# DES Waste Management Division 29 Hazen Drive; PO Box 95 Concord, NH 03302-0095

# REMEDIAL ACTION PLAN AND GROUNDWATER MANAGEMENT PERMIT APPLICATION

Stratham Fire Department 4 Winnicutt Road Stratham, New Hampshire

NHDES Site #199507007 HAZWASTE Project #39137



ROOKS No. 10583

# **Prepared For:**

The Town of Stratham 10 Bunker Hill Road Stratham, New Hampshire 03885 RP Contact: Mr. David Moore RP Phone: (603) 772-9750

RP Contact Email: dmoore@strathamnh.gov

# Prepared By:

Wilcox & Barton, Inc. #1B Commons Drive, Unit 12B Londonderry, New Hampshire 03053 Phone Number: (603) 369-4190 x502

Contact Name: Mr. Russell W. Barton Contact Email: rbarton@wilcoxandbarton.com

January 14, 2021

Wilcox & Barton, Inc. Project #STRT0001





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WWW.WILCOXANDBARTON.COM 1 (888) 777-5805

#### **CERTIFICATION**

The following personnel have prepared and/or reviewed this report for accuracy, content, and quality of presentation.

Document Title: Remedial Action Plan and Groundwater Management Permit Application

**Stratham Fire Department** 

4 Winnicutt Road, Stratham, New Hampshire

NHDES Site #199507007, HAZWASTE Project #39137

Date/Version: <u>January 14, 2021</u>

Chelsea M. Hensley Project Geologist

Russell W. Barton

Senior Vice President – Principal Geologist

Robert W. Rooks, PE

Principal Engineer

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#### 1.0 INTRODUCTION

On behalf of the Town of Stratham (the Town), Wilcox & Barton, Inc. has prepared this Remedial Action Plan (RAP) for the Stratham Fire Department (SFD) site at 4 Winnicutt Road in Stratham, New Hampshire. The RAP was completed in accordance with correspondence from the New Hampshire Department of Environmental Services (NHDES) dated July 21, 2020, and a Work Plan submitted to NHDES on August 17, 2020. A copy of the NHDES correspondence is provided in Appendix A.

The RAP was prepared in accordance with New Hampshire Code of Administrative Rules Chapter Env-Or 600, Part 606.12 *Remedial Action Plan Report*. This report also includes a Groundwater Monitoring Permit (GMP) Application that was prepared in accordance with New Hampshire Code of Administrative Rules Chapter Env-Or 600, Part 607.03 *Groundwater Management Permit Application*. The GMP Application addresses the following:

- Quarterly performance monitoring of all private water supply Point-of-Entry (POE) systems installed in accordance with this Remedial Action Plan; and
- Monitoring of contaminant trends and compliance status of overburden groundwater monitoring wells biannually.

# 1.1 Purpose

The purpose of the work proposed herein is to address elevated concentrations of per- and polyfluoroalkyl substances (PFAS) in groundwater and drinking water in the SFD area.

#### 1.2 Plan Contents

The RAP contains the following:

- 1. A summary of the Focused Site Investigation (FSI) Report dated February 24, 2020;
- 2. The results of all analytical testing performed during the investigation;
- 3. A description of the extent and distribution of PFAS-impacted groundwater and drinking water; and
- 4. A work plan for implementation of the presumptive remedy (installation of POE systems) at each property.

# 2.0 SITE DESCRIPTION AND BACKGROUND

The subject property is a 2.47-acre parcel of land identified by the Town of Stratham Assessor's Office as Map 17, Lot 114, and is located at the corner of Winnicutt Road and Portsmouth Avenue. The SFD is improved upon by an approximately 20,000-square-foot facility that was completed in 2008. The current facility replaced a smaller fire station that was demolished. The former fire station was built in 1957 and was located largely within the current building footprint.



The SFD is served by a bedrock water supply well located near the southeastern corner of the Stratham Historical Society (SHS) building, which shares the 2.47-acre property with the SFD. The water supply well also serves the adjacent property to the south at 156 Portsmouth Avenue (Colleen Lake).

The location of the site is depicted on Figure  $1 - Site\ Location\ Map$ , and general site features and boring locations are depicted on Figure  $2 - Site\ Plan$ . A detailed site plan showing features such as catch basins, storm water infrastructure, floor drains, leach fields, and holding tanks associated with potential release areas are shown on Figure  $3 - Subsurface\ Infrastructure\ Plan$ .

#### 2.1 Focused Site Investigation

# 2.1.1 Background and History

In March 2019, NHDES was notified that PFAS concentrations exceeded applicable standards in a sample from the water supply well at 149/151 Portsmouth Avenue. On April 26, 2019, NHDES submitted a letter via email to the Stratham Select Board Chair requesting that the Town conduct an FSI to evaluate the possible source (or sources) of groundwater contamination. The FSI included historical research to identify potential sources of PFAS contamination, advancement of five soil borings and installation of five monitoring wells, and laboratory analysis of groundwater and drinking water samples. The results of the FSI are summarized in a *Focused Site Investigation Report* dated February 24, 2020.

# 2.1.2 Fire Department Review

Historical research, interviews, and a review of regulatory database reports indicated that the SFD had used and stored Class B firefighting foam as part of their operations and procedures prior to 2000, but the SFD currently uses a fluorine-free surfactant-based foam.

#### 2.1.3 Soil Boring Advancement and Monitoring Well Installation

On June 27 and June 28, 2019, Wilcox & Barton, Inc. oversaw the installation of monitoring wells MW-101 through MW-105 at the locations shown on Figures 2 and 3. During advancement of the soil borings, overburden soil was screened with a photoionization detector (PID) from the ground surface to the bottom of the borehole. Observations such as soil lithology, color, odor, PID readings, and the estimated depth to groundwater were recorded. Soil was described using a Modified Burmister soil classification system. No soil samples were collected for laboratory analysis.

#### 2.1.4 Groundwater and Surface Water

On July 15, 2019, and again on July 29, 2019, Wilcox & Barton, Inc. collected groundwater samples with disposable polyethylene bailers from monitoring wells MW-101 through MW-105 and from pre-existing wells MW-1, MW-3, and MW-5, which are located across the street at the Stratham Village Market (O'Brien Energy) property. Depth-to-water measurements were taken



in each well prior to sampling and used to calculate the potentiometric surface elevations presented in Table 1 – Well Gauging and Piezometric Head Elevation Data.

On November 12, 2019, Wilcox & Barton, Inc. collected a surface water sample (SW-1) from the pond located within the Stratham Traffic Circle at the merge of Portsmouth Avenue and College Road.

The groundwater and surface water samples were submitted to Con-Test Analytical Laboratory (Con-Test) in East Longmeadow, Massachusetts, for analysis of PFAS by EPA Method 537.1 (modified).

The analytical results for groundwater samples collected in July 2019 indicated the presence of PFAS at concentrations exceeding Ambient Groundwater Quality Standards (AGQS) in monitoring wells MW-102, MW-103, MW-104, MW-105, MW-1, MW-3, and MW-5. In total, one or more PFAS compounds were detected at concentrations above AGQS in 14 of 16 samples collected. The only monitoring well where PFAS was not detected at concentrations above AGQS was monitoring well MW-101, which was installed on the upgradient portion of the SFD property. Four PFAS compounds were detected in surface water sample SW-1, but none at concentrations exceeding AGQS.

Analytical results are presented in Table 2 – *Groundwater Samples – Summary of Analytical Results*.

# 2.1.5 Drinking Water

A total of 50 drinking water samples were collected from 48 water supply wells from March to November 2019. Of the 50 samples, 10 were collected by Wilcox & Barton, Inc. as part of this investigation, while the remaining 40 samples were collected by NHDES.

PFAS were detected in all 50 of the samples. Twenty-seven samples collected from water supply wells on 23 properties contained PFAS at concentrations exceeding Maximum Contaminant Levels (MCLs). The compound most often detected at a concentration above the MCL was Perfluorooctanoic Acid (PFOA, in 24 of 50 samples), followed by Perfluorooctane Sulfonic Acid (PFOS, in 20 of the 50 samples).

Analytical results for drinking water samples are presented in Table 3 – *Drinking Water Samples* – *Summary of Analytical Results*.

#### 2.1.6 Conceptual Site Model

A complete conceptual site model was previously defined in the FSI; therefore, one is not included in this RAP. Its essential conclusion is that a shallow source at the SFD property has impacted groundwater in both the shallow and bedrock aquifers, which has reached private water supply wells and poses an exposure risk to residential users of the water supplies.



#### 3.0 GROUNDWATER AND DRINKING WATER SAMPLES – SEPTEMBER 2020

On September 29 and 30, 2020, Wilcox & Barton, Inc. completed confirmatory groundwater and drinking water sampling in the Stratham Town Center area. The activities were conducted in accordance with the *Wilcox & Barton Standard Operating Procedure (SOP)* documents included in Appendix B.

# 3.1 Groundwater Sampling and Analytical Results

On September 30, 2020, Wilcox & Barton, Inc. gauged monitoring wells MW-101 through MW-105, MW-1, MW-3, MW-4, MW-5, MW-6, and MW-7 for depth to water using a water level indicator capable of measuring depth to water to the nearest 0.01 foot. Well MW-101 was found to be dry during gauging.

Well gauging data are presented in Table 1 – Well Gauging and Piezometric Head Elevation Data, and groundwater elevation data are depicted on Figure 4 – Piezometric Head Elevation Plan.

Groundwater samples were collected from monitoring wells MW-102, MW-103, MW-104, MW-105, MW-1, MW-3, and MW-5 using standard bailer sampling techniques. The groundwater samples were submitted to Con-Test for analysis of PFAS by EPA Method 537.1.

Perfluorohexane Sulfonic Acid (PFHxS), PFOA, and PFOS were detected at concentrations above MCLs in all seven monitoring wells. Groundwater analytical results are summarized in Table 2 and a copy of the laboratory report is included in Appendix C. The analytical results for the four regulated PFAS are represented on Figure 5 – *Analytical Results – Groundwater*.

# 3.2 Drinking Water Sampling and Analytical Results

Between September 29 and October 1, 2020, Wilcox & Barton, Inc. collected drinking water samples from 26 properties in the Stratham Town Center area. The confirmatory samples were collected from drinking water supply wells where one or more PFAS compounds had been detected at concentrations exceeding MCLs or at concentrations below the MCL but within 90% of an established regulatory standard. The drinking water samples were submitted to Con-Test for analysis of PFAS by EPA Method 537.1.

One or more PFAS were detected at concentrations exceeding MCLs at the following properties:

- 2 College Road
- 4 College Road (Nursery Building)
- 4R College Road (Irrigation Well)
- 4R College Road (Primary Well)
- 6 College Road (Irrigation Well)
- 9 College Road
- 11 College Road
- 142 Portsmouth Avenue

- 145 Portsmouth Avenue
- 152 Portsmouth Avenue
- 157 Portsmouth Avenue
- 159 Portsmouth Avenue
- 161-2 Portsmouth Avenue
- 164 Portsmouth Avenue
- 166 Portsmouth Avenue
- 4 Winnicutt Road.



One or more PFAS compounds were detected at measurable concentrations at or below MCLs at the following properties:

- 1 College Road
- 3 College Road
- 5 College Road
- 23 College Road

- 132 Portsmouth Avenue
- 160 Portsmouth Avenue
- 7/7R Winnicutt Road

Drinking water analytical results are summarized in Table 3 and copies of the laboratory reports are included in Appendix C. Notification letters to the private well owners where drinking water samples were collected are included in Appendix D. A graphical representation of residential drinking water quality by water supply well is presented on Figure 6 – *Regional PFAS Overview*.

## 4.0 DEVELOPMENT OF REMEDIAL OBJECTIVES

# 4.1 Corrective Action Objectives

The objective of the proposed remedial action is to mitigate PFAS contaminants in residential water supplies Stratham Town Center area and to monitor PFAS contaminants in groundwater at the SFD and in the immediate vicinity. The selected approach will accomplish the following objectives:

- 1. Eliminate or minimize the risk of direct contact and ingestion of contaminated drinking water: and
- 2. Monitor the nature and extent of shallow groundwater contamination.

#### 4.2 Cleanup Goals

#### 4.2.1 Drinking Water

The site and surrounding properties are currently served by private water supply wells. An exposure pathway via drinking water ingestion is complete but is currently mitigated by bottled water deliveries and treatment systems, where in use.

The immediate goal is to install POE systems at each property where PFAS concentrations exceed MCLs to eliminate the risk of direct contact and ingestion exposures via the water supply. POE systems will be designed to remove PFAS from the water supplies at an efficiency suitable to reduce concentrations to below the health based MCLs. System performance will be monitored under the provisions of a Groundwater Management Permit.

#### 4.2.2 Groundwater

A direct contact exposure pathway via shallow groundwater is potentially complete under certain construction or utility worker exposure scenarios. However, remediation of PFAS in shallow groundwater is not deemed practical at this time and is therefore not proposed herein.



Groundwater quality will be monitored under the provisions of a Groundwater Management Permit.

#### 4.3 **Evaluation of the Need for Corrective Action Measures**

Analytical data collected in 2019 and 2020, and summarized in Tables 2 and 3, indicate PFAS contamination in the Stratham Center Area and a complete direct exposure pathway via drinking water ingestion. Discovery of PFAS contamination in drinking water has prompted completion of the proposed corrective actions.

#### 5.0 REMEDIAL ALTERNATIVE EVALUATION

Due to the widespread contamination in the Stratham Center Area, and the absence of feasible remedial alternatives for PFAS, implementation of point-of-entry treatment at each affected property will be effective to minimize or eliminate the PFAS exposure risk. There are no known remedial alternatives that warrant evaluation.

Based on the foregoing, installation of a POE system at each property where PFAS compounds have been detected at concentrations exceeding MCLs is the presumptive remedial alternative. These include the following:

2 College Road	157 Portsmouth Avenue
• 4R College Road (Primary Well)	• 159 Portsmouth Avenue
• 9 College Road	• 161-2 Portsmouth Avenue
• 11 College Road	• 164 Portsmouth Avenue
• 142 Portsmouth Avenue	• 166 Portsmouth Avenue
• 145 Portsmouth Avenue	4 Winnicutt Road
• 152 Portsmouth Avenue	

Three non-potable, private irrigation wells with PFAS compounds at concentrations exceeding MCLs may be candidates for full POE systems or point-of-use systems after consultation with NHDES. These properties include:

- 4 College Road (Nursery Building)
   6 College Road (Irrigation Well)
- 4R College Road (Irrigation Well)

It is understood that monitoring of groundwater conditions in the area is ongoing and that additional water supply wells with PFAS exceedances may be discovered. In this event, this Remedial Action Plan can be extended to cover these locations.

In addition, private wells with PFAS detections below applicable standards may be candidates for full POE systems or point-of-use systems after consultation with NHDES. These residences include:

1 College Road

• 132 Portsmouth Avenue



- 3 College Road
- 5 College Road
- 23 College Road

- 160 Portsmouth Avenue
- 7/7R Winnicutt Road

#### 6.0 REMEDIAL DESIGN

Key elements of the plan are summarized in the following sections.

## 6.1 POE System Design

Selection of specific equipment for each home will be made on a case-by-case basis in concert with the equipment vendor. The primary selection factor will be influent concentrations in the well serving the home, with consideration for other filtration and/or disinfection needs, maintenance considerations, cost, plumbing configurations, and space availability.

For purposes of this RAP, the following equipment configurations are proposed:

Option 1: <u>Dual Carbon Tank System</u>: Pressure tank, Pre-filter, Granular Activated Carbon (GAC, two in series), Post-filter, UV Sterilization.

Typical installed cost: \$4,500 to \$5,500 per home, plus plumbing permit.

Factors: Traditional system, carbon disposal required.

Recommended for: General use

Option 2: <u>Dual Tank Carbon Bloc System</u>: Pressure tank, Pre-filter, Carbon Bloc cartridge (two in series).

Typical installed cost: \$4,800 to \$5,500 per home, plus plumbing permit.

Factors: Low maintenance, reliability, landfill disposal

Recommended for: Higher PFAS concentrations (>70 parts per trillion, ppt),

homeowners interested in doing their own maintenance.

Option 3: Single Tank Pioneer System: Pressure tank, Pre-filter, Carbon Bloc cartridge Typical installed cost: \$2,400 to \$3,500 per home, plus plumbing permit. Factors: Low maintenance, landfill disposal, most economical alternative. Recommended for: Mid-range PFAS concentrations (10 to 70 ppt), homeowners interested in doing their own maintenance.

Schematic drawings showing these options are provide in Appendix E.

As a more cost-effective alternative to bottled water, a Point-of-Use system may be recommended when PFAS compounds are present but at concentrations below MCLs. Point-of-Use systems can be installed beneath, for example, a kitchen sink to protect the majority of water consumption in the household.

Option 4: <u>Pentair 4 Stage Reverse Osmosis System</u>

Typical installed cost: \$900 to \$1,200 per home, plus plumbing permit.

Factors: Low maintenance cost



Recommended for: PFAS concentrations below MCLs

Treatment system operation and maintenance, along with confirmatory sampling, will be conducted in conformance with the requirements of the vendor, NHDES, and the issued GMP.

# **6.2** System Inspections and Maintenance

System monitoring will be performed quarterly when influent, midfluent (for two-tank systems), and effluent samples are collected. During these visits, the system components will be inspected by the equipment vendor.

Maintenance needs will vary based on the system selected for each home. The expected plan, based on past experience of the vendor, is as follows, but will be adjusted as necessary:

Option 1: Replacement GAC filter tank (1), sediment filters (2), UV bulb (1)

Option 2: Replacement cartridge (1), sediment filter (1)
Option 3: Replacement cartridge (1), sediment filter (1)

Option 4: Replacement RO cartridges (3), RO membrane (1)

#### 7.0 COMPLIANCE SCHEDULE AND PROGRESS REPORTS

# 7.1 Regulations, Statutes, and Permits Requires

Aside from approval of this RAP and local code enforcement (plumbing) approval, there are no permits required to perform the proposed remedial program.

# 7.2 Progress Reporting

System performance will be monitored and reported in accordance with the approved Groundwater Management Permit.

#### 8.0 GROUNDWATER MANAGEMENT PERMIT APPLICATION

#### 8.1 Property and Facility Information

Property Name: Stratham Fire Department

Site Address: 4 Winnicutt Road

Stratham, New Hampshire 03885

<u>Tax Map and Lot Reference</u>: Map 17, Lot 114

Site Deed Reference: Rockingham County Registry of Deeds

Book 4722 Page 1104

NHDES Site Number: 199507007

NHDES Project Number: 39137

NHDES Project Type: HAZWASTE



<u>Property/Site Owner:</u> Town of Stratham

<u>Permit Applicant/</u> Town of Stratham

<u>Contact Person:</u> David Moore

Mailing Address 10 Bunker Hill Avenue

and Phone Number: Stratham, New Hampshire 03885

Phone: (603) 772-9750

# 8.2 Groundwater Quality Monitoring Proposal

Wilcox & Barton, Inc. recommends the following groundwater monitoring program based on a review of current and historical data and input from NHDES. The proposed monitoring program provides the spatial distribution and frequency to monitor potential contaminant migration.

Sample Frequency: Monitoring wells – biannual (April and October)

Water supply POE systems – quarterly (January, April, July, October)

Number of Wells: 11

Wells

to be Sampled: MW-101, MW-102, MW-103, MW-104, MW-105, MW-1, MW-3,

MW-5, 4 College Road (Nursery Building), 4R College (Irrigation

Well), 6 College Road (Irrigation Well)

Number of POE

Systems: 14

POE Systems to be

Sampled:

2 College Road
4R College Road (Primary Well)
9 College Road
11 College Road
152 Portsmouth Avenue
157 Portsmouth Avenue
159 Portsmouth Avenue
161-2 Portsmouth Avenue
164 Portsmouth Avenue
165 Portsmouth Avenue
166 Portsmouth Avenue
167 Portsmouth Avenue
168 Portsmouth Avenue
169 Portsmouth Avenue
169 Portsmouth Avenue
169 Portsmouth Avenue
160 Portsmouth Avenue
160 Portsmouth Avenue

Laboratory Analysis: PFAS by EPA Method 537.1

Field Measurements: Water table elevation in all monitoring wells

Report Frequency: Groundwater data transmittals will be provided within 45 days of each

monitoring events. Periodic Summary Reports will be provided each year following the October sampling event. Notification letters to homeowners where drinking water samples are collected will be

provided within 45 days of all monitoring events.

Closure Criteria: Not applicable. Concentrations are not expected to decrease appreciably

during the permit period.



QA/QC:

Analytical data produced during the monitoring program will be evaluated to ensure scientific validity and defensibility, and attainment of sufficient precision, accuracy, and completeness to support the intended purpose. Wilcox & Barton, Inc. works with its laboratory service providers to ensure that the sensitivity of analysis is sufficient to achieve the desired reporting limits. In some instances, failure to attain those limits will be inevitable due to variables inherent in the analytical methods and adjustments for factors such as dilution. While Wilcox & Barton, Inc. and the laboratories will work to ensure that these instances are limited to the extent feasible, the attainment of the desired detection limits cannot be guaranteed.

# 8.3 Groundwater Management Zone

The proposed GMZ is defined as the area where PFAS compounds are present at concentrations exceeding MCLs and AGQS. The proposed GMZ is presented on Figure 6. A list of properties that fall within 500 feet of a drinking water well with a PFAS exceedance is presented on Table 4 – *Potential Human Receptors List*.

The proposed GMZ follows readily discernible surface features and property boundaries and includes the following properties:

MAP/LOT/ SUBLOT	PROPERTY ADDRESS	OWNER NAME AND ADDRESS	DEED REFERENCE
Map 17/	4 Winnicutt Road	Town of Stratham	Rockingham County
Lot 114	Stratham, NH	c/o David Moore	Registry of Deeds
		10 Bunker Hill Avenue	Book 4722/
		Stratham, NH 03885	Page 1104
Map 14/	157 Portsmouth Avenue	Forma Realty II, LLC	Rockingham County
Lot 041	Stratham, NH	18 Congress Street, Suite 302	Book 5293/
		Portsmouth, NH 03801	Page 1323
Map 17/	2 College Road	Parsons M H Sons Lumber Co.	Book 3260/
Lot 035	Stratham, NH	P.O. Box 450	Page 0192
		York, ME 03909	
Map 17/	4R College Road	David and Jeanne Short	Book 3127/
Lot 032	Stratham, NH	P.O. Box 715	Page 1105
		Stratham, NH 03885	
Map 17/	9 College Road	Verne E. Rawson, Jr.	Book 6101/
Lot 018	Stratham, NH	9 College Road	Page 2914
		Stratham, NH 03885	
Map 17/	11 College Road	Andrea J. and Alan P. Shine-Canty	Book 3440/
Lot 019	Stratham, NH	11 College Road	Page 0722
		Stratham, NH 03885	
Map 17/	142 Portsmouth Avenue	Piper's Landing Partnership	Book 3299/
Lot 119	Stratham, NH	142 Portsmouth Avenue	Page 0754
		Stratham, NH 03885	
Map 17/	149/151R Portsmouth	Jedi Realty, Inc.	Book 5970/
Lot 040	Avenue	149 Portsmouth Avenue	Page 0024
	Stratham, NH	Stratham, NH 03885	
Map 17/	152 Portsmouth Avenue	Leshas LLC	Book 3370/



MAP/LOT/ SUBLOT	PROPERTY ADDRESS	OWNER NAME AND ADDRESS	DEED REFERENCE
Lot 117	Stratham, NH	24 Pinewood Drive Stratham, NH 03885	Page 1662
Map 17/ Lot 041	157 Portsmouth Avenue Stratham, NH	Forma Realty II, LLC 18 Congress Street, Suite 302 Portsmouth, NH 03801	Book 5293/ Page 1323
Map 17/ Lot 042	159 Portsmouth Avenue Stratham, NH	John Forma Revokable Trust 18 Congress Street, Suite 302 Portsmouth, NH 03801	Book 5492/ Page 0909
Map 17/ Lot 043	161-2 Portsmouth Avenue Stratham, NH	Ronald and Sandra Deane 161 Portsmouth Avenue, Unit 2 Stratham, NH 03885	Book 5905/ Page 1574
Map 17/ Lot 088	164 Portsmouth Avenue Stratham, NH	Blunt Family Revocable Trust P.O. Box 268 Stratham, NH 03885	Book 5799/ Page 2128
Map 17/ Lot 087	166 Portsmouth Avenue Stratham, NH	Robert McLaughlin and Barbara Smith P.O. Box 793 Stratham NH 03885	Book 3030/ Page 0293

# **8.4** Certification and Documentation

A copy of the completed GMP Renewal Application, certified by a New Hampshire-licensed professional engineer, is included in Appendix F. A copy of the certified GMP Application will be submitted to the clerk of the Town of Stratham in accordance with the requirements of Env-Or 607.02 (b)(2).





# TABLE 1 Well Gauging and Piezometric Head Elevation Data

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

Well Identification	Gauging Date	Top of Casing Elevation (ft)	Depth to Water* (ft)	LNAPL Thickness (ft)	Piezometric Head Elevation (ft)
MW-1	7/15/19	NS/NC	4.72		
	7/29/19	NS/NC	4.91		
	9/30/20	NS/NC	8.60		
MW-3	7/15/19	NS/NC	4.77		
	7/29/19	NS/NC	4.97		
	9/30/20	NS/NC	8.63		
MW-4	7/15/19	NS/NC	5.10		
	7/29/19	NS/NC	5.31		
	9/30/20	NS/NC	8.89		
MW-5	7/15/19	NS/NC	3.97		
	7/29/19	NS/NC	4.25		
	9/30/20	NS/NC	7.75		
MW-6	7/15/19	NS/NC	3.14		
	7/29/19	NS/NC	4.07		
	9/30/20	NS/NC	7.67		
MW-7	7/15/19	NS/NC	4.58		
	7/29/19	NS/NC	4.76		
	9/30/20	NS/NC	8.34		
MW-101	7/15/19	101.20	12.30		88.90
	7/29/19	101.20	12.77		88.43
	9/30/20	101.20	DRY		
MW-102	7/15/19	94.78	7.38		87.40
	7/29/19	94.78	7.61		87.17
	9/30/20	94.78	9.34		85.44
MW-103	7/15/19	89.28	5.97		83.31
	7/29/19	89.28	6.06		83.22
	9/30/20	89.28	7.81		81.47
MW-104	7/15/19	87.54	5.57		81.97
	7/29/19	87.54	5.61		81.93
	9/30/20	87.54	5.99		81.55
MW-105	7/15/19	95.47	8.94		86.53
	7/29/19	95.47	9.21		86.26
	9/30/20	95.47	6.84		88.63

NOTE: Site surveyed on 6/28/19. Top of casing elevations are referenced to an arbitrary benchmark set at the southest building corner of the fire department (assumed elevation 100.00 ft).

ft Feet.

\* Depth from top of casing or designated measuring point.

LNAPL Light non-aqueous phase liquid.

NS/NC Not surveyed/not calculated.

-- No measurable LNAPL present.



## **Groundwater Samples - Summary of Analytical Results**

Stratham Fire Department 4 Winnicutt Road, Stratham, New Hampshire NHDES Site #199507007

Sample Identification Sample Date Well Depth (ft)	Ambient Groundwater Quality Standards (AGQS) †	07/15/19 15,30	9	MW-1 07/29/ 15.30	19	09/30/20 15.41	07/15/19 15.71	<b>MW-102</b> 07/29/19 15.67	09/30/20 15.48	07/15/19	<b>MW-103</b> 07/29/19 11.19	09/30/20 11.44
		13.30	+	13.3	0	13.41	13.71	13.07	13.40	11.2	11.19	11.44
Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537												
	NC	2.0	TT	2.0	TI		6.7	2.0	2.0	1.4	11	4.1
Perfluorobutanoic Acid (PFBA)	NS	2.0	U	2.0	U		6.7	2.9	3.2	14	11	4.1
Perflourobutane Sulfonic Acid (PFBS)	NS		U	2.0	U		6.5	7.1	8.9	13	17	8.1
Perfluoropentanoic Acid (PFPeA)	NS	2.2	+	2.0	U		13	13	7.7	35	53	15
Perfluorohexanoic Acid (PFHxA)	NS	2.6	_	2.7			55	77	74	32	45	21
Perfluorohexane Sulfonic Acid (PFHxS)	18	4.0		2.0	U		520	940	410	250	220	140
Perfluoroheptanoic Acid (PFHpA)	NS		U	2.0	U		7.8	10	5.9	20	34	5.5
Perfluoroheptane Sulfonic Acid (PFHpS)	NS		U	2.0	U		35	68	36	14	19	15
Perfluorooctanoic Acid (PFOA)	12	5.7		6.1			33	38	53	39	41	33
Perfluorooctane Sulfonic Acid (PFOS)	15	2.0	U	2.0	U		870	1,300	3,900	80	150	170
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0	U	2.0	U		2.0 U	2.0 U	25	2.0 U	2.0 U	19
Perfluorononanoic Acid (PFNA)	11	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	3.3	4.0	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0	U	2.0	U	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorodecane Sulfonic Acid (PFDS)	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluoroundecanoic Acid (PFUnA)	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotridecanoic Acid (PFTRDA)	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotetradecanoic Acid (PFTEDA)	NS	2.0	U	2.0	U		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

Sample not collected/analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds effective MCL or AGQS.

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard

(AGQS), effective May 28, 2020.



## **Groundwater Samples - Summary of Analytical Results**

Stratham Fire Department 4 Winnicutt Road, Stratham, New Hampshire NHDES Site #199507007

Sample Identification	Ambient Groundwater Quality Standards (AGOS) †		MW-104			MW-105		MW-1			
Sample Date	Standards (AGQS)	07/15/19	07/29/19	09/30/20	07/15/19	07/29/19	09/30/20	07/15/19	07/29/19	09/30/20	
Well Depth (ft)		9.65	9.67	9.91	17.48	17.48	17.67	13.06	13.10	13.52	
Per- and Polyfluoroalkyl Substances (PFAS)											
by EPA Method 537											
Perfluorobutanoic Acid (PFBA)	NS	7.9	5.8	7.9	5.0	2.1	5.0	25	14	17	
Perflourobutane Sulfonic Acid (PFBS)	NS	11	12	10	3.7	2.4	11	22	19	18	
Perfluoropentanoic Acid (PFPeA)	NS	17	21	20	9.9	5.1	12	81	54	59	
Perfluorohexanoic Acid (PFHxA)	NS	39	46	43	19	12	34	65	57	50	
Perfluorohexane Sulfonic Acid (PFHxS)	18	310	260	240	64	69	150	180	170	230	
Perfluoroheptanoic Acid (PFHpA)	NS	13	13	11	2.9	2.8	4.6	23	20	29	
Perfluoroheptane Sulfonic Acid (PFHpS)	NS	10	10	5.3 J	7.1	6.8	6.5	4.3	2.0 U	2.7	
Perfluorooctanoic Acid (PFOA)	12	140	150	110	15	12	100	78	70	110	
Perfluorooctane Sulfonic Acid (PFOS)	15	420	310	190	2,400	1,900	230	25	20	68	
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	7.2	2.0 U	2.0 U	2.0 U	
6:2 Fluorotelomer Sulfonate	NS	2.0 U	2.0 U	7.4	2.0 U	2.0 U	64	2.0 U	2.0 U	2.0 U	
Perfluorononanoic Acid (PFNA)	11	2.0 U	2.0 U	4.0 U	2.0 U						
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	2.0 U	4.0 U	2.0 U						
Perfluorodecane Sulfonic Acid (PFDS)	NS	2.0 U	2.0 U	4.0 U	2.0 U						
N-ethyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	4.0 U	2.0 U						
8:2 Fluorotelomer sulfonate	NS	2.0 U	2.0 U	4.0 U	2.0 U						
Perfluoroundecanoic Acid (PFUnA)	NS	2.0 U	2.0 U	4.0 U	2.0 U						
N-methyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	4.0 U	2.0 U						
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	2.0 U	4.0 U	2.0 U						
Perfluorotridecanoic Acid (PFTRDA)	NS	2.0 U	2.0 U	4.0 U	2.0 U						
Perfluorotetradecanoic Acid (PFTEDA)	NS	2.0 U	2.0 U	4.0 U	2.0 U						

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

Sample not collected/analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds effective MCL or AGQS.

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard

(AGQS), effective May 28, 2020.



## **Groundwater Samples - Summary of Analytical Results**

Stratham Fire Department 4 Winnicutt Road, Stratham, New Hampshire NHDES Site #199507007

Sample Identification Sample Date Well Depth (ft)	Ambient Groundwater Quality Standards (AGQS) †	MW-3 07/15/19 07/29/19 09/30/20 12.95 12.96 13.27			07/15/19 13.80	Pond SW-1 11/12/19		
Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537								
Perfluorobutanoic Acid (PFBA)	NS	45	23	20	19	9.7	8.7	2.0 U
Perflourobutane Sulfonic Acid (PFBS)	NS	23	25	19	29	30	17	2.0 U
Perfluoropentanoic Acid (PFPeA)	NS	130	110	65	45	40	26	7.8
Perfluorohexanoic Acid (PFHxA)	NS	100	100	57	38	43	29	2.3
Perfluorohexane Sulfonic Acid (PFHxS)	18	800	580	380	300	240	170	3.4
Perfluoroheptanoic Acid (PFHpA)	NS	93	85	40	19	19	14	2.0 U
Perfluoroheptane Sulfonic Acid (PFHpS)	NS	12	2.0 U	3.6	4.7	8.5	4.0	2.0 U
Perfluorooctanoic Acid (PFOA)	12	320	240	170	83	84	71	2.5
Perfluorooctane Sulfonic Acid (PFOS)	15	170	170	140	99	98	73	2.0 U
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0 U	2.0 U	2.1	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorononanoic Acid (PFNA)	11	4.0	4.1	2.7	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorodecane Sulfonic Acid (PFDS)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluoroundecanoic Acid (PFUnA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotridecanoic Acid (PFTRDA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Perfluorotetradecanoic Acid (PFTEDA)	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

-- Sample not collected/analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds effective MCL or AGQS.

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† Table 600-1 of Part Env-Or 603.03(c), Ambient Groundwater Quality Standard

(AGQS), effective May 28, 2020.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department 4 Winnicutt Road, Stratham, New Hampshire NHDES Site #199507007

Street Address		1 Colleg	ge Road	2 Colle	ge Road	3 Colleg	ge Road	4 Colle	ge Road	4R Colle	ege Road
Sample Identification (if different from address)	Maximum Contaminant Level							Nursery Building		Irrigation Well	
Sample Date	(MCLs) †	7/3/2019	9/29/2020	7/15/2019	9/29/2020	7/3/2019	9/29/2020	4/24/2019	9/29/2020	4/24/2019	9/29/2020
Per- and Polyfluoroalkyl Substances (PFAS)											
by EPA Method 537 (Reported in ng/L)											
Perflourobutane Sulfonate (PFBS)	NS	2.8	2.3	5.7	6.2	2.7	2.5	4.9	4.2	7.6	4.3
Perfluorohexanoic Acid (PFHxA)	NS	8.2	3.1	9.2	8.7	4.1	2.5	10	7.8	11	6.6
Perfluorohexane sulfonate (PFHxS)	18	7.7	5.9	36	34	5.6	5.0	14	13	17	14
Perfluoroheptanoic Acid (PFHpA)	NS	4.0	2.0 U	2.6	2.3	2.0	2.0 U	5.9	5.4	8.3	4.9
Perfluorooctanoic Acid (PFOA)	12	13	6.8	19	19	9.2	7.1	24	21	43	27
Perfluorooctane Sulfonate (PFOS)	15	8.4	5.7	26	30	11	10	61	56	64	49
Perfluorononanoic Acid (PFNA)	11	0.52	2.0 U	2.0 U	2.0 U	0.45	2.0 U	3.0	2.3	4.3	2.2
Perfluorodecanoic Acid (PFDA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	2.2	2.0 U	0.77	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS		2.0 U	2.0 U	2.0 U		2.0 U		2.0 U		2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	1.0 U	2.0 U	0.98 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	1.7 U	2.0 U	1.1 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	0.48 U	2.0 U	0.49 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	1.1 U	2.0 U	1.2 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	1.7 U	2.0 U	2.0 U	2.0 U	1.6 U	2.0 U	0.25 U	2.0 U	0.26 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
11Cl-PF3OUdS (F53B Major)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
9Cl-PF3ONS (F53B Minor)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
6:2 Fluorotelomer Sulfonate	NS	8.7 U		2.0 U		8.0 U		1.7 U		1.8 U	
8:2 Fluorotelomer sulfonate	NS	1.7 U		2.0 U		1.6 U		0.33 U		1.8 U	
Perfluorobutanoic Acid (PFBA)	NS	4.5		6.2		3.9		12		7.3	
Perfluoropentanoic Acid (PFPeA)	NS	7.5		6.2		3.2		0.43 U		6.3	
Perfluoroheptane Sulfonate (PFHpS)	NS	0.33		2.0 U		0.27		0.94		2.2 U	
Perfluorooctane Sulfonamide (PFOSA)	NS			2.0 U							
Perfluorodecane Sulfonate (PFDS)	NS	1.7 U		2.0 U		1.6 U		0.28 U		0.29 U	

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

В Constituent detected in blank; sample result >5x blank (>10x for common laboratory

contaminants); result valid.

UB Constituent detected in blank; sample result <5x blank (<10x for common laboratory

contaminants); sample result changed to non-detection.

Sample not analyzed for this constituent.

NS No standard established.

bold Detected concentration exceeds AGQS or MCL in effect at the time of sample collection.

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS. MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

Street Address		4R College Road		5 College Road		6 College Road		9 Colleg	ge Road	11 Colle	ege Road
Sample Identification (if different from address)	Maximum Contaminant Level	Primary Well									
Sample Date	(MCLs) †	4/24/2019	9/29/2020	11/12/2019	9/29/2020	4/24/2019	9/29/2020	11/12/2019	9/29/2020	6/13/2019	9/29/2020
Per- and Polyfluoroalkyl Substances (PFAS)											
by EPA Method 537 (Reported in ng/L)											
Perflourobutane Sulfonate (PFBS)	NS	5.3	3.9	29	3.2	4.2	3.9	5.5	3.9	4.1	4.1
Perfluorohexanoic Acid (PFHxA)	NS	7.7	5.8	18	3.6	6.6	3.0	5.4	3.0	7.8	7.0
Perfluorohexane sulfonate (PFHxS)	18	18	14	15	8.9	28	21	5.8	9.7	14	16
Perfluoroheptanoic Acid (PFHpA)	NS	5.9	4.5	3.7	2.2	2.7	2.0 U	2.0 U	2.0 U	3.4	3.8
Perfluorooctanoic Acid (PFOA)	12	28	21	22	12	18	12	12	11	16	22
Perfluorooctane Sulfonate (PFOS)	15	46	26	41	15	27	20	16	21	38	50
Perfluorononanoic Acid (PFNA)	11	2.1	2.0 U	3.0	2.0 U	0.54	2.0 U	2.0 U	2.0 U	1.3	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	0.42	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	U	2.0 U	2.1 U	2.0 U		2.0 U	2.0 U	2.0 U		2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.0 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.1 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	0.51 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	1.2 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	0.27 U	2.0 U	2.1 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U	1.8 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
11Cl-PF3OUdS (F53B Major)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
9Cl-PF3ONS (F53B Minor)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U
6:2 Fluorotelomer Sulfonate	NS	1.8 U		2.1 U				2.0 U		9.1 U	
8:2 Fluorotelomer sulfonate	NS	0.35 U		2.1 U		1.8 U		2.0		1.8 U	
Perfluorobutanoic Acid (PFBA)	NS	7.0		2.1 U		3.3		2.0 U		3.4	
Perfluoropentanoic Acid (PFPeA)	NS	4.8		9.2		3.0		2.0 U		3.2	
Perfluoroheptane Sulfonate (PFHpS)	NS	1.6 U		2.1 U		0.80 U		2.0 U		0.70	
Perfluorooctane Sulfonamide (PFOSA)	NS			2.1 U				2.0 U			
Perfluorodecane Sulfonate (PFDS)	NS	0.3 U		2.1 U		1.8 U		2.0 U		1.8 U	

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

B Constituent detected in blank; sample result >5x blank (>10x for common laboratory

contaminants); result valid.

UB Constituent detected in blank; sample result <5x blank (<10x for common laboratory

contaminants); sample result changed to non-detection.

- Sample not analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

Street Address		13 College Road		15 Colle	ge Road	23 Colle	ege Road	25 College Road	131 Portsmouth Avenue	132 Portsmo	outh Avenue
Sample Identification (if different from address)	Maximum Contaminant Level										
Sample Date	(MCLs) †	10/2/2019	9/29/2020	6/21/2019	9/30/2020	6/28/2019	9/29/2020	6/28/2019	11/12/2019	11/12/2019	9/30/2020
Per- and Polyfluoroalkyl Substances (PFAS)											
by EPA Method 537 (Reported in ng/L)											
Perflourobutane Sulfonate (PFBS)	NS	7.1		12	2.0 U	5.3	4.4	1.2	3.1	3.7	2.0 U
Perfluorohexanoic Acid (PFHxA)	NS	10		8.8	2.0 U	2.6	2.0 U	0.85	2.3	2.0 U	2.0 U
Perfluorohexane sulfonate (PFHxS)	18	73 B		29	2.0 U	14	13	4.2	6.1	16	3.4
Perfluoroheptanoic Acid (PFHpA)	NS	3.1		4.3	2.0 U	1.7	2.0 U	0.6	2.0 U	2.0 U	2.0 U
Perfluorooctanoic Acid (PFOA)	12	33		19	2.0 U	13	11	3.8	4.0	2.0 U	2.0 U
Perfluorooctane Sulfonate (PFOS)	15	17		9.6	2.0 U	8.7	7.9	1.6	5.4	2.0 U	2.0 U
Perfluorononanoic Acid (PFNA)	11	0.65 J		0.31	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	1.9 U		1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS				2.0 U		2.0 U		2.0 U	2.0 U	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.9 U		1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.9 U		1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	1.9 U		1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	1.9 U		1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	1.9 UB		1.9 U	2.0 U	1.8 U	2.0 U	1.8 U	2.0 U	2.0 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS						2.0 U				2.0 U
11Cl-PF3OUdS (F53B Major)	NS						2.0 U				2.0 U
9Cl-PF3ONS (F53B Minor)	NS						2.0 U				2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS						2.0 U				2.0 U
6:2 Fluorotelomer Sulfonate	NS	9.6 U		9.4 U	2.0 U	8.8 U		9.0 U	2.0 U	2.0 U	
8:2 Fluorotelomer sulfonate	NS	1.9 U		1.9 U	2.0 U	1.8 U		1.8 U	2.0 U	2.0 U	
Perfluorobutanoic Acid (PFBA)	NS	5.4		5.7	2.0 U	4.1		1.1	2.0 U	2.0 U	
Perfluoropentanoic Acid (PFPeA)	NS	3.0		5.6	2.0 U	1.4		1.8 U	2.0	2.0 U	
Perfluoroheptane Sulfonate (PFHpS)	NS	0.64 J		0.40	2.0 U	0.5		1.8 U	2.0 U	2.0 U	
Perfluorooctane Sulfonamide (PFOSA)	NS				2.0 U				2.0 U	2.0 U	
Perfluorodecane Sulfonate (PFDS)	NS	1.9 U		1.9 U	2.0 U	1.8 U		1.8 U	2.0 U	2.0 U	

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

B Constituent detected in blank; sample result >5x blank (>10x for common laboratory

contaminants); result valid.

UB Constituent detected in blank; sample result <5x blank (<10x for common laboratory

contaminants); sample result changed to non-detection.

-- Sample not analyzed for this constituent.
NS No standard established.

**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.

PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April

2018. The naming convention has been changed for this table for consistency.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

Street Address		137 Portsmouth	138 Portsmouth	140 Portsmouth	140 Portsmouth	142 I	ortsmouth Av	venue	142R Portsmouth	145 Portsmo	outh Avenue
		Avenue	Avenue	Avenue	Avenue				Avenue		
Sample Identification (if different from address)	Maximum Contaminant Level			House Well	Shop Well	1	Pipers Landin	g			
Sample Date	(MCLs) †	7/15/2019	4/29/2019	4/29/2019	4/29/2019	3/22/2019	7/15/2019	9/29/2020	4/23/2019	4/23/2019	9/29/2020
Per- and Polyfluoroalkyl Substances (PFAS)											
by EPA Method 537 (Reported in ng/L)											
Perflourobutane Sulfonate (PFBS)	NS	2.0 U	1.4	0.41	0.52	5.8	10	4.5	7.4	18	11
Perfluorohexanoic Acid (PFHxA)	NS	2.0 U	1.5	1.1	0.85	14	18	9.0	2.1	52	23
Perfluorohexane sulfonate (PFHxS)	18	4.5	1.5	0.51	0.90	63	110	54	4.4	230	140
Perfluoroheptanoic Acid (PFHpA)	NS	2.0 U	0.81	0.49	0.49	2.9	4.0	2.1	1.4	12	6.5
Perfluorooctanoic Acid (PFOA)	12	3.6	2.8	2.2	1.6	37	45	31	4.4	140	70
Perfluorooctane Sulfonate (PFOS)	15	2.3	1.0	0.77	1.9 U	32	41	29	4.5	200	140
Perfluorononanoic Acid (PFNA)	11	2.0 U	1.9 U	0.31	1.9 U	2.0 U	2.0 U	2.0 U	0.28	0.62	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.26 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	2.0 U				2.0 U	2.0 U	2.0 U		-	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.93 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	2.0 U	1.2 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	1.0 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.46 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	1.1 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	2.0 U	1.9 U	0.31	1.9 U	2.0 U	2.0 U	2.0 U	1.8 U	0.24 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS							2.0 U			2.0 U
11Cl-PF3OUdS (F53B Major)	NS							2.0 U			2.0 U
9Cl-PF3ONS (F53B Minor)	NS						-	2.0 U		-	2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS							2.0 U			2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U		1.8 U	1.7 U	
8:2 Fluorotelomer sulfonate	NS	U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U		1.8 U	0.32 U	
Perfluorobutanoic Acid (PFBA)	NS	2.0 U	2.0	2.0	2.1	2.0 U	3.0		4.5	8.7	
Perfluoropentanoic Acid (PFPeA)	NS	2.0 U	1.2	1.0	0.78	3.0	3.9		1.9	17	
Perfluoroheptane Sulfonate (PFHpS)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U		1.8 U	4.7	
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U				2.0 U	2.0 U				
Perfluorodecane Sulfonate (PFDS)	NS	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U		1.8 U	0.27 U	

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

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 $contaminants); sample \ result \ changed \ to \ non-detection.$ 

- Sample not analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.

