From:	O"neill, Christopher (DEC)
To:	Ormsbee, Daniel
Cc:	Leighton, Ed; Miller, Samantha; Keegan, Aaron (HEALTH); Deming, Justin H (HEALTH); Murphy, Michael C (DEC)
Subject:	FW: 1st Half of 2025 GWTS Report, Sterling Drug Site 1 (Curia), HW#442009
Date:	Tuesday, September 16, 2025 1:32:00 PM
Attachments:	image001.png Sterling Site 1 - 1st Half 2025 GWTS Sampling Report.pdf

The NYSDEC and NYSDOH have reviewed the attached semi-annual report for the Groundwater Treatment System (GWTS) at Sterling Drug Site 1 (Curia) in Rensselaer.
This GWTS Report is hereby approved.
As discussed in our recent conference call and as a point of clarification, the NYSDEC's request for PFAS and 1,4-dioxane stands as an ongoing modification to the sampling and analytical protocol for the monthly GWTS influent and effluent samples.

I can be reached at 518-357-2394 if there are any questions.

Christopher O'Neill, P.E.
NYSDEC – Schenectady
518-357-2394

From: Ormsbee, Daniel <Daniel.Ormsbee@curiaglobal.com>
Sent: Friday, August 29, 2025 10:49 AM
To: O'neill, Christopher (DEC) <christopher.oneill@dec.ny.gov>
Cc: Miller, Samantha <smiller@chasolutions.com>; Leighton, Ed <Ed.Leighton@curiaglobal.com>
Subject: 1st Half of 2025 GWTS Report

Good morning Chris –

Please find attached the 1st Half of 2025 Groundwater Treatment System (GWTS) report for the Curia Global site located in Rensselaer, New York.

Thank you!

Daniel B. Ormsbee Jr
Senior EH&S Specialist
He/They

Office: 518-433-7700 (ext. 35325)
Rensselaer, New York
curiaglobal.com

August 29, 2025

Mr. Christopher O'Neill, P.E.
Professional Engineer 1
Division of Environmental Remediation
New York State Department of
Environmental Conservation (NYSDEC)
Region 4
1130 North Westcott Road
Schenectady, NY 12306-2014

Re: Site No.: 442009
Sterling Site No. 1
Rensselaer, New York
Groundwater Treatment System
Biannual Monitoring Results
First Half 2025

Dear Mr. O'Neill:

Enclosed for your review are the biannual monitoring results for the Groundwater Treatment System (GWTS) at Site No.: 442009, Sterling Site No. 1 located in Rensselaer, New York. These results are for the first half of 2025 reporting period (1/01/2025-6/30/2025). Analytical results for the reporting period are summarized in Tables 1, 2 and 3 and copies of the laboratory reports are included in Appendix A.

A total of 6 samples were collected by Adirondack Environmental Services (AES) and 12 by CHA during this reporting period (three samples per month), which consisted of a pre-filter influent, a between filters, and a post-filter effluent sample. The samples were analyzed for the following:

- Benzene,
- Toluene,
- Ethylbenzene,
- Xylene (m, p, and o),
- Chlorobenzene,
- 1,2-Dichlorobenzene,
- 1,3-Dichlorobenzene,
- 1,4-Dichlorobenzene.

A total of 8 samples were collected by CHA during this reporting period (two samples per month) which consisted of a pre-filter influent and a post-filter effluent sample as requested by NYSDEC in the February 4, 2025 Request for Modification letter. A copy of the letter is included in Appendix B. The samples were analyzed for the following:

- 1,4-Dioxane,
- Perfluorooctanoic acid (PFOA),
- Perfluorooctanesulfonic acid (PFOS).

As summarized in Table 1, there were no contaminants of concern reported above groundwater standards in the system's post-filter effluent samples during the reporting period, except for a Chlorobenzene during the May 2025 sampling event. The following month's sampling event, June 2025, Chlorobenzene was determined to be non-detect. The results of the sampling events showed apparent sample port detections for Benzene

and Chlorobenzene in the “between filters”. The “between filters” sample port is located between the primary and secondary 55-gallon liquid phase (GAC) filters.

Table 2 and 3 summarize the expanded sampling and analysis of 1,4-Dioxane, PFOA, and PFOS starting March 2025 as requested by NYSDEC on February 4, 2025. None of the post-filter effluent sample concentrations were above the groundwater standard between March 2025 and May 2025 for PFOA and PFOS constituents; however, both PFOA and PFOS post-filter effluent sample concentrations were above the groundwater standard during the June 2025 sampling event. Additionally, post-filter 1,4-Dioxane sample concentrations were above the groundwater standard between March 2025 and June 2025. The requested samples, as described in the modification letter, will continue through the second half of the year.

Table 4 summarizes GAC filter usage and drum position to date. Drums are stockpiled onsite and changeover of drums is based on analytical results from the ‘between filters’ sample port. Manifests are not included in this report due to no carbon drums being transported off site for the first half of 2025.

No, non-routine, maintenance was conducted during the first half of 2025. As a corrective action to the exceedances discussed above, the carbon cannisters have been replaced and will be reported within the second of 2025’s sampling report.

Should you require any additional information concerning this matter, please do not hesitate to contact the undersigned at 518-433-7700 ext. 35325.

Regards,

Daniel Ormsbee Jr
Sr. Environmental, Health and Safety Specialist

curia

TABLE 1
Sterling Site No. 1
Groundwater Treatment System Analytical Results
First Half 2025

	Benzene (ug/L)				Chlorobenzene (ug/L)			
Sample Date (month/day/year)	Influent (ug/L)	Between Filters (ug/L)	Effluent (ug/L)	Benzene Groundwater Standard (ug/L)	Influent (ug/L)	Between Filters (ug/L)	Effluent (ug/L)	Chlorobenzene Groundwater Standard (ug/L)
1/17/2025	60	10	ND	1.0	4600	560	ND	5.0
2/20/2025	170	100	ND		17000	11000	ND	
3/25/2025	110	40	ND		7800	3000	ND	
4/17/2025	82	50	ND		6400	4000	ND	
5/16/2025	40	5.8	ND		3400	380	7.2	
6/13/2025	29	25	ND		2600	2200	ND	

Notes:
ND : Not Detected at reporting limit
S+: LCS Spike recovery is above acceptable limits

TABLE 2
Sterling Site No.1
Groundwater Treatment System Analytical Results
First Half 2025

	Perfluorooctanoic acid (PFOA) (ng/L)			Perfluorooctanesulfonic acid (PFOS) (ng/L)		
Sample Date (month/day/year)	Influent (ng/L)	Effluent (ng/L)	(PFOA) Groundwater Standard (ng/L)	Influent (ng/L)	Effluent (ng/L)	(PFAS) Groundwater Standard (ng/L)
3/25/2025	16.2	3.76	6.7	23.7	2.06	2.7
4/17/2025	17.8	2.72		22.4	1.35	
5/16/2025	14.3	3.05		26.5	0.73	
6/13/2025	22.4	10.6		31.2	13.4	

Notes:
J : Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration
ND : Not Detected at reporting limit
PF-CCV-L : The CCV recovery for this PFAS compound was below control limits.

curia

TABLE 3
Sterling Site No. 1
Groundwater Treatment System Analytical Results
First Half 2025

	1,4-Dioxane (ug/L)		
Sample Date (month/day/year)	**Influent (ug/L)**	**Effluent (ug/L)**	**1,4-Dioxane Groundwater Standard (ug/L)**
3/25/2025	1.82	2.18	0.35
4/17/2025	2.00	2.38	
5/16/2025	0.91	2.52	
6/13/2025	1.26	1.68	

Notes:

N - Matrix Spike below acceptable limits

S - LCS Spike recovery is below acceptable limits

curia

TABLE 4
GAC Filter Usage and Inventory

Installation Date	Number of Drums	Position of Drum	Position Change Date	Removal Date
December 12, 2016	1	Removed from service	January 17, 2017	February 27, 2017
January 17, 2017	1	Removed from service	February 27, 2017	April 05, 2017
February 27, 2017	1	Removed from service	April 05, 2017	June 15, 2017
April 05, 2017	1	Removed from service	June 15, 2017	June 29, 2017
June 15, 2017	1	Removed from service	June 29, 2017	August 1, 2017
June 29, 2017	1	Removed from service	August 1, 2017	September 6, 2017
August 1, 2017	1	Removed from service	September 6, 2017	October 26, 2017
September 6, 2017	1	Removed from service	October 26, 2017	August 3, 2018
October 26, 2017	1	Removed from service	August 3, 2018	July 10, 2019
August 3, 2018	1	Removed from service	July 10, 2019	November 13, 2019
July 10, 2019	1	Removed from service	November 13, 2019	October 30, 2020
November 13, 2019	1	Removed from service	October 30, 2020	December 17, 2020
October 30, 2020	1	Removed from service	December 17, 2020	August 9, 2021
December 17, 2020	1	Removed from service	August 9, 2021	September 26, 2021
August 13, 2021	1	Removed from service	September 26, 2021	December 22, 2021
September 26, 2022	1	Removed from service	December 22, 2022	August 8, 2022
December 22, 2022	1	Removed from service	August 8, 2022	November 17, 2022
August 8, 2022	1	Removed from service	November 17, 2022	May 16, 2023
November 17, 2022	1	Removed from service	May 16, 2023	August 23, 2023
May 16, 2023	1	Removed from service	August 23, 2023	November 18, 2023
August 23, 2023	1	Removed from service	November 18, 2023	February 9, 2024
November 18, 2023	1	Removed from service	February 9, 2024	May 6, 2024
February 9, 2024	1	Removed from service	May 6, 2024	July 23, 2024
May 6, 2024	1	Removed from service	July 23, 2024	September 17, 2024
July 23, 2024	1	Removed from service	September 17, 2024	December 10, 2024
September 17, 2024	1	Primary	December 10, 2024	
Inventory	3			

curia

Appendix A

Experience is the solution
314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

January 20, 2025

William Gorman
Curia Global, Inc.
33 Riverside Avenue
Rensselaer, NY 12144

TEL: (518)433-7772

Work Order No: 250109050

RE: Building 30
Monthly

Adirondack Environmental Services, Inc received 4 samples on 1/9/2025 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Matthew Daigneault
Laboratory Manager

Adirondack Environmental Services, Inc — CASE NARRATIVE

Curia Global, Inc.

Building 30

Monthly

Date: *20-Jan-25*

Lab WorkOrder: **250109050**

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Definitions - RL: Reporting Limit DF: Dilution factor

Qualifiers:

ND : Not Detected at reporting limit	C: CCV below acceptable Limits
J: Analyte detected below quantitation limit	C+: CCV above acceptable Limits
B: Analyte detected in Blank	S: LCS Spike recovery is below acceptable limits
X : Exceeds maximum contamination limit	S+: LCS Spike recovery is above acceptable limits
H: Hold time exceeded	Z: Duplication outside acceptable limits
N: Matrix Spike below acceptable limits	T : Tentatively Identified Compound-Estimated
N+: Matrix Spike is above acceptable limits	E :Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: *20-Jan-25*

CLIENT:	Curia Global, Inc.	**Client Sample ID:**	Before Filters
Work Order:	**250109050**	**Collection Date:**	1/9/2025 8:50:00 AM
Reference:	Building 30 / Monthly	**Lab Sample ID:**	250109050-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Meter Reading	**10027.0**			gal		1/9/2025 8:50:00 AM
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**60**	25	C	µg/L	50	1/17/2025 6:22:00 PM
Toluene	**ND**	25	C	µg/L	50	1/17/2025 6:22:00 PM
Chlorobenzene	**4600**	25		µg/L	50	1/17/2025 6:22:00 PM
Ethylbenzene	**ND**	25		µg/L	50	1/17/2025 6:22:00 PM
m,p-Xylene	**ND**	25	C	µg/L	50	1/17/2025 6:22:00 PM
o-Xylene	**ND**	25		µg/L	50	1/17/2025 6:22:00 PM
1,3-Dichlorobenzene	**ND**	25		µg/L	50	1/17/2025 6:22:00 PM
1,2-Dichlorobenzene	**ND**	25	C	µg/L	50	1/17/2025 6:22:00 PM
1,4-Dichlorobenzene	**ND**	25	SC	µg/L	50	1/17/2025 6:22:00 PM
Surr: 1,2-Dichloroethane-d4	**107**	74-127		%REC	50	1/17/2025 6:22:00 PM
Surr: 4-Bromofluorobenzene	**98.8**	74-128		%REC	50	1/17/2025 6:22:00 PM
Surr: Toluene-d8	**100**	75-127		%REC	50	1/17/2025 6:22:00 PM

Adirondack Environmental Services, Inc

Date: *20-Jan-25*

CLIENT:	Curia Global, Inc.	**Client Sample ID:**	Between Filters
Work Order:	**250109050**	**Collection Date:**	1/9/2025 8:47:00 AM
Reference:	Building 30 / Monthly	**Lab Sample ID:**	250109050-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**10**	2.5	C	µg/L	5	1/17/2025 5:57:00 PM
Toluene	**ND**	2.5	C	µg/L	5	1/17/2025 5:57:00 PM
Chlorobenzene	**560**	2.5		µg/L	5	1/17/2025 5:57:00 PM
Ethylbenzene	**ND**	2.5		µg/L	5	1/17/2025 5:57:00 PM
m,p-Xylene	**ND**	2.5	C	µg/L	5	1/17/2025 5:57:00 PM
o-Xylene	**ND**	2.5		µg/L	5	1/17/2025 5:57:00 PM
1,3-Dichlorobenzene	**ND**	2.5		µg/L	5	1/17/2025 5:57:00 PM
1,2-Dichlorobenzene	**ND**	2.5	C	µg/L	5	1/17/2025 5:57:00 PM
1,4-Dichlorobenzene	**ND**	2.5	SC	µg/L	5	1/17/2025 5:57:00 PM
Surr: 1,2-Dichloroethane-d4	**104**	74-127		%REC	5	1/17/2025 5:57:00 PM
Surr: 4-Bromofluorobenzene	**102**	74-128		%REC	5	1/17/2025 5:57:00 PM
Surr: Toluene-d8	**95.0**	75-127		%REC	5	1/17/2025 5:57:00 PM

Adirondack Environmental Services, Inc

Date: *20-Jan-25*

CLIENT:	Curia Global, Inc.	**Client Sample ID:**	After Filters
Work Order:	**250109050**	**Collection Date:**	1/9/2025 8:45:00 AM
Reference:	Building 30 / Monthly	**Lab Sample ID:**	250109050-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
Toluene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
Chlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
Ethylbenzene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
m,p-Xylene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
o-Xylene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
1,3-Dichlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
1,2-Dichlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
1,4-Dichlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:56:00 PM
Surr: 1,2-Dichloroethane-d4	**101**	74-127		%REC	1	1/10/2025 5:56:00 PM
Surr: 4-Bromofluorobenzene	**105**	74-128		%REC	1	1/10/2025 5:56:00 PM
Surr: Toluene-d8	**98.5**	75-127		%REC	1	1/10/2025 5:56:00 PM

Adirondack Environmental Services, Inc

Date: *20-Jan-25*

CLIENT:	Curia Global, Inc.	**Client Sample ID:**	Trip Blank
Work Order:	**250109050**	**Collection Date:**	1/9/2025
Reference:	Building 30 / Monthly	**Lab Sample ID:**	250109050-004
PO#:		**Matrix:**	TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
Toluene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
Chlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
Ethylbenzene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
m,p-Xylene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
o-Xylene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
1,3-Dichlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
1,2-Dichlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
1,4-Dichlorobenzene	**ND**	0.5		µg/L	1	1/10/2025 5:34:00 PM
Surr: 1,2-Dichloroethane-d4	**102**	74-127		%REC	1	1/10/2025 5:34:00 PM
Surr: 4-Bromofluorobenzene	**99.8**	74-128		%REC	1	1/10/2025 5:34:00 PM
Surr: Toluene-d8	**98.9**	75-127		%REC	1	1/10/2025 5:34:00 PM

CC

Adirondack Environmental Services, Inc.®
314 North Pearl Street
Albany, New York 12207
518-434-4546 ♦ Fax: 518-434-0891

CHAIN OF CUSTODY RECORD

AES Work Order#: 250109050

EXPERIENCE IS THE SOLUTION

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: **Curia Global Inc.**	Address:	
Send Report to:	Project Name (Location): Bldg. 30 - Monthly	Samplers Name: Darren Coats
Client Phone No:	PO #:	Samplers Signature: D C
Client Fax No:		

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
001	**Before Filters**	1/9/25	8:50	(A) P	GW		G	2	Meter Reading, EPA 8260
002	**Between Filters**	1/9/25	8:47	(A) P	GW		G	2	EPA 8260
003	**After Filters**	1/9/25	8:45	(A) P	GW		G	2	EPA 8260
004	**Trip Blank Lot #**			A P	WA		G	1	EPA 8260

Shipment Arrived Via:
FedEx UPS Client (AES) Other: _____

Turnaround Time Requested:
④ 1 Day ④ 3 Day ④ Normal
④ 2 -Day ④ 5 Day

Special Instructions/Remarks:
Normal TAT

October 2023-September 2024 ONLY

Meter Reading: 10027.0

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature) D C	**Received for Laboratory by:** C	Date 1/9/25	Time 2:56pm

Sample Temperature
Ambient Chilled
Chilling Process begun
Notes: 4°C

Properly Preserved
(Y) N
Notes:

Received Within Holding Times
(Y) N
Notes:

250109050

Adirondack Environmental Services Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

(a) Neither **Adirondack Environmental Services, Inc.,** nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.'s** performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.

(b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.

(c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.

(d) In no event shall **Adirondack Environmental Services, Inc.,** its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.

(e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**

(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

(g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

Experience is the solution
314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

February 24, 2025

William Gorman
Curia Global, Inc.
33 Riverside Avenue
Rensselaer, NY 12144

TEL: (518)433-7772

Work Order No: 250220057
PO#: 250088

RE: Building 30
Monthly

Adirondack Environmental Services, Inc received 4 samples on 2/20/2025 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Matthew Daigneault
Laboratory Manager

Adirondack Environmental Services, Inc — CASE NARRATIVE

Curia Global, Inc.

Building 30

Monthly

Date: *24-Feb-25*

Lab WorkOrder: **250220057**

The sampling was performed in accordance with the AES field sampling procedures and/or the client specified sampling procedures. Sample containers were supplied by Adirondack Environmental Services.

