

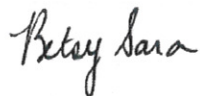
## ANALYTICAL REPORT

Eurofins TestAmerica, Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

Laboratory Job ID: 280-153009-1  
Client Project/Site: Gadsden PFC Sampling

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

Attn: Mike Lankford



Authorized for release by:  
9/24/2021 9:59:27 AM

Betsy Sara, Project Manager II  
(303)736-0189  
[Betsy.Sara@Eurofinset.com](mailto:Betsy.Sara@Eurofinset.com)

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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 PFC Sampling

Job ID: 280-153009-1

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**Laboratory: Eurofins TestAmerica, Denver**

**Narrative**

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**CASE NARRATIVE**

**Client: Gadsden Water Works**

**Project: Gadsden PFC Sampling**

**Report Number: 280-153009-1**

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 9/15/2021 9:40 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.

The sample IDs were not listed on the container labels. The samples were identified per the collection date/time and logged per the COC. The client was notified.

**PERFLUORINATED HYDROCARBONS (PFC)**

Samples GADSDEN - RW (280-153009-1) and GADSDEN - FW (280-153009-2) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with SOP DV-LC-0012. The samples were prepared on 09/16/2021 and analyzed on 09/22/2021.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD), however, an LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

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

# Detection Summary

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

Job ID: 280-153009-1

## Client Sample ID: GADSDEN - RW

## Lab Sample ID: 280-153009-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	0.16		0.018	0.0072	ug/L	1		DV-LC-0012	Total/NA
Perfluorobutanoic acid (PFBA)	0.021		0.018	0.0086	ug/L	1		DV-LC-0012	Total/NA
Perfluorohexanoic acid (PFHxA)	0.031		0.018	0.0069	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctane sulfonate (PFOS)	0.063		0.026	0.012	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctanoic acid (PFOA)	0.026		0.018	0.0086	ug/L	1		DV-LC-0012	Total/NA
Perfluoropentanoic acid (PFPA)	0.053		0.026	0.0096	ug/L	1		DV-LC-0012	Total/NA

## Client Sample ID: GADSDEN - FW

## Lab Sample ID: 280-153009-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	0.13		0.016	0.0067	ug/L	1		DV-LC-0012	Total/NA
Perfluorobutanoic acid (PFBA)	0.019		0.016	0.0079	ug/L	1		DV-LC-0012	Total/NA
Perfluorohexanoic acid (PFHxA)	0.028		0.016	0.0064	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctane sulfonate (PFOS)	0.026		0.024	0.011	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctanoic acid (PFOA)	0.018		0.016	0.0079	ug/L	1		DV-LC-0012	Total/NA
Perfluoropentanoic acid (PFPA)	0.047		0.024	0.0088	ug/L	1		DV-LC-0012	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

# Client Sample Results

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

Job ID: 280-153009-1

## Method: DV-LC-0012 - Fluorinated Alkyl Substances

**Client Sample ID: GADSDEN - RW**

**Date Collected: 09/13/21 20:15**

**Date Received: 09/15/21 09:40**

**Lab Sample ID: 280-153009-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.16</b>		0.018	0.0072	ug/L		09/16/21 15:42	09/22/21 08:35	1
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.021</b>		0.018	0.0086	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluorodecanesulfonic acid (PFDS)	0.0080	U	0.018	0.0080	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluorodecanoic acid (PFDA)	0.0069	U	0.018	0.0069	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluorododecanoic acid (PFDoA)	0.013	U	0.026	0.013	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluoroheptanoic acid (PFHpA)	0.012	U	0.026	0.012	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluorohexanesulfonic acid (PFHxS)	0.0061	U	0.026	0.0061	ug/L		09/16/21 15:42	09/22/21 08:35	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.031</b>		0.018	0.0069	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluorononanoic acid (PFNA)	0.0066	U	0.035	0.0066	ug/L		09/16/21 15:42	09/22/21 08:35	1
<b>Perfluorooctane sulfonate (PFOS)</b>	<b>0.063</b>		0.026	0.012	ug/L		09/16/21 15:42	09/22/21 08:35	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.026</b>		0.018	0.0086	ug/L		09/16/21 15:42	09/22/21 08:35	1
<b>Perfluoropentanoic acid (PFPA)</b>	<b>0.053</b>		0.026	0.0096	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluorotetradecanoic acid (PFTeA)	0.013	U	0.026	0.013	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluorotridecanoic acid (PFTriA)	0.016	U	0.035	0.016	ug/L		09/16/21 15:42	09/22/21 08:35	1
Perfluoroundecanoic acid (PFUnA)	0.0060	U	0.018	0.0060	ug/L		09/16/21 15:42	09/22/21 08:35	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C8 PFOA	101		60 - 155				09/16/21 15:42	09/22/21 08:35	1
13C8 PFOS	101		45 - 130				09/16/21 15:42	09/22/21 08:35	1