PFAS naming convention was changed from "xxx sulfonate" to "xxxsulfonic acid" starting in April

2018. The naming convention has been changed for this table for consistency.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

Street Address		149/151 Portsr	nouth Avenue*	152 Portsm	outh Avenue	156 Portsmouth Avenue	157 Portsmout	h Avenue	159 Portsmo	uth Avenue
Sample Identification (if different from address)	Maximum Contaminant Level	149/151 Portsmouth Ave	149 Portsmouth Ave	Primary Well			Stratham Central Condos		Apartment Complex	
Sample Date	(MCLs) †	3/5/2019	9/29/2020	5/3/2019	9/29/2020	3/22/2019	3/22/2019	10/1/2020	4/24/2019	9/29/2020
Per- and Polyfluoroalkyl Substances (PFAS)										
by EPA Method 537 (Reported in ng/L)										
Perflourobutane Sulfonate (PFBS)	NS	6.4	2.0 U	8.2	6.2	4.6	15	14	7.6	7.4
Perfluorohexanoic Acid (PFHxA)	NS	12.8	2.0 U	24	16	21	53	36	22	15
Perfluorohexane sulfonate (PFHxS)	18	63	2.0 U	160	150	58	222	180	76	66
Perfluoroheptanoic Acid (PFHpA)	NS	3.0	2.0 U	10	7.5	11	16	11	7.5	5.4
Perfluorooctanoic Acid (PFOA)	12	31	2.0 U	57	46	33	84	89	41	28
Perfluorooctane Sulfonate (PFOS)	15	40	2.0 U	150	110	149	206	150	69	39
Perfluorononanoic Acid (PFNA)	11	1.7	2.0 U	1.6	2.0 U	2.1	1.9 U	2.0 U	0.50	2.0 U
Perfluorodecanoic Acid (PFDA)	NS		2.0 U	0.28 U	2.0 U	2.0 U	1.9 U	2.0 U	0.28 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS		2.0 U		2.0 U	2.0 U	3.0	2.0 U		2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS		2.0 U	1.0 U	2.0 U	2.0 U	1.9 U	2.0 U	1.0 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS		2.0 U	1.1 U	2.0 U	2.0 U	1.9 U	2.0 U	1.1 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS		2.0 U	0.49 U	2.0 U	2.0 U	1.9 U	2.0 U	0.49 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS		2.0 U	1.2 U	2.0 U	2.0 U	1.9 U	2.0 U	1.2 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS		2.0 U	0.26 U	2.0 U	2.0 U	1.9 U	2.0 U	0.26 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS		2.0 U		2.0 U			2.0 U		2.0 U
11Cl-PF3OUdS (F53B Major)	NS		2.0 U		2.0 U			2.0 U		2.0 U
9Cl-PF3ONS (F53B Minor)	NS		2.0 U		2.0 U			2.0 U		2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS		2.0 U		2.0 U			2.0 U		2.0 U
6:2 Fluorotelomer Sulfonate	NS			1.8 U		2.0 U	1.9 U		2.2	
8:2 Fluorotelomer sulfonate	NS			0.34 U		2.0 U	1.9 U		0.33 U	
Perfluorobutanoic Acid (PFBA)	NS	2.5		7.5		6.7	17		6.8	
Perfluoropentanoic Acid (PFPeA)	NS	4.6		15		20	60		16	
Perfluoroheptane Sulfonate (PFHpS)	NS			3.3		2.0 U	4.2		2.0	
Perfluorooctane Sulfonamide (PFOSA)	NS					2.0 U	1.9 U			
Perfluorodecane Sulfonate (PFDS)	NS			0.29 U		2.0 U	1.9 U		0.29 U	

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

B Constituent detected in blank; sample result >5x blank (>10x for common laboratory

contaminants); result valid.

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contaminants); sample result changed to non-detection.

- Sample not analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.
 † MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

Street Address		160 Portsm	outh Avenue		ortsmouth enue	164 Portsm	outh Avenue	165 Portsmouth Avenue	166 Portsmo	outh Avenue
Sample Identification (if different from address)	Maximum Contaminant Level		<u> </u>							
Sample Date	(MCLs) †	7/15/2019 9/29/2020		5/24/2019	9/29/2020	7/15/2019	9/30/2020	5/2/2019	5/2/2019	9/29/2020
Per- and Polyfluoroalkyl Substances (PFAS) by EPA Method 537 (Reported in ng/L)										
Perflourobutane Sulfonate (PFBS)	NS	5.6	2.8	5.3	5.8	9.0	7.5	5.4	11	5.3
Perfluorohexanoic Acid (PFHxA)	NS	8.9	8.6	18	9.5	6.7	6.8	3.4	2.5	2.6
Perfluorohexane sulfonate (PFHxS)	18	13	9.6	57	38	26	24	4.9	21	19
Perfluoroheptanoic Acid (PFHpA)	NS	3.1	3.6	6.1	2.9	2.5	3.4	1.5	1.7	2.0 U
Perfluorooctanoic Acid (PFOA)	12	8.8	9.2	37	20	12	12	6.2	7.5	6.9
Perfluorooctane Sulfonate (PFOS)	15	2.0 U	2.0 U	73	30	2.0 U	2.0 U	9.8	2.0	2.0 U
Perfluorononanoic Acid (PFNA)	11	2.0 U	2.0 U	0.73	2.0 U	2.0 U	2.0 U	0.40	1.8 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	2.0 U	0.67	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	2.0 U	2.0 U		2.0 U	2.0 U	2.0 U			2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	2.0 U	2.0 U	1.7	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	2.0 U	2.0 U	1.2 U	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	2.0 U	0.66	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	2.0 U	2.0 U	1.2 U	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	2.0 U	2.0 U	0.32	2.0 U	2.0 U	2.0 U	1.9 U	1.8 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS		2.0 U		2.0 U		2.0 U			2.0 U
11Cl-PF3OUdS (F53B Major)	NS		2.0 U		2.0 U		2.0 U			2.0 U
9C1-PF3ONS (F53B Minor)	NS		2.0 U		2.0 U		2.0 U			2.0 U
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS		2.0 U		2.0 U		2.0 U			2.0 U
6:2 Fluorotelomer Sulfonate	NS	2.0 U		2.2		2.0 U		1.9 U	1.8 U	
8:2 Fluorotelomer sulfonate	NS	2.0 U		0.36 U		2.0 U		1.9 U	1.8 U	
Perfluorobutanoic Acid (PFBA)	NS	2.7		4.0		2.1		2.9	3.2	
Perfluoropentanoic Acid (PFPeA)	NS	7.5		12		6.0		3.3	1.3	
Perfluoroheptane Sulfonate (PFHpS)	NS	2.0 U		1.5		2.0 U		0.20	1.8 U	
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U				2.0 U				
Perfluorodecane Sulfonate (PFDS)	NS	2.0 U		0.31 U		2.0 U		1.9 U	1.8 U	

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

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NS No standard established.

**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

Street Address		169 Portsmouth Avenue	170 Portsmouth Avenue	172 Portsmouth Avenue	175 Portsmouth Avenue	176 Portsmouth Avenue	232 Portsmouth Avenue	Stratham Green Road	Stratham Green Road
Sample Identification (if different from address)	Maximum Contaminant Level					Primary Well		Well #1	Well #2
Sample Date	(MCLs) †	5/2/2019	5/2/2019 5/24/2019		5/3/2019	5/3/2019	4/29/2019	3/22/2019	3/22/2019
Per- and Polyfluoroalkyl Substances (PFAS)									
by EPA Method 537 (Reported in ng/L)									
Perflourobutane Sulfonate (PFBS)	NS	5.0	5.2	4.7	3.7	3.7	0.76	3.7	3.7
Perfluorohexanoic Acid (PFHxA)	NS	0.79	2.6	2.9	3.6	3.6	4.7	5.6	3.8
Perfluorohexane sulfonate (PFHxS)	18	4.7	3.1	3.0	3.1	3.1	0.49	13	14
Perfluoroheptanoic Acid (PFHpA)	NS	0.48	2.2	2.5	2.8	2.8	0.55	3.2	2.3
Perfluorooctanoic Acid (PFOA)	12	2.4	6.9	10	9.0	9.0	3.1	18	12.4
Perfluorooctane Sulfonate (PFOS)	15	1.9 U	0.49 U	5.4	1.0	1.0	0.80	29	14
Perfluorononanoic Acid (PFNA)	11	1.9 U	0.25 U	0.46		0.26 U	1.0	1.9 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	1.9 U	0.28 U	1.8 U		0.30 U	0.70	1.9 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS							1.9 U	2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	1.9 U	1.0 U	1.8 U		1.1 U	1.8 U	1.9 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	1.9 U	1.1 U	1.8 U		1.2 U	1.8 U	1.9 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	1.9 U	0.50 U	1.8 U		0.53 U	1.8 U	1.9 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	1.9 U	1.2 U	1.8 U		1.3 U	1.8 U	1.9 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	1.9 U	0.26 U	1.8 U		0.28 U	1.8 U	1.9 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS								
11Cl-PF3OUdS (F53B Major)	NS								
9Cl-PF3ONS (F53B Minor)	NS								
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS								
6:2 Fluorotelomer Sulfonate	NS	1.9 U	1.8 U	1.8 U		1.9 U	1.8 U	1.9 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	1.9 U	1.8 U	1.8 U		0.36 U	1.8 U	1.9 U	2.0 U
Perfluorobutanoic Acid (PFBA)	NS	2.1	2.0	1.7	2.9	2.9	2.4	3.6	4.8
Perfluoropentanoic Acid (PFPeA)	NS	0.72	1.6	1.8	2.5	2.5	3.0	3.4	2.0 U
Perfluoroheptane Sulfonate (PFHpS)	NS	1.9 U	0.17 U	2.5		0.18 U	1.8 U	1.9 U	2.0 U
Perfluorooctane Sulfonamide (PFOSA)	NS							1.9 U	2.0 U
Perfluorodecane Sulfonate (PFDS)	NS	1.9 U	0.29 U	1.8 U		0.31 U	1.8 U	1.9 U	2.0 U

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

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J Estimated concentration.

B Constituent detected in blank; sample result >5x blank (>10x for common laboratory contaminants); result valid.

UB Constituent detected in blank; sample result <5x blank (<10x for common laboratory contaminants); sample result changed to non-detection.

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NS No standard established.

**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.

† MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.



# **Drinking Water Samples - Summary of Analytical Results**

Stratham Fire Department
4 Winnicutt Road, Stratham, New Hampshire
NHDES Site #199507007

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Street Address		Stratham Green Road	7 Tansy Avenue	4 Winnie	cutt Road		nicutt Road ed well)			18 Winnicutt Road 5 Frence		nch Lane
Sample Identification (if different from address)	Maximum Contaminant Level	Well #3		Stratham Fire Dept		7 Winnicutt Road	7R Winnicutt Road					
Sample Date	(MCLs) †	3/22/2019	5/3/2019	3/22/2019	9/29/2020	3/22/2019	9/29/2020	5/9/2019	6/21/2019	4/25/2019	6/28/2019	11/12/2019
Per- and Polyfluoroalkyl Substances (PFAS)												
by EPA Method 537 (Reported in ng/L)												
Perflourobutane Sulfonate (PFBS)	NS	4.0	1.9 U	4.6	4.5	5.9	2.0 U	0.60	2.0	0.50	0.29	5.4
Perfluorohexanoic Acid (PFHxA)	NS	3.0	1.0	21	17	22	3.4	1.8	3.9	1.2	1.8 U	2.0 U
Perfluorohexane sulfonate (PFHxS)	18	22	0.54	58	70	6.7	2.0 U	1.9	1.8	1.2	0.97 U	12
Perfluoroheptanoic Acid (PFHpA)	NS	2.0 U	0.35	11	11	6.9	2.0 U	0.92	1.6	0.72	0.25	2.0 U
Perfluorooctanoic Acid (PFOA)	12	13	1.8	33	37	17	2.0 U	3.1	6.1	2.7	1.4	3.4
Perfluorooctane Sulfonate (PFOS)	15	19	1.0	149	140	0.92	2.0 U	0.51 U	1.6		0.79	2.0 U
Perfluorononanoic Acid (PFNA)	11	2.0 U	1.9 U	2.1	2.1	0.47	2.0 U	0.26 U	1.8 U		1.8 U	2.0 U
Perfluorodecanoic Acid (PFDA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	0.29 U	1.8 U		1.8 U	2.0 U
N-ethyl perfluorooctanesulfonamido acetic acid (N-EtFOSAA)	NS	2.0 U		2.0 U	2.0 U		2.0 U					2.0 U
Perfluoroundecanoic acid (PFUA/PFUnA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	1.0 U	1.8 U		1.8 U	2.0 U
N-methyl perfluorooctanesulfonamido acetic acid (N-MeFOSAA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	1.2 U	1.8 U		1.8 U	2.0 U
Perfluorododecanoic Acid (PFDoA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	0.52 U	1.8 U		1.8 U	2.0 U
Perfluorotridecanoic acid (PFTriA/PFTrDA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	1.2 U	1.8 U		1.8 U	2.0 U
Perfluorotetradecanoic acid (PFTA/PFTeDA)	NS	2.0 U	1.9 U	2.0 U	2.0 U	1.8 U	2.0 U	0.27 U	1.8 U		1.8 U	2.0 U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS				2.0 U		2.0 U					
11Cl-PF3OUdS (F53B Major)	NS				2.0 U		2.0 U					
9Cl-PF3ONS (F53B Minor)	NS				2.0 U		2.0 U					
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NS				2.0 U		2.0 U					
6:2 Fluorotelomer Sulfonate	NS	2.0 U	1.9 U	2.0 U		8.9 U		1.9 U	9.1 U		8.8 U	2.0 U
8:2 Fluorotelomer sulfonate	NS	2.0 U	1.9 U	2.0 U		1.8 U		0.35 U	1.8 U		1.8 U	2.0 U
Perfluorobutanoic Acid (PFBA)	NS	5.1	1.2	6.7		6.7		1.8	2.1	1.7	0.50	2.0 U
Perfluoropentanoic Acid (PFPeA)	NS	2.4	0.59	20		22		1.4	2.9	1.0	1.8 U	2.0 U
Perfluoroheptane Sulfonate (PFHpS)	NS	2.0 U	1.9 U	2.0 U		1.8 U		0.18 U	1.8 U		1.8 U	2.0 U
Perfluorooctane Sulfonamide (PFOSA)	NS	2.0 U		2.0 U								2.0 U
Perfluorodecane Sulfonate (PFDS)	NS	2.0 U	1.9 U	2.0 U		1.8 U		0.30 U	1.8 U		1.8 U	2.0 U

All concentrations reported in nanograms per liter (ng/L) unless otherwise specified.

Portions of July 2019 (and prior) data transcribed from summary table provided by the New Hampshire Department of Environmental Services (updated August 1, 2019).

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

B Constituent detected in blank; sample result >5x blank (>10x for common laboratory

contaminants); result valid.

UB Constituent detected in blank; sample result <5x blank (<10x for common laboratory

contaminants); sample result changed to non-detection.

Sample not analyzed for this constituent.

NS No standard established.

**bold** Detected concentration exceeds AGQS or MCL in effect at the time of sample collection

bold italics Not detected; laboratory reporting limit exceeds effective MCL or AGQS.
 † MCL effective July 23, 2020. Formerly Table 600-1 of Part Env-Or 603.03(c),

Ambient Groundwater Quality Standard (AGQS), effective September 30, 2019.



# TABLE 4 Potential Human Receptor List Stratham Fire Department 4 Winnicutt Road, Stratham, New Hampshire NHDES Site No. 199507007

Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 012	1 College Road	Rawson, Marjorie		Residential	No	Yes	(NHDES) 7/3/19 (W&B) 9/29/20	7/3/19: PFOA	oustide spigot on side of house		
17/ 035	2 College Road	Parsons M H & Sons Lumber Co.	P.O. Box 450, York, ME 03909	Commercial/ Industrial (post office)	No	Yes	(W&B) 7/5/19 (W&B) 9/29/20	7/5/19: PFHxS, PFOA, PFOS	inside sink		
17/ 015	3 College Road	Schmidt Family Trust	P.O. Box 252, Stratham, NH 03885	Residential	No	Yes	(NHDES) 7/3/19 (W&B) 9/29/20	7/3/19: detections just below MCLs	outside spigot on back of house		sediment filter and softener
17/ 034	4 College Road Nursery Building	4 College Rd Real Estate LLC, c/o David Short	P.O. Box 715, Stratham, NH 03885	Commercial/ Industrial (Nursery)	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/29/19: PFOA, PFOS	nursery building sink		
17/ 032	4R College Road Primary Well	Short, David and Jeanne	P.O. Box 715, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/24/19: PFOA, PFOS	outside spigot		
17/ 032	4R College Road Irrigation Well	Short, David and Jeanne	P.O. Box 715, Stratham, NH 03885	Barn	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/24/19: PFOA, PFOS	base of pressure tank in barn		
17/ 017	5 College Road	Rawson, III Verne Edward		Residential	No	Yes	(W&B) 11/12/19 (W&B) 9/29/20	11/12/19: PFOA, PFOS	outside spigot		softener
17/ 033	6 College Road	4 College Rd Real Estate LLC, c/o David Short	P.O Box 715, Stratham, NH 03885	Commercial/ Industrial	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/24/19: PFHxS, PFOA, PFOS	base of pressure tank		
17/ 018	9 College Road	Rawson, Jr. Verne E.		Residential	No	Yes	(W&B) 11/12/19 (W&B) 9/29/20	11/12/19: PFOS	spigot at front door		softener
17/ 019	11 College Road	Shine-Canty, Andrea J. and Alan P.		Residential	No	Yes	(NHDES) 6/13/19 (W&B) 9/29/20	6/13/19: PFOA, PFOS	base of pressure tank in basement		
17/ 020	13 College Road	Secore, Dennis and Gail		Residential	No	Yes	(NHDES) 10/2/19	10/2/19: PFHxS, PFOA, PFOS			
17/ 021	15 College Road	Fawcett, Robert S. and Anne M.		Residential	No	Yes	(NHDES) 6/21/19 (W&B) 9/30/20	6/21/19: PFHxS, PFOA			
17/ 024	19 College Road	Wingate Woods LLC	6 Patriots Road, Stratham, NH 03885	Residential	No	Yes					
17/ 025	23 College Road	Desroches, Michael and Margaret		Residential	No	Yes	(NHDES) 6/28/19 (W&B) 9/29/20	6/28/19: PFOA	oustide spigot on side of house	Yes	softener and POE system



# TABLE 4 Potential Human Receptor List Stratham Fire Department 4 Winnicutt Road, Stratham, New Hampshire NHDES Site No. 199507007

Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 026	25 College Road	Bruno, Sharon and David		Residential	No	Yes	(NHDES) 6/28/19	detections below MCLs			
17/ 012	5 French Lane	Rowe, Kenneth and Dorothy	P.O. Box 146, Stratham, NH 03885	Residential	No	Yes	(NHDES) 6/28/19 (W&B) 11/12/19	detections below MCLs			
17/ 023	16 French Lane	Poco Realty Trust	6 Patriots Road, Stratham, NH 03885	Residential	No	Yes					
17/ 022	131 Portsmouth Avenue	Emanuel, Fred Revocable Trust	6 Patriots Road, Stratham, NH 03885	Residential	No	Yes	(W&B) 11/12/19	detections below MCLs			
17/ 013	132 Portsmouth Avenue	Tonal Hearth Property Management		Mixed Residential/ Commercial	No	Yes	(W&B) 11/12/19 (W&B) 9/30/20	11/12/19: detections just below MCLs			
17/ 036	137 Portsmouth Avenue	Zeff, Maureen and Richard	14 Evergreen Way, Stratham, NH 03885	Commercial/ Industrial (doctor's office)	No	Yes	(W&B) 7/15/19	detections below MCLs			
13/ 068	138 Portsmouth Avenue	King, Daryl M.		Residential	No	Yes	(NHDES) 4/29/19	detections below MCLs			
17/ 037	139 Portsmouth Avenue	JP Commons LLC		Commercial (Salon/Spa)	No	Yes					
13/ 067	140 Portsmouth Avenue	King Revocable Trust of 2001	P.O. Box 216, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/29/19	detections below MCLs			
17/ 119	142 Portsmouth Avenue	Piper's Landing Partnership		Commercial (Offices)	No	Yes	(W&B) 7/15/19 (W&B) 9/29/20	7/15/19: PFHxS, PFOA, PFOS			
17/ 120	142R Portsmouth Avenue	142 R Portsmouth Ave, LLC	P.O. Box 432, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/23/19	detections below MCLs			
17/ 038	145 Portsmouth Avenue	F & T Realty Partnership c/o Cadieux, Thomas and Frank	P.O. Box 155, Stratham, NH 03885	Commercial (retail/shops)	No	Yes	(W&B) 4/23/19 (W&B) 9/29/20	4/23/19: PFHxS, PFOA, PFOS	bathroom sink		
17/ 118	148 Portsmouth Avenue	Jones, Bradley R.	P.O. Box 175, Stratham, NH 03885	Commercial (restaurant/ apartments)	No	Yes					
17/ 040	149/151R Portsmouth Avenue	Jedi Realty, Inc.	149 Portsmouth Avenue, Stratham, NH 03885	Commercial/ Industrial (Dentist)	No	Yes	(W&B) 3/5/19 (W&B) 9/29/20	3/5/19: PFHxS, PFOA, PFOS	raw influent	Yes	sediment, softener, and POE system



# TABLE 4 Potential Human Receptor List Stratham Fire Department 4 Winnicutt Road, Stratham, New Hampshire NHDES Site No. 199507007

Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 117	152 Portsmouth Avenue	Leshas LLC	24 Pinewood Drive, Stratham, NH 03885	Commercial (office)	No	Yes	(W&B) 3/5/19	3/5/19: PFHxS, PFOA, PFOS			
17/ 116	154 Portsmouth Avenue	Scheel, John B.	4 Tall Pines Drive, Stratham, NH 03885	Residential	No	Yes	-				
17/ 115	156 Portsmouth Avenue	Lake, Colleen D. Revocable Trust		Commercial/ Industrial	No	Yes	(NHDES) 3/22/19	3/22/19: PFHxS, PFOA, PFOS			
17/ 041	157 Portsmouth Avenue	Forma Realty II, LLC	18 Congress Street, Suite 302, Portsmouth, NH 03801	Commercial/ Residential mixed use	No	Yes	3/22/19 (NHDES) 10/1/20 (W&B)	3/22/19: PFHxS, PFOA, PFOS	base of pressure tank		sediment filter and two sets of softeners
17/ 042	159 Portsmouth Avenue	Forma, John Revocable Trust	18 Congress Street, Suite 302, Portsmouth, NH 03801	Apartments	No	Yes	(NHDES) 4/24/19 (W&B) 9/29/20	4/29/19: PFHxS, PFOA, PFOS	outside spigot		
17/ 089	160 Portsmouth Avenue	Chittenden Trust Company c/o People's United Bank	850 Main Street, Bridgeport, CT 06604	Commercial (bank)	No	Yes	(W&B) 7/15/19 (W&B) 9/29/20	7/15/19: PFHxS, PFOA, PFOS			
17/ 043	161-2 Portsmouth Avenue	Deane, Ronald and Sandra	161 Portsmouth Avenue, Unit 2, Stratham, NH 03885	Residential (condex)	No	Yes	(NHDES) 5/24/19	5/24/19: PFHxS, PFOA, PFOS			
17/ 088	164 Portsmouth Avenue	Blunt Family Revocable Trust	P.O. Box 268, Stratham, NH 03885	Commercial (store)	No	Yes	(W&B) 7/15/19 (W&B) 9/29/20	7/15/19: PFHxS	bathroom sink		
17/ 044	165 Portsmouth Avenue	Libby Revocable Trust 2017		Residential	No	Yes	(NHDES) 5/2/19	detections below MCLs			
17/ 087	166 Portsmouth Avenue	McLaughlin, Robert and Smith, Barbara	P.O. Box 793, Stratham, NH 03885	Residential	No	Yes	(NHDES) 5/2/19 (W&B) 9/29/20	5/2/19: PFHxS	outside spigot on side of house		
17/ 045	169 Portsmouth Avenue	169 Portsmouth Ave, LLC	98 Linden Street, Exeter, NH 03833	Residential	No	Yes	(NHDES) 5/2/19	detections below MCLs			
17/ 086	170 Portsmouth Avenue	Marston, Christopher Glen	7 Winnicutt Road, Stratham, NH 03885	Residential	No	Yes	(NHDES) 5/24/19	detections below MCLs			
17/ 085	172 Portsmouth Avenue	Izzo, Patricia and Mario		Residential	No	Yes	(NHDES) 4/24/19	detections below MCLs			
17/ 047	175 Portsmouth Avenue	Thibault, Gerard		Residential	No	Yes	(NHDES) 5/3/19	detections below MCLs			



## Potential Human Receptor List Stratham Fire Department

#### 4 Winnicutt Road, Stratham, New Hampshire NHDES Site No. 199507007

Property Identification (Map/ Lot/ Sub-Lot)	Property Address	Owner Name	Owner's Mailing Address* (if different from Property Address)	Property Use	Connected to Public Water?	Water Supply Well Located on Property?	Sampling Information	Exceedances	Sample Location	POE System Installed (Y/N)	Filter Information
17/ 083	176 Portsmouth Avenue	Johnson, Joel		Residential	No	Yes	(NHDES) 5/3/19	detections below MCLs			
21/055	232 Portsmouth Avenue	Munton, Christopher and Amanda		Residential	No	Yes	(NHDES)4/29/19	detections below MCLs			
17/ 093	1 Tansy Avenue	Waldron, George B.		Residential	No	Yes					
17/ 094	7 Tansy Avenue	Hennessy, Sean and Casondra		Residential	No	Yes	(NHDES) 5/3/19	detections below MCLs			
17/ 114	4 Winnicutt Road	Town of Stratham	10 Bunker Hill Avenue, Stratham, NH 03885	Fire Department	No	Yes	(NHDES) 3/22/19	3/22/19: PFHxS, PFOA, PFOS			
17/ 090	7 Winnicutt Road	Marston, Gregory W.		Residential	No	Yes	(NHDES) 3/22/19	6/17/19: PFOA	outside spigot located on 7R		
4/ 25/ 0	7R Winnicutt Road	Marston, Ralph		Residential	No	res	(NHDES) 3/22/19	6/17/19: PFOA	Winnicutt Road		
17/ 113	8 Winnicutt Road	Cornerstone Baptist Church		Church	No	No	Abandoned - water turned off				
17/ 092	9 Winnicutt Road	Herrington, Dale and Amy		Residential	No	Yes	(NHDES) 5/9/19	detections below MCLs			
17/ 106	17 Winnicutt Road	Iudice, John and Iannacone, Melissa		Residential	No	Yes	(NHDES) 6/21/19	detections below MCLs			
17/ 112	18 Winnicutt Road	Stark-Jones Revocable Trust	P.O. Box 175, Stratham, NH 03885	Residential	No	Yes	(NHDES) 4/25/19	detections below MCLs			

Notes:

Information obtained from the Town of Stratham Assessor's Database on October 21 and December 26, 2019.

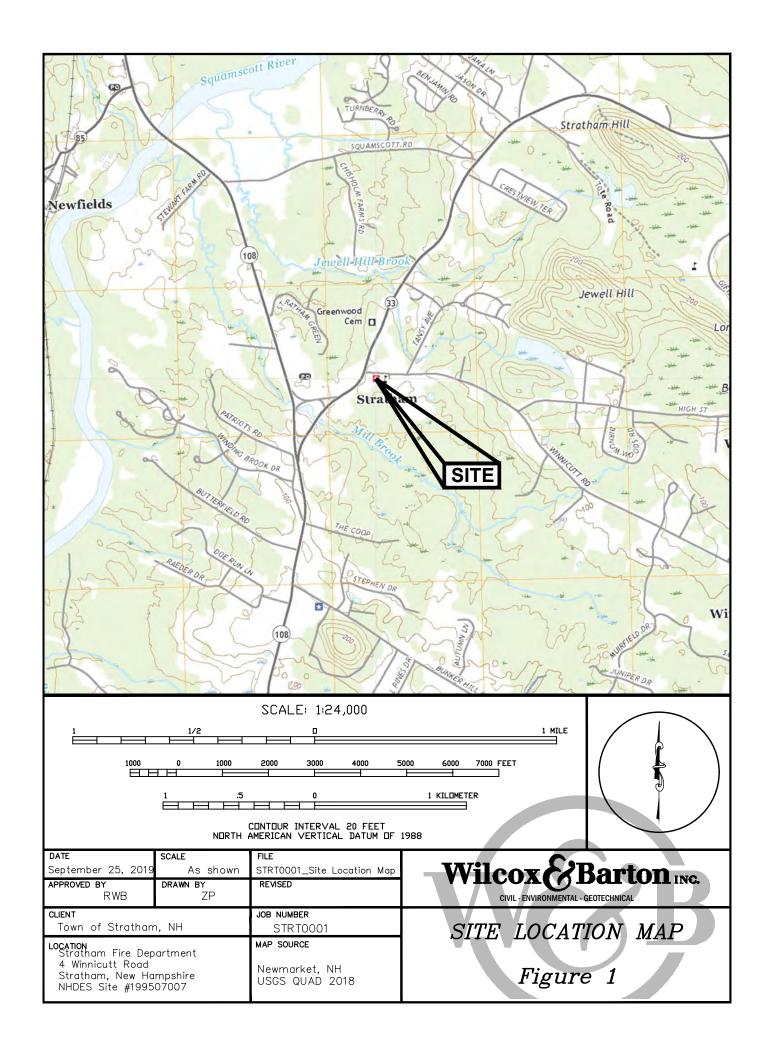
-- = information not readily available.

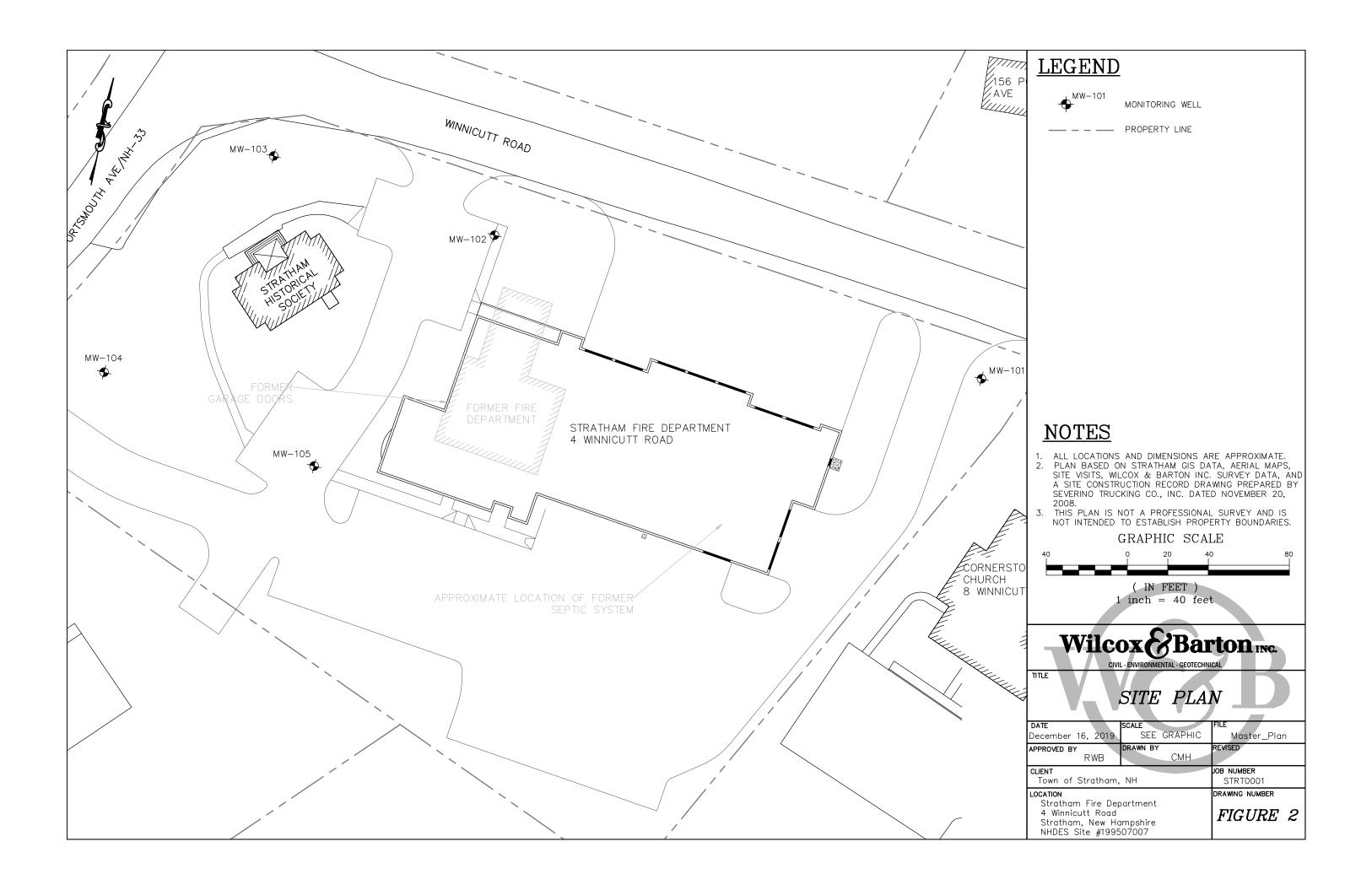


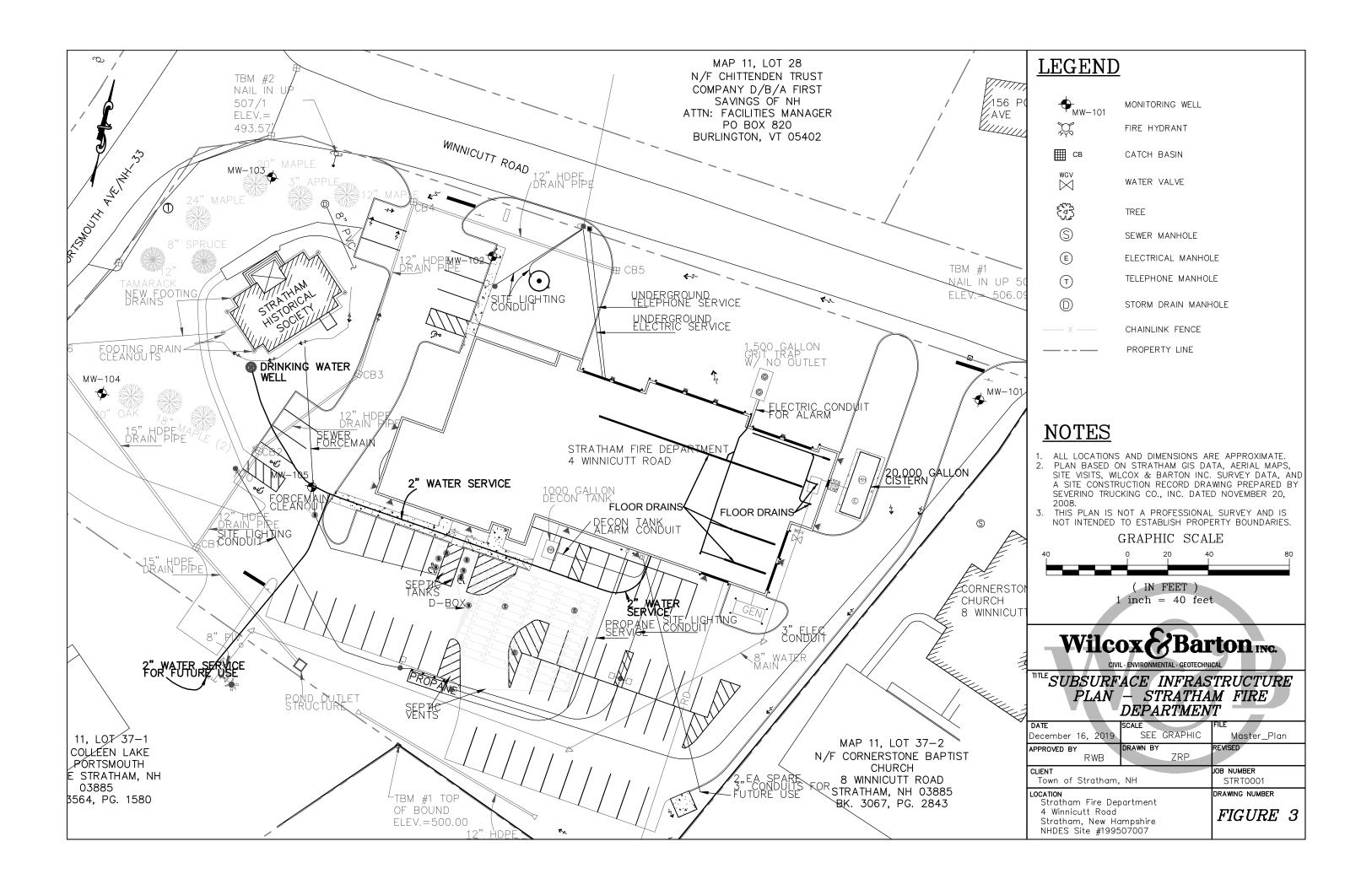
<sup>\* =</sup> All addressess are Stratham, New Hampshire 03885 unless noted.

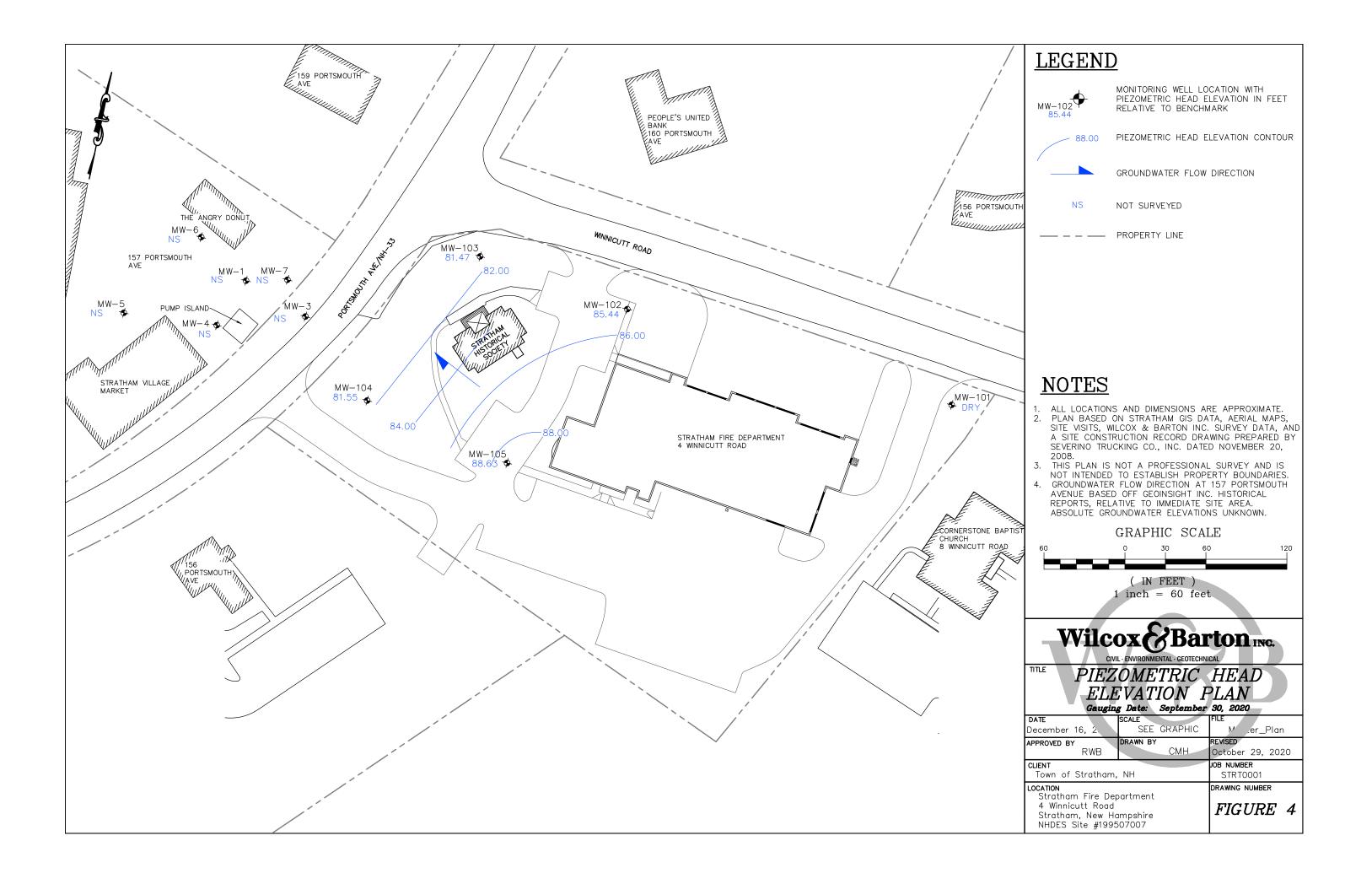
# **FIGURES**

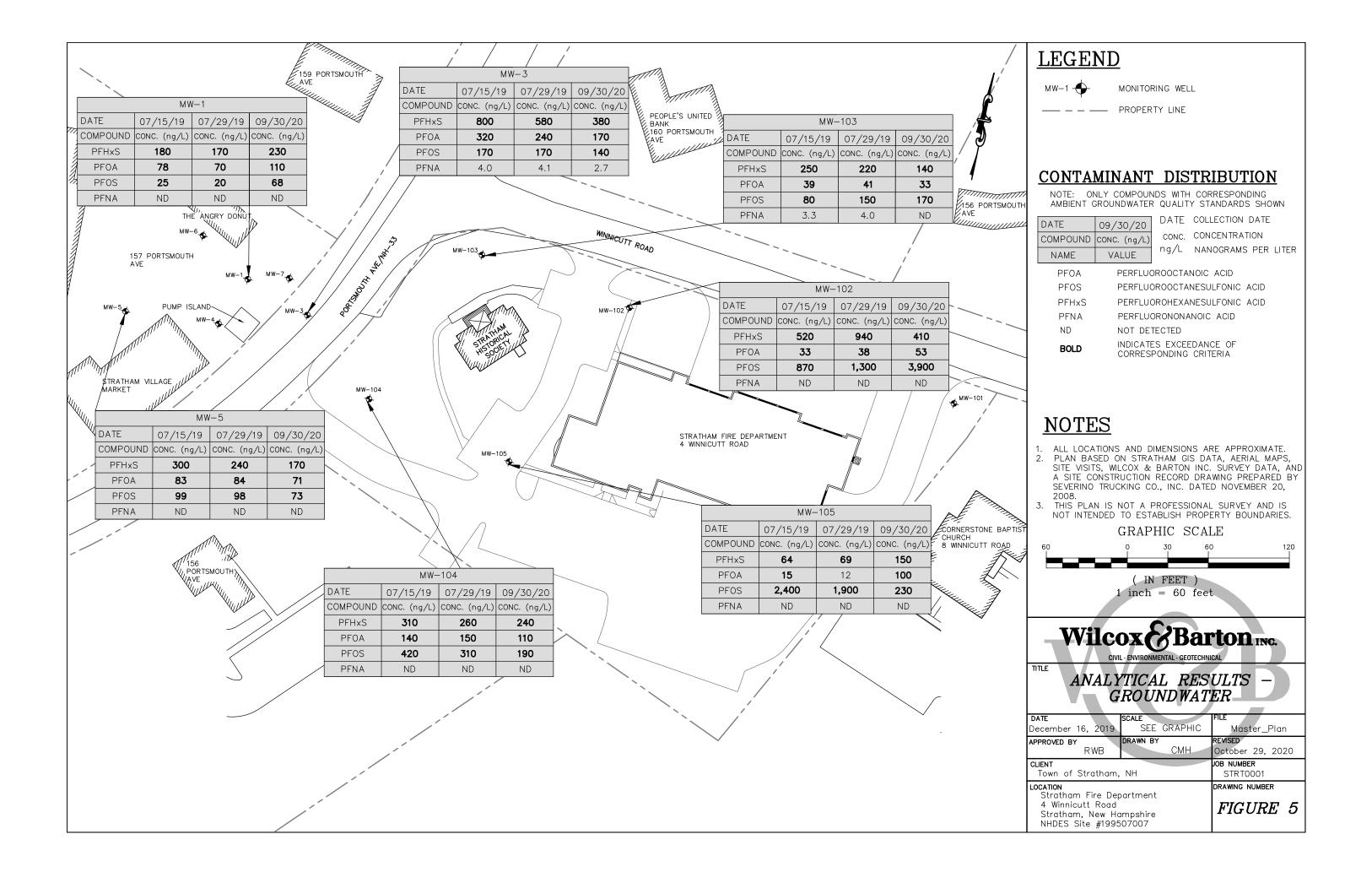


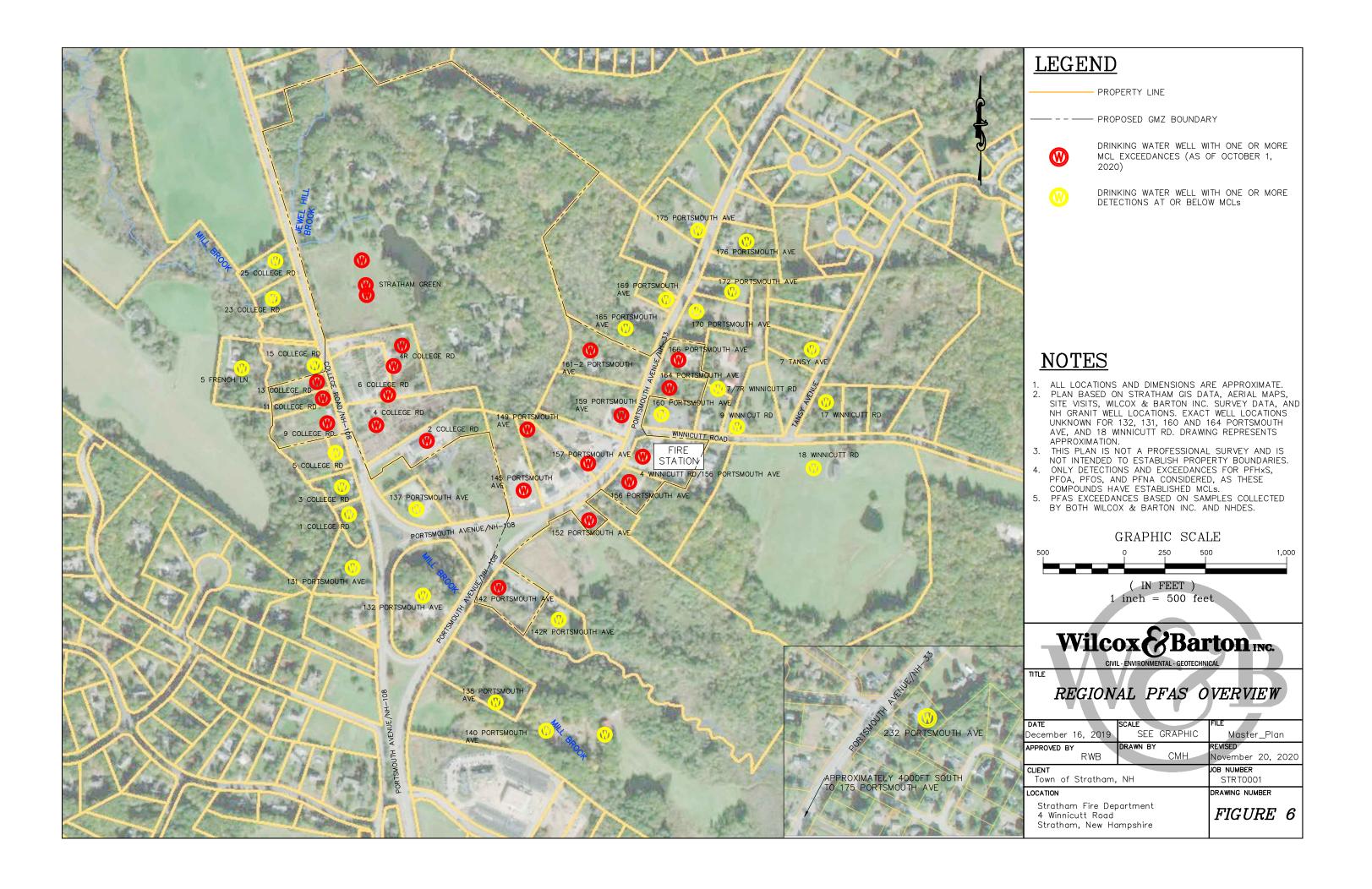












# APPENDIX A

# **NHDES Correspondence**





# The State of New Hampshire

### DEPARTMENT OF ENVIRONMENTAL SERVICES



### Robert R. Scott, Commissioner

**EMAIL ONLY** 

July 21, 2020

Michael Houghton Select Board Chair, Town of Stratham 10 Bunker Hill Avenue Stratham, NH 03885

Subject: **Stratham** – Stratham Fire Department, 4 Winnicutt Road

DES Site #199507007, Project #39022

Focused Site Investigation Report, Stratham Fire Department, 4 Winnicutt Road, Stratham New Hampshire, prepared by Wilcox & Barton, Inc., dated

February 24, 2020

Dear Mr. Houghton:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the abovereferenced submittal prepared on behalf of the Town of Stratham by Wilcox & Barton, Inc. (WBI) for the Stratham Fire Department (Site) located at the 4 Winnicutt Road in Stratham. The report documents the focused site investigation (FSI) work completed to evaluate the presence of perand polyfluoroakyl substances (PFAS) in groundwater, as requested by NHDES in a letter dated April 26, 2019.