Definitions - RL: Reporting Limit DF: Dilution factor

Qualifiers:

- ND : Not Detected at reporting limit
- J: Analyte detected below quantitation limit
- B: Analyte detected in Blank
- X : Exceeds maximum contamination limit
- H: Hold time exceeded
- N: Matrix Spike below acceptable limits
- N+: Matrix Spike is above acceptable limits
- C: CCV below acceptable Limits
- C+: CCV above acceptable Limits
- S: LCS Spike recovery is below acceptable limits
- S+: LCS Spike recovery is above acceptable limits
- Z: Duplication outside acceptable limits
- T : Tentatively Identified Compound-Estimated
- E :Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: *24-Feb-25*

CLIENT: Curia Global, Inc.
Project: Building 30
Monthly

LabWork Order: **250220057**
PO#: 250088

Lab SampleID: 250220057-001
Client Sample ID: Before Filters

Collection Date: 2/20/2025 9:45:00 AM
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Meter Reading	**12106**			gal		2/20/2025 9:45:00 AM
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**170**	25		µg/L	50	2/21/2025 4:56:00 PM
Toluene	**ND**	25		µg/L	50	2/21/2025 4:56:00 PM
Chlorobenzene	**17000**	120		µg/L	250	2/21/2025 6:50:00 PM
Ethylbenzene	**ND**	25		µg/L	50	2/21/2025 4:56:00 PM
m,p-Xylene	**ND**	25		µg/L	50	2/21/2025 4:56:00 PM
o-Xylene	**ND**	25		µg/L	50	2/21/2025 4:56:00 PM
1,3-Dichlorobenzene	**ND**	25		µg/L	50	2/21/2025 4:56:00 PM
1,2-Dichlorobenzene	**ND**	25		µg/L	50	2/21/2025 4:56:00 PM
1,4-Dichlorobenzene	**ND**	25		µg/L	50	2/21/2025 4:56:00 PM
Surr: 1,2-Dichloroethane-d4	**81.4**	74-127		%REC	50	2/21/2025 4:56:00 PM
Surr: 1,2-Dichloroethane-d4	**83.9**	74-127		%REC	250	2/21/2025 6:50:00 PM
Surr: 4-Bromofluorobenzene	**116**	74-128		%REC	50	2/21/2025 4:56:00 PM
Surr: 4-Bromofluorobenzene	**112**	74-128		%REC	250	2/21/2025 6:50:00 PM
Surr: Toluene-d8	**93.3**	75-127		%REC	50	2/21/2025 4:56:00 PM
Surr: Toluene-d8	**97.2**	75-127		%REC	250	2/21/2025 6:50:00 PM

Adirondack Environmental Services, Inc

Date: *24-Feb-25*

CLIENT: Curia Global, Inc.
Project: Building 30
Monthly

LabWork Order: **250220057**
PO#: 250088

Lab SampleID: 250220057-002 **Collection Date:** 2/20/2025 9:40:00 AM
Client Sample ID: Between Filters **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**100**	2.5		µg/L	5	2/21/2025 4:32:00 PM
Toluene	**ND**	2.5		µg/L	5	2/21/2025 4:32:00 PM
Chlorobenzene	**11000**	50		µg/L	100	2/21/2025 6:25:00 PM
Ethylbenzene	**ND**	2.5		µg/L	5	2/21/2025 4:32:00 PM
m,p-Xylene	**ND**	2.5		µg/L	5	2/21/2025 4:32:00 PM
o-Xylene	**ND**	2.5		µg/L	5	2/21/2025 4:32:00 PM
1,3-Dichlorobenzene	**ND**	2.5		µg/L	5	2/21/2025 4:32:00 PM
1,2-Dichlorobenzene	**ND**	2.5		µg/L	5	2/21/2025 4:32:00 PM
1,4-Dichlorobenzene	**ND**	2.5		µg/L	5	2/21/2025 4:32:00 PM
Surr: 1,2-Dichloroethane-d4	**92.7**	74-127		%REC	5	2/21/2025 4:32:00 PM
Surr: 1,2-Dichloroethane-d4	**89.4**	74-127		%REC	100	2/21/2025 6:25:00 PM
Surr: 4-Bromofluorobenzene	**107**	74-128		%REC	5	2/21/2025 4:32:00 PM
Surr: 4-Bromofluorobenzene	**106**	74-128		%REC	100	2/21/2025 6:25:00 PM
Surr: Toluene-d8	**87.6**	75-127		%REC	5	2/21/2025 4:32:00 PM
Surr: Toluene-d8	**95.4**	75-127		%REC	100	2/21/2025 6:25:00 PM

Lab SampleID: 250220057-003 **Collection Date:** 2/20/2025 9:35:00 AM
Client Sample ID: After Filters **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
Toluene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
Chlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
Ethylbenzene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
m,p-Xylene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
o-Xylene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
1,3-Dichlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
1,2-Dichlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
1,4-Dichlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:46:00 PM
Surr: 1,2-Dichloroethane-d4	**88.0**	74-127		%REC	1	2/21/2025 3:46:00 PM
Surr: 4-Bromofluorobenzene	**114**	74-128		%REC	1	2/21/2025 3:46:00 PM
Surr: Toluene-d8	**99.7**	75-127		%REC	1	2/21/2025 3:46:00 PM

Adirondack Environmental Services, Inc

Date: *24-Feb-25*

CLIENT: Curia Global, Inc.
Project: Building 30
Monthly

LabWork Order: **250220057**
PO#: 250088

Lab SampleID: 250220057-004
Client Sample ID: Trip Blank

Collection Date: 2/20/2025
Matrix: TRIP BLANK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS EPA 8260C (SW5030C PREP)						Analyst: **DZ**
Benzene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
Toluene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
Chlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
Ethylbenzene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
m,p-Xylene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
o-Xylene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
1,3-Dichlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
1,2-Dichlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
1,4-Dichlorobenzene	**ND**	0.5		µg/L	1	2/21/2025 3:24:00 PM
Surr: 1,2-Dichloroethane-d4	**85.9**	74-127		%REC	1	2/21/2025 3:24:00 PM
Surr: 4-Bromofluorobenzene	**112**	74-128		%REC	1	2/21/2025 3:24:00 PM
Surr: Toluene-d8	**106**	75-127		%REC	1	2/21/2025 3:24:00 PM

CC

Adirondack Environmental Services Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546 ♦ Fax: 518-434-0891

CHAIN OF CUSTODY RECORD

AES Work Order#: 25022005 7

EXPERIENCE IS THE SOLUTION

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: **Curia Global Inc.**	Address:	
Send Report to:	Project Name (Location): Bldg. 30 - Monthly	Samplers Name: Daren Cook
Client Phone No:	PO #:	Samplers Signature:
Client Fax No:		

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
001	**Before Filters**	2/20/25	9:45	A P	GW		G	2	**Meter Reading, EPA 8260**
				A P					
				A P					
				A P					
002	**Between Filters**	2/20/25	9:40	A P	GW		G	2	**EPA 8260**
				A P					
003	**After Filters**	2/20/25	9:35	A P	GW		G	2	**EPA 8260**
				A P					
				A P					
				A P					
004	**Trip Blank Lot #**	2/20/25		A P	WA		G	1	**EPA 8260**
				A P					

Shipment Arrived Via:
FedEx UPS Client AES Other: _____

Turnaround Time Requested:
④ 1 Day ④ 3 Day ④ Normal
④ 2 -Day ④ 5 Day

Special Instructions/Remarks:
Normal TAT

~~October 2023-September 2024 ONLY~~

Meter Reading: 12106

		Date	Time
Relinquished by: (Signature)	Received by: (Signature)		
Relinquished by: (Signature)	Received by: (Signature)		
Relinquished by: (Signature)	**Received for Laboratory by:**	Date 2/20/25	Time 3:21pm

Sample Temperature
Ambient Chilled
Chilling Process begun
Notes: 4

Properly Preserved
Y N
Notes:

Received Within Holding Times
Y N
Notes:

250220057

Adirondack Environmental Services Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

(a) Neither **Adirondack Environmental Services, Inc.,** nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.'s** performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.

(b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.

(c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.

(d) In no event shall **Adirondack Environmental Services, Inc.,** its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.

(e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**

(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

(g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

ANALYTICAL REPORT

Lab Number:	L2517431
Client:	CHA Companies One Park Place 300 South State St., Suite 600 Syracuse, NY 13202
ATTN:	Samantha Miller
Phone:	(315) 471-3920
Project Name:	2025 GWTS SAMPLING
Project Number:	075104.001
Report Date:	04/02/25

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517431
Report Date: 04/02/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2517431-01	TRIP BLANK	WATER	RENSSELAER, NY	03/25/25 00:00	03/25/25
L2517431-02	BEFORE FILTERS	WATER	RENSSELAER, NY	03/25/25 11:35	03/25/25
L2517431-03	BETWEEN FILTERS	WATER	RENSSELAER, NY	03/25/25 11:40	03/25/25
L2517431-04	AFTER FILTERS	WATER	RENSSELAER, NY	03/25/25 11:45	03/25/25

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517431
Project Number:	075104.001	**Report Date:**	04/02/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517431
Project Number:	075104.001	**Report Date:**	04/02/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 04/02/25

ORGANICS

VOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2517431-01
Client ID: TRIP BLANK
Sample Location: RENSSELAER, NY
Date Collected: 03/25/25 00:00
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/30/25 11:21
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	105		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517431
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2517431-02 D
Client ID: BEFORE FILTERS
Sample Location: RENSSELAER, NY

Date Collected: 03/25/25 11:35
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/01/25 09:09
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	7800		ug/l	120	35.	50
Benzene	110		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
Xylenes, Total	ND		ug/l	120	35.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	110		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2517431-03 D
Client ID: BETWEEN FILTERS
Sample Location: RENSSELAER, NY
Date Collected: 03/25/25 11:40
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/30/25 12:40
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	3000		ug/l	100	28.	40
Benzene	40		ug/l	20	6.4	40
Toluene	ND		ug/l	100	28.	40
Ethylbenzene	ND		ug/l	100	28.	40
1,2-Dichlorobenzene	ND		ug/l	100	28.	40
1,3-Dichlorobenzene	ND		ug/l	100	28.	40
1,4-Dichlorobenzene	ND		ug/l	100	28.	40
p/m-Xylene	ND		ug/l	100	28.	40
o-Xylene	ND		ug/l	100	28.	40
Xylenes, Total	ND		ug/l	100	28.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	106		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2517431-04
Client ID: AFTER FILTERS
Sample Location: RENSSELAER, NY
Date Collected: 03/25/25 11:45
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 03/30/25 11:47
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	106		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 03/30/25 10:03
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-04 Batch: WG2047926-5					
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	106		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 04/01/25 08:45
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG2047969-5					
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	115		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517431
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04 Batch: WG2047926-3 WG2047926-4								
Chlorobenzene	100		100		75-130	0		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		104		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	95		93		70-130
Dibromofluoromethane	103		102		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517431
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG2047969-3 WG2047969-4								
Chlorobenzene	100		100		75-130	0		20
Benzene	110		110		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		100		70-130	0		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		106		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	98		102		70-130
Dibromofluoromethane	107		104		70-130

SEMIVOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517431
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2517431-02
Client ID: BEFORE FILTERS
Sample Location: RENSSELAER, NY

Date Collected: 03/25/25 11:35
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/31/25 13:51
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/28/25 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	1820		ng/l	139	31.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	36		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

SAMPLE RESULTS

Lab ID: L2517431-04
Client ID: AFTER FILTERS
Sample Location: RENSSELAER, NY

Date Collected: 03/25/25 11:45
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 03/31/25 14:16
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/28/25 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	2180		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	40		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 03/31/25 11:01
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 03/28/25 11:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 02,04 Batch: WG2046468-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	40		15-110

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517431
Report Date: 04/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab	Associated sample(s): 02,04		Batch: WG2046468-2		WG2046468-3			
1,4-Dioxane	125		127		40-140	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	41		34		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517431
Report Date: 04/02/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2517431-01A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-01B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-02A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-02B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-02C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-02D	Amber 250ml unpreserved	A	7	7	4.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2517431-02E	Amber 250ml unpreserved	A	7	7	4.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2517431-03A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-03B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-03C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-04A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-04B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-04C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L2517431-04D	Amber 250ml unpreserved	A	7	7	4.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2517431-04E	Amber 250ml unpreserved	A	7	7	4.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517431
Project Number:	075104.001	**Report Date:**	04/02/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517431
Project Number:	075104.001	**Report Date:**	04/02/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517431
Project Number:	075104.001	**Report Date:**	04/02/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517431
Report Date: 04/02/25

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 3/26/25

ALPHA Job #: L2517431

Client Information
Client: CHA Consulting
Address: 11 Winners Circle
Albany NY 12205
Phone:
Fax:
Email: smiller@chasolutions.com

Project Information
Project Name: 2025 GWTS Sampling
Project Location: Rensselaer NY
Project #: 075104.001
(Use Project name as Project #) ☐
Project Manager: Samantha Miller
ALPHAQuote #: 30091

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #: 075104.001-01

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Client specific VOCs: benzene, chlorobenzene, ethylbenzene, toluene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, xylene (m,p,o)

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs - 8260 Client Specific	1,4 Dioxane - 8270 SIM	Total # Bottles	Sample Specific Comments
L2517431-01	Trip Blank	3.25.2025	—	W	—	X			
02	Before Filters	3.25.2025	1135	W	CH	X	X	5	
03	Between Filters	3.25.2025	1140	W	CH	X		3	
04	After Filters	3.25.2025	1145	W	CH	X	X	5	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	A								
Preservative	B	A								

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3.25.25 13:16	B. Lyons AAL	3/25 13:10
B Lyons	3/25 13:21	[signature]	3/26 0730

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2517434
Client:	CHA Companies One Park Place 300 South State St., Suite 600 Syracuse, NY 13202
ATTN:	Samantha Miller
Phone:	(315) 471-3920
Project Name:	2025 GWTS SAMPLING
Project Number:	075104.001
Report Date:	04/16/25

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517434
Report Date: 04/16/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2517434-01	BEFORE FILTERS	WATER	RENSSELEAR, NY	03/25/25 11:35	03/25/25
L2517434-02	AFTER FILTERS	WATER	RENSSELEAR, NY	03/25/25 11:45	03/25/25

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517434
Project Number:	075104.001	**Report Date:**	04/16/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517434
Project Number:	075104.001	**Report Date:**	04/16/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by 1633

L2517434-01: The Extracted Internal Standard recoveries were above the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]hexanesulfonic acid (m2-4:2fts) (216%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (218%). Since the sample was non-detect to the RL for all associated target analytes, re-analysis was not required.

The Extracted Internal Standard recovery for the WG2053575-2 LCS associated with L2517434-01 and -02 is outside the acceptance criteria for n-deuteriomethylperfluoro-1-octanesulfonamidoacetic acid (d3-nmefosaa) (180%); however, all associated target analytes are within overall LCS criteria; therefore, no further action was taken.

The WG2053575-3 LCS recovery associated with L2517434-01 and -02 is above the acceptance criteria for perfluoropentanesulfonic acid (pfpes) (146%); however, the associated samples are non-detect to the reporting limit for this target analyte. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Alycia Mogayzel

Title: Technical Director/Representative Date: 04/16/25

ORGANICS

SEMIVOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

SAMPLE RESULTS

Lab ID: L2517434-01
Client ID: BEFORE FILTERS
Sample Location: RENSSELEAR, NY

Date Collected: 03/25/25 11:35
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/16/25 01:07
Analyst: ANH

Extraction Method: EPA 1633
Extraction Date: 04/14/25 08:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	16.1		ng/l	6.29	0.519	1
Perfluoropentanoic Acid (PFPeA)	18.5		ng/l	3.14	0.354	1
Perfluorobutanesulfonic Acid (PFBS)	2.35		ng/l	1.57	0.393	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.29	0.896	1
Perfluorohexanoic Acid (PFHxA)	13.5		ng/l	1.57	0.244	1
Perfluoropentanesulfonic Acid (PFPeS)	1.28	J	ng/l	1.57	0.204	1
Perfluoroheptanoic Acid (PFHpA)	13.4		ng/l	1.57	0.236	1
Perfluorohexanesulfonic Acid (PFHxS)	11.5		ng/l	1.57	0.134	1
Perfluorooctanoic Acid (PFOA)	16.2		ng/l	1.57	0.259	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.29	4.73	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.448	JF	ng/l	1.57	0.196	1
Perfluorononanoic Acid (PFNA)	3.67		ng/l	1.57	0.259	1
Perfluorooctanesulfonic Acid (PFOS)	23.7		ng/l	1.57	0.259	1
Perfluorodecanoic Acid (PFDA)	0.519	J	ng/l	1.57	0.204	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.29	1.20	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.57	0.196	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.57	0.472	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.57	0.173	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.57	0.134	1
Perfluorooctanesulfonamide (PFOSA)	0.707	J	ng/l	1.57	0.094	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.57	0.472	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.57	0.212	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.57	0.181	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.57	0.157	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.29	1.57	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.29	0.369	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.57	0.236	1

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

SAMPLE RESULTS

Lab ID: L2517434-01
Client ID: BEFORE FILTERS
Sample Location: RENSSELEAR, NY
Date Collected: 03/25/25 11:35
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.29	0.432	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.29	0.440	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.57	0.220	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.57	0.346	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.7	1.28	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.7	1.08	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.14	0.244	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.14	0.354	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.14	0.322	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.14	0.534	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.86	0.526	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	39.3	4.18	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	39.3	3.13	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2517434

Project Number: 075104.001 **Report Date:** 04/16/25

SAMPLE RESULTS

Lab ID: L2517434-01 Date Collected: 03/25/25 11:35

Client ID: BEFORE FILTERS Date Received: 03/25/25

Sample Location: RENSSELEAR, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	89		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	82		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	82		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	**216**	Q	40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	89		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	87		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	90		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	89		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	**218**	Q	40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	79		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	69		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	65		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	143		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	107		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	63		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	58		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	99		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	63		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	59		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	84		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	47		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	49		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	49		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	46		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

SAMPLE RESULTS

Lab ID: L2517434-02
Client ID: AFTER FILTERS
Sample Location: RENSSELEAR, NY

Date Collected: 03/25/25 11:45
Date Received: 03/25/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 04/16/25 01:16
Analyst: ANH

Extraction Method: EPA 1633
Extraction Date: 04/14/25 08:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	23.4		ng/l	6.21	0.512	1
Perfluoropentanoic Acid (PFPeA)	33.1		ng/l	3.10	0.349	1
Perfluorobutanesulfonic Acid (PFBS)	0.854	J	ng/l	1.55	0.388	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.21	0.885	1
Perfluorohexanoic Acid (PFHxA)	11.2		ng/l	1.55	0.241	1
Perfluoropentanesulfonic Acid (PFPeS)	0.202	J	ng/l	1.55	0.202	1
Perfluoroheptanoic Acid (PFHpA)	4.95		ng/l	1.55	0.233	1
Perfluorohexanesulfonic Acid (PFHxS)	1.99		ng/l	1.55	0.132	1
Perfluorooctanoic Acid (PFOA)	3.76		ng/l	1.55	0.256	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.21	4.67	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.55	0.194	1
Perfluorononanoic Acid (PFNA)	0.450	J	ng/l	1.55	0.256	1
Perfluorooctanesulfonic Acid (PFOS)	2.06		ng/l	1.55	0.256	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.55	0.202	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.21	1.19	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.55	0.194	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.55	0.466	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.55	0.171	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.55	0.132	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.55	0.093	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.55	0.466	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.55	0.210	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.55	0.178	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.55	0.155	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.21	1.55	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.21	0.365	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.55	0.233	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2517434

