WHITE PLAINS FIRE DEPARTMENT DRILL SCHOOL

1402 OLD ORCHARD STREET, WHITE PLAINS, NEW YORK

Remedial Investigation Report

NYSDEC Site #: 360193
AKRF Project Number: 200217

Prepared for:

NYSDEC Region 3
21 South Putt Corners Road
New Paltz, New York 12561

On Behalf Of:

The City of White Plains
255 Main Street
White Plains, New York 10601

Prepared by:

AKRF, Inc.
34 South Broadway, Suite 401
White Plains, New York 10601

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LIST OF ACRONYMS

Acronym	Definition
AFFF	Aqueous Film-Forming Foam
AR	Alcohol Resistant
ATC	Alcohol Type Concentrate
AWQSGV	Ambient Water Quality Standards and Guidance Values
BGS	Below Ground Surface
CAMP	Community Air Monitoring Plan
CGV	Commercial Guidance Value
COC	Contaminants of Concern
CSM	Conceptual Site Model
CW	Cistern Well
DER	Division of Environmental Remediation
DOT	Department of Transportation
DP	Dam Piezometers
DPW	Department of Public Works
DUSR	Data Usability Summary Report
ECL	Environmental Conservation Law
ELAP	New York State Environmental Laboratory Approval Program
EPA	United States Environmental Protection Agency
FB	Field Blank
FDDS	Fire Department Drill School
FFFP	Film Forming Fluoroprotein
ftbg	Feet Below Grade
ftbtoc	Feet Below Top of Well Casing
FWIA	Fish and Wildlife Impact Assessment
GIS	Geographic Information System
GWUDI	Groundwater Under the Direct Influence
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HDPE	High-density Polyethylene
IDW	Investigation Derived Waste
IRM	Interim Remedial Measures
IRMWP	Interim Remedial Measure Work Plan
LEP	Licensed Environmental Professional
MF	Microfiltration
mgd	Million Gallon per Day
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MW	Monitoring Well
ng/L	Nanograms per Liter
NS	No Standard
NTU	Nephelometric Turbidity Unit
NWI	National Wetlands Inventory
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	United States Occupational Safety and Health Administration

Acronym	Definition
OSPS	Orchard Street Pump Station
PCB	Polychlorinated Biphenyl
PFAS	Per- and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PFPeA	Perfluoropentanoic Acid
PGWGV	Protection of Groundwater Guidance Value
PID	Photoionization Detector
ppm	Parts per Million
ppt	Parts per Trillion
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QEP	Qualified Environmental Professional
QHHEA	Qualitative Human Health Exposure Assessment
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
SB	Soil Boring
SCI	Site Characterization Investigation
SCO	Soil Cleanup Objective
SCR	Site Characterization Report
SCWP	Site Characterization Work Plan
SED	Sediment
SPLP	Synthetic Precipitate Leachate Procedure
SVOC	Semivolatile Organic Compound
SW	Surface Water
TOC	Total Organic Carbon
TOGS	Technical Operational and Guidance Series
VOC	Volatile Organic Compound
µg/kg	Micrograms per Kilogram

CERTIFICATION

I, Marc. S. Godick, QEP, certify that I am currently a Qualified Environmental Professional, as defined in 6 New York City Codes, Rules and Regulations (NYCRR) Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plans, work plan addenda, and any DER-approved modifications.

Marc S. Godick, LEP	06/19/2025	
Qualified Environmental Professional	Date	Signature

EXECUTIVE SUMMARY

This Remedial Investigation Report (RIR) summarizes the Remedial Investigation (RI) work performed at the site identified as White Plains Fire Department Drill School (the Site) between October 2022 and November 2023, and the Supplemental Remedial Investigation (SRI) work performed between October and November 2024. The RI and SRI were completed to supplement the Site Characterization Investigation (SCI) to further define the nature and extent of the per- and polyfluoroalkyl substances (PFAS) source area and resulting plume, fill data gaps identified by previous investigations, complete an ecological study, and complete a Qualitative Human Health Exposure Assessment (QHHEA). The data compiled in this report establishes the basis for completing a remedial feasibility study and remedy selection, including the need for any interim remedial measures (IRMs), in accordance with the New York State Department of Environmental Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10). The RI was conducted in accordance with AKRF's September 2022 NYSDEC-approved Remedial Investigation Work Plan (RIWP) and AKRF's July 2024 NYSDEC-approved Supplemental Remedial Investigation Work Plan (SRIWP), which included a Health and Safety Plan (HASP), Community Air Monitoring Plan (CAMP), and Quality Assurance Project Plan (QAPP).

The Site is 141 acres, mainly wooded with small streams, and includes the Fire Department Drill School (FDDS) within a 4-acre clearing that is located approximately 500 feet east of White Plains Reservoir No. 2 and the Orchard Street Pump Station (OSPS) property and its facilities, located within the western portion of the Site and south-adjacent to Reservoir No. 2. Access to the FDDS is gained by a driveway connecting to Old Orchard Street to the west. An intermittent stream runs along the western side of the FDDS and below the access driveway down to East Pond, which discharges directly into Reservoir No. 2.

