


## ANALYTICAL REPORT

Eurofins Denver  
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Laboratory Job ID: 280-157466-1  
Client Project/Site: Gadsden PFC Sampling

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

Attn: Mike Lankford



Authorized for release by:  
1/13/2022 9:18:23 AM

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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

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**Laboratory: Eurofins Denver**

**Narrative**

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## CASE NARRATIVE

**Client: Gadsden Water Works**

**Project: Gadsden PFC Sampling**

**Report Number: 280-157466-1**

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 01/06/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.8 C.

### PERFLUORINATED HYDROCARBONS (PFC)

Samples Gadsden - RW - 2 (280-157466-1), Gadsden - FW - 2 (280-157466-2) and Gadsden - DC - 2 (280-157466-3) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with SOP DV-LC-0012. The samples were prepared on 01/10/2022 and analyzed on 01/11/2022.

The method required MS/MSD could not be performed due to insufficient sample volume, however, a 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.

# Client Sample Results

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

Job ID: 280-157466-1

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

Client Sample ID: Gadsden - RW - 2

Date Collected: 01/04/22 20:15

Date Received: 01/06/22 10:15

Lab Sample ID: 280-157466-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	0.098		0.016	0.0067	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorobutanoic acid (PFBA)	0.018		0.016	0.0080	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorodecanesulfonic acid (PFDS)	0.0074	U	0.016	0.0074	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorodecanoic acid (PFDA)	0.0064	U	0.016	0.0064	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorododecanoic acid (PFDoA)	0.012	U	0.024	0.012	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluoroheptanoic acid (PFHpA)	0.011	U	0.024	0.011	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorohexanesulfonic acid (PFHxS)	0.0057	U	0.024	0.0057	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorohexanoic acid (PFHxA)	0.030		0.016	0.0064	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorononanoic acid (PFNA)	0.0061	U	0.032	0.0061	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorooctane sulfonate (PFOS)	0.041		0.024	0.011	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorooctanoic acid (PFOA)	0.021		0.016	0.0080	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluoropentanoic acid (PFPA)	0.059		0.024	0.0089	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorotetradecanoic acid (PFTeA)	0.012	U	0.024	0.012	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluorotridecanoic acid (PFTriA)	0.014	U	0.032	0.014	ug/L		01/10/22 12:26	01/11/22 10:36	1
Perfluoroundecanoic acid (PFUnA)	0.0056	U	0.016	0.0056	ug/L		01/10/22 12:26	01/11/22 10:36	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	102		60 - 155				01/10/22 12:26	01/11/22 10:36	1
13C8 PFOS	107		45 - 130				01/10/22 12:26	01/11/22 10:36	1

Client Sample ID: Gadsden - FW - 2

Date Collected: 01/05/22 11:00

Date Received: 01/06/22 10:15

Lab Sample ID: 280-157466-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	0.076		0.016	0.0064	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorobutanoic acid (PFBA)	0.020		0.016	0.0076	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorodecanesulfonic acid (PFDS)	0.0071	U	0.016	0.0071	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorodecanoic acid (PFDA)	0.0061	U	0.016	0.0061	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorododecanoic acid (PFDoA)	0.012	U	0.023	0.012	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluoroheptanoic acid (PFHpA)	0.010	U	0.023	0.010	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorohexanesulfonic acid (PFHxS)	0.0054	U	0.023	0.0054	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorohexanoic acid (PFHxA)	0.021		0.016	0.0062	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorononanoic acid (PFNA)	0.0058	U	0.031	0.0058	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorooctane sulfonate (PFOS)	0.022	J	0.023	0.010	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorooctanoic acid (PFOA)	0.014	J	0.016	0.0076	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluoropentanoic acid (PFPA)	0.046		0.023	0.0085	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorotetradecanoic acid (PFTeA)	0.011	U	0.023	0.011	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluorotridecanoic acid (PFTriA)	0.014	U	0.031	0.014	ug/L		01/10/22 12:26	01/11/22 10:45	1
Perfluoroundecanoic acid (PFUnA)	0.0054	U	0.016	0.0054	ug/L		01/10/22 12:26	01/11/22 10:45	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	104		60 - 155				01/10/22 12:26	01/11/22 10:45	1
13C8 PFOS	103		45 - 130				01/10/22 12:26	01/11/22 10:45	1

# Client Sample Results

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

Job ID: 280-157466-1

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

Client Sample ID: Gadsden - DC - 2

Date Collected: 01/05/22 10:00

Date Received: 01/06/22 10:15

Lab Sample ID: 280-157466-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>0.11</b>		0.016	0.0065	ug/L		01/10/22 12:26	01/11/22 10:54	1
<b>Perfluorobutanoic acid (PFBA)</b>	<b>0.013</b>	J	0.016	0.0077	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluorodecanesulfonic acid (PFDS)	0.0072	U	0.016	0.0072	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluorodecanoic acid (PFDA)	0.0062	U	0.016	0.0062	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluorododecanoic acid (PFDoA)	0.012	U	0.024	0.012	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluoroheptanoic acid (PFHpA)	0.010	U	0.024	0.010	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluorohexanesulfonic acid (PFHxS)	0.0055	U	0.024	0.0055	ug/L		01/10/22 12:26	01/11/22 10:54	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>0.029</b>		0.016	0.0062	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluorononanoic acid (PFNA)	0.0059	U	0.032	0.0059	ug/L		01/10/22 12:26	01/11/22 10:54	1
<b>Perfluorooctane sulfonate (PFOS)</b>	<b>0.025</b>		0.024	0.011	ug/L		01/10/22 12:26	01/11/22 10:54	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>0.023</b>		0.016	0.0077	ug/L		01/10/22 12:26	01/11/22 10:54	1
<b>Perfluoropentanoic acid (PFPA)</b>	<b>0.056</b>		0.024	0.0086	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluorotetradecanoic acid (PFTeA)	0.012	U	0.024	0.012	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluorotridecanoic acid (PFTriA)	0.014	U	0.032	0.014	ug/L		01/10/22 12:26	01/11/22 10:54	1
Perfluoroundecanoic acid (PFUnA)	0.0054	U	0.016	0.0054	ug/L		01/10/22 12:26	01/11/22 10:54	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				01/10/22 12:26	01/11/22 10:54	1
13C8 PFOS	107		45 - 130				01/10/22 12:26	01/11/22 10:54	1



## Login Sample Receipt Checklist

Client: Gadsden Water Works

Job Number: 280-157466-1

Login Number: 157466

List Number: 1

List Source: Eurofins Denver

Creator: Burke, Sophie G

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?	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 $<6\text{mm}$ ( $1/4''$ ).	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	