Project Number: 075104.001 **Report Date:** 04/16/25

SAMPLE RESULTS

Lab ID: L2517434-02 Date Collected: 03/25/25 11:45

Client ID: AFTER FILTERS Date Received: 03/25/25

Sample Location: RENSSELEAR, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.21	0.427	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.21	0.435	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.55	0.217	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.55	0.342	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.5	1.26	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.5	1.07	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.10	0.241	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.10	0.349	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.10	0.318	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.10	0.528	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.76	0.520	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	38.8	4.13	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	38.8	3.09	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2517434

Project Number: 075104.001 **Report Date:** 04/16/25

SAMPLE RESULTS

Lab ID: L2517434-02 Date Collected: 03/25/25 11:45

Client ID: AFTER FILTERS Date Received: 03/25/25

Sample Location: RENSSELEAR, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	87		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	91		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	84		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	108		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	94		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	90		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	85		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	84		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	95		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	76		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	77		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	74		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	71		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	132		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	73		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	80		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	82		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	72		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	79		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	90		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	63		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	71		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	62		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	62		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/16/25 00:40
Analyst: ANH

Extraction Method: EPA 1633
Extraction Date: 04/14/25 08:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-02 Batch: WG2053575-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/16/25 00:40
Analyst: ANH

Extraction Method: EPA 1633
Extraction Date: 04/14/25 08:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-02 Batch: WG2053575-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 04/16/25 00:40
Analyst: ANH

Extraction Method: EPA 1633
Extraction Date: 04/14/25 08:25

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-02 Batch: WG2053575-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	89		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	91		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	78		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	80		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	94		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	90		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	86		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	82		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	85		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	86		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	82		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	77		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	76		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	157		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	77		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	91		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	83		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	77		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	75		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	90		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	60		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	69		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	66		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	68		10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517434
Report Date: 04/16/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2053575-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	119		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	111		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	100		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	99		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	110		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	122		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	127		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	128		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	115		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	123		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	124		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	109		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	112		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	117		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	116		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	123		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	110		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	108		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	125		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	117		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	115		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2053575-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	114		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	101		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	131		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	114		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	137		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	127		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	149		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	141		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	108		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	104		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	112		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	106		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	94		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	110		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	117		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	107		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	104		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	114		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	132		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2053575-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	90				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	91				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	92				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	92				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	93				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	86				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	81				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	89				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	89				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	88				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	77				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	82				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	88				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	**180**	Q			40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	84				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	95				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	85				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	91				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	87				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	90				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	67				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	68				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	71				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	72				10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517434
Report Date: 04/16/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2053575-3								
Perfluorobutanoic Acid (PFBA)	126		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	118		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	123		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	126		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	115		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	**146**	Q	-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	121		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	142		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	114		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	120		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	119		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	125		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	109		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	118		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	108		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	96		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	93		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	113		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	89		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	104		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	88		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517434
Report Date: 04/16/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2053575-3								
Perfluorododecanoic Acid (PFDoA)	112		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	112		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	103		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	122		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	121		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	98		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	124		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	96		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	103		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	96		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	99		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	101		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	109		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	113		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	118		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	109		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	107		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	113		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	91		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2053575-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	88				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	94				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	90				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	85				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	93				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	93				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	72				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	89				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	88				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	84				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	84				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	79				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	87				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	117				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	72				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	67				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	68				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	76				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	95				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	91				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	67				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	73				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	59				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	63				10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517434
Report Date: 04/16/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2517434-01A	Plastic 500ml unpreserved	A	NA		4.2	Y	Absent		A2-NY-1633(28)
L2517434-01B	Plastic 500ml unpreserved	A	NA		4.2	Y	Absent		A2-NY-1633(28)
L2517434-02A	Plastic 500ml unpreserved	A	NA		4.2	Y	Absent		A2-NY-1633(28)
L2517434-02B	Plastic 500ml unpreserved	A	NA		4.2	Y	Absent		A2-NY-1633(28)

*Values in parentheses indicate holding time in days

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2517434
Report Date: 04/16/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517434
Project Number:	075104.001	**Report Date:**	04/16/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517434
Project Number:	075104.001	**Report Date:**	04/16/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2517434
Project Number:	075104.001	**Report Date:**	04/16/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2517434
Report Date: 04/16/25

REFERENCES

144 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. Draft EPA Method 1633, EPA Document 821-D-22-001, June 2022.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 3/26/25

ALPHA Job #: L2517434

Client Information
Client: CHA Consulting
Address: 11 Winners Circle
Albany NY 12205
Phone:
Fax:
Email: smiller@chasolutions.com

Project Information
Project Name: 2025 GWTS Sampling
Project Location: Rensselear NY
Project #: 075104.001
(Use Project name as Project #) ☐
Project Manager: Samantha Miller
ALPHAQuote #: 30091

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #: 075104.001 - 01

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

PFAS - 1633

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS - 1633	Sample Specific Comments	Total Bottle
17434-01	Before Filters	3.25.2025	1135	Water	CH	X		2
-02	After Filters	3.25.2025	1145	Water	CH	X		2

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	P
Preservative	A

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Relinquished By:	Date/Time	Received By:	Date/Time
3/25/25	13:16	B Lyons	3/25 13:16
B Lyons	3/25 13:21		
	0130		3/26 0130
	3/26/25 1930	Ed Mendoza ASL	3/26/25 1955
Ed Mendoza ASL	3/26/25 2040		3/26/25 2040

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2523770
Client:	CHA Companies One Park Place 300 South State St., Suite 600 Syracuse, NY 13202
ATTN:	Samantha Miller
Phone:	(315) 471-3920
Project Name:	2025 GWTS SAMPLING
Project Number:	075104.001
Report Date:	05/01/25

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2523770
Report Date: 05/01/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2523770-01	BEFORE FILTERS	WATER	RENSSELAER, NY	04/17/25 12:25	04/17/25
L2523770-02	BETWEEN FILTERS	WATER	RENSSELAER, NY	04/17/25 12:30	04/17/25
L2523770-03	AFTER FILTERS	WATER	RENSSELAER, NY	04/17/25 12:35	04/17/25
L2523770-04	TRIP BLANK	WATER	RENSSELAER, NY	04/17/25 00:00	04/17/25

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523770
Project Number:	075104.001	**Report Date:**	05/01/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523770
Project Number:	075104.001	**Report Date:**	05/01/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 05/01/25

ORGANICS

VOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

SAMPLE RESULTS

Lab ID: L2523770-01 D
Client ID: BEFORE FILTERS
Sample Location: RENSSELAER, NY

Date Collected: 04/17/25 12:25
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/27/25 16:41
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	6400		ug/l	120	35.	50
Benzene	82		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
Xylenes, Total	ND		ug/l	120	35.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	103		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

SAMPLE RESULTS

Lab ID: L2523770-02 D
Client ID: BETWEEN FILTERS
Sample Location: RENSSELAER, NY

Date Collected: 04/17/25 12:30
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/27/25 17:07
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	4000		ug/l	100	28.	40
Benzene	50		ug/l	20	6.4	40
Toluene	ND		ug/l	100	28.	40
Ethylbenzene	ND		ug/l	100	28.	40
1,2-Dichlorobenzene	ND		ug/l	100	28.	40
1,3-Dichlorobenzene	ND		ug/l	100	28.	40
1,4-Dichlorobenzene	ND		ug/l	100	28.	40
p/m-Xylene	ND		ug/l	100	28.	40
o-Xylene	ND		ug/l	100	28.	40
Xylenes, Total	ND		ug/l	100	28.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	103		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

SAMPLE RESULTS

Lab ID: L2523770-03
Client ID: AFTER FILTERS
Sample Location: RENSSELAER, NY
Date Collected: 04/17/25 12:35
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/27/25 17:35
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	113		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

SAMPLE RESULTS

Lab ID: L2523770-04
Client ID: TRIP BLANK
Sample Location: RENSSELAER, NY
Date Collected: 04/17/25 00:00
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 04/27/25 18:23
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	116		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 04/27/25 10:17
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03-04 Batch: WG2059436-5					
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	115		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 04/27/25 11:55
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG2059974-5					
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	102		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2523770
Report Date: 05/01/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03-04 Batch: WG2059436-3 WG2059436-4								
Chlorobenzene	100		100		75-130	0		20
Benzene	100		100		70-130	0		20
Toluene	97		100		70-130	3		20
Ethylbenzene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
p/m-Xylene	105		110		70-130	5		20
o-Xylene	105		105		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		99		70-130
Toluene-d8	98		100		70-130
4-Bromofluorobenzene	96		98		70-130
Dibromofluoromethane	109		106		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2523770
Report Date: 05/01/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG2059974-3 WG2059974-4								
Chlorobenzene	94		97		75-130	3		20
Benzene	95		100		70-130	5		20
Toluene	97		100		70-130	3		20
Ethylbenzene	95		99		70-130	4		20
1,2-Dichlorobenzene	93		94		70-130	1		20
1,3-Dichlorobenzene	93		95		70-130	2		20
1,4-Dichlorobenzene	91		96		70-130	5		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	95		100		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		98		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	88		88		70-130
Dibromofluoromethane	102		102		70-130

SEMIVOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

SAMPLE RESULTS

Lab ID: L2523770-01
Client ID: BEFORE FILTERS
Sample Location: RENSSELAER, NY

Date Collected: 04/17/25 12:25
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 04/29/25 19:56
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 04/24/25 21:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	2000		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	32		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

SAMPLE RESULTS

Lab ID: L2523770-03
Client ID: AFTER FILTERS
Sample Location: RENSSELAER, NY

Date Collected: 04/17/25 12:35
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 04/29/25 21:18
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 04/24/25 21:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	2380		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	31		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 04/29/25 16:45
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 04/24/25 21:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01,03 Batch: WG2058332-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	38		15-110

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2523770
Report Date: 05/01/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab	Associated sample(s): 01,03		Batch: WG2058332-2		WG2058332-3			
1,4-Dioxane	138		136		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	38		39		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001

Lab Number: L2523770
Report Date: 05/01/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2523770-01A	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-01B	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-01C	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-01D	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2523770-01E	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2523770-02A	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-02B	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-02C	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-03A	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-03B	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-03C	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-03D	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2523770-03E	Amber 250ml unpreserved	B	7	7	4.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2523770-04A	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)
L2523770-04B	Vial HCl preserved	B	NA		4.1	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523770
Project Number:	075104.001	**Report Date:**	05/01/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523770
Project Number:	075104.001	**Report Date:**	05/01/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523770
Project Number:	075104.001	**Report Date:**	05/01/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001
Lab Number: L2523770
Report Date: 05/01/25

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page) of)

Date Rec'd in Lab: 4/22/25

ALPHA Job #: L2523770

Client Information

Client: CHA Consulting
Address: 11 Winners Circle Albany NY 12205
Phone:
Fax:
Email: smiller@chasolutions.com

Project Information

Project Name: 2025 GWTS sampling
Project Location: Rensselaer NY
Project #: 075104.001.0202505
(Use Project name as Project #) ☐
Project Manager: Samantha Miller
ALPHAQuote #: 30091

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☒ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☒ Same as Client Info
PO #: 075104.001-01

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Client specific VOCs = benzene, chlorobenzene, ethylbenzene, toluene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, xylenes (total)

Please specify Metals or TAL.

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs - 8260 Client Specific	1,4 Dioxane - 8270 SIM	Sample Filtration	Total # Bottles
2370 -01	Before Filters	4.17.25	12:25	GW	CRH	X	X	☐ Done ☐ Lab to do	5
-02	Between Filters	↓	12:30	↓	↓	X		Preservation ☐ Lab to do	3
-03	After Filters	↓	12:35	↓	↓	X	X	(Please Specify below)	5
-04	Trip Blank	-	-	-	-	X			2

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	A
Preservative	B	A

Relinquished By:	Date/Time	Received By:	Date/Time
TACL	4/17/25 15:25	FACE	4/17/25 1523
	4/17/25 1730		4/18 0200
	4/22/25 1000		4/22/25 1548
	4/22/25 1470	BINCS NAC	4/22/26 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2523772
Client:	CHA Companies One Park Place 300 South State St., Suite 600 Syracuse, NY 13202
ATTN:	Samantha Miller
Phone:	(315) 471-3920
Project Name:	2025 GWTS SAMPLING
Project Number:	075104.001.0202505
Report Date:	05/12/25

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2523772
Report Date: 05/12/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2523772-01	BEFORE FILTERS	WATER	RENSELLAER, NY	04/17/25 12:25	04/17/25
L2523772-02	AFTER FILTERS	WATER	RENSELLAER, NY	04/17/25 12:35	04/17/25

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523772
Project Number:	075104.001.0202505	**Report Date:**	05/12/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523772
Project Number:	075104.001.0202505	**Report Date:**	05/12/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by 1633

L2523772-01RE: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

L2523772-01RE and -02RE: The sample was re-extracted within holding time due to QC failures in the original extraction. The results of the re-extraction are reported.

WG2063401-2R: The sample was re-analyzed due to QC failures in the original analysis. The results of the re-analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Ashley Leitao Ashley Leitao

Title: Technical Director/Representative Date: 05/12/25

ORGANICS

SEMIVOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

SAMPLE RESULTS

Lab ID: L2523772-01 RE
Client ID: BEFORE FILTERS
Sample Location: RENSELLAER, NY

Date Collected: 04/17/25 12:25
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 05/09/25 11:17
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 05/07/25 09:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	13.8	J	ng/l	32.0	2.64	1
Perfluoropentanoic Acid (PFPeA)	17.8		ng/l	16.0	1.80	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	8.00	2.00	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	32.0	4.56	1
Perfluorohexanoic Acid (PFHxA)	14.7		ng/l	8.00	1.24	1
Perfluoropentanesulfonic Acid (PFPeS)	1.92	J	ng/l	8.00	1.04	1
Perfluoroheptanoic Acid (PFHpA)	12.7		ng/l	8.00	1.20	1
Perfluorohexanesulfonic Acid (PFHxS)	15.7		ng/l	8.00	0.680	1
Perfluorooctanoic Acid (PFOA)	17.8		ng/l	8.00	1.32	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	32.0	24.1	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	8.00	1.00	1
Perfluorononanoic Acid (PFNA)	3.32	J	ng/l	8.00	1.32	1
Perfluorooctanesulfonic Acid (PFOS)	22.4		ng/l	8.00	1.32	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	8.00	1.04	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	32.0	6.12	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	8.00	1.00	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	8.00	2.40	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	8.00	0.880	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	8.00	0.680	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	8.00	0.480	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	8.00	2.40	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	8.00	1.08	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	8.00	0.920	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	8.00	0.800	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	32.0	8.00	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	32.0	1.88	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	8.00	1.20	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2523772

Project Number: 075104.001.0202505 **Report Date:** 05/12/25

SAMPLE RESULTS

Lab ID: L2523772-01 RE
Client ID: BEFORE FILTERS
Sample Location: RENSELLAER, NY

Date Collected: 04/17/25 12:25
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	32.0	2.20	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	32.0	2.24	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	8.00	1.12	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	8.00	1.76	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	80.0	6.52	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	80.0	5.52	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	16.0	1.24	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	16.0	1.80	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	16.0	1.64	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	16.0	2.72	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	40.0	2.68	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	200	21.3	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	200	15.9	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2523772

Project Number: 075104.001.0202505 **Report Date:** 05/12/25

SAMPLE RESULTS

Lab ID: L2523772-01 RE
Client ID: BEFORE FILTERS
Sample Location: RENSELLAER, NY

Date Collected: 04/17/25 12:25
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	101		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	100		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	98		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	99		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	105		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	104		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	97		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	97		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	93		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	94		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	91		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	90		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	73		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	57		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	76		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	58		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	53		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	68		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	54		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	103		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	53		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	57		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	59		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	62		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

SAMPLE RESULTS

Lab ID: L2523772-02 RE
Client ID: AFTER FILTERS
Sample Location: RENSELLAER, NY

Date Collected: 04/17/25 12:35
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 05/09/25 11:26
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 05/07/25 09:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	21.0		ng/l	6.40	0.528	1
Perfluoropentanoic Acid (PFPeA)	35.0		ng/l	3.20	0.360	1
Perfluorobutanesulfonic Acid (PFBS)	0.800	J	ng/l	1.60	0.400	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912	1
Perfluorohexanoic Acid (PFHxA)	10.3		ng/l	1.60	0.248	1
Perfluoropentanesulfonic Acid (PFPeS)	0.208	J	ng/l	1.60	0.208	1
Perfluoroheptanoic Acid (PFHpA)	3.14		ng/l	1.60	0.240	1
Perfluorohexanesulfonic Acid (PFHxS)	1.53	J	ng/l	1.60	0.136	1
Perfluorooctanoic Acid (PFOA)	2.72		ng/l	1.60	0.264	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200	1
Perfluorononanoic Acid (PFNA)	0.304	JF	ng/l	1.60	0.264	1
Perfluorooctanesulfonic Acid (PFOS)	1.35	J	ng/l	1.60	0.264	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2523772

Project Number: 075104.001.0202505 **Report Date:** 05/12/25

SAMPLE RESULTS

Lab ID: L2523772-02 RE
Client ID: AFTER FILTERS
Sample Location: RENSELLAER, NY

Date Collected: 04/17/25 12:35
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2523772

Project Number: 075104.001.0202505 **Report Date:** 05/12/25

SAMPLE RESULTS

Lab ID: L2523772-02 RE
Client ID: AFTER FILTERS
Sample Location: RENSELLAER, NY

Date Collected: 04/17/25 12:35
Date Received: 04/17/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	97		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	94		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	89		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	87		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	96		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	114		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	86		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	101		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	81		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	98		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	91		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	82		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	69		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	88		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	71		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	67		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	57		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	63		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	57		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	103		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	51		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	57		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	64		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	70		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 05/09/25 10:50
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 05/07/25 09:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-02 Batch: WG2063401-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 05/09/25 10:50
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 05/07/25 09:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-02 Batch: WG2063401-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 05/09/25 10:50
Analyst: AC

Extraction Method: EPA 1633
Extraction Date: 05/07/25 09:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01-02 Batch: WG2063401-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	98		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	95		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	95		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	83		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	102		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	100		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	92		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	87		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	79		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	98		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	88		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	77		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	66		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	53		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	75		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	75		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	58		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	68		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	57		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	97		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	49		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	55		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	67		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	72		10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2063401-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	108		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	113		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	118		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	112		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	121		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	125		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	102		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	124		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	104		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	120		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	121		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	109		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	108		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	123		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	124		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	106		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	125		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	117		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	81		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	110		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	105		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2063401-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	104		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	80		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	125		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	120		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	137		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	74		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	112		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	85		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	114		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	131		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	109		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	108		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	112		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	116		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	124		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	111		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	120		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	126		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	100		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2063401-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	103				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	105				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	105				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	98				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	105				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	104				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	101				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	108				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	82				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	99				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	85				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	91				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	75				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	47				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	77				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	67				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	51				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	68				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	50				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	104				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	50				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	52				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	62				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	66				10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2523772
Report Date: 05/12/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2063401-3								
Perfluorobutanoic Acid (PFBA)	103		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	110		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	104		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	104		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	106		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	105		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	92		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	108		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	97		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	114		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	110		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	96		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	102		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	100		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	104		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	104		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	115		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	103		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	92		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	100		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	111		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2523772
Report Date: 05/12/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2063401-3								
Perfluorododecanoic Acid (PFDoA)	106		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	86		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	98		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	106		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	112		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	83		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	107		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	96		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	91		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	97		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	98		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	98		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	97		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	111		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	109		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	101		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	116		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	117		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	86		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01-02 Batch: WG2063401-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	93				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	89				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	87				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	81				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	90				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	94				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	85				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	89				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	67				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	97				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	82				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	86				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	73				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	51				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	77				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	74				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	52				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	69				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	61				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	99				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	65				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	69				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	75				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	81				10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2523772
Report Date: 05/12/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2523772-01A	Plastic 500ml unpreserved	A	NA		3.8	Y	Absent		A2-NY-1633(28)
L2523772-01B	Plastic 500ml unpreserved	A	NA		3.8	Y	Absent		A2-NY-1633(28)
L2523772-02A	Plastic 500ml unpreserved	A	NA		3.8	Y	Absent		A2-NY-1633(28)
L2523772-02B	Plastic 500ml unpreserved	A	NA		3.8	Y	Absent		A2-NY-1633(28)