The RI field sampling scope of work consisted of: the advancement of 14 soil borings, the installation of four new monitoring wells (two overburden wells and two bedrock wells), and the collection of 41 soil samples, eight co-located stream sediment and surface water samples, and 18 groundwater samples. Two replacement wells were also installed to take the place of damaged wells that were installed during the SCI. Soil samples were collected at multiple depths at selected boring locations, as directed by the RIWP, for the purpose of identifying the vertical nature of contaminants. The soil samples were analyzed for total and leachable PFAS compounds. The SRI field sampling scope of work consisted of: the installation of two additional bedrock monitoring wells, and the collection of two groundwater sample (one from each new well). The SRI groundwater samples were analyzed for PFAS compounds.

Geological conditions observed at the FDDS included an asphalt layer within a clearing that was underlain by native unconsolidated glacial deposits (till) with isolated pockets of fill. The fill was observed to consist of a sandy mixture combined with organics, wood fragments, concrete, and brick. A shist bedrock was encountered below the glacial deposits at depths ranging from 2.5 to 20 feet below grade (ftbg). The geology surrounding the FDDS clearing included exposed schist bedrock with isolated areas of thin overlying glacial deposits. The stream also contained only thin layers of sediment over bedrock. The exposed bedrock receded below grade in the area between East Pond and the OSPS, with 12.5 to 17 feet of native glacial deposits (same geology listed above) present above bedrock.

The data from both the SCI and RI documented that overburden groundwater was encountered overlying bedrock in approximately half of the 45 soil borings drilled on the FDDS property during the SCI and RI. The borings that encountered groundwater within the overburden correlated to locations where bedrock was encountered typically beyond 5 ftbg. This hydrogeologic scenario likely results in isolated pockets of groundwater with restricted groundwater flow, especially on the northern and eastern portions of the FDDS property. Groundwater was measured in October 2022 at depths ranging from 2.84 feet below top of well casing (ftbtoc) in MW-3 (southwestern edge of the asphalt area near the stream) to 8.91 ftbtoc in MW-7 (northern edge of the asphalt area). Overburden groundwater, where interconnectivity exists, is expected to

flow in a south-southwest direction from the FDDS property toward the intermittent stream and wetland area.

Summary of RI and SRI Laboratory Results

1. Perfluorooctanesulfonic acid (PFOS) was detected above its Protection of Groundwater Guidance Value (PGWGV) of 1.0 micrograms per kilogram (µg/kg) but below its Commercial Guidance Value (CGV) of 440 µg/kg in 38 of the 44 samples (including the three duplicate samples) at concentrations ranging from 1.32 µg/kg (SB-32_1-2) to 129 µg/kg (SB-28_1-2). Perfluorooctanoic Acid (PFOA) was detected above its PGWGV of 0.8 µg/kg but below its CGV of 500 µg/kg in seven of the 44 soil samples (including the three duplicate samples) at concentrations ranging from 0.87 µg/kg (SB-31_0-0.2) to 2.53 µg/kg (SB-25_0.2-1). Total PFAS concentrations in soil ranged from 1.16 µg/kg (SB-21_0.2-1) to 289 µg/kg (SB-33_1-2).
2. Nine of the 44 soil samples were also analyzed for Synthetic Precipitate Leachate Procedure (SPLP) PFAS. Between three and 17 PFAS compounds were detected by SPLP analysis in the soil samples, ranging from an estimated concentration of 0.54 nanograms per liter (ng/L) to 2,290 ng/L. Total SPLP PFAS concentrations ranged from 25.2 ng/L (SB-21_1-2) to 2,570 ng/L (SB-33_1-2). SPLP PFAS analysis was selected for certain samples based on the NYSDEC PFAS guidance to assist with delineation and remedy selection. Predetermined values of 27 ng/L for SPLP PFOS and 67 ng/L for SPLP PFOA, which are based on 10 times the NYSDEC groundwater Ambient Water Quality Standards and Guidance Values (AWQSGVs), were used as screening levels to draw conclusions relative to the SPLP results. The screening values were based on the anticipated dilution that would occur by groundwater during the leaching process. SPLP PFOS was detected above its selected screening level of 27 ng/L in six of the nine SPLP soil samples at concentrations ranging from 68.5 ng/L (SB-30_0-0.2) to 2,290 ng/L (SB-33_1-2). SPLP PFOA was not detected in soil above its calculated screening level of 67 ng/L.
3. PFOS was detected in each of the four sediment samples collected at the FDDS site (SED-13 to SED-15, and a duplicate at SED-13) at concentrations ranging from 1.74 µg/kg (SED-15) to 58.8 µg/kg (SED-X, duplicate of SED-13). PFOA was detected in each sample at concentrations ranging from an estimated concentration of 0.62 µg/kg (SED-15) to 27.8 µg/kg (SED-14). SPLP PFAS analysis for these samples showed that leachable PFOS was detected from 4.68 ng/L in SED-15 to 293 ng/L in SED-X (duplicate of SED-13). PFOA was detected from 40.2 ng/L in SED-15 to 113 ng/L in SED-14. SED-13 contained PFOS above the screening criteria, and SED-14 contained PFOA above the screening criteria. Total SPLP PFAS ranged from 13.3 ng/L in SED-15 to 687 ng/L in SED-14.
4. PFOS was detected in the five samples (SED-16 to SED-20) collected from the wetland west of the OSPS at concentrations ranging from 3.2 µg/kg to 10.8 µg/kg, with PFOA being detected at concentrations ranging from an estimated 0.62 µg/kg to 1.84 µg/kg. The results were consistent from sample to sample, and the total PFAS concentrations ranged from 6.96 µg/kg (SED-16) to 17.8 µg/kg (SED-19).
5. PFOS was detected at the FDDS site above its proposed NYSDEC AWQSGV of 2.7 ng/L in surface water samples SW-13 (105 ng/L), SW-X (duplicate of SW-13, 147 ng/L), and SW-14 (estimated 9.39 ng/L). PFOS was not detected in SW-15. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in each surface water sample at concentrations ranging from an estimated 8.71 ng/L in SW-15 to 149 ng/L in SW-X (duplicate of SW-13). Total PFAS ranged from approximately 2,870 ng/L in SW-X to 65.1 ng/L in SW-15. As mentioned above, the higher total PFAS in SW-X was driven by the concentration of perfluoropentanoic acid (PFPeA) (1,210 ng/L). Although the understanding of PFAS transformation pathways is still in the early stages of research, recent studies indicate that, under extreme laboratory conditions, certain short chained PFAS compounds like PFPeA were shown to be an oxidation breakdown product of long chained PFAS, like PFOA, or an oxidation breakdown