WBI attributes the source of PFAS in groundwater (and soil) to past use of Class B firefighting foam at the site. According to the report, the fire department switched in 2000 from a foam product that contained PFAS to a product that is 'fluorine free' and wash water for fire apparatus/equipment is contained in underground tanks for offsite disposal at the new fire station building. No specific release area has been identified at the site, though two cross gradient monitoring wells (MW-102 and MW-105) on either side of the site both contain elevated PFAS, indicating overburden groundwater contamination extends cross-gradient from the north to the south side of the present and past fire station buildings. PFAS detected in onsite monitoring wells are consistent with a historic release of Class B firefighting foam and, based on the information presented, there does not appear to be an on-going release related to current use of foam at the site.

Properties in the area surrounding the site use wells for their water supply. According to WBI, 50 samples collected from 48 water supply wells were analyzed for PFAS. PFAS were detected in all of the samples, and groundwater samples from 27 wells have elevated PFAS concentrations that warrant additional confirmation sampling and potential future treatment.

Based on a review of the information submitted to date, additional site investigation work does not appear warranted at this time; however, NHDES strongly encourages confirmation sampling be conducted prior to remedy implementation. NHDES requests submission of a Remedial Action Plan (RAP) for implementation of a presumptive remedy to address impacted water supply wells. NHDES' expectation, unless you indicate otherwise, is that Point-of-Entry (POE) treatment Michael Houghton DES #199507007 July 21, 2020 Page 2 of 2

systems will be installed at impacted properties to mitigate groundwater contamination above the applicable standards. The RAP should include general details of the proposed POEs for the water supply wells. In addition, a Groundwater Management Permit (GMP) Application should be submitted as part of the RAP that provides for performance monitoring of treated water supply wells combined with the monitoring of contaminant trends and compliance with the Ambient Groundwater Quality Standards (AGQS).

NHDES appreciates the Town's efforts to conduct this investigation and provide bottled water to affected well users. Should you have any questions about the focused site investigation discussed herein, please do not hesitate to contact me directly at NHDES' Waste Management Division. Please provide NHDES with a schedule for submission of the RAP as soon as it is available.

Sincerely,

Jeffrey M. Marts, P.G. Senior Hydrogeologist

Hazardous Waste Remediation Bureau

Tel: (603) 271-6573 Fax: (603) 271-2181

Email: <u>Jeffrey.Marts@des.nh.gov</u>

ec: Amy Doherty, P.G., State Sites Supervisor, HWRB

Chelsea Hensley, Wilcox & Barton, Inc.

David Moore, Town Administrator, Town of Stratham

Matt Larrabee, Fire Chief, Town of Stratham Attention Health Officer, Town of Stratham

# APPENDIX B

Wilcox & Barton, Inc. Standard Operating Procedures





#### STANDARD OPERATING PROCEDURE

Title:	Groundwater Sampli	ng for Per- and Po	lyfluoroalkyl Substa	nces (PFAS)	No:	FP-17
Approved:	R. Rooks	Original Date:	4/14/17	Revised:		

### Purpose:

To provide guidance on proper collection of groundwater samples that will be analyzed for Perand Polyfluoroalkyl substances (PFAS).

### Introduction:

PFAS are a large group of man-made fluorine-containing chemicals with unique properties to make materials to which they are applied stain and stick-resistant. Chemicals in this group have been used in many industries, including aerospace, automotive, construction, manufacturing, electronic, and textile. PFAS have been used since the 1940s as manufacturer-applied oil and water repellants on products such as clothing, upholstery, paper, and carpets, and were also used in making fluoropolymers for non-stick cookware. PFAS have also been used as mist suppressants that can be added to metal plating baths, to prevent air releases, and to firefighting foams used on fires involving flammable liquids.

EPA has established a Drinking Water Health Advisory Level of 70 parts per trillion (ppt, or 0.070 ppb), which is an order of magnitude lower than typical analytes at typical release sites. State-specific limits can be lower. Therefore, preparation and sampling technique are of critical importance to avoid cross- and background contamination. Further, much of our normal sampling equipment contains Teflon and other fluoropolymer materials (e.g., Teflon tubing, Teflon-lined container caps). Tyvek contains PFAS, as do Sharpies, waterproof field logbooks, cosmetics, moisturizers and sunscreens, fabric softener, aluminum foil, Post-it notes, and fast food wrappers. Such materials should not be present at the project site or contacted on the day of the planned sampling event, as discussed further below. Maintain separate coolers for PFAS sampling and do not store PFAS sample containers with other typical containers/glassware.

The mechanical process of groundwater sample collection is the same as sampling groundwater for volatile organics. The key and most important distinction is an ultra-high level of diligence to prevent cross-contamination and background contamination. Read this protocol in its entirety before preparing for a sampling event.

### **Equipment/Materials\*:**

- 1. Water-level indicator or oil/water interface probe.
- 2. Peristaltic pump and power source.
- 3. YSI Multi-Probe System.
- 4. High density polyethylene or silicone tubing (no Teflon) shall be dedicated for each sampling event and disposable.
- 5. Bailers (HDPE, no Teflon) shall be dedicated for each sampling event and disposable
- 6. Pre-cleaned, laboratory-supplied sampling containers in individual Ziploc bags. The laboratory will send multiple 250-mL polypropylene bottles with wide-mouth screw caps



for each sample location. If sampling groundwater or non-potable water, the bottles will be unpreserved.

- 7. Loose-leaf note paper for field notes (e.g., project checklist). Waterproof field books shall not be used.
- 8. Coolers/packing materials/wet ice (no Blu-Ice or chemical packs of any kind).
- 9. Ball point pen or pencil and metal or Masonite clipboard.
- \* Materials that are not allowed, per the above, shall not be present on the project site. Where prohibited items are part of routine sampling gear, they should be left inside the field vehicle and not contacted or handled by the field sampler prior to PFAS sample collection.

### Sample Collection:

Actual collection of samples in the field shall be performed using low-flow techniques in accordance with *SOP# FP-07* or via bailer in accordance with *SOP# FP-08*. Analytical method SW-846 Method 537 should be specified on the chain of custody.

### **Duplicates and Blanks:**

- <u>Trip Blanks</u>: At least one laboratory-prepared trip blank shall accompany each cooler of samples submitted for PFAS analysis.
- Equipment Blanks: At least one equipment blank shall be collected for each type of equipment for which decontamination is performed. In addition, one equipment blank shall be collected from a representative item of new (unused) equipment (e.g., sample tubing, bailer). Laboratory-supplied reagent-free water shall be used for development of all equipment blanks.
- <u>Field Blanks</u>: At least one field blank shall be collected during each sampling event. The field blank should be prepared by the sampler at the time and site of sample collection using the procedure below, **prior to** collecting any field samples.
  - Open the bottle labeled "reagent free water." Transfer the reagent free water by pouring it into the bottle labeled "Field Blank," then seal it. This is to assess whether contamination occurs during sample collection. The field blank and the empty bottle should be shipped back to the laboratory with the field samples.
- <u>Duplicates:</u> At least one blind replicate or field split shall be collected for each environmental medium sampled. Duplicates should be collected for each drinking water sample submitted, but held at the laboratory for analysis only if PFAS are detected in the original sample. Sample HOLD must be clearly indicated on the chain of custody.

### Field Clothing and Personal Protective Equipment:

- 1. Do not wear water resistant, waterproof, or stain-treated clothing. Synthetic and natural fibers are acceptable. Field clothing must be laundered without the use of fabric softener, and washed at least six times from the time of purchase before use in the field. Do not wear new clothing while sampling.
- 2. Do not wear clothing or boots containing Gore-Tex or treated with DWR (Durable Water Resistant) coating. All safety footwear shall consist of steel-toed boots made with polyurethane or PVC.



- 3. Do not wear Tyvek clothing.
- 4. Disposable nitrile gloves must we worn at all times. Gloves should be changed frequently throughout the sampling operation. Anytime a distinct operation changes, such as between well purging and sample collection, and new pair of gloves should be donned.

### **Sample Containers:**

- 1. Groundwater samples shall be collected in 250 mL polypropylene or HDPE bottles fitted with an unlined (no Teflon), polypropylene, or HDPE, wide-mouth screw cap. This requirement MUST be specified when ordering sampling supplies from the laboratory.
- 2. Container labels shall be completed using pen (no markers) after the caps have been placed back on each bottle.
- 3. Each sample should be placed into an individual, fully-sealed, Ziploc bag and placed in a cooler packed only with ice (wet ice only, no chemical packs).
- 4. PFAS samples should be placed in a dedicated cooler separate from all other non-PFAS samples.
- 5. Glass containers shall not be used due to potential loss of analyte through adsorption.

### Wet Weather:

Field sampling during wet weather should be conducted while wearing appropriate clothing that will not pose a risk for cross contamination. Rain gear shall be made from polyurethane and wax-coated or oil-cloth materials. Treated textiles shall not be used.

### Decontamination:

- 1. Re-usable equipment, including depth-to-water and oil/water interface meters, shall be decontaminated between measurement points (*i.e.*, wells).
- 2. Alconox and Liquinox soaps are acceptable. Decon-90 must not be used.
- 3. Water used for decontamination shall be laboratory-certified PFC-free. Standard deionized water shall not be used.
- 4. Decontamination shall follow the steps outlined in SOP# FP-06.

### Personal Hygiene:

- 1. Field personnel may not use cosmetics, moisturizers, hand cream, or other related products as part of their personal cleaning/showering routine on the morning of the sampling event.
- 2. Sunblock and insect repellants, if used, should consist of 100% natural ingredients. Many manufactured products contain PFAS and are not to be brought to the project site.
- 3. No food or drink shall be brought on site, with the exception of bottled water and hydration drinks. Food for lunch, preferably from home, can be left in the field vehicle and consumed outside the work area.
- 4. Field personnel shall not have physical contact with fast food containers or wrappers on the day of the sampling event prior to sampling.



### Sampling of Other Media:

When project plans require analysis of soil, sediment, or other non-aqueous media for PFAS, project teams should be aware that there are no established laboratory protocols at this time. However, it is possible that extraction techniques will be developed so that these matrices can be analyzed using EPA Method 537. The Project Manager shall contact the laboratory during the planning stage for sampling all environmental media for PFAS. In general, sample collection will be like normal, subject to the cross-contamination and sample container requirements outline above.

### Documentation and Communication

Please note that you have followed PFAS sampling protocols in your field notes along with the weather. If a possible source of cross-contamination is discovered or recalled during or following sampling, please advise the Project Manager so that samples can be re-collected and/or data can be properly evaluated. Reference adherence to standard operating procedure FP-17 in the field notes.

# APPENDIX C

**Laboratory Analytical Reports** 





October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 4, 4R, 6 College Rd, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1551

M M Contry

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

#### ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1551

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 4, 4R, 6 College Rd, Stratham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
4 College Rd	20I1551-01	Drinking Water		EPA 537.1	
4R College Rd- Primary	20I1551-02	Drinking Water		EPA 537.1	
4R College Rd- Irrigation	20I1551-03	Drinking Water		EPA 537.1	
6 College Rd	20I1551-04	Drinking Water		EPA 537.1	



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 4, 4R, 6 College Rd, Stratham, NH Sample Description: Work Order: 20I1551

Date Received: 9/29/2020

Sampled: 9/29/2020 10:55 Field Sample #: 4 College Rd

Sample ID: 20I1551-01

Sample Matrix: Drinking Water											
		Semivol	latile Organic Com	pounds by - LC	C/MS-MS						
MCL/SMCL Date Date/											
Analyte	Results	RL	MA ORSG Unit	s DF	Flag/Qual	Method	Prepared	Analyzed	Analyst		
Perfluorobutanesulfonic acid (PFBS)	4.2	2.0	ng/	L 1		EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorohexanoic acid (PFHxA)	7.8	2.0	ng/	L 1		EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorohexanesulfonic acid (PFHxS)	13	2.0	ng/	L 1		EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluoroheptanoic acid (PFHpA)	5.4	2.0	ng/	L 1		EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorooctanoic acid (PFOA)	21	2.0	ng/	L 1		EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorooctanesulfonic acid (PFOS)	56	2.0	ng/	L 1		EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorononanoic acid (PFNA)	2.3	2.0	ng/	L 1		EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
N-EtFOSAA	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
N-MeFOSAA	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/	L 1	U	EPA 537.1	10/7/20	10/8/20 23:26	JFC		
Surrogates		% Recovery	Recovery Limit	ts	Flag/Qual						
13C-PFHxA		78.8	70-130					10/8/20 23:26			
M3HFPO-DA		73.4	70-130					10/8/20 23:26			

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	78.8	70-130		10/8/20 23:26
M3HFPO-DA	73.4	70-130		10/8/20 23:26
13C-PFDA	76.6	70-130		10/8/20 23:26
d5-NEtFOSAA	87.1	70-130		10/8/20 23:26



Project Location: 4, 4R, 6 College Rd, Stratham, NH Sample Description: Work Order: 2011551

Date Received: 9/29/2020

d5-NEtFOSAA

Field Sample #: 4R College Rd- Primary Sampled: 9/29/2020 10:55

Sample ID: 20I1551-02
Sample Matrix: Drinking Water

Sample Matrix: Drinking Water										
		Semivol	latile Organi	ic Compoun	ds by - LC/	MS-MS				
	Date	Date/Time								
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	3.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorohexanoic acid (PFHxA)	5.8	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorohexanesulfonic acid (PFHxS)	14	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluoroheptanoic acid (PFHpA)	4.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorooctanoic acid (PFOA)	21	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorooctanesulfonic acid (PFOS)	26	2.0		ng/L	1		EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/8/20 23:47	JFC
Surrogates		% Recovery	Recovery	Limits		Flag/Qual				
13C-PFHxA		79.1	70-1	30					10/8/20 23:47	
M3HFPO-DA		75.8	70-1						10/8/20 23:47	
13C-PFDA		76.8	70-1	30					10/8/20 23:47	

70-130

90.4

10/8/20 23:47



Project Location: 4, 4R, 6 College Rd, Stratham, NH Sample Description: Work Order: 2011551

Date Received: 9/29/2020

Field Sample #: 4R College Rd- Irrigation Sampled: 9/29/2020 10:40

Sample ID: 20I1551-03
Sample Matrix: Drinking Water

d5-NEtFOSAA

Sample Matrix: Drinking Water										
		Semivol	latile Organi	ic Compoun	ds by - LC/	MS-MS				
	Date	Date/Time								
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.3	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorohexanoic acid (PFHxA)	6.6	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorohexanesulfonic acid (PFHxS)	14	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluoroheptanoic acid (PFHpA)	4.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorooctanoic acid (PFOA)	27	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorooctanesulfonic acid (PFOS)	49	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorononanoic acid (PFNA)	2.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:09	JFC
Surrogates	•	% Recovery	Recovery	y Limits		Flag/Qual				
13C-PFHxA		77.9	70-1	130				·	10/9/20 0:09	
M3HFPO-DA		74.3	70-1						10/9/20 0:09	
13C-PFDA		76.4	70-1	130					10/9/20 0:09	

70-130

83.4

10/9/20 0:09



Project Location: 4, 4R, 6 College Rd, Stratham, NH Sample Description: Work Order: 2011551

Date Received: 9/29/2020

Field Sample #: 6 College Rd Sampled: 9/29/2020 10:45

Sample ID: 20I1551-04
Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS											
		N	MCL/SMCL					Date	Date/Time		
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst	
Perfluorobutanesulfonic acid (PFBS)	3.0	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorohexanoic acid (PFHxA)	3.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorohexanesulfonic acid (PFHxS)	21	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorooctanoic acid (PFOA)	12	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorooctanesulfonic acid (PFOS)	20	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 22:52	JFC	
Surrogates		% Recovery	Recover	y Limits		Flag/Qual					
13C-PFHxA		78.8	70-	130					10/9/20 22:52		
M3HFPO-DA		76.4	70-	130					10/9/20 22:52		
13C-PFDA		79.0	70-	130					10/9/20 22:52		
d5-NEtFOSAA		76.9	70-	130					10/9/20 22:52		



### **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1551-01 [4 College Rd]	B268145	250	1.00	10/07/20
20I1551-02 [4R College Rd- Primary]	B268145	250	1.00	10/07/20
20I1551-03 [4R College Rd- Irrigation]	B268145	250	1.00	10/07/20
20I1551-04 [6 College Rd]	B268145	250	1.00	10/07/20



### QUALITY CONTROL

### Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid IFPO-DA)	ND	2.0	ng/L							U
Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
urrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
urrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
urrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
CS (B268145-BS1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
exafluoropropylene oxide dimer acid HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
ICI-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



### FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
---	---

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



### CERTIFICATIONS

### Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in Drinking	Water
-----------	-------------	-------

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires		
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022		
MA	Massachusetts DEP	M-MA100	06/30/2021		
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021		
NY	New York State Department of Health	10899 NELAP	04/1/2021		
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021		
RI	Rhode Island Department of Health	LAO00112	12/30/2020		
NC	North Carolina Div. of Water Quality	652	12/31/2020		
NJ	New Jersey DEP	MA007 NELAP	06/30/2021		
FL	Florida Department of Health	E871027 NELAP	06/30/2021		
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021		
ME	State of Maine	2011028	06/9/2021		
VA	Commonwealth of Virginia	460217	12/14/2020		
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021		
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021		
NC-DW	North Carolina Department of Health	25703	07/31/2021		
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021		
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021		



held accountable.

<u>con-test</u>	Db	. 440 FAT DOOD			(100p. ( ) 19114. X		OF CUSTO	NV BEAN	iù B		ce Street			so: Kev	Z_U6Z6Z	2019					\ \	
ANALYTICAL LABORATORY		: 413-525-2332 13-525-6405	1					UTREUD			ngmeadow		28		45141	VCIC B	COUL	CTEN			Page of	
		info@contestlabs.com		7-Day	Guested Turns	10-Day	ne	0		ield Filte	red		อ	1	ANAL	YSIS R	EQUE	31ED	1		- F2	
ompany Name:	Willox	& BAVTON, IV	16 .	PFAS 10-Day	(std)	Due Date	 9:	o		Lab to Fili			$\vdash$		+ +			-	-		<sup>2</sup> Preservation Code	
ddress: 18 Commans 1	Dr. Unit	(2B. Londond	OMAJ		Rush-Approval				Colonia de Carlos de Carlo												<u>Total Number Of:</u>	
hone: (103 - 369 - 416	90		J	1-Day	П	3-Day		0	Managaran da	ield Filte		X									Total Northber Of.	
Tojeret Namie:	STRIDO	01		2-Day		4-Day		0	+	Lab to Fili	ter										VIALS	
roject Location: 4,4/2, (	a College	Rd. Stratha	m. NH				Data Deli	very					N								GLASS	
roject Number: STR TOOC	۷ <u>۱</u>			Format:			PDF	X	A COLOR OF THE COLOR		EXCEL	X	4							1	PLASTIC	
roject Manager: R. Ball Ar	D&J			Other:								,	7								BACTERIA	
on-Test Quote Name/Number:					a Pkg Required:			C. Carrier A.					S					-	1		ENCORE	
voice Recipient:				Email To:	rbarton	@ W	LOXAL	20/100	wor	1. 601	<u> </u>				1							
ampled By: M - BIDUSS	and d	C. Hensley	· January server	Fax To#;			-						¥								Glassware in the friday?	
Con-Test Work Order#	Client Sam	nple ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	¹Matrix Code	Conc Code	VIAL5	GLASS	PLASTIC	BACTERIA	ÉNCORE	F							the Market water	Glassware in the fridge? Y / N	
		ege Rd	9/29/20	1055	GRAB	DW	V			2_	v		χ								Glassware in freezer? Y / N	
<u>a</u>		k Rd-Primary	9/29/20	1055	ORAB	DM	U			2		<u> </u>	X								Prepackaged Cooler? Y / N	
	4R College	Rd-Irrigation	9/29/20	1040	GRAB	DM	V			2			X								*Contest is not responsible for	
Ч	(a Colle	ge Rd	1/29/20	1045	GRAB	DW	V			2			X								missing samples from prepacked coolers	
		-																			<sup>1</sup> Matrix Codes:	
																					GW ≈ Ground Water	
						<u> </u>	-	<b></b>	<del> </del>				<del>                                     </del>		+		+		1		WW = Waste Water DW = Drinking Water	
							<u> </u>		<u> </u>						4		<del></del>		$\perp \perp$		A = Air	
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egeived by: (signature)	KINNY		(1)			PF	As 53	7.1 p	oer c	lient												
kent Ult	- 9/20	Date/Time:																			<sup>2</sup> Preservation Codes: 1 ≈ Iced	
elinguished by: (signature)	alp	Date/Time: 2005	Detect	ion Limit Re	quirements			Sp	eciali Re	quirene	ves.					<del></del>					H = HCL M = Methanol	
MUNUM	- <i>'</i>  T  .	n res	MA									MA MCI	з Кецыт	red	Please L	use the f	allowi	ne code	es to in	dicate	N = Nitric Acid	
eteived by figenature)	20 6/2/	Pate/Time:								A	ACP Certifi	cation For	m Requ			ample co					S = Sulfuric Acid B = Sodium Bisulfate	
etinquished by: (signature)	1 1/00	Date/Time:	D GI										Requi		Ulark.			ın aboy			X = Sodium Hydroxide	
erinquisited by (signature)	,			<u> </u>						i	RCP Certific	cation hos	m Ragu	med D	· mgn, i	M · Medi	Unkno		C - C(	an; U-	T ≈ Sodium Thiosulfate	
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elinquished by: (signature)		Date/Time:	Project Ent		A GUS	I. 48.24D %									NELA	Cand Al	<b>HA-LA</b> her	PLLE	Accres	ited		
			, , , , , , ,	, Government	[-]	Municipa	ditv			MWRA			WRT	`A	)	or		Chro	matogr		PCB ONLY	
eceived by: (signature)		Date/Time:		Federal		21 J	,			School	_			.,	,		[ ]		-LAP,L		Soxhlet Non Soxhlet	
				City		Brownfie	eld			MBTA	Ē	J					1		- · · , <b>-</b>		( ) NON SOXINGE	
Comments:										Chain analyse	of Custoo es the lat	dy is a le boratory	egal do will p	cument erform.	that r Any r	nust be nissing	comp inform	olete a nation	and acc	urate a	on the Chain of Custody. The and is used to determine wha coratory's responsibility. Coning information, but will not t	

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection	n Criteria Listing - Using Acceptance Policy) Any False
Statement will be brought to the	attention of the Client - State True or False

Client W a	nd B							
Received By		·	Date	4/29	00	Time	2000	5
How were the samples	In Cooler	T	No Cooler	1 )	On Ice	7	No Ice	
received?	Direct from Samp	oling	•		Ambient		Melted Ice	
144		By Gun #	4		Actual Temp	)- <i>3</i> ,9	•	
Were samples within Temperature? 2-6°C	- Land	By Blank #			Actual Temp	-		
Was Custody S	eal Intact?	NA	We	re Samole	s Tampered	······	1/14	
Was COC Relin		1	-	•	ree With San		7	
Are there broken/l	•	on any sam	-	F	roo vikir oan	· p.00 ·	!	
Is COC in ink/ Legible?		<b>,</b>	•	nples recei	ived within ho	Iding time?	<b>†</b>	
Did COC include all	Client		Analysis	T		r Name	T	
pertinent Information?	Project	-	ID's	ナ	Collection I	Dates/Times	T	
Are Sample labels filled	d out and legible?	<u> </u>						
Are there Lab to Filters?	?	<u> </u>	•		s notified?			
Are there Rushes?		<u> </u>			s notified?			
Are there Short Holds?	_		<u>-</u>	Who wa	s notified?		<del> </del>	
Is there enough Volume		<u> </u>						
Is there Headspace who		NH		MS/MSD?			F	
Proper Media/Container			•		samples requ	uirea?	<u></u>	
Were trip blanks received Do all samples have the		1-10	Acid	On COC?		Base	- Communication	
	<u> </u>	NA	Aciu -			Dase		
Vials #	Containers: 1 Liter Amb.	#	1 Liter I	Dioctio	#	16.05	: Amb.	#
Unp- HCL-	500 mL Amb.		500 mL	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			nb/Clear	
Meoh-	250 mL Amb.		250 mL		R	<del></del>	nb/Clear	
Bisulfate-	Flashpoint		Col./Ba		<i>'</i>		nb/Clear	
DI-	Other Glass		Other F	Plastic		End	core	
Thiosulfate-	SOC Kit		Plastic	Bag		Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock				
			Unused N	ledia				
Vials #	Containers:	#			#			#
Unp-	1 Liter Amb.		1 Liter f	·			Amb.	
HCL-	500 mL Amb.		500 mL				nb/Clear	
Meoh- Bisulfate-	250 mL Amb. Col./Bacteria		250 mL Flash				nb/Clear nb/Clear	
DI-	Other Plastic		Other (				core	
Thiosulfate-	SOC Kit		Plastic			Frozen:		
Sulfuric-	Perchlorate		Ziplo					
Comments:								



October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 23 College Rd, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1557

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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B268145	7
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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1557

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 23 College Rd, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB
23 College Rd 2011557-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA 537.1

#### Qualifications:

MS-22

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte & Samples(s) Qualified:

Perfluorohexanesulfonic acid (PFH

B268145-MSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing. I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 23 College Rd, Stratham, NH Sample Description: Work Order: 2011557

Date Received: 9/29/2020

Field Sample #: 23 College Rd S

Sample ID: 20I1557-01

Sampled: 9/29/2020 08:45

Sample Matrix: Drinking Water									
Semivolatile Organic Compounds by - LC/MS-MS									
		1	MCL/SMCL				Date	Date/Time	
Analyte	Results	RL	MA ORSG Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.4	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorohexanesulfonic acid (PFHxS)	13	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorooctanoic acid (PFOA)	11	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorooctanesulfonic acid (PFOS)	7.9	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 0:52	JFC
Surragatas		% Decovery	Pacayary I imits		Flog/Quel				

Surrogates	% Recovery	Recovery Limits	Flag/Qual	_
13C-PFHxA	76.2	70-130		10/9/20 0:52
M3HFPO-DA	72.6	70-130		10/9/20 0:52
13C-PFDA	72.8	70-130		10/9/20 0:52
d5-NEtFOSAA	81.6	70-130		10/9/20 0:52



### **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1557-01 [23 College Rd]	B268145	250	1.00	10/07/20



### 39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

### QUALITY CONTROL

### Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
I-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
lexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
,8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
urrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
urrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
urrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
.CS (B268145-BS1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
I-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
I-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
Iexafluoropropylene oxide dimer acid	2.15	2.0	ng/L	2.00		107	50-150			
1Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
,8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			



### QUALITY CONTROL

Spike

Source

%REC

RPD

### Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B268145 - EPA 537.1										
Aatrix Spike (B268145-MS1)	Sourc	e: 20I1557-0	1	Prepared: 10	/07/20 Analyz	red: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	6.43	2.0	ng/L	1.77	4.37	116	50-150			
erfluorohexanoic acid (PFHxA)	3.87	2.0	ng/L	2.00	1.76	106	50-150			
erfluorohexanesulfonic acid (PFHxS)	15.4	2.0	ng/L	1.82	13.3	115	50-150			
erfluoroheptanoic acid (PFHpA)	3.39	2.0	ng/L	2.00	1.43	97.9	50-150			
erfluorooctanoic acid (PFOA)	13.8	2.0	ng/L	2.00	11.1	133	50-150			
erfluorooctanesulfonic acid (PFOS)	9.74	2.0	ng/L	1.85	7.92	98.2	50-150			
erfluorononanoic acid (PFNA)	2.07	2.0	ng/L	2.00	ND	103	50-150			
erfluorodecanoic acid (PFDA)	1.79	2.0	ng/L	2.00	ND	89.5	50-150			U
I-EtFOSAA	1.83	2.0	ng/L	2.00	ND	91.5	50-150			U
erfluoroundecanoic acid (PFUnA)	1.73	2.0	ng/L	2.00	ND	86.3	50-150			U
I-MeFOSAA	1.73	2.0	ng/L	2.00	ND	86.4	50-150			U
erfluorododecanoic acid (PFDoA)	1.65	2.0	ng/L	2.00	ND	82.7	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.50	2.0	ng/L	2.00	ND	74.9	50-150			U
erfluorotetradecanoic acid (PFTA)	1.66	2.0	ng/L	2.00	ND	82.9	50-150			U
Iexafluoropropylene oxide dimer acid HFPO-DA)	2.09	2.0	ng/L	2.00	ND	105	50-150			
1Cl-PF3OUdS (F53B Major)	1.67	2.0	ng/L	1.88	ND	88.8	50-150			U
Cl-PF3ONS (F53B Minor)	1.56	2.0	ng/L	1.86	ND	83.7	50-150			U
,8-dioxa-3H-perfluorononanoic acid ADONA)	1.80	2.0	ng/L	2.00	ND	89.9	50-150			U
urrogate: 13C-PFHxA	32.0		ng/L	40.0		80.1	70-130			
urrogate: M3HFPO-DA	30.5		ng/L	40.0		76.4	70-130			
urrogate: 13C-PFDA	30.3		ng/L	40.0		75.7	70-130			
urrogate: d5-NEtFOSAA	135		ng/L	160		84.5	70-130			
Matrix Spike Dup (B268145-MSD1)	Sourc	e: 20I1557-0	1	Prepared: 10	/07/20 Analyz	red: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	6.70	2.0	ng/L	1.77	4.37	131	50-150	4.16	30	
erfluorohexanoic acid (PFHxA)	3.87	2.0	ng/L	2.00	1.76	106	50-150	0.0129	30	
erfluorohexanesulfonic acid (PFHxS)	16.1	2.0	ng/L	1.82	13.3	152 *	50-150	4.30	30	MS-22
erfluoroheptanoic acid (PFHpA)	3.41	2.0	ng/L	2.00	1.43	99.1	50-150	0.701	30	
erfluorooctanoic acid (PFOA)	14.0	2.0	ng/L	2.00	11.1	144	50-150	1.47	30	
erfluorooctanesulfonic acid (PFOS)	9.94	2.0	ng/L	1.85	7.92	109	50-150	2.06	30	
erfluorononanoic acid (PFNA)	1.98	2.0	ng/L	2.00	ND	99.2	50-150	4.29	30	U
erfluorodecanoic acid (PFDA)			_		111			5.08	30	U
` '	1 88	2.0	ng/L	2.00	ND	94.1	30-1.00			_
I-EtFOSAA	1.88		ng/L ng/L	2.00	ND ND	94.1 94.4	50-150 50-150		30	II
I-EtFOSAA erfluoroundecanoic acid (PFUnA)	1.89	2.0	ng/L	2.00	ND	94.4	50-150	3.12	30 30	U
erfluoroundecanoic acid (PFUnA)	1.89 1.64	2.0 2.0	ng/L ng/L	2.00 2.00	ND ND	94.4 81.8	50-150 50-150	3.12 5.35	30	U
erfluoroundecanoic acid (PFUnA) I-MeFOSAA	1.89 1.64 1.74	2.0 2.0 2.0	ng/L ng/L ng/L	2.00 2.00 2.00	ND ND ND	94.4 81.8 87.0	50-150 50-150 50-150	3.12 5.35 0.709	30 30	U U
erfluoroundecanoic acid (PFUnA) I-MeFOSAA erfluorododecanoic acid (PFDoA)	1.89 1.64 1.74 1.52	2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00	ND ND ND ND	94.4 81.8 87.0 75.8	50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63	30 30 30	U U U
erfluoroundecanoic acid (PFUnA) I-MeFOSAA erfluorododecanoic acid (PFDoA) erfluorotridecanoic acid (PFTrDA)	1.89 1.64 1.74 1.52 1.62	2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00	ND ND ND ND	94.4 81.8 87.0 75.8 81.0	50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80	30 30 30 30	U U U U
erfluoroundecanoic acid (PFUnA) I-MeFOSAA erfluorododecanoic acid (PFDoA) erfluorotridecanoic acid (PFTrDA) erfluorotetradecanoic acid (PFTA)	1.89 1.64 1.74 1.52 1.62 1.53	2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00 2.00	ND ND ND ND ND	94.4 81.8 87.0 75.8 81.0 76.7	50-150 50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80 7.85	30 30 30 30 30	U U U
erfluoroundecanoic acid (PFUnA)  I-MeFOSAA  erfluorododecanoic acid (PFDoA)  erfluorotridecanoic acid (PFTrDA)  erfluorotetradecanoic acid (PFTA)  lexafluoropropylene oxide dimer acid  HFPO-DA)	1.89 1.64 1.74 1.52 1.62 1.53 2.49	2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00	ND ND ND ND ND ND	94.4 81.8 87.0 75.8 81.0 76.7 125	50-150 50-150 50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80 7.85 17.5	30 30 30 30 30 30	U U U U
erfluoroundecanoic acid (PFUnA)  I-MeFOSAA  terfluorododecanoic acid (PFDoA)  terfluorotridecanoic acid (PFTDA)  terfluorotetradecanoic acid (PFTA)  lexafluoropropylene oxide dimer acid  HFPO-DA)  1CI-PF3OUdS (F53B Major)	1.89 1.64 1.74 1.52 1.62 1.53 2.49	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00	ND ND ND ND ND ND ND ND ND	94.4 81.8 87.0 75.8 81.0 76.7 125	50-150 50-150 50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80 7.85 17.5	30 30 30 30 30 30 30	U U U U U
erfluoroundecanoic acid (PFUnA)  I-MeFOSAA  terfluorododecanoic acid (PFDoA)  terfluorotridecanoic acid (PFTDA)  terfluorotetradecanoic acid (PFTA)  dexafluoropropylene oxide dimer acid  HFPO-DA)  ICI-PF3OUdS (F53B Major)  CI-PF3ONS (F53B Minor)	1.89 1.64 1.74 1.52 1.62 1.53 2.49 1.40 1.57	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00	ND	94.4 81.8 87.0 75.8 81.0 76.7 125 74.7 84.7	50-150 50-150 50-150 50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80 7.85 17.5	30 30 30 30 30 30 30 30	U U U U U
erfluoroundecanoic acid (PFUnA) I-MeFOSAA  terfluorododecanoic acid (PFDoA) terfluorotridecanoic acid (PFTrDA) terfluorotetradecanoic acid (PFTA) Iexafluoropropylene oxide dimer acid HFPO-DA) ICI-PF3OUdS (F53B Major) CI-PF3ONS (F53B Minor) ,8-dioxa-3H-perfluorononanoic acid ADONA)	1.89 1.64 1.74 1.52 1.62 1.53 2.49 1.40 1.57	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00 2.00 2.00 1.88 1.86 2.00	ND ND ND ND ND ND ND ND ND	94.4 81.8 87.0 75.8 81.0 76.7 125 74.7 84.7 87.5	50-150 50-150 50-150 50-150 50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80 7.85 17.5	30 30 30 30 30 30 30	U U U U U
erfluoroundecanoic acid (PFUnA) I-MeFOSAA  erfluorododecanoic acid (PFDoA) erfluorotridecanoic acid (PFTrDA) erfluorotetradecanoic acid (PFTA) Iexafluoropropylene oxide dimer acid HFPO-DA) ICI-PF3OUdS (F53B Major) CI-PF3ONS (F53B Minor) ,8-dioxa-3H-perfluorononanoic acid ADONA) urrogate: 13C-PFHxA	1.89 1.64 1.74 1.52 1.62 1.53 2.49 1.40 1.57 1.75	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00 2.00 2.00 1.88 1.86 2.00	ND	94.4 81.8 87.0 75.8 81.0 76.7 125 74.7 84.7 87.5	50-150 50-150 50-150 50-150 50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80 7.85 17.5	30 30 30 30 30 30 30 30	U U U U U
erfluoroundecanoic acid (PFUnA) I-MeFOSAA  terfluorododecanoic acid (PFDoA) terfluorotridecanoic acid (PFTrDA) terfluorotetradecanoic acid (PFTA) Iexafluoropropylene oxide dimer acid HFPO-DA) ICI-PF3OUdS (F53B Major) CI-PF3ONS (F53B Minor) ,8-dioxa-3H-perfluorononanoic acid ADONA)	1.89 1.64 1.74 1.52 1.62 1.53 2.49 1.40 1.57	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	2.00 2.00 2.00 2.00 2.00 2.00 2.00 1.88 1.86 2.00	ND	94.4 81.8 87.0 75.8 81.0 76.7 125 74.7 84.7 87.5	50-150 50-150 50-150 50-150 50-150 50-150 50-150 50-150 50-150	3.12 5.35 0.709 8.63 7.80 7.85 17.5	30 30 30 30 30 30 30 30	U U U U U



U

39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

### FLAG/QUALIFIER SUMMARY

T	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-22	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is within method specified criteria.

Analyte included in the analysis, but not detected



## CERTIFICATIONS

### Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

Doc # 381 Rev 2\_06262019 39 Spruce Street Phone: 413-525-2332 CHAIN OF CUSTODY RECORD East Longmeadow, MA 01028 Fax: 413-525-6405 **ANALYSIS REQUESTED** Email: info@contestlabs.com 10-Day 0 Field Filtered 0 <sup>2</sup> Preservation Code Wilcox & Barton, Mc. PFAS 10-Day (std) Due Date: 0 Lab to Filter Address: 18 Commons Dr. Unit 12B, Landon Lynn Onthorihosphate Samples Total Number Of: Phone: 1002-369-4190 1-Day 3-Day 0 Field Filtered STRITOOOL 2-Day 0 4-Day Lab to Filter VIALS Project Location: 23 Where Rd. Estratham, NH Data Deliver GLASS Project Number: STRTOOD Format: EXCEL PLASTIC Project Manager: R. Barron Other: BACTERIA Con-Test Quote Name/Number: CLP Like Data Pkg Required: **ENCORE** S Invoice Recipient: Rhanton@willoxandbarron.com Email To: Sampled By: M. BMD)SSAVA & C. HENSLEY Fax To #: Con-Test Beginning Endine Glassware in the fridge? Client Sample ID / Description <sup>1</sup>Matrix COMP/GRAB Conc Code VIALS Work Order# GLASS PLASTIC BACTERIA ENCORE Date/Time Date/Time Y/N Code 23 Wiegerd 0845 9/29/20 GRAB V (0 X Glassware in freezer? Y / N DW Prepackaged Cooler? Y/N \*Contest is not responsible for missing samples from prepacked coolers 1 Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water A = Air S = Soil SL = Sludge SOL = Solid O = Other (please define) Client Comments: MS/MSD requested by lab <sup>2</sup> Preservation Codes: I = Iced H = HCL Detection Limit Requirements M = Methanol MA MCP Required N = Nitric Acid Please use the following codes to indicate S = Sulfuric Acid MCP Certification Form Required possible sample concentration within the Conc B = Sodium Bisulfate CT RCP Require Code column above: X = Sodium Hydroxide H - High; M - Medium; L - Low; C - Clean; U -RCP Certification Form Requires T = Sodium Unknown Thiosulfate Received by: (signature) Date/Time: 0 = Other (please MA State DW Requires define) INMOES AGAS PWSHD# NELAC and AIHA-LAP, LLC Accredited mzma Relinquished by: (signature) Date/Time: Project Entity PCB ONLY Government Municipality **MWRA** WRTA Chromatogram Soxhlet Received by: (signature) Date/Time: Federal 21 J School 5 AIHA-LAP,LLC Non Soxhlet City Brownfield MBTA omments: Page Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Test values your partnership on each project and will try to assist with missing information, but will not b 으

Contents

held accountable.