*Values in parentheses indicate holding time in days

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2523772
Report Date: 05/12/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2523772
Report Date: 05/12/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523772
Project Number:	075104.001.0202505	**Report Date:**	05/12/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523772
Project Number:	075104.001.0202505	**Report Date:**	05/12/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2523772
Project Number:	075104.001.0202505	**Report Date:**	05/12/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2523772
Report Date: 05/12/25

REFERENCES

144 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. Draft EPA Method 1633, EPA Document 821-D-22-001, June 2022.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

ALPHA ANALYTICAL

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 4/22/25

ALPHA Job #: L2523782

Client Information
Client: CHA consulting
Address: III Winners Circle
Albany NY 12205
Phone:
Fax:
Email: smiller@chasolutions.com

Project Information
Project Name: 2025 GWTS sampling
Project Location: Rensselaer NY
Project #: 075104.001.020505
(Use Project name as Project #) ☐
Project Manager: Samantha Miller
ALPHAQuote #: 30091

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☒ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #: 075104.001-01

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

ANALYSIS
PFAS - EPA 1633

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS - EPA 1633	Sample Specific Comments	Total Bottle
23782-01	Before Filters	4.17.25	12:25	GW	CRH	X		2
-02	After Filters	4.17.25	12:35	↓	↓	X		2

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	P
Preservative	A

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Relinquished By:	Date/Time	Received By:	Date/Time
	4/17/25 15:25	PACE	4/17/25 1525
PACE	4/17/25 1530		
	0000		4/18 0200
	4/22/25 1800		4/22/25 1715
	4/22/25 1630		

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2530811
Client:	CHA Companies 3 Winners Circle Albany, NY 12205
ATTN:	Samantha Miller
Phone:	(518) 453-8749
Project Name:	2025 GWTS SAMPLING
Project Number:	075104.001.0202505
Report Date:	06/02/25

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2530811-01	BEFORE FILTER	WATER	RENSSELAER, NY	05/16/25 10:50	05/16/25
L2530811-02	BETWEEN FILTER	WATER	RENSSELAER, NY	05/16/25 11:00	05/16/25
L2530811-03	AFTER FILTER	WATER	RENSSELAER, NY	05/16/25 11:05	05/16/25
L2530811-04	TRIP BLANK	WATER	RENSSELAER, NY	05/16/25 00:00	05/16/25

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2530811
Project Number:	075104.001.0202505	**Report Date:**	06/02/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2530811
Project Number:	075104.001.0202505	**Report Date:**	06/02/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Perfluorinated Alkyl Acids by 1633

L2530811-01: The Extracted Internal Standard recoveries were above the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]hexanesulfonic acid (m2-4:2fts) (213%) and 1h,1h,2h,2h-perfluoro[1,2-13c2]octanesulfonic acid (m2-6:2fts) (216%). Since the sample was non-detect to the RL for all associated target analytes, re-analysis was not required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 06/02/25

ORGANICS

VOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-01 D
Client ID: BEFORE FILTER
Sample Location: RENSSELAER, NY

Date Collected: 05/16/25 10:50
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/29/25 14:53
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	3400		ug/l	62	18.	25
Benzene	40		ug/l	12	4.0	25
Toluene	ND		ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-02 D
Client ID: BETWEEN FILTER
Sample Location: RENSSELAER, NY

Date Collected: 05/16/25 11:00
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/29/25 15:18
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	380		ug/l	6.2	1.8	2.5
Benzene	5.8		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
Xylenes, Total	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	108		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER, NY

Date Collected: 05/16/25 11:05
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/29/25 15:44
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	7.2		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	114		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-04
Client ID: TRIP BLANK
Sample Location: RENSSELAER, NY
Date Collected: 05/16/25 00:00
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/30/25 16:21
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	113		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/29/25 08:57
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG2072623-5					
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	108		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/30/25 12:58
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG2073457-5					
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	106		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG2072623-3 WG2072623-4								
Chlorobenzene	110		100		75-130	10		20
Benzene	110		100		70-130	10		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		100		70-130	10		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		100		70-130	10		20
p/m-Xylene	110		105		70-130	5		20
o-Xylene	105		100		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		96		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	94		93		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG2073457-3 WG2073457-4								
Chlorobenzene	110		110		75-130	0		20
Benzene	110		110		70-130	0		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		110		70-130	0		20
p/m-Xylene	115		110		70-130	4		20
o-Xylene	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		92		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	93		100		70-130
Dibromofluoromethane	100		98		70-130

SEMIVOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-01
Client ID: BEFORE FILTER
Sample Location: RENSSELAER, NY

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/28/25 04:13
Analyst: GRS

Date Collected: 05/16/25 10:50
Date Received: 05/16/25
Field Prep: Not Specified

Extraction Method: EPA 3510C
Extraction Date: 05/23/25 12:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	913.		ng/l	147	33.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	40		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-01
Client ID: BEFORE FILTER
Sample Location: RENSSELAER, NY

Date Collected: 05/16/25 10:50
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 05/23/25 20:29
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 05/23/25 07:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	12.2		ng/l	5.98	0.493	1
Perfluoropentanoic Acid (PFPeA)	15.2		ng/l	2.99	0.336	1
Perfluorobutanesulfonic Acid (PFBS)	2.44		ng/l	1.49	0.374	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.98	0.852	1
Perfluorohexanoic Acid (PFHxA)	13.4		ng/l	1.49	0.232	1
Perfluoropentanesulfonic Acid (PFPeS)	1.41	J	ng/l	1.49	0.194	1
Perfluoroheptanoic Acid (PFHpA)	11.6		ng/l	1.49	0.224	1
Perfluorohexanesulfonic Acid (PFHxS)	15.4		ng/l	1.49	0.127	1
Perfluorooctanoic Acid (PFOA)	14.3		ng/l	1.49	0.246	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.98	4.50	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.642	J	ng/l	1.49	0.187	1
Perfluorononanoic Acid (PFNA)	3.62		ng/l	1.49	0.246	1
Perfluorooctanesulfonic Acid (PFOS)	26.5		ng/l	1.49	0.246	1
Perfluorodecanoic Acid (PFDA)	0.381	J	ng/l	1.49	0.194	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.98	1.14	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.49	0.187	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.49	0.448	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.49	0.164	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.49	0.127	1
Perfluorooctanesulfonamide (PFOSA)	0.321	J	ng/l	1.49	0.090	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.49	0.448	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.49	0.202	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.49	0.172	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.49	0.149	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.98	1.49	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.98	0.351	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.49	0.224	1

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-01
Client ID: BEFORE FILTER
Sample Location: RENSSELAER, NY
Date Collected: 05/16/25 10:50
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.98	0.411	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.98	0.418	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.49	0.209	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.49	0.329	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.9	1.22	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.9	1.03	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.99	0.232	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.99	0.336	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.99	0.306	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.99	0.508	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.47	0.500	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	37.4	3.97	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	37.4	2.97	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2530811

Project Number: 075104.001.0202505 **Report Date:** 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-01 Date Collected: 05/16/25 10:50

Client ID: BEFORE FILTER Date Received: 05/16/25

Sample Location: RENSSELAER, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	90		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	84		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	87		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	**213**	Q	40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	87		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	91		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	85		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	95		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	**216**	Q	40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	72		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	81		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	83		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	148		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	85		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	72		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	66		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	86		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	69		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	62		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	75		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	57		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	57		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	58		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	54		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER, NY

Date Collected: 05/16/25 11:05
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/28/25 04:37
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 05/23/25 12:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	2520		ng/l	142	32.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	40		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER, NY

Date Collected: 05/16/25 11:05
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 05/23/25 20:38
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 05/23/25 07:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	23.6		ng/l	5.89	0.486	1
Perfluoropentanoic Acid (PFPeA)	39.0		ng/l	2.94	0.331	1
Perfluorobutanesulfonic Acid (PFBS)	0.655	J	ng/l	1.47	0.368	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.89	0.839	1
Perfluorohexanoic Acid (PFHxA)	7.93		ng/l	1.47	0.228	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.47	0.191	1
Perfluoroheptanoic Acid (PFHpA)	2.08		ng/l	1.47	0.221	1
Perfluorohexanesulfonic Acid (PFHxS)	0.626	J	ng/l	1.47	0.125	1
Perfluorooctanoic Acid (PFOA)	3.05		ng/l	1.47	0.243	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.89	4.43	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.47	0.184	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.47	0.243	1
Perfluorooctanesulfonic Acid (PFOS)	0.728	J	ng/l	1.47	0.243	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.47	0.191	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.89	1.13	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.47	0.184	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.47	0.442	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.47	0.162	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.47	0.125	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.47	0.088	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.47	0.442	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.47	0.199	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.47	0.169	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.47	0.147	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.89	1.47	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.89	0.346	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.47	0.221	1

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER, NY
Date Collected: 05/16/25 11:05
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.89	0.405	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.89	0.412	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.47	0.206	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.47	0.324	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.7	1.20	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.7	1.02	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.94	0.228	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.94	0.331	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.94	0.302	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.94	0.500	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.36	0.493	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	36.8	3.92	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	36.8	2.93	1

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

SAMPLE RESULTS

Lab ID: L2530811-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER, NY
Date Collected: 05/16/25 11:05
Date Received: 05/16/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	97		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	89		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	91		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	99		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	93		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	90		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	88		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	91		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	103		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	86		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	94		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	87		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	81		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	75		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	79		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	73		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	73		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	67		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	71		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	78		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	57		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	58		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	57		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	55		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 05/23/25 19:35
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 05/23/25 07:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03 Batch: WG2070298-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	0.264	J	ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 05/23/25 19:35
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 05/23/25 07:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03 Batch: WG2070298-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 05/23/25 19:35
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 05/23/25 07:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03 Batch: WG2070298-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	92		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	88		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	97		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	98		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	91		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	89		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	91		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	93		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	104		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	91		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	92		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	86		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	109		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	71		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	82		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	78		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	77		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	85		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	83		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	82		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	42		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	44		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	59		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	56		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/28/25 03:00
Analyst: GRS

Extraction Method: EPA 3510C
Extraction Date: 05/23/25 12:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01,03 Batch: WG2070514-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	44		15-110

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2070298-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	103		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	99		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	106		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	99		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	99		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	99		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	107		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	102		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	100		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	120		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	93		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	92		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	107		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	108		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	115		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	80		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	106		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	112		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	88		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	108		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	126		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2070298-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	107		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	116		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	104		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	110		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	118		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	84		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	107		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	98		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	112		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	119		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	112		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	114		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	102		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	106		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	100		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	88		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	87		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	94		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	84		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2070298-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	80				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	75				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	84				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	91				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	79				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	76				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	82				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	80				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	83				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	77				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	79				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	75				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	81				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	60				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	72				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	73				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	60				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	66				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	69				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	67				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	46				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	46				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	63				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	62				10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2070298-3								
Perfluorobutanoic Acid (PFBA)	107		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	108		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	104		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	114		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	99		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	109		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	105		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	103		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	98		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	114		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	114		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	102		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	110		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	105		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	113		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	97		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	113		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	108		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	92		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	119		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	109		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2070298-3								
Perfluorododecanoic Acid (PFDoA)	112		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	105		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	114		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	109		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	106		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	89		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	111		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	98		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	112		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	117		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	112		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	120		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	110		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	111		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	105		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	87		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	94		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	90		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	71		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505
Lab Number: L2530811
Report Date: 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2070298-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	92				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	86				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	102				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	97				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	96				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	96				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	96				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	88				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	99				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	90				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	86				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	85				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	89				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	66				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	76				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	66				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	69				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	71				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	68				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	82				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	46				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	46				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	59				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	57				10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab	Associated sample(s): 01,03		Batch: WG2070514-2		WG2070514-3			
1,4-Dioxane	117		117		40-140	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	44		46		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2530811-01A	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-01B	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-01C	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-01D	Amber 250ml unpreserved	A	7	7	3.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2530811-01E	Amber 250ml unpreserved	A	7	7	3.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2530811-01F	Plastic 500ml unpreserved	B	NA		4.5	Y	Absent		A2-NY-1633(28)
L2530811-01G	Plastic 500ml unpreserved	B	NA		4.5	Y	Absent		A2-NY-1633(28)
L2530811-02A	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-02B	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-02C	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-03A	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-03B	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-03C	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-03D	Amber 250ml unpreserved	A	7	7	3.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2530811-03E	Amber 250ml unpreserved	A	7	7	3.1	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2530811-03F	Plastic 500ml unpreserved	B	NA		4.5	Y	Absent		A2-NY-1633(28)
L2530811-03G	Plastic 500ml unpreserved	B	NA		4.5	Y	Absent		A2-NY-1633(28)
L2530811-04A	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2530811-04B	Vial HCl preserved	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: 2025 GWTS SAMPLING
Project Number: 075104.001.0202505

Lab Number: L2530811
Report Date: 06/02/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2530811
Project Number:	075104.001.0202505	**Report Date:**	06/02/25

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2530811
Project Number:	075104.001.0202505	**Report Date:**	06/02/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2530811
Project Number:	075104.001.0202505	**Report Date:**	06/02/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

144 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. Draft EPA Method 1633, EPA Document 821-D-22-001, June 2022.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 5/17/25

ALPHA Job #: L2530811

Client Information
Client: CHA Consulting
Address: 111 Winners Circle
Albany NY 12205
Phone:
Fax:
Email: SMiller@chasolutions.com

Project Information
Project Name: 2025 GWTS Sampling
Project Location: Rensselaer NY
Project #: 075104.001.0202505
(Use Project name as Project #) ☐
Project Manager: Samantha Miller
ALPHAQuote #: 30091

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☒ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #: 075104.001-01

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Client Specific VOCs = Benzene, Chlorobenzene, Ethylbenzene, Toluene, 1,2-Dichlorobenzene, 1,3-dichlorobenzene, 1,4-Dichlorobenzene, Xylene

Please specify Metals or TAL.
(M,P,O)

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs - 8260 Client Specific	1,4 Dioxane 8270 SIM							Total Bottle
30811-01	Before Filter	5.16.25	10:50	W	CRH	X	X							5
02	Between Filter	↓	11:00	↓	↓	↓	↓							3
03	After Filter	↓	11:05	↓	↓	↓	X							5
04	Trip Blank	—	—	W	—	↓								5

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	A						
Preservative	B	A						

Relinquished By:	Date/Time	Received By:	Date/Time
	5.16.25 12:00	FAKE	5/16/25 12:00
FAKE	5/16/25 17:00		5/16 21:30
	5/17 2:10		05/17/25 02:16

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 5/17/25

ALPHA Job #: L2530811

Client Information
Client: CHA CONSULTING
Address: 111 WINNERS CIRCLE ALBANY NY 12205
Phone:
Fax:
Email: SMILLER@CHASOLUTIONS.COM

Project Information
Project Name: 2025 GWTS Sampling
Project Location: Rensselaer, NY
Project #: 075109.001.0202505
(Use Project name as Project #)
Project Manager: Samantha Miller
ALPHAQuote #: 30091

Turn-Around Time
Standard: ☒ Due Date:
Rush (only if pre approved): ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☒ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #: 075104.001-01

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: PFAS - 1633	Total Bottle
30811-01	Before Filter	5.16.25	10:50	W	CRH	X	2
03	After Filter	↓	11:05	↓	↓	↓	↓

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	P
Preservative	A

Relinquished By:	Date/Time	Received By:	Date/Time
	5.16.25 12:00		
FAC	5/16/25 17:00	FAC	5/16/25 17:00
	5/17 2:10		5/17 1330
		05/17/25 0210	

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2537493
Client:	CHA Companies 3 Winners Circle Albany, NY 12205
ATTN:	Samantha Miller
Phone:	(518) 453-8749
Project Name:	2025 GWTS SAMPLING
Project Number:	075704.001.0202505
Report Date:	07/08/25

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2537493-01	BEFORE FILTER	WATER	RENSSELAER NY	06/13/25 11:10	06/13/25
L2537493-02	BETWEEN FILTER	WATER	RENSSELAER NY	06/13/25 11:20	06/13/25
L2537493-03	AFTER FILTER	WATER	RENSSELAER NY	06/13/25 11:30	06/13/25
L2537493-04	TRIP BLANK	WATER	RENSSELAER NY	06/13/25 00:00	06/13/25

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2537493
Project Number:	075704.001.0202505	**Report Date:**	07/08/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2537493
Project Number:	075704.001.0202505	**Report Date:**	07/08/25

Case Narrative (continued)

Report Submission

July 08, 2025: This final report includes the results of all requested analyses.

July 01, 2025: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

1,4-Dioxane by 8270-SIM

The WG2081358-1 Method Blank associated with L2537493-01 and -03 has a concentration above the reporting limit. The sample was re-extracted with the method required holding time exceeded and the associated WG2083122-1 Method Blank was non-detect. The results of both extractions are reported. The original sample result is reported with a "B" qualifier.

Perfluorinated Alkyl Acids by 1633

L2537493-01: The sample was centrifuged and decanted prior to extraction due to sample matrix.

L2537493-01: The Extracted Internal Standard recoveries were below the acceptance criteria for 1h,1h,2h,2h-perfluoro[1,2-13c2]decanesulfonic acid (m2-8:2fts) (38%) and n-deuteriomethylperfluoro-1-octanesulfonamidoacetic acid (d3-nmefosaa) (27%); however, the associated target analytes are not reported from this analysis.

L2537493-01RE: The sample was re-extracted at lesser volume due to EIS failure in the original extraction. The results of the re-extraction are reported for the associated target compounds.