component of one of the many PFAS precursor compounds. The natural oxidation potential of PFAS in the environment is not readily known at this time.

6. PFOS was detected in the OSPS wetland above its proposed NYSDEC AWQSGV of 2.7 ng/L in each surface water sample ranging from an estimated 7.87 ng/L in SW-17 to 53.6 ng/L in SW-20. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 in each sample at concentrations ranging from an estimated 8.05 ng/L in SW-16 to 30.1 ng/L in SW-17.
7. PFOS was detected above its proposed NYSDEC AWQSGV of 2.7 ng/L in each of the 20 groundwater samples (plus blind duplicate sample). PFOS concentrations ranged from 36.7 ng/L (DP-8) to 82,800 ng/L (MW-02) in overburden groundwater, and 34.4 ng/L (MW-12) to 18,800 ng/L (MW-09) in bedrock groudnwater. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in 17 of 20 groundwater samples (including a blind duplicate sample). PFOA concentrations ranged from an estimated 7.86 ng/L (DP-08) to 1,570 ng/L (MW-02) in overburden groundwater, and 46.7 ng/L (MW-11) to 301 ng/L (MW-09) in bedrock groundwater.

The analytical results compiled during both the SCI and RI confirmed that there are two primary PFAS release areas: the asphalt area west-adjacent to the burn building, and the drum cleanout area along the access driveway. The asphalt area west-adjacent to the burn building was identified by total PFAS concentrations in soil that ranged from 280 µg/kg to 439 µg/kg (SB-05 to SB-9, SB-16, and SB-33), and the drum cleanout area adjacent to the hydrant along the access driveway was defined by total PFAS concentrations of 60.7 µg/kg to 173 µg/kg (SB-13, SB-15, and SB-31). The release areas converge into the intermittent stream south of the access driveway. The total PFAS concentrations were comprised primarily of PFOS. The highest PFAS concentrations are in the shallow soil zone (0-2 ftbg) and taper off with depth into the deeper zones down to the bedrock interface, which is typically 5 to 10 ftbg, but up to 20 ftbg at isolated locations.

The RI provided plume definition in soil to the west, south, and southeast of the release areas (defined by SB-23, SB-21/SB-22, SB-29, SB-03, and SB-02) as the concentration of PFOS reduces to 0.89 µg/kg to 8.65 µg/kg. The concentration of PFAS compounds documented in soil samples collected from SB-24, SB-25 to the north, and SB-27 to the east of the release areas ranged from 23 µg/kg to 113 µg/kg. Although these detections may indicate that the extent of contamination is not fully defined, exposed nearby bedrock limits the potential extent of PFAS soil contamination to the north and east. PFOS concentrations in shallow soil at SB-30, which is downgradient of the release areas, peaked at 40.3 µg/kg (0.2-1 ftbg). Although this result suggests that the extent of the release areas is not defined at this location, exposed bedrock also dominates the land surface further south and defines the release area at this location. PFOS peaked at SB-29, located south of the release areas, at a concentration of 4.04 µg/kg. The laboratory results for soil samples collected from SB-29 and SB-03 (during the SCI) provide for plume definition to the south.

For deep soil, the PFOS results for soil samples collected from the perimeter of the asphalt release area [SB-28 (10-11 ftbg), SB-33 (13-14 ftbg), and SB-34 (10-11 ftbg)] ranged from 8.4 µg/kg to 47.7 µg/kg. This was consistent with the sampling results from the SCI, where the concentrations in the deep soil samples ranged from 4.87 to 43.1 surrounding the release area high points of SB-09 (6-7) at 283 µg/kg and SB-13 at 59.7 µg/kg. The RI confirmed that the highest PFAS concentrations are in shallow soil, the concentrations reduce with depth, and also reduce moving away from the two release areas.

The SPLP analysis (combined SCI and RI) was completed on soil samples collected from the source areas (SB-12, SB-15, and SB-33), from locations within 150 downgradient of the source areas (SB-12 through SB-14, and SB-30), and from the western side of the FDDS site (SB-21). The concentration of PFOS ranged from 2,290 ng/L to 3,880 ng/L in shallow soil in the source areas, was approximately 155 ng/L to 1,380 ng/L in the downgradient areas, and was 17.1 ng/L in SB-21. The SPLP results are consistent with the mass results regarding the release model, which demonstrate the leachability of PFOS, and provide data

that can be used during a feasibility review for the design and implementation of potential IRMs and the full Site remedy.