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

ogin Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False
Statement will be brought to the attention of the Client - State True or False

Client W	and 15		<b>.</b>	ΛΙΛΛ	n <sub>o</sub>	Time	2/200	
Received By	<u>~~</u>		Date	7/04	<b>b</b> ()	- I IME	2005	<u>}</u>
How were the sampl	es In Cooler	T	No Cooler		On Ice		_ No Ice _	
received?	Direct from Samp	olina			<b>A</b> mbient		Melted Ice	
	Direct Horri Gam,	By Gun#	4		Actual Tem	p - 3.9	<del></del>	
Were samples withi	ſ	<u>-</u>				·		
Temperature? 2-6°		By Blank #			Actual Tem		47/1	
Was Custody		<u> </u>	•	-	s Tampered			
Was COC Re			-	S Chain Ag	ree With Sa	mples?		
Are there broke	n/leaking/loose caps	on any sam	iples?		<u>-</u>		<b>-</b>	
Is COC in ink/ Legibl				nples recei	ived within h			
Did COC include a			Analysis			er Name	<u></u>	
pertinent Information	n? Project		ID's		_ Collection	Dates/Times	S	
Are Sample labels fi	lled out and legible?	<u>+</u>	_					
Are there Lab to Filte	ers?	F	-		s notified?			
Are there Rushes?		F	_	Who wa	s notified?			
Are there Short Hold	s?	F	_	Who wa	s notified?			•
Is there enough Volu	me?	1	_		<b>T</b>			
Is there Headspace		NA		MS/MSD?				
Proper Media/Contai			- , -	Is splitting	samples red	quired?		
Were trip blanks reco		「ド		On COC?	<b></b>		<u> </u>	
Do all samples have		MA	- Acid		2.10	Base		Switz Switz
Viais #	(Containers:	4						#
Unp-	1 Liter Amb.		1 Liter	Plastic		160	z Amb.	
HCL-	500 mL Amb.		500 mL			8oz Ai	mb/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic	6	4oz Ai	mb/Clear	
Bisulfate-	Flashpoint		Col./Ba	acteria		2oz Aı	mb/Clear	
DI-	Other Glass	1	Other	Plastic		Er	ncore [	
Thiosulfate-	SOC Kit		Plasti	c Bag		Frozen:		
Sulfuric-	Perchlorate		Zipl	ock	<u> </u>			
			Unused l	Media	Total Control			
Vials J	Containers:	T 8			4			•
Unp-	1 Liter Amb.		1 Liter	Plastic		16 o	z Amb.	
HCL-	500 mL Amb.		<u> </u>	Plastic	1	8oz A	mb/Clear	
Meoh-	250 mL Amb.			Plastic		4oz A	mb/Clear	
Bisulfate-	Col./Bacteria	<u> </u>		point			mb/Clear	
DI-	Other Plastic	1		Glass			ncore	
Thiosulfate-	SOC Kit			c Bag		Frozen:		
Sulfuric-	Perchlorate		_ <del>_</del>	ock				
Comments:								



October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 11 College Rd, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1562

M M Contry

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1562

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 11 College Rd, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

11 College Rd 2011562-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 11 College Rd, Stratham, NH Sample Description: Work Order: 2011562

Date Received: 9/29/2020

Field Sample #: 11 College Rd Sampled: 9/29/2020 09:15

Results

4.1

7.0

16

3.8

22

50

ND

2.0

2.0

Sample ID: 20I1562-01
Sample Matrix: Drinking Water

Analyte

Perfluorobutanesulfonic acid (PFBS)

Perfluorohexanesulfonic acid (PFHxS)

Perfluorohexanoic acid (PFHxA)

Perfluoroheptanoic acid (PFHpA)

Perfluorooctanesulfonic acid (PFOS)

Perfluorooctanoic acid (PFOA)

Perfluorononanoic acid (PFNA)

Perfluorodecanoic acid (PFDA)

Perfluoroundecanoic acid (PFUnA)

Perfluorododecanoic acid (PFDoA)

Perfluorotridecanoic acid (PFTrDA)

Perfluorotetradecanoic acid (PFTA)

11Cl-PF3OUdS (F53B Major)

9Cl-PF3ONS (F53B Minor)

Hexafluoropropylene oxide dimer acid

4,8-dioxa-3H-perfluorononanoic acid

N-EtFOSAA

N-MeFOSAA

(HFPO-DA)

(ADONA)

S	Semivolatile Organi	ic Compoun	ds by - LC/	MS-MS				
	MCL/SMCL					Date	Date/Time	
RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC
2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:13	JFC

U

U

EPA 537.1

EPA 537.1

10/7/20

10/7/20

JFC

JFC

10/9/20 1:13

10/9/20 1:13

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	101	70-130		10/9/20 1:13
M3HFPO-DA	96.5	70-130		10/9/20 1:13
13C-PFDA	82.7	70-130		10/9/20 1:13
d5-NEtFOSAA	93.2	70-130		10/9/20 1:13

ng/L

ng/L



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1562-01 [11 College Rd]	B268145	250	1.00	10/07/20



### QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid IFPO-DA)	ND	2.0	ng/L							U
Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
urrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
urrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
urrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
CS (B268145-BS1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
exafluoropropylene oxide dimer acid HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
ICI-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in	Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9CI-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires		
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022		
MA	Massachusetts DEP	M-MA100	06/30/2021		
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021		
NY	New York State Department of Health	10899 NELAP	04/1/2021		
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021		
RI	Rhode Island Department of Health	LAO00112	12/30/2020		
NC	North Carolina Div. of Water Quality	652	12/31/2020		
NJ	New Jersey DEP	MA007 NELAP	06/30/2021		
FL	Florida Department of Health	E871027 NELAP	06/30/2021		
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021		
ME	State of Maine	2011028	06/9/2021		
VA	Commonwealth of Virginia	460217	12/14/2020		
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021		
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021		
NC-DW	North Carolina Department of Health	25703	07/31/2021		
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021		
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021		



COn-test*		3-525-2332	•		песр. / / www.	CHAIN	I OF CUSTO	DY RECO		East Loi	ce Street ngmeadow	, MA 010	DOC # 38								Page of
	Fax: 413-5				equested Turne		ie		0165610	ed Melal	) Samples				ANAL	YSIS R	EQUES	TED			
		@contestlabs.com		7-Day	ليا	10-Day	لا	0	F	ield Filte	red		Q								<sup>2</sup> Preservation Code
Company Name:	WILLOX & B	arton, inc	•	PFAS 10-Day	**************************************	Due Date		0		Lab to Fil	ter										Course ruse Class
Address: 18 Commons De	C, Unit 12B,	Londonde	ny NK		Rush Approval	Required			Ortho	hosphata	Samples										Total Number Of:
Phone: 603-369-419			V	1-Day		3-Day		0	F	ield Filte	red								- 1		
	STRTOOOL			2-Day		4-Day		0		Lab to Fil	ter								1		VIALS
Project Location: \\ \(\omega)	Rd, Strat	ham NH					Data Deli	very					$ \mathcal{A} $								GLASS
Project Number: STRTDOO	1			Format:			PDF	X			EXCEL	X	4								PLASTIC
Project Manager: R. BAYT	DN			Other:				7				/ 1	3						1		BACTERIA
Con-Test Quote Name/Number:				CLP Like Dat	a Pkg Required:								3						1		ENCORE
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Sampled By: M. BYDVSS	ded & C	- HOMSLEU	I	Fax To #:	1-021110	(0 40,	TOUND	A ITAL PA	******	$II \mathcal{L}$	win		S								
Con-Test Work Order#	Client Sample II		Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Conc Gode	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PP								Glassware in the fridge? Y / N
)	11 Colleg	erd	4/21/20	0915	GRAB	DW	V			2_			X						$\dashv$		Glassware in freezer? Y / N
																			1	_	Prepackaged Cooler? Y / N
																				<u> </u>	*Contest is not responsible for
																					missing samples from prepacked coolers
																					<sup>1</sup> Matrix Codes:
																					GW = Ground Water WW = Waste Water
																				<del>                                     </del>	<b>DW</b> = Drinking Water
									<b></b>	-											A = Air S = Soil
														1	_						SL = Studge SOL = Solid
														1					_	_	O = Other (please define)
Relinquished by: (signature)  Received by: (signature)	9 1 Date	e/Time: 29-20 e/Time: 490 /6/ e/Time: 6/Time:	Osher	ton Limit Re	quienchis	PWSID #		3			ACP Certifi	CT RCF CT RCF cation For	Require	poss	ible sa High; A	mple ca Code A - Medi	ncentra column um; L - Unknow	tion w above Low; (	s to indic ithin the :: C - Clear	Conc	2 Preservation Codes:  I = Iced H = HCL M = Methanot N = Nitric Acid S = Sulfuric Acid B = Sodium Bisulfate X = Sodium Hydroxide T = Sodium Thiosulfate O = Other (please define)
Relinquished by: (signature)	Date	e/Time:	Project Ent	tity Government	Γ٦	Municipal	lity	1-7		MWRA			WRTA			Oti	ner	<u></u>			PCB ONLY
Received by: (signature)	Date	e/Time:	1	Federal		21 J	•			School	į.	J	HINIM	11			*******		natogran LAP,LLC		Soxhlet Non Soxhlet
omments:	1		<u> 1</u>	City	<u> </u>	Brownfiel	la			MBTA						l					
Page 10 ot						tini Atau				Chain analysi	of Custoo es the lat	dy is a le coratory	gal docu will per	ıment 1 form.	that π Any π roject	nust be nissing i and w	comple informa	ete an ition i o assis	nd accur	rate ar ne labo	n the Chain of Custody. The nd is used to determine wha pratory's responsibility. Con ig information, but will not b

Table of Contents

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

	and B		Data	$a_{100}$	<u> </u>	Time	2000	<u></u>
Received By			Date	TIGHT	<u> </u>	ille		
How were the sam	ples In Cooler	<u> </u>	No Cooler	· · · · · · · · · · · · · · · · · · ·	On Ice	L	No Ice	
received?	Direct from Samp	oling			Ambient		Melted Ice	
		By Gun #	-4	Α	ctual Tem	0-3.9		
Were samples wit		By Blank #			ctual Tem			
Temperature? 2-6	dy Seal Intact?	NA		Samples 1		<del></del>	NA	
	Relinquished?			Chain Agre	•		+	
	cen/leaking/loose caps	On any sam	•	I grow	0 111(), Ou,			
s COC in ink/ Legil		on any sam	Were sampl	les receive	d within ho	oldina time?	+	
Did COC include		· +	Analysis	T		er Name	<del></del>	
pertinent Information	•		ID's	+ (	•	Dates/Times	T	
	filled out and legible?	+						
re there Lab to Fil		F		Who was r	notified?			
re there Rushes?		E	•	Who was r	notified?			
re there Short Hol	ds?	F	•	Who was r	notified?			
s there enough Vol		<b>T</b>	•		·			
	where applicable?	NA	M:	S/MSD?_	<u> </u>	Andrew Co.		
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Vere trip blank <b>s re</b>	· ·	F	Oı	n COC? 🔄	<u> </u>		A CONTRACT OF THE CONTRACT OF	
o all samples hav		NA	Acid			Base		
	Containers:	- #						-
	Containers: 1 Liter Amb.	#	1 Liter Pla	astic		16 oz	z Amb.	#
Jnp-	1 Liter Amb. 500 mL Amb.	#	1 Liter Pla 500 mL Pl		<b>1</b>		z Amb. nb/Clear	#
Jnp- ICL-	1 Liter Amb.			lastic	2	8oz An 4oz An	nb/Clear nb/Clear	#
Jnp- ICL- Meoh-	1 Liter Amb. 500 mL Amb.	***	500 mL Pl	lastic lastic	<u>*</u> 2	8oz An 4oz An 2oz An	nb/Clear nb/Clear nb/Clear	***************************************
Jnp- HCL- Meoh- Bisulfate-	1 Liter Amb. 500 mL Amb. 250 mL Amb.		500 mL Pl 250 mL Pl Col./Bact Other Pla	lastic lastic teria astic	<b>3</b>	8oz An 4oz An 2oz An En	nb/Clear nb/Clear	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E	lastic lastic teria astic	2	8oz An 4oz An 2oz An	nb/Clear nb/Clear nb/Clear	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass		500 mL Pl 250 mL Pl Col./Bact Other Pla	lastic lastic teria astic	2	8oz An 4oz An 2oz An En	nb/Clear nb/Clear nb/Clear	
Mals Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E	lastic lastic teria astic Bag	<b>3</b>	8oz An 4oz An 2oz An En	nb/Clear nb/Clear nb/Clear	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E Ziploc	lastic lastic teria astic Bag	2	8oz An 4oz An 2oz An En Frozen:	nb/Clear nb/Clear nb/Clear core	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E Ziploc	lastic lastic teria astic Bag k	2	8oz An 4oz An 2oz An End Frozen:	nb/Clear nb/Clear nb/Clear core	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E Ziploc Unused Me 1 Liter Pla 500 mL Pl	lastic lastic teria astic Bag k  dia astic lastic	<b>1</b>	8oz Am 4oz Am 2oz Am End Frozen: 16 oz 8oz Am	nb/Clear nb/Clear nb/Clear core	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-  Mats Jnp- HCL-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb.		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E Ziploc Unused Me 1 Liter Pla 500 mL Pl 250 mL Pl	lastic lastic leria astic Bag k  dia astic lastic lastic	2	8oz An 4oz An 2oz An End Frozen: 16 oz 8oz An 4oz An	nb/Clear nb/Clear nb/Clear core	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Gulfuric-  Jnp- HCL- Meoh- Bisulfate-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E Ziploc Unused Me 1 Liter Pla 500 mL Pl 250 mL Pl	lastic lastic leria astic lastic lastic lastic lastic lastic	2	8oz Am 4oz Am 2oz Am End Frozen: 16 oz 8oz Am 4oz Am 2oz Am	nb/Clear nb/Clear core core Amb. nb/Clear nb/Clear nb/Clear	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-  //als Jnp- HCL- Meoh- Bisulfate- DI-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E Ziploc Unused Me 1 Liter Pla 500 mL Pl 250 mL Pl Flashpo Other Gl	lastic lastic leria astic Bag k  dia astic lastic lastic lastic lastic lastic lastic	2	8oz Am 4oz Am 2oz Am End Frozen:  16 oz 8oz Am 4oz Am 2oz Am End	nb/Clear nb/Clear nb/Clear core	
Jnp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Jnp- HCL- Meoh-	1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria		500 mL Pl 250 mL Pl Col./Bact Other Pla Plastic E Ziploc Unused Me 1 Liter Pla 500 mL Pl 250 mL Pl	lastic lastic leria astic lastic	2	8oz Am 4oz Am 2oz Am End Frozen: 16 oz 8oz Am 4oz Am 2oz Am	nb/Clear nb/Clear core core Amb. nb/Clear nb/Clear nb/Clear	



October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 4 Winnicutt Rd., Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1563

My M'Couthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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B268145	7
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Certifications	9
Chain of Custody/Sample Receipt	1(



Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1563

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 4 Winnicutt Rd., Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB
4 Winnicutt Rd 2011563-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 4 Winnicutt Rd., Stratham, NH Sample Description: Work Order: 2011563

Date Received: 9/29/2020

d5-NEtFOSAA

Field Sample #: 4 Winnicutt Rd Sampled: 9/29/2020 16:05

Sample ID: 20I1563-01
Sample Matrix: Drinking Water

Sample Matrix: Drinking Water									
		Semivol	atile Organic Compou	inds by - LC	MS-MS				
		Date	Date/Time						
Analyte	Results	RL	MA ORSG Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	4.5	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorohexanoic acid (PFHxA)	17	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorohexanesulfonic acid (PFHxS)	70	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluoroheptanoic acid (PFHpA)	11	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorooctanoic acid (PFOA)	37	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorooctanesulfonic acid (PFOS)	140	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorononanoic acid (PFNA)	2.1	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:35	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C-PFHxA		77.9	70-130					10/9/20 1:35	
M3HFPO-DA		74.6	70-130					10/9/20 1:35	
13C-PFDA		75.4	70-130					10/9/20 1:35	

70-130

82.0

10/9/20 1:35



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1563-01 [4 Winnicutt Rd]	B268145	250	1.00	10/07/20



### QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
lexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
urrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
urrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
urrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
.CS (B268145-BS1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
I-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
lexafluoropropylene oxide dimer acid	2.15	2.0	ng/L	2.00		107	50-150			
HFPO-DA)										
1Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
,8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires	
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022	
MA	Massachusetts DEP	M-MA100	06/30/2021	
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021	
NY	New York State Department of Health	10899 NELAP	04/1/2021	
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021	
RI	Rhode Island Department of Health	LAO00112	12/30/2020	
NC	North Carolina Div. of Water Quality	652	12/31/2020	
NJ	New Jersey DEP	MA007 NELAP	06/30/2021	
FL	Florida Department of Health	E871027 NELAP	06/30/2021	
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021	
ME	State of Maine	2011028	06/9/2021	
VA	Commonwealth of Virginia	460217	12/14/2020	
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021	
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021	
NC-DW	North Carolina Department of Health	25703	07/31/2021	
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021	
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021	

20I1563

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///// con-test	Phone: 413-525-2332				CHAIN	OF CUSTO	DY RECO	ORO		ice Street										_ \ \
ANALYTICAL LABORATORY	Fax: 413-525-6405		R	equested Turns	Contract Name			WWW.		ngmeadov		28 1		ANALY	rsis Ri	FOLIES	TED			Page of
	Email: info@contestlabs.co	m	7-Day		10-Day		0		ield Filte			ol	-1	ANAL	וא כזכו	T	1 [		т	17
Company Name	Wilsox & Barton, Inc.		PFAS 10-Day	(std)	Due Date	<u></u>	0		Lab to Fit			$\vdash$		-+		+	-			Preservation Code
	y Unit 128, Londond	MAN MAN		Push-Approve						alegie aleg										Conference Only
Phone: 603-369-419	O	41147	1-Day		3-Day		0	20XDYXAADH OXXXXXXXX	ield Filte	LY CONTROL STRUCTURE STRUC										Total Number Of:
Project Name:	STRT0001		2-Day	Ħ	4-Day		0		Lab to Fil					-						17116
	out Rd, stratnam	NH			,	Data Dei														VIALS
Project Number: ST/2TOO		1148	Format:		A A	PDF	X			EXCEL	<del>- X</del>	N		- 1						GLASS
Project Manager: R. Barro			Other:			101	/ X			EXCEL	<b>/</b> \(\(\frac{1}{2}\)	4							1	PLASTIC
Con-Test Quote Name/Number:			ł	ta Pkg Required			1111					7							-	BACTERIA
Invoice Recipient:				rbanon		17.58.44	يه کاله	Amir.	/ .io .			\script{\sinte\sint\sint{\sint\sint\sint\sint\sint\sinti\sint\sint				1				ENCORE
Sampled By: W - Brovssa	nd & C. Hunsley		Fax To #:	LEALICY		ILUNA	S Va	COL	WY	<u> </u>		ا ا				-				
Con-Test		Beginning	Ending		¹Matrix		r	T	<del></del>	T	1	18								Glassware in the fridge?
Work Order#	Client Sample ID / Description	Date/Time	Date/Time	COMP/GRAB	Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PFP								Y/N
	4 Winniatt Rd	9/29/20	1605	GRAB	DW	V			2			X				1				Glassware in freezer? Y / N
					ļ										<u> </u>					Prepackaged Cooler? Y / N
										l	1									*Contest is not responsible for
								<b>†</b>	<del></del>	-		<del>                                     </del>			+				+	missing samples from prepacked
					<del> </del>							-			+	-			-	coolers
			<b></b>	<u> </u>	<del>                                     </del>			<del> </del>		<u> </u>		-								<sup>1</sup> Matrix Codes:
							L								ĺ					GW = Ground Water WW = Waste Water
								T								1				DW = Drinking Water
								<del> </del>	<del> </del>			-		-		-				A = Air
					ļ			<u> </u>												\$ = Soil SL = Sludge
					1			1			1	li		l	ŀ	-				SOL = Solid
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Revindu/shed by: (signature)	Date/Time:	Client Com	ments:	J				<u></u>	1	L	<u> </u>	<u> </u>			l		<u> </u>	<u>L</u>		tozma
Received by: (signature)																				
Jual Ill-	Date/Time/	and the																		<sup>2</sup> <u>Preservation Codes</u> : I = Iced
Retinguished by: (signature)	Mate/Time:	Detect	ion Limit Re	quirements	1		Šr	reserve e	guiteme	N.C.			9000							H = HCL M = Methanol
TENNIULU-	— ILID TE	4 J		- 10							MA MCI	* Requir	ed							N = Nitric Acid
Received by (sign type)	Date/Time:	3	·····		- hard					MCP Certifi			۰۰		e the fo				licate he Conc	S = Sulfuric Acid
	. of Opposite Time: 2a	<b>2</b> 5			1							<sup>3</sup> Requir		ible sail		column			ne cond	B = Sodium Bisulfate X = Sodium Hydroxide
Refiríquished bý: (sighature)	// Dave/Time:	СТ								RCP Certifi				ligh; M	- Mediu				an; U -	T = Sodium
Described by (structure)																Unknov	ΥŊ			Thiosulfate O = Other (please
Received by: (signature)	Date/Time:	Medical								14.0	State DW	Requires	i							define)
Relinquished by: (signature)	Data /Ti		NHOES	Abas	# DISW9									VELAC :	and All	IA-LAP	LLE	occredi	ted	
(algiature)	Date/Time:	Project Ent	•	1. 8						-					Oth					PCB ONLY
Received by: (signature)	Date/Time:		Government		Municipa	lity			MWRA	Ĺ		WRTA					Chron	natogra	m	Soxhlet
(Signature)	Date/Time.		Federal		21 J				School	Į.,						1.)	AIHA-	LAP,LL	C	Non Soxhlet
iomments;			City		Brownfie	ia		***************************************	MBTA	L.										
Page									Discl	aimer: C	on-Test I	Labs is	not resn	onsible	e for a	ny omi	tted i	inform	ation o	on the Chain of Custody. The
ige									Chain	of Custo	dy is a le	egal doc	ument i	hat mi	ust be	compl	ete ar	nd acc	urate a	and is used to determine what
<u>"</u>						2.3			analys	es the (a)	boratory	will pe	rform.	Any mi	issing i	nforma	ation i	is not	the lab	poratory's responsibility. Con-
100			$\theta = 1 - \frac{1}{2} \left( \frac{1}{2} \right)^{-1}$	1.0	100			1	Test va	ilues you	r partnei	rship on	each p	oject	and wi	ll try t	o assi	ist witl	h missi	ng information, but will not b
<b>슼</b>	and the second second section is			1.00	11000				l					h	eld ac	counta	ble.			

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples\_\_



L	Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False
	Statement will be brought to the attention of the Client - State True or False

Client W 0	nd B							
Received By	a		Date	4/20/	20	Time	2003	2
How were the samples	In Cooler	T	No Cooler	1 /	On Ice	T	No Ice	
received?	Direct from Samp		•		Ambient		Melted Ice	
M		By Gun #	-4		Actual Tem	p- 3.9	-	
Were samples within Temperature? 2-6°C	T	By Blank #			Actual Tem			
Was Custody Se	nal Intact?	NA	\\/o		Tampered		1/1/4	
Was COC Relin		<del></del>		=	ee With Sa	•	<del></del>	
Are there broken/k	•	On any sam		Chair Agr	CE WILLI DA	inpies:		
Is COC in ink/ Legible?		On any sain		nles receiv	ed within h	olding time?	+	
Did COC include all	Client	+	Analysis	T		er Name	<del></del>	
pertinent Information?	Project		ID's	+	-	Dates/Times		
Are Sample labels filled	·	+						
Are there Lab to Filters?		F		Who was	notified?			
Are there Rushes?	-	Ľ		Who was		***************************************		
Are there Short Holds?				Who was				
ls there enough Volume	?	<u> </u>			-			
ls there Headspace whe		NA	Carte Company Company on C	MS/MSD?	Andreas Calabase Tallian	100	_	signi i S
Proper Media/Container	and the state of the second of	07 03 04 E8 200		ls splitting s	amples req	uired?	F	\$1.00 1.00
Were trip blanks receive	ed?	Facilities	understate 7-	On COC?	Name of the last o			Til Minades 1995 st. 1
Do all sam <mark>ples have th</mark> e	proper pH?	NA	Acid		The second secon	Base		. ~
Vale 1	Containes.	#						#
Unp-	1 Liter Amb.		1 Liter F	Plastic		16 oz	Amb.	
HCL-	500 mL Amb.		500 mL	Plastic		8oz Aml	b/Clear	
Meoh-	250 mL Amb.		250 mL		2	4oz Ami		
Bisulfate-	Flashpoint		Col./Ba			2oz Aml	b/Clear	
DI-	Other Glass		Other F			Enc	ore	
Thiosulfate-	SOC Kit		Plastic	<del></del>		Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock				
444.797.635600.6350			Unused N	ledia				
Vials 7 4								
Jnp-	1 Liter Amb.		1 Liter F	Plastic		16 oz <i>i</i>	Amb.	
HCL-	500 mL Amb.		500 mL	Plastic		8oz Aml	o/Clear	
Meoh-	250 mL Amb.		250 mL			4oz Aml		
Bisulfate-	Col./Bacteria		Flashp			2oz Amt		
DI-	Other Plastic		Other (			Ence	ore I	
Thiosulfate-	SOC Kit		Plastic			Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock				
Comments:								



October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 3 College Rd, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1565

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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B268145	7
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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1565

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 3 College Rd, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

3 College Rd 2011565-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 3 College Rd, Stratham, NH Sample Description: Work Order: 20I1565

Date Received: 9/29/2020 Field Sample #: 3 College Rd

Sampled: 9/29/2020 11:35

Sample ID: 20I1565-01

Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
2.5	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
5.0	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
7.1	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
10	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 1:56	JFC
	% Recovery	Recovery	Limits		Flag/Qual				
	80.4	70-1	30					10/9/20 1:56	
	75.9							10/9/20 1:56	
	2.5 2.5 5.0 ND 7.1 10 ND	Results         RL           2.5         2.0           5.0         2.0           ND         2.0           7.1         2.0           10         2.0           ND         2.0	Results         RL         MA ORSG           2.5         2.0            5.0         2.0            ND         2.0            7.1         2.0            ND         2.0	Results         RL         MA ORSG         Units           2.5         2.0         ng/L           2.5         2.0         ng/L           5.0         2.0         ng/L           ND         2.0         ng/L           10         2.0         ng/L           ND         2.	Results         RL         MA ORSG         Units         DF           2.5         2.0         ng/L         1           2.5         2.0         ng/L         1           5.0         2.0         ng/L         1           ND         2.0         ng/L         1	Results         RL         MA ORSG         Units         DF         Flag/Qual           2.5         2.0         ng/L         1           2.5         2.0         ng/L         1           5.0         2.0         ng/L         1           ND         2.0         ng/L         1           10         2.0         ng/L         1           ND         2.0         ng/L         1         U           ND         2.0	Results   RL   MA ORSG   Units   DF   Flag/Qual   Method	Results         RL         MA ORSG         Units         DF         Flag/Qual         Method         Prepared           2.5         2.0         ng/L         1         EPA 537.1         107/20           2.5         2.0         ng/L         1         EPA 537.1         107/20           5.0         2.0         ng/L         1         U         EPA 537.1         107/20           ND         2.0         ng/L         1         U         EPA 537.1         107/20           10         2.0         ng/L         1         U         EPA 537.1         107/20           ND         2.0         ng/L         1         U         EPA 537.1         107/20	Results         RL         MAORSC         Units         DF         Flag/Qual         Method         Prepared         Analyzed           2.5         2.0         ng/L         1         EPA 537.1         10/7/20         10/920         1:56           2.5         2.0         ng/L         1         EPA 537.1         10/7/20         10/920         1:56           5.0         2.0         ng/L         1         U         EPA 537.1         10/7/20         10/920         1:56           ND         2.0         ng/L         1         U         EPA 537.1         10/7/20         10/920         1:56           7.1         2.0         ng/L         1         U         EPA 537.1         10/7/20         10/920         1:56           ND         2.0         ng/L         1         U         EPA 537.1         10/7/20         10/920         1:56           ND         2.0         ng/L         1         U         EPA 537.1         10/7/20         10/920         1:56           ND         2.0         ng/L         1         U         EPA 537.1         10/7/20         10/920         1:56           ND         2.0         ng/L         1         <

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	80.4	70-130		10/9/20 1:56
M3HFPO-DA	75.9	70-130		10/9/20 1:56
13C-PFDA	80.6	70-130		10/9/20 1:56
d5-NEtFOSAA	95.3	70-130		10/9/20 1:56



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1565-01 [3 College Rd]	B268145	250	1.00	10/07/20



### QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
lexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
urrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
urrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
urrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
.CS (B268145-BS1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
I-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
lexafluoropropylene oxide dimer acid	2.15	2.0	ng/L	2.00		107	50-150			
HFPO-DA)										
1Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
,8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

20I1565

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1 \$3	, Wilege Rd	4/29/20	1135	GRAB	DW	V			2			~						$\top$		<del>                                     </del>	Glassware in freezer? Y / N
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														*	1					1	missing samples from prepacked coolers
																				<del> </del>	<sup>1</sup> Matrix Codes:
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Table of Contents

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Vere trip blanks re to all samples have tals Inp- ICL- Ieoh- isulfate- II-	Containers 1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass	MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac	Plastic Plastic Plastic Plastic cteria Plastic Bag	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc	b/Clear b/Clear b/Clear	
Vere trip blanks re to all samples have linp- ICL- leoh- isulfate- li- hiosulfate-	ceeived?  ve the proper pH?  Containers:  1 Liter Amb.  500 mL Amb.  250 mL Amb.  Flashpoint  Other Glass  SOC Kit	MA MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziploc	Plastic Plastic Plastic Plastic cteria Plastic Bag ck	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc	b/Clear b/Clear b/Clear	
Vere trip blanks re to all samples have tals lnp- ICL- leoh- isulfate- il- hiosulfate- ulfuric-	Containers:  1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate	MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic	Plastic Plastic Plastic Plastic cteria Plastic Bag ck	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc	b/Clear b/Clear b/Clear	
Vere trip blanks re to all samples have tals lnp- lCL- leoh- isulfate- ul- hiosulfate- ulfuric-	Containers:  Containers:  1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate	MA MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziploc	Plastic Plastic Plastic Cteria Plastic Bag ck	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc	ib/Clear ib/Clear ib/Clear core	
Vere trip blanks re to all samples have tals lnp- lCL- leoh- isulfate- ul- hiosulfate- ulfuric-	Containers:  1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb.	MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziploc Unused M	Plastic Plastic Plastic cteria lastic Bag ck edia	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc Frozen:	ab/Clear ab/Clear ab/Clear core	
Vere trip blanks re to all samples have tals lnp- ICL- leoh- isulfate- il- hiosulfate- ulfuric-	Containers:  Containers:  1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate	MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziploc Unused M 1 Liter P 500 mL F	Plastic Plastic Plastic cteria lastic Bag ck edia	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc Frozen:	ab/Clear ab/Clear ab/Clear core Amb. b/Clear	
Vere trip blanks re to all samples have line- line- liculate- lisulfate- li- hiosulfate- ulfuric-  lats lats lats lats lats lats lats lat	Containers  1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate    Containers	MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziploc Unused M	Plastic Plastic Plastic Cteria Clastic Bag Ck edia Plastic Plastic	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc Frozen:  16 oz 8oz Am 4oz Am	Amb. b/Clear	
Vere trip blanks re to all samples have tals Imp- ICL- Ieoh- isulfate- II- hiosulfate- ulfuric-  ials Imp- ICL- Ieoh- Ieoh- II- III- III- IIII- IIIIIIIIIIIIIIII	Containers:  1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb.	NA NA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziploc Jnused M 1 Liter P 500 mL F 250 mL F Flashp	Plastic Plastic Plastic Cteria Plastic Bag ck edia Plastic Plastic Plastic Plastic Plastic Plastic Plastic	<b>a</b> 2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc Frozen:  16 oz 8oz Am 4oz Am 2oz Am	Amb. b/Clear b/Clear core	
Vere trip blanks re to all samples have  ints  linp- ICL- leoh- isulfate- ulfuric-  ials  np- CL- leoh- isulfate- ulfuric-	Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. Col./Bacteria	MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziploc Unused M  1 Liter P 500 mL F 250 mL F	Plastic Plastic Plastic Cteria Plastic Bag ck Clastic Plastic Clastic	2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc Frozen:  16 oz 8oz Am 4oz Am	Amb. b/Clear b/Clear core	
Vere trip blanks re to all samples have  ints  linp- ICL- leoh- isulfate- ulfuric-  inp- CL- leoh- isulfate- ulfuric-  leoh- isulfate- leoh- isulfate- leoh- isulfate-	Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. Col./Bacteria Other Plastic	MA	Acid  1 Liter P 500 mL F 250 mL F Col./Bac Other Pl Plastic Ziplod Jnused M  1 Liter P 500 mL F 250 mL F Flashp Other G	Plastic Plastic Plastic Cteria Plastic Bag Ck  Plastic Plastic Clastic Plastic	2	Base  16 oz 8oz Am 4oz Am 2oz Am Enc Frozen:  16 oz 8oz Am 4oz Am 2oz Am Enc	Amb. b/Clear b/Clear core	



October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 2 College Rd Stratham NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1569

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1569

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 2 College Rd Stratham NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

2 College Rd 2011569-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 2 College Rd Stratham NH Sample Description: Work Order: 2011569

Date Received: 9/29/2020

Field Sample #: 2 College Rd

Sampled: 9/29/2020 11:55

81.2

Sample ID: 20I1569-01
Sample Matrix: Drinking Water

d5-NEtFOSAA

Sample Matrix: Drinking Water										
		Semivo	latile Organi	c Compoun	ds by - LC/	MS-MS				
		I	MCL/SMCL					Date	Date/Time	
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	6.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorohexanoic acid (PFHxA)	8.7	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorohexanesulfonic acid (PFHxS)	34	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluoroheptanoic acid (PFHpA)	2.3	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorooctanoic acid (PFOA)	19	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorooctanesulfonic acid (PFOS)	30	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 2:18	JFC
Surrogates		% Recovery	Recovery	Limits	•	Flag/Qual		•	•	
13C-PFHxA		77.0	70-1						10/9/20 2:18	
M3HFPO-DA		72.7	70-1						10/9/20 2:18	
13C-PFDA		72.5	70-1	30					10/9/20 2:18	

70-130

10/9/20 2:18



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1569-01 [2 College Rd]	B268145	250	1.00	10/07/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid IFPO-DA)	ND	2.0	ng/L							U
Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
urrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
urrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
urrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
CS (B268145-BS1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
exafluoropropylene oxide dimer acid HFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
ICI-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



#### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

# Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in	Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9CI-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

All cookers				http://www.	contestia	os.com						Doc # 38	81 Rev 2_06	5262019					
CON-test	Phone: 413-525-2332				CHAI	N OF CUSTO	DDY RECO	ORD		uce Street Ongmeado		17.R							Page of
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Project Manager: R. BANTON			Other:			PDF				EXCEL	X	34			l				PLASTIC
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Sampled By: M. Brovssund	& C-Hensley		Fax To #:	· ····································	1 ~ V	nwag	VELOR	261	OTI.	win		\$							
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	百							Glassware in the fridge?
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	someye ra	non a	1177	GRAB	NA4	V	<del> </del>		2	ļ	ļ	X			$\dashv$				Glassware in freezer? Y / N
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																	1		missing samples from prepacked coolers
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																			DW = Drinking Water
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3.9 9	129 2005								,	ACP Cortifu	cation For	т Кециие	possible	sample c	oncer	ntration	ı within	the Con	S = Sulfuric Acid B = Sodium Bisulfate
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Page 10									analyse	of Custoc es the lab	dy is a te poratory	gal docu will perf	ment that orm. Any	t must be / missing ect and w	e con infol vill tr	nplete rmation y to as	and ac n is not ssist wi	curate	on the Chain of Custody. The and is used to determine wha boratory's responsibility. Coring information, but will not I
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Table of Contents

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False	)
Statement will be brought to the attention of the Client - State True or False	

**************************************	nd B			7177.6	<del>/</del> /			
Received By	<u> </u>		Date	4/89	<u> </u>	Time	<i>200</i> 5	2
How were the samples	In Cooler	T	No Cooler	1 ,	On Ice	T	No Ice	
received?	Direct from Samp	ling			Ambient		Melted Ice	
Were samples within		By Gun#	9		Actual Tem	p- 3.9	•	
Temperature? 2-6°C	Ī	By Blank #			Actual Tem			
Was Custody So	eal Intact?	NA	We	re Sample	s Tampered		NA	
Was COC Relin		+	•	-	ree With Sar	-	+	
Are there broken/le	eaking/loose caps	on any sam	ples?	F	_	-		
Is COC in ink/ Legible?	T		Were sar	nples recei	ived within ho	olding time?	<u> </u>	
Did COC include all	Client	T	Analysis	T	•	er Name	<u></u>	
pertinent Information?	Project	<u> </u>	ID's	+-	Collection	Dates/Times_		
Are Sample labels filled								
Are there Lab to Filters?	' -	<u>+</u>			s notified?			
Are there Rushes?	•	<u> </u>		·	s notified?			
Are there Short Holds?	_	<u>_</u>		wno wa	s notified?			
Is there enough Volume Is there Headspace whe	-	AZN	997688. N. W. W. P.	MS/MSD?	<i>J</i>			
Proper <b>Media/Cont</b> ainer		NA	and antiquipment of the second		samples req	uirod?	F	
Were trip blanks receive		<u> </u>	er op op 1 September – Hernes	On COC?	-	uneu:		
Do all samples have the	-	NA	Acid		<u></u>	Base		
Vials #	Containers:	# 1	•					#
Unp-	1 Liter Amb.		1 Liter	Plastic		16 oz .	Amb.	
HCL-	500 mL Amb.		500 mL	Plastic		8oz Aml	o/Clear	
Meoh-	250 mL Amb.		250 mL		2	4oz Ami		
Bisulfate-	Flashpoint		Col./Ba			2oz Ami		
DI- Thiosulfate-	Other Glass		Other I			Enco	ore	
Sulfuric-	SOC Kit Perchlorate		Plastic			Frozen:		
Saliano-	reicinorate		Ziple					
			-Unused I	hedia				
<b>Vials</b> 7 Jnp-	Containers: 1 Liter Amb.	W	1 Liter	Diactic		16 oz <i>i</i>	Amb	
HCL-	500 mL Amb.		500 mL			80z Amt		
Vieoh-	250 mL Amb.		250 mL			4oz Amt	<del></del>	
Bisulfate-	Col./Bacteria		Flash			2oz Amb		
DI-	Other Plastic		Other			Enco	оге	
Thiosulfate-	SOC Kit		Plastic	Bag		Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock				
Comments:								



October 19, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 1 College Rd, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1570

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

1 College Rd

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1570

EPA 537.1

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

Drinking Water

PROJECT LOCATION: 1 College Rd, Stratham, NH

20I1570-01

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the

best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 1 College Rd, Stratham, NH Sample Description: Work Order: 2011570

Date Received: 9/29/2020

Field Sample #: 1 College Rd

Sampled: 9/29/2020 11:40

Sample ID: 20I1570-01
Sample Matrix: Drinking Water

			Semivolatile Organ	ic Compoun	ds by - LC/	MS-MS				
Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	2.3	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorohexanoic acid (PFHxA)	3.1	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorohexanesulfonic acid (PFHxS)	5.9	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorooctanoic acid (PFOA)	6.8	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorooctanesulfonic acid (PFOS)	5.7	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:37	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	82.9	70-130		10/16/20 18:37
M3HFPO-DA	83.2	70-130		10/16/20 18:37
13C-PFDA	77.5	70-130		10/16/20 18:37
d5-NEtFOSAA	72.7	70-130		10/16/20 18:37



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1570-01RE1 [1 College Rd]	B268466	250	1.00	10/12/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid IFPO-DA)	ND	2.0	ng/L							U
Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid DONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
nrrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
nrrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
nrrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
CS (B268145-BS1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
exafluoropropylene oxide dimer acid IFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268466 - EPA 537.1										
Blank (B268466-BLK1)				Prepared: 10	)/12/20 Anal	yzed: 10/16/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
I-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Iexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
,8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
urrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
urrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
LCS (B268466-BS1)				Prepared: 10	0/12/20 Anal	yzed: 10/16/2	20			
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid	7.23	2.0	ng/L	10.0		72.3	70-130			
HFPO-DA)										
1Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			



#### FLAG/QUALIFIER SUMMARY

<ul> <li>OC result is outside of establish</li> </ul>	hed limits.
---	-------------

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

#### Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

20II570

http://www.contestlabs.com

Doc # 381 Rev 2\_06262019

CON-LEST.	Phone: 413-525-2332 Fax: 413-525-6405		Western Constitution Constitution			OF CUSTO	OY RECO		East Lo	ce Street ngmeadow			7 KeV 2_00							Pageof
	Email: info@contestlabs.co	_		quested Turnal		ie		MANAGEMENT STREET	12000110112421128221/12475/555	s Samples			AN.	IALYSI	S REC	QUESTE	D			
ompany Name:	Nillox & Bayton. In		7-Day PFAS 10-Day	(110)	10-Day		0 0		ield Filte			0			<b> </b>					<sup>2</sup> Preservation Code
The state of the s	Dr. Unit 128, Londo	<u> </u>	-	Rush Approval	Due Date	:	)		Lab to Fil		501231134355510345									Statistical States
thone: (003-369-41	an val 100, Lonau	meny	1-Day		004100000000000000000000000000000000000			AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	NONESPARACIPO ANGLESIA	Samples										Total Number Of:
Toject Name	STRITOGOI		2-Day	H	3-Day 4-Day		0 0		ield Filte Lab to Fil										İ	
	Rd, Stratham,	<b>. 14</b>	z day		4-0ay	Dar a Defi			Lab to Fit	ter		M								VIALS
roject Number: STRT 00 (	S POT DIEVENIMONT	NII	Format:	1		PDF	X			FVCFI	×	` ."								GLASS
roject Manager: R. BAYTO	)n		Other:			r O;	1.3			EXCEL	$\Delta$	1							İ	PLASTIC
on-Test Quote Name/Number:	<u> </u>	<del></del>	4	a Pkg Required:								33								BACTERIA
rvoice Recipient:						CENTAL.	لسا مالمم	ما الانا	1.404	_		"								ENCORE
ampled By: M. GYOVSS	and & c. Hunsle	7.4	Fax To #:	<u>rbalton</u>		COXOW	Wee	II tial	. Wary	1		$\langle o \rangle$								:
Con-Test .	Client Sample ID / Description	Beginning	Ending		Matrix				<u> </u>	r ·	T	7								Glassware in the fridge?
Work Order#		Date/Time	Date/Time	COMP/GRAB	Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	PF								Y/N ;
	1 College Rd	9/29/20	1140	GRAB	DM	V			2			X								Glassware in freezer? Y / N
																				Prepackaged Cooler? Y / N
				[																*Contest is not responsible for
								<del>                                     </del>		l		-	1			_		_	-	missing samples from prepacker
			<b> </b>										++				+	+		coolers
		_	<del> </del>		<del>                                     </del>			ļ	ļ											<sup>1</sup> Matrix Codes:
									İ				] [	-			-			GW = Ground Water WW = Waste Water
				4																DW = Drinking Water
			<b></b>		<u> </u>				····		<del> </del>		╂┼	+-					-	A = Air
			<u> </u>		ļ			<u> </u>					$\bot \bot$							S = Soil SL = Sludge
																				SOL = Solid
														1				1		O = Other (please define)
elinguished by: (signature)  All Man All  eeried by: (signature)	Date/Time: 92970  Dete/Time: 92970  Dete/Time:	Client Com	ments:		1			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>			<u>l</u> i	<u>1</u>			1	Preservation Codes:
elinquished by: (signature)	Glate Time: 100		on Limit Re	parements			Sp	ecial Re	quiremei							•••••				H = HCL M = Methanol
actived by: (ligheture)	1/24/0 100	MA				• •••						Require		e use ti	he foll	owing co	odes to	o indica	te	N = Nitric Acid S = Sulfuric Acid
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	79 91975 20	/ <del> C=</del>								ACP Certific			d possible			entratio				B = Sodium Bisulfate
ethquished by (signature)	Date Time:	Ψ	1									Require				lumn ab		<b>-</b> .		X = Sodium Hydroxide
			<u> </u>				~~~~			RCP Certific	cation for	т Вецепе	i n - mgi	1; M - W		i; L - Lov iknown	w; C -	Clean;	U	T = Sodium Thiosulfate
eceived by: (signature)	Date/Time:				<del> </del>	····		·····		31.5	State DW		-{		- Ci	11(11044)				O = Other (please
	ļ	Other:	NHDES	AGUS	PWSID #					7554	2000 D.M.	vedauen	ME	AF		-Lap, Li			alian mak	define)
elinquished by: (signature)	Date/Time:	Project Ent			1			<del></del>							Other	THE REAL PROPERTY.	L ALL	eune:	•	PCB ONLY
			Government		Municipal	iity	M		MWRA	[	)	WRTA	[ ]		00	Ch	romat	noram		Soxhlet
eceived by: (signature)	Date/Time:		Federal		21 J				School		}				ĺ	All		_		Non Soxhlet
			City		Brownfiel	d			MBTA		]							,		ii
omments: Page									Chain analyse	of Custoc es the (at	dy is a le boratory	gal docu wili per ship on (	ment tha form. An	t must y missi ect an	be co ng inf d will	omplete formation try to a	e and on is i	accura not the	ite an e labo	the Chain of Custody. The d is used to determine what ratory's responsibility. Con g information, but will not b

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False	9
Statement will be brought to the attention of the Client - State True or False	

Client		nd B			71170	ν <sub>α</sub>	<b></b>	2/5 6	
Receiv	ed By			Date	4/201	<u> </u>	_ Time	200	2
How were th		In Cooler	<u>T</u>	No Cooler	, ,	On Ice		No Ice	
recei	/ed?	Direct from Sam	pling			Ambient		Melted Ice	
14/	منطقل بالما	_	By Gun#	7		Actual Tem	ip- 3.9	•	
Were samp Temperatu		T	By Blank #	<del></del>		Actual Tem			
-	Custody Se		- A/A	We	ra Samnla	s Tampered	<del></del>	NA	•
	COC Relin		<del></del>		·-	ree With Sa		<del>-/-/</del>	•
		eaking/loose caps	on any sam			ice mili oa	inpies:		
Is COC in in		·	on any sam		nles recei	ved within h	olding time?	+	
Did COC ii	-	Client	- <i>†</i>	Analysis	T		er Name	+	
pertinent Inf		Project		ID's	+	•	Dates/Times	Ť	•
•		dout and legible?	+	•	·· <del>········</del>	•		· · · · · · · · · · · · · · · · · · ·	
Are there La		•	F		Who wa	s notified?			
Are there Ru	shes?		F		Who wa	s notified?			
Are there Sh	ort Holds?		T		Who wa	s notified?			
Is there enou	igh Volume	?	<b>—</b>						
	-	ere applicable?	NA	- * * * *	MS/MSD?			_	A TOTAL CONTROL OF THE CONTROL OF TH
Proper Media	a/Container	s Used?			s splitting	samples rec	uired?	<i>F</i>	CATAL
Were trip bla	nks receive	ed?	F	· Series	On COC?	F			- Malker III. Tropografia
Do all sample	es have the	proper pH?	NA	Acid-	4	Control Contro	Base		**************************************
Vials 1	4	Containers:	4			4	a company and a company		
Unp-		1 Liter Amb.		1 Liter F	Plastic		16 oz	Amb.	
HCL-		500 mL Amb.		500 mL	Plastic		8oz Am	b/Clear	
Meoh-		250 mL Amb.		250 mL		7	4oz Am		
Bisulfate-		Flashpoint		Col./Ba			2oz Am		
DI-		Other Glass		Other F	Plastic		Enc	ore !	
Thiosulfate-								010	
A 16 1		SOC Kit	<u> </u>	Plastic			Frozen:	010 1	
Sulfuric-		SOC Kit Perchlorate		Plastic Ziplo			Frozen:	<u>ore</u>	
		Perchlorate		<del></del>	ock		Frozen:	Old	
Vials		Perchlorate  Gondainers:		Ziplo Unused N	iedia	4			
Sulfuric- Vials Unp-		Perchlorate  Containers: 1 Liter Amb.		Ziplo Unused N 1 Liter F	edia Pastic	#	16 oz	Amb.	#
Vials Unp- HCL-	<b>B</b> 3	Perchlorate  Centainers: 1 Liter Amb. 500 mL Amb.	# 4	Ziplo Unused N 1 Liter F 500 mL	ledia Plastic Plastic		16 oz 8oz Am	Amb. b/Clear	
Vials Unp- HCL- Meoh-		Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb.		Ziplo Unused N  1 Liter F 500 mL 250 mL	iedia Plastic Plastic Plastic	4	16 oz 8oz Am 4oz Am	Amb. b/Clear b/Clear	
Vials Unp- HCL- Meoh- Bisulfate-		Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria		Ziplo Unused N  1 Liter F 500 mL 250 mL Flash	Plastic Plastic Plastic Point		16 oz 8oz Am 4oz Am 2oz Am	Amb. b/Clear b/Clear b/Clear	
Vials Unp- HCL- Meoh- Bisulfate- DI-		Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic		Ziplo Unused N  1 Liter F 500 mL 250 mL Flashp Other (	Plastic Plastic Plastic Plastic Plastic Plastic Slass		16 oz 8oz Am 4oz Am 2oz Am Enc	Amb. b/Clear b/Clear b/Clear	
Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate-		Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		Ziplo Unused N  1 Liter F 500 mL 250 mL Flashp Other O	Plastic Plastic Plastic Plastic Plastic Slass Bag		16 oz 8oz Am 4oz Am 2oz Am	Amb. b/Clear b/Clear b/Clear	
Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic		Ziplo Unused N  1 Liter F 500 mL 250 mL Flashp Other (	Plastic Plastic Plastic Plastic Plastic Slass Bag		16 oz 8oz Am 4oz Am 2oz Am Enc	Amb. b/Clear b/Clear b/Clear	
<b>Vials</b> Unp-		Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		Ziplo Unused N  1 Liter F 500 mL 250 mL Flashp Other O	Plastic Plastic Plastic Plastic Plastic Slass Bag		16 oz 8oz Am 4oz Am 2oz Am Enc	Amb. b/Clear b/Clear b/Clear	
Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		Ziplo Unused N  1 Liter F 500 mL 250 mL Flashp Other O	Plastic Plastic Plastic Plastic Plastic Slass Bag		16 oz 8oz Am 4oz Am 2oz Am Enc	Amb. b/Clear b/Clear b/Clear	
Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		Ziplo Unused N  1 Liter F 500 mL 250 mL Flashp Other O	Plastic Plastic Plastic Plastic Plastic Slass Bag		16 oz 8oz Am 4oz Am 2oz Am Enc	Amb. b/Clear b/Clear b/Clear	



October 19, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 145 Portsmouth Ave, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1572

My M'Couthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1572

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 145 Portsmouth Ave, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

145 Portsmouth Ave 2011572-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the

best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 145 Portsmouth Ave, Stratham, N Sample Description: Work Order: 2011572

Date Received: 9/29/2020

d5-NEtFOSAA

Field Sample #: 145 Portsmouth Ave Sampled: 9/29/2020 14:20

Sample ID: 20I1572-01
Sample Matrix: Drinking Wate

Sample Matrix: Drinking Water										
		Semivo	latile Organi	c Compoun	ds by - LC/	MS-MS				
		I	MCL/SMCL					Date	Date/Time	
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	11	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorohexanoic acid (PFHxA)	23	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorohexanesulfonic acid (PFHxS)	140	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluoroheptanoic acid (PFHpA)	6.5	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorooctanoic acid (PFOA)	70	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorooctanesulfonic acid (PFOS)	140	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 18:59	JFC
Surrogates		% Recovery	Recovery	Limits		Flag/Qual				
13C-PFHxA		82.3	70-1	30					10/16/20 18:59	
M3HFPO-DA		83.6	70-1						10/16/20 18:59	
13C-PFDA		79.8	70-1	30					10/16/20 18:59	

70-130

81.0

10/16/20 18:59



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1572-01RE1 [145 Portsmouth Ave]	B268466	250	1.00	10/12/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid IFPO-DA)	ND	2.0	ng/L							U
Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid DONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
nrrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
nrrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
nrrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
CS (B268145-BS1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
exafluoropropylene oxide dimer acid IFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes			
Batch B268466 - EPA 537.1													
Blank (B268466-BLK1)		Prepared: 10/12/20 Analyzed: 10/16/20											
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U			
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U			
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U			
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U			
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U			
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U			
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U			
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U			
N-EtFOSAA	ND	2.0	ng/L							U			
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U			
I-MeFOSAA	ND	2.0	ng/L							U			
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U			
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U			
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U			
Iexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U			
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U			
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U			
,8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U			
urrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130						
urrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130						
urrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130						
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130						
LCS (B268466-BS1)				Prepared: 10	0/12/20 Anal	yzed: 10/16/2	20						
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130						
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130						
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130						
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130						
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130						
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130						
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130						
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130						
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130						
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130						
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130						
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130						
Perfluorotridecanoic acid (PFTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130						
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130						
Hexafluoropropylene oxide dimer acid	7.23	2.0	ng/L	10.0		72.3	70-130						
HFPO-DA)													
1Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130						
Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130						
,8-dioxa-3H-perfluorononanoic acid ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130						
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130						
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130						
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130						
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130						



