



AQUA ENVIRONMENTAL LAB

56 Church Hill Road • Newtown, CT 06470 • (203) 270-9973

2nd Sample

Report of Analysis

Name: Water System Solutions Design Inc
 PO Box 180
 Watertown, CT 06795-0180

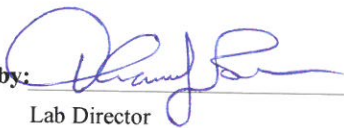
Sample Date: 1/5/2022 1:20 PM
Receipt Date: 1/5/2022 2:40 PM
Report Date: 1/13/2022
Sample Site: Weston School - Municipal - CT1570132

Sample ID#: 278605
Sample Type: Drinking Water
Sample Source: Well 4
Sampler: RB

| Parameter | Sample Result | Units | Limits | Method | RL | Analysis Date/Time |
|------------------------------|---------------|-------|--------------|---------|-------|--------------------|
| Organic Compounds | | | | | | |
| PerFluoroButaneSulfonic Acid | ND | ng/L | No Limit Set | EPA 537 | 0.926 | 1/12/2022 19:43 |
| PerFluoroHeptanoic Acid | 1.52 | ng/L | No Limit Set | EPA 537 | 0.926 | 1/12/2022 19:43 |
| PerFluoroHexaneSulfonic Acid | 0.926 | ng/L | No Limit Set | EPA 537 | 0.926 | 1/12/2022 19:43 |
| PerFluoroNonanoic Acid | ND | ng/L | No Limit Set | EPA 537 | 0.926 | 1/12/2022 19:43 |
| PerFluoroOctaneSulfonic Acid | 6.15 | ng/L | No Limit Set | EPA 537 | 0.926 | 1/12/2022 19:43 |
| PerFluoroOctanoic Acid | 4.13 | ng/L | No Limit Set | EPA 537 | 0.926 | 1/12/2022 19:43 |

Comments: see attached

ND = Not Detected
 * = Above Specified Limit

Report Approved by: 
 Lab Director

CT Lic PH-0787 NY Lic 11706

Analytical results relate to the samples as received at the laboratory. Report shall not be reproduced except in its entirety without written approval from the laboratory.



Technical Report

Perfluoroalkyl Substances (PFAS)

prepared for:

Aqua Environmental Lab
56 Church Hill Road
Newtown CT, 06470
Attention: T. Braun

Report Date: 01/13/2022
Client Project ID: 278604/278605
York Project (SDG) No.: 22A0232

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE
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132-02 89th AVENUE
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RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 01/13/2022
Client Project ID: 278604/278605
York Project (SDG) No.: 22A0232

Aqua Environmental Lab
56 Church Hill Road
Newtown CT, 06470
Attention: T. Braun

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on January 06, 2022 and listed below. The project was identified as your project: **278604/278605**.

The analyses were conducted utilizing appropriate EPA methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

Please contact Client Services at 203.325.1371 with any questions regarding this report or e-mail clientservices@yorklab.com.

| <u>York Sample ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> |
|-----------------------|-------------------------|----------------|-----------------------|----------------------|
| 22A0232-01 | 278604 | Drinking Water | 01/05/2022 | 01/06/2022 |
| 22A0232-02 | 278604-FB | Drinking Water | 01/05/2022 | 01/06/2022 |
| 22A0232-03 | 278605 | Drinking Water | 01/05/2022 | 01/06/2022 |
| 22A0232-04 | 278605-FB | Drinking Water | 01/05/2022 | 01/06/2022 |

General Notes for York Project (SDG) No.: 22A0232

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Cassie L. Mosher
Laboratory Manager

Date: 01/13/2022





Sample Information

Client Sample ID: 278604-FB

York Sample ID: 22A0232-02

York Project (SDG) No. 22A0232

Client Project ID 278604/278605

Matrix Drinking Water

Collection Date/Time January 5, 2022 1:20 pm

Date Received 01/06/2022

PFAS, EPA 537.1 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 537.1 SPE DVB

Table with columns: CAS No., Parameter, Result, Flag, MCL, ng/L, Units, Reported to LOQ, Reference Method, Date/Time Analyzed, Analyst. Includes surrogate recoveries for d5-N-EtFOSAA, 13C-PFDA, 13C-PFHxA, and M3HFPO-DA.