WG2084854-2: The sample was re-analyzed due to QC failures in the original analysis. The results of the re-analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Kelly Stenstrom

Title: Technical Director/Representative Date: 07/08/25

ORGANICS

VOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01 D
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY
Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/24/25 20:19
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	2600		ug/l	62	18.	25
Benzene	29		ug/l	12	4.0	25
Toluene	ND		ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	110		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-02 D
Client ID: BETWEEN FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:20
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/24/25 19:54
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	2200		ug/l	62	18.	25
Benzene	25		ug/l	12	4.0	25
Toluene	ND		ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	112		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER NY
Date Collected: 06/13/25 11:30
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/24/25 19:29
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	116		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-04
Client ID: TRIP BLANK
Sample Location: RENSSELAER NY
Date Collected: 06/13/25 00:00
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/24/25 19:04
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chlorobenzene	ND		ug/l	2.5	0.70	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	114		70-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/24/25 12:01
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG2084217-5					
Chlorobenzene	ND		ug/l	2.5	0.70
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	107		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG2084217-3 WG2084217-4								
Chlorobenzene	95		93		75-130	2		20
Benzene	93		91		70-130	2		20
Toluene	93		94		70-130	1		20
Ethylbenzene	91		90		70-130	1		20
1,2-Dichlorobenzene	94		95		70-130	1		20
1,3-Dichlorobenzene	91		91		70-130	0		20
1,4-Dichlorobenzene	90		88		70-130	2		20
p/m-Xylene	85		90		70-130	6		20
o-Xylene	85		85		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		105		70-130
Toluene-d8	101		103		70-130
4-Bromofluorobenzene	95		95		70-130
Dibromofluoromethane	94		100		70-130

SEMIVOLATILES

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 06/24/25 04:22
Analyst: DB

Extraction Method: EPA 3510C
Extraction Date: 06/20/25 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	1780	B	ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	49		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/26/25 15:07
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/22/25 10:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	11.8		ng/l	5.95	0.491	1
Perfluoropentanoic Acid (PFPeA)	14.4		ng/l	2.97	0.335	1
Perfluorobutanesulfonic Acid (PFBS)	2.54		ng/l	1.49	0.372	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.95	0.848	1
Perfluorohexanoic Acid (PFHxA)	13.1		ng/l	1.49	0.230	1
Perfluoropentanesulfonic Acid (PFPeS)	1.41	JF	ng/l	1.49	0.193	1
Perfluoroheptanoic Acid (PFHpA)	14.4		ng/l	1.49	0.223	1
Perfluorohexanesulfonic Acid (PFHxS)	18.4		ng/l	1.49	0.126	1
Perfluorooctanoic Acid (PFOA)	22.4		ng/l	1.49	0.245	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.95	4.48	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.558	J	ng/l	1.49	0.186	1
Perfluorononanoic Acid (PFNA)	4.88		ng/l	1.49	0.245	1
Perfluorooctanesulfonic Acid (PFOS)	31.2		ng/l	1.49	0.245	1
Perfluorodecanoic Acid (PFDA)	0.528	J	ng/l	1.49	0.193	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.49	0.186	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.49	0.164	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.49	0.126	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.49	0.089	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.49	0.446	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.49	0.201	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.49	0.171	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.49	0.149	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.95	1.49	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.95	0.349	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.49	0.223	1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.95	0.409	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.95	0.416	1

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY
Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.49	0.208	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.49	0.327	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.9	1.21	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.9	1.03	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.97	0.230	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.97	0.335	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.97	0.305	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.97	0.506	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.44	0.498	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	37.2	3.96	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	37.2	2.96	1

Project Name: 2025 GWTS SAMPLING
Lab Number: L2537493
Project Number: 075704.001.0202505
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY
Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	88		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	79		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	64		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	114		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	76		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	61		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	51		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	53		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	69		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	50		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	40		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	41		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	**38**	Q	40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	**27**	Q	40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	35		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	62		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	28		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	27		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	16		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	76		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	52		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	45		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	45		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	43		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01 RE
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 06/27/25 21:30
Analyst: DB

Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Extraction Method: EPA 3510C
Extraction Date: 06/25/25 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	1260		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	41		15-110

Project Name: 2025 GWTS SAMPLING
Lab Number: L2537493
Project Number: 075704.001.0202505
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01 RE
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/29/25 20:06
Analyst: ANH

Extraction Method: EPA 1633
Extraction Date: 06/29/25 10:28

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	64.0	12.2	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	16.0	4.80	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2537493

Project Number: 075704.001.0202505 **Report Date:** 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-01 RE
Client ID: BEFORE FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:10
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	93		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	99		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	108		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	113		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	96		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	99		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	100		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	91		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	109		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	103		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	104		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	93		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	86		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	79		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	84		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	70		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	90		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	79		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	68		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	95		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	61		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	59		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	80		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	86		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:30
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 06/24/25 04:44
Analyst: DB

Extraction Method: EPA 3510C
Extraction Date: 06/20/25 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	1680	B	ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	52		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:30
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/26/25 15:16
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/22/25 10:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	13.4		ng/l	5.93	0.490	1
Perfluoropentanoic Acid (PFPeA)	22.9		ng/l	2.97	0.334	1
Perfluorobutanesulfonic Acid (PFBS)	1.96		ng/l	1.48	0.371	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.93	0.846	1
Perfluorohexanoic Acid (PFHxA)	13.4		ng/l	1.48	0.230	1
Perfluoropentanesulfonic Acid (PFPeS)	0.697	J	ng/l	1.48	0.193	1
Perfluoroheptanoic Acid (PFHpA)	9.79		ng/l	1.48	0.222	1
Perfluorohexanesulfonic Acid (PFHxS)	7.71		ng/l	1.48	0.126	1
Perfluorooctanoic Acid (PFOA)	10.6		ng/l	1.48	0.245	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.93	4.47	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.282	J	ng/l	1.48	0.185	1
Perfluorononanoic Acid (PFNA)	2.41		ng/l	1.48	0.245	1
Perfluorooctanesulfonic Acid (PFOS)	13.4		ng/l	1.48	0.245	1
Perfluorodecanoic Acid (PFDA)	0.200	J	ng/l	1.48	0.193	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.93	1.14	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.48	0.185	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.48	0.445	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.48	0.163	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.48	0.126	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.48	0.089	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.48	0.445	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.48	0.200	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.48	0.171	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.48	0.148	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.93	1.48	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.93	0.349	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.48	0.222	1

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-03
Client ID: AFTER FILTER
Sample Location: RENSSELAER NY
Date Collected: 06/13/25 11:30
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.93	0.408	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.93	0.415	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.48	0.208	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.48	0.326	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.8	1.21	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.8	1.02	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.97	0.230	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.97	0.334	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.97	0.304	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.97	0.504	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.42	0.497	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	37.1	3.95	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	37.1	2.95	1

Project Name: 2025 GWTS SAMPLING **Lab Number:** L2537493

Project Number: 075704.001.0202505 **Report Date:** 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-03 Date Collected: 06/13/25 11:30

Client ID: AFTER FILTER Date Received: 06/13/25

Sample Location: RENSSELAER NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	101		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	101		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	104		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	180		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	104		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	99		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	113		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	101		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	155		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	94		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	93		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	90		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	108		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	92		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	88		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	71		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	85		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	63		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	44		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	94		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	51		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	49		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	56		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	56		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

SAMPLE RESULTS

Lab ID: L2537493-03 RE
Client ID: AFTER FILTER
Sample Location: RENSSELAER NY

Date Collected: 06/13/25 11:30
Date Received: 06/13/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 06/27/25 21:51
Analyst: DB

Extraction Method: EPA 3510C
Extraction Date: 06/25/25 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	1680		ng/l	142	32.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	37		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 06/23/25 20:28
Analyst: DB

Extraction Method: EPA 3510C
Extraction Date: 06/20/25 08:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01,03 Batch: WG2081358-1					
1,4-Dioxane	670.		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	57		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/26/25 13:20
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/22/25 10:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03 Batch: WG2081925-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/26/25 13:20
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/22/25 10:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03 Batch: WG2081925-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/26/25 13:20
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/22/25 10:10

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03 Batch: WG2081925-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	102		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	107		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	107		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	98		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	101		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	102		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	100		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	99		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	94		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	107		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	93		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	91		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	85		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	69		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	88		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	77		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	80		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	80		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	59		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	111		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	57		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	58		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	76		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	80		10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 06/27/25 12:55
Analyst: DB

Extraction Method: EPA 3510C
Extraction Date: 06/25/25 07:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01,03 Batch: WG2083122-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	44		15-110

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/30/25 13:21
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/29/25 10:28

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01 Batch: WG2084854-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	0.528
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.360
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.400
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	0.912
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.248
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.208
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.240
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.136
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.264
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	4.82
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.200
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.264
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.264
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.208
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	1.22
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.200
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.480
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.176
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.136
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.096
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.480
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.216
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.184
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.160
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	1.60
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	0.376
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.240

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/30/25 13:21
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/29/25 10:28

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01 Batch: WG2084854-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	0.440
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	0.448
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.224
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.352
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	1.30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.10
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.248
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.360
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.328
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	0.544
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	0.536
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	4.26
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	3.18

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/30/25 13:21
Analyst: CAP

Extraction Method: EPA 1633
Extraction Date: 06/29/25 10:28

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01 Batch: WG2084854-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	89		5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	88		40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	88		40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	86		40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	90		40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	89		40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	92		40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	89		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	86		40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	87		40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	87		40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	84		40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	98		40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	89		40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	83		30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	72		40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	112		25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	77		10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	55		10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	80		40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	62		10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	64		10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	92		10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	96		10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab	Associated sample(s): 01,03		Batch: WG2081358-2		WG2081358-3			
1,4-Dioxane	115		109		40-140	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	58		53		15-110

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2081925-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	101		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	101		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	103		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	96		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	112		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	102		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	98		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	107		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	108		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	105		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	108		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	98		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	104		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	114		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	114		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	92		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	109		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	100		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	74		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	97		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	96		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2081925-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	106		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	78		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	104		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	112		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	100		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	76		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	106		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	95		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	100		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	104		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	99		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	95		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	93		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	92		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	102		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	98		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	92		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	99		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	85		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2081925-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	98				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	113				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	104				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	101				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	105				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	109				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	101				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	96				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	94				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	106				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	100				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	95				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	90				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	75				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	95				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	88				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	91				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	89				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	80				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	92				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	64				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	64				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	84				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	92				10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2081925-3								
Perfluorobutanoic Acid (PFBA)	94		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	98		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	102		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	99		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	97		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	99		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	112		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	97		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	105		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	108		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	103		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	115		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	100		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	106		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	102		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	95		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	107		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	103		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	81		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	94		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	94		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2081925-3								
Perfluorododecanoic Acid (PFDoA)	104		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	73		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	106		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	115		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	83		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	101		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	100		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	100		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	94		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	103		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	98		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	83		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	96		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	98		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	90		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	95		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	94		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	95		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03 Batch: WG2081925-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	106				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	108				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	107				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	100				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	109				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	100				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	107				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	96				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	102				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	92				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	105				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	98				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	98				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	74				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	88				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	91				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	91				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	84				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	74				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	100				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	68				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	77				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	87				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	95				10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab	Associated sample(s): 01,03		Batch: WG2083122-2		WG2083122-3			
1,4-Dioxane	126		125		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	43		44		15-110

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01 Batch: WG2084854-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	108		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	109		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	113		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	104		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	108		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	102		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	119		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	101		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	112		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	116		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	98		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	111		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	113		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	108		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	121		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	99		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	127		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	108		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	81		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	114		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	114		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01 Batch: WG2084854-2 LOW LEVEL								
Perfluorododecanoic Acid (PFDoA)	111		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	81		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	119		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	99		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	132		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	91		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	101		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	90		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	110		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	110		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	113		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	104		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	88		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	105		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	99		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	101		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	97		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	95		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	92		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01 Batch: WG2084854-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	89				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	95				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	94				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	88				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	97				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	86				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	94				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	86				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	92				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	92				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	98				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	84				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	91				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	82				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	80				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	78				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	95				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	77				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	61				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	93				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	60				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	57				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	72				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	78				10-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01 Batch: WG2084854-3								
Perfluorobutanoic Acid (PFBA)	95		-		70-140	-		30
Perfluoropentanoic Acid (PFPeA)	101		-		65-135	-		30
Perfluorobutanesulfonic Acid (PFBS)	104		-		60-145	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	93		-		70-145	-		30
Perfluorohexanoic Acid (PFHxA)	91		-		70-145	-		30
Perfluoropentanesulfonic Acid (PFPeS)	100		-		65-140	-		30
Perfluoroheptanoic Acid (PFHpA)	100		-		70-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	96		-		65-145	-		30
Perfluorooctanoic Acid (PFOA)	101		-		70-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	103		-		65-155	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	100		-		70-150	-		30
Perfluorononanoic Acid (PFNA)	104		-		70-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	94		-		55-150	-		30
Perfluorodecanoic Acid (PFDA)	98		-		70-140	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	110		-		60-150	-		30
Perfluorononanesulfonic Acid (PFNS)	88		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	110		-		50-140	-		30
Perfluoroundecanoic Acid (PFUnA)	103		-		70-145	-		30
Perfluorodecanesulfonic Acid (PFDS)	78		-		60-145	-		30
Perfluorooctanesulfonamide (PFOSA)	103		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	90		-		70-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01 Batch: WG2084854-3								
Perfluorododecanoic Acid (PFDoA)	103		-		70-140	-		30
Perfluorotridecanoic Acid (PFTrDA)	72		-		65-140	-		30
Perfluorotetradecanoic Acid (PFTeDA)	99		-		60-140	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	96		-		70-140	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	111		-		65-145	-		30
Perfluorododecanesulfonic Acid (PFDoS)	75		-		50-145	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	102		-		70-155	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	83		-		55-160	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	84		-		60-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	93		-		65-145	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	100		-		70-145	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	96		-		70-135	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	85		-		55-140	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	97		-		60-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	97		-		70-140	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	94		-		50-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	85		-		65-130	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	87		-		70-135	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	83		-		50-145	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01 Batch: WG2084854-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	98				5-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	94				40-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	101				40-135
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	101				40-200
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	95				40-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	90				40-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	98				40-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	90				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	96				40-200
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	95				40-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	100				40-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	86				40-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	99				40-300
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	83				40-170
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	80				30-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	74				40-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	103				25-135
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	75				10-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	72				10-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	91				40-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	69				10-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	68				10-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	89				10-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	99				10-130

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2537493-01A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-01B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-01C	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-01D	Amber 250ml unpreserved	A	7	7	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2537493-01E	Amber 250ml unpreserved	A	7	7	3.4	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2537493-01F	Plastic 500ml unpreserved	B	NA		2.8	Y	Absent		A2-NY-1633(28)
L2537493-01G	Plastic 500ml unpreserved	B	NA		2.8	Y	Absent		A2-NY-1633(28)
L2537493-02A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-02B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-02C	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-03A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-03B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-03C	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-03D	Amber 250ml unpreserved	B	NA		2.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2537493-03E	Amber 250ml unpreserved	B	NA		2.8	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2537493-03F	Plastic 500ml unpreserved	A	7	7	3.4	Y	Absent		A2-NY-1633(28)
L2537493-03G	Plastic 500ml unpreserved	A	7	7	3.4	Y	Absent		A2-NY-1633(28)
L2537493-04A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)
L2537493-04C	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505

Lab Number: L2537493
Report Date: 07/08/25

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2537493
Project Number:	075704.001.0202505	**Report Date:**	07/08/25

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2537493
Project Number:	075704.001.0202505	**Report Date:**	07/08/25

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	2025 GWTS SAMPLING	**Lab Number:**	L2537493
Project Number:	075704.001.0202505	**Report Date:**	07/08/25

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 2025 GWTS SAMPLING
Project Number: 075704.001.0202505
Lab Number: L2537493
Report Date: 07/08/25

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

144 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. Draft EPA Method 1633, EPA Document 821-D-22-001, June 2022.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
MADEP-APH.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581
CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048
CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048
ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 6/14/25

ALPHA Job #: L2527493

Client Information
Client: CHA CONSULTING
Address: 111 WINNERS CIRCLE ALBANY NY 12205
Phone:
Fax:
Email: SMILLER@CHASOLUTIONS.COM

Project Information
Project Name: 2025 GWTS SAMPLING
Project Location: RENSSELAER NY
Project # 675104.001.0202505
(Use Project name as Project #)
Project Manager: SAMANTHA MILLER
ALPHAQuote #: 30691

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
CLIENT SPECIFIC VOCS = BENZENE, CHLOROBENZENE, ETHYLBENZENE, TOLUENE, 1,2-DICHLOROBENZENE, 1,3-DICHLOROBENZENE, 1,4-DICHLOROBENZENE, XYLENE (M,P,O)

Please specify Metals or TAL.

Deliverables
☒ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO # 075104.001-01

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: VOCs - 8260 Client Specific	ANALYSIS: 1,4 Dioxane 8270 SIM	Total Bottle	Sample Specific Comments
27493-01	BEFORE FILTER	6.13.25	11:10	W	CRH	X	X	5	
-02	BETWEEN FILTER	↓	11:20	↓	↓	↓	X	3	
-03	AFTER FILTER	↓	11:30	↓	↓	↓		5	
-04	TRIP BLANK	—	—	W	—			2	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	A
Preservative	B	A

Relinquished By:	Date/Time	Received By:	Date/Time
	6/13/25 15:33		
BSC/PACE	6/13/25 15:33		
BSC	6/13/25 15:45		6/13 2200
	6/14 220		0611412 5-0220

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 6/14/25

ALPHA Job #: L2531493

Client Information
Client: CHA Consulting
Address: 10 Winners Circle
Albany NY 12205
Phone:
Fax:
Email: SMiller@chacompanies.com

Project Information
Project Name: 2025 GWTS sampling
Project Location: Rensselaer NY
Project # 075104.001.202505
(Use Project name as Project #) ☐
Project Manager: Samantha Miller
ALPHAQuote #: 30091

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☒ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO # 075104-001-61

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

ANALYSIS
PFAS - 1633

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS-1633	Sample Specific Comments	Total Bottle
31493-01	BEFORE FILTER	6.13.25	11:10	W	CEH	X		2
-02	AFTER FILTER	↓	11:30	↓	↓	X		↓

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	P											
Preservative	A											

Relinquished By:	Date/Time	Received By:	Date/Time
	6/13/25	15:33	
BSC Pace	6/13/25	15:33	
BSC	6/13/25	15:45	6/13 2200
	6/14 220		06/14/25-0220

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Sample Delivery Group Summary

Pace Job Number : L2537493

Account Name : CHA Companies
Project Number : 075704.001.0202505
Project Name : 2025 GWTS SAMPLING

Received : 13-JUN-2025
Reviewer : Harmony Evans

Delivery Information

Samples Delivered By : Pace Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/`	Ice	3.4	
B	Absent/	Ice	2.8	

Condition Information

1) All samples on COC received?	**YES**
2) Extra samples received?	**NO**
3) Are there any sample container discrepancies?	**NO**
4) Are there any discrepancies between COC & sample labels?	**NO**
5) Are samples in appropriate containers for requested analysis?	**YES**
6) Are samples properly preserved for requested analysis?	**YES**
7) Are samples within holding time for requested analysis?	**YES**
8) All sampling equipment returned?	**NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	**NO**

curia

Appendix B

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 4
1130 North Westcott Road, Schenectady, NY 12306-2014
P: (518) 357-2045 I F: (518) 357-2593
www.dec.ny.gov

February 4, 2025

Curia (formerly AMRI)
Attention: Daniel Ormsbee
33 Riverside Avenue
Rensselaer, NY 12144
(Sent by email only Daniel.Ormsbee@curiaglobal.com)

RE: Comments on Groundwater Monitoring and
Groundwater Treatment System
Sterling Drug Site 1 (Curia), NYSDEC Site No. 442009

Dear Daniel Ormsbee:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the revised "Biannual Groundwater Sampling and Analysis Report October 2024" (Oct2024 GW Report) and previous groundwater monitoring reports, as well as the "Groundwater Treatment System Biannual Monitoring Results" (GWTS Report) report for Second Half 2023 and for First Half 2024.