#### FLAG/QUALIFIER SUMMARY

<ul> <li>OC result is outside of establish</li> </ul>	hed limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

#### Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

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( con-test*	Phone	e: 413-525-2332				CHAIN	OF CUSTO	DY RECO	ORD		uce Street										. \
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	Email	: info@contestiabs.com		7-Day		10-Day		0	MAN AND AND AND AND AND AND AND AND AND A	Field Filt	recoverations billions with all		ार्			. 13,3 1	LQUL	-3160	, 		2 8
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Phone: 603 - 369-41		/	<i></i>	1-Day		3-Day		0		Field Filt	ered	ACCESSES ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED ASSESSED AS	1					l			Total Number Of.
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Project Location: 145 Por	3moun	Ave, Strathan	M, NH				Data Del	lvery					N								GLASS
Project Number: STRTOO				Format:			PDF	X			EXCEL	Х	4		1			}			PLASTIC
Project Manager: 12 . Gal	(hon			Other:									3								BACTERIA
Con-Test Quote Name/Number:					a Pkg Required:		*,						10,						1 [		ENCORE
Invoice Recipient:	9			Email To:	rbarror	700 M	silvo Xo	andt	20V77	277.6	N/M		١٨١								
Sampled By: M. BOWS	zana X	C. Hensley		Fax To #:	Lades Attended	4	,	·					4							Ì	
Con-Test Work Order#		mple ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Conc Code	VIAL5	GLASS	PLASTIC	BACTERIA	ENCORE	r F								Glassware in the fridge? Y / N
	145 POV	tomouth Ave	9/29/20	1420	GRAB	DW	U			2			X							十	Glassware in freezer? Y / N
									<u> </u>			1					<del> </del>	-	$\mathbf{H}$	<del>-</del>	Prepackaged Cooler? Y / N
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and the second of the second o							ļ		<del>                                     </del>	ļ											coolers
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Esterne State remarkance								ļ	<u> </u>	<b> </b>	<u> </u>	<b>_</b>			_						A = Air
																	Ì				S = Soil SL = Sludge
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	3.9 9/	affau au	)										Require		ומנכ אמו	mple co Cade	colum			ne Con	B = Sodium Bisulfate X = Sodium Hydroxide
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Table of Contents

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

_ogin Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False
Statement will be brought to the attention of the Client - State True or False

Client <u>V</u> Received I		a s		Date	41201	20	Time	2005	
How were the sa	amples	In Cooler	T	No Cooler	1 7	On Ice	T	No Ice	
received?	?	Direct from Sam	nlina	•		Ambient		Melted Ice	
		Direct from Odm		4	,	•••	- 3.9		
Were samples		T	By Gun #			Actual Temp			
Temperature?	2-6°C	<u> </u>	By Blank #			Actual Temp	······		
	-	al Intact?	NA	We	re Samples	Tampered v	with?	NH	
Was CC	C Relind	quished?		Does	Chain Agre	ee With Sam	ples?	<u></u>	
Are there b	oroken/le	aking/loose caps	s on any sam	-	<u> </u>				
Is COC in ink/ L	egible?_	T	···	Were sam	nples receive	ed within ho	lding time?		
Did COC inclu	ide all	Client		Analysis _	_T	Sample		<u></u>	
pertinent Inform	nation?	Project	<u>t_</u>	iD's _		Collection [	Dates/Times <sub>.</sub>		
Are Sample lab	els filled	out and legible?	<u></u>						
Are there Lab to	Filters?		_ F		Who was	notified? _			
Are there Rushe	es?		F		Who was	notified?			
Are there Short I	Holds?		F		Who was	notified?			
s there enough	Volume?	?	1						
s there Headspa	ace wher	re applicable?	NA	Armore constitution	MS/MSD?	/ <u>-</u>	O Commence of the Commence of		. 1.2
Proper <b>Media/C</b> o	ontainers	Used?			ls splitting s	amples requ	ired?	F	:
Were trip blanks	receive	d?		- Lindbaken	On COC?	F	74376		4
Do all samples h	- Contraction	ne Sissesiaes	NA	Acid			Base		
		Gentainere:				1	1,47,400		<b>i</b>
Jnp-		1 Liter Amb.		1 Liter F			16 oz	<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	
HCL-		500 mL Amb.		500 mL			8oz Am		
Meoh-		250 mL Amb.		250 mL		2	4oz Am		
Bisulfate-		Flashpoint		Col./Ba	<del></del>		2oz Am		
DI-		Other Glass		Other F			Enc	ore	
Thiosulfate-		SOC Kit		Plastic		F	rozen:		
Sulfuric-		Perchlorate		Ziplo	ock				
7.7				Unused N	ledia				
Viale 1	8 1	Containers:	# 1			4 4			- 8
Jnp-		1 Liter Amb.	-	1 Liter F	Plastic		16 oz	Amb.	
HCL-		500 mL Amb.		500 mL	Plastic		8oz Am	b/Clear	
Meoh-		250 mL Amb.		250 mL	Plastic		4oz Am	b/Clear	
Bisulfate-		Col./Bacteria		Flashp			2oz Am		
DI-		Other Plastic		Other (	Glass		Enc	ore	
Thiosulfate-		SOC Kit		Plastic	Bag	F	rozen:		
Sulfuric-		Perchlorate		Ziplo	ck			. <u>.</u>	
Comments:									



October 19, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 152 Portsmouth ave Stratham NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1574

My McCorthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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B268466	8
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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

PURCHASE ORDER NUMBER:

REPORT DATE: 10/19/2020

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1574

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 152 Portsmouth ave Stratham NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

152 Portsmouth Ave 2011574-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the

best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 152 Portsmouth ave Stratham NH Sample Description: Work Order: 2011574

Date Received: 9/29/2020

d5-NEtFOSAA

Field Sample #: 152 Portsmouth Ave Sampled: 9/29/2020 14:50

Sample ID: 20I1574-01
Sample Matrix: Drinking Wate

Sample Matrix: Drinking Water										
		Semivo	latile Organic	Compoun	ds by - LC/	MS-MS				
		I	MCL/SMCL			Date	Date/Time			
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	6.2	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorohexanoic acid (PFHxA)	16	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorohexanesulfonic acid (PFHxS)	150	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluoroheptanoic acid (PFHpA)	7.5	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorooctanoic acid (PFOA)	46	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorooctanesulfonic acid (PFOS)	110	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:20	JFC
Surrogates		% Recovery	Recovery	Limits		Flag/Qual				
13C-PFHxA		79.2	70-13	0					10/16/20 19:20	
M3HFPO-DA		81.8	70-13						10/16/20 19:20	
13C-PFDA		79.5	70-13	0					10/16/20 19:20	

70-130

75.8

10/16/20 19:20



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1574-01RE1 [152 Portsmouth Ave]	B268466	250	1.00	10/12/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid IFPO-DA)	ND	2.0	ng/L							U
Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid DONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
nrrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
nrrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
nrrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
CS (B268145-BS1)				Prepared: 10	0/07/20 Analy	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
erfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
exafluoropropylene oxide dimer acid IFPO-DA)	2.15	2.0	ng/L	2.00		107	50-150			
Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268466 - EPA 537.1										
Blank (B268466-BLK1)				Prepared: 10	)/12/20 Anal	yzed: 10/16/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
I-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Iexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
,8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
urrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
urrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
LCS (B268466-BS1)				Prepared: 10	0/12/20 Anal	yzed: 10/16/2	20			
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid	7.23	2.0	ng/L	10.0		72.3	70-130			
HFPO-DA)										
1Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			



#### FLAG/QUALIFIER SUMMARY

<ul> <li>OC result is outside of establish</li> </ul>	hed limits.
---	-------------

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

#### Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

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( con-test	n.	443 535 3333				CHAIN	OF CUSTO	DY RECO	RD:		ce Street										S \(
ANALYTICAL LABORATORY		413-525-2332  3-525-6405			quested Turna			1			ngmeadow		28 1		ΔΝΔΙ	YSIS R	FOLIF	STED			Page or
		info@contestlabs.com		7-Day		10-Day	···	0	######################################	ield Filte	077344238877394032766536	A STATE OF	0			1 2,2 1.	1	7,20	1	$\neg$	<sup>2</sup> Preservation Code
Company Name:		(BAYON, In		PFAS 10-Day	(std) X	Due Date	Facual 1	0		ab to Fil			~	+	$\vdash$		+	1			Preservation Code
Address: 18 Commons	DV Noi	+176 1 406	vad forad	CONSTRUCTION CONTRACTOR	Rush Appraval	eronarkovalismia er Kramunaansen				FOREST AND HOUSENESS VANDOUS	Sample			1							Total Number Of:
Phone: 603-369-41	90	The Thomas	Current	1-Day	П	3-Day		0		ield Filte	hashinaliyaaliseki:			1							Total Number Of.
Project Name:	STRTOOD	: t	<del></del>	2-Day	Ħ	4-Day	ñ	0		ab to Fil											VIALS
Project Location: 152 Po			HA DAD				Data Dei	iverv													GLASS
Project Number: STRTOC		THE CITY TO PARTY	BALLA TALLA	Format:			PDF	X			EXCEL	X	4								PLASTIC
Project Manager: R. BAN				Other:				(				ţ <b>-</b>	7.				-				BACTERIA
Con-Test Quote Name/Number:		•		CLP Like Dat	a Pkg Required:	·	····						16								ENCORE
Invoice Recipient:		······································		Email To:	chartor	Owi	Noxa.	ndbe	Wor	1. Lin			a								
Sampled By: M. BYDVS	and a c	. Hensley		Fax To #:	- C-223 - 1-12-3		I V V I V V			<u> </u>	<u></u>		<u> </u>			- 1					
Con-Test Work Order#		ple ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	E								Glassware in the fridge? Y / N
	152 POP	smouth Ave	9/29/20	1450	GRAB	DW	U			2			メ				-	<b>†</b>			Glassware in freezer? Y / N
																					Prepackaged Cooler? Y / N
																					*Contest is not responsible for
						<u> </u>	<del>                                     </del>	<u> </u>		<del> </del>	<b> </b>	<del>                                     </del>		+	1			_	$\vdash$	-	missing samples from prepacked
						1			<b> </b>	<del> </del>		-	<del>                                     </del>		┼┼		+	+-	-		coolers
			ļ		<u> </u>				ļ	ļ			1		$\sqcup$		<u> </u>				<sup>1</sup> Matrix Codes:
											Ì						-			- 1	GW = Ground Water WW = Waste Water
							l'				J										DW = Drinking Water
			-	-			<del> </del>	-	<del> </del>				┼──┼─				-		+	$\dashv$	A = Air S = Soil
			ļ			-	<u> </u>		<u> </u>												SL = Sludge
																					SOL = Solid O = Other (please
						1	1											***************************************	1	$\neg$	define)
Relinquished by: (signerure)	heellee	Date/Time: 9, 29, 20	Client Com	ments:	<u> </u>	<u> </u>	1	1	1	1	<u> </u>	<b></b>			1				1		trizma.
MANUA HU. K	WWW4	<del></del>																			
Received by: (figlature)	- U e	Date/Tinde:	M)																		<sup>2</sup> <u>Preservation Codes:</u> I = Iced H = HCL
reinquished by (rignature)		Vate/Time:	Detec	tion Limit Re	quirements			\$	nana R	apirente	nts				*						M = Methanol
SKING (UC	4	AMD MU	MA									MA MC	e Redan	ස්ජ්	lease u	use the t	followi	ng code	es to in	dicate	N ≈ Nitric Acid S = Sulfuric Acid
Received by (signature)	16	Vate/Time:									MCP Certifi	kation Fo	ını Regult			ample c					B = Sodium Bisulfate
7/1-34	9/29	700s	SANDARAN AND AND AND AND AND AND AND AND AND A										P Requir		11/-6			nn abov			X = Sodium Hydroxide - T = Sodium
Relinguished by: (signature)	1	Date/Time:	CT	<u> </u>		1					RCP Certifi	cation Fo	rm Requir	ed ⊓ -	High;	M - Med	um; L Unkn		C - C	ean; U	Thiosulfate
Received by: (signature)		Date/Time:				+						Caute PO	et Tournation	_			D				O = Other (please
(digitality)		outer time.	Other	NHIDES	an 6 6	PWSID #					89.6	r 28905 tha	f Requires	2000	MEI A	C and A	nda i a			lie a ai	define)
Relinquished by: (signature)		Date/Time:	Project En		11643	1									(Salaria Ca	2007/10/2007	her				PCB ONLY
				Government		Municipa	slity			MWRA	[		WRTA					Chro	matogr	am	Soxhlet
Received by: (signature)		Date/Time:		Federal		21 J	-			School	ĺ								4-LAP,L		Non Soxhlet
				City		Brownfie	eld			мвта	(manual distribution)	]					*****		/-		E/
Omments:											-i	an T	Lab- 2-			-l- 6			12-5		
Page		2			,÷*					ž.					•						on the Chain of Custody. The and is used to determine wha
	÷				44,44					I .								•			aboratory's responsibility. Cor
	A CONTRACTOR OF THE SECOND SEC																				sing information, but will not I
Q	and the second		100		4,55	100				1						heid a	ccoun	itable.			

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples\_\_\_\_\_



Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy)	Any Faise
Statement will be brought to the attention of the Client - State True or False	
e de la conditación de la cond	

Client W A	nd B			71172	<b>V</b> -		3/\@	
Received By	a	w	Date	4/20	<i>[dO</i>	Time		<u> </u>
How were the samples	In Cooler	T	No Cooler		On Ice	<u> </u>	No Ice	
	Direct from Samp	lina	_		- Ambient		Melted Ice	
	Direct nom camp		4		Actual Tem	p- 3.9	-	
Were samples within	T	By Gun#						-
Temperature? 2-6°C	<u> </u>	By Blank #			Actual Tem		4711	-
Was Custody Se	eal Intact?	NH		•	es Tampered			-
Was COC Relin	quished ?	<u>t_</u>	Does	s Cha <u>in A</u> (	gree With Sa	mples?		-
Are there broken/le	eaking/loose caps	on any sam	ples?	<u> </u>	_			
Is COC in ink/ Legible?	T			nples rece	eived within h			-
Did COC include all	Client	T	Analysis	<u> </u>		er Name	<u>T</u>	-
pertinent Information?	Project		. ID's	<u> </u>	_ Collection	Dates/Times		-
Are Sample labels filled	out and legible?	+	_			•		
Are there Lab to Filters?		F	_	Who wa	as notified?			-
Are there Rushes?		F	_		as notified?			_
Are there Short Holds?		E	<del>,</del>	Who wa	as notified?			•
Is there enough Volume	?	<del></del>	-		<b>T</b>			
is there Headspace whe		NA		MS/MSD	? —			A CONTRACTOR OF THE CONTRACTOR
Proper Media/Container		+	•	Is splitting	samp <u>les</u> red	quired?		
Were trip blanks receive		F		On COC	? <u> </u>			incasa. Markota Markota
Do all samples have the		NA	Acid	Take Take Take Take	Andrews	Base		de trans
		7 (1)						
Vials #	Containers: 1 Liter Amb.		1 Liter	Plastic		16 oz	Amb.	
Unp-	500 mL Amb.	<u> </u>		Plastic			nb/Clear	
HCL-	250 mL Amb.			Plastic	12		nb/Clear	
Meoh-	Flashpoint	<del> </del>		acteria		2oz An	nb/Clear	
Bisulfate- DI-	Other Glass			Plastic			core	
Thiosulfate-	SOC Kit			c Bag		Frozen:		
Sulfuric-	Perchlorate		<del> </del>	ock		1		
Odifuno			2					
			Unused (	ili Stiller				1 8
Vials #	Containers:	#	4 Lites	Plastic		16 0	z Amb.	
Unp-	1 Liter Amb.	ļ <u>-</u>		. Plastic			nb/Clear	
HCL-	500 mL Amb.	<u> </u>		. Plastic			nb/Clear	
Meoh-	250 mL Amb.			point	<del>                                     </del>		nb/Clear	
Bisulfate-	Col./Bacteria	<del> </del>		Glass			core	
DI-	Other Plastic SOC Kit			c Bag		Frozen:		<u> </u>
Thiosulfate-	Perchlorate			lock	+	1		
Sulfuric-	reichlorate		LIP	IOUR				
Comments:								
i .								



October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 142 Portsmouth Ave, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1575

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1575

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 142 Portsmouth Ave, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

142 Portsmouth Ave 2011575-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 142 Portsmouth Ave, Stratham, N Sample Description: Work Order: 2011575

Date Received: 9/29/2020

13C-PFDA

d5-NEtFOSAA

Field Sample #: 142 Portsmouth Ave Sampled: 9/29/2020 14:00

Sample ID: 20I1575-01
Sample Matrix: Drinking Water

Sample Matrix: Drinking Water												
	Semivolatile Organic Compounds by - LC/MS-MS											
MCL/SMCL Date Date/Time												
Analyte	Results	RL	MA ORSG Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst			
Perfluorobutanesulfonic acid (PFBS)	4.5	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorohexanoic acid (PFHxA)	9.0	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorohexanesulfonic acid (PFHxS)	54	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluoroheptanoic acid (PFHpA)	2.1	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorooctanoic acid (PFOA)	31	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorooctanesulfonic acid (PFOS)	29	2.0	ng/L	1		EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
N-EtFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
N-MeFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:05	JFC			
Surrogates	•	% Recovery	Recovery Limits		Flag/Qual			_				
13C-PFHxA		84.4	70-130					10/9/20 4:05				
M3HFPO-DA		79.2	70-130					10/9/20 4:05				

70-130

70-130

79.0

90.0

10/9/20 4:05

10/9/20 4:05



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1575-01 [142 Portsmouth Ave]	B268145	250	1.00	10/07/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268145 - EPA 537.1										
Blank (B268145-BLK1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
lexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	31.2		ng/L	40.0		77.9	70-130			
urrogate: M3HFPO-DA	28.9		ng/L	40.0		72.3	70-130			
urrogate: 13C-PFDA	30.2		ng/L	40.0		75.6	70-130			
urrogate: d5-NEtFOSAA	143		ng/L	160		89.3	70-130			
.CS (B268145-BS1)				Prepared: 10	0/07/20 Anal	yzed: 10/08/2	20			
erfluorobutanesulfonic acid (PFBS)	1.92	2.0	ng/L	1.77		108	50-150			U
erfluorohexanoic acid (PFHxA)	1.94	2.0	ng/L	2.00		97.0	50-150			U
erfluorohexanesulfonic acid (PFHxS)	1.89	2.0	ng/L	1.82		104	50-150			U
erfluoroheptanoic acid (PFHpA)	2.07	2.0	ng/L	2.00		104	50-150			
erfluorooctanoic acid (PFOA)	2.19	2.0	ng/L	2.00		110	50-150			
erfluorooctanesulfonic acid (PFOS)	2.27	2.0	ng/L	1.85		122	50-150			
erfluorononanoic acid (PFNA)	1.95	2.0	ng/L	2.00		97.3	50-150			U
erfluorodecanoic acid (PFDA)	1.87	2.0	ng/L	2.00		93.3	50-150			U
I-EtFOSAA	2.18	2.0	ng/L	2.00		109	50-150			
erfluoroundecanoic acid (PFUnA)	1.80	2.0	ng/L	2.00		89.9	50-150			U
-MeFOSAA	2.00	2.0	ng/L	2.00		99.9	50-150			U
erfluorododecanoic acid (PFDoA)	1.76	2.0	ng/L	2.00		87.8	50-150			U
Perfluorotridecanoic acid (PFTrDA)	1.66	2.0	ng/L	2.00		83.0	50-150			U
erfluorotetradecanoic acid (PFTA)	1.63	2.0	ng/L	2.00		81.7	50-150			U
lexafluoropropylene oxide dimer acid	2.15	2.0	ng/L	2.00		107	50-150			
HFPO-DA)										
1Cl-PF3OUdS (F53B Major)	1.55	2.0	ng/L	1.88		82.4	50-150			U
Cl-PF3ONS (F53B Minor)	1.70	2.0	ng/L	1.86		91.5	50-150			U
,8-dioxa-3H-perfluorononanoic acid ADONA)	1.72	2.0	ng/L	2.00		86.0	50-150			U
urrogate: 13C-PFHxA	31.9		ng/L	40.0		79.6	70-130			
urrogate: M3HFPO-DA	30.2		ng/L	40.0		75.5	70-130			
urrogate: 13C-PFDA	32.4		ng/L	40.0		81.1	70-130			
Surrogate: d5-NEtFOSAA	150		ng/L	160		93.6	70-130			



#### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
---	-----------	---------------	-------------	---------

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

# Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

20I1575

### B - B - B - B - B - B - B - B - B -		* '		-	http://www.	contestlal	os.com						Doc # 3	81 Rev 2	2 0626	2019					
CON-test	Phone: 413-525-2332					CHAI	N OF CUSTO	DY RECO	ORD	Doc # 381 Rev 2_0626201 39 Spruce Street East Longmeadow, MA 01028								1			
(11)		413-525- <del>6</del> 405		F	-lenses confidence			1			ngmeadov		928		ANA	ı veic	REQU	CCTEC			Page of
		: info@contestiabs.com		7-Day		10-Day		O	UNEUTROPOSSO	Field Filte	Christy March 1985	1	ा	1	AITA	L 1313	KEQU	ESIEL	, 	—-т	12
Company Names	Mnirox 9	Barroning	·•	PFAS 10-Day	(std) X	Due Date	2:	0		Lab to Fil	lter					<u> </u>			╁		<sup>2</sup> Preservation Code
Address: 18 Copymens Phone: 1402 - 3108 - 4	Ur, Vnit	128, London	demy		Rush-Approval	Required			Ortho	hiespieni	a Samule.			Ì							Total No No Of
Phone: 103-369-4		- 3:		1-Day		3-Day		0		Field Filte	ered	Asserta Manustry (Manus	1								<u>Total Number Of:</u>
	STRITO	201		2-Day	1}	4-Day		0		Lab to Fil	lter		7				1				VIALS
Project Location: 142 Po	VIZ MOVY	in Me, Strah	ou MAN				Data Del	very													GLASS
Project Manager: R. Ball				Format;			PDF	X			EXCEL	X	4								PLASTIC
Con-Test Quote Name/Number:	ווע			Other:									ď								BACTERIA
Invoice Recipient:				CLP Like Dat	ta Pkg Required:	O . 6		LJ					N	Ì							ENCORE
Sampled By: M. Brouss	بالمامدات	C. Hensley	·	Email To:	chanton	S MI	WXAV	aba	Wid	1.00	<u></u>	***	$\mathbb{N}$					Į			
Con-Test				IDA JOH.		2	d messalassassassassassas			,			2			l	-				
Work Order#	Client San	nple ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	4	1							Glassware in the fridge?
100 ( 000) ( 000 ( 000 ( 000 ( 000 ( 000 ( 000 ( 000 ( 000 ( 000 ( 000 ( 00) ( 000 ( 0))))))))	id-2 Por	tsmovth Ave	9/29/20	VI> 0	(200										<u> </u>						
	F12-101	STROVIN MAC	1101/20	1400	GRAB	DM	L U			2			7			1					Glassware in freezer? Y / N
																				<u> </u>	Prepackaged Cooler? Y / N
															1			<del> </del>	++	<del> </del> -	*Contest is not responsible for
		, , ,						-		<del> </del>		1	-					┥—			missing samples from prepacked
							ļ					ļ				[_					coolers
																					<sup>1</sup> Matrix Codes:
																		1-			GW = Ground Water
				, ,,,,,									<del></del>	+			_				WW = Waste Water DW = Drinking Water
											*****								1		A = Air :
																					S = Soil SL = Sludge
										<u>.                                    </u>						İ					SOL = Solid
Polinavida d bar (d. d. )																	1	<b>—</b>		<del> </del>	O = Other (please define)
Relipquished by: (signature)	Heines	Date/Time: 9-29-20	Client Comm	nents:					L	<u> </u>		4	L		<u>.                                      </u>	1			<u> </u>		- borna
Received by: (signature)	1 hang	Date/Time:	(n)																		
trest till	9/2	1/20 160	(A)																		<sup>2</sup> Preservation Codes:
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Texas Wille		Hate/Ilme:	MA		LA EMENS			Sp	e cila i K	quiremen	ts							******			M = Methanol
Received by: (signature)	21/04	Date /Time:						<del></del>	······································				' Кеопис		ease u	se the	followi	ng code	es to ind	cate	N = Nitric Acid 5 = Sulfuric Acid
	<u>3.9 ° 97</u>	14180 200	5			TTT				····	ICP Certific			া poss	sible sa	mple c	oncenti	ration v	within th	e Conc	B = Sodium Bisulfate
Retinquished by: (signature)	7	Date/Time:	CT			· · · · · · · · · · · · · · · · · · ·				R	CP Certific		Require		High: A		e colum ium: L		e: C - Clea	m: 11 -	X = Sodium Hydroxide T = Sodium
Received by: (signature)															¥ /·		Unkno		CILC	iii, U -	Thiosulfate
(Necerted by: (signature)		Date/Time:	ONTENTANION OF THE PROPERTY AND THE PROPERTY OF THE PROPERTY O								MA	State DW	Required	1							O = Other (please define)
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		Buter rang.	Project Entil	•	[												her				PCB ONLY
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				ity		Brownfiel	d			School MBTA	i						[]	AIHA	-LAP,LL(	-	Non Soxhlet
omments:							<del></del>											<del></del> ,			
$P_{\mathbf{a}}$										Discla	imer: Co	n-Test L	.abs is n	ot resp	onsibi	e for a	any om	itted	informa	tion or	the Chain of Custody. The
Page										Chain C	N COSCOQ	ıy 15 a tei	gal doci	ıment t	that m	iust be	COMP	lete a	nd accu	rato ar	ad is used to describe a little board
10										anatyse	s the tab	oratory '	will per	torm.	Anv m	iissina	inform	nation	is not t	ha lahe	ventorii'e regnamethilita
of		120								. was tal	acs your	Par tilet:	aush ou	cacn pr	oject	and w held a	/ill try ccount	to ass	ist with	missin	g information, but will not t
1 🕆																, ca a	COUIII	avit.			

Table of Contents

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria L	
Statement will be brought to the attention	of the Client - State True or False

Client		nd B			71177	รทอ		2000				
Receive	ed By	<u> </u>		Date	4/20	ЦИО	Time	_000	7			
How were th	e samples	In Cooler	T	No Cooler	,	On Ice	T_	No Ice				
receiv	ed?	Direct from Samp	lina	•		— Ambient		Melted Ice				
		Direct nom camp	By Gun#	-4		Actual Tem	p- 3.9					
Were samp		T	=									
Temperatui			By Blank #		Actual Temp -							
	Custody Se		<u>NA</u>	•	-	les Tampered						
	COC Relin	•		-	Chain A	gree With Sa	mples?	7				
Are the	re broken/le	eaking/loose caps	on any sam		<u> </u>			<u></u>				
Is COC in inl	d Legible?				iples rec	eived within h						
Did COC ir	iclude all	Client	T	Analysis	<u>T</u>		er Name	<u>T</u>				
pertinent Inf	ormation?	Project		. 1D's _		Collection	Dates/Times	<u> </u>				
Are Sample	labels filled	I out and legible?	<u> </u>									
Are there Lal	to Filters?	)	<u> </u>		Who w	as notified?						
Are there Ru	shes?		F		Who w	as notified?						
Are there Sh	ort Holds?		F		Who w	as notified?						
is there enou	gh Volume	?	7	_		~						
ls there Head	Ispace whe	ere applicable?	NA	- V 85517.	MS/MSD	)? <u> </u>	design of					
Proper <b>Me</b> dia	/Container	s Used?	<del></del> .		ls splittin	g samples rec	quired?	<u></u>				
Were trip bla	nks receive	ed?	F		On COC	? <u> </u>						
Do all sample	es have the	proper pH?	NA	Acid			Base					
Vals		Sonaines	- 1			1 #			+			
Unp-		1 Liter Amb.		1 Liter l	Plastic		16 oz	Amb.				
HCL-		500 mL Amb.		500 mL	Plastic		8oz Am	nb/Clear				
Meoh-		250 mL Amb.		250 mL	Plastic	2	4oz Am	nb/Clear				
Bisulfate-		Flashpoint		Col./Ba				nb/Clear				
DI-		Other Glass		Other F	Plastic		End	core I				
Thiosulfate-		SOC Kit		Plastic	Bag		Frozen:					
Sulfuric-		Perchlorate		Ziplo	ock							
				Unused N	ledia							
Vials 1	- 6	Euriainer:	- 4			# # 1			1			
Unp-		1 Liter Amb.		1 Liter	Plastic		16 oz	Amb.				
HCL-	***************************************	500 mL Amb.		500 mL	Plastic			nb/Clear				
Meoh-		250 mL Amb.		250 mL	Plastic			nb/Clear				
Bisulfate-		Col./Bacteria		Flash			2oz Am	nb/Clear				
DI-		Other Plastic		Other	Glass		Enc	core				
Thiosulfate-		SOC Kit		Plastic	Bag		Frozen:					
Sulfuric-		Perchlorate		Ziplo	ock							
Comments:												

Page 11 of 11



October 12, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 5 College Rd., Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1577

M M Contry

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

Sample Summary	3
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B268145	7
Flag/Qualifier Summary	8
Certifications	9
Chain of Custody/Sample Receipt	10



Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/12/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1577

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 5 College Rd., Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB
5 College Rd 2011577-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 5 College Rd., Stratham, NH Sample Description: Work Order: 2011577

Date Received: 9/29/2020 Field Sample #: 5 College Rd

Sampled: 9/29/2020 11:15

84.7

Sample ID: 20I1577-01 Sample Matrix: Drinking

d5-NEtFOSAA

Sample Matrix: Drinking Water		Semivo	latile Organic	Compound	ds by - LC/	MS-MS				
Analyte	Results	P	MCL/SMCL	•	·		M.d. J	Date	Date/Time	<b>A 1</b>
Perfluorobutanesulfonic acid (PFBS)		2.0	MAOKSG	Units	<b>DF</b>	Flag/Qual	Method	Prepared	Analyzed	Analyst
,	3.2			ng/L			EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorohexanoic acid (PFHxA)	3.6	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorohexanesulfonic acid (PFHxS)	8.9	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluoroheptanoic acid (PFHpA)	2.2	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorooctanoic acid (PFOA)	12	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorooctanesulfonic acid (PFOS)	15	2.0		ng/L	1		EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/7/20	10/9/20 4:27	JFC
Surrogates		% Recovery	Recovery I	Limits		Flag/Qual	<u> </u>	· · · · · ·		
13C-PFHxA		80.1	70-130	0					10/9/20 4:27	
M3HFPO-DA		74.3	70-130						10/9/20 4:27	
13C-PFDA		75.3	70-130	0					10/9/20 4:27	

70-130

10/9/20 4:27



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1577-01 [5 College Rd]	B268145	250	1.00	10/07/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

ND ND ND ND ND ND ND ND ND ND ND ND ND N	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	Prepared: 10	0/07/20 Analy	zed: 10/08/3	20			U U U U U U
ND ND ND ND ND ND ND ND ND ND ND ND ND N	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	Prepared: 10	)/07/20 Analy	zed: 10/08/	20			U U U U U
ND ND ND ND ND ND ND ND ND ND ND ND ND N	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L							U U U U U
ND ND ND ND ND ND ND ND ND ND ND ND ND N	2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L							U U U U
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ND	2.0	ng/L							U
ND	2.0	ng/L							U
ND	2.0	ng/L							U
31.2		ng/L	40.0		77.9	70-130			
28.9		ng/L	40.0		72.3	70-130			
30.2		ng/L	40.0		75.6	70-130			
143		ng/L	160		89.3	70-130			
			Prepared: 10	0/07/20 Analy	zed: 10/08/2	20			
1.92	2.0	ng/L	1.77		108	50-150			U
1.94	2.0	ng/L	2.00		97.0	50-150			U
1.89	2.0	ng/L	1.82		104	50-150			U
2.07	2.0	ng/L	2.00		104	50-150			
2.19	2.0	ng/L	2.00		110	50-150			
2.27	2.0	ng/L	1.85		122	50-150			
1.95	2.0	ng/L	2.00		97.3	50-150			U
1.87	2.0	ng/L	2.00		93.3	50-150			U
	2.0	ng/L	2.00		109	50-150			
	2.0	ng/L	2.00		89.9	50-150			U
	2.0	ng/L	2.00		99.9	50-150			U
	2.0	ng/L	2.00		87.8	50-150			U
	2.0	ng/L	2.00		83.0	50-150			U
	2.0	ng/L			81.7				U
	2.0	ng/L							-
		_							U
		-							
									U
	2.0	-							U
31.9		ng/L	40.0		79.6	70-130			
30.2		ng/L	40.0		75.5	70-130			
32.4		ng/L	40.0		81.1	70-130			
	ND ND ND ND 31.2 28.9 30.2 143 1.92 1.94 1.89 2.07 2.19 2.27 1.95 1.87 2.18 1.80 2.00 1.76 1.66 1.63 2.15 1.55 1.70 1.72	ND 2.0 ND 2.0 ND 2.0 ND 2.0  31.2 28.9 30.2 143  1.92 2.0 1.94 2.0 1.89 2.0 2.07 2.0 2.19 2.0 2.27 2.0 1.95 2.0 1.87 2.0 2.18 2.0 2.18 2.0 2.18 2.0 1.80 2.0 2.16 2.0 1.76 2.0 1.66 2.0 1.63 2.0 2.15 2.0 1.70 2.0 1.70 2.0 1.72 2.0 31.9 30.2 32.4	ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L  31.2 ng/L 28.9 ng/L 30.2 ng/L 143 ng/L 1.94 2.0 ng/L 1.89 2.0 ng/L 2.07 2.0 ng/L 2.19 2.0 ng/L 2.19 2.0 ng/L 1.87 2.0 ng/L 1.87 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 1.80 2.0 ng/L 1.80 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.18 2.0 ng/L 2.19 2.0 ng/L 2.10 2.0 ng/L 2.00 2.0 ng/L 2.00 2.0 ng/L 2.00 2.0 ng/L 2.00 2.0 ng/L 2.00 2.0 ng/L 2.00 2.0 ng/L 2.00 ng/L 2.15 2.0 ng/L 2.15 2.0 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L 3.1.9 ng/L	ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L  31.2 ng/L 40.0 28.9 ng/L 40.0 30.2 ng/L 160  Prepared: 10  1.92 2.0 ng/L 2.00 1.89 2.0 ng/L 2.00 2.19 2.0 ng/L 2.00 2.19 2.0 ng/L 2.00 2.27 2.0 ng/L 2.00 2.27 2.0 ng/L 2.00 2.18 2.0 ng/L 2.00 1.87 2.0 ng/L 2.00 2.18 2.0 ng/L 2.00 2.18 2.0 ng/L 2.00 2.18 2.0 ng/L 2.00 2.18 2.0 ng/L 2.00 1.80 2.0 ng/L 2.00 1.66 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.66 2.0 ng/L 2.00 1.63 2.0 ng/L 2.00 1.64 2.0 ng/L 2.00 1.55 2.0 ng/L 2.00 1.55 2.0 ng/L 2.00 31.9 ng/L 2.00 31.9 ng/L 2.00 31.9 ng/L 40.0 30.2 ng/L 40.0 30.2 ng/L 40.0	ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L  31.2 ng/L 40.0 28.9 ng/L 40.0 143 ng/L 160  Prepared: 10/07/20 Analy  1.92 2.0 ng/L 2.00 1.89 2.0 ng/L 1.82 2.07 2.0 ng/L 2.00 2.19 2.0 ng/L 2.00 2.19 2.0 ng/L 2.00 2.19 2.0 ng/L 2.00 1.87 2.0 ng/L 2.00 1.87 2.0 ng/L 2.00 1.88 2.0 ng/L 2.00 1.87 2.0 ng/L 2.00 1.87 2.0 ng/L 2.00 1.87 2.0 ng/L 2.00 1.86 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.76 2.0 ng/L 2.00 1.77 2.00 1.78 2.0 ng/L 2.00 1.79 2.0 ng/L 2.00 1.79 2.00 1.79 2.00 1.70 2.0 ng/L 2.00 1.70 2.0 ng/L 2.00 1.70 2.0 ng/L 2.00 1.70 2.0 ng/L 2.00 1.70 2.0 ng/L 2.00 1.70 2.0 ng/L 2.00 1.70 2.0 ng/L 2.00 1.70 2.0 ng/L 2.00 1.71 2.00 1.72 2.0 ng/L 40.0 1.72 2.00 1.72 2.00 ng/L 40.0 1.72 2.00 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0 1.72 2.00 ng/L 40.0	ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L A0.0 77.9 28.9 ng/L 40.0 75.6 143 ng/L 160 89.3 Prepared: 10/07/20 Analyzed: 10/08/Z 1.92 2.0 ng/L 2.00 97.0 1.89 2.0 ng/L 2.00 97.0 1.89 2.0 ng/L 2.00 104 2.19 2.0 ng/L 2.00 110 2.27 2.0 ng/L 2.00 110 2.27 2.0 ng/L 2.00 97.3 1.87 2.0 ng/L 2.00 97.3 1.87 2.0 ng/L 2.00 97.3 1.87 2.0 ng/L 2.00 97.3 1.87 2.0 ng/L 2.00 109 1.80 2.0 ng/L 2.00 99.9 1.80 2.0 ng/L 2.00 109 1.80 2.0 ng/L 2.00 109 1.80 2.0 ng/L 2.00 109 1.80 2.0 ng/L 2.00 89.9 2.0 ng/L 2.00 89.9 2.00 2.0 ng/L 2.00 89.9 2.00 2.0 ng/L 2.00 87.8 1.66 2.0 ng/L 2.00 87.8 1.66 2.0 ng/L 2.00 83.0 1.63 2.0 ng/L 2.00 81.7 2.15 2.0 ng/L 2.00 81.7 2.15 2.0 ng/L 2.00 81.7 2.15 2.0 ng/L 2.00 86.0 1.55 2.0 ng/L 1.88 82.4 1.70 2.0 ng/L 1.88 82.4 1.70 2.0 ng/L 1.86 91.5 1.72 2.0 ng/L 2.00 86.0	ND	ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L Adv. 77.9 70-130 28.9 ng/L 40.0 72.3 70-130 30.2 ng/L 160 89.3 70-130 Prepared: 10/07/20 Analyzed: 10/08/20 1.92 2.0 ng/L 2.00 97.0 50-150 1.89 2.0 ng/L 2.00 97.0 50-150 2.19 2.0 ng/L 2.00 104 50-150 2.27 2.0 ng/L 2.00 110 50-150 2.27 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 97.3 50-150 1.87 2.0 ng/L 2.00 99.3 50-150 1.88 2.0 ng/L 2.00 99.3 50-150 1.80 2.0 ng/L 2.00 89.9 50-150 1.80 2.0 ng/L 2.00 89.9 50-150 1.80 2.0 ng/L 2.00 89.9 50-150 1.66 2.0 ng/L 2.00 87.8 50-150 1.66 2.0 ng/L 2.00 87.8 50-150 1.63 2.0 ng/L 2.00 81.7 50-150 1.63 2.0 ng/L 2.00 81.7 50-150 1.63 2.0 ng/L 2.00 81.7 50-150 1.65 2.15 2.0 ng/L 2.00 81.7 50-150 1.65 2.15 2.0 ng/L 2.00 86.0 50-150 1.70 2.0 ng/L 2.00 86.0 50-150 1.72 2.0 ng/L 1.88 82.4 50-150 1.70 2.0 ng/L 1.86 91.5 50-150 1.70 2.0 ng/L 1.86 91.5 50-150 1.72 2.0 ng/L 2.00 86.0 50-150 1.72 2.0 ng/L 4.00 75.5 70-130 30.2 ng/L 40.0 75.5 70-130 32.4 ng/L 40.0 75.5 70-130 32.4	ND 2.0 ng/L ND 2.0 ng/L ND 2.0 ng/L A0.0 77.9 70-130 28.9 ng/L 40.0 72.3 70-130 30.2 ng/L 160 89.3 70-130 7



#### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

# Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

alli					http://www.	contestlab	s.com						Doc # 38	1 Rev 2_0	626201	9					_
( con-test	Phone:	: 413-525-2332				CHAIN	OF CUSTO	DY RECO	ORD		ce Street										_ \ .1
ANALYTICAL LABORATORY		13-525-6405		<b>S</b>	equested Turna	enie Isia	a		S 151 253		ngmeadow		28 !		MALY	SIS RE	UIEC.	TEN			Page of
	Email:	info@contestlabs.cor	π	7-Day		10-Day		0	######################################	Field Filte	SWEDSCHIEDENS		0	<del></del>	TAPAL I	212 KE	-QUL3	120	<del></del>	····1	2 -
Company Name: V	Jilcox &	Barton, in	<i>(</i> .	PFAS 10-Day	(std)	Due Date	::	0		Lab to Fil			-	++		┿	╅╾┥	-+		╅	<sup>2</sup> Preservation Code
Address: IB COMMONS	Dr. Uni	+ 17.82.1-and	ANALANAL		Rush-Approval						e Sernicies		***		-						Course the Grate
Phone: 603-369-419	0		T. J	1-Day		3-Day		O	80000000000000000000000000000000000000	Field Filte		Wallet Manager (1984)		1 1							<u>Total Number Of:</u>
	FIRTOC	100		2-Day	Ī	4-Day	Ä	0		Lab to Fil											VILLE
Project Location: 5 College	24.	Stratham	NH.				Data Del	1								ļ					VIALS
Project Number: STR-TOOO	(		. 24 1 1	Format:			PDF	X			EXCEL	X	1, 4				-				GLASS
Project Manager; R. BANTO)	$\overline{}$			Other:				X			the th	£\$	4								PLASTIC
Con-Test Quote Name/Number:		. /		CLP Like Dai	ta Pkg Required:			- Inches	***************************************				CA						İ	ļ	BACTERIA
Invoice Recipient:					rbayton		16804	dlad	G L Amor in				S				]				ENCORE
Sampled By: M. BOUSSA	VA & C	. Hensieu		Fax To #:	2000	4411	100100	ON EVE	WOY	. 401			V					-			
Con-Test		L.	Beginning	Ending	I	¹Matrix			T	ī		T	1					1			Glassware in the fridge?
Work Order#	Client Sam	ple ID / Description	Date/Time	Date/Time	COMP/GRAB	Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	7						-		Y/N
	C Colle	ege Rd	9/29/20	1115	GRAB	DW	U			2		<u> </u>	X	<del></del>	+		1		┪	+	
•		90,00	111-11 20	1111/	OFTIO	1			<del> </del>			ļ .	$\leftarrow$	<del> </del>		<del> </del>	1 1			<del> </del>	Glassware in freezer? Y / N
				-				-	<del> </del>			ļ	-	+	+	-	$\vdash$			_	Prepackaged Cooler? Y / N
								ļ	<del></del>	<u> </u>							$\perp \perp$				"Contest is not responsible for missing samples from prepacked
																					coolers
																					<sup>1</sup> Matrix Codes:
						[															GW = Ground Water
									-	<del> </del>				-		+	+			-	WW = Waste Water DW = Drinking Water
						<del> </del>			-	╃		ļi					1				A = Air
				ļ																	S = Soil SL = Sludge
				]						}											SOL = Solid
									-	<u> </u>					_			-	+	<u> </u>	0 = Other (please define)
Religioushed by: (signature)  Apply Library  Recorded by: (signature)		Date/Time: 9, 19, 20 Date/Time:	Client Com	ments:			1	L			<b>J</b>	<b></b>	L			l	11	i_	<b>L</b>	1	<sup>2</sup> <u>Preservation Codes:</u> I = iced
Retinguished by: (signature)		other time:	Delec	filon Limit Rie	quirements			Sį	pesial Ri	guireme	nts										H = HCL M = Methanol
Received by (signature)	- 10		2				***************************************					MA MCF	Require	نا Ple	ase use	the fol	llowing	codes t	to indica	ate	N = Nitric Acid
3.1 9	129	Date/Time:								,	MCP Certifi	cation For	n: Require						hin the		S = Sulfuric Acid B = Sodium Bisulfate
Relinquished by: (signature)	107	Date/Time:	V G(I	N .									Require			Code c					X = Sodium Hydroxide
				<u></u>		<del> </del>					RCP Certific	cation Fu	n Require		gn; M ·		m; L - L Inknow		- Clean	; U -	T = Sodium Thiosulfate
Received by: (signature)		Date/Time:				<del>                                     </del>	·				A LA	State DW	Donni- ad			·	)				<b>0</b> = Other (please
		-	Uther	NADES	ALOS	PWSID#						Deate See	negoneo		-				credite	200000000000000000000000000000000000000	define)
Relinquished by: (signature)		Date/Time:	Project En	tity	1302 30-2	1					<del></del>					Othe	100000000000000000000000000000000000000	and the sale			PCB ONLY
				Government		Municipal	lity			MWRA			WRTA	1 3		0		Chroma	itogram		Soxhlet
Received by: (signature)		Date/Time:		Federal		21 J				School	Ū			******				AIHA-L			Non Soxhlet
				City		Brownfiel	ld			MBTA									,		1)
Comments: Page 10 of										Chain analys	of Custor es the lab	dy is a le boratory	gal docı will per	ıment th form.  A	iat mu ny mis oject a	st be cassing in	omple forma l try to	ete and ition is passist	l accur. not th	ate an e iabo	the Chain of Custody. The d is used to determine wha ratory's responsibility. Cor g information, but will not t

Table of Contents

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False
Statement will be brought to the attention of the Client - State True or False

Client W	nd B						000	
Received By	<u>u</u>	***********	Date	4/80	<u> </u>	Time	<u> 200:</u>	Z
How were the samples	In Cooler	T	No Cooler	· ' ' /	On Ice	<u></u>	No Ice	****
received?	Direct from Sample	ina			Ambient		Melted Ice	
		By Gun#	4		Actual Tem	p- 3.9		
Were samples within	T	-						-
Temperature? 2-6°C		By Blank #			Actual Tem		47/1	-
Was Custody S	-	NH		-	s Tampered		<u> </u>	-
Was COC Relin	•			Chain Ag	ree With Sa	mples?		=
Are there broken/l	eaking/loose caps (	on any sam		<u> </u>	<b>-</b>		<b>-</b>	
Is COC in ink/ Legible?	T	No.		iples recei		olding time?		
Did COC include all	Client _		Analysis			er Name	<u> </u>	-
pertinent Information?	Project		ID's	<u>+</u>	Collection	Dates/Times	<u> </u>	•
Are Sample labels filled	d out and legible? _	<u> </u>						
Are there Lab to Filters?	?	F			s notified?			•
Are there Rushes?	_	E			s notified?			
Are there Short Holds?	_	<u> </u>		Who was	s notified?			
Is there enough Volume	?	<u> </u>			<b>T</b>			
is there Headspace who	ere applicable?	NA		MS/MSD?			··	
Proper Media/Container	rs Used?	+	. 1	ls splitting	samples rec	uired?	Γ	•
Were trip blanks receive	ed?	F	500	On COC?	E_			2243
Do all samples have the	e proper pH?	NA	Acid:	Service designation	and the second s	Base		**************************************
Viais   #	(Containers:	4			ans a second			4
Unp-	1 Liter Amb.		1 Liter I	Plastic		16 oz	Amb.	
HCL-	500 mL Amb.		500 mL	Plastic		8oz Am	b/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic	a a	4oz Am	b/Clear	
Bisulfate-	Flashpoint		Col./Ba	octeria		2oz Am	b/Clear	
DI-	Other Glass		Other F	Plastic		Enc	ore	
Thiosulfate-	SOC Kit		Plastic	Bag		Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock				
			Unused N	fedia				
Vials #	(Containers: 4	4			4			i i
Unp-	1 Liter Amb.		1 Liter l	Plastic		16 oz	Amb.	
HCL-	500 mL Amb.		500 mL			8oz Am	b/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic		4oz Am	b/Clear	
Bisulfate-	Col./Bacteria		Flash	point		2oz Am	b/Clear	
DI-	Other Plastic		Other	Glass		End	ore	
Thiosulfate-	SOC Kit		Plastic	Bag		Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock		1		
Comments:								



