



**Environment Testing
America**

ANALYTICAL REPORT

Eurofins Denver
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Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-166554-1
Client Project/Site: Gadsden PFAS Sampling

For:
Gadsden Water Works
515 Albert Rains Blvd
Gadsden, Alabama 35901

Attn: Mike Lankford

Authorized for release by:
10/11/2022 2:26:36 PM

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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.

Case Narrative

Client: Gadsden Water Works
Project/Site: Gadsden PFAS Sampling

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Narrative



CASE NARRATIVE

Client: Gadsden Water Works

Project: Gadsden PFAS Sampling

Report Number: 280-166554-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 09/15/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.0 C.

The sample ID on the container labels for the following samples did not match the information listed on the Chain-of-Custody (COC): GADSDEN - RW (280-166554-1) and GADSDEN - FW (280-166554-2). The container labels list sample IDs of "RW" and "FW" while the chain of custody lists sample IDs of GADSDEN - RW and GADSDEN - FW, respectively. Additionally there are no sample collection times recorded on the container labels of these samples. The laboratory logged the sample ID and the collection date/time for these samples per the information on the chain of custody. The client was notified on 9/16/2022.

PERFLUORINATED HYDROCARBONS (PFAS) MOD

Samples GADSDEN - RW (280-166554-1) and GADSDEN - FW (280-166554-2) were analyzed for Perfluorinated Hydrocarbons (PFAS) MOD in accordance with 537 MOD. The samples were prepared on 09/23/2022 and analyzed on 10/02/2022.

The following samples in preparation batch 320-619278 were observed to have floating particulates present in the sample bottle: GADSDEN - RW (280-166554-1)

During the solid phase extraction process, the following samples contained non-settable particulates which clogged the solid phase extraction column: GADSDEN - RW (280-166554-1).

No 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: Gadsden PFAS Sampling

Job ID: 280-166554-1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: GADSDEN - RW

Date Collected: 09/13/22 20:20

Date Received: 09/15/22 10:50

Lab Sample ID: 280-166554-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	16		4.7	2.2	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorodecanoic acid (PFDA)	2.8		1.9	0.29	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorododecanoic acid (PFDoA)	0.51	U	1.9	0.51	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluoroheptanoic acid (PFHpA)	9.7		1.9	0.23	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorohexanoic acid (PFHxA)	25		1.9	0.54	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorononanoic acid (PFNA)	2.5		1.9	0.25	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorooctanoic acid (PFOA)	23		1.9	0.79	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorooctane sulfonate (PFOS)	34		1.9	0.50	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluoropentanoic acid (PFPA)	52		1.9	0.46	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorotetradecanoic acid (PFTeA)	0.68	U	1.9	0.68	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorotridecanoic acid (PFTriA)	1.2	U	1.9	1.2	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluoroundecanoic acid (PFUnA)	1.0	U	1.9	1.0	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorobutanesulfonic acid (PFBS)	84		1.9	0.19	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorodecanesulfonic acid (PFDS)	0.30	U	1.9	0.30	ng/L		09/23/22 05:02	10/02/22 08:05	1
Perfluorohexanesulfonic acid (PFHxS)	3.3		1.9	0.53	ng/L		09/23/22 05:02	10/02/22 08:05	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	73		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C5 PFPeA	81		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C2 PFHxA	87		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C4 PFHpA	79		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C4 PFOA	79		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C5 PFNA	83		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C2 PFDA	81		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C2 PFUnA	70		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C2 PFDoA	59		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C2 PFTeA	44		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C3 PFBS	76		25 - 150				09/23/22 05:02	10/02/22 08:05	1
18O2 PFHxS	77		25 - 150				09/23/22 05:02	10/02/22 08:05	1
13C4 PFOS	77		25 - 150				09/23/22 05:02	10/02/22 08:05	1