The status of the poly- and perfluoroalkyl substances (PFAS) and the 1,4-dioxane sampling requirements are unresolved issues for both the groundwater monitoring program and the groundwater treatment system sampling program. In addition, the apparent storm sewer concrete vault near groundwater monitoring well MW-12 has been a point of discussion for the groundwater monitoring program during several recent site visits and/or conference calls.

Groundwater PFAS Discussion

Attachment #1 contains graphical representations of PFAS data for the Sterling Drug Site 1 location groundwater monitoring wells/points and the adjacent BASF site (NYSDEC Site #442027) groundwater temporary piezometers (TPZ). The PFAS data indicate similar component 'patterns' for groundwater wells/piezometers near Riverside Avenue on both sides of the property boundary between the two adjacent sites. The PFAS contamination on the Sterling Drug Site 1 site does not appear to be solely from the BASF site, since PFOS-specific concentrations start high at BASF, get lower at the property line, and go back up within the Sterling Drug Site 1, then go back down northward from the Sterling Drug Site 1 (see Attachment #1-1 through Attachment #1-6).

There are indications of similar PFAS composition 'patterns' in other areas of Sterling Drug Site 1, including MW-3 and TFE locations which show more prominent PFOA and PFNA concentrations (see Attachment #1-7) and MW-11A and MW-17 locations which show comparable combinations of PFOS, PFHxS, PFOA and PFHxA (see Attachment #1-8).

Groundwater and Groundwater Treatment System 1,4-Dioxane Discussion

Attachment #2 contains graphical representations of 1,4-dioxane data for Sterling Drug Site 1. The 1,4-dioxane data from the groundwater monitoring wells indicates concentrations

exceeding the NYSDEC groundwater guidance value of 0.35 ug/L across the site, especially at MW-3 (4.56 ug/L) at the northern site boundary and MW-12 (8.24 ug/L) at the southern site boundary. Attachment #2-1 through Attachment #2-3 illustrate the groundwater concentrations for the groundwater monitoring wells, while Attachment #2-4 through Attachment #2-6 illustrate groundwater elevation contours and groundwater flow directions. In general, groundwater near MW-12 flows southerly, easterly and westerly toward MW-12, and potentially onto the adjacent BASF site, while groundwater near MW-3 flows generally northwesterly (with other possible directions undefined due to lack of groundwater monitoring points).

The tables on pages Attachment #2-7 through Attachment #2-9 indicate that 1,4-dioxane is migrating into the passive groundwater collection and treatment system (GWTS) and is being discharged to groundwater at concentrations exceeding the NYSDEC guidance value of 0.35 ug/L during some months.

Subsurface Vault Discussion

The presence of a concrete vault near MW-12 has been noted during recent site visits and conversations as a potential infrastructure influence on groundwater flow in the MW-12 area. The concrete vault has appeared on some groundwater and other site maps, generally as an unidentified structure (box). Consistent with historical site maps that include underground piping lines, recent discussions have indicated that the concrete vault is part of the process water and/or storm sewer system for the southern boundary area, and the main north-south pipeline. The groundwater flow direction near MW-6A and MW-12 appears to have some preferential flow related to the concrete vault and its associated piping, resulting in a semi-circle or southern groundwater flow.

The details of depths of the vault, and underground pipelines and backfill materials around the vault and pipelines would provide information on the potential effects on groundwater flow in that area. Attachment #3 contains figures from historical documents regarding the groundwater at Sterling Drug Site 1. Attachment #3-1 through Attachment #3-3 include a box/vault adjacent to groundwater monitoring well MW-12. In addition, Attachment #3-4 and Attachment #3-5 are NYSDEC photographs of the MW-12 area and the concrete vault.

Conclusions

Based on the above discussions, NYSDEC and NYSDOH request the following tasks regarding the groundwater monitoring program and the groundwater treatment system monitoring program.

1. Beginning in October 2025, please resume sampling and analyses (and subsequent reporting) for PFAS (using USEPA Method 1633) and for 1,4-dioxane (using USEPA Method 8270 SIM) in the Fall/October groundwater sampling events for groundwater monitoring wells MW-3, MW-5A, MW-6A, MW-7A, MW-8, MW-9, MW-11A, MW-12, MW-14A, MW-17, MW-18, OS-1A, OS-3, OS-4A and OS-5A.
2. Beginning in March 2025, please resume sampling and analyses (and subsequent reporting) for PFAS (using USEPA Method 1633) and 1,4-dioxane (using USEPA Method 8270 SIM) in the monthly groundwater treatment system sampling events for the Influent and Effluent treatment system sampling ports.
3. Please provide details and discussion regarding the potential for underground pipelines, considering both historical and current pipelines, and concrete vault to influence the

groundwater flow pathway near MW-6A and MW-12, as part of the groundwater monitoring report for the April 2025 groundwater sampling event.

Please contact me at 518-357-2394 if there are any questions regarding implementation of the above requests.

Sincerely,

Christopher O'Neill, P.E.
Professional Engineer 2

Attachments

EC: E. Leighton, Curia
S. Miller, CHA
J. Deming, NYSDOH
A. Keegan, NYSDOH
M. Murphy, NYSDEC

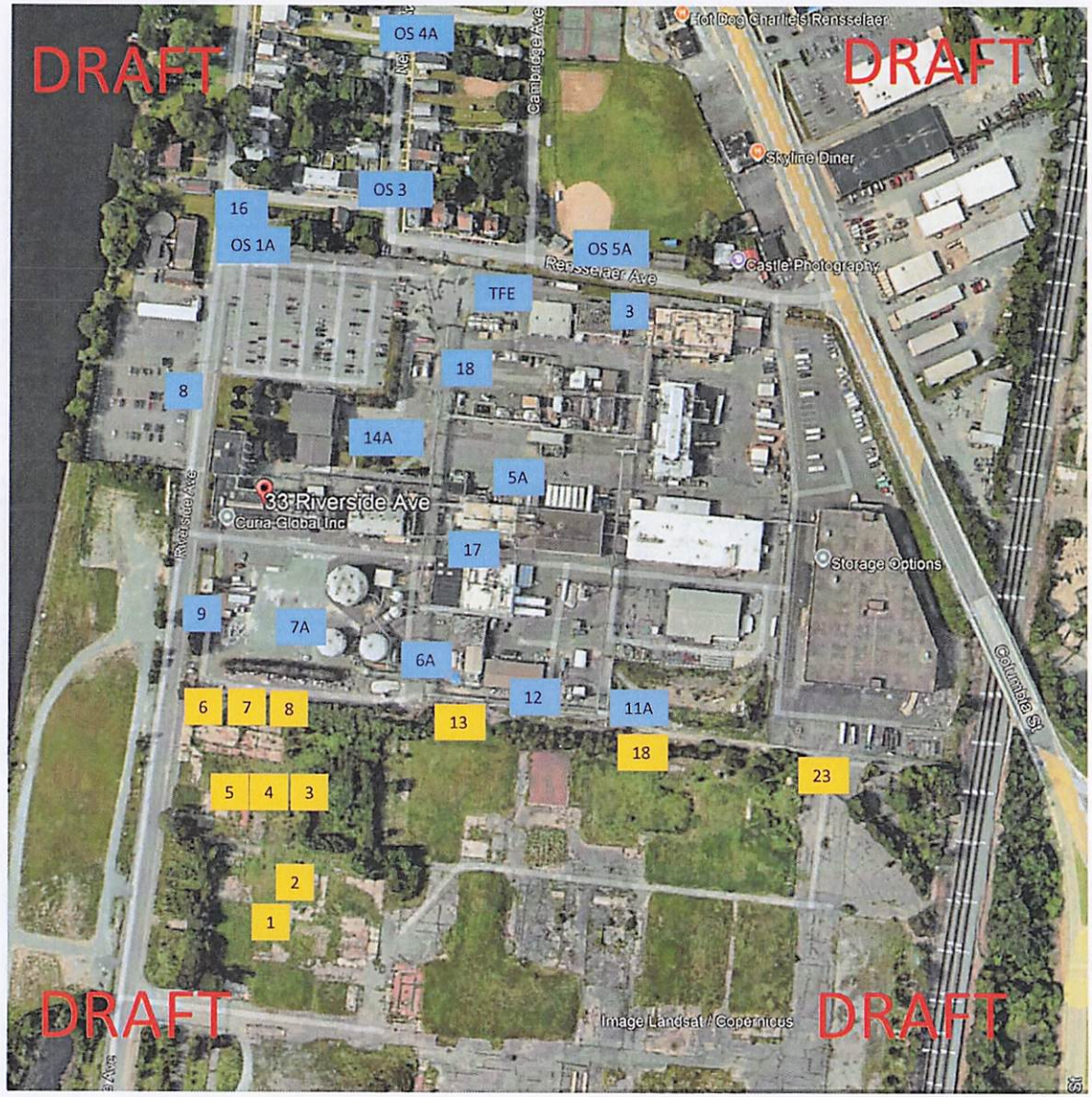
Attachment #1

PFAS Data Graphs/Figures

Legend: DRAFT

ID number = Sterling Drug Site 1 MW

ID number =BASF TPZ



Attachment #1 - 1

PFAS Results from GW Sampling on 1/24/2024 in ng/L (ppt)

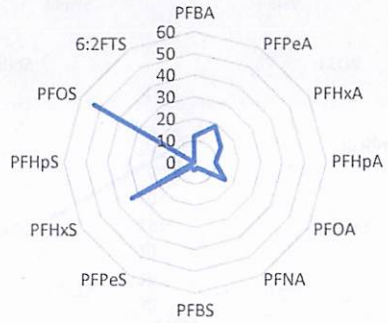
Row Labels	TPZ-03
PFBA	12
PFPeA	19
PFHxA	14
PFHpA	9.7
PFOA	16
PFNA	2.9
PFBS	3.5
PFPeS	2.3
PFHxS	33
PFHpS	0
PFOS	53
6:2FTS	0

DRAFT

DRAFT

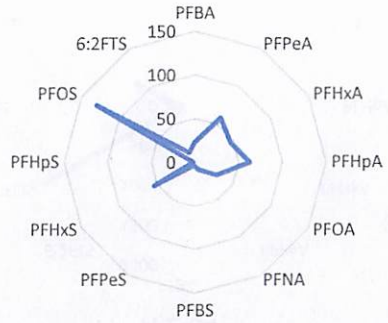
PFOS= 53 PPT

TPZ-03



PFOS= 130 PPT

TPZ-05



Attachment #1 - 2

PFAS Results from GW Sampling on 1/24/2024 in ng/L (ppt)

DRAFT

Row Labels	TPZ-05
PFBA	23
PFPeA	59
PFHxA	47
PFHpA	63
PFOA	29
PFNA	9.4
PFBS	4
PFPeS	4.7
PFHxS	54
PFHpS	1.4
PFOS	130
6:2FTS	13

DRAFT

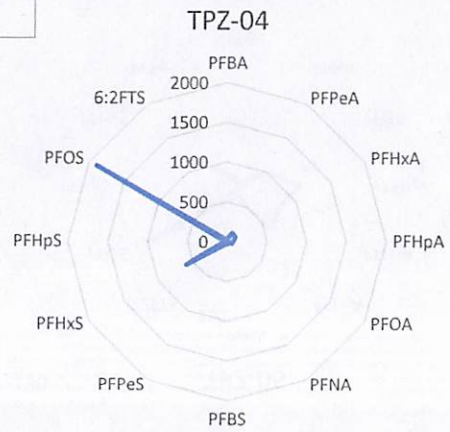
PFAS Results from GW Sampling on 1/24/2024 in ng/L (ppt)

Row Labels	TPZ-04
PFBA	42
PFPeA	120
PFHxA	110
PFHpA	68
PFOA	58
PFNA	11
PFBS	33
PFPeS	44
PFHxS	600
PFHpS	33
PFOS	1900
6:2FTS	20

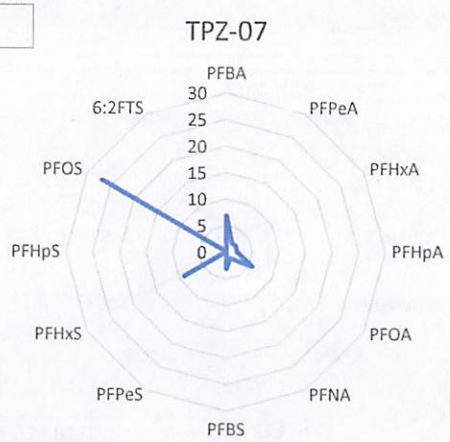
DRAFT

DRAFT

PFOS= 1900 PPT



PFOS= 27 PPT



PFAS Results from GW Sampling on 1/24/2024 in ng/L (ppt)

DRAFT

Row Labels	TPZ-07
PFBA	6.8
PFPeA	2
PFHxA	2.1
PFHpA	2
PFOA	5.6
PFNA	1.4
PFBS	3.2
PFPeS	0
PFHxS	9.1
PFHpS	0
PFOS	27
6:2FTS	0

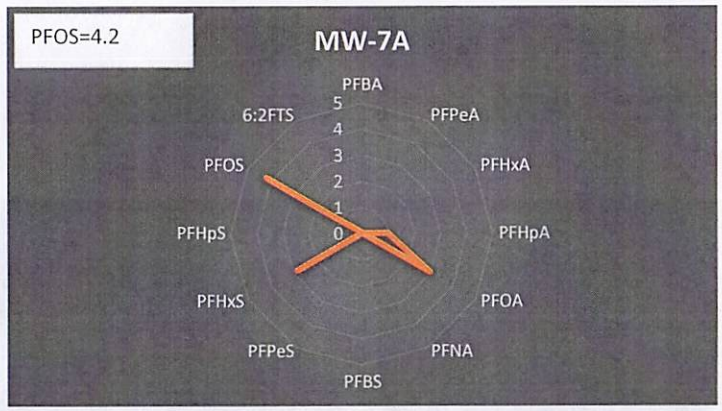
DRAFT

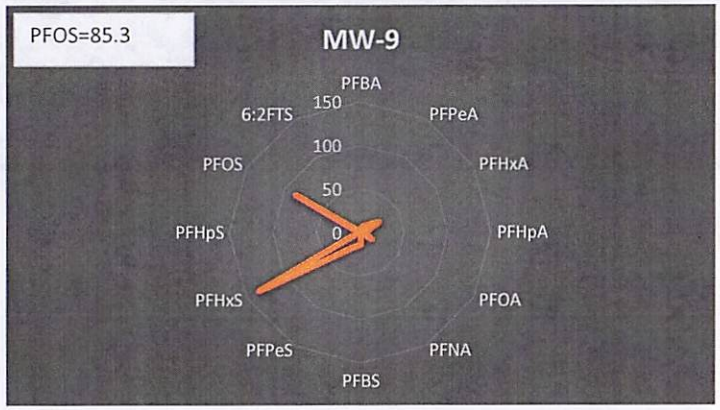
Attachment #1 - 3

PFAS Results from GW Sampling on 10/04/2023 in ng/L (ppt)

Row Labels	MW-7A
PFBA	
PFPeA	
PFHxA	
PFHpA	0.96
PFOA	2.96
PFNA	
PFBS	
PFPeS	
PFHxS	2.84
PFHpS	
PFOS	4.2
6:2FTS	

DRAFT





DRAFT

Attachment #1 - 4

PFAS Results from GW Sampling on 10/04/2023 in ng/L (ppt)

DRAFT

Row Labels	MW-9
PFBA	5.29
PFPeA	8.92
PFHxA	23.2
PFHpA	4.72
PFOA	14.3
PFNA	0.507
PFBS	13.7
PFPeS	20.1
PFHxS	134
PFHpS	2.11
PFOS	85.3
6:2FTS	

DRAFT

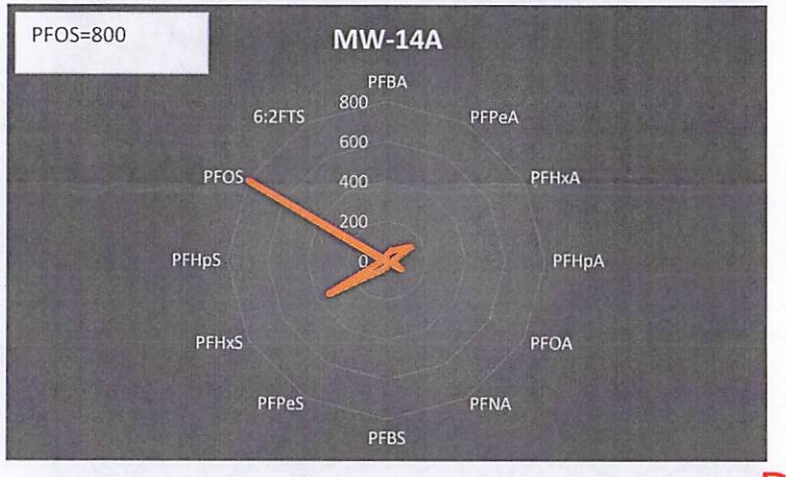
MW-14A

DRAFT

DRAFT

DRAFT

Row Labels	MW-14A
PFBA	28.7
PFPeA	60.2
PFHxA	139
PFHpA	31.9
PFOA	82.4
PFNA	5.08
PFBS	29.3
PFPeS	53.2
PFHxS	334
PFHpS	21.4
PFOS	800
6:2FTS	



DRAFT

DRAFT

PFAS Results from GW Sampling on 10/05/2023 in ng/L (ppt)