October 13, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 149 Portsmouth Ave, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1578

My MeContry

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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B268326	7
Flag/Qualifier Summary	8
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Chain of Custody/Sample Receipt	1(



Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

149 Portsmouth Ave

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1578

EPA 537.1

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

Drinking Water

PROJECT LOCATION: 149 Portsmouth Ave, Stratham, NH

20I1578-01

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

Page 3 of 11



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 149 Portsmouth Ave, Stratham, N Sample Description: Work Order: 2011578

Date Received: 9/29/2020

d5-NEtFOSAA

Field Sample #: 149 Portsmouth Ave Sampled: 9/29/2020 14:40

Sample ID: 20I1578-01
Sample Matrix: Drinking Water

Sample Matrix: Drinking Water										
		Semivol	latile Organic	Compoun	ds by - LC/	MS-MS				
		N	MCL/SMCL					Date	Date/Time	
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 9:37	JFC
Surrogates		% Recovery	Recovery	Limits		Flag/Qual				
13C-PFHxA		83.6	70-13	30					10/10/20 9:37	
M3HFPO-DA		80.3	70-13						10/10/20 9:37	
13C-PFDA		83.6	70-13	30					10/10/20 9:37	

70-130

84.1

10/10/20 9:37



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1578-01 [149 Portsmouth Ave]	B268326	250	1.00	10/09/20



#### QUALITY CONTROL

### Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Analy	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
CS (B268326-BS1)				Prepared: 10	)/09/20 Analy	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



#### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
---	-----------	---------------	-------------	---------

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



### CERTIFICATIONS

### Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in	Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9CI-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



held accountable.

atilt			V	-	http://www.d	ontestlab	s.com			30.6			Doc # 3	81 Rev	/ 2_0626	52019						, 1
<u>con-test</u>	Phone:	413-525-2332				CHAIN	OF CUSTO	DY RECO	RD		ice Street ingmeadow	, MA 010	28									Page of
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		Info@contestlabs.com		7-Day		10-Day		0	F	ield Filte	er <b>ed</b>	OLIVERANT ANNUAL PARAGE	0		I				T			<sup>2</sup> Preservation Code
Company Name:	WILLOX K	Barron, Inc	·	PFAS 10-Day		Due Date	:	0		Lab to Fi												Courier Use Grity
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Project Location: 49 POIA	3MOM	ne Smathar	n, NH				Data beli	very					N					İ				GLASS
Project Number: STRT000				Format:			PDF	X			EXCEL	X										PLASTIC
Project Manager: R. BAMTO	<u> </u>			Other:				yq					7									BACTERIA
Con-Test Quote Name/Number:		·····		3	a Pkg Required:				_				5									ENCORE
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mork orders						a and an expense						╄	7			1-1					<u> </u>	_
	149 forts	mouth Ave	9/29/20	1440	GRAB	DW	U			2			1									Glassware in freezer? Y / N
																					-	Prepackaged Cooler? Y / N
													1	- 1								*Contest is not responsible for
									<u> </u>	<b>†</b>				_				_	-	+		missing samples from prepacked
						-								+		-		-	-		┼—	coolers
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Reimodished by: (signature)	gusly	Date/Time: 20	Client Com	ments:		<u></u>	1	1	1	1		1	1 1,		1				l		<u> </u>	<sup>2</sup> Preservation Codes:
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Received by Algentine) 3.	$a \dot{a} u$	Pare Time:							<del></del>		MCP Certif				ossible	sample	conce	entrati	on with			B ≈ Sodium Bisulfate
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Page 10	***** *****									Chair analy:	n of Custo ses the la	dy is a t boratory	egal do y will pe	cume erforr	nt that n. Any	must missi	be co	omplet ormat	te and tion is	accura not the	ate ar e labo	n the Chain of Custody. The nd is used to determine wha oratory's responsibility. Con ng information, but will not
$\sim_1$	According to the control of	and the first of the control of the		4.0	*		and the second of			I Cat V	aires you	. Partile	., 3., np 0	- Cac	., proje	asit	- AAIEC	ary co	assist	AA LCII [	11325111	.5 KOOTHOLIOH, DUL WILL HOL

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - I	Using Acceptance Policy) Any Faise
Statement will be brought to the attention of the Cl	ient - State True or False
ione by and R	

Client W/ (	11100	·	Date	41201	20	Time	2005	2
How were the sample	s In Cooler	T	No Cooler	77	On Ice	7	No Ice	
received?					Ambient		Melted Ice	
1000	Direct from Samp	_	<del></del>		•	o- 3.9	-	
Were samples within	<u> </u>	By Gun #			Actual Temţ			
Temperature? 2-6°C		By Blank #			Actual Tem			
Was Custody		NA			Tampered		<u> </u>	
Was COC Rel		<del></del>	Does	Chain Agr	ee With Sar	nples?		
	ı/leaking/loose caps	on any sam	ples?	<u> </u>				
Is COC in ink/ Legible			Were san	nples receiv	ed within ho		<u></u>	
Did COC include all	Client	T	_ Analysis <sub>.</sub>	T	•	er Name	<u> </u>	
pertinent Information	? Project	-	D's	<u>+</u>	Collection	Dates/Times	T	
Are Sample labels fill		+	_					
Are there Lab to Filter		F	_	Who was	notified?			
Are there Rushes?		F	-	Who was	notified?			
Are there Short Holds	?	F	<del></del>	Who was	notified?			
is there enough Volun		7			<del></del>			
ls there Headspace w		NA		MS/MSD?	<i></i>	ingar Managan		
Proper Media/Contain				Is splitting	samples req	uired?		
Were trip blanks recei		F	Anna -	On COC?	<u> </u>	The Control of the Co	<u> </u>	
Do all samples have t		NA	Acid			Base		
Vials 4	Containers.				4			4
Unp-	1 Liter Amb.		1 Liter	Plastic		16 oz	: Amb.	
HCL-	500 mL Amb.		500 mL	Plastic		8oz An	b/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic	a		nb/Clear	
Bisulfate-	Flashpoint		Col./Ba	acteria	•		nb/Clear	
DI-	Other Glass		Other	Plastic			core	L
Thiosulfate-	SOC Kit	•	Plasti	c Bag		Frozen:		·
Sulfuric-	Perchlorate		Zipl	ock				
			Unused	Media	100000000000000000000000000000000000000			46 Th 1 Th 1 Th 1 Th 1 Th 1 Th 1 Th 1 Th
Vials 4	(Containers)	8			- 8			- 1
Unp-	1 Liter Amb.		1 Liter	Plastic			Amb.	
HCL-	500 mL Amb.			Plastic		8oz An	nb/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic			nb/Clear	
Bisulfate-	Col./Bacteria		Flash	npoint			nb/Clear	
DI-	Other Plastic		Other	Glass			core	L
Thiosulfate-	SOC Kit		Plast	c Bag		Frozen:		
Sulfuric-	Perchlorate		Zip	lock				
Comments:								



October 19, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 159 Portsmouth Ave, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1579

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

## Table of Contents

Sample Summary	3
Case Narrative	4
Sample Results	5
20I1579-01	5
Sample Preparation Information	6
QC Data	7
Semivolatile Organic Compounds by - LC/MS-MS	7
B268466	7
Flag/Qualifier Summary	8
Certifications	9
Chain of Custody/Sample Receipt	1(

REPORT DATE: 10/19/2020



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1579

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 159 Portsmouth Ave, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

159 Portsmouth Ave 2011579-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 159 Portsmouth Ave, Stratham, N Sample Description: Work Order: 2011579

Date Received: 9/29/2020

d5-NEtFOSAA

Field Sample #: 159 Portsmouth Ave Sampled: 9/29/2020 15:10

Sample ID: 20I1579-01

Sample Matrix: Drinking Water										
		Semivo	latile Organic	Compound	ds by - LC/	MS-MS				
		I	MCL/SMCL					Date	Date/Time	
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	7.4	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorohexanoic acid (PFHxA)	15	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorohexanesulfonic acid (PFHxS)	66	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluoroheptanoic acid (PFHpA)	5.4	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorooctanoic acid (PFOA)	28	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorooctanesulfonic acid (PFOS)	39	2.0		ng/L	1		EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/12/20	10/16/20 19:42	JFC
Surrogates		% Recovery	Recovery I	Limits		Flag/Qual	-			
13C-PFHxA		83.3	70-13	0					10/16/20 19:42	
M3HFPO-DA		84.9	70-13						10/16/20 19:42	
13C-PFDA		80.9	70-13	0					10/16/20 19:42	

70-130

85.7

10/16/20 19:42



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1579-01RE1 [159 Portsmouth Ave]	B268466	250	1.00	10/12/20



#### QUALITY CONTROL

### Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268466 - EPA 537.1										
Blank (B268466-BLK1)				Prepared: 10	0/12/20 Anal	yzed: 10/16/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
urrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
urrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
.CS (B268466-BS1)				Prepared: 10	0/12/20 Anal	yzed: 10/16/2	20			
erfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
erfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
erfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
erfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
erfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
erfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
erfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
erfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
I-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
erfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
I-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
erfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
erfluorotridecanoic acid (PFTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
erfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	7.23	2.0	ng/L	10.0		72.3	70-130			
1Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
urrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
urrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
urrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			



#### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



### CERTIFICATIONS

### Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

20I1579

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	Email:	info@contestlabs.com		7-Day		10-Day		0	EDMYANGUEDYSSAMADIS	ield Filte	\$37454945243A239453A3586	W. S. W.	О	<del></del>		1515 11	T C	7	<del>,</del>	<del></del>	2
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Project Location: 159 POV93			APH			, cuy	Data Del			Edb (o ) i					1 1						VIALS
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Con-Test Quote Name/Number:				4	a Pkg Required			1000		·····			3				-				BACTERIA
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Con-Test				9 managana - 200 (200 (200 (200 (200 (200 (200 (20		1 45		T	1	1	1		4							1	Glassware in the fridge?
Work Order#	Client San	nple ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	\$F74					-			Y/N
	159 POVY	zmath tre	9/29/20	1510	GRAB	DM	I V			2			X								Glassware in freezer? Y / N
					<u> </u>	ļ			<u></u>	ļ											Prepackaged Cooler? Y/N
		· · · · · · · · · · · · · · · · · · ·															ĺ				*Contest is not responsible for
																					missing samples from prepacked coolers:
																		1			¹ Matrix Codes;
																	1	1			GW = Ground Water
		177111111111111111111111111111111111111		<u> </u>	<b>†</b>		1		<del>                                     </del>	<del>                                     </del>	<b>-</b>	1	<del></del>	-	+ +			+		-	<b>WW</b> = Waste Water DW = Drinking Water
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			1	Government	1	Municipa	ality			MWRA			WRTA	\ []		- 1	1	Chr	omatog	ram	Soxhlet
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Comments:		J	1	City		Brownfie	etd	L,J		MBTA											
יב ו										Discl	aimer: C	on-Test	Labs is	not res	ponsib	le for a	any o	mitted	d infor	mation	on the Chain of Custody. The
Page		**								Chain	of Custo	dy is a le	egal doc	ument	that n	nust be	com	plete	and ac	curate	and is used to determine wha
[ <sup>0</sup> ]					v					anatys	es the la	boratory	will pe	rform.	Апу п	nissing	infor	matio	n is no	t the la	boratory's responsibility.Cor
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lable of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples\_\_\_\_\_



Login Sample Receipt Checklist - (Rejection Criteria Listing - Usin	g Acceptance Policy) Any False
Statement will be brought to the attention of the Client	- State True or False

Client Wand B		Date	2100	na	Time	2005	
Received By		-	1 act	po		<u> </u>	
How were the samples In Cooler	<u> </u>	No Cooler_		On Ice	L	_ No Ice _	
received? Direct from Sa	mpling			Ambient		_ Melted Ice _	·
	By Gun#	7		Actual Tem	p- 3.9		
Were samples within	By Blank #			Actual Tem			
Temperature? 2-6°C	— by blank #	14/0	ro Cample	es Tampered		NA	
Was Custody Seal Intact?	7011	-	•	gree With Sai		4	
Was COC Relinquished?			T_	gree with oar	inpics:		
Are there broken/leaking/loose ca	ps on any sam	ipies !		_ eived within he	olding time?	+	
Is COC in ink/ Legible?	<del>-</del> +		ipies rece		er Name	<del></del>	
Did COC include all Client		_ Analysis _ ID's			Dates/Times	· — —	
pertinent Information? Project	. <del>- I</del>	. IUS -	7	_ Collection	Dates innes	>	
Are Sample labels filled out and legible	)	-	Who we	as notified?			
Are there Lab to Filters?		-		as notified?			
Are there Rushes?		-	•				
Are there Short Holds?		-	wno wa	as notified?			
Is there enough Volume?	T		MONAGE!	、こと			
is there Headspace where applicable?	NA_		MS/MSD	· · · · · · · · · · · · · · · · · · ·		i F	:
Proper Media/Containers Used?	<u></u>	-		samples rec	quirea?		*
Were trip blanks received?	F	*****	On COC	( <b>F</b>	. D	- Annual Contract Con	
Do all samples have the proper pH?	NA	Acid	e de estados e		Base		and the characteristic in the Principal Control of the Control of
Vials #  Containers:				#			- #
Unp- 1 Liter Amb.		1 Liter				z Amb.	
HCL- 500 mL Amb		500 mL	<del></del>			mb/Clear	
Meoh- 250 mL Amb	•	250 mL		<del>                                     </del>	<u> </u>	mb/Clear	
Bisulfate- Flashpoint		Col./Ba			4	mb/Clear	
DI- Other Glass		Other F			<del></del>	core	
Thiosulfate- SOC Kit		Plastic		-	Frozen:	: "	
Sulfuric- Perchlorate		Ziplo	OCK				
		Umused A	ledia -				
Vials 4 4 Containers:	#			<u> </u>			H
Unp- 1 Liter Amb		1 Liter				z Amb.	
HCL- 500 mL Amb		500 mL				mb/Clear	
Meoh- 250 mL Amt		250 mL				mb/Clear	
Bisulfate- Col./Bacteria		Flash				mb/Clear	
DI- Other Plasti		Other				icore	
		— — — — — — — — — — — — — — — — — — —	- D	1	Frozen:		
Thiosulfate- SOC Kit		Plastic		4	1 102611.		
Thiosulfate- SOC Kit Sulfuric- Perchlorate Comments:		Ziple			1 Tozeni.		



October 13, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 161-2 Portsmouth Ave, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1580

My M'Couthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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B268326	7
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Certifications	9
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REPORT DATE: 10/13/2020



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1580

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 161-2 Portsmouth Ave, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

161-2 Portsmouth Ave 2011580-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 161-2 Portsmouth Ave, Stratham, Sample Description: Work Order: 2011580

Date Received: 9/29/2020

d5-NEtFOSAA

Field Sample #: 161-2 Portsmouth Ave Sampled: 9/29/2020 15:40

Sample ID: 20I1580-01

Sample Matrix: Drinking Water										
		Semivo	latile Organic	Compound	ds by - LC/	MS-MS				
		I	MCL/SMCL					Date	Date/Time	
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	5.8	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorohexanoic acid (PFHxA)	9.5	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorohexanesulfonic acid (PFHxS)	38	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluoroheptanoic acid (PFHpA)	2.9	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorooctanoic acid (PFOA)	20	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorooctanesulfonic acid (PFOS)	30	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Hexafluoropropylene oxide dimer acid	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
(HFPO-DA) 11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 10:42	JFC
Surrogates		% Recovery	Recovery	Limits		Flag/Qual				
13C-PFHxA		80.6	70-13	0					10/10/20 10:42	
M3HFPO-DA		80.0	70-13						10/10/20 10:42	
13C-PFDA		74.4	70-13	0					10/10/20 10:42	

70-130

74.7

10/10/20 10:42



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1580-01 [161-2 Portsmouth Ave]	B268326	250	1.00	10/09/20



#### QUALITY CONTROL

### Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Analy	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
CS (B268326-BS1)				Prepared: 10	)/09/20 Analy	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



#### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



### CERTIFICATIONS

### Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

2011580 http://www.contestlabs.com

Doc # 381 Rev 2 06262019

CON-TEST		413-525-2332				CHAIN	OF CUSTO	DY RECO	RD		ce Street ngmeadow	r, MA 010	28								Page of
4(   1		13-525-6405		Re	quested Turnar	ound Tip	e	W.	Dissolv	id we call	S INDES				ANAL	YSIS F	REQU	ESTEC	)		
		info@contestlabs.com		7-Day	Ų,	10-Day		0	F	ield Filte	red		0								<sup>2</sup> Preservation Code
Company Name:	WILLOXA	Barton, Inc.		PFAS 10-Day		Due Date	:	0	L	ab to Fil	ter						T."				Counter Use Only
Address: 1B COMMONS I	2r. Unit 12	B. Landonden	MNH		Rush-Approval I	Required			Orthop	hombate	Samples								1 1		Total Number Of:
Phone: (003-369-41	<u>40                                    </u>		<i>J</i> -	1-Day		3-Day	Ш	0	F	i <b>e</b> ld Filte	red		1						]		
Project Name:	STRTDOO			2-Day		4-Day		0	L	ab to Fil	ter		1	l						- 1	VIALS
Project Location:     101-2   Pr	Mamouth	rve. Stratna	m, NH				Data Deli	very					S	-							GLASS
Project Number: 5727000				Format:			PDF	X		A	EXCEL	X	14	l					İ		PLASTIC
Project Manager: R. Balt				Other:				* *					PFA								BACTERIA
Con-Test Quote Name/Number:				CLP Like Dat	a Pkg Required:									l						1	ENCORE
Invoice Recipient:		······································		Email To:	charton	9 WILL	SVAMA	1 Loak	ma.	COMO			[A]								ENCONE
Sampled By: M. Brovss	and & c	- Hensley		Fax To #:	LEATION	- VV: 11	ALLY VI	A \$ 70 (1	10111	LIBY	1		<b>1</b> '.	j							
Con-Test			Beginning	Ending	ı	<sup>1</sup> Matrix		T	I -		T	T	4	1							Glassware in the fridge?
Work Order#		ple ID / Description	Date/Time	Date/Time	COMP/GRAB	Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	S								Y/N ,
	161-2 Por	Asmouth Ave	1/29/20	1540	GRAB	DW	V			2			X								Glassware in freezer? Y / N
•																					Prepackaged Cooler? Y / N
																					*Contest is not responsible for
																					missing samples from prepacked coolers
																					<sup>1</sup> Matrix Codes:
																	$\top$		1	+	GW = Ground Water
							<b></b>						t		++		1	<del> </del>	1	-	<b>WW</b> = Waste Water <b>DW</b> = Drinking Water
															1	-	-	_	+ 1		A = Air S = Soil
							<u> </u>							-	++		+	-	+-+	+	SL = Sludge SOL = Solid
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July 11. H	elenny,	9 49 10																			
Berthved by: Isignature (	- 1/2	190 163c	(A)																		<sup>2</sup> <u>Preservation Codes:</u> I = Iced H = HCL
Relinguished by: (rignature)	- 0/1	Date/Time:		ion Limit Re	guirenents			Si	peda Re	quireme	nts										M = Methanol
ACCOUNT	1/04	yo pus	M.A	<u> </u>	<del> </del>								P Requi		Please u	se the	follov	ring coo	les to ir	dicate	N = Nitric Acid S = Sulfuric Acid
53H 1111 2	a an	Pite/Jime: 200	1>~							ł	MCP Certifi				ssible sa					the Cond	B = Sodium Bisulfate
COMMINITY D	<u>• 1 1//X</u>	Date/Time:		7									P Requi	red	117-6 . 4			mn abo			X = Sodium Hydroxide
Relinquished by: (signature)		Dage/ Titile.	CI								RCP Certiti	kation Fo	rm Requ	red H	High; A	n - Mec		L - LOW NOWN	; C - Cl	ean; U	T = Sodium Thiosulfate
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(certed by: (signature)		Dater time.	Ørner:	LINET	A- 23 C	PWSID#					NC)	i State DV	r Regum	ed Garage		THE RESERVE	avecana vi	200000000			define)
Relinguished by: (signature)		Date/Time:	Project Ent	INHDES	WAY 2	N. 64.210. W									NELAE	<del></del>		AP, LLC	Accre	dited	
······		Date, , and,	rioject Lin	Government		Municipa	lit.	17.71		LUL/D A			WOT		}	10	ther	"1 <b>-</b> .			PCB ONLY
Received by: (signature)		Date/Time:	4	Federal	1	Municipa	uty	Ę		MWRA			WRT	Α []			1.		omatog		Soxhlet
The state of the state of		bater rime.		City		21 J Brownfie	ıd			School MBTA							1.	∃ AIH.	A-LAP,	.L.C	Non Soxhlet
omments:		1	1	City		brownie		L.		MDIA	L										
P										Discl	aimer; C	on-Test	Labs is	not res	ponsib	le for	any c	mitted	d infor	nation	on the Chain of Custody. The
ige ge										Chain	of Custo	dy is a t	egal do	cument	that n	nust b	e con	nplete	and ac	curate	and is used to determine wha
Page 10										anatys	es the la	borator	y will p	erform.	Any n	nissing	info	rmatio	n is no	t the la	boratory's responsibility. Cor
0		4.4								Test va	alues you	r partne	rship c	n each						ith miss	ing information, but will not t
0		45 J. C.				1.0				1						neld a	accou	ntable			

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rej	ection Criteria Listing - Using Acceptance Policy) Any False
Statement will be brought to	to the attention of the Client - State True or False

Descriptional Disc	1 d B		Date	4120	120	Time	2005	
Received By			•••	1001		· —	No Ice	
How were the samples	In Cooler		No Cooler_		On Ice		-	
received?	Direct from Samp	ing			Ambient		Melted Ice	
Mara aggalog within		By Gun#	9		Actual Tem	p- 3.9		
Were samples within Temperature? 2-6°C	7	By Blank #			Actual Tem	p -		
Was Custody Se	al Intact?	NA	Wei	re Sample	s Tampered		NA	
Was COC Relino	•	1		-	ree With Sar		+	
Are there broken/le	•	on any sam		F	,	•		
Is COC in ink/ Legible?	T	J., J., J.,	Were sam	ples rece	 ived within he	olding time?	T	
Did COC include all	Client	T	Analysis	T		er Name	ナ	
pertinent Information?	Project		ID's	+		Dates/Times	T	
Are Sample labels filled		+	-		_			
Are there Lab to Filters?	out and logities.	Ė		Who wa	as notified?			
Are there Rushes?	•			Who wa	as notified?			
Are there Short Holds?	•			Who wa	as notified?			
Is there enough Volume?	,	<u></u>		•				
Is there Headspace when	•	NA		MS/MSD?	? / <b>/-</b>	and Alexander		
Proper Media/Containers	and the state of t			ls splitting	samples rec	juired?	<i>F</i>	
Were trip blanks receive	74.4 7 7 7 7	F		On COC?		100 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 Ma 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 May 120 Ma		
Do all samples have the		MA	Acid			Base		
	Containers							- 1
Unp-	1 Liter Amb.		1 Liter I	Plastic		16 oz	Amb.	
HCL-	500 mL Amb.		500 mL			8oz An	nb/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic		4oz Am	nb/Clear	
Bisulfate-	Flashpoint		Col./Ba	otorio		_ ^ _ A		
				iciena		20Z An	nb/Clear	
DI-	Other Glass		Other F			End	nb/Clear core	
				Plastic				
DI-	Other Glass		Other F	Plastic Bag		End		
DI- Thiosulfate-	Other Glass SOC Kit		Other F Plastic Ziple	Plastic Bag ock		End		
DI- Thiosulfate- Sulfuric-	Other Glass SOC Kit Perchlorate		Other F Plastic	Plastic Bag ock		End		•
DI- Thiosulfate- Sulfuric-	Other Glass SOC Kit Perchlorate		Other F Plastic Ziple	Plastic Bag ock Aedia		End Frozen:		*
DI- Thiosulfate- Sulfuric-  Vials Unp-	Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb.		Other F Plastic Ziplo Unused A	Plastic Bag ock Aedia Plastic		End Frozen: 16 oz 8oz Am	z Amb.	#
DI- Thiosulfate- Sulfuric-  Vials Unp- HCL-	Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb.	•	Other F Plastic Zipk Unused I	Plastic Bag Dock  Aedia  Plastic Plastic		End Frozen: 16 oz 8oz An 4oz An	z Amb. nb/Clear nb/Clear	
DI- Thiosulfate- Sulfuric-  Vials Unp- HCL- Meoh-	Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb.		Other F Plastic Zipk Unused A 1 Liter I 500 mL 250 mL Flash	Plastic Bag Dock  Media  Plastic Plastic Plastic point		End Frozen: 16 oz 8oz Am 4oz Am 2oz Am	z Amb. hb/Clear hb/Clear	
DI- Thiosulfate- Sulfuric-  Vials Unp- HCL-	Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb.		Other F Plastic Ziple Unused A 1 Liter I 500 mL 250 mL	Plastic Bag Dock  Media  Plastic Plastic Plastic point	*	End Frozen: 16 oz 8oz Am 4oz Am 2oz Am	z Amb. nb/Clear nb/Clear	#
DI- Thiosulfate- Sulfuric-  Vials Unp- HCL- Meoh- Bisulfate-	Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria		Other F Plastic Zipk Unused I  1 Liter   500 mL 250 mL Flash Other Plastic	Plastic Bag Dck  Media  Plastic Plastic Plastic Plastic Plastic Glass Bag		End Frozen: 16 oz 8oz Am 4oz Am 2oz Am	z Amb. hb/Clear hb/Clear	#
DI- Thiosulfate- Sulfuric-  Vials Unp- HCL- Meoh- Bisulfate- DI-	Other Glass SOC Kit Perchlorate  Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic		Other F Plastic Ziple Unused I  1 Liter I 500 mL 250 mL Flash Other	Plastic Bag Dck  Media  Plastic Plastic Plastic Plastic Plastic Glass Bag		End Frozen: 16 oz 8oz Am 4oz Am 2oz Am	z Amb. hb/Clear hb/Clear	



October 13, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 166 Portsmouth Ave., Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1581

My M'Couthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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Certifications	9
Chain of Custody/Sample Receipt	10



Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1581

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 166 Portsmouth Ave., Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

 166 Portsmouth Ave
 2011581-01
 Drinking Water
 EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA 537.1

#### Qualifications:

PF-03

Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar internal standard non-conformance. Original results reported.

Analyte & Samples(s) Qualified:

d3-NMeFOSAA

20I1581-01[166 Portsmouth Ave]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lua Warrlengton Technical Representative



Project Location: 166 Portsmouth Ave., Stratham, N Sample Description: Work Order: 20I1581

Date Received: 9/29/2020

Sampled: 9/29/2020 15:45 Field Sample #: 166 Portsmouth Ave

Sample ID: 20I1581-01 nnle Matrix · Drinking Wa

Sample Matrix: Drinking Water									
		Semivo	latile Organic Compo	unds by - LC	MS-MS				
		I	MCL/SMCL				Date	Date/Time	
Analyte	Results	RL	MA ORSG Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	5.3	2.0	ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorohexanoic acid (PFHxA)	2.6	2.0	ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorohexanesulfonic acid (PFHxS)	19	2.0	ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorooctanoic acid (PFOA)	6.9	2.0	ng/L	1		EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:03	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C-PFHxA		73.9	70-130					10/10/20 11:03	
M3HFPO-DA		71.5	70-130					10/10/20 11:03	
12G PED 4		07.0	70.130					10/10/20 11 02	

	Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA		73.9	70-130		10/10/20 11:03
M3HFPO-DA		71.5	70-130		10/10/20 11:03
13C-PFDA		87.0	70-130		10/10/20 11:03
d5-NEtFOSAA		91.2	70-130		10/10/20 11:03



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1581-01 [166 Portsmouth Ave]	B268326	250	1.00	10/09/20



## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Analy	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
CS (B268326-BS1)				Prepared: 10	)/09/20 Analy	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



## FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected

RL Reporting Limit
DL Method Detection Limit
MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

PF-03 Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar

internal standard non-conformance. Original results reported.

U Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in	Drinking	Water
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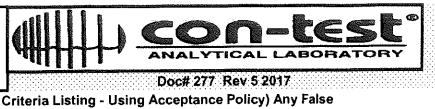
Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9CI-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

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I I I ANALYTICAL LABORATORY	Phone: 413-525-2332 Fax: 413-525-6405		10.4	oue red Turna			OT RECO			ngmeadow	<u></u>	28 <b>2</b>		ANA	VCIC	REQU	ССТ	D		Page of
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ne:603-364-4140		J	1-Day		3-Day		0	F	ield Filte	red	14.194(20) X34(0) 251(0) 244			-				-		rotat Hamber OI.
jesi Name STR1	10001		2-Day		4-Day		0	ļ	ab to Fi	ter										VIALS
ect Location: (66 for 13mo	Van Ave, Stratna	m NH				Data Dei	very					~								GLASS
ect Number: GTRTODOI		• • • • • • • • • • • • • • • • • • • •	Format:			PDF	X			EXCEL	X	4								PLASTIC
ect Manager: R. BAYTON			Other:									1 M						İ	1	BACTERIA
Test Quote Name/Number; ice Recipient;			2	a Pkg Required:			ر اسا	3				0								ENCORE
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pled By: M. BYTV SCAPA  Con-Test		Beginning	Ending		l management	74700000000000000000000000000000000000					,	Ē					1			Glassware in the fridge
Work Order# CI	Illent Sample ID / Description	Date/Time	Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLA5S	PLASTIC	8ACTERIA	ENCORE	9								Y/N
1 166	Portsmouth Ave	9/20/20	1949	GRAB	DW	V			2			X					1	$\top$		Glassware in freezer? Y
<b>1</b> -8a.																	-	$\top$	1-1	Prepackaged Cooler? Y
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																				SOL = Solid
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ngaisifed by: (signature) Hus	My 9.29.20	Client Com	ments:					1		J		I			i				<u> </u>	define)
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William .	9129/m 2005	МΑ		stem to the second				I - OLD HILL		11-3	ма мсе						•			M = Methanol N = Nitric Acid
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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples\_\_\_\_\_



	ejection Criteria Listing - Using Acceptance Policy) Any False
Statement will be brough	t to the attention of the Client - State True or False

Client	and B		Date	4120	BO	Time	2005	
How were the samples	in Cooler	7	No Cooler	<del></del>	On Ice	T	No Ice	
received?					Ambient		Melted Ice	***************************************
	Direct from Sam	_	<del></del>				_ Worked for	
Were samples within	<b>T</b>	By Gun#			Actual Tem	p- 3.9		
Temperature? 2-6°C	J	By Blank #			Actual Temp	D -		
Was Custody S	Seal Intact?	NA	We	re Sample	s Tampered	with?	NA	
Was COC Reli	nquished?	1-	Does	Chain Ag	ree With Sar	nples?	<u></u>	
Are there broken	leaking/loose caps	s on any sam	ples?	<u> </u>	_			
Is COC in ink/ Legible'			Were san	nples recei	ved within ho	olding time?	<u></u>	
Did COC include all	Client	T	Analysis	_T		er Name	<u> </u>	
pertinent Information?	Project	-	ID's	+	Collection	Dates/Times	T	
Are Sample labels fille	ed out and legible?	+	_					
Are there Lab to Filters		F		Who was	s notified?			
Are there Rushes?		F		Who was	s notified?			
Are there Short Holds?	•	E	•	Who was	s notified?			
Is there enough Volum		<del></del>	•		<del></del>			
Is there Headspace wh		NA		MS/MSD?	<del> </del>			, ,
Proper Media/Containe		7		Is splitting	samples req	uired?	<u></u>	
Were trip blanks receiv		F	• • • • • • • • • • • • • • • • • • • •	On COC?	<u> </u>		(A. A. S. A. A. S. A. A. S. A.	
Do all samples have th	a continue year contract	NA	Acid	The state of the s	•	Base	200	
Vials #	Containers: "	- 9			<b>#</b>			
Unp-	1 Liter Amb.		1 Liter				Amb.	
HCL-	500 mL Amb.		500 mL				nb/Clear	
Meoh-	250 mL Amb.		250 mL		a		nb/Clear	
Bisulfate-	Flashpoint	<u> </u>	Col./Ba			<del></del>	nb/Clear	
DI-	Other Glass		Other				core	
Thiosulfate-	SOC Kit		Plasti			Frozen:		
Sulfuric-	Perchlorate		Zipl	ock				
			Unused I	ledia				
Viels 4	(Containers)				4			
Unp-	1 Liter Amb.		`1 Liter	Plastic		16 oz	z Amb.	
HCL-	500 mL Amb.		500 mL	Plastic			nb/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic			nb/Clear	
Bisulfate-	Col./Bacteria		Flash	point			nb/Clear	
DI-	Other Plastic		Other	Glass			core	
Thiosulfate-	SOC Kit		Plasti	c Bag		Frozen:		
Sulfuric-	Perchlorate		Zipl	ock				
Comments:								



October 13, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 9 College Rd, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1582

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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B268326	7
Flag/Qualifier Summary	8
Certifications	9
Chain of Custody/Sample Receipt	10



Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1582

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 9 College Rd, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

9 College Rd 2011582-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 9 College Rd, Stratham, NH Sample Description: Work Order: 2011582

Date Received: 9/29/2020

Field Sample #: 9 College Rd

Sampled: 9/29/2020 09:30

79.7

Sample ID: 20I1582-01
Sample Matrix: Drinking Wa

d5-NEtFOSAA

Sample Matrix: Drinking Water										
		Semivol	latile Organi	c Compoun	ds by - LC/	MS-MS				
		I	MCL/SMCL					Date	Date/Time	
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	3.9	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorohexanoic acid (PFHxA)	3.0	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorohexanesulfonic acid (PFHxS)	9.7	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorooctanoic acid (PFOA)	11	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorooctanesulfonic acid (PFOS)	21	2.0		ng/L	1		EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:43	JFC
Surrogates		% Recovery	Recovery	Limits		Flag/Qual				
13C-PFHxA		77.7	70-1	30					10/12/20 15:43	
M3HFPO-DA		71.8	70-1						10/12/20 15:43	
13C-PFDA		77.7	70-1	30					10/12/20 15:43	

70-130

10/12/20 15:43



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1582-01 [9 College Rd]	B268326	250	1.00	10/09/20



## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Analy	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
CS (B268326-BS1)				Prepared: 10	)/09/20 Analy	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



## FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

201582

will.	U	- 00			http://www.c	ontestlab	s.com						Doc # 38	1 Rev 2_0	6262	019						
<u>con-test</u>	Phone:	413-525-2332				CHAIN	OF CUSTO	DY RECO	RD		ice Street ngmeadow	, MA 010	178									Page of
THE TROPAGNAL LABORATORY	Fax: 4	13-525-6405		Re	allested Turnst	ound Tim	ne .		on krait		s Samulas		1	Δ	NAL	YSIS I	REOL	JESTE	)			rage or
	Email:	info@contestlabs.com		7-Day		10-Day		0	\$45000000000000000000000000000000000000	ield Filte	anyoremental and detective	Asia and a second	0	T	1		1	1	_	Т	[2	Preservation Code
Company Name:	Willox &	Barton, Ihc.		PFAS 10-Day	(std)	Due Date	<b>:</b> :	0		Lab to Fit	lter			<del>-   -  </del> -		-		-	<del> </del>	$\dashv$		Preservation Code
Address: 1B Commons	Dr. Unit	128. London	rdeny		Rush-Approval	Required			Driho	ile is let it	e Samples											Total Number Of:
Phone: 603-369-41	40		J	1-Day		3-Day		0	DARKARE BOOKS SHEET	Field Filte	ARTHUR AR	West Wasterna	1				ļ			1		Total Number Of.
	STRTO	001		2-Day	ā	4-Day		0		Lab to Fil	lter		] ,[							-		VIALS
Project Location: 9 6016	re Rd.	Stratham	NH				Data Deli	very						1 1	-							GLASS
Project Number: STRT00	01			Format:			PDF				EXCEL		4									PLASTIC
Project Manager: R. BAVT	2 <b>n</b>			Other:									~									BACTERIA
Con-Test Quote Name/Number:				CLP Like Dat	Pkg Required:								S				ŀ					ENCORE
nvoice Recipient:				Email To:									S				- 1					LITCOIL
Sampled By: M - BNOVSS	ara di	C. Hensley		Fax To #:					***************************************		***************************************		7									
Con-Test Work Order#		ple ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	N N	***************************************								Glassware in the fridge? Y / N
\ \\	9 6011-	ege Rd	9/29/20	0930	GRAB	DW	V			2			X				$\top$			1		Glassware in freezer? Y / N
																					F	Prepackaged Cooler? Y / N
								l				1		į								*Contest is not responsible for
																					П	nissing samples from prepacked coolers
																						1 Matrix Codes;
										]			1		i			- 1				GW = Ground Water WW = Waste Water
															$\neg$						_	DW = Drinking Water
			<u> </u>					<u> </u>	<u> </u>	<del> </del>	<u> </u>	<del> </del>	<del>                                     </del>		<del> </del> -		+	┥	+ +		_	A = Air S = Soil
						<u> </u>	<u> </u>	<u> </u>		<u> </u>	ļ				$\dashv$							SL = Sludge
**************************************							ļ												1			SOL = Solid
														7 1				<u> </u>	1 1			O = Other (please define)
Relinguished by: (signature) Received by: (signature)  Authorized by: (signature)	felly	Date/Time: 9-29-20 Date/Time:	Client Com									ł	I I					1		. 1.		define)  102000  2 Preservation Codes: 1 = Iced H = HCL
Retinguished by: (signature)	9/	Date / time:	Detect MA	ton birdi Fed	orements			51	ecial Re	qureme	nts									****		M = Methanol
eceived by (signature)	40	Date/Time:	MA.	L									P Require	- I FIE				ring cod				N = Nitric Acid S = Sulfuric Acid
THE VIAI	34 9/2	1733A) /FICE									MCP Certific				ole sa			itration		the Co	inc	B = Sodium Bisulfate
Refinquished by: (signature)	251 1.0	Date/Time:	ст			3					RCF Certific		P Require in Require		gh; A		fium; I	mn abo L - Low; nown		ean; L	J -	X = Sodium Hydroxide T = Sodium Thiosulfate
Received by: (signature)		Date/Time:										Chara Pas	Required	-				14				O = Other (please
			Other	NHIDES	AKAS	PWSIO #					Alen	31918: 1749	vedimen	N	FLAC	and A	na a	AP, LLC				define)
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				Government		Municipa	lity			MWRA			WRTA	ΓΠ		ľ		Chr	nmatoo	ram		Soxhlet
Received by: (signature)		Date/Time:	]	Federal		21 J				School		]		L				AIH				Non Soxhlet
				City		Brownfie	łd			MBTA							***					1
Page 10 of										Chain analys	of Custodes the lat	dy is a le boratory	egal doci will per	ıment th form.  A	nat π iny π oject	nust be nissing and v	e com ; infor will tr	nplete rmatio	and ac n is no sist wi	curate t the l	e and labora	he Chain of Custody. The is used to determine wha atory's responsibility. Cor information, but will not i

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

ogin Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any Fals	e
Statement will be brought to the attention of the Client - State True or False	

	nd B			4.44				****
Received By	<u>u</u>		Date	4/80	<u> 60</u>	Time	<u> 2005</u>	
How were the samples	In Cooler	<u> </u>	No Cooler		On Ice	T	No Ice	
received?	Direct from Sample	ing			Ambient		Melted Ice	
Were samples within		By Gun#	9		Actual Tem	ip - 3.9	-	
Temperature? 2-6°C	1	By Blank #			Actual Tem	ID -		
Was Custody Se		NA	We	re Samples	s Tampered		NA	
Was COC Relin	quished?	+-	•	-	ee With Sa		7	
Are there broken/le	eaking/loose caps	on any sam	ples?	F_		•	7	
Is COC in ink/ Legible?	T		Were sam	ples recei	ved within h	olding time?	<u> </u>	
Did COC include all	Client		Analysis _	<u>T</u>	•	er Name		
pertinent Information?	Project _		lD's	+	Collection	Dates/Times	T	
Are Sample labels filled		<u>+</u>						
Are there Lab to Filters?	· _	<u> </u>	•		notified?			
Are there Rushes?	-	<u> </u>	•		notified?		MR MAN III	
Are there Short Holds?	_	F		Who was	notified?			
s there enough Volume		_1			T	romes su		
Is there Headspace whe		<u> </u>		MS/MSD?	<u> </u>	ACCOUNT OF THE PROPERTY OF THE	F	
Proper Media/Container	tion of the committee of the contract of the c				samples red	juired?		
Were trip blanks receive		market and the second	As major	On COC?	<u> </u>	- 🚉		
Do all samples have the	proper pH?	MA	Acid: _			Base		
	Containers.	#			- #			- #
Unp-	1 Liter Amb.		1 Liter F			16 oz		
HCL-	500 mL Amb.		500 mL		<u> </u>	8oz Am		
Meoh- Bisulfate-	250 mL Amb.		250 mL		<u></u>	4oz Am		
DI-	Flashpoint Other Glass		Col./Ba Other F			2oz Am Enc		
Thiosulfate-	SOC Kit		Plastic	· · · · · · · · · · · · · · · · · · ·		Frozen:	ole j	
Sulfuric-	Perchlorate		Ziplo			1102611.		
	· oromoreso							
A.A			Unused N	Edib				
<b>/lais</b> Jnp-	Containers: 1 Liter Amb.	# 1	1 Liter F	Nostio		16 oz .	Amb	ii ii
HCL-	500 mL Amb.	, .	500 mL			8oz Ami	<del></del>	
Meoh-	250 mL Amb.		250 mL			4oz Ami		
Bisulfate-	Col./Bacteria		Flash			2oz Ami		
DI-	Other Plastic		Other (			Ence		
Thiosulfate-	SOC Kit		Plastic			Frozen:		
Sulfuric-	Perchlorate		Ziplo					1
Comments:	•		· ·					



October 13, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 7R Winnicult, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1583

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

Sample Summary	3
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Semivolatile Organic Compounds by - LC/MS-MS	7
B268326	7
Flag/Qualifier Summary	8
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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1583

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 7R Winnicult, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

7R Winnicult Rd 2011583-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 7R Winnicult, Stratham, NH Sample Description: Work Order: 20I1583

Date Received: 9/29/2020

Sampled: 9/29/2020 15:55 Field Sample #: 7R Winnicult Rd

Sample ID: 20I1583-01

Sample Matrix: Drinking Water										
		Semivo	latile Organi	c Compoun	ds by - LC/	MS-MS				
		1	MCL/SMCL					Date	Date/Time	
Analyte	Results	RL	MA ORSG	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorohexanoic acid (PFHxA)	3.4	2.0		ng/L	1		EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/9/20	10/10/20 11:46	JFC
Surrogates		% Recovery	Recovery	Limits		Flag/Qual				
13C-PFHxA		78.1	70-1	30					10/10/20 11:46	
M3HFPO-DA		74.3	70-1	30					10/10/20 11:46	
12C DED A		72.7	70.1	20					10/10/20 11:46	

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	78.1	70-130		10/10/20 11:46
M3HFPO-DA	74.3	70-130		10/10/20 11:46
13C-PFDA	73.7	70-130		10/10/20 11:46
d5-NEtFOSAA	81.7	70-130		10/10/20 11:46



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1583-01 [7R Winnicult Rd]	B268326	250	1.00	10/09/20



## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Analy	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
CS (B268326-BS1)				Prepared: 10	)/09/20 Analy	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



## FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

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Doc # 381 Rev 2\_06262019

held accountable.