Sample Information

Client Sample ID: 278605

York Sample ID: 22A0232-03

York Project (SDG) No. 22A0232

Client Project ID 278604/278605

Matrix Drinking Water

Collection Date/Time January 5, 2022 1:20 pm

Date Received 01/06/2022

PFAS, EPA 537.1 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 537.1 SPE DVB

Table with columns: CAS No., Parameter, Result, Flag, MCL, ng/L, Units, Reported to LOQ, Reference Method, Date/Time Analyzed, Analyst. Lists various perfluorinated acids and their results.



Sample Information

Client Sample ID: 278605

York Sample ID: 22A0232-03

York Project (SDG) No.
22A0232

Client Project ID
278604/278605

Matrix
Drinking Water

Collection Date/Time
January 5, 2022 1:20 pm

Date Received
01/06/2022

PFAS, EPA 537.1 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 537.1 SPE DVB

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level | | Units | Reported to LOQ | Reference Method | Date/Time Analyzed | Analyst |
|-------------|------------------------------------|--------|------|---------------------------|--|-----------------|-----------------|------------------|--------------------|---------|
| | | | | MCL, ng/L | | | | | | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 2355-31-9 | N-MeFOSAA | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 2991-50-6 | N-EtFOSAA | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 756426-58-1 | 9CL-PF3ONS | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 763051-92-9 | 11CL-PF3OUdS | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 13252-13-6 | HFPO-DA (Gen-X) | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |
| 919005-14-4 | ADONA | ND | | 0 | | ng/L | 0.926 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:43 | |

| Surrogate Recoveries | Result | Acceptance Range |
|-------------------------|--------|------------------|
| Surrogate: d5-N-EtFOSAA | 115 % | 70-130 |
| Surrogate: 13C-PFDA | 106 % | 70-130 |
| Surrogate: 13C-PFHxA | 104 % | 70-130 |
| Surrogate: M3HFPO-DA | 97.7 % | 70-130 |

Sample Information

Client Sample ID: 278605-FB

York Sample ID: 22A0232-04

York Project (SDG) No.
22A0232

Client Project ID
278604/278605

Matrix
Drinking Water

Collection Date/Time
January 5, 2022 1:20 pm

Date Received
01/06/2022

PFAS, EPA 537.1 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 537.1 SPE DVB

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level | | Units | Reported to LOQ | Reference Method | Date/Time Analyzed | Analyst |
|----------|-------------------------------------|--------|------|---------------------------|--|-----------------|-----------------|------------------|--------------------|---------|
| | | | | MCL, ng/L | | | | | | |
| 375-73-5 | Perfluorobutanesulfonic acid (PFBS) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:56 | |
| 307-24-4 | Perfluorohexanoic acid (PFHxA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:56 | |
| 375-85-9 | Perfluoroheptanoic acid (PFHpA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | Certifications: | | | 01/12/2022 19:56 | |



W14

Sample Information

Client Sample ID: 278605-FB

York Sample ID: 22A0232-04

York Project (SDG) No.
22A0232

Client Project ID
278604/278605

Matrix
Drinking Water

Collection Date/Time
January 5, 2022 1:20 pm

Date Received
01/06/2022

PFAS, EPA 537.1 List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 537.1 SPE DV8