Attachment #1 - 5

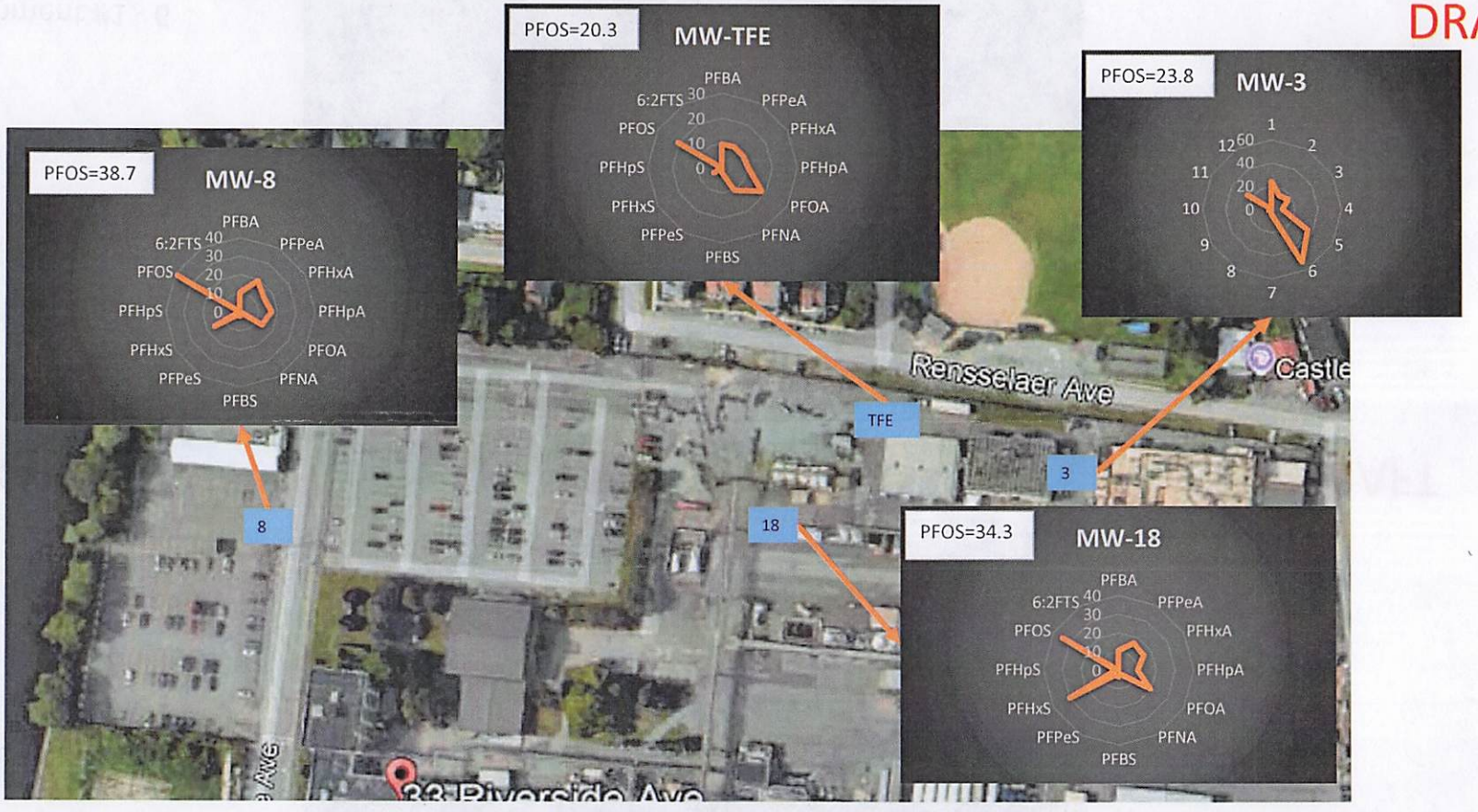
DRAFT

DRAFT

DRAFT

Attachment #1 - 6

DRAFT DRAFT



DRAFT DRAFT

Attachment #1 - 7

DRAFT DRAFT

DRAFT

Attachment #1 - 8

DRAFT

Attachment #2

1,4-Dioxane Data Graphs/Figures

DRAFT

DRAFT

DRAFT

DRAFT

Legend:

ID number = Sterling Drug Site 1 MW

Attachment #2 - 1

DRAFT

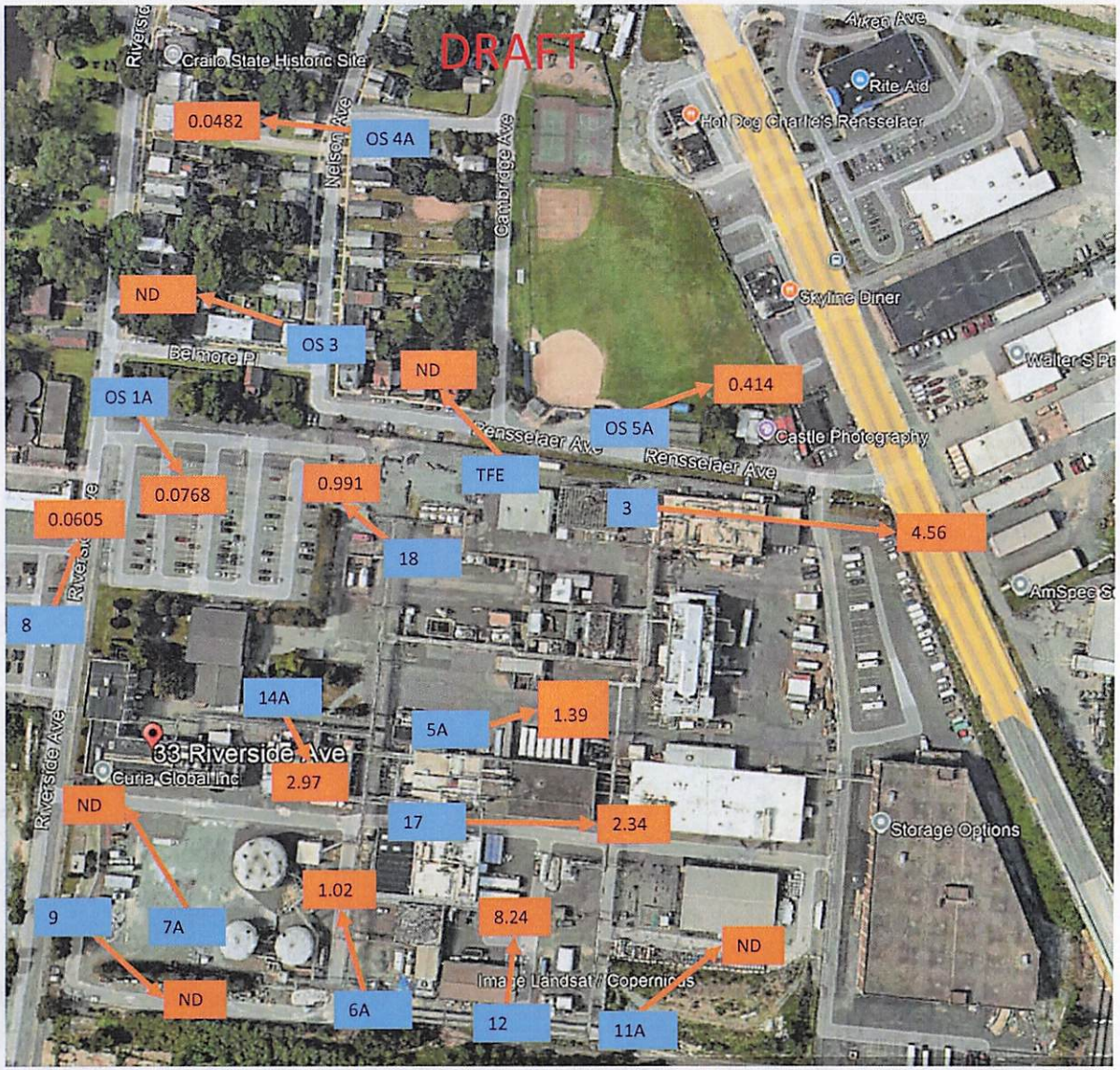
DRAFT

DRAFT

Legend:

ID number = Sterling Drug Site 1 MW

Value = 1,4-Dioxane Concentration



Results from GW Sampling on 10/04/2023 in ug/L (ppb)

DRAFT

DRAFT

Attachment #2 - 2

DRAFT

Legend:

Value = 1,4-Dioxane Concentration

DRAFT

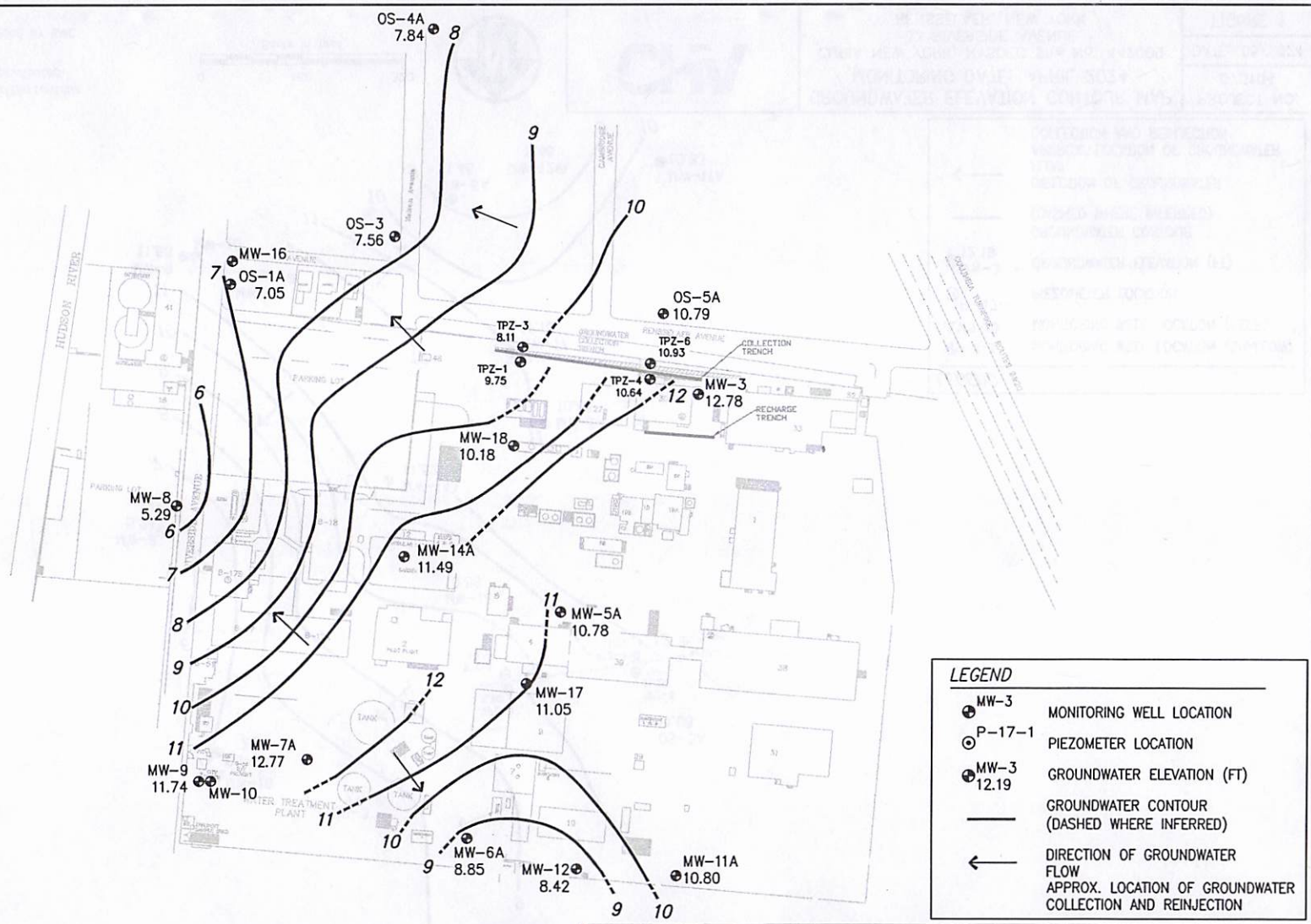
DRAFT

Results from GW Sampling on 10/04/2023 in ug/L (ppb)

DRAFT

DRAFT

Attachment #2 - 3



SOURCE: PLANT SITE MAP, DATED OCTOBER 27, 2009 BY SAIC

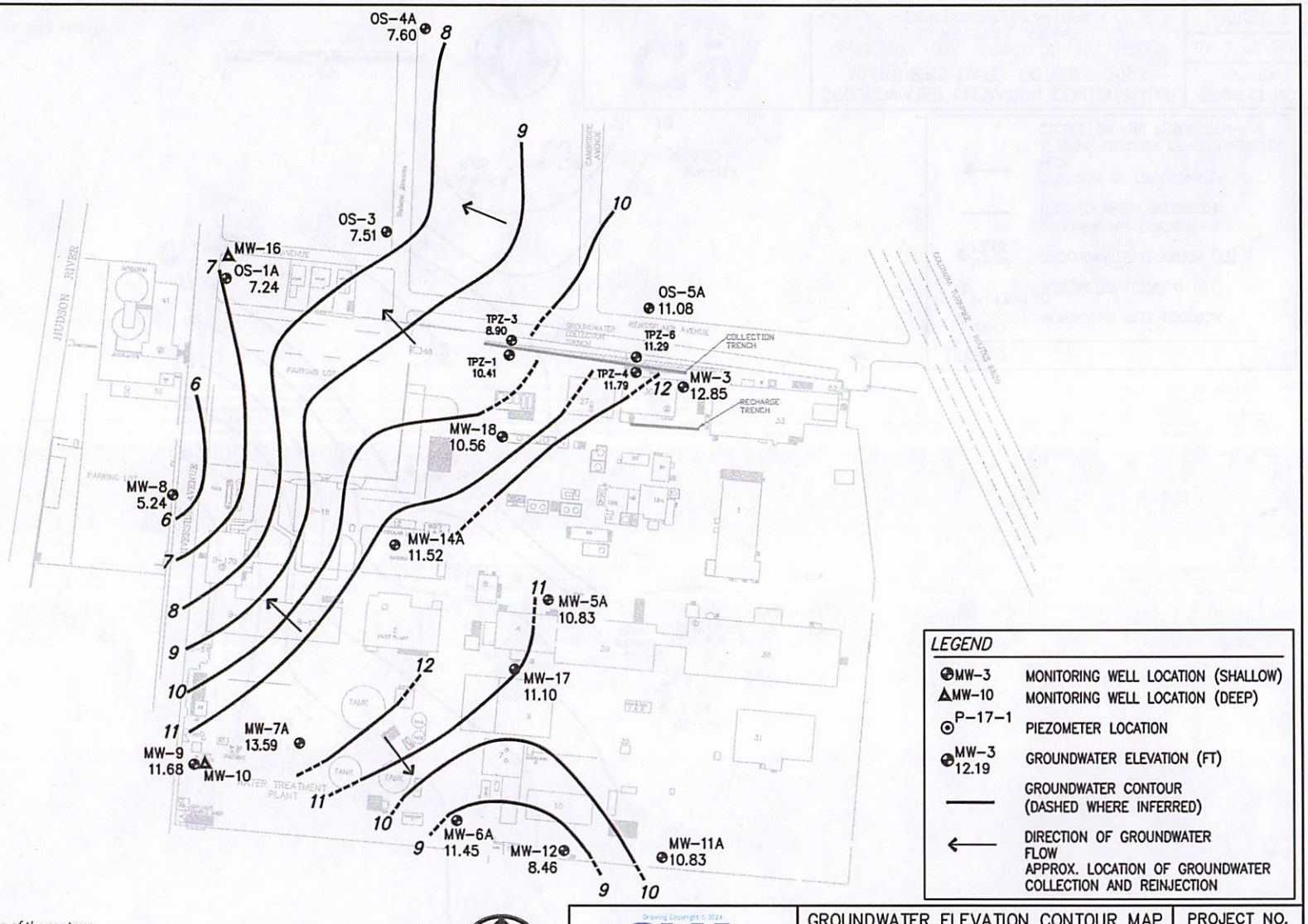
CHA

GROUNDWATER ELEVATION CONTOUR MAP
MONITORING DATE: OCTOBER 2023
CURIA NEW YORK, NYSDEC Site No. 442009
33 RIVERSIDE AVENUE
RENSSELAER, NEW YORK

PROJECT NO. 075104
DATE: 02/2024
FIGURE 1

File: V:\PROJECTS\ANY\K6\075104.000\09_DESIGN\DRAWINGS\ENV\2023 OCT CONTOUR MAP.DWG
Saved: 2/29/2024 5:00:18 PM Plotted: 2/29/2024 5:00:30 PM User: Ehmann, Karyn LastSavedBy:5768

Attachment #2 - 4



LEGEND

- MW-3 — MONITORING WELL LOCATION (SHALLOW)
- MW-10 — MONITORING WELL LOCATION (DEEP)
- P-17-1 — PIEZOMETER LOCATION
- MW-3 12.19 — GROUNDWATER ELEVATION (FT)
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- DIRECTION OF GROUNDWATER FLOW
- APPROX. LOCATION OF GROUNDWATER COLLECTION AND REINJECTION

NOTE: MW-6A was omitted during preparation of the contour map as it is an anomalous reading. This will be reevaluated during the next event in October 2024

SOURCE: PLANT SITE MAP, DATED OCTOBER 27, 2009 BY SAIC

0 160 320
Scale in feet

N

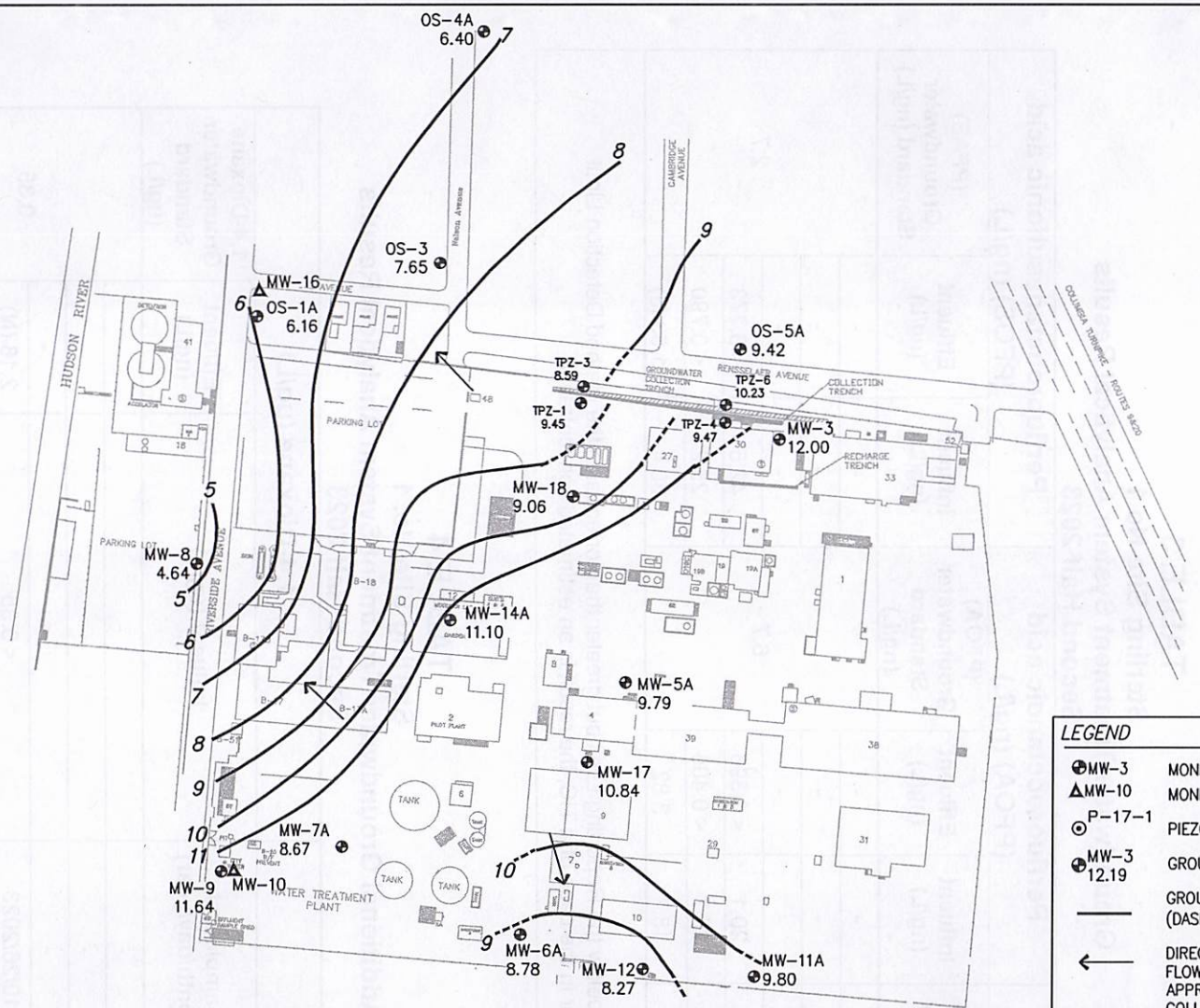
CHA
111 Winners Circle, PO Box 5269
Albany, NY 12205-0269
518.453.4500 www.chacompanies.com