CON-test 39 Spruce Street CHAIN OF CUSTODY RECORD Phone: 413-525-2332 East Longmeadow, MA 01028 Fax: 413-525-6405 **ANALYSIS REQUESTED** ved Metals Samples Email: info@contestlabs.com 7-Day 0 10-Day Field Filtered <sup>2</sup> Preservation Code Company Name: Wilcox & Barton, Inc. PFAS 10-Day (std) 0 Due Date: Lab to Filter Courier Use Only Address: 1B commons Dr. Unit 12B. whamdown NH Rush Approval Required Orthophosphate Samples Total Number Of: Phone: 603-369-4190 1-Day 3-Day 0 Field Filtered STRTOOO 2-Day 4-Day 0 Lab to Filter VIALS Project Location: 7R WinniwH Rd, Strutham, NH Data Delivery GLASS Project Number: STR-T0001 Format: EXCEL PLASTIC Project Manager: R BANTON Other: 3 BACTERIA Con-Test Quote Name/Number: CLP Like Data Pkg Required: ENCORE rbanon@wilcoxandlanton.com Invoice Recipient: Email To: Sampled By: (V) Brovsava & C. Hunsley Fax To #: Con-Test Beginning Ending Glassware in the fridge? <sup>1</sup>Matrix Client Sample ID / Description COMP/GRAB Conc Code VIALS GLASS PLASTIC BACTERIA ENCORE Work Order# Date/Time Date/Time Y/N Code 7R Winniaut Rd 1655 2 1/20/20 GRATS  $\mathsf{D} \mathsf{W}$ Glassware in freezer? Y / N Prepackaged Cooler? Y / N \*Contest is not responsible for missing samples from prepacked coolers 1 Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water A = Air **S** = Soil SL = Sludge SOL = Solid 0 = Other (please define) Client Comments: Date/Time: <sup>2</sup> Preservation Codes: I = Iced H = HCL M = Methanol N = Nitric Acid MA MCP Required Please use the following codes to indicate S = Sulfuric Acid MCF Certification Form Require possible sample concentration within the Conc B = Sodium Bisulfate CT RCP Required Code column above: X = Sodium Hydroxide H - High; M - Medium; L - Low; C - Clean; U -BUP Certification Form Require T = Sodium Thiosulfate Unknown Received by: (signature) O = Other (please Date/Time: MA State DW Requires define) NHOES ATO QS PWSID# NELAC and AIHA-LAP, LLC Accredited Relinquished by: (signature) Date/Time: Project Entity Other PCB ONLY Government Municipality **MWRA** WRTA Chromatogram Soxhlet Received by: (signature) Date/Time: Federal 21 J School AIHA-LAP,LLC Non Soxhlet City Brownfield MBTA omments: Page Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con 6 Test values your partnership on each project and will try to assist with missing information, but will not b

Table of Contents

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection	Criteria Listing - Using Acceptance Policy	) Any Faise
Statement will be brought to the a	attention of the Client - State True or False	

Client Wa	nd B			11111	า กล	<b>-</b> :	2000	
Received By			Date	<u>4/ac</u>	160	Time	<u>auu.</u>	<u> </u>
How were the samples	In Cooler	<u>T</u>	No Cooler	<i>†</i>	On Ice		No Ice	
received?	Direct from Samp				Ambient		Melted Ice	
	<b>2</b> ,,000,	By Gun#	-4		Actual Tem	p- 3.9	_	
Were samples within	T	-					····	
Temperature? 2-6°C	<u> </u>	By Blank #			Actual Tem		1/10	
Was Custody Se		<u> Л П</u>	_	-	les Tampered		<del></del>	
Was COC Relin			-	S Chain A	Agree With Sa	mpies?		•
Are there broken/	eaking/loose caps	on any sam	ples?				<del></del>	
Is COC in ink/ Legible?	T			nples rec	eived within h			,
Did COC include all	Client		Analysis			er Name		,
pertinent Information?	Project		ID's	<u>+</u>	Collection	Dates/Times	·	•
Are Sample labels filled	d out and legible?	<u></u>						
Are there Lab to Filters?	?	<u> </u>	-		vas notified?			
Are there Rushes?		E	_		vas notified?			
Are there Short Holds?		E	-	Who w	vas notified?			
Is there enough Volume	<b>∍</b> ?		<b>-</b> .		<b>T</b>			
Is there Headspace who	ere applicable?	NA		MS/MSE		<u> </u>	i e	
Proper Media/Container		<u> </u>		-	ng samples red	quired?		
Were trip blanks receive	50000000	F		On COC	?? <u> </u>	<b>-</b>		
Do all samples have the	Contract Con	NA	Acid	i partino.	·	Base		
Vials I #	Containers	- 4			1 4			#
Unp-	1 Liter Amb.		1 Liter	Plastic			z Amb.	
HCL-	500 mL Amb.		500 mL	Plastic			nb/Clear	
Meoh-	250 mL Amb.		250 mL	Plastic	J		nb/Clear	
Bisulfate-	Flashpoint		Col./Ba	acteria			nb/Clear	ļ
DI-	Other Glass		Other	Plastic			core	L
Thiosulfate-	SOC Kit		Plasti	c Bag		Frozen:		
Sulfuric-	Perchlorate		Zipi	ock				
			Unused l	Media				
Viels I I	Containers:							
Unp-	1 Liter Amb.		1 Liter	Plastic		16 o:	z Amb.	
HCL-	500 mL Amb.	1	500 mL	Plastic			nb/Clear	
Meoh-	250 mL Amb.		250 mL	. Plastic			nb/Clear	
Bisulfate-	Col./Bacteria	1	Flash	point		2oz Ar	mb/Clear	
DI-	Other Plastic		Other	Glass			core	
Thiosulfate-	SOC Kit		Plasti	c Bag		Frozen:		
Sulfuric-	Perchlorate		Zipl	lock				
Comments:								
		J						

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October 13, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 160 Portmouth Ave., Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1584

My M'Couthy

Enclosed are results of analyses for samples received by the laboratory on September 29, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/13/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1584

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 160 Portmouth Ave., Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

160 Portsmouth Ave 2011584-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 160 Portmouth Ave., Stratham, NH Sample Description: Work Order: 2011584

Date Received: 9/29/2020

13C-PFDA

d5-NEtFOSAA

Field Sample #: 160 Portsmouth Ave Sampled: 9/29/2020 15:30

Sample ID: 20I1584-01
Sample Matrix: Drinking Water

Sample Matrix: Drinking Water									
		Semivol	latile Organic Compou	nds by - LC	MS-MS				
MCL/SMCL Date Date/Time									
Analyte	Results	RL	MA ORSG Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	2.8	2.0	ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorohexanoic acid (PFHxA)	8.6	2.0	ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorohexanesulfonic acid (PFHxS)	9.6	2.0	ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluoroheptanoic acid (PFHpA)	3.6	2.0	ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorooctanoic acid (PFOA)	9.2	2.0	ng/L	1		EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 16:26	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C-PFHxA		78.4	70-130					10/12/20 16:26	
M3HFPO-DA		76.0	70-130					10/12/20 16:26	

70-130

70-130

79.2

80.2

10/12/20 16:26

10/12/20 16:26



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1584-01 [160 Portsmouth Ave]	B268326	250	1.00	10/09/20



## QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Analy	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
CS (B268326-BS1)				Prepared: 10	)/09/20 Analy	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



## FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
---	-----------	---------------	-------------	---------

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

					http://www.c	ontestlab	s.com						Doc # 3	31 Rev 2	_062620	019					1
all con-test"	Phone:	413-525-2332				CHAIN	OF CUSTO	DY RECO	RD		ce Street ngmeadow	. 24 6 64 6	10								Page of
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		nfo@contestlabs.com		7-Day		10-Day		0	NUMBER OF STREET	ield Filte	5AUS (2217225AUS/PUS7Z42375D		0		1111		LQUI	1	<u></u>	<del>- 1</del>	12 p
Company Name:		Barton Inc.	1	PFAS 10-Day	(std) 😾	Due Date	· ·	0		ab to Fil			-		+	_	-	+	┪━┼	-	<sup>2</sup> Preservation Code
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Project Manager: P. BAVA				Other:			r Di				EXCLE	$\sim$									
Con-Test Quote Name/Number:	N1				ta Pkg Required:								4								BACTERIA
Invoice Recipient:				Email To:	Charm	வவ்	VOY ale	بنائماً أم	al-				B			1					ENCORE
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Con-Test	erra u c	<u>~ tlensily</u>		Expression and the second	ı			1	T ····		T	1	1								Glassware in the fridge?
Con-rest Work Order#	Client Samp	ole ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	B			- 1					Y/N
	V D DVA	70.0\A. 0.10	01-0 i-	1770	CAR		V			7			~	+	++		-	+	++		<b> </b> _,
	INO LOLG	snowhave	9/29/20	1630	GRAB	DW	V			2				<del>- </del>			-		┼─┼		Glassware in freezer? Y / N .
							ļ	ļ		ļ	<u> </u>	<u> </u>		_	1			_	1		Prepackaged Cooler? Y / N
							]			<u> </u>											*Contest is not responsible for missing samples from prepacked
														İ							coolers :
					"																<sup>1</sup> Matrix Codes:
Str. Constitution on a constitution									<u> </u>	1					†				1	$\dashv$	GW = Ground Water
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						<u> </u>			]							ļ					DW = Drinking Water A = Air
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						<b>†</b>	<u> </u>	-	<u> </u>		<u> </u>	<u> </u>		_		$\rightarrow$	+		1	$\dashv$	SL = Sludge SOL = Solid
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Mar My	WW	9-29-20	6																		
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pelay VIII	- 1/2	4/19 100				3	**************************************	NATIONAL PROPERTY OF THE	SERVER CONTRACTOR	*************			***************								H = HCL
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Received by Superture)	7/0	11/2 JUG	MA	<u> </u>									<sup>2</sup> Requii		Please u	se the	follow	ing cod	les to ind	licate	N = Nitric Acid S = Sulfuric Acid
	12.0	Dafte/Time:				<u> </u>		·			MCP Certifi				ssible sa				within th	he Conc	B = Sodium Bisulfate
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Page					* .					Chain	iaimer: L Lof Custo	on-rest	caus is	not res	that o	ne 101 nuet b	any oi	mitted	i intorm	ation o	n the Chain of Custody. The nd is used to determine wha
Ф										analy	ses the la	borator	will no	erform.	Anv n	nissine	ra com r infor	mation	ano act n is not	the lah	oratory's responsibility. Cor
10	e e								100	Test v	alues you	r partne	rship o	each	project	t and i	will to	y to as	sist wit	h missi	ng information, but will not t
으	* .		and profes	e Parental		er i de e	1.0						•				accour				

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples\_\_\_\_\_



Login Sample Receipt <sup>,</sup>	Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False
Statement v	vill be brought to the attention of the Client - State True or False

Client W D	ind B						
Received By	au		Date	4/20/20	_ Time	<u>2005</u>	<del></del>
How were the samples	In Cooler		No Cooler	On Ice		No Ice	
received?	Direct from Samp	oling	_	Ambient		Melted Ice	
	·	By Gun #	4	Actual Ter	np- 3.9		
Were samples within	T	-			******		
Temperature? 2-6°C	\ <u>J</u>	By Blank#		Actual Ter		1/10	
Was Custody S		7011	-	re Samples Tampere		<del></del>	
Was COC Reli			-	S Chain Agree With Sa	ampies :		
	leaking/loose caps	on any sam			- elding time?	+	
Is COC in ink/ Legible?		- +		nples received within I	_		
Did COC include all	Client		_ Analysis <sub>-</sub> ID's		ler Name n Dates/Times		
pertinent Information?			- ID\$ -	Collection	i Dates/ i illes		
Are Sample labels fille Are there Lab to Filters	— — — — — — — — — — — — — — — — — — —		-	Who was notified?			
Are there Rushes?	:	<u> </u>	-	Who was notified?	****		
Are there Rusnes? Are there Short Holds?		<del></del>	-	Who was notified?		<del></del>	
			•	VVIIO WAS HOUNEU!	<del></del>		
s there enough Volumes there Headspace wh		NA	-	$_{MS/MSD?}$ $\mathcal{F}$		e.	
The state of the s		<u> </u>	•	Is splitting samples re	auirod2	F	
Proper Media/Containe			· · · · · · · · · · · · · · · · · · ·	On COC?	quii eu :	:	A 18 Acc
Were trip blanks receiv		7-3	•		- Base		
Do all samples have the	e proper pri?	MA	Acid _		Dase		
Viais #	Containers	•		# -			#
Unp-	1 Liter Amb.		1 Liter			: Amb.	
HCL-	500 mL Amb.		500 mL			nb/Clear	
Meoh-	250 mL Amb.		250 mL			nb/Clear	
Bisulfate-	Flashpoint		Col./Ba			nb/Clear	
ĎI-	Other Glass		Other F	<del></del>		core	
Thiosulfate-	SOC Kit		Plastic		Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock			
			Unused A	Aedia			
		- #		4			#
Unp-	1 Liter Amb.		1 Liter			Amb.	
HCL-	500 mL Amb.	<u></u>	500 mL			nb/Clear	
Meoh-	250 mL Amb.		250 mL			nb/Clear	
Bisulfate-	Col./Bacteria	ļ	Flash			nb/Clear	
OI-	Other Plastic		Other		<del> </del>	core	
Thiosulfate-	SOC Kit		Plastic		Frozen:		
Sulfuric-	Perchlorate		Ziplo	ock			
Comments:							



October 14, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 15 College Rd., Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1639

My MCouthy

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

Sample Summary	3
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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/14/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1639

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 15 College Rd., Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

15 College Road 2011639-01 Ground Water SOP 434-PFAAS



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the

best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 15 College Rd., Stratham, NH Sample Description: Work Order: 2011639

Date Received: 9/30/2020

Field Sample #: 15 College Road Sampled: 9/30/2020 11:25

Sample ID: 20I1639-01
Sample Matrix: Ground Water

#### Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:30	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C DEHy A		75.7	70.130					10/13/20 12:30	

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	75.7	70-130		10/13/20 12:30
13C-PFDA	76.2	70-130		10/13/20 12:30
d5-NEtFOSAA	71.2	70-130		10/13/20 12:30



# **Sample Extraction Data**

# $Prep\ Method:\ SOP\ 434-PFAAS-SOP\ 434-PFAAS$

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1639-01 [15 College Road]	B268229	250	1.00	10/08/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268229 - SOP 434-PFAAS										
Blank (B268229-BLK1)				Prepared: 10	0/08/20 Analy	yzed: 10/13/2	20			
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L							U
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							U
2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
erfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	32.5		ng/L	40.0		81.1	70-130			
urrogate: 13C-PFDA	32.5		ng/L	40.0		81.4	70-130			
urrogate: d5-NEtFOSAA	126		ng/L	160		78.8	70-130			
.CS (B268229-BS1)				Prepared: 10	0/08/20 Analy	yzed: 10/13/2	20			
erfluorobutanoic acid (PFBA)	8.52	2.0	ng/L	10.0		85.2	70-130			
erfluorobutanesulfonic acid (PFBS)	8.17	2.0	ng/L	8.85		92.3	70-130			
erfluoropentanoic acid (PFPeA)	10.0	2.0	ng/L	10.0		100	70-130			
erfluorohexanoic acid (PFHxA)	9.41	2.0	ng/L	10.0		94.1	70-130			
erfluorohexanesulfonic acid (PFHxS)	8.07	2.0	ng/L	9.10		88.7	70-130			
erfluoroheptanoic acid (PFHpA)	8.61	2.0	ng/L	10.0		86.1	70-130			
erfluoroheptanesulfonic acid (PFHpS)	8.52	2.0	ng/L	9.50		89.6	70-130			
erfluorooctanoic acid (PFOA)	9.57	2.0	ng/L	10.0		95.7	70-130			
erfluorooctanesulfonic acid (PFOS)	8.46	2.0	ng/L	9.25		91.4	70-130			
erfluorooctanesulfonamide (FOSA)	8.15	2.0	ng/L	10.0		81.5	70-130			
2 Fluorotelomersulfonic acid (6:2FTS A)	8.54	2.0	ng/L	9.50		89.9	70-130			
erfluorononanoic acid (PFNA)	9.62	2.0	ng/L	10.0		96.2	70-130			
erfluorodecanoic acid (PFDA)	9.45	2.0	ng/L	10.0		94.5	70-130			
erfluorodecanesulfonic acid (PFDS)	8.44	2.0	ng/L	9.65		87.4	70-130			
-EtFOSAA	10.5	2.0	ng/L	10.0		105	70-130			
:2 Fluorotelomersulfonic acid (8:2FTS A)	8.50	2.0	ng/L	9.60		88.5	70-130			
erfluoroundecanoic acid (PFUnA)	8.59	2.0	ng/L	10.0		85.9	70-130			
-MeFOSAA	9.24	2.0	ng/L	10.0		92.4	70-130			
erfluorododecanoic acid (PFDoA)	8.46	2.0	ng/L	10.0		84.6	70-130			
erfluorotridecanoic acid (PFTrDA)	8.56	2.0	ng/L	10.0		85.6	70-130			
erfluorotetradecanoic acid (PFTA)	7.94	2.0	ng/L	10.0		79.4	70-130			
urrogate: 13C-PFHxA	32.6		ng/L	40.0		81.5	70-130			
urrogate: 13C-PFDA	32.9		ng/L	40.0		82.3	70-130			
Surrogate: d5-NEtFOSAA	130		ng/L	160		81.3	70-130			

RPD

%REC



# 39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

#### QUALITY CONTROL

Spike

Source

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B268229 - SOP 434-PFAAS										
Matrix Spike (B268229-MS2)	Source	e: 20I1639-0	1	Prepared: 10	0/08/20 Analyz	zed: 10/13/2	20			
Perfluorobutanoic acid (PFBA)	8.63	2.0	ng/L	10.0	ND	86.3	70-130			
Perfluorobutanesulfonic acid (PFBS)	8.04	2.0	ng/L	8.85	ND	90.8	70-130			
Perfluoropentanoic acid (PFPeA)	9.56	2.0	ng/L	10.0	ND	95.6	70-130			
erfluorohexanoic acid (PFHxA)	9.05	2.0	ng/L	10.0	ND	90.5	70-130			
erfluorohexanesulfonic acid (PFHxS)	8.85	2.0	ng/L	9.10	ND	97.3	70-130			
erfluoroheptanoic acid (PFHpA)	8.75	2.0	ng/L	10.0	ND	87.5	70-130			
erfluoroheptanesulfonic acid (PFHpS)	8.40	2.0	ng/L	9.50	ND	88.4	70-130			
erfluorooctanoic acid (PFOA)	9.48	2.0	ng/L	10.0	ND	94.8	70-130			
erfluorooctanesulfonic acid (PFOS)	8.43	2.0	ng/L	9.25	0.964	80.7	70-130			
erfluorooctanesulfonamide (FOSA)	8.28	2.0	ng/L	10.0	ND	82.8	70-130			
:2 Fluorotelomersulfonic acid (6:2FTS A)	8.96	2.0	ng/L	9.50	ND	94.3	70-130			
erfluorononanoic acid (PFNA)	9.24	2.0	ng/L	10.0	ND	92.4	70-130			
Perfluorodecanoic acid (PFDA)	9.40	2.0	ng/L	10.0	ND	94.0	70-130			
Perfluorodecanesulfonic acid (PFDS)	8.77	2.0	ng/L	9.65	ND	90.8	70-130			
N-EtFOSAA	10.9	2.0	ng/L	10.0	ND	109	70-130			
:2 Fluorotelomersulfonic acid (8:2FTS A)	9.54	2.0	ng/L	9.60	ND	99.3	70-130			
erfluoroundecanoic acid (PFUnA)	8.61	2.0	ng/L	10.0	ND	86.1	70-130			
I-MeFOSAA	8.38	2.0	ng/L	10.0	ND	83.8	70-130			
erfluorododecanoic acid (PFDoA)	7.89	2.0	ng/L	10.0	ND	78.9	70-130			
erfluorotridecanoic acid (PFTrDA)	8.01	2.0	ng/L	10.0	ND	80.1	70-130			
erfluorotetradecanoic acid (PFTA)	7.67	2.0	ng/L	10.0	ND	76.7	70-130			
urrogate: 13C-PFHxA	30.7			40.0		76.7	70-130			
urrogate: 13C-PFDA	30.0		ng/L ng/L	40.0		74.9	70-130			
=	119		-	160		74.3	70-130			
durrogate: d5-NEtFOSAA			ng/L							
Matrix Spike Dup (B268229-MSD2) Perfluorobutanoic acid (PFBA)		ee: 20I1639-0 2.0			0/08/20 Analyz			4.01	20	
erfluorobutanesulfonic acid (PFBS)	8.29		ng/L	10.0	ND	82.9	70-130	4.01	30	
· · · · · ·	7.49	2.0 2.0	ng/L	8.85	ND	84.6	70-130	7.08	30	
erfluoropentanoic acid (PFPeA)	8.61		ng/L	10.0	ND	86.1	70-130	10.4	30	
erfluorohexanoic acid (PFHxA)	9.48	2.0	ng/L	10.0	ND	94.8	70-130	4.62	30	
erfluorohexanesulfonic acid (PFHxS)	7.76	2.0	ng/L	9.10	ND	85.3	70-130	13.1	30	
erfluoroheptanoic acid (PFHpA)	8.51	2.0	ng/L	10.0	ND	85.1	70-130	2.77	30	
erfluoroheptanesulfonic acid (PFHpS)	8.14	2.0	ng/L	9.50	ND	85.7	70-130	3.20	30	
erfluorooctanoic acid (PFOA)	9.15	2.0	ng/L	10.0	ND	91.5	70-130	3.48	30	
erfluorooctanesulfonic acid (PFOS)	8.62	2.0	ng/L	9.25	0.964	82.7	70-130	2.24	30	
erfluorooctanesulfonamide (FOSA)	8.12	2.0	ng/L	10.0	ND	81.2	70-130	1.98	30	
:2 Fluorotelomersulfonic acid (6:2FTS A)	8.62	2.0	ng/L	9.50	ND	90.7	70-130	3.89	30	
erfluorononanoic acid (PFNA)	8.99	2.0	ng/L	10.0	ND	89.9	70-130	2.73	30	
erfluorodecanoic acid (PFDA)	9.24	2.0	ng/L	10.0	ND	92.4	70-130	1.66	30	
erfluorodecanesulfonic acid (PFDS)	8.70	2.0	ng/L	9.65	ND	90.1	70-130	0.772	30	
I-EtFOSAA	10.8	2.0	ng/L	10.0	ND	108	70-130	1.01	30	
2 Fluorotelomersulfonic acid (8:2FTS A)	8.02	2.0	ng/L	9.60	ND	83.5	70-130	17.3	30	
erfluoroundecanoic acid (PFUnA)	8.79	2.0	ng/L	10.0	ND	87.9	70-130	2.08	30	
I-MeFOSAA	9.56	2.0	ng/L	10.0	ND	95.6	70-130	13.2	30	
Perfluorododecanoic acid (PFDoA)	8.00	2.0	ng/L	10.0	ND	80.0	70-130	1.39	30	
erfluorotridecanoic acid (PFTrDA)	8.52	2.0	ng/L	10.0	ND	85.2	70-130	6.13	30	
erfluorotetradecanoic acid (PFTA)	8.50	2.0	ng/L	10.0	ND	85.0	70-130	10.3	30	
urrogate: 13C-PFHxA	29.7		ng/L	40.0		74.2	70-130			
Surrogate: 13C-PFHxA Surrogate: 13C-PFDA	29.7 29.8		ng/L ng/L	40.0 40.0		74.2 74.5	70-130 70-130			



#### FLAG/QUALIFIER SUMMARY

<ul> <li>OC result is outside of establish</li> </ul>	hed limits.
---	-------------

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



#### CERTIFICATIONS

#### Certified Analyses included in this Report

Certifications Analyte SOP 434-PFAAS in Water NH-P Perfluorobutanoic acid (PFBA) Perfluorobutanesulfonic acid (PFBS) NH-P Perfluoropentanoic acid (PFPeA) NH-P Perfluorohexanoic acid (PFHxA) NH-P Perfluorohexanesulfonic acid (PFHxS) NH-P Perfluoroheptanoic acid (PFHpA) NH-P Perfluorooctanoic acid (PFOA) NH-P Perfluorooctanesulfonic acid (PFOS) NH-P 6:2 Fluorotelomersulfonic acid (6:2FTS A) NH-P Perfluorononanoic acid (PFNA) NH-P Perfluorodecanoic acid (PFDA) NH-P N-EtFOSAA NH-P 8:2 Fluorotelomersulfonic acid (8:2FTS A) NH-P Perfluoroundecanoic acid (PFUnA) NH-P N-MeFOSAA NH-P Perfluorododecanoic acid (PFDoA) NH-P Perfluorotridecanoic acid (PFTrDA) NH-P Perfluorotetradecanoic acid (PFTA) NH-P

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

		•			http://www.c	ontestiabs	s.com						DOC # 38	1 Kev Z_U	6262015	,					
con-test	Phone:	413-525-2332				CHAIN	OF CUSTOS	DY RECO	RD		ce Street igmeadow,	MA 010	28								Page of
YROTAROBA I IASHTJANA		3-525-6405			ri restero i uman	on in the state	e		Disselv		Samples			Δ	NALYS	IS REC	QUESTE	ED			
		nfo@contestlabs.com	ı	7-Day		10-Day		0	F	ield Filte	red	ON THE PROPERTY OF THE PARTY OF	0			T					<sup>2</sup> Preservation Code
Sumpany Name	Wilcox	Barton, Inc		PFAS 10-Day	(std) 💢	Due Date	:	0	l	ab to Fili	ter										Courier Use Chly
Address: #IB Commons					Rush-Alvaroval I	tequired			Orthop	hosphate	Samples										Total Number Of:
Phone: 478.491.49		,		1-Day		3-Day		0	F	ield Filte	red										
Project Same	STRTO	000/		2-Day		4-Day		0	l	ab to Fit	ter										VIALS
Project Location: 15 Colle		Stratham, N	Н				Data Deli	very					531.1		- 1						GLASS
Project Number: STRTD(	001		••	Format:			PDF	X			EXCEL	X	3								PLASTIC
Project Manager: 2USS	Barton			Other:									u 1								BACTERIA
Con-Test Quote Name/Number:					a Pkg Required:								$ \mathcal{S} $								ENCORE
invoice Recipient:				Email To:	rbartona	อพป่	cox an	Lbar	ton.	20m_			PFA					- 1			
Sampled By: C. Hens	ley M. B	roussard		Fax To #:									Δ.								Glassware in the fridge?
Con-Test Work Order#	ANTO CALCADA ARTOLOGIC	ple ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Cont Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE									Y/N
	15 C	illege Road	9-30-20	1125	G	GW	u			× 6											Glassware in freezer? Y / N
000000000000000000000000000000000000000		ý																			Prepackaged Cooler? Y / N
					<del>                                     </del>																*Contest is not responsible for
				-		<del> </del>	1		<del> </del>	<del> </del>	<del> </del>	<b></b>	<del>   </del>	1 1			+ +	$\dashv$		+-	missing samples from prepacke
						<u> </u>		ļ <u>.</u>		<u> </u>			<b> </b>				1 1			1	coolers
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	<b>!</b>						1														GW = Ground Water
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									1	<u> </u>		ļ	ļļ					_			A = Air
Haracon et el l'anna de l'alliant					1			1													S = Soft SL = Sludge
		······	1																		SOL = Solid
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				<u></u>		<u> </u>	<u> </u>	<u></u>	<u></u>	<u> </u>	1	<u> </u>									define/
Chillia W. H	uly	Date/Time: 9-30-20	Client Con		MSD A	25Wps	ted b	v lak	D												<sup>2</sup> Preservation Codes:
Received by: (signature)	_ U	Date/Time: 9/30/20 /45	5 (A)			-						ANNUAL PROPERTY OF THE PARTY OF									I = lced H = HCL
Relinquished by: (signature)		Of the Column Co	\$3000 tales, 445,630	tion Limit Re	aurements			5	pecial R	quireme	ints										M = Methanol N = Nitric Acid
MUMILION	- 19	30/20 1850	ALA .										P Requir	—			-		to indic		S = Sulfuric Acid
Received (ignature)	ales	Date/Time:				,,,,,,					MCP Certiff				ible sam	•	scentrati column a		ithin the	Conc	B = Sodium Bisulfate X = Sodium Hydroxide
4.6	9/30	LOSO Date/Time:				1					RCP Certifi		P Requir		tigh: M				: C - Clear	ı: <b>U</b> -	T = Sodium
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Relinquished by: (signature)		Date/Time:	Project Er		9200 5000	er helder i										Oth	er	<del>UNIONI MEN</del>			PCB ONLY
				Government	t 🔲	Municip	ality			MWRA	(		WRT	Α 📗		1		Chron	natogran	1	Soxhlet
Received by: (signature)	*	Date/Time:		Federal		21 J				School	[							AIHA-	LAP,LLC		Non Soxhlet
			3.54	City		Brownfi	eld			MBTA	[										
Comments: Page			A Company							Chair	n of Custo ses the la	ody is a aborator	legal do v will p	cument erform.	that m Any m roject	ust be issing i and wi	comple nforma	ete ai ition o assi	nd accu is not ti	rate ai he labi	n the Chain of Custody. The nd is used to determine whoratory's responsibility. Cong information, but will not

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

ogin Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False
Statement will be brought to the attention of the Client - State True or False
1.1.1

		rron			<i>1</i>	T:		32
Received By	***	SA,	Date	9	30	Time	1850	
How were the sam	nples In Cooler	т	No Cooler		On Ice	T	No Ice	
received?	Direct from Sam	olina	•		- Ambient		Melted Ice	
	·	By Gun #	<u> </u>		Actual Tem	n - 4.La	•	· · · · · · · · · · · · · · · · · · ·
Were samples wi		-				· · · · · · · · · · · · · · · · · · ·		
Temperature? 2-	*****	By Blank #			Actual Tem			
Was Custo	ody Seal Intact?	<u>~₽</u>		•	s Tampered		NA	
Was COC	Relinquished?		Does	Chain Ag	ree With Sa	mples?	T	
Are there bro	ken/leaking/loose caps	on any sam		Į-	•			
Is COC in ink/ Leg		_		nples rece	ived within h	_		
Did COC include	all Client	T	Analysis	工	-	er Name	T	
pertinent Informat	ion? Project	T	iD's	Τ	Collection	Dates/Times	<del>T</del>	
Are Sample labels	s filled out and legible?							
Are there Lab to Fi	Iters?	<b>;-</b> -		Who wa	s notified?			47
Are there Rushes?	)	<b>7</b> -	•	Who wa	s notified?			
Are there Short Ho	lds?	F-		Who wa	s notified?			
Is there enough Vo			•				ng universe meterore services	
, =	e where applicable?	NA	ne West in the	MS/MSD?	F	The second secon		
Proper Media/Cont		Т		ls splitting	samples rec	uired?		
Were trip blanks re		T		On COC?				e.c.
Do all samples hav			Acid	<b>T</b>		Base		Menong.
Viais †	Containers: 1 Liter Amb.	4	1 Liter	Plactic		16.07	Amb.	
Unp- HCL-	500 mL Amb.		500 mL			The second secon	b/Clear	
Meoh-	250 mL Amb.	] 	250 mL		10		ıb/Clear	
Bisulfate-	Flashpoint		Col./Ba		<del>                                     </del>		b/Clear	1800
DI-	Other Glass		Other I				core	13.08AV 10.0
Thiosulfate-	SOC Kit	<u> </u>	Plastic			Frozen:		
Sulfuric-	Perchlorate		Ziple					****
oanen.o								
			Unused f	Heit Ha				-
Vials #	Containers:	•	4 1 9	Disatio		16.07	Amb.	
Unp-	1 Liter Amb.		1 Liter I		<b></b>		nb/Clear	
HCL-	500 mL Amb.		500 mL				nb/Clear	
Meoh-	250 mL Amb.	ļ	250 mL	······			nb/Clear	
Bisulfate-	Col./Bacteria	<u> </u>	Flash Other				core	
Di-	Other Plastic	<u> </u>	Plastic			Frozen:	30.0	
Thiosulfate- Sulfuric-	SOC Kit Perchlorate	<u> </u>	***************************************			102011.		
Comments:	reschiorate		Ziple	UCK	L	<u> </u>		
Comments:								



October 19, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 164 Portsmouth Ave., Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1640

My M'Couthy

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

Sample Summary	3
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B268466	8
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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1640

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 164 Portsmouth Ave., Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

164 Portsmouth Ave 2011640-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



Project Location: 164 Portsmouth Ave., Stratham, N Sample Description: Work Order: 2011640

Date Received: 9/30/2020

13C-PFDA

d5-NEtFOSAA

Field Sample #: 164 Portsmouth Ave Sampled: 9/30/2020 10:55

Sample ID: 20I1640-01
Sample Matrix: Drinking Wate

Sample Matrix: Drinking Water									
		Semivol	atile Organic Compo	unds by - LC/	MS-MS				
		N	MCL/SMCL				Date	Date/Time	
Analyte	Results	RL	MA ORSG Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	7.5	2.0	ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorohexanoic acid (PFHxA)	6.8	2.0	ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorohexanesulfonic acid (PFHxS)	24	2.0	ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluoroheptanoic acid (PFHpA)	3.4	2.0	ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorooctanoic acid (PFOA)	12	2.0	ng/L	1		EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1	U	EPA 537.1	10/12/20	10/16/20 20:04	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C-PFHxA		84.2	70-130					10/16/20 20:04	
M3HFPO-DA		82.5	70-130					10/16/20 20:04	

70-130

70-130

83.9

85.2

10/16/20 20:04

10/16/20 20:04



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1640-01RE1 [164 Portsmouth Ave]	B268466	250	1.00	10/12/20



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Anal	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
.CS (B268326-BS1)				Prepared: 10	0/09/20 Anal	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
(exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268466 - EPA 537.1										
Blank (B268466-BLK1)				Prepared: 10	)/12/20 Anal	yzed: 10/16/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
N-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
I-MeFOSAA	ND	2.0	ng/L							U
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
Iexafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
,8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	29.0		ng/L	40.0		72.6	70-130			
urrogate: M3HFPO-DA	30.4		ng/L	40.0		76.0	70-130			
urrogate: 13C-PFDA	34.6		ng/L	40.0		86.5	70-130			
Surrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
LCS (B268466-BS1)				Prepared: 10	0/12/20 Anal	yzed: 10/16/2	20			
Perfluorobutanesulfonic acid (PFBS)	7.64	2.0	ng/L	8.85		86.4	70-130			
Perfluorohexanoic acid (PFHxA)	8.94	2.0	ng/L	10.0		89.4	70-130			
Perfluorohexanesulfonic acid (PFHxS)	9.04	2.0	ng/L	9.10		99.3	70-130			
Perfluoroheptanoic acid (PFHpA)	8.76	2.0	ng/L	10.0		87.6	70-130			
Perfluorooctanoic acid (PFOA)	9.32	2.0	ng/L	10.0		93.2	70-130			
Perfluorooctanesulfonic acid (PFOS)	9.06	2.0	ng/L	9.25		97.9	70-130			
Perfluorononanoic acid (PFNA)	9.08	2.0	ng/L	10.0		90.8	70-130			
Perfluorodecanoic acid (PFDA)	8.48	2.0	ng/L	10.0		84.8	70-130			
N-EtFOSAA	9.34	2.0	ng/L	10.0		93.4	70-130			
Perfluoroundecanoic acid (PFUnA)	7.94	2.0	ng/L	10.0		79.4	70-130			
N-MeFOSAA	10.1	2.0	ng/L	10.0		101	70-130			
Perfluorododecanoic acid (PFDoA)	8.75	2.0	ng/L	10.0		87.5	70-130			
Perfluorotridecanoic acid (PFTrDA)	8.89	2.0	ng/L	10.0		88.9	70-130			
Perfluorotetradecanoic acid (PFTA)	7.65	2.0	ng/L	10.0		76.5	70-130			
Hexafluoropropylene oxide dimer acid	7.23	2.0	ng/L	10.0		72.3	70-130			
HFPO-DA)										
1Cl-PF3OUdS (F53B Major)	8.22	2.0	ng/L	9.40		87.5	70-130			
Cl-PF3ONS (F53B Minor)	9.28	2.0	ng/L	9.30		99.8	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	8.13	2.0	ng/L	10.0		81.3	70-130			
Surrogate: 13C-PFHxA	30.8		ng/L	40.0		77.1	70-130			
Surrogate: M3HFPO-DA	31.6		ng/L	40.0		79.1	70-130			
Surrogate: 13C-PFDA	34.3		ng/L	40.0		85.7	70-130			
Surrogate: d5-NEtFOSAA	144		ng/L	160		89.9	70-130			



#### FLAG/QUALIFIER SUMMARY

<ul> <li>OC result is outside of establish</li> </ul>	hed limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

#### Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

and the same					http://www.c	contestiab	S.COITI			20 Cmr.	ce Street		DOC#.	881 Rev	2_,0626	2019						1	
( CON-LEST	Phone: 4	13-525-2332				CHAIN	OF CUSTO	DY RECO	RD		ce street	, MA 0102	28								ŗ	Page of	
AIIIII	Fax: 413	-525-6405		Re	quester fuir a	anting thin	e		Dissolv		Simples		l		ANA	LYSIS I	REQL	JESTE	D				
	Email: in	fo@contestlabs.com		7-Day		10-Day		0	F	ield Filte	red	energent (detters per	ा						T	TT	2	Preservation Code	
Company Name:	WILLOX &	Barton, Inc.		PFAS 10-Day	(std)	Due Date	:	0	:	Lab to Fil	ter											Courier Use	Delly
Address: 18 Commons 1			M.NH		Rush-Approval	Required			Ortho	hosehati	Samples						1				RSHAD	Total Numb	er Of:
Phone: (103 - 369 - 41	90		٦,	1-Day		3-Day		0	F	ield Filte	red				-		-						
Project Name:	STRIDOO	)		2-Day		4-Day		0		Lab to Fil	ter				1		1					VIALS	
Project Location: 164 Povis			NH				Data Deli	very							-							GLASS	
Project Number: STR:TOO				Format:			PDF	X			EXCEL	X							-			PLASTIC_	
Project Manager: R - BANT	2)/^			Other:				ε ~				<b>,</b> ,	53									BACTERIA_	
Con-Test Quote Name/Number:					a Pkg Required:								'									ENCORE	
Invoice Recipient:				Email To:	rbanton(	e wile	okan	dlow	Non	· Can	$\sim$						- 1						
Sampled By: M. BHUSS	sound X	C. Hensly	j	Fax To #:																1			
Con-Test Work Order#		e ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	<sup>1</sup> Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	#10									Glassware in the	
1	144 Portsoni	outh Ave	Also/20	1055	GRAB	DW	V			2_			Х									Glassware in fre	ezer? Y / N
																					F	Prepackaged Co	oler? Y/N
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																						nissing samples fro cooler	
4																						<sup>1</sup> Matrix Code	·s:
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				<u> </u>	<b> </b>	<del></del>	<del> </del>	<u> </u>	<b>-</b>	<del> </del>	1	<b></b>	<del>  -</del>		+		$\dashv$			+		WW ≈ Waste ' DW = Drinking	
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																						SOL = Solid	
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Molinquished by (signature)	<i>a</i> 9	Atternine:	No. of Confession Conf	tion Limit Re	quirements			5	peda K	quirente	nts											M = Methanol N = Nitric Acid	i
Received by Magnature	//		MA									MA MC						-		indicate		S = Sulfuric Act	
RECEIVED TO A RENATIDO Y	9/30	Date/Time:				-			· .		MCP Certifi				ossible :					in the Co	Conc	B ≈ Sodium Bis	
Relinquished by: (signature)		JESO Date/Time:	en .								RCP Certifi		P Requ rm Begi		l - High;		dium;	umn ab . L - Lov known		Clean;	บ -	X = Sodium Hy T = Sodium Thiosulfate	Iroxide
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			Other	NHIDES	AGQG	# GISW9		·		7.1.51					NEL/	C and	AHA-	LAP, LL	C Acc	redited			
Relinquished by: (signature)	[0]	Date/Time:	Project En	tity	**-											C	Other					PCB ON	LY
			_	Government	Canada	Municipa	ility	L		MWRA	į		WR.	Α			į	Ch		-	ł	Soxhle	et.
Received by: (signature)	E	Date/Time:		Federal		21 J				School	- L					İ	Ì	All	HA-LAF	,LLC		Non Sox	ilet
Comments:			1	City	<u> </u>	Brownfie	eld	11		M8TA I	- 1												
Page 11 c										Chain analy:	of Custo ses the la	ody is a l oboratory	egal d y will p	ocumei erforn	nt that n. Any	must t missin ct and	oe co g info will t	mplete ormatic	e and : on is r assist :	accurat not the	te and labora	he Chain of Cusins is used to determined to determine to the control of the contr	rmine wha bility. Co

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False	
Statement will be brought to the attention of the Client - State True or False	

Client Wic	ox d	Barton						
Received By		SA	Date	9	30	Time	1850	
How were the samples	In Coole	er <u>7</u>	No Cooler	- 1	On Ice	_T	No Ice	
received?	Direct from	Sampling			Ambient		Melted Ice	
Were samples within		By Gun #	1		Actual Tem	p - Υ.φ		
Temperature? 2-6°C	Т	By Blank #			Actual Tem	p -		
Was Custody So	eal Intact?	44 44		re Sample	s Tampered		NA	
Was COC Relin		·T	Does	S Chain Ag	ree With Sa	mples?	Т	
Are there broken/le	•	caps on any sam	ples?	J-		-		
Is COC in ink/ Legible?	-	•	-	nples recei	ved within h	olding time?	Т	
Did COC include all	Client	<u>—</u> т	Analysis	· T	Sampl	er Name	T	
pertinent Information?	Project	t <u> </u>	ID's	T	Collection	Dates/Times	Т	
Are Sample labels filled	dout and leg	ible? T	·					
Are there Lab to Filters?	·	F-		Who was	s notified?			
Are there Rushes?		F		Who was	s notified?			
Are there Short Holds?		F-		Who was	s notified?			
Is there enough Volume	?							
is there Headspace whe	ere applicable	e? ~~~	Service Company	MS/MSD?	F	Hadisa Fr.		-F (
Proper Media/Container	s Used?			ls splitting	samples red	quired?	<u> </u>	7.
Were trip blanks receive	ed?		Salata Algeria	On COC?	F			
Do all samples have the	proper pH?	\$10.75 + \$10.55 	Acid	E	,	Base	<u>~~</u>	
Vials #	eoma mas	: 1 #			4			- 4
Unp-	1 Liter An	nb.	1 Liter I	Plastic		16 oz	Amb.	
HCL-	500 mL Aı	mb.	500 mL	Plastic		8oz Ami	b/Clear	
Meoh-	250 mL Aı	mb.	250 mL		2	4oz Aml		
Bisulfate-	Flashpoi		Col./Ba			2oz Ami	····	····
DI-	Other Gla		Other F			Enco	ore	
Thiosulfate-	SOC Ki		Plastic			Frozen:		
Sulfuric-	Perchlora	ate	Ziplo	ock				
			Unused N	Aedia				
Viale #		: #			- 11			1
Unp-	1 Liter An	nb.	1 Liter I	Plastic		16 oz i		
HCL-	500 mL Ar	mb.	500 mL			8oz Ami		
Meoh-	250 mL Ar		250 mL		*··	4oz Aml		
Bisulfate-	Col./Bacte		Flash			2oz Aml		**-
DI-	Other Plas		Other (			Enco	ore [	
Thiosulfate-	SOC Ki		Plastic			Frozen:		
Sulfuric-	Perchlora	ate	Ziplo	ock				
Comments:								



October 14, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 132 Portsmouth Ave., Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1641

My MeContry

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

# Table of Contents

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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/14/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1641

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 132 Portsmouth Ave., Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

132 Portsmouth Ave 20I1641-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative



Project Location: 132 Portsmouth Ave., Stratham, N Sample Description: Work Order: 2011641

Date Received: 9/30/2020

Field Sample #: 132 Portsmouth Ave Sampled: 9/30/2020 10:40

Sample ID: 2011641-01
Sample Matrix: Drinking Water

Sample Matrix: Drinking Water									
		Semivo	latile Organic Compo	unds by - LC	/MS-MS				
		I	MCL/SMCL				Date	Date/Time	
Analyte	Results	RL	MA ORSG Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorohexanesulfonic acid (PFHxS)	3.4	2.0	ng/L	1		EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0	ng/L	1	U	EPA 537.1	10/9/20	10/12/20 15:00	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C-PFHxA		74.1	70-130					10/12/20 15:00	
M3HEDO DA		71.4	70.130					10/12/20 15:00	

	Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA		74.1	70-130		10/12/20 15:00
M3HFPO-DA		71.4	70-130		10/12/20 15:00
13C-PFDA		71.3	70-130		10/12/20 15:00
d5-NEtFOSAA		77.3	70-130		10/12/20 15:00



# **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date				
20I1641-01 [132 Portsmouth Ave]	B268326	250	1.00	10/09/20				



#### QUALITY CONTROL

# Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268326 - EPA 537.1										
Blank (B268326-BLK1)				Prepared: 10	0/09/20 Analy	yzed: 10/10/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	34.3		ng/L	40.0		85.7	70-130			
urrogate: M3HFPO-DA	32.2		ng/L	40.0		80.5	70-130			
urrogate: 13C-PFDA	33.9		ng/L	40.0		84.8	70-130			
urrogate: d5-NEtFOSAA	153		ng/L	160		95.4	70-130			
CS (B268326-BS1)				Prepared: 10	)/09/20 Analy	yzed: 10/10/2	20			
erfluorobutanesulfonic acid (PFBS)	19.4	2.0	ng/L	17.7		110	70-130			
erfluorohexanoic acid (PFHxA)	20.9	2.0	ng/L	20.0		104	70-130			
erfluorohexanesulfonic acid (PFHxS)	20.2	2.0	ng/L	18.2		111	70-130			
erfluoroheptanoic acid (PFHpA)	21.3	2.0	ng/L	20.0		106	70-130			
erfluorooctanoic acid (PFOA)	21.2	2.0	ng/L	20.0		106	70-130			
erfluorooctanesulfonic acid (PFOS)	20.8	2.0	ng/L	18.5		113	70-130			
erfluorononanoic acid (PFNA)	21.3	2.0	ng/L	20.0		107	70-130			
erfluorodecanoic acid (PFDA)	20.5	2.0	ng/L	20.0		102	70-130			
I-EtFOSAA	23.2	2.0	ng/L	20.0		116	70-130			
erfluoroundecanoic acid (PFUnA)	21.0	2.0	ng/L	20.0		105	70-130			
I-MeFOSAA	25.3	2.0	ng/L	20.0		126	70-130			
erfluorododecanoic acid (PFDoA)	20.1	2.0	ng/L	20.0		100	70-130			
erfluorotridecanoic acid (PFTrDA)	20.0	2.0	ng/L	20.0		100	70-130			
erfluorotetradecanoic acid (PFTA)	20.1	2.0	ng/L	20.0		100	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	20.3	2.0	ng/L	20.0		101	70-130			
1Cl-PF3OUdS (F53B Major)	19.2	2.0	ng/L	18.8		102	70-130			
Cl-PF3ONS (F53B Minor)	19.6	2.0	ng/L	18.6		105	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	19.2	2.0	ng/L	20.0		96.2	70-130			
urrogate: 13C-PFHxA	33.6		ng/L	40.0		84.1	70-130			
urrogate: M3HFPO-DA	32.0		ng/L	40.0		80.0	70-130			
urrogate: 13C-PFDA	33.2		ng/L	40.0		83.1	70-130			
urrogate: d5-NEtFOSAA	150		ng/L	160		93.8	70-130			



#### FLAG/QUALIFIER SUMMARY

*	QC result	is outside of	established	limits.
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† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

# Data exceeded client recommended or regulatory level

ND Not Detected

RL Reporting Limit

DL Method Detection Limit

MCL Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

U Analyte included in the analysis, but not detected



# CERTIFICATIONS

# Certified Analyses included in this Report

**Analyte** Certifications

EPA	537.1	in	Drin	king	Water

Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9Cl-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

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1	132 Portsi	novn Ave	7/30/20	1040	GRAB	DW	V			2			X		-		$\vdash$	-	-	Glassware in freezer? Y / N
								····							1-	<u> </u>		-	-	Prepackaged Cooler? Y/N
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ested by: signature)	ald	Date/Time:							***	A <sup>r</sup>	CP Certific			- Pieas				des to inc 1 within t		S = Sulfuric Acid
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I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sam	ple Receipt Che	ecklist - (Rejecti	on Criteria I	_isting - Using	Acceptance F	Policy) Any False
	Statement will	be brought to th	e attention	of the Client -	State True or	False

	cox & Ba	rton	iterition of	the Ollent	- Otate Tra	c or raise		
Received By		SA	Date	9	30	Time	1850	
How were the sample	es In Cooler	<u> </u>	No Cooler		On Ice	<u>T</u>	No Ice	
received?	Direct from Samp	oling		_	Ambient		Melted Ice	
Were samples with	in	By Gun #	Ì		Actual Tem	ip - Υ. (φ		
Temperature? 2-6°		By Blank #	•	•	Actual Tem	ID -		•
•	Seal Intact?	מח	We	ere Sample	s Tampered		NA	•
Was COC R		T		•	ree With Sa	•	T	•
Are there broke	n/leaking/loose caps	on any sam	ples?			•		
Is COC in ink/ Legible		_	Were sar	nples recei	ved within h	olding time?	<u> </u>	
Did COC include a		Τ	Analysis	T		er Name	т	
pertinent Information		<u> </u>	ID's	<u> </u>	Collection	Dates/Times	<u> </u>	•
Are Sample labels fi								
Are there Lab to Filte	rs?	F			s notified?			ı.
Are there Rushes?		<del>F_</del>			s notified?		·	
Are there Short Hold:		<u>F</u>		Who was	s notified?	<del></del>	<del></del>	ı
Is there enough Volu		<u> </u>		140/14000				
Is there Headspace v	• •	<u>NA</u>	redikali ku Mari	MS/MSD?		- , , , , , , , , , , , , , , , , , , ,		
Proper Media/Contai		T	·		samples red	quirea?	J	
Were trip blanks rece		E		On COC?	<u></u>	Pose	طبخ	
Do all samples have			Acid	E		Base _		
Vials #	Containers:	#	4.1.9	D)	#	40	A I-	#
Unp- HCL-	1 Liter Amb. 500 mL Amb.	<u> </u>		Plastic Plastic		16 oz 8oz Am		
Mech-	250 mL Amb.		250 mL		2	4oz Am		
Bisulfate-	Flashpoint		Col./Ba			2oz Am		
DI-	Other Glass		Other		·	Enc		
Thiosulfate-	SOC Kit		Plasti			Frozen:		***************************************
Sulfuric-	Perchlorate		Zipl	ock				
			Unused I	Vledia				
Vials #	Containers:	# 1			#			#
Unp-	1 Liter Amb.		1 Liter			16 oz		
HCL-	500 mL Amb.		500 mL	<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>		8oz Am	b/Clear	
Meoh-	250 mL Amb.		250 mL		<u> </u>	4oz Ami		
Bisulfate-	Col./Bacteria			point		2oz Am	<del></del>	
DI-	Other Plastic		Other			Enc	ore [	
Thiosulfate- Sulfuric-	SOC Kit Perchlorate		Plastie			Frozen:		
Comments:			Zipl	OCK				
vonnono.								
4								
								1



