

ANALYTICAL REPORT

Job Number: 280-122381-1

Job Description: ADEM PFC Sampling - Gadsden

For:

Alabama Dept. Environmental Management
2715 Sandlin Road, SW
Decatur, AL 35603

Attention: Mr. Bruce Freeman

Approved for release.
Jenna M Hunsinger
Project Manager I
4/22/2019 12:34 PM

Designee for
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04/22/2019

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The Lab Certification ID# is 4025.

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

Eurofins TestAmerica, Denver

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Definitions/Glossary

Client: Alabama Dept. Environmental Management
Project/Site: ADEM PFC Sampling - Gadsden

Job ID: 280-122381-1

Qualifiers

LCMS

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
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Comments

No additional comments.

Receipt

The samples were received on 4/10/2019 8:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

LCMS

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

Organic Prep

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

Client Sample Results

Client: Alabama Dept. Environmental Management
Project/Site: ADEM PFC Sampling - Gadsden

Job ID: 280-122381-1

Client Sample ID: GADSDEN-RAW

Lab Sample ID: 280-122381-1

Date Collected: 04/08/19 20:11

Matrix: Water

Date Received: 04/10/19 08:50

Method: DV-LC-0012 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.012	J	0.017	0.0083	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorodecanoic acid (PFDA)	0.0066	U	0.017	0.0066	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorododecanoic acid (PFDoA)	0.013	U	0.025	0.013	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluoroheptanoic acid (PFHpA)	0.011	U	0.025	0.011	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorohexanoic acid (PFHxA)	0.019		0.017	0.0067	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorononanoic acid (PFNA)	0.0063	U	0.034	0.0063	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorooctanoic acid (PFOA)	0.018		0.017	0.0083	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorooctane sulfonate (PFOS)	0.025		0.025	0.011	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluoropentanoic acid (PFPA)	0.031	^	0.025	0.0092	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorotetradecanoic acid (PFTeA)	0.012	U	0.025	0.012	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorotridecanoic acid (PFTriA)	0.015	U	0.034	0.015	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluoroundecanoic acid (PFUnA)	0.0058	U ^	0.017	0.0058	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorobutanesulfonic acid (PFBS)	0.057		0.017	0.0070	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorodecanesulfonic acid (PFDS)	0.0077	U	0.017	0.0077	ug/L		04/16/19 19:55	04/17/19 12:43	1
Perfluorohexanesulfonic acid (PFHxS)	0.0059	U	0.025	0.0059	ug/L		04/16/19 19:55	04/17/19 12:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 PFOA	90		60 - 155				04/16/19 19:55	04/17/19 12:43	1
13C8 PFOS	89		45 - 130				04/16/19 19:55	04/17/19 12:43	1

Client Sample ID: GADSDEN-FINISHED

Lab Sample ID: 280-122381-2

Date Collected: 04/09/19 12:00

Matrix: Water

Date Received: 04/10/19 08:50

Method: DV-LC-0012 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.0085	U	0.017	0.0085	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorodecanoic acid (PFDA)	0.0068	U	0.017	0.0068	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorododecanoic acid (PFDoA)	0.013	U	0.026	0.013	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluoroheptanoic acid (PFHpA)	0.011	U	0.026	0.011	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorohexanoic acid (PFHxA)	0.012	J	0.017	0.0068	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorononanoic acid (PFNA)	0.0065	U	0.035	0.0065	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorooctanoic acid (PFOA)	0.010	J	0.017	0.0085	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorooctane sulfonate (PFOS)	0.018	J	0.026	0.012	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluoropentanoic acid (PFPA)	0.019	J ^	0.026	0.0094	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorotetradecanoic acid (PFTeA)	0.013	U	0.026	0.013	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorotridecanoic acid (PFTriA)	0.015	U	0.035	0.015	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluoroundecanoic acid (PFUnA)	0.0060	U ^	0.017	0.0060	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorobutanesulfonic acid (PFBS)	0.040		0.017	0.0071	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorodecanesulfonic acid (PFDS)	0.0079	U	0.017	0.0079	ug/L		04/16/19 19:55	04/17/19 12:55	1
Perfluorohexanesulfonic acid (PFHxS)	0.0060	U	0.026	0.0060	ug/L		04/16/19 19:55	04/17/19 12:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 PFOA	87		60 - 155				04/16/19 19:55	04/17/19 12:55	1
13C8 PFOS	89		45 - 130				04/16/19 19:55	04/17/19 12:55	1