GROUNDWATER ELEVATION CONTOUR MAP
MONITORING DATE: APRIL 2024
CURIA NEW YORK, NYSDEC Site No. 442009
33 RIVERSIDE AVENUE
RENSSELAER, NEW YORK

PROJECT NO. 075104
DATE: 05/2024
FIGURE 1

File: V:\PROJECTS\ANY\K6\075104.000\09_DESIGN\DRAWINGS\ENV\2024 APRIL CONTOUR MAP.DWG
Saved: 5/17/2024 10:34:34 AM Plotted: 5/24/2024 12:33:43 PM User: Miller, Samantha LastSavedBy: 4187

Attachment #2 - 5



LEGEND

⊕MW-3	MONITORING WELL LOCATION (SHALLOW)
△MW-10	MONITORING WELL LOCATION (DEEP)
⊙P-17-1	PIEZOMETER LOCATION
⊕MW-3 12.19	GROUNDWATER ELEVATION (FT)
——	GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
←	DIRECTION OF GROUNDWATER FLOW
	APPROX. LOCATION OF GROUNDWATER COLLECTION AND REINJECTION

NOTE: MW-7A & MW-5A were omitted during preparation of the contour map as it is an anomalous reading. These will be reevaluated during the next event in April 2025

SOURCE: PLANT SITE MAP, DATED OCTOBER 27, 2009 BY SAIC

0 160 320
Scale in feet

N

CHA
111 Winners Circle, PO Box 5269
Albany, NY 12205-0269
518.453.4500 . www.chacompanies.com

GROUNDWATER ELEVATION CONTOUR MAP
MONITORING DATE: OCTOBER 2024
CURIA NEW YORK, NYSDEC Site No. 442009
33 RIVERSIDE AVENUE
RENSSELAER, NEW YORK

PROJECT NO. 075104
DATE: 12/2024
FIGURE 1

Attachment #2 - 6

curia

TABLE 3
Sterling Site No.1
Groundwater Treatment System Analytical Results
Second Half 2023

	Perfluorooctanoic acid (PFOA) (ng/L)			Perfluorooctanesulfonic acid (PFOS) (ng/L)		
Sample Date (month/day/year)	Influent (ng/L)	Effluent (ng/L)	(PFOA) Groundwater Standard (ng/L)	Influent (ng/L)	Effluent (ng/L)	(PFAS) Groundwater Standard (ng/L)
-	-	-	6.7	-	-	2.7
-	-	-		-	-	
-	-	-		-	-	
10/26/2023	20.1	< 0.396		42.5	< 0.773	
11/28/2023	75.7	< 0.405		25.2	< 0.790	
12/20/2023	18.7	3.82		30.4	1.33 (J)	

Notes:
J - Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration

TABLE 4
Sterling Site No. 1
Additional Groundwater Treatment System Analytical Results
Second Half 2023

	1,4-Dioxane (ug/L)		
Sample Date (month/day/year)	Influent (ug/L)	Effluent (ug/L)	1,4-Dioxane Groundwater Standard (ug/L)
-	-	-	0.35
-	-	-	
-	-	-	
10/26/2023	< 0.35	2.18 (N)	
11/28/2023	1.05 (S)	1.13 (N)	
12/20/2023	0.96 (S)	2.15 (S)	

Notes:
N - Matrix Spike below acceptable limits
S - LCS Spike recovery is below acceptable limits

curia

TABLE 3
Sterling Site No. 1
Groundwater Treatment System Analytical Results
First Half 2024

	1,4-Dioxane (ug/L)		
Sample Date (month/day/year)	Influent (ug/L)	Effluent (ug/L)	1,4-Dioxane Groundwater Standard (ug/L)
1/23/24	ND<0.35 (S)	ND<0.35 (S)	0.35
2/22/24	1.68	1.41	
3/28/24	0.53 (S)	0.89 (S,N)	
4/18/24	0.43	1.42	
5/3/24	2.50	1.86 (Z)	
6/27/24	2.02	1.64	

Notes:
N - Matrix Spike below acceptable limits
S - LCS Spike recovery is below acceptable limits

curia

TABLE 3
Sterling Site No. 1
Groundwater Treatment System Analytical Results
Second Half 2024

	1,4-Dioxane (ug/L)		
Sample Date (month/day/year)	Influent (ug/L)	Effluent (ug/L)	1,4-Dioxane Groundwater Standard (ug/L)
7/29/2024	2.32	ND	0.35
8/8/2024	ND	ND	
9/19/2024	ND	ND	

Notes:

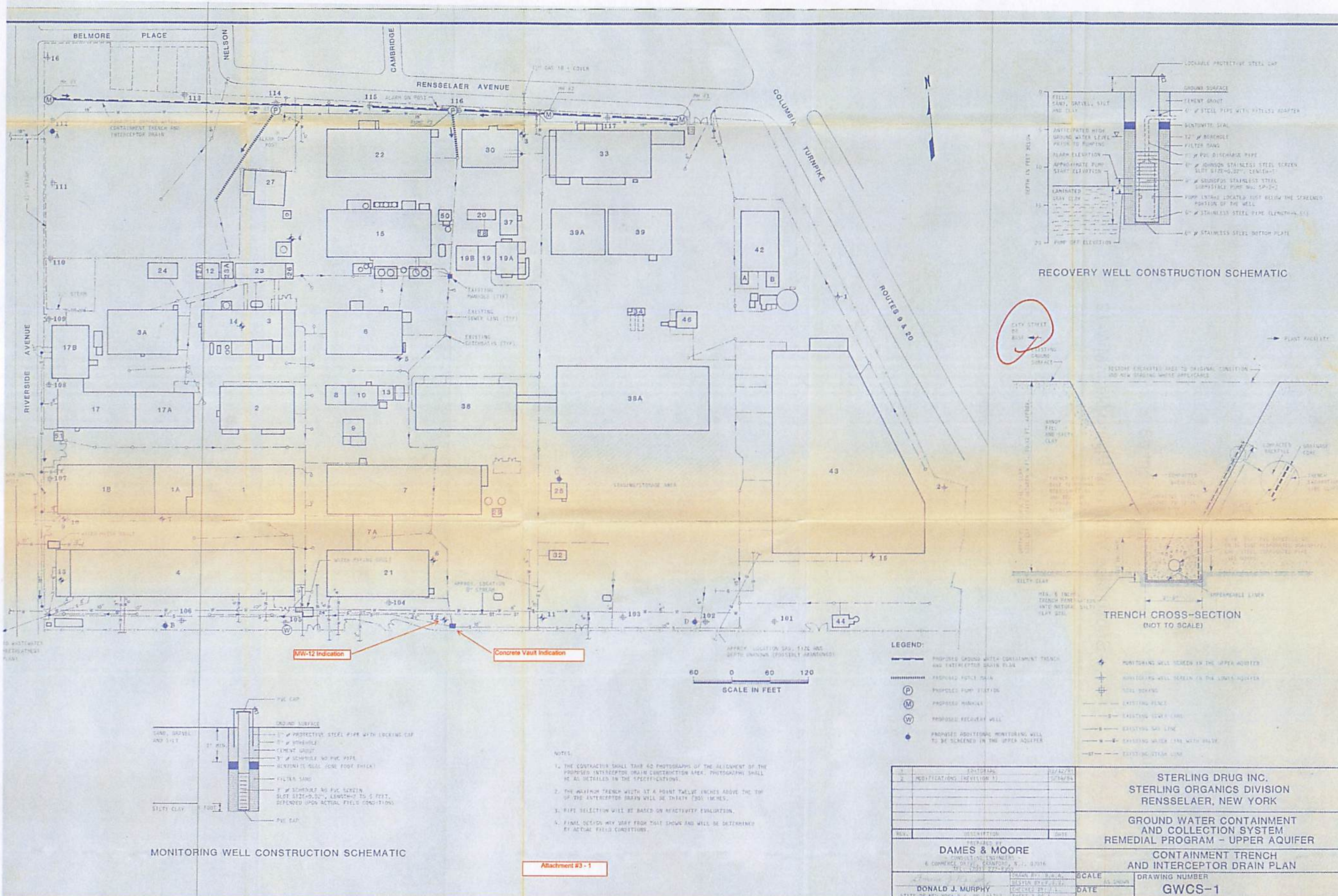
N - Matrix Spike below acceptable limits

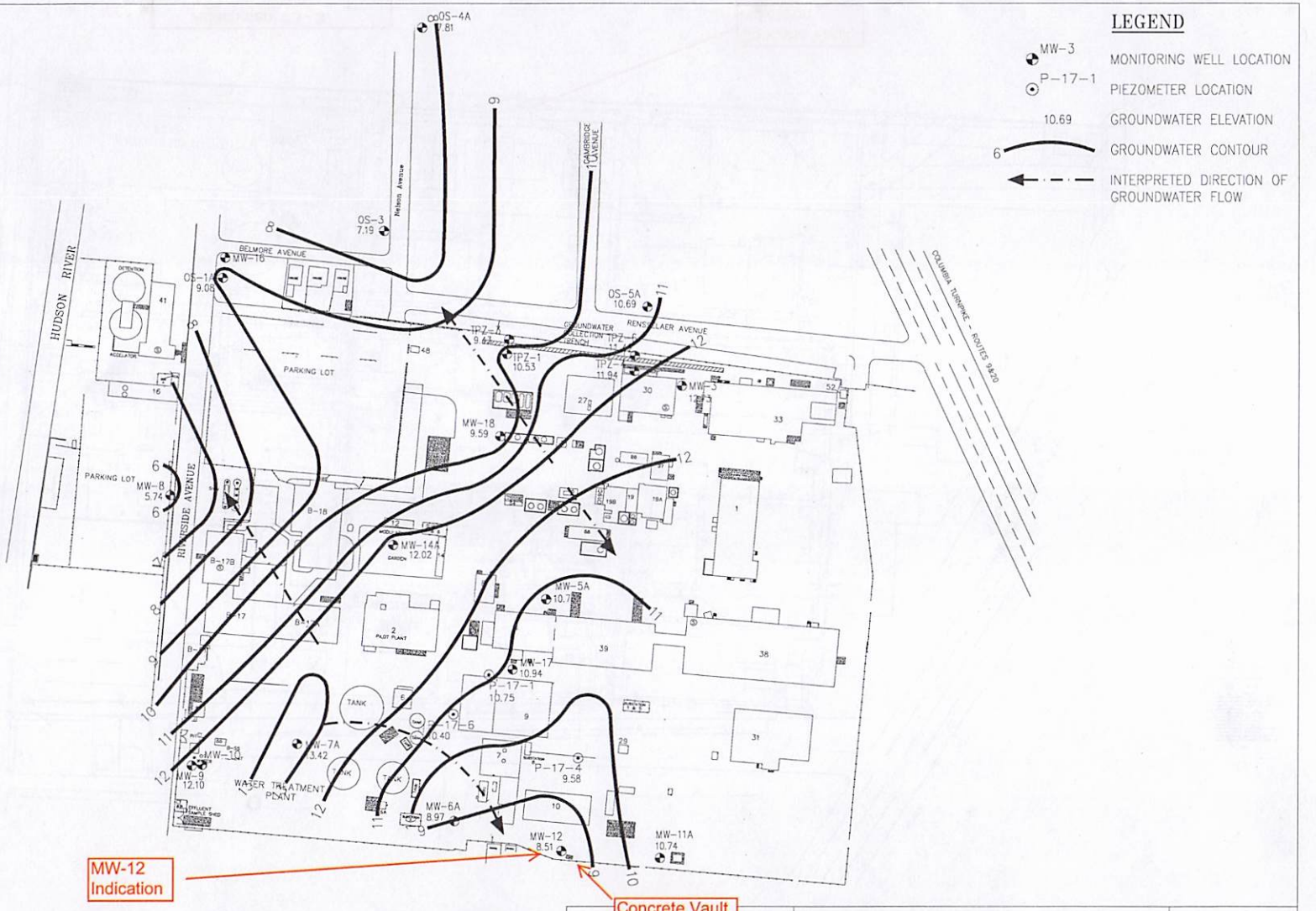
S - LCS Spike recovery is below acceptable limits

Attachment #2 - 9

Attachment #3

Subsurface Vault and Piping Near MW-12


BELMORE PLACE
NELSON
CAMBRIDGE
RENSSELAER AVENUE
COLUMBIA TURNPIKE
ROUTES 9 & 20
RIVERSIDE AVENUE
N
RECOVERY WELL CONSTRUCTION SCHEMATIC
TRENCH CROSS-SECTION
(NOT TO SCALE)
MW-12 Indication
Concrete Vault Indication
SCALE IN FEET
60 0 60 120
LEGEND:
MONITORING WELL CONSTRUCTION SCHEMATIC
Attachment #3 - 1
STERLING DRUG INC.
STERLING ORGANICS DIVISION
RENSSELAER, NEW YORK
GROUND WATER CONTAINMENT
AND COLLECTION SYSTEM
REMEDIAL PROGRAM - UPPER AQUIFER
CONTAINMENT TRENCH
AND INTERCEPTOR DRAIN PLAN
PREPARED BY
DAMES & MOORE
DONALD J. MURPHY
SCALE
DATE
DRAWING NUMBER
GWCS-1



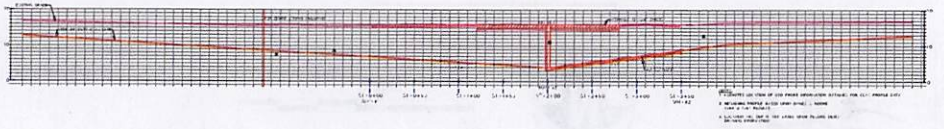
SOURCE: PLANT SITE MAP, GROUNDWATER ELEVATION CONTOUR DATED OCTOBER 27, 2009 BY SAIC

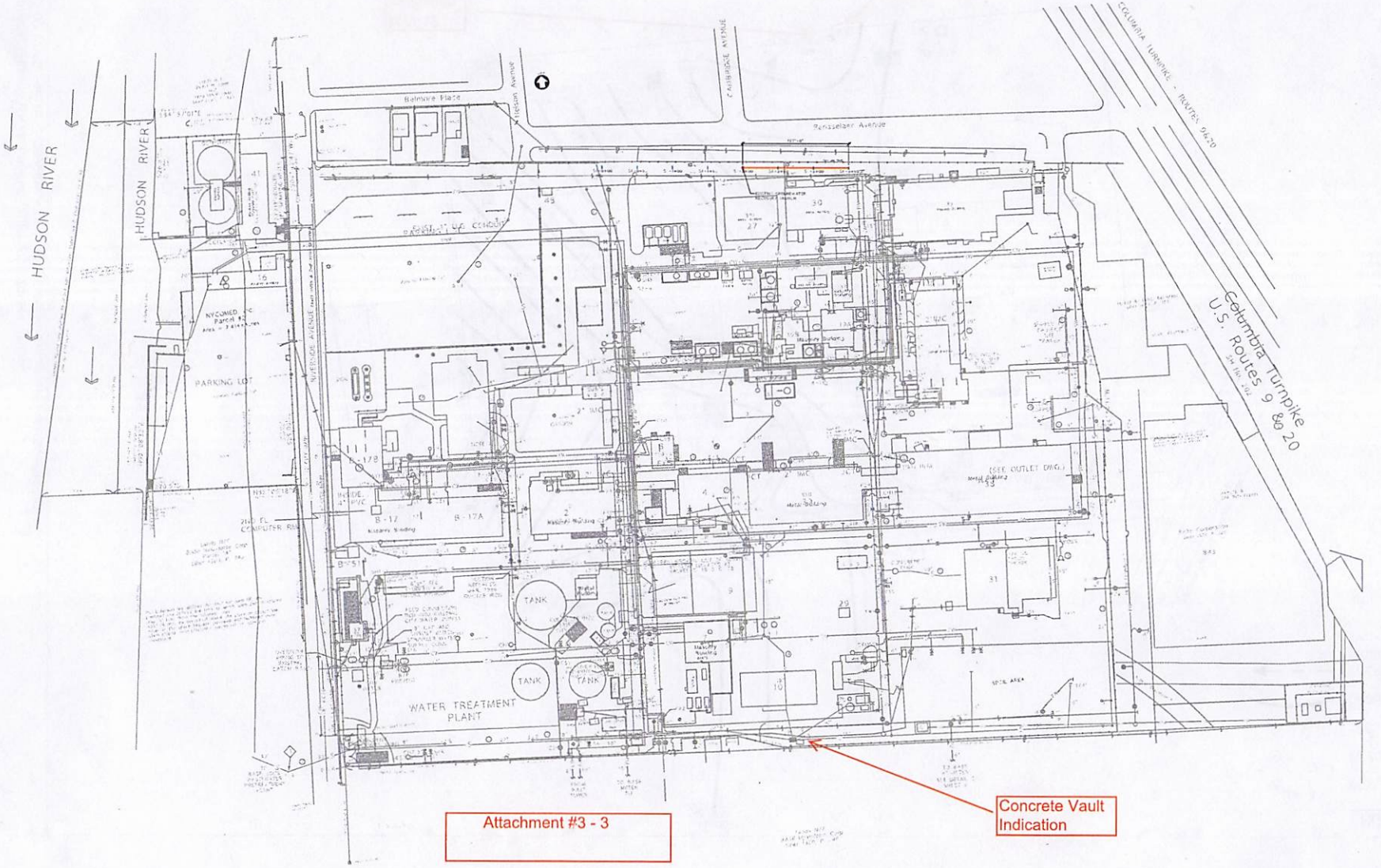
GROUNDWATER ELEVATION CONTOUR MAP
MONITORING DATE: APRIL 6. 2015
AMRI RENSSELAER
33 RIVERSIDE AVENUE
RENSSELAER, NEW YORK

PROJECT NO. 21341
DATE: 4/06/15
FIGURE 1

Attachment #3 - 2

File: M:\21341\CADD\ACAD\FIGURES\ENVIRONMENTAL\21341_FIG1_2015-4-06.DWG
Saved: 5/29/2015 3:00:52 PM Plotted: 5/29/2015 4:15:21 PM User: Morey, James LastSavedBy: 3031





Attachment #3 - 3

Attachment #3 - 4

Attachment #3 - 5