October 26, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 157 Portsmouth Ave, Stratham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20J0117

My M'Couthy

Enclosed are results of analyses for samples received by the laboratory on October 2, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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REPORT DATE: 10/26/2020



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20J0117

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 157 Portsmouth Ave, Stratham, NH

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

157 Portsmouth Ave 20J0117-01 Drinking Water EPA 537.1



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA 537.1

#### Qualifications:

PF-03

Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar internal standard non-conformance. Original results reported. Analyte & Samples(s) Qualified:

d3-NMeFOSAA B268747-BLK1

S-01

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

13C-PFDA

20J0117-01RE1[157 Portsmouth Ave]

13C-PFHxA

20J0117-01RE1[157 Portsmouth Ave]

d5-NEtFOSAA

20J0117-01RE1[157 Portsmouth Ave]

M3HFPO-DA

20J0117-01RE1[157 Portsmouth Ave]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Technical Representative

Lua Warrengton



39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

Project Location: 157 Portsmouth Ave, Stratham, N Sample Description: Work Order: 20J0117

Date Received: 10/2/2020

Field Sample #: 157 Portsmouth Ave Sampled: 10/1/2020 12:50

Sample ID: 20J0117-01 Sample Matrix: Drinking Water

			Semivolatile Organ	ic Compoun	ds by - LC/	MS-MS				
Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	14	2.0		ng/L	1	<u> </u>	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorohexanoic acid (PFHxA)	36	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorohexanesulfonic acid (PFHxS)	180	20		ng/L	10		EPA 537.1	10/15/20	10/23/20 20:12	JFC
Perfluoroheptanoic acid (PFHpA)	11	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorooctanoic acid (PFOA)	89	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorooctanesulfonic acid (PFOS)	150	2.0		ng/L	1		EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
N-EtFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
N-MeFOSAA	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
11Cl-PF3OUdS (F53B Major)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
9Cl-PF3ONS (F53B Minor)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	U	EPA 537.1	10/15/20	10/23/20 2:00	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	80.2	70-130		10/23/20 2:00
13C-PFHxA	*	70-130	S-01, U	10/23/20 20:12
M3HFPO-DA	77.4	70-130		10/23/20 2:00
M3HFPO-DA	*	70-130	S-01, U	10/23/20 20:12
13C-PFDA	83.5	70-130		10/23/20 2:00
13C-PFDA	*	70-130	S-01, U	10/23/20 20:12
d5-NEtFOSAA	73.4	70-130		10/23/20 2:00
d5-NEtFOSAA	*	70-130	S-01, U	10/23/20 20:12



## **Sample Extraction Data**

**Prep Method: EPA 537.1-EPA 537.1** 

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20J0117-01 [157 Portsmouth Ave]	B268747	250	1.00	10/15/20
20J0117-01RE1 [157 Portsmouth Ave]	B268747	250	1.00	10/15/20



#### QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268747 - EPA 537.1										
Blank (B268747-BLK1)				Prepared: 10	0/15/20 Anal	yzed: 10/23/2	20			
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
exafluoropropylene oxide dimer acid HFPO-DA)	ND	2.0	ng/L							U
1Cl-PF3OUdS (F53B Major)	ND	2.0	ng/L							U
Cl-PF3ONS (F53B Minor)	ND	2.0	ng/L							U
8-dioxa-3H-perfluorononanoic acid ADONA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	30.9		ng/L	40.0		77.3	70-130			
urrogate: M3HFPO-DA	29.2		ng/L	40.0		73.1	70-130			
urrogate: 13C-PFDA	33.5		ng/L	40.0		83.8	70-130			
urrogate: d5-NEtFOSAA	185		ng/L	160		115	70-130			
.CS (B268747-BS1)				Prepared: 10	)/15/20 Anal	yzed: 10/23/2	20			
erfluorobutanesulfonic acid (PFBS)	15.2	2.0	ng/L	17.7		86.0	70-130			
erfluorohexanoic acid (PFHxA)	18.6	2.0	ng/L	20.0		93.0	70-130			
erfluorohexanesulfonic acid (PFHxS)	16.4	2.0	ng/L	18.2		90.0	70-130			
erfluoroheptanoic acid (PFHpA)	17.8	2.0	ng/L	20.0		89.0	70-130			
erfluorooctanoic acid (PFOA)	16.8	2.0	ng/L	20.0		84.0	70-130			
erfluorooctanesulfonic acid (PFOS)	15.6	2.0	ng/L	18.5		84.2	70-130			
erfluorononanoic acid (PFNA)	16.8	2.0	ng/L	20.0		84.0	70-130			
erfluorodecanoic acid (PFDA)	16.5	2.0	ng/L	20.0		82.6	70-130			
I-EtFOSAA	18.3	2.0	ng/L	20.0		91.4	70-130			
erfluoroundecanoic acid (PFUnA)	15.8	2.0	ng/L	20.0		78.8	70-130			
I-MeFOSAA	17.2	2.0	ng/L	20.0		86.0	70-130			
erfluorododecanoic acid (PFDoA)	16.6	2.0	ng/L	20.0		83.1	70-130			
erfluorotridecanoic acid (PFTrDA)	16.7	2.0	ng/L	20.0		83.3	70-130			
erfluorotetradecanoic acid (PFTA)	16.8	2.0	ng/L	20.0		84.0	70-130			
exafluoropropylene oxide dimer acid HFPO-DA)	15.3	2.0	ng/L	20.0		76.7	70-130			
1Cl-PF3OUdS (F53B Major)	16.1	2.0	ng/L	18.8		85.9	70-130			
Cl-PF3ONS (F53B Minor)	17.4	2.0	ng/L	18.6		93.7	70-130			
,8-dioxa-3H-perfluorononanoic acid ADONA)	17.0	2.0	ng/L	20.0		85.2	70-130			
urrogate: 13C-PFHxA	34.6		ng/L	40.0		86.6	70-130			
urrogate: M3HFPO-DA	30.7		ng/L	40.0		76.8	70-130			
urrogate: 13C-PFDA	34.7		ng/L	40.0		86.8	70-130			
Surrogate: d5-NEtFOSAA	135		ng/L	160		84.7	70-130			



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39 Spruce Street \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

#### FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
PF-03	Internal standard area >150% of associated calibration standard internal standard area. Re-analysis yielded similar internal standard non-conformance. Original results reported.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte included in the analysis, but not detected



## CERTIFICATIONS

## Certified Analyses included in this Report

**Analyte** Certifications

EPA 537.1	in	Drinking	Water
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Perfluorobutanesulfonic acid (PFBS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanoic acid (PFHxA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorohexanesulfonic acid (PFHxS)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroheptanoic acid (PFHpA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorooctanoic acid (PFOA)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorooctanesulfonic acid (PFOS)	VT-DW,NJ,CT,ME,PA,MI,NY,NH,MA
Perfluorononanoic acid (PFNA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorodecanoic acid (PFDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-EtFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluoroundecanoic acid (PFUnA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
N-MeFOSAA	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorododecanoic acid (PFDoA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotridecanoic acid (PFTrDA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Perfluorotetradecanoic acid (PFTA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
11Cl-PF3OUdS (F53B Major)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
9CI-PF3ONS (F53B Minor)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,VT-DW,NJ,CT,ME,PA,MI,MA

 $The \ CON-TEST \ Environmental \ Laboratory \ operates \ under \ the \ following \ certifications \ and \ accreditations:$ 

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

(signature)

nquished by: (signature)

eived by: (signature)

Fax: 413-525-6405

Email: info@contestlabs.com

Date/Time:

Date/Time:

Date/Time:

1705

Project Entity

Government

Federal City

	<u>htt</u>	p://www.c	<u>ontest l</u>	abs.com		Doc #	381 Re	v 1_032							
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					H - Hig	jh; M	· Mediu	m; L - I	.ow;	C - Cle	ean; L	J - Unkı	nown		<sup>3</sup> Container Codes:
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MA	1			7	MA MC	(College Sandreller Co.)	2000 Contactor								P = Plastic
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Other

MWRA

School

MBTA

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Chromatogram

AIHA-LAP,LLC

Wilrox & Barton Inc. Address: #18 Commons Drive Unit 128 Landon derry, NE 978 491 9943 Phone: STRTOOOI Project Name Project Location: 157 Portsmouth Ave, Stratham, NH STRT0001 Project Number: Project Manager: Russ Barton Con-Test Quote Name/Number: Invoice Recipient: Hensley Sampled By: Con-Test Client Sample ID / Description Work Order# Portsmouth Ave 10.1 Comments: Date/Time: Date/Time: Relinguistied by: (dignature)

Municipality

Brownfield

21 J

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PCB ONLY

Soxhlet

Non Soxhlet

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client	WAR	· · · · · · · · · · · · · · · · · · ·						1 & ****	
Received By	у _	<i>32</i> /		Date	101212	<u> </u>	Time	1905	
How were the san	mples	In Cooler	T	No Cooler		On Ice	<u> </u>	No Ice	
received?		Direct from Samp	olina	•		Ambient		Melted Ice	
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Was COC		<u> </u>		•	Chain Agr	ee With San	npies?		
		aking/loose caps	on any sam	ples?		مما سلطانات است	lding time?		
Is COC in ink/ Leg	_	OF			ipies receiv	ed within ho	er Name		
Did COC include		Client		Analysis <sub>-</sub>	<del></del>	-	Dates/Times	<del></del>	
pertinent Informa		Project		. ייטו		Conection	Dates/Times		
Are Sample label		out and legible?			M/bo was	notified?			
Are there Lab to F						notified?			
Are there Rushes'			<del></del> _			notified?			
Are there Short Ho		,		•	vviio was	inouneur .			
Is there enough V			$\frac{1}{\sqrt{1-x}}$		MS/MSD?	<u> </u>			
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Vials i	#	Containers:	#			#	10	A b	*
Unp-		1 Liter Amb.		1 Liter				Amb. b/Clear	
HCL-		500 mL Amb.		500 mL 250 mL	····	-a		b/Clear	
Meoh-		250 mL Amb. Flashpoint		Col./Ba				b/Clear	
Bisulfate- DI-		Other Glass		Other I				core	
Thiosulfate-		SOC Kit	<u> </u>	Plastic		:	Frozen:		
Sulfuric-		Perchlorate		Ziple					
Canario	1								
				Unused I	Helalet				
Vials 1		Containers: 1 Liter Amb.	9	1 Liter	Plactic		16.07	Amb.	•
Unp- HCL-	<del></del>	500 mL Amb.		500 mL				b/Clear	
Meoh-		250 mL Amb.	<del></del>	250 mL				b/Clear	
Bisulfate-		Col./Bacteria		Flash				ib/Clear	
DI-		Other Plastic		Other				core	
Thiosulfate-		SOC Kit		Plastic			Frozen:		
Sulfuric-		Perchlorate		Zipl	ock				
Comments:	<del>,</del>								



October 19, 2020

Russell Barton Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660

Project Location: 4 Winnicutt Rd., Straham, NH

Client Job Number:

Project Number: STRT0001

Laboratory Work Order Number: 20I1638

My MeContry

Enclosed are results of analyses for samples received by the laboratory on September 30, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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B268229	13
B268557	14
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Wilcox & Barton 1115 Route 100B, Suite 200 Moretown, VT 05660 ATTN: Russell Barton

REPORT DATE: 10/19/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: STRT0001

#### ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20I1638

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 4 Winnicutt Rd., Straham, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	20I1638-01	Ground Water		SOP 434-PFAAS	
MW-3	20I1638-02	Ground Water		SOP 434-PFAAS	
MW-5	20I1638-03	Ground Water		SOP 434-PFAAS	
MW-102	20I1638-04	Ground Water		SOP 434-PFAAS	
MW-103	20I1638-05	Ground Water		SOP 434-PFAAS	
MW-104	20I1638-06	Ground Water		SOP 434-PFAAS	
MW-105	20I1638-07	Ground Water		SOP 434-PFAAS	



#### CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

#### SOP 434-PFAAS

#### Qualifications:

L-05

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be

biased on the high side.

Analyte & Samples(s) Qualified:

Perfluoroheptanesulfonic acid (PFI

20I1638-06RE1[MW-104], B268557-BS1

S-01

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

13C-PFDA

20I1638-01RE1[MW-1], 20I1638-02RE1[MW-3], 20I1638-03RE1[MW-5], 20I1638-04RE1[MW-102], 20I1638-07RE1[MW-105]

13C-PFHxA

20I1638-01RE1[MW-1], 20I1638-02RE1[MW-3], 20I1638-03RE1[MW-5], 20I1638-04RE1[MW-102], 20I1638-07RE1[MW-105]

d5-NEtFOSAA

20I1638-01RE1[MW-1], 20I1638-02RE1[MW-3], 20I1638-03RE1[MW-5], 20I1638-04RE1[MW-102], 20I1638-07RE1[MW-105]

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

Perfluoroheptanesulfonic acid (PFI

20I1638-06RE1[MW-104], B268557-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Technical Representative

Jua Watthington



Project Location: 4 Winnicutt Rd., Straham, NH Sample Description: Work Order: 2011638

Date Received: 9/30/2020
Field Sample #: MW-1

Sampled: 9/30/2020 09:40

Sample ID: 20I1638-01
Sample Matrix: Ground Water

Analyte	Results	RL	*I *	DE	El /O 1	Method	Date	Date/Time	Amalwat
			Units	DF	Flag/Qual		Prepared	Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	17	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorobutanesulfonic acid (PFBS)	18	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluoropentanoic acid (PFPeA)	59	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorohexanoic acid (PFHxA)	50	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorohexanesulfonic acid (PFHxS)	230	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 17:47	JFC
Perfluoroheptanoic acid (PFHpA)	29	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluoroheptanesulfonic acid (PFHpS)	2.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorooctanoic acid (PFOA)	110	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorooctanesulfonic acid (PFOS)	68	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:00	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	_
13C-PFHxA	78.0	70-130		10/13/20 10:00
13C-PFHxA	*	70-130	S-01, U	10/13/20 17:47
13C-PFDA	78.1	70-130		10/13/20 10:00
13C-PFDA	*	70-130	S-01, U	10/13/20 17:47
d5-NEtFOSAA	81.7	70-130		10/13/20 10:00
d5-NEtFOSAA	*	70-130	S-01, U	10/13/20 17:47



Project Location: 4 Winnicutt Rd., Straham, NH Sample Description: Work Order: 2011638

Date Received: 9/30/2020 Field Sample #: MW-3

Sampled: 9/30/2020 09:50

Sample ID: 20I1638-02
Sample Matrix: Ground Water

A 1 4	Results	RL				26.0	Date	Date/Time	
Analyte	Results		Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	20	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorobutanesulfonic acid (PFBS)	19	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluoropentanoic acid (PFPeA)	65	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorohexanoic acid (PFHxA)	57	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorohexanesulfonic acid (PFHxS)	380	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 18:09	JFC
Perfluoroheptanoic acid (PFHpA)	40	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluoroheptanesulfonic acid (PFHpS)	3.6	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorooctanoic acid (PFOA)	170	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorooctanesulfonic acid (PFOS)	140	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	2.1	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorononanoic acid (PFNA)	2.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:21	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	84.7	70-130		10/13/20 10:21
13C-PFHxA	*	70-130	S-01, U	10/13/20 18:09
13C-PFDA	86.3	70-130		10/13/20 10:21
13C-PFDA	*	70-130	S-01, U	10/13/20 18:09
d5-NEtFOSAA	83.6	70-130		10/13/20 10:21
d5-NEtFOSAA	*	70-130	S-01, U	10/13/20 18:09



Project Location: 4 Winnicutt Rd., Straham, NH Sample Description: Work Order: 2011638

Date Received: 9/30/2020 Field Sample #: MW-5

Sampled: 9/30/2020 10:00

Sample ID: 20I1638-03
Sample Matrix: Ground Water

Analyte	Results	RL	*I *	DE	El /O 1	Method	Date	Date/Time Analyzed	Amalwat
			Units	DF	Flag/Qual		Prepared	•	Analyst
Perfluorobutanoic acid (PFBA)	8.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorobutanesulfonic acid (PFBS)	17	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluoropentanoic acid (PFPeA)	26	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorohexanoic acid (PFHxA)	29	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorohexanesulfonic acid (PFHxS)	170	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 18:30	JFC
Perfluoroheptanoic acid (PFHpA)	14	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluoroheptanesulfonic acid (PFHpS)	4.0	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorooctanoic acid (PFOA)	71	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorooctanesulfonic acid (PFOS)	73	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 10:43	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	79.3	70-130		10/13/20 10:43
13C-PFHxA	*	70-130	S-01, U	10/13/20 18:30
13C-PFDA	82.7	70-130		10/13/20 10:43
13C-PFDA	*	70-130	S-01, U	10/13/20 18:30
d5-NEtFOSAA	78.1	70-130		10/13/20 10:43
d5-NEtFOSAA	*	70-130	S-01, U	10/13/20 18:30



Project Location: 4 Winnicutt Rd., Straham, NH Sample Description: Work Order: 2011638

Date Received: 9/30/2020
Field Sample #: MW-102

Sampled: 9/30/2020 09:30

Sample ID: 20I1638-04
Sample Matrix: Ground Water

Analyte	Results	RL			TT 10 1	M d 1	Date	Date/Time	
			Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	3.2	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorobutanesulfonic acid (PFBS)	8.9	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluoropentanoic acid (PFPeA)	7.7	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorohexanoic acid (PFHxA)	74	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorohexanesulfonic acid (PFHxS)	410	100	ng/L	50		SOP 434-PFAAS	10/8/20	10/16/20 13:15	JFC
Perfluoroheptanoic acid (PFHpA)	5.9	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluoroheptanesulfonic acid (PFHpS)	36	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorooctanoic acid (PFOA)	53	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorooctanesulfonic acid (PFOS)	3900	100	ng/L	50		SOP 434-PFAAS	10/8/20	10/16/20 13:15	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	25	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:04	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	73.2	70-130		10/13/20 11:04
13C-PFHxA	*	70-130	S-01, U	10/16/20 13:15
13C-PFDA	76.0	70-130		10/13/20 11:04
13C-PFDA	*	70-130	S-01, U	10/16/20 13:15
d5-NEtFOSAA	73.8	70-130		10/13/20 11:04
d5-NEtFOSAA	*	70-130	S-01, U	10/16/20 13:15



Project Location: 4 Winnicutt Rd., Straham, NH Sample Description: Work Order: 2011638

Date Received: 9/30/2020
Field Sample #: MW-103

Sampled: 9/30/2020 09:50

Sample ID: 20I1638-05
Sample Matrix: Ground Water

							Date	Date/Time	
Analyte	Results	RL	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.1	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorobutanesulfonic acid (PFBS)	8.1	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoropentanoic acid (PFPeA)	15	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorohexanoic acid (PFHxA)	21	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorohexanesulfonic acid (PFHxS)	140	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoroheptanoic acid (PFHpA)	5.5	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoroheptanesulfonic acid (PFHpS)	15	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorooctanoic acid (PFOA)	33	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorooctanesulfonic acid (PFOS)	170	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	19	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 11:26	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C-PFHxA		74.7	70-130					10/13/20 11:26	

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	74.7	70-130		10/13/20 11:26
13C-PFDA	79.3	70-130		10/13/20 11:26
d5-NEtFOSAA	78.0	70-130		10/13/20 11:26



Project Location: 4 Winnicutt Rd., Straham, NH Sample Description: Work Order: 2011638

Date Received: 9/30/2020
Field Sample #: MW-104

Sampled: 9/30/2020 10:00

Sample ID: 20I1638-06
Sample Matrix: Ground Water

A a lord -	D l4	RL				<b>35</b> (1 )	Date	Date/Time	
Analyte	Results		Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	7.9	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorobutanesulfonic acid (PFBS)	10	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoropentanoic acid (PFPeA)	20	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorohexanoic acid (PFHxA)	43	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorohexanesulfonic acid (PFHxS)	240	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoroheptanoic acid (PFHpA)	11	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoroheptanesulfonic acid (PFHpS)	5.3	4.0	ng/L	2	L-05, V-06	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorooctanoic acid (PFOA)	110	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorooctanesulfonic acid (PFOS)	190	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorooctanesulfonamide (FOSA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	7.4	4.0	ng/L	2		SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorononanoic acid (PFNA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorodecanoic acid (PFDA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
N-EtFOSAA	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluoroundecanoic acid (PFUnA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
N-MeFOSAA	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorododecanoic acid (PFDoA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Perfluorotetradecanoic acid (PFTA)	ND	4.0	ng/L	2	U	SOP 434-PFAAS	10/13/20	10/15/20 16:41	JFC
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
13C-PFHxA		93.9	70-130					10/15/20 16:41	

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	93.9	70-130		10/15/20 16:41
13C-PFDA	78.8	70-130		10/15/20 16:41
d5-NEtFOSAA	79.7	70-130		10/15/20 16:41



Project Location: 4 Winnicutt Rd., Straham, NH Sample Description: Work Order: 2011638

Date Received: 9/30/2020
Field Sample #: MW-105

Sampled: 9/30/2020 09:40

Sample ID: 20I1638-07 Sample Matrix: Ground Water

							Date	Date/Time	
Analyte	Results	RL	Units	DF	Flag/Qual	Method	Prepared	Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.0	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorobutanesulfonic acid (PFBS)	11	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoropentanoic acid (PFPeA)	12	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorohexanoic acid (PFHxA)	34	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorohexanesulfonic acid (PFHxS)	150	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoroheptanoic acid (PFHpA)	4.6	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoroheptanesulfonic acid (PFHpS)	6.5	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorooctanoic acid (PFOA)	100	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorooctanesulfonic acid (PFOS)	230	20	ng/L	10		SOP 434-PFAAS	10/8/20	10/13/20 19:35	JFC
Perfluorooctanesulfonamide (FOSA)	7.2	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
6:2 Fluorotelomersulfonic acid (6:2FTS A)	64	2.0	ng/L	1		SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
N-EtFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
N-MeFOSAA	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1	U	SOP 434-PFAAS	10/8/20	10/13/20 12:09	JFC

Surrogates	% Recovery	Recovery Limits	Flag/Qual	_
13C-PFHxA	80.1	70-130		10/13/20 12:09
13C-PFHxA	*	70-130	S-01, U	10/13/20 19:35
13C-PFDA	80.4	70-130		10/13/20 12:09
13C-PFDA	*	70-130	S-01, U	10/13/20 19:35
d5-NEtFOSAA	74.8	70-130		10/13/20 12:09
d5-NEtFOSAA	*	70-130	S-01, U	10/13/20 19:35



## **Sample Extraction Data**

## $Prep\ Method:\ SOP\ 434-PFAAS-SOP\ 434-PFAAS$

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20I1638-01 [MW-1]	B268229	250	1.00	10/08/20	
20I1638-01RE1 [MW-1]	B268229	250	1.00	10/08/20	
20I1638-02 [MW-3]	B268229	250	1.00	10/08/20	
20I1638-02RE1 [MW-3]	B268229	250	1.00	10/08/20	
20I1638-03 [MW-5]	B268229	250	1.00	10/08/20	
20I1638-03RE1 [MW-5]	B268229	250	1.00	10/08/20	
20I1638-04 [MW-102]	B268229	250	1.00	10/08/20	
20I1638-04RE1 [MW-102]	B268229	250	1.00	10/08/20	
20I1638-05 [MW-103]	B268229	250	1.00	10/08/20	
20I1638-07 [MW-105]	B268229	250	1.00	10/08/20	
20I1638-07RE1 [MW-105]	B268229	250	1.00	10/08/20	

#### Prep Method: SOP 434-PFAAS-SOP 434-PFAAS

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20I1638-06RE1 [MW-104]	B268557	250	1.00	10/13/20



#### QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B268229 - SOP 434-PFAAS										
Blank (B268229-BLK1)				Prepared: 10	)/08/20 Analy	yzed: 10/13/	20			
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L							U
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							U
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							U
2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
erfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							U
I-EtFOSAA	ND	2.0	ng/L							U
2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	32.5		ng/L	40.0		81.1	70-130			
urrogate: 13C-PFDA	32.5		ng/L	40.0		81.4	70-130			
urrogate: d5-NEtFOSAA	126		ng/L	160		78.8	70-130			
LCS (B268229-BS1)				Prepared: 10	0/08/20 Analy	yzed: 10/13/	20			
Perfluorobutanoic acid (PFBA)	8.52	2.0	ng/L	10.0		85.2	70-130			
erfluorobutanesulfonic acid (PFBS)	8.17	2.0	ng/L	8.85		92.3	70-130			
Perfluoropentanoic acid (PFPeA)	10.0	2.0	ng/L	10.0		100	70-130			
erfluorohexanoic acid (PFHxA)	9.41	2.0	ng/L	10.0		94.1	70-130			
erfluorohexanesulfonic acid (PFHxS)	8.07	2.0	ng/L	9.10		88.7	70-130			
Perfluoroheptanoic acid (PFHpA)	8.61	2.0	ng/L	10.0		86.1	70-130			
erfluoroheptanesulfonic acid (PFHpS)	8.52	2.0	ng/L	9.50		89.6	70-130			
Perfluorooctanoic acid (PFOA)	9.57	2.0	ng/L	10.0		95.7	70-130			
Perfluorooctanesulfonic acid (PFOS)	8.46	2.0	ng/L	9.25		91.4	70-130			
Perfluorooctanesulfonamide (FOSA)	8.15	2.0	ng/L	10.0		81.5	70-130			
:2 Fluorotelomersulfonic acid (6:2FTS A)	8.54	2.0	ng/L	9.50		89.9	70-130			
Perfluorononanoic acid (PFNA)	8.54 9.62	2.0	ng/L	10.0		96.2	70-130			
erfluorodecanoic acid (PFDA)	9.62 9.45	2.0	ng/L	10.0		94.5	70-130			
erfluorodecanesulfonic acid (PFDS)		2.0	ng/L ng/L	9.65		94.3 87.4	70-130			
I-EtFOSAA	8.44	2.0	ng/L	10.0		105	70-130			
:2 Fluorotelomersulfonic acid (8:2FTS A)	10.5	2.0	ng/L	9.60		88.5	70-130			
erfluoroundecanoic acid (PFUnA)	8.50 8.50	2.0	ng/L	10.0		85.9	70-130			
I-MeFOSAA	8.59	2.0	ng/L	10.0						
erfluorododecanoic acid (PFDoA)	9.24	2.0				92.4	70-130			
erfluorododecanoic acid (PFDoA)	8.46		ng/L	10.0		84.6	70-130			
erfluorotetradecanoic acid (PFTA)	8.56 7.94	2.0 2.0	ng/L ng/L	10.0 10.0		85.6 79.4	70-130 70-130			
		2.0								
urrogate: 13C-PFHxA	32.6		ng/L	40.0		81.5	70-130			
Surrogate: 13C-PFDA	32.9		ng/L	40.0		82.3	70-130			



#### QUALITY CONTROL

## Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

nalyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
atch B268557 - SOP 434-PFAAS										
lank (B268557-BLK1)				Prepared: 10	)/13/20 Anal	yzed: 10/15/	20			
erfluorobutanoic acid (PFBA)	ND	2.0	ng/L							U
erfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							U
erfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							U
erfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							U
erfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							U
erfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							U
erfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							U
erfluorooctanoic acid (PFOA)	ND	2.0	ng/L							U
erfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							U
erfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							U
2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0	ng/L							U
erfluorononanoic acid (PFNA)	ND	2.0	ng/L							U
erfluorodecanoic acid (PFDA)	ND	2.0	ng/L							U
erfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							U
-EtFOSAA	ND	2.0	ng/L							U
2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0	ng/L							U
erfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							U
-MeFOSAA	ND	2.0	ng/L							U
erfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							U
erfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							U
erfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							U
urrogate: 13C-PFHxA	38.6		ng/L	40.0		96.4	70-130			
urrogate: 13C-PFDA	35.4		ng/L ng/L	40.0		88.6	70-130			
urrogate: d5-NEtFOSAA	140		ng/L ng/L	160		87.7	70-130			
CS (B268557-BS1)			_	Prepared: 10	)/13/20 Anal	vzed: 10/15/	20			
erfluorobutanoic acid (PFBA)	11.9	2.0	ng/L	10.0		119	70-130			
erfluorobutanesulfonic acid (PFBS)	9.12	2.0	ng/L	8.85		103	70-130			
erfluoropentanoic acid (PFPeA)	11.7	2.0	ng/L	10.0		117	70-130			
erfluorohexanoic acid (PFHxA)	11.7	2.0	ng/L	10.0		119	70-130			
erfluorohexanesulfonic acid (PFHxS)	9.63	2.0	ng/L	9.10		106	70-130			
erfluoroheptanoic acid (PFHpA)	11.8	2.0	ng/L	10.0		118	70-130			
erfluoroheptanesulfonic acid (PFHpS)	13.6	2.0	ng/L	9.50		143 *				V-06, L-0
erfluorooctanoic acid (PFOA)	11.8	2.0	ng/L	10.0		118	70-130			, 00, 2 0
erfluorooctanesulfonic acid (PFOS)	9.84	2.0	ng/L	9.25		106	70-130			
erfluorooctanesulfonamide (FOSA)	9.23	2.0	ng/L	10.0		92.3	70-130			
2 Fluorotelomersulfonic acid (6:2FTS A)	11.5	2.0	ng/L	9.50		121	70-130			
erfluorononanoic acid (PFNA)	11.9	2.0	ng/L	10.0		119	70-130			
erfluorodecanoic acid (PFDA)	11.9	2.0	ng/L	10.0		110	70-130			
erfluorodecanesulfonic acid (PFDS)		2.0	ng/L	9.65		91.0	70-130			
-EtFOSAA	8.78 9.18	2.0	ng/L	10.0		91.8	70-130			
2 Fluorotelomersulfonic acid (8:2FTS A)	9.18 11.4	2.0	ng/L	9.60		119	70-130			
erfluoroundecanoic acid (PFUnA)		2.0	ng/L	10.0		104	70-130			
-MeFOSAA	10.4 9.67	2.0	ng/L	10.0		96.7	70-130			
erfluorododecanoic acid (PFDoA)		2.0	ng/L	10.0		93.9	70-130			
erfluorotridecanoic acid (PFTrDA)	9.39	2.0	ng/L	10.0		93.9 97.6	70-130			
erfluorotetradecanoic acid (PFTA)	9.76	2.0	ng/L ng/L	10.0		97.6 98.7	70-130			
	9.87	2.0	115/ L	10.0		20.1	/0-130			
12C PELL A				40.0		100	70 120			
urrogate: 13C-PFHxA urrogate: 13C-PFDA	42.3 38.1		ng/L ng/L	40.0 40.0		106 95.2	70-130 70-130			



## FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit
U	required from high analyte concentration and/or matrix interferences.  Analyte included in the analysis, but not detected
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.



#### CERTIFICATIONS

#### Certified Analyses included in this Report

Certifications Analyte SOP 434-PFAAS in Water Perfluorobutanoic acid (PFBA) NH-P Perfluorobutanesulfonic acid (PFBS) NH-P Perfluoropentanoic acid (PFPeA) NH-P Perfluorohexanoic acid (PFHxA) NH-P Perfluorohexanesulfonic acid (PFHxS) NH-P Perfluoroheptanoic acid (PFHpA) NH-P Perfluorooctanoic acid (PFOA) NH-P Perfluorooctanesulfonic acid (PFOS) NH-P 6:2 Fluorotelomersulfonic acid (6:2FTS A) NH-P Perfluorononanoic acid (PFNA) NH-P Perfluorodecanoic acid (PFDA) NH-P N-EtFOSAA NH-P 8:2 Fluorotelomersulfonic acid (8:2FTS A) NH-P Perfluoroundecanoic acid (PFUnA) NH-P N-MeFOSAA NH-P Perfluorododecanoic acid (PFDoA) NH-P Perfluorotridecanoic acid (PFTrDA) NH-P Perfluorotetradecanoic acid (PFTA) NH-P

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

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Page 17 of										analyse	or Custod es the lab	dy is a teg ocratory i	jal doci vili per	iment that form. Any	t must be missing i	comp inform ill try	olete an nation to assi	nd accur is not th	ate ar	the Chain of Custody. The aid is used to determine what oratory's responsibility. Cong information, but will not be

Table of Contents

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples\_\_\_\_\_



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False								
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## APPENDIX D

# **Notification Letters to Private Water Well Owners**





Marjorie Rawson 1 College Road Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 1 College Road, Stratham

Dear Ms. Rawson:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS compounds were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Russell W. Barton

SVP - Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Parsons M H & Sons Lumber Co. P.O. Box 450 York, Maine 03909

RE: Water Supply Well Sampling Results – September 29, 2020 2 College Road, Stratham

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 2 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory report for the sample. Six PFAS compounds were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton

SVP - Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Schmidt Family Trust P.O. Box 252 Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 3 College Road, Stratham

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 3 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS compounds were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Russell W. Barton

SVP - Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Town of Stratham 10 Bunker Hill Avenue Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 4 Winnicutt Road, Stratham

To Whom It May Concern:

Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 4 Winnicutt Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to further evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory report. Seven PFAS compounds were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceeded the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



David and Jeanne Short P.O. Box 715 Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 4, 4R, and 6 College Road, Stratham

Dear Mr. and Mrs. Short:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected samples from the water supply wells servicing your properties at 4, 4R, and 6 College Road. The samples were collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. They were submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory report. Samples were collected from the well servicing the nursery building (4 College Road), the irrigation well (4R College Road), the primary well (4R College Road), and the well servicing 6 College Road. Several PFAS compounds were detected in each of the four samples. The concentrations of two of these compounds, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), exceeded the NHDES health-based Maximum Contaminant Levels (MCLs) in the samples collected from the well servicing 4 College Road and both wells servicing 4R College Road. Two compounds, perfluorohexane sulfonate (PFHxS) and PFOS, were present at concentrations exceeding the applicable MCLs in the sample collected from the well servicing 6 College Road. The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.



If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton

SVP - Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Verne Edward Rawson, III 5 College Road Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 5 College Road, Stratham, New Hampshire 03885

Dear Mr. Rawson:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 5 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS compounds were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190  $\times 502$ .

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Gregory and Ralph Marston 7 and 7R Winnicutt Road Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 7 and 7R Winnicutt Road, Stratham, New Hampshire 03885

Dear Gregory Marston and Ralph Marston:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your properties at 7 and 7R Winnicutt Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Perfluorohexanoic acid (PFHxA), a compound which does not have an established NHDES health-based Maximum Contaminant Level (MCL), was detected in the sample. The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. The NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

Attachment:

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

cc: Mr. David Moore, Town of Stratham

NHDES Hazardous Waste Remediation Bureau

Laboratory Report

WWW.WILCOXANDBARTON.COM



Verne E. Rawson, Jr. 9 College Road Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 9 College Road, Stratham, New Hampshire 03885

Dear Mr. Rawson, Jr:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property at 9 College Road. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS were detected in the sample. The concentration of perfluorooctane sulfonate (PFOS) in the sample exceeds the NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for PFOS;
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W/Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Andrea J. and Alan P. Shine-Canty 11 College Road Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 11 College Road, Stratham, New Hampshire 03885

Dear Andrea J. and Alan P. Shine-Canty:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of two of these compounds, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for perfluorohexane sulfonate (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton

SVP – Principal Geologist\_

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Robert S. and Anne M. Fawcett 15 College Road Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 30, 2020 15 College Road, Stratham, New Hampshire 03885

Dear Robert S. and Anne M. Fawcett:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. No PFAS were detected in the drinking water sample collected from your property.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Michael and Margaret Desroches 23 College Road Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 23 College Road, Stratham, New Hampshire 03885

Dear Michael and Margaret Desroches:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Four PFAS were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton

SVP = Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Tonal Hearth Property Management 132 Portsmouth Avenue Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 30, 2020 132 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Perfluorohexane sulfonic acid (PFHxS) was detected in the sample, but at a concentration below the applicable NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Piper's Landing Partnership 142 Portsmouth Avenue Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 142 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W/Barton

SVP - Principal Geologist

Attachment: Laboratory Report

Mr. David Moore, Town of Stratham cc:



F & T Realty Partnership c/o Cadieux, Thomas and Frank P.O. Box 155 Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 145 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton

SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Jedi Realty, Inc. 149 Portsmouth Avenue Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 149 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Based on the difference in laboratory analytical results between the sample collected in March 2019 to the one collected in September 2020, it is likely that a treatment system was installed at the property and the recent sample consisted of treated drinking water.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Leshas LLC 24 Pinewood Drive Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 152 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Forma Realty II, LLC 18 Congress Street, Suite 302 Portsmouth, New Hampshire 03801

RE: Water Supply Well Sampling Results – October 1, 2020 157 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



John Forma Revocable Trust 18 Congress Street, Suite 302 Portsmouth, New Hampshire 03801

RE: Water Supply Well Sampling Results – September 29, 2020 159 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369 4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Chittenden Trust Company c/o People's United Bank 850 Main Street Bridgeport, Connecticut 06604

RE: Water Supply Well Sampling Results – September 29, 2020 160 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS were detected in the sample, but none at concentrations that exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for perfluorohexane sulfonic acid (PFHxS); and
- 11 ppt for perfluorononanoic acid (PFNA).

For those water supply wells that have concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes.

These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions regarding these findings, please do not hesitate to contact me at (603) 369-4190  $\times 502$ .

Very truly yours,

Attachment:

WILCOX & BARTON, INC.

Mr. Russell W Barton SVP – Principal Geologist

cc: Mr. David Moore, Town of Stratham

Laboratory Report



Ronald and Sandra Deane 161 Portsmouth Avenue, Unit 2 Bridgeport, Connecticut 06604

RE: Water Supply Well Sampling Results – September 29, 2020 161-2 Portsmouth Avenue, Stratham, New Hampshire 03885

Dear Ronald and Sandra Deane:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Six PFAS were detected in the sample. The concentrations of three of these compounds, perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and perfluorohexane sulfonate (PFHxS), exceed the NHDES health-based Maximum Contaminant Levels (MCLs). The following MCLs have been established:

- 12 parts per trillion (ppt) for PFOA;
- 15 ppt for PFOS;
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

SVP – Principal Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Blunt Family Revocable Trust P.O. Box 268 Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 30, 2020 164 Portsmouth Avenue, Stratham, New Hampshire 03885

To Whom It May Concern:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Five PFAS were detected in the sample. Perfluorohexane sulfonate (PFHxS) was present in the sample at a concentration exceeding the applicable NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton SVP – Principal Geologist

SVI – Timelpai Geologist

Attachment: Laboratory Report

cc: Mr. David Moore, Town of Stratham



Robert McLaughlin and Barbara Smith P.O. Box 793 Stratham, New Hampshire 03885

RE: Water Supply Well Sampling Results – September 29, 2020 166 Portsmouth Avenue, Stratham, New Hampshire 03885

Dear Robert McLaughlin and Barbara Smith:

On behalf of the Town of Stratham, Wilcox & Barton, Inc. collected a sample from the water supply well servicing your property. The sample was collected in accordance with a request by the New Hampshire Department of Environmental Services (NHDES) to evaluate groundwater quality in the Stratham Fire Station area. It was submitted to Con-Test Analytical Laboratory for analysis of per- and polyfluoroalkyl substances (PFAS) by United States Environmental Protection Agency Method 537.1.

Attached, please find a copy of the laboratory analytical report. Four PFAS were detected in the sample. Perfluorohexane sulfonate (PFHxS) was present in the sample at a concentration exceeding the applicable NHDES health-based Maximum Contaminant Level (MCL). The following MCLs have been established:

- 12 parts per trillion (ppt) for perfluorooctanoic acid (PFOA);
- 15 ppt for perfluorooctanesulfonic acid (PFOS);
- 18 ppt for PFHxS; and
- 11 ppt for perfluorononanoic acid (PFNA).

For water supply wells with concentrations of PFAS above the health-based levels, NHDES recommends that this water not be used for drinking, cooking, or other consumptive purposes. If you are interested, please contact the Town of Stratham at (603) 772-7391 to arrange for the delivery of bottled water to your home. These results have been forwarded to NHDES, who may decide to provide additional information to you regarding the continued use of the water from your well. NHDES may also request the collection of additional samples.

If you have any questions, please do not hesitate to contact me at (603) 369-4190 x502.

Very truly yours,

WILCOX & BARTON, INC.

Mr. Russell W. Barton

SVP – Principal Geologist

Attachment: Laboratory Report

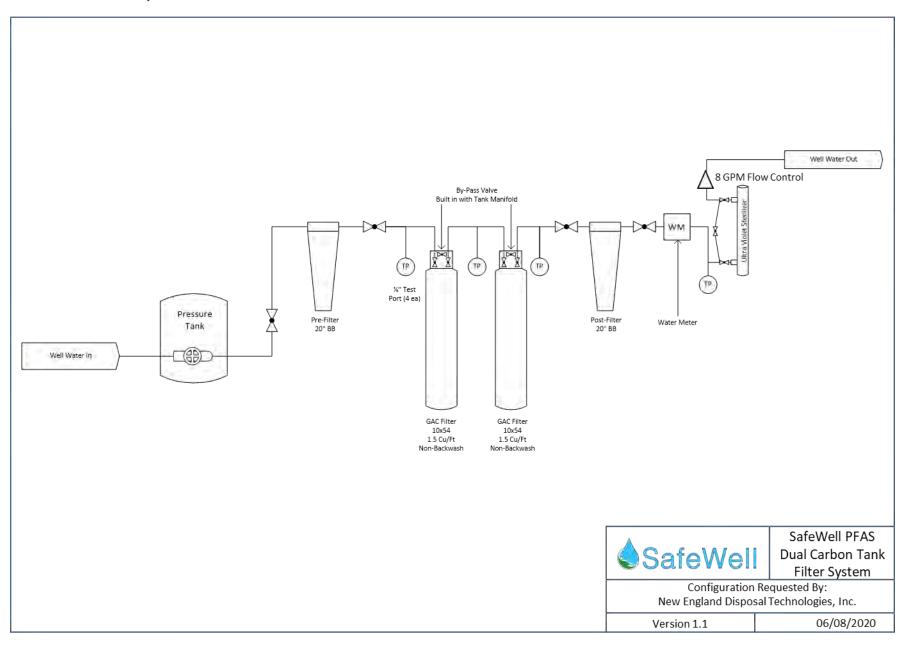
cc: Mr. David Moore, Town of Stratham

### APPENDIX E

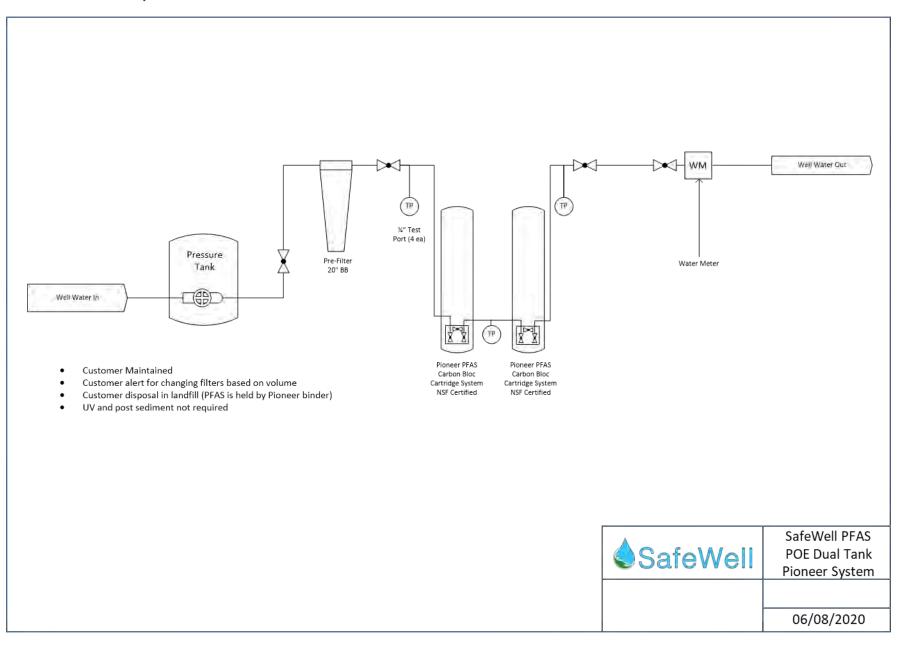
**POE Treatment System Schematics** 



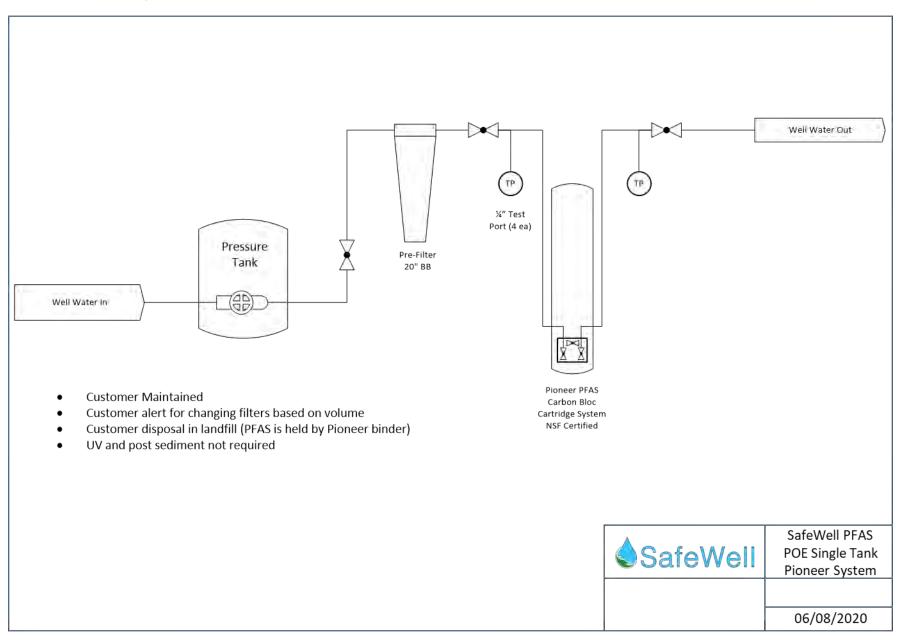
# SafeWell Option #1



# SafeWell Option #2



# SafeWell Option #3 Cost Effective Solution



### APPENDIX F

### **Groundwater Monitoring Permit Application**

