

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	NE-OS-05-04
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Jersey*	IN598
Colorado	IN035	New Mexico	IN00035
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	17767	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA170006	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street
 South Bend, IN 46617
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 1 800 332 4345

Laboratory Report

Client: C.T. Male Associates
 Attn: Kirk Moline
 50 Century Hill Drive
 Latham, NY 12110

Report: 389869
 Priority: Standard Written
 Status: Final

Project: 14.4756

SUMMARY OF DETECTIONS

Parameter	Method	Result	Units	Run #
Perfluoroheptanoic acid (PFHpA)	537	15	ng/L	230247
Perfluorohexanoic acid (PFHxA)	537	11	ng/L	230247
Perfluorooctane sulfonate (PFOS)	537	3.1	ng/L	230247
Perfluorooctanoic acid (PFOA)	537	560	ng/L	230247

Note: The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Trott at (574) 233-4777.

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Dana M. Smith Reporter

06/23/2017

Reviewed By *Kelly Trott* Analytical Services Manager Title

Date
06/23/2017

Finalized By Title

Date



Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
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Laboratory Report

Client: C.T. Male Associates

Attn: Kirk Moline
50 Century Hill Drive
Latham, NY 12110

Report: 389869
Priority: Standard Written
Status: Final
PWS ID: Not Supplied
Lab ELAP #: 11398

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3705288	GAC Influent	537	06/01/17 08:53	Client	06/02/17 10:00
3705289	GAC Midfluent	537	06/01/17 08:55	Client	06/02/17 10:00
3705290	GAC Effluent	537	06/01/17 08:57	Client	06/02/17 10:00
3705291	FTB	537	06/01/17 08:59	Client	06/02/17 10:00
3705292	LTB	537	06/01/17 00:00	EEA	06/02/17 10:00

Report Summary

Project: 14.4756

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

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Kelly Trott Analytical Services Manager

Authorized Signature

Title

06/23/2017

Date

Client Name: C.T. Male Associates

Report #: 389869

Sampling Point: GAC Influent

PWS ID: Not Supplied

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
335-76-2	Perfluorodecanoic acid (PFDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
375-85-9	Perfluoroheptanoic acid (PFHpA)	537	---	2.0	15	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
307-24-4	Perfluorohexanoic acid (PFHxA)	537	---	2.0	11	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
307-55-1	Perfluorolauric acid (PFDoA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
376-06-7	Perfluoromyristic acid (PFTA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
375-95-1	Perfluorononanoic acid (PFNA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
1763-23-1	Perfluorooctane sulfonate (PFOS)	537	---	2.0	3.1	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
335-67-1	Perfluorooctanoic acid (PFOA)	537	---	2.0	560	ng/L	06/06/17 08:00	06/07/17 08:04	3705288
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/06/17 23:55	3705288

Sampling Point: GAC Midfluent

PWS ID: Not Supplied

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
335-76-2	Perfluorodecanoic acid (PFDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
375-85-9	Perfluoroheptanoic acid (PFHpA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
307-24-4	Perfluorohexanoic acid (PFHxA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
307-55-1	Perfluorolauric acid (PFDoA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
376-06-7	Perfluoromyristic acid (PFTA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
375-95-1	Perfluorononanoic acid (PFNA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
1763-23-1	Perfluorooctane sulfonate (PFOS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
335-67-1	Perfluorooctanoic acid (PFOA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:11	3705289

Sampling Point: GAC Effluent

PWS ID: Not Supplied

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
335-76-2	Perfluorodecanoic acid (PFDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
375-85-9	Perfluoroheptanoic acid (PFHpA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
307-24-4	Perfluorohexanoic acid (PFHxA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
307-55-1	Perfluorolauric acid (PFDoA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
376-06-7	Perfluoromyristic acid (PFTA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
375-95-1	Perfluorononanoic acid (PFNA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
1763-23-1	Perfluorooctane sulfonate (PFOS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
335-67-1	Perfluorooctanoic acid (PFOA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 00:45	3705290

Sampling Point: FTB

PWS ID: Not Supplied

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
335-76-2	Perfluorodecanoic acid (PFDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
375-85-9	Perfluoroheptanoic acid (PFHpA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
307-24-4	Perfluorohexanoic acid (PFHxA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
307-55-1	Perfluorolauric acid (PFDoA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
376-06-7	Perfluoromyristic acid (PFTA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
375-95-1	Perfluorononanoic acid (PFNA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
1763-23-1	Perfluorooctane sulfonate (PFOS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
335-67-1	Perfluorooctanoic acid (PFOA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
72629-94-8	Perfluorotridecanoic acid (PFTTrDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:19	3705291

Sampling Point: LTB

PWS ID: Not Supplied

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
335-76-2	Perfluorodecanoic acid (PFDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
375-85-9	Perfluoroheptanoic acid (PFHpA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
307-24-4	Perfluorohexanoic acid (PFHxA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
307-55-1	Perfluorolauric acid (PFDoA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
376-06-7	Perfluoromyristic acid (PFTA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
375-95-1	Perfluorononanoic acid (PFNA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
1763-23-1	Perfluorooctane sulfonate (PFOS)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
335-67-1	Perfluorooctanoic acid (PFOA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537	---	2.0	< 2.0	ng/L	06/06/17 08:00	06/07/17 01:35	3705292

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.