

## ANALYTICAL REPORT

Job Number: 280-83829-1

Job Description: ADEM PFC Sampling

For:

Alabama Dept. Environmental Management  
2715 Sandlin Road, SW  
Decatur, AL 35603  
Attention: Mr. Ed Poolos



Approved for release.  
Stephanie K Kupper  
Project Manager I  
6/24/2016 2:06 PM

---

Stephanie K Kupper, Project Manager I  
4955 Yarrow Street, Arvada, CO, 80002  
(303)736-0182  
stephanie.kupper@testamericainc.com  
06/24/2016

cc: Mr. Bruce Freeman

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

**TestAmerica Laboratories, Inc.**

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002

Tel (303) 736-0100 Fax (303) 431-7171 [www.testamericainc.com](http://www.testamericainc.com)

## Analytical Data

Client: Alabama Dept. Environmental Management

Job Number: 280-83829-1

**Client Sample ID: GADSDEN-RAW**

Lab Sample ID: 280-83829-3

Date Sampled: 05/31/2016 0850

Client Matrix: Water

Date Received: 06/01/2016 0923

### DV-LC-0012 Perfluorinated Hydrocarbons

Analysis Method: DV-LC-0012	Analysis Batch: 280-329122	Instrument ID: LC_LCMS5
Prep Method: 3535	Prep Batch: 280-328261	Lab File ID: PC516F08025.d
Dilution: 1.0		Initial Weight/Volume: 253.2 mL
Analysis Date: 06/08/2016 1530		Final Weight/Volume: 5 mL
Prep Date: 06/03/2016 1135		Injection Volume: 25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.056		0.0081	0.020
Perfluorobutanoic acid (PFBA)	0.011	J	0.0097	0.020
Perfluorodecane sulfonate (PFDS)	0.0090	U	0.0090	0.020
Perfluorodecanoic acid (PFDA)	0.0077	U	0.0077	0.020
Perfluorododecanoic acid (PFDoA)	0.015	U	0.015	0.030
Perfluoroheptanoic acid (PFHpA)	0.013	U	0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	0.0069	U	0.0069	0.030
Perfluorohexanoic acid (PFHxA)	0.035		0.0029	0.020
Perfluorononanoic acid (PFNA)	0.017	U	0.017	0.039
Perfluorooctanoic acid (PFOA)	0.027		0.0097	0.020
Perfluorooctane Sulfonate (PFOS)	0.039		0.013	0.030
Perfluoropentanoic acid (PFPA)	0.055		0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	0.015	U	0.015	0.030
Perfluorotridecanoic Acid (PFTriA)	0.017	U	0.017	0.039
Perfluoroundecanoic acid (PFUnA)	0.0068	U	0.0068	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	101		60 - 155
13C8 PFOS	100		45 - 130

## Analytical Data

Client: Alabama Dept. Environmental Management

Job Number: 280-83829-1

**Client Sample ID: GADSDEN-RAW**

Lab Sample ID: 280-83829-3

Date Sampled: 05/31/2016 0850

Client Matrix: Water

Date Received: 06/01/2016 0923

---

### PFC -FOSA FOSA in Water (LC/MS/MS)

Analysis Method:	PFC -FOSA	Analysis Batch:	280-329145	Instrument ID:	LC_LCMS5
Prep Method:	3535	Prep Batch:	280-328265	Lab File ID:	PC516F08048.d
Dilution:	1.0			Initial Weight/Volume:	252.8 mL
Analysis Date:	06/08/2016 2014			Final Weight/Volume:	5 mL
Prep Date:	06/03/2016 1140			Injection Volume:	25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	0.0056	U	0.0056	0.049