| CAS No. | Parameter | Result | Flag | Maximum Contaminant Level | | Units | Reported to LOQ | Reference Method | Date/Time Analyzed | Analyst |
|-------------|--------------------------------------|--------|------|---------------------------|--|-------|-----------------|------------------|--------------------|---------|
| | | | | MCL, ng/L | | | | | | |
| 355-46-4 | Perfluorohexanesulfonic acid (PFHxS) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 335-67-1 | Perfluorooctanoic acid (PFOA) | ND | | 10 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | NELAC-NY12058 | 01/12/2022 19:56 | |
| 1763-23-1 | Perfluorooctanesulfonic acid (PFOS) | ND | | 10 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | NELAC-NY12058 | 01/12/2022 19:56 | |
| 375-95-1 | Perfluorononanoic acid (PFNA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 335-76-2 | Perfluorodecanoic acid (PFDA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 2058-94-8 | Perfluoroundecanoic acid (PFUnA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 307-55-1 | Perfluorododecanoic acid (PFDoA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 72629-94-8 | Perfluorotridecanoic acid (PFTrDA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 376-06-7 | Perfluorotetradecanoic acid (PFTA) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 2355-31-9 | N-MeFOSAA | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 2991-50-6 | N-EtFOSAA | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 756426-58-1 | 9CL-PF3ONS | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 763051-92-9 | 11CL-PF3OUdS | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 13252-13-6 | HFPO-DA (Gen-X) | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |
| 919005-14-4 | ADONA | ND | | 0 | | ng/L | 1.56 | EPA 537.1 | 01/11/2022 12:32 | WL |
| | | | | | | | Certifications: | | 01/12/2022 19:56 | |

| Surrogate Recoveries | Result | Acceptance Range |
|-------------------------|--------|------------------|
| Surrogate: d5-N-EtFOSAA | 121 % | 70-130 |
| Surrogate: 13C-PFDA | 115 % | 70-130 |
| Surrogate: 13C-PFHxA | 95.5 % | 70-130 |
| Surrogate: M3HFPO-DA | 94.4 % | 70-130 |



Analytical Batch Summary

Batch ID: BA21612

Preparation Method: EPA 537.1 SPE DVB

Prepared By: ER

| YORK Sample ID | Client Sample ID | Preparation Date |
|----------------|------------------|------------------|
| 22A0232-01 | 278604 | 01/11/22 |
| 22A0232-02 | 278604-FB | 01/11/22 |
| 22A0232-03 | 278605 | 01/11/22 |
| 22A0232-04 | 278605-FB | 01/11/22 |
| BA21612-BLK1 | Blank | 01/11/22 |
| BA21612-BS1 | LCS | 01/11/22 |
| BA21612-BS2 | LCS | 01/11/22 |
| BA21612-DUP1 | Duplicate | 01/11/22 |
| BA21612-MS1 | Matrix Spike | 01/11/22 |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC %REC | Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|-----------|--------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|-----------|--------|------|-----|-----------|------|

Batch BA21612 - EPA 537.1 SPE DVB

Blank (BA21612-BLK1)