The sediment and surface water sampling on the FDDS site documented that PFAS concentrations tapered off going upstream, and SW-15 (approximately 120 feet north of the drum cleanout area) identifies an upgradient delineation point. The results indicate that the PFOS concentrations in surface water at the source area and immediately downstream range from 290 ng/L to 704 ng/L, drop to 30.9 ng/L to 34.9 ng/L in the reservoir, and exist at a range of 7.87 ng/L to 53.6 ng/L in the wetland west of the OSPS. The sediment and surface water sampling in the wetland indicated a low level, widespread dispersion of PFAS compounds with leachable results in the sediment being below the screening criteria.

PFAS contamination in overburden groundwater was detected at two to three orders of magnitude higher in wells in the suspected source area (MW-02 and MW-03) than wells located near East Pond, Reservoir No. 2, and the cistern wells at the OSPS. The groundwater analytical data provided additional confirmation that the observed PFAS contamination in shallow soil at the FDDS site is considered the source of the PFAS contamination in overburden groundwater. The higher concentrations at the FDDS, typical of groundwater quality in a contamination source area, are likely also affected by the variable depth to bedrock that was observed to isolate the zones of saturated overburden. The shallow bedrock ridges would limit upgradient inflow of water (dilution) and downgradient migration of contaminants, which can result in the retention of relatively higher groundwater concentrations in the source area. The groundwater detections in overburden groundwater follow the CSM where available overburden flow at the FDDS would migrate to the groundwater discharge point in the stream and wetland, and overburden flow from East Pond and Reservoir No. 2 would flow toward the OSPS and the wetland.

The PFAS plume area in overburden groundwater was in direct contact with a shallow, highly foliated and fractured gneiss bedrock, and this provided a pathway for PFAS to migrate into the shallow bedrock aquifer. The PFAS concentration in bedrock groundwater near the source area (MW-9) was two orders of magnitude higher than at locations at the perimeter of the FDDS, and three orders of magnitude higher than bedrock groundwater at East Pond. These results follow the overburden trend where concentrations dissipate moving away from the source area, and also suggest that the bedrock aquifer does not have a strong horizontal fracture connection with lateral groundwater flow, and the presence of PFAS in bedrock groundwater is more driven by vertical infiltration from the overlying overburden aquifer.

A Qualitative Human Health Exposure Assessment (QHHEA) was completed to identify potential receptors and pathways for human exposure to the COCs that are present at, or migrating from, the Site. The QHHEA confirmed that there is a potential for a complete exposure pathway to fill/soil, sediment, surface water, and groundwater at the Site, and there is a potential for a complete exposure pathway to sediment, surface water, and groundwater for off-Site receptors within the extent of the plume. During any remediation activities, there will be a potential exposure pathway from contaminated fill/soil, sediment, surface water, and groundwater to construction/remediation workers, as these workers could ingest, inhale, or have dermal contact with exposed contamination. Without remediation, the potential exposure pathway would remain in perpetuity for City employees, including DPW staff, firefighters, and maintenance staff that would be using the Site, especially at the FDDS property, and the potential exposure pathway would remain for off-Site receptors (located within the extent of the plume) as well. Based on the results of the QHHEA, it was recommended that NYSDEC-approved remedial actions be implemented to address the PFAS contamination.

As part of the RI, site specific investigations (Step 1) of the Fish and Wildlife Impact Analysis (FWIA) were completed at the Site and surrounding area by a wildlife biologist and two wetland and plant ecologists. These investigations confirm that there are valuable natural resources within 2-mile and ½-mile study areas, as well as the Project Study Area, for fish and wildlife and human use. Based on the results of

the FWIA, an Ecological Impact Assessment (Part 2 of the FWIA) will be completed in accordance with DER-10 Section 3.10.12.

The RI confirmed a PFAS contamination source area on the FDDS site, and a resulting plume emanating from the FDDS site through surface water into East Pond and Reservoir No. 2 and continuing downgradient through surface water and groundwater into the wetland adjacent to the OSPS, and in groundwater beneath the OSPS and wetland, respectively. The RI results provided definition of the plume for multiple environmental media, and included sufficient data to confirm the potential for exposure and complete design/implementation of a full Site remedy. IRMs are being prepared under NYSDEC review to address the high levels of PFAS contamination in the FDDS release area while developing a remedy for the full Site. The scope of work for completing IRMs will be documented in the forthcoming NYSDEC-approved Interim Remedial Measures Work Plan (IRMWP) and Interim Remedial Measures Design Document (IRMDD). The scope of work for completing the full Site remedy will be included in a Remedial Action Work Plan (RAWP), which will be reviewed and approved by NYSDEC.

1.0 INTRODUCTION

This Remedial Investigation (RI) Report (RIR) summarizes the investigation work performed at the site identified as White Plains Fire Department Drill School (the Site) between October 2022 and November 2023, and the Supplemental Remedial Investigation (SRI) work performed between October and November 2024. The goal of the RI and SRI were to further define the nature and extent of the per- and polyfluoroalkyl substances (PFAS) source area and plume, fill data gaps identified by previous investigations, complete an ecological study, and complete a Qualitative Human Health Exposure Assessment (QHHEA). The data compiled in this report will be the basis for completing a remediation feasibility study and remedy selection, including the need for any interim remedial measures (IRMs), in accordance with the New York State Department of Environmental Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10). The RI was conducted in accordance with AKRF's September 2022 NYSDEC-approved Remedial Investigation Work Plan (RIWP)) and AKRF's July 2024 NYSDEC-approved Supplemental Remedial Investigation Work Plan (SRIWP), which included a Health and Safety Plan (HASP), Community Air Monitoring Plan (CAMP), and Quality Assurance Project Plan (QAPP). The CAMP was implemented throughout the duration of subsurface disturbance activities conducted as part of the RI.

