

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Mike Lankford
Gadsden Water Works
515 Albert Rains Blvd
Gadsden, Alabama 35901

Generated 9/28/2023 8:16:02 AM

JOB DESCRIPTION

PFAS

JOB NUMBER

810-76576-1

Case Narrative

Client: Gadsden Water Works
Project/Site: PFAS

Job ID: 810-76576-1

Job ID: 810-76576-1

Laboratory: Eurofins Eaton Analytical South Bend

Narrative

Job Narrative 810-76576-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/7/2023 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 time was 1.4°C

PFAS

Method 537.1_DW_PREC: The laboratory control sample (LCS) for preparation batch 810-74097 and analytical batch 810-74173 recovered outside of method 537.1 control limits for the following analytes: N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) and Perfluorotetradecanoic acid (PFTeDA). These analytes were biased low in the LCS. N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) was recovered at 66% and Perfluorotetradecanoic acid (PFTeDA) was recovered at 51%. Limits 70-130%. Sample 810-76576-4 could not be re-extracted due to insufficient volume. The affected analytes were not detected in the associated sample; therefore, the data have been reported.

Method 537.1_DW_PREC: Surrogate recovery for the following sample was outside of method 537.1 control limits: GADSDEN - FW - FB (810-76576-4). The following surrogates were recovered below method limits: 13C2 PFHxA (57%), 13C3 HFPO-DA (51%), and d5-NEtFOSAA (68%). Limits 70-130%. Re-extraction could not be performed due to insufficient sample volume.

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

Client Sample Results

Client: Gadsden Water Works
Project/Site: PFAS

Job ID: 810-76576-1

Client Sample ID: GADSDEN - RW

Lab Sample ID: 810-76576-1

Date Collected: 09/05/23 20:10

Matrix: Drinking Water

Date Received: 09/07/23 09:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.000040		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluoroundecanoic acid (PFUnA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorohexanoic acid (PFHxA)	0.000024		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorododecanoic acid (PFDoA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorooctanoic acid (PFOA)	0.000029		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorodecanoic acid (PFDA)	0.000044		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorohexanesulfonic acid (PFHxS)	0.000038		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorobutanesulfonic acid (PFBS)	0.000095		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluoroheptanoic acid (PFHpA)	0.000099		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorononanoic acid (PFNA)	0.000026		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorotetradecanoic acid (PFTeDA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Perfluorotridecanoic acid (PFTrDA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.000020		0.000020	mg/L		09/13/23 06:55	09/14/23 10:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C2 PFHxA	82		70 - 130			09/13/23 06:55	09/14/23 10:50	1
13C2 PFDA	102		70 - 130			09/13/23 06:55	09/14/23 10:50	1
13C3 HFPO-DA	90		70 - 130			09/13/23 06:55	09/14/23 10:50	1
d5-NEtFOSAA	95		70 - 130			09/13/23 06:55	09/14/23 10:50	1

Client Sample ID: GADSDEN - RW - FB

Lab Sample ID: 810-76576-2

Date Collected: 09/05/23 20:10

Matrix: Drinking Water

Date Received: 09/07/23 09:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluoroundecanoic acid (PFUnA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorohexanoic acid (PFHxA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorododecanoic acid (PFDoA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorooctanoic acid (PFOA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorodecanoic acid (PFDA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorohexanesulfonic acid (PFHxS)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorobutanesulfonic acid (PFBS)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluoroheptanoic acid (PFHpA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorononanoic acid (PFNA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorotetradecanoic acid (PFTeDA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Perfluorotridecanoic acid (PFTrDA)	<0.000019		0.000019	mg/L		09/19/23 08:12	09/19/23 23:40	1

Eurofins Eaton Analytical South Bend

Client Sample Results

Client: Gadsden Water Works
Project/Site: PFAS

Job ID: 810-76576-1

Client Sample ID: GADSDEN - RW - FB

Date Collected: 09/05/23 20:10

Date Received: 09/07/23 09:15

Lab Sample ID: 810-76576-2

Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.0000019		0.0000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.0000019		0.0000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<0.0000019		0.0000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.0000019		0.0000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<0.0000019		0.0000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.0000019		0.0000019	mg/L		09/19/23 08:12	09/19/23 23:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C2 PFHxA	84		70 - 130			09/19/23 08:12	09/19/23 23:40	1
13C2 PFDA	82		70 - 130			09/19/23 08:12	09/19/23 23:40	1
13C3 HFPO-DA	81		70 - 130			09/19/23 08:12	09/19/23 23:40	1
d5-NEtFOSAA	83		70 - 130			09/19/23 08:12	09/19/23 23:40	1