Prepared: 01/11/2022 Analyzed: 01/12/2022

| | | | | | | | | | | | |
|--------------------------------------|------|------|------|------|--|-----|--------|--|--|--|--|
| Perfluorobutanesulfonic acid (PFBS) | ND | 2.00 | ng/L | | | | | | | | |
| Perfluorohexanoic acid (PFHxA) | ND | 2.00 | " | | | | | | | | |
| Perfluoroheptanoic acid (PFHpA) | ND | 2.00 | " | | | | | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | ND | 2.00 | " | | | | | | | | |
| Perfluorooctanoic acid (PFOA) | ND | 2.00 | " | | | | | | | | |
| Perfluorooctanesulfonic acid (PFOS) | ND | 2.00 | " | | | | | | | | |
| Perfluorononanoic acid (PFNA) | ND | 2.00 | " | | | | | | | | |
| Perfluorodecanoic acid (PFDA) | ND | 2.00 | " | | | | | | | | |
| Perfluoroundecanoic acid (PFUnA) | ND | 2.00 | " | | | | | | | | |
| Perfluorododecanoic acid (PFDoA) | ND | 2.00 | " | | | | | | | | |
| Perfluorotridecanoic acid (PFTTrDA) | ND | 2.00 | " | | | | | | | | |
| Perfluorotetradecanoic acid (PFTA) | ND | 2.00 | " | | | | | | | | |
| N-MeFOSAA | ND | 2.00 | " | | | | | | | | |
| N-EtFOSAA | ND | 2.00 | " | | | | | | | | |
| 9CL-PF3ONS | ND | 2.00 | " | | | | | | | | |
| 11CL-PF3OUdS | ND | 2.00 | " | | | | | | | | |
| HFPO-DA (Gen-X) | ND | 2.00 | " | | | | | | | | |
| ADONA | ND | 2.00 | " | | | | | | | | |
| Surrogate: d5-N-EtFOSAA | 441 | | " | 320 | | 138 | 70-130 | | | | |
| Surrogate: 13C-PFDA | 103 | | " | 80.0 | | 129 | 70-130 | | | | |
| Surrogate: 13C-PFHxA | 88.0 | | " | 80.0 | | 110 | 70-130 | | | | |
| Surrogate: M3HFPO-DA | 83.7 | | " | 80.0 | | 105 | 70-130 | | | | |

LCS (BA21612-BS1)

Prepared: 01/11/2022 Analyzed: 01/12/2022

| | | | | | | | | | | | |
|--------------------------------------|------|------|------|------|--|------|--------|--|--|--|--|
| Perfluorobutanesulfonic acid (PFBS) | 56.1 | 2.00 | ng/L | 70.8 | | 79.2 | 70-130 | | | | |
| Perfluorohexanoic acid (PFHxA) | 70.5 | 2.00 | " | 80.0 | | 88.2 | 70-130 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 74.5 | 2.00 | " | 80.0 | | 93.1 | 70-130 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 69.1 | 2.00 | " | 76.0 | | 90.9 | 70-130 | | | | |
| Perfluorooctanoic acid (PFOA) | 79.0 | 2.00 | " | 80.0 | | 98.7 | 70-130 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 74.6 | 2.00 | " | 76.8 | | 97.1 | 70-130 | | | | |
| Perfluorononanoic acid (PFNA) | 81.5 | 2.00 | " | 80.0 | | 102 | 70-130 | | | | |
| Perfluorodecanoic acid (PFDA) | 82.9 | 2.00 | " | 80.0 | | 104 | 70-130 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 84.6 | 2.00 | " | 80.0 | | 106 | 70-130 | | | | |
| Perfluorododecanoic acid (PFDoA) | 89.4 | 2.00 | " | 80.0 | | 112 | 70-130 | | | | |
| Perfluorotridecanoic acid (PFTTrDA) | 87.5 | 2.00 | " | 80.0 | | 109 | 70-130 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 81.0 | 2.00 | " | 80.0 | | 101 | 70-130 | | | | |
| N-MeFOSAA | 76.9 | 2.00 | " | 80.0 | | 96.1 | 70-130 | | | | |
| N-EtFOSAA | 83.0 | 2.00 | " | 80.0 | | 104 | 70-130 | | | | |
| 9CL-PF3ONS | 68.7 | 2.00 | " | 74.8 | | 91.9 | 60-130 | | | | |
| 11CL-PF3OUdS | 74.1 | 2.00 | " | 75.6 | | 98.0 | 60-130 | | | | |
| HFPO-DA (Gen-X) | 69.5 | 2.00 | " | 80.0 | | 86.9 | 60-130 | | | | |
| ADONA | 70.7 | 2.00 | " | 75.6 | | 93.5 | 60-130 | | | | |
| Surrogate: d5-N-EtFOSAA | 433 | | " | 320 | | 135 | 70-130 | | | | |
| Surrogate: 13C-PFDA | 99.7 | | " | 80.0 | | 125 | 70-130 | | | | |
| Surrogate: 13C-PFHxA | 84.7 | | " | 80.0 | | 106 | 70-130 | | | | |
| Surrogate: M3HFPO-DA | 82.8 | | " | 80.0 | | 103 | 70-130 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BA21612 - EPA 537.1 SPE DVB

