFAS6		Drinking Water	PFAS Total



Method Summary

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Method	Method Description	Protocol	Laboratory
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA SB
PFAS6	PFAS6	EPA	EA SB
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton Analytical - South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777



Sample Summary

Client: Georgetown Water Department
Project/Site: PFAS - Georgetown Water

Job ID: 810-4807-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
810-4807-1	3105000 Entry Pt	Drinking Water	10/12/21 08:00	10/13/21 09:15	3105000
810-4807-2	3105000 Entry Pt FTB	Drinking Water	10/12/21 08:00	10/13/21 09:15	3105000

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Login Sample Receipt Checklist

Client: Georgetown Water Department

Job Number: 810-4807-1

Login Number: 4807

List Source: Eurofins Eaton Analytical - South Bend

List Number: 1

Creator: DePriest, Kellie

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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	
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	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	