

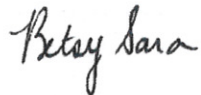
ANALYTICAL REPORT

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

Laboratory Job ID: 280-150835-1
Client Project/Site: Gadsden PFC Sampling

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

Attn: Mike Lankford



Authorized for release by:
7/21/2021 9:13:26 AM

Betsy Sara, Project Manager II
(303)736-0189
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: 280-150835-1

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Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Gadsden Water Works

Project: Gadsden PFC Sampling

Report Number: 280-150835-1

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 7/15/2021 9:55 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 1.9° C.

Discrepancies: Note: sample time was not listed on COC; sample time was per sample labels. Sample ID and sample date were logged per COC.

PERFLUORINATED HYDROCARBONS (PFC)

Samples GADSDEN RW (280-150835-1), GADSDEN EW (280-150835-2) and GADSDEN DC (280-150835-3) were analyzed for Perfluorinated Hydrocarbons (PFC) in accordance with SOP DV-LC-0012. The samples were prepared on 07/16/2021 and analyzed on 07/19/2021.

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: 280-150835-1

Client Sample ID: GADSDEN RW

Lab Sample ID: 280-150835-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	0.056		0.017	0.0070	ug/L	1		DV-LC-0012	Total/NA
Perfluorobutanoic acid (PFBA)	0.0084	J	0.017	0.0083	ug/L	1		DV-LC-0012	Total/NA
Perfluorohexanoic acid (PFHxA)	0.022		0.017	0.0067	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctane sulfonate (PFOS)	0.038		0.025	0.011	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctanoic acid (PFOA)	0.016	J	0.017	0.0083	ug/L	1		DV-LC-0012	Total/NA
Perfluoropentanoic acid (PFPA)	0.033		0.025	0.0092	ug/L	1		DV-LC-0012	Total/NA

Client Sample ID: GADSDEN EW

Lab Sample ID: 280-150835-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	0.050		0.016	0.0065	ug/L	1		DV-LC-0012	Total/NA
Perfluorobutanoic acid (PFBA)	0.016		0.016	0.0078	ug/L	1		DV-LC-0012	Total/NA
Perfluorohexanoic acid (PFHxA)	0.018		0.016	0.0063	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctane sulfonate (PFOS)	0.013	J	0.024	0.011	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctanoic acid (PFOA)	0.0082	J	0.016	0.0078	ug/L	1		DV-LC-0012	Total/NA
Perfluoropentanoic acid (PFPA)	0.036		0.024	0.0086	ug/L	1		DV-LC-0012	Total/NA

Client Sample ID: GADSDEN DC

Lab Sample ID: 280-150835-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	0.060		0.016	0.0065	ug/L	1		DV-LC-0012	Total/NA
Perfluorobutanoic acid (PFBA)	0.010	J	0.016	0.0078	ug/L	1		DV-LC-0012	Total/NA
Perfluorohexanoic acid (PFHxA)	0.022		0.016	0.0063	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctane sulfonate (PFOS)	0.027		0.024	0.011	ug/L	1		DV-LC-0012	Total/NA
Perfluorooctanoic acid (PFOA)	0.016		0.016	0.0077	ug/L	1		DV-LC-0012	Total/NA
Perfluoropentanoic acid (PFPA)	0.032		0.024	0.0086	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: 280-150835-1

Method: DV-LC-0012 - Fluorinated Alkyl Substances

Client Sample ID: GADSDEN RW

Date Collected: 07/12/21 22:04

Date Received: 07/15/21 09:55

Lab Sample ID: 280-150835-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	0.056		0.017	0.0070	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorobutanoic acid (PFBA)	0.0084	J	0.017	0.0083	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorodecanesulfonic acid (PFDS)	0.0077	U	0.017	0.0077	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorodecanoic acid (PFDA)	0.0066	U	0.017	0.0066	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorododecanoic acid (PFDoA)	0.013	U	0.025	0.013	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluoroheptanoic acid (PFHpA)	0.011	U	0.025	0.011	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorohexanesulfonic acid (PFHxS)	0.0059	U	0.025	0.0059	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorohexanoic acid (PFHxA)	0.022		0.017	0.0067	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorononanoic acid (PFNA)	0.0063	U	0.034	0.0063	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorooctane sulfonate (PFOS)	0.038		0.025	0.011	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorooctanoic acid (PFOA)	0.016	J	0.017	0.0083	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluoropentanoic acid (PFPA)	0.033		0.025	0.0092	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorotetradecanoic acid (PFTeA)	0.012	U	0.025	0.012	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluorotridecanoic acid (PFTriA)	0.015	U	0.034	0.015	ug/L		07/16/21 16:04	07/19/21 13:20	1
Perfluoroundecanoic acid (PFUnA)	0.0058	U	0.017	0.0058	ug/L		07/16/21 16:04	07/19/21 13:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 PFOA	101		60 - 155				07/16/21 16:04	07/19/21 13:20	1
13C8 PFOS	98		45 - 130				07/16/21 16:04	07/19/21 13:20	1