LCS (BA21612-BS2)

Prepared: 01/11/2022 Analyzed: 01/12/2022

| | | | | | | | | | | | |
|--------------------------------------|------|------|------|------|--|------|--------|--|--|--|--|
| Perfluorobutanesulfonic acid (PFBS) | 29.6 | 2.00 | ng/L | 35.4 | | 83.5 | 70-130 | | | | |
| Perfluorohexanoic acid (PFHxA) | 35.7 | 2.00 | " | 40.0 | | 89.3 | 70-130 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 35.2 | 2.00 | " | 40.0 | | 87.9 | 70-130 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 33.9 | 2.00 | " | 38.0 | | 89.1 | 70-130 | | | | |
| Perfluorooctanoic acid (PFOA) | 37.4 | 2.00 | " | 40.0 | | 93.5 | 70-130 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 33.8 | 2.00 | " | 38.4 | | 88.1 | 70-130 | | | | |
| Perfluorononanoic acid (PFNA) | 40.3 | 2.00 | " | 40.0 | | 101 | 70-130 | | | | |
| Perfluorodecanoic acid (PFDA) | 37.8 | 2.00 | " | 40.0 | | 94.6 | 70-130 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 37.6 | 2.00 | " | 40.0 | | 93.9 | 70-130 | | | | |
| Perfluorododecanoic acid (PFDoA) | 43.4 | 2.00 | " | 40.0 | | 108 | 70-130 | | | | |
| Perfluorotridecanoic acid (PFTTrDA) | 41.0 | 2.00 | " | 40.0 | | 103 | 70-130 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 39.3 | 2.00 | " | 40.0 | | 98.4 | 70-130 | | | | |
| N-MeFOSAA | 38.2 | 2.00 | " | 40.0 | | 95.4 | 70-130 | | | | |
| N-EtFOSAA | 39.5 | 2.00 | " | 40.0 | | 98.6 | 70-130 | | | | |
| 9CL-PF3ONS | 32.3 | 2.00 | " | 37.4 | | 86.5 | 60-130 | | | | |
| 11CL-PF3OUdS | 34.4 | 2.00 | " | 37.8 | | 90.9 | 60-130 | | | | |
| HFPO-DA (Gen-X) | 34.9 | 2.00 | " | 40.0 | | 87.2 | 60-130 | | | | |
| ADONA | 33.2 | 2.00 | " | 37.8 | | 87.9 | 60-130 | | | | |
| Surrogate: d5-N-EtFOSAA | 449 | | " | 320 | | 140 | 70-130 | | | | |
| Surrogate: 13C-PFDA | 96.2 | | " | 80.0 | | 120 | 70-130 | | | | |
| Surrogate: 13C-PFHxA | 89.7 | | " | 80.0 | | 112 | 70-130 | | | | |
| Surrogate: M3HFPO-DA | 85.9 | | " | 80.0 | | 107 | 70-130 | | | | |

Duplicate (BA21612-DUP1)

*Source sample: 22A0296-03 (Duplicate)