Client Sample ID: GADSDEN - FW

Date Collected: 09/06/23 11:00

Date Received: 09/07/23 09:15

Lab Sample ID: 810-76576-3

Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.000020		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluoroundecanoic acid (PFUnA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorohexanoic acid (PFHxA)	0.000016		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorododecanoic acid (PFDoA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorooctanoic acid (PFOA)	0.000015		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorodecanoic acid (PFDA)	0.000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorohexanesulfonic acid (PFHxS)	0.000021		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorobutanesulfonic acid (PFBS)	0.000056		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluoroheptanoic acid (PFHpA)	0.000057		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorononanoic acid (PFNA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorotetradecanoic acid (PFTeDA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Perfluorotridecanoic acid (PFTrDA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.0000019		0.0000019	mg/L		09/14/23 09:43	09/16/23 07:03	1

Client Sample Results

Client: Gadsden Water Works
Project/Site: PFAS

Job ID: 810-76576-1

Client Sample ID: GADSDEN - FW

Date Collected: 09/06/23 11:00

Date Received: 09/07/23 09:15

Lab Sample ID: 810-76576-3

Matrix: Drinking Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	102		70 - 130	09/14/23 09:43	09/16/23 07:03	1
13C2 PFDA	100		70 - 130	09/14/23 09:43	09/16/23 07:03	1
13C3 HFPO-DA	100		70 - 130	09/14/23 09:43	09/16/23 07:03	1
d5-NEtFOSAA	105		70 - 130	09/14/23 09:43	09/16/23 07:03	1

Client Sample ID: GADSDEN - FW - FB

Date Collected: 09/06/23 11:00

Date Received: 09/07/23 09:15

Lab Sample ID: 810-76576-4

Matrix: Drinking Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluoroundecanoic acid (PFUnA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorohexanoic acid (PFHxA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorododecanoic acid (PFDoA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorooctanoic acid (PFOA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorodecanoic acid (PFDA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorohexanesulfonic acid (PFHxS)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorobutanesulfonic acid (PFBS)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluoroheptanoic acid (PFHpA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorononanoic acid (PFNA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorotetradecanoic acid (PFTeDA)	<0.0000019	*	0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Perfluorotridecanoic acid (PFTTrDA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.0000019	*	0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.0000019		0.0000019	mg/L		09/20/23 07:51	09/21/23 00:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	57	S1-	70 - 130	09/20/23 07:51	09/21/23 00:57	1
13C2 PFDA	72		70 - 130	09/20/23 07:51	09/21/23 00:57	1
13C3 HFPO-DA	51	S1-	70 - 130	09/20/23 07:51	09/21/23 00:57	1
d5-NEtFOSAA	68	S1-	70 - 130	09/20/23 07:51	09/21/23 00:57	1

Chain of Custody Record



Client Information Client Contact: Mike Lankford Company: Gadsden Water Works Address: 515 Albert Rains Blvd City: Gadsden State/Zip: AL, 35901 Phone: _____ Email: mlankford@gadsdenwater.org Project Name: PFAS-533 Site: GWWSB		Sampler: MICHAEL BROOKINS Lab PM: Trowbridge, Nathan Project: (056) 543-2884 E-Mail: Nathan.Trowbridge@et.eurofins.com Carrier Tracking No(s): 810-16708-5449 1 State of Origin: _____ Page: Page 1 of 1 Job #: _____	
Due Date Requested: _____ TAT Requested (days): _____ Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: _____ Purchase Order not required WD #: _____ Project #: 81004291 SSOW#: _____		Analysis Requested Barcode: 810-76576 Chain of Custody Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Sample Identification GADSDEN - RW GADSDEN - FW TRIP BLANK		Matrix (Water, Solid, Other): Sample Type (C=Comp, G=grab): Sample Time: Sample Date: Preservation Code: Field Filtered Sample (Yes or No): Perform MS/MS (Yes or No): 537.1 DW PREC - PFC18	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Empty Kit Relinquished by: _____ Relinquished by: M. BROOKINS to COOLER Relinquished by: _____ Relinquished by: _____ Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Custody Seal No.: _____		Method of Shipment: _____ Received by: <i>Jameson Williams</i> Date/Time: 9/27/23 0915 Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks:	