## Analytical Data

Client: Alabama Dept. Environmental Management

Job Number: 280-83829-1

**Client Sample ID: GADSDEN-FINISHED**

Lab Sample ID: 280-83829-4

Date Sampled: 05/31/2016 0851

Client Matrix: Water

Date Received: 06/01/2016 0923

### DV-LC-0012 Perfluorinated Hydrocarbons

Analysis Method: DV-LC-0012	Analysis Batch: 280-329122	Instrument ID: LC_LCMS5
Prep Method: 3535	Prep Batch: 280-328261	Lab File ID: PC516F08026.d
Dilution: 1.0		Initial Weight/Volume: 269.7 mL
Analysis Date: 06/08/2016 1543		Final Weight/Volume: 5 mL
Prep Date: 06/03/2016 1135		Injection Volume: 25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.059		0.0076	0.019
Perfluorobutanoic acid (PFBA)	0.012	J	0.0091	0.019
Perfluorodecane sulfonate (PFDS)	0.0085	U	0.0085	0.019
Perfluorodecanoic acid (PFDA)	0.0072	U	0.0072	0.019
Perfluorododecanoic acid (PFDoA)	0.014	U	0.014	0.028
Perfluoroheptanoic acid (PFHpA)	0.013	J	0.012	0.028
Perfluorohexane Sulfonate (PFHxS)	0.0065	U	0.0065	0.028
Perfluorohexanoic acid (PFHxA)	0.033		0.0027	0.019
Perfluorononanoic acid (PFNA)	0.016	U	0.016	0.037
Perfluorooctanoic acid (PFOA)	0.030		0.0091	0.019
Perfluorooctane Sulfonate (PFOS)	0.045		0.012	0.028
Perfluoropentanoic acid (PFPA)	0.054		0.010	0.028
Perfluorotetradecanoic acid (PFTeA)	0.014	U	0.014	0.028
Perfluorotridecanoic Acid (PFTriA)	0.016	U	0.016	0.037
Perfluoroundecanoic acid (PFUnA)	0.0064	U	0.0064	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	104		60 - 155
13C8 PFOS	99		45 - 130

## Analytical Data

Client: Alabama Dept. Environmental Management

Job Number: 280-83829-1

**Client Sample ID: GADSDEN-FINISHED**

Lab Sample ID: 280-83829-4

Date Sampled: 05/31/2016 0851

Client Matrix: Water

Date Received: 06/01/2016 0923

---

### PFC -FOSA FOSA in Water (LC/MS/MS)

Analysis Method:	PFC -FOSA	Analysis Batch:	280-329145	Instrument ID:	LC_LCMS5
Prep Method:	3535	Prep Batch:	280-328265	Lab File ID:	PC516F08049.d
Dilution:	1.0			Initial Weight/Volume:	259.3 mL
Analysis Date:	06/08/2016 2026			Final Weight/Volume:	5 mL
Prep Date:	06/03/2016 1140			Injection Volume:	25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	0.0055	U	0.0055	0.048

## DATA REPORTING QUALIFIERS

Client: Alabama Dept. Environmental Management

Job Number: 280-83829-1

Lab Section	Qualifier	Description
LCMS	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Chain of Custody Record

<b>Client Information</b> Client Contact: Josh Davis Company: Alabama Dept. Environmental Management Address: 2715 Sandlin Road, SW City: Decatur State, Zip: AL, 35603 Phone: 256-432-2083 (Tel) Email: jldavis@adem.state.al.us Project Name: ADEM PFC Sampling Water Site:		Lab P/N: Kupper, Stephanie K E-Mail: stephanie.kupper@testamericainc.com Carrier Tracking No(s):	
Sampler: Bruce Freeman Phone: 256-432-2073		COC No: _____ Page: _____ of _____ Job #: _____	
Due Date Requested: _____ TAT Requested (days): _____ PO #: _____ Purchase Order Requested: _____ W/O #: _____ Project #: 28009916 SSOW#: _____		<b>Analysis Requested</b>	
<b>Sample Identification</b> Centre - Raw Centre - Finished Gadsden - Raw Gadsden - Finished Coosa Valley - Raw Coosa Valley - Finished		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes PFCs <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Total Number of Containers: _____	
Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=soil, B=biological, A=air)
5/31/16	928	G	SW
5/31/16	930	G	DW
5/31/16	850	G	SW
5/31/16	851	G	DW
5/31/16	1130	G	SW
5/31/16	1120	G	DW
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 - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)			
Special Instructions/Note: 280-83829 Chain of Custody			
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: _____ Date: _____ Relinquished by: _____ Date/Time: 5/31/16 1445 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____			
Relinquished by: _____ Date/Time: 5/31/16 1445 Company: ADEM		Received by: _____ Date/Time: 06/10/16 0710 Company: TAD	
Relinquished by: _____ Date/Time: _____ Company: _____		Received by: _____ Date/Time: _____ Company: _____	
Custody Seal No.: 731065 Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 1.1 F.O.O. IR #5 transferred by ST 06/10/16	