Prepared: 01/11/2022 Analyzed: 01/12/2022

| | | | | | | | | | | | |
|--------------------------------------|-------|------|------|------|------|-----|--------|--|------|----|--|
| Perfluorobutanesulfonic acid (PFBS) | 5.60 | 1.47 | ng/L | | 4.92 | | | | 13.1 | 25 | |
| Perfluorohexanoic acid (PFHxA) | 9.23 | 1.47 | " | | 8.52 | | | | 7.99 | 25 | |
| Perfluoroheptanoic acid (PFHpA) | 5.80 | 1.47 | " | | 5.51 | | | | 5.07 | 25 | |
| Perfluorohexanesulfonic acid (PFHxS) | 3.69 | 1.47 | " | | 3.15 | | | | 15.7 | 25 | |
| Perfluorooctanoic acid (PFOA) | 18.0 | 1.47 | " | | 16.4 | | | | 9.18 | 25 | |
| Perfluorooctanesulfonic acid (PFOS) | 19.8 | 1.47 | " | | 18.3 | | | | 8.18 | 25 | |
| Perfluorononanoic acid (PFNA) | 1.50 | 1.47 | " | | 1.40 | | | | 7.20 | 25 | |
| Perfluorodecanoic acid (PFDA) | 0.969 | 1.47 | " | | ND | | | | | 25 | |
| Perfluoroundecanoic acid (PFUnA) | ND | 1.47 | " | | ND | | | | | 25 | |
| Perfluorododecanoic acid (PFDoA) | ND | 1.47 | " | | ND | | | | | 25 | |
| Perfluorotridecanoic acid (PFTTrDA) | ND | 1.47 | " | | ND | | | | | 25 | |
| Perfluorotetradecanoic acid (PFTA) | ND | 1.47 | " | | ND | | | | | 25 | |
| N-MeFOSAA | ND | 1.47 | " | | ND | | | | | 25 | |
| N-EtFOSAA | ND | 1.47 | " | | ND | | | | | 25 | |
| 9CL-PF3ONS | ND | 1.47 | " | | ND | | | | | 25 | |
| 11CL-PF3OUdS | ND | 1.47 | " | | ND | | | | | 25 | |
| HFPO-DA (Gen-X) | ND | 1.47 | " | | ND | | | | | 25 | |
| ADONA | ND | 1.47 | " | | ND | | | | | 25 | |
| Surrogate: d5-N-EtFOSAA | 308 | | " | 235 | | 131 | 70-130 | | | | |
| Surrogate: 13C-PFDA | 71.0 | | " | 58.8 | | 121 | 70-130 | | | | |
| Surrogate: 13C-PFHxA | 66.9 | | " | 58.8 | | 114 | 70-130 | | | | |
| Surrogate: M3HFPO-DA | 63.1 | | " | 58.8 | | 107 | 70-130 | | | | |



PFAS Target compounds by LC/MS-MS - Quality Control Data

York Analytical Laboratories, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source* Result | %REC | %REC Limits | Flag | RPD | RPD Limit | Flag |
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|
|---------|--------|-----------------|-------|-------------|----------------|------|-------------|------|-----|-----------|------|