Client Sample ID: GADSDEN EW

Date Collected: 07/13/21 09:00

Date Received: 07/15/21 09:55

Lab Sample ID: 280-150835-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	0.050		0.016	0.0065	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorobutanoic acid (PFBA)	0.016		0.016	0.0078	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorodecanesulfonic acid (PFDS)	0.0072	U	0.016	0.0072	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorodecanoic acid (PFDA)	0.0062	U	0.016	0.0062	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorododecanoic acid (PFDoA)	0.012	U	0.024	0.012	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluoroheptanoic acid (PFHpA)	0.010	U	0.024	0.010	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorohexanesulfonic acid (PFHxS)	0.0055	U	0.024	0.0055	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorohexanoic acid (PFHxA)	0.018		0.016	0.0063	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorononanoic acid (PFNA)	0.0059	U	0.032	0.0059	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorooctane sulfonate (PFOS)	0.013	J	0.024	0.011	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorooctanoic acid (PFOA)	0.0082	J	0.016	0.0078	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluoropentanoic acid (PFPA)	0.036		0.024	0.0086	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorotetradecanoic acid (PFTeA)	0.012	U	0.024	0.012	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluorotridecanoic acid (PFTriA)	0.014	U	0.032	0.014	ug/L		07/16/21 16:04	07/19/21 13:29	1
Perfluoroundecanoic acid (PFUnA)	0.0055	U	0.016	0.0055	ug/L		07/16/21 16:04	07/19/21 13:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 PFOA	103		60 - 155				07/16/21 16:04	07/19/21 13:29	1
13C8 PFOS	99		45 - 130				07/16/21 16:04	07/19/21 13:29	1

Chain of Custody Record

<p>Client Information Client Contact: Mike Lankford Company: Gadsden Water Works Address: 5115 Albert Rains Blvd City: Gadsden State, Zip: AL, 35901 Phone: Email: mlankford@gadsdenwater.org Project Name: Gadsden PFC Sampling Site: GADSDEN</p>	<p>Sampler BROOKINS Lab PM: Sara, Betsy A Phone: (256) 543-2884 E-Mail: Betsy.Sara@Eurofinsnet.com</p>	<p>Carrier Tracking No(s) COC No: 280-98696-29755 1 Page: Page 1 of 1 Job #:</p>	<p>Analysis Requested</p>																																						
<p>Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 28020645 "PFC Waters" SSON#:</p>		<p>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:</p>																																							
<p>Sample Identification</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=soil, etc.)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform M/MSD (Yes or No)</th> <th>PFCs</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>GADSDEN BW</td> <td>7/13/21</td> <td></td> <td>G</td> <td>W</td> <td>N</td> <td>N</td> <td>X</td> <td></td> <td rowspan="3" style="text-align: center; vertical-align: middle;">Turbidity 7</td> </tr> <tr> <td>GADSDEN FW</td> <td>7/13/21</td> <td></td> <td>G</td> <td>W</td> <td>N</td> <td>N</td> <td>X</td> <td></td> </tr> <tr> <td>GADSDEN DC TB</td> <td>7/13/21</td> <td></td> <td>G</td> <td>W</td> <td>N</td> <td>N</td> <td>X</td> <td></td> </tr> </tbody> </table>		Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, etc.)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	PFCs	Total Number of Containers	Special Instructions/Note:	GADSDEN BW	7/13/21		G	W	N	N	X		Turbidity 7	GADSDEN FW	7/13/21		G	W	N	N	X		GADSDEN DC TB	7/13/21		G	W	N	N	X		<p>Barcode: 280-150835 Chain of Custody</p>	
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, etc.)	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	PFCs	Total Number of Containers	Special Instructions/Note:																																
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GADSDEN DC TB	7/13/21		G	W	N	N	X																																		
<p>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)</p>		<p>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</p>																																							
<p>Relinquished by: M. Brodwin to Cooker Relinquished by: Relinquished by:</p>		<p>Special Instructions/QC Requirements:</p>																																							
<p>Custody Seal No: 1703217 + 1703216 Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		<p>Method of Shipment:</p>																																							
<p>Date/Time: 7/13/21 Date/Time: Date/Time:</p>		<p>Received by: [Signature] Received by: Received by:</p>																																							
<p>Company: Gadsden Company: Company:</p>		<p>Date/Time: 7/15/21 Date/Time: 7/15/21 Date/Time:</p>																																							
<p>Company: GADSDEN Company: Company:</p>		<p>Company: GADSDEN Company: Company:</p>																																							

Login Sample Receipt Checklist

Client: Gadsden Water Works

Job Number: 280-150835-1

Login Number: 150835

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Rystrom, Joshua R

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