1.1 Site Description and Current Usage

The Site is owned by the City of White Plains (the City) and is located at 1402 Old Orchard Street, White Plains, New York. The Site is 141 acres, mainly wooded with small streams, and the Fire Department Drill School (FDDS) is situated within a 4-acre clearing that is located approximately 500 feet east of White Plains Reservoir No. 2. The Orchard Street Pump Station (OSPS) property and its facilities, also owned and operated by the City, are located within the western portion of the Site, and south-adjacent to Reservoir No. 2. The legal definition of the Site is City of White Plains Tax ID 120.20-17-1, and the property class is identified as Public Services-Water Supply. Although indicated as separate lots, these lots are included under the same Tax ID number. A Site Location Map is provided as Figure 1, a Site Plan is provided as Figure 2, and the Project Study Area is provided as Figure 3.

1.2 Description of Surrounding Property

The Site is bounded to the northwest by Central Westchester Parkway, followed by a City-owned property that contains Reservoir No. 1 and Reservoir No. 2; to the north and northeast mainly by municipal land owned by the Town of North Castle, with some residential properties; to the east by Silver Lake Park (owned by Westchester County) and residential properties; and to the south, southeast, and southwest by residential properties. Reservoir No. 2 is approximately 500 feet west of the FDDS. The Site includes the OSPS property and its facilities.

1.3 Site Topography and Documented Geological Characteristics

Based on previous investigations and reports compiled by the U.S. Geological Survey (White Plains, NY Quadrangle), the surface topography at the Site is a mix of gentle and steep slopes with several isolated rocky peaks that top out between 340 and 365 feet elevation (National Geodetic Vertical Datum of 1929 and an approximation of mean sea level). Several lower lying ravines are present between the rocky peaks and make up the intermittent streams within the Site. Although sloping can be varied due to the isolated peaks, the Site generally slopes down to the southwest to a low point at the OSPS property at approximately 240 feet elevation.

The sloping terrain across the Site is comprised mainly of exposed gneiss bedrock with minimal overburden coverage. A New York State bedrock geology map included in the Westchester County Geographic Information System (GIS) database identifies the bedrock at the Site as the Yonkers

Gneiss, which is a garnet bearing gneiss with interlaid quartzite intrusions. The FDDS clearing (282 feet elevation) is located in a flatter section of the Site, and is surrounded to the north, east, and west by ridges that are higher in elevation than the clearing and range from approximately 288 to 360 feet elevation. The higher elevation ridges to the north, east, and south gently slope downward to the central portion of the FDDS clearing, and then downward to the southwest to an intermittent stream that is west-adjacent to the FDDS at 274 feet elevation. Thin isolated layers of overburden soils or fill are likely present in the gently sloping, asphalt- and grass-covered portion of the FDDS area, but the observable areas mainly consist of exposed bedrock.

The intermittent stream runs from north to south below the FDDS access driveway and empties into East Pond on the southwestern side of the Site. Ponding water was observed north of the FDDS access driveway, but surface water flow between the access driveway and East Pond has only been observed during notable precipitation events. The ponding water area north of the access driveway is shown as a large pond on published maps, but was observed to be more of a stream and wetland area that expands or reduces based on precipitation events. The other streams at the Site were similar in geology and lack of continuous water flow, and also terminated into East Pond. City personnel indicated that precipitation events can quickly generate high flow stream conditions due to the steep terrain and minimal overburden. East Pond drains into Reservoir No. 2 through two culvert pipes below Old Orchard Street. Based on elevation data and surficial geomorphology, the intermittent stream that runs below the FDDS access driveway is the only Site stream that receives run-off from the FDDS clearing.

The small, flat area on the western side of the Site that lies between East Pond and the OSPS marks the geologic transition to an overburden area that contain dam piezometers and cistern wells. A large low lying wetland area west of the OSPS is the likely discharge point for area groundwater and is also the settling area for surface flow that is released from Reservoir No. 2.

2.0 SITE AND REGULATORY HISTORY

2.1 Past Uses

2.1.1 Fire Department Drill School History

The fire department training center has been in operation at the Site since approximately 1960. Prior to 1960, the Site was used by the police department for training exercises. Fire department training included live fire training in several different scenarios. The burn building on the eastern side of the clearing allows for multi-floor, realistic live fire training in a scenario where heat and smoke-filled rooms can be controlled for safety. Small training fires using vehicles, pallets, and furniture were also utilized to understand and anticipate the burn tendencies for many real fire response situations. The City reported historical usage of aqueous film-forming foam (AFFF), alcohol type concentrate (ATC) AFFF, alcohol-resistant film forming foam (AR-AFFF), alcohol-resistant film forming fluoroprotein (AR-FFFP) by the fire department, as summarized below:

- Mid-1960s to mid-1970s: 3M AFFF
- Mid-1970s to 1998: 3M ATC AFFF
- 1998 to June 2014: Angus AR-FFFP
- June 2014 to present: National Universal Gold AR-AFFF

AFFF was reported to be used sparingly during the training scenarios, due to the cost of using foam versus water, but it was used on occasion. Through interviews with City personnel, near empty barrels of foam and residual foam left in a pump truck after live fire response were reported to be cleaned out and discharged to the ground near the hydrant location on the Site, which is north-adjacent to the access road and west-adjacent to the stream that runs below the FDDS access driveway at the Site.