**Client Sample ID: GADSDEN - FW**

**Date Collected: 09/14/21 11:00**

**Date Received: 09/15/21 09:40**

**Lab Sample ID: 280-153009-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.13</b>		0.016	0.0067	ug/L		09/16/21 15:42	09/22/21 08:44	1
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.019</b>		0.016	0.0079	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluorodecanesulfonic acid (PFDS)	0.0074	U	0.016	0.0074	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluorodecanoic acid (PFDA)	0.0063	U	0.016	0.0063	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluorododecanoic acid (PFDoA)	0.012	U	0.024	0.012	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluoroheptanoic acid (PFHpA)	0.011	U	0.024	0.011	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluorohexanesulfonic acid (PFHxS)	0.0056	U	0.024	0.0056	ug/L		09/16/21 15:42	09/22/21 08:44	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.028</b>		0.016	0.0064	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluorononanoic acid (PFNA)	0.0061	U	0.032	0.0061	ug/L		09/16/21 15:42	09/22/21 08:44	1
<b>Perfluorooctane sulfonate (PFOS)</b>	<b>0.026</b>		0.024	0.011	ug/L		09/16/21 15:42	09/22/21 08:44	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.018</b>		0.016	0.0079	ug/L		09/16/21 15:42	09/22/21 08:44	1
<b>Perfluoropentanoic acid (PFPA)</b>	<b>0.047</b>		0.024	0.0088	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluorotetradecanoic acid (PFTeA)	0.012	U	0.024	0.012	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluorotridecanoic acid (PFTriA)	0.014	U	0.032	0.014	ug/L		09/16/21 15:42	09/22/21 08:44	1
Perfluoroundecanoic acid (PFUnA)	0.0056	U	0.016	0.0056	ug/L		09/16/21 15:42	09/22/21 08:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C8 PFOA	103		60 - 155				09/16/21 15:42	09/22/21 08:44	1
13C8 PFOS	105		45 - 130				09/16/21 15:42	09/22/21 08:44	1

# Chain of Custody Record



<b>Client Information</b>		Lab PII: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-98896-29755.1	
Client Contact: Mike Lanikford		E-Mail: Betsy.Sara@Eurofinset.com		Page 1 of 1		Job #:	
Company: Gadsden Water Works		<b>Analysis Requested</b>					
Address: 515 Albert Rains Blvd		Due Date Requested:		Field Filled Sample (Yes or No)		Total Number of Containers	
City: Gadsden		TAT Requested (days):		From Month Year (MO/YR)		PCs	
State, Zip: AL, 35901		PO #:		N		X	
Phone:		WO #:		N		X	
Email: mlankford@gadsdenwater.org		Project #:		N		X	
Project Name: Gadsden PFC Sampling		SSOW#: 28020645 'PFC Waters'		N		X	
Site:		Sample Date		Sample Time		Sample Type (C-Comp, G-grab)	
Sample Identification		Preservation Code		Matrix (W-water, S-solid, O-unknown)		Matrix	
Gadsden RW		9/13/21		2015		G W	
Gadsden FW		9/14/21		1100		G W	
Possible Hazard Identification		Sample Date		Sample Time		Sample Type (C-Comp, G-grab)	
<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		Date		Time		Method of Shipment	
Deliverable Requested: I, II, III, IV Other (specify)		Date: 9/14/21		Time: 1100		Date/Time: 09/15/21 0940	
Empty Kit Relinquished by		Date:		Time:		Date/Time: 09/15/21 0940	
Relinquished by: M. Brodwin to cooler		Date/Time: 9/14/21 1100		Company: GWWWSB		Company: ETA DEH	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 0.4 CF-110 12.1		Company: ETA DEH	

## Login Sample Receipt Checklist

Client: Gadsden Water Works

Job Number: 280-153009-1

**Login Number: 153009**  
**List Number: 1**  
**Creator: O'Hara, Jake F**

**List Source: Eurofins TestAmerica, Denver**

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	
Sample custody seals, if present, are intact.	True	
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?	False	Not present.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	