Client Sample ID: GADSDEN - FW

Date Collected: 09/14/22 11:00

Date Received: 09/15/22 10:50

Lab Sample ID: 280-166554-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.9		4.6	2.2	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorodecanoic acid (PFDA)	2.1		1.8	0.29	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorododecanoic acid (PFDoA)	0.51	U	1.8	0.51	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluoroheptanoic acid (PFHpA)	6.9		1.8	0.23	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorohexanoic acid (PFHxA)	18		1.8	0.53	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorononanoic acid (PFNA)	1.6	J	1.8	0.25	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorooctanoic acid (PFOA)	16		1.8	0.78	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorooctane sulfonate (PFOS)	19		1.8	0.50	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluoropentanoic acid (PFPA)	29		1.8	0.45	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorotetradecanoic acid (PFTeA)	0.67	U	1.8	0.67	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorotridecanoic acid (PFTriA)	1.2	U	1.8	1.2	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluoroundecanoic acid (PFUnA)	1.0	U	1.8	1.0	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorobutanesulfonic acid (PFBS)	55		1.8	0.18	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorodecanesulfonic acid (PFDS)	0.29	U	1.8	0.29	ng/L		09/23/22 05:02	10/02/22 08:15	1
Perfluorohexanesulfonic acid (PFHxS)	2.0		1.8	0.52	ng/L		09/23/22 05:02	10/02/22 08:15	1

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Client Sample Results

Client: Gadsden Water Works
 Project/Site: Gadsden PFAS Sampling

Job ID: 280-166554-1

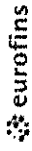
Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFBA	89		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C5 PFPeA	102		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C2 PFHxA	100		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C4 PFHpA	95		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C4 PFOA	96		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C5 PFNA	97		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C2 PFDA	91		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C2 PFUnA	91		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C2 PFDoA	84		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C2 PFTeDA	81		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C3 PFBS	103		25 - 150	09/23/22 05:02	10/02/22 08:15	1
18O2 PFHxS	105		25 - 150	09/23/22 05:02	10/02/22 08:15	1
13C4 PFOS	96		25 - 150	09/23/22 05:02	10/02/22 08:15	1




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Chain of Custody Record



Environment Testing
 TestAmerica

Client Information		Lab PM Sara, Betsy A	Carrier Tracking No(s)	COC No 280-98696-29755.1		
Client Contact: Mike Lankford		E-Mail Betsy.Sara@Eurofins.net.com		Page: Page 1 of 1		
Company: Gadsden Water Works				Job #		
Address: 515 Albert Rains Blvd		Analysis Requested Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 P - Na2O4S D - Nitric Acid Q - Na2SO3 E - NaHSO4 R - Na2S2O3 F - MeOH G - Anchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA L - EDA W - pH 4-5 Z - other (specify) Other:				
City: Gadsden						
State, Zip: AL, 35901						
Phone:						
Email: mlankford@gadsdenwater.org						
Project Name: Gadsden PFC Sampling		Total Number of Containers				
Site: SSOW#		Field Filled Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No PFCs <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, P=pesticide, A=air)	Preservation Code	Special Instructions/Note:
GADSDEN - RW	9/13/22	2020	G	W	N	Turbidity  280-166554 Chain of Custody
GADSDEN - FW	9/14/22	1100	G	W	N	
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)						
Empty Kit Relinquished by: Relinquished by: M. BROOKINS TO COOLER Date/Time: 9/14/2022 1135 Relinquished by: Date/Time: Relinquished by: Date/Time:						
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:						
Relinquished by: M. Brookins Date/Time: 9/14/2022 1050 Company: GAUSDEN Relinquished by: Date/Time: Company: Relinquished by: Date/Time: Company:						
Custody Seal No.: 18655579 ΔX, Yes Δ No Cooler Temperature(s) °C and Other Remarks:						

NO-TIMES 509-1526 @ 10: RW 509-1522 @ 10: RW 509
 13
 Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Gadsden Water Works

Job Number: 280-166554-1

Login Number: 166554

List Source: Eurofins Sacramento

List Number: 2

Creator: Oropeza, Salvador

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	1865579
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	2.0C
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.	False	Refer to Job Narrative for details.
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 $<6\text{mm}$ ($1/4"$).	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