2.1.2 Reservoir/OSPS History

Reservoir No. 1 and Reservoir No. 2 were originally constructed in the early 1900s and have a combined volume of nearly 200 million gallons. The reservoir water supply was initially treated in the 1980s via a 3 million gallon per day (mgd) microstrainer plant located at the OSPS. In the late 1990s, additional filtration was required and a 1.6 mgd microfiltration (MF) membrane plant was constructed at the OSPS. The MF plant operated from 1999 through 2005, until the membranes became fouled and damaged from iron and manganese precipitation, and the MF plant became too costly to operate. The reservoirs were removed as a water supply source for the City in 2005.

The four shallow cistern wells at the OSPS were constructed in the late 1800s to early 1900s. Three of the four cistern wells were used through 2005 as water supply sources without treatment, as they produced generally high-quality water. The fourth well was not used due to lower quality water, attributed to its close proximity to the wetlands, and that pesticides were also detected as part of monitoring. Recent testing has documented that pesticide contamination is no longer present in the fourth well. In 2006, a determination was made by consultants for the City that the cistern wells were groundwater under the direct influence (GWUDI) of surface water. The cistern wells were taken off-line since the City did not have a treatment measure to address GWUDI. The wells are currently permitted by the Westchester County Department of Health to be used only for emergencies under the Permit to Operate a Public Water Supply.

Between 2007 and 2018, the City drilled three deep test wells located at the OSPS site as possible water supply wells. One of the wells was abandoned, and the necessary equipment (pumps, pipeline, and treatment) has not been installed in the remaining two deep wells. These wells have never been used for potable water supply.

With the reservoirs and cistern wells out of service, the water supply for White Plains comes from a sole source provided by purchasing water from New York City's water supply system through the Kensico-Bronx Pipeline. The pipeline is well over 100 years old. White Plains does not have any water source redundancy at this time. The cost includes excess demand charges during peak usage based on a per capita guideline that has resulted in excess demand charges being incurred up to six months out of the year.

In order to provide a much needed back up water supply source and to avoid excess charges for usage, the City conducted a feasibility review for a new water treatment plant at the OSPS that is capable of treating the combined water from the reservoirs and the shallow wells. The City decided to not go forward with the plans for a new OSPS water treatment plant as the water filtration and treatment requirements were cost prohibitive.

2.2 Background

As reported above, fire suppression foam was used sparingly during training activities at the Site, and residual foam that remained in barrels/the pump truck after live fire application was rinsed out and discharged to the ground at the hydrant located north adjacent to the access driveway for the Site. In September 2019, a Water Withdrawal Permit Application was submitted to NYSDEC for a new in-City water supply treatment facility at the OSPS that would use water from the adjacent reservoir and the cistern wells. Groundwater sampling conducted as part of the requirements of the withdrawal permit identified PFAS in both water directly from Reservoir No. 2 and the cistern wells.

In an effort to identify a source for the PFAS identified during permit sampling, Hazen and Sawyer conducted two phases of investigation on behalf of the City in April 2019 and July 2019. The investigation included the collection of surface water samples from a stream system that runs through the Site, East Pond, Reservoir No. 1 and Reservoir No. 2, and the wetland area north and west of the OSPS, and the collection of groundwater samples from dam piezometer wells along the southern edge of Reservoir No. 2 and the four cistern wells located on the OSPS property. The majority of the sample locations were repeated in July 2019 to obtain comparative results.

In summary, the results were consistent between the April 2019 and July 2019 sampling events. The ranges of total PFAS that were detected are as follows.

- Reservoir No. 1 – 1.4 to 2.3 parts per trillion (ppt)
- Upstream of the FDDS – Not detected to 28.5 ppt
- Surface Water adjacent to the FDDS access driveway – 2,460 to 6,700 ppt
- Surface Water in East Pond – 17.2 to 62.8 ppt
- Surface Water in Reservoir No. 2 – 141 to 144 ppt
- Groundwater at DP-10 (between East Pond and the OSPS) – 111 ppt
- Dam Piezometers – 199 to 325 ppt
- Cistern Wells at the OSPS – 354 to 531 ppt

Based on the results of the investigations, the FDDS was identified as the potential source for PFAS contamination associated with East Pond, Reservoir No. 2, and the OSPS. As expected with fire suppression foam being the primary contaminant of concern (COC), perfluorooctane sulfonate (PFOS) was detected at a much higher ratio than perfluorooctanoate (PFOA) (typically by one to two orders of magnitude) and made up a large component of the detected total PFAS concentrations.

On September 26, 2019, representatives of the City and NYSDEC attended a meeting to discuss the requirements of the water withdrawal permit and used that opportunity to voluntarily report the results of the PFAS investigation conducted in April and July 2019. NYSDEC sent a letter to the City on December 4, 2019 identifying the Site as a potential hazardous waste site ("P" site), and a determination was necessary to determine whether hazardous waste had been disposed on the property. The letter indicated that the City could carry out an investigation under a legal agreement with NYSDEC in accordance with subdivision 27-1305(2)(a) of the Environmental Conservation Law (ECL).

The figures prepared by Hazen and Sawyer that summarizes the results for both sampling events are included in Appendix A.