Batch BA21612 - EPA 537.1 SPE DVB

| Matrix Spike (BA21612-MS1) | *Source sample: 22A0297-01 (Matrix Spike) | | | | Prepared: 01/11/2022 Analyzed: 01/12/2022 | | | | | | |
|--------------------------------------|---|------|------|------|---|------|--------|--|--|--|--|
| Perfluorobutanesulfonic acid (PFBS) | 52.8 | 1.67 | ng/L | 59.0 | 5.78 | 79.7 | 70-130 | | | | |
| Perfluorohexanoic acid (PFHxA) | 66.7 | 1.67 | " | 66.7 | 6.86 | 89.8 | 70-130 | | | | |
| Perfluoroheptanoic acid (PFHpA) | 65.3 | 1.67 | " | 66.7 | 3.66 | 92.5 | 70-130 | | | | |
| Perfluorohexanesulfonic acid (PFHxS) | 57.4 | 1.67 | " | 63.3 | 2.29 | 87.0 | 70-130 | | | | |
| Perfluorooctanoic acid (PFOA) | 80.4 | 1.67 | " | 66.7 | 11.4 | 103 | 70-130 | | | | |
| Perfluorooctanesulfonic acid (PFOS) | 68.2 | 1.67 | " | 64.0 | 9.72 | 91.4 | 70-130 | | | | |
| Perfluorononanoic acid (PFNA) | 70.3 | 1.67 | " | 66.7 | ND | 106 | 70-130 | | | | |
| Perfluorodecanoic acid (PFDA) | 69.3 | 1.67 | " | 66.7 | ND | 104 | 70-130 | | | | |
| Perfluoroundecanoic acid (PFUnA) | 65.0 | 1.67 | " | 66.7 | ND | 97.6 | 70-130 | | | | |
| Perfluorododecanoic acid (PFDoA) | 66.6 | 1.67 | " | 66.7 | ND | 99.9 | 70-130 | | | | |
| Perfluorotridecanoic acid (PFTriDA) | 62.0 | 1.67 | " | 66.7 | ND | 93.1 | 70-130 | | | | |
| Perfluorotetradecanoic acid (PFTA) | 60.6 | 1.67 | " | 66.7 | ND | 90.9 | 70-130 | | | | |
| N-MeFOSAA | 64.2 | 1.67 | " | 66.7 | ND | 96.3 | 70-130 | | | | |
| N-EtFOSAA | 67.0 | 1.67 | " | 66.7 | ND | 100 | 70-130 | | | | |
| 9CL-PF3ONS | 55.9 | 1.67 | " | 62.3 | ND | 89.7 | 70-130 | | | | |
| 11CL-PF3OUdS | 54.7 | 1.67 | " | 63.0 | ND | 86.8 | 70-130 | | | | |
| HFPO-DA (Gen-X) | 59.8 | 1.67 | " | 66.7 | ND | 89.7 | 70-130 | | | | |
| ADONA | 59.7 | 1.67 | " | 63.0 | ND | 94.8 | 50-130 | | | | |
| Surrogate: d5-N-EtFOSAA | 308 | | " | 267 | | 115 | 70-130 | | | | |
| Surrogate: 13C-PFDA | 73.9 | | " | 66.7 | | 111 | 70-130 | | | | |
| Surrogate: 13C-PFHxA | 67.9 | | " | 66.7 | | 102 | 70-130 | | | | |
| Surrogate: M3HFPO-DA | 65.8 | | " | 66.7 | | 98.7 | 70-130 | | | | |



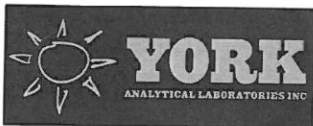


Sample and Data Qualifiers Relating to This Work Order

- PFOS-X The level of PFOS detected in this sample exceeds the NYSDOH Maximum Contaminant Level of 10 ng/L)
- PFOA-X The level of PFOA in this sample exceeds the NYSDOH Maximum Contaminant Level of 10 ng/L)

Definitions and Other Explanations

- * Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
- ND NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
- RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
- LOQ LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
- LOD LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
- MDL METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
- Reported to This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
- NR Not reported
- RPD Relative Percent Difference
- Wet The data has been reported on an as-received (wet weight) basis
- Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.
- MCL This is the Maximum Contaminant Level in ng/L (ppt) established by the NYSDOH for these compounds where an MCL is reported. Exceedences are flagged according.



York Analytical Laboratories, Inc.
EXCEEDANCE ALERT for Potable Water

York Work Order No.22A0232

The following samples exhibited Levels that exceeded the MCL or other Regulatory Limit

| | | |
|------------------------|-----------------------|---------------------------------|
| <u>Client:</u> | <u>Client Project</u> | <u>Client Project Number(s)</u> |
| Aqua Environmental Lab | PFAS in Potable Water | 278604/278605 |

| Lab ID | Client Sample | Analyte | Result | Units | MCL Limit, where applicable |
|------------|---------------|-------------------------------------|--------|-------|-----------------------------|
| 22A0232-01 | 278604 | Perfluorooctanoic acid (PFOA) | 13.0 | ng/L | 10 |
| 22A0232-01 | 278604 | Perfluorooctanesulfonic acid (PFOS) | 21.4 | ng/L | 10 |