2.3 Previous Reports

Site Characterization Work Plan (SCWP) – White Plains Fire Department Drill School, 1402 Old Orchard Street, White Plains, New York, AKRF, Inc., December 2020

AKRF prepared an SCWP for the Site in December 2020. The SCWP included a detailed reporting of Site history and usage, and the scope of the investigation included the advancement of soil borings, installation of monitoring wells, and the collection of soil samples, co-located stream sediment and surface water samples, and groundwater samples. The proposed soil sampling plan also included multiple depth sampling [surface (0-2 inches), near surface (2-12 inches), and deep (water table and/or bedrock interface)] at selected soil boring locations. The investigation was designed to confirm whether the FDDS is a source for the identified PFAS compounds, and if so, obtain a general depiction of the nature and extent of the PFAS release area.

Site Characterization Report (SCR) – White Plains Fire Department Drill School, 1402 Old Orchard Street, White Plains, New York, AKRF, Inc., April 2022

An SCR was prepared to document the results of the Site Characterization Investigation (SCI) at the Site that was completed in accordance with the NYSDEC-approved SCWP. The investigation was conducted to complete a preliminary evaluation of geologic and hydrogeologic conditions, and determine whether any identified contamination poses a significant threat to public health or the environment.

The field sampling scope of work consisted of: the advancement of 19 soil borings with continuous soil sampling, the installation of 6 overburden monitoring wells, and the collection of 35 soil samples, 12 co-located stream sediment and surface water samples, one isolated surface water sample, and 14 groundwater samples (from the cistern wells, dam piezometers, and newly installed overburden monitoring wells) for laboratory analysis. All samples were analyzed for total emerging contaminants, with an array of selected samples being analyzed for leachable emerging contaminants, the full list of NYSDEC Part 375 parameters, and general chemistry parameters. The general chemistry parameters were added as recommended by NYSDEC PFAS guidance document to provide data to assist with understanding the nature and extent of contamination and to evaluate potential interim remedial measures to address the sources of PFAS contamination at the Site.

Geological conditions observed at the FDDS included an asphalt layer underlain by native unconsolidated glacial deposits (till) with isolated pockets of fill consisting of sandy mixture combined with organics, wood fragments, concrete, and brick. A shist bedrock was encountered below the glacial deposits at depths ranging from 2.5 to 14 feet below grade (ftbg). The geology surrounding the FDDS included exposed schist bedrock with isolated areas of thin overlying glacial deposits. The stream also contained only thin layers of sediment over bedrock. The exposed bedrock receded below grade in the area between East Pond and the OSPS, with 12.5 to 17 feet of native glacial deposits (same geology listed above) present above bedrock.

Hydrogeologic conditions observed at the FDDS included groundwater encountered in isolated locations at depths ranging from 0.75 feet below top of casing (ftbtoc) to 6.49 ftbtoc. Groundwater was encountered at depths ranging from 9.56 ftbtoc in MW-6 to 11.06 ftbtoc in MW-5 on the East Pond portion of the Site. Groundwater was encountered at depths ranging from 7.74 ftbtoc to 15.27 ftbtoc in the dam piezometers (not a water table measurement; water level indicative of hydraulic pressure at the submerged casing opening).

The variable depth to bedrock at the FDDS was found to isolate where overburden groundwater was observed to areas where bedrock was typically lower than 5 ftbg. The continuity of saturated overburden was more consistent on the western side of the FDDS where topography dropped to the wetland area. Based on topography, geology, and water table measurements, groundwater at the FDDS site is expected to flow west towards the west-adjacent wetland. Due to the exposed bedrock surrounding the northern, eastern, southern, and southwestern portions of the FDDS, the wetland area is suspected to be the discharge point for groundwater emanating from the FDDS site. The wetland area is the headwaters for the intermittent stream that runs beneath the driveway to East Pond. Based on topography and local geology, groundwater in the East Pond area is expected to flow to the southwest toward the OSPS, and continue into the wetland adjacent to the OSPS.

The investigation did not document any evidence of a release of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, or metals. The investigation confirmed that elevated concentrations of PFAS compounds were present in soil in the former fire suppression training area north-northeast of the fire training tower (on the southern end of the asphalt parking lot) and west of the burn building (on the eastern side of the asphalt) on the FDDS property, which constitutes the primary PFAS release area. PFAS compounds were detected at elevated, but lower, concentrations relative to the fire suppression training area in the PFAS drum wash out area adjacent to the access driveway and intermittent stream (considered a secondary source area) on the FDDS property. The shallow soil samples (0 to 2 ftbg) on both release areas contained significantly higher concentrations of PFAS relative to the deeper soil samples, supporting a surface release mechanism. The soil sampling results provided release area definition to the east and south, but the extent of PFAS contamination was not fully defined to the north and west of the former fire suppression training area on the FDDS property.

Remedial Investigation Work Plan (RIWP) – White Plains Fire Department Drill School, 1402 Old Orchard Street, White Plains, New York, AKRF, Inc., September 2022

The RIWP was approved by NYSDEC in September 2022, and was prepared to describe the procedures to be used during the continuing investigation to further define the nature and extent of the PFAS source area and plume. The objectives of the RI were to fill data gaps identified by the SCI, complete an ecological study, complete a QHHEA, and compile sufficient data to complete a remediation feasibility study and remedy selection in accordance with the NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10). The remedy selection process would

also include the possibility of implementing an IRM to address any ongoing sources of PFAS contamination at the FDDS, prior to completing a Site-wide remedy.

2.4 Conceptual Site Model

Two potential release mechanisms were identified at the Site. The first included the direct discharge of fire suppression foam during firefighter training to the asphalt surface in the area west of the burn building, and the discharge of foam at the burn building. The second included the reported clean-out of residual foam from the pump truck, and also what was left over in barrels after fighting live fires. The clean-out took place at the hydrant location north-adjacent to the access driveway to the Site and west-adjacent to the culvert for the stream that runs beneath the access driveway. The rinsed material was reported to be discharged directly to the ground.

Fire suppression foam applied at the Site burn building and on the asphalt surface during training exercises would collect on the asphalt surface and flow downgradient to a grass covered area on the southwestern side of the Site clearing prior to discharging into the stream that runs under the access driveway for the Site. The foam fluid could also infiltrate through cracks in the asphalt, contaminate the thin layer of soil beneath the asphalt, and migrate with infiltrating precipitation down the slope (along the bedrock surface beneath the asphalt) toward the stream. Depth to groundwater measured at MW-2 and MW-3, at the southwestern end of the asphalt area was near the ground surface (within a foot). This supports a groundwater discharge during high water table events to the ground surface at the southwestern edge of the asphalt area, which would flow overland along the access driveway to the intermittent stream.

For the used barrel/pump truck cleanout, which took place at the hydrant location in the access driveway, the residual foam would discharge directly to the asphalt surface and flow into the stream that runs beneath the hydrant location.

Both release models converge in the stream just downgradient from the access driveway, and flow approximately 450 feet on exposed bedrock, or a thin layer of silt over bedrock, to East Pond. Surface water from East Pond flows through two large diameter pipes directly into Reservoir No. 2, and overflow from Reservoir No. 2 discharges into the low-lying wetland west-adjacent to the OSPS. Lateral flow is not expected from this stream channel as it is a topographical low point within exposed bedrock outcrops along each bank.

The land area west-adjacent to East Pond appears to be the on-site location where enough overburden is present to allow for the existence of a continuous overburden aquifer. Any discharge from the East Pond overburden groundwater would flow west beneath the OSPS to the low-lying wetland.

2.5 Applicable Criteria and Guidance

The investigation was completed in accordance with the RIWP, which was prepared following the requirements included in NYSDEC DER-10 and the NYSDEC PFAS guidance document titled *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) – Under NYSDEC's Part 375 Programs (April 2023).* The original NYSDEC PFAS document was released in October 2020, with revisions in January 2021, June 2021, and April 2023, and is referred to herein as the NYSDEC PFAS guidance. The soil guidance values used for the Site include the Commercial Guidance Values (CGVs) for Site use and the Protection of Groundwater Guidance Values (PGWGVs). Sediment results were compared to the freshwater sediment guidance values included in the NYSDEC *Screening and Assessment of Contaminated Sediments, 2014* guidance document. Groundwater and surface water results were compared to the established NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGVs). In March 2023, NYSDEC released final AWQSGVs for emerging contaminants for sources of drinking water (groundwater

and surface water) and fish propagation (acute) and fish survival (chronic) aquatic life. The AWQSGVs include values for PFOA, PFOS, and 1,4-dioxane.

2.6 Summary of Documented PFAS Contamination

This section includes a brief summary of the PFAS contamination that was documented during the April 2021 SCI, and was used to develop the scope of work for the RI. A comprehensive review of the data compiled during Site characterization and the RI is included in Section 5.0 of this report.

2.6.1 Soil Contamination

Total PFAS concentrations ranged from 4.6 micrograms per kilogram (µg/kg) to 439 µg/kg. PFOS was detected above its PGWGV of 1.0 µg/kg but below its CGV of 440 µg/kg in 25 of the 35 soil samples at concentrations ranging from 8.56 µg/kg to 410 µg/kg. PFOA was detected above its PGWGV of 0.8 µg/kg but below its CGV of 500 µg/kg in five of the 35 soil samples at concentrations ranging from 1.14 µg/kg to 6.68 µg/kg. Leachable [using the synthetic precipitation leaching procedure (SPLP)] PFOS was detected above its selected SPLP screening criteria of 27 nanograms per liter (ng/L) in seven SPLP soil samples at concentrations ranging from 155 ng/L to 3,880 ng/L. The highest concentrations of PFOA and PFOS were detected in shallow soil in the former fire suppression training area, and in the former PFAS drum wash out area adjacent to the access driveway and intermittent stream (considered a secondary source area) on the FDDS property. Analytical results for soil samples that were compiled during the SCI are included in Attached Tables 9 and 10. Figures 6 and 7 include total PFAS concentrations documented in soil during the SCI.

2.6.2 Sediment

Total PFAS concentrations ranged from 4.02 µg/kg to 140 µg/kg in sediment. PFOS was detected in each of the 12 sediment samples at concentrations ranging from 2.7 µg/kg to 93.8 µg/kg (SED-01). PFOA was detected in each of the 12 sediment samples at concentrations ranging from an estimated concentration of 0.078 µg/kg (SED-11 and SED-04) to 2.55 µg/kg (SED-08). All 12 sediment samples were also analyzed for SPLP PFAS. Sixteen of the 21 SPLP PFAS compounds were detected in one or more sediment samples ranging from an estimated 0.38 ng/L to 1,270 ng/L. Total SPLP PFAS concentrations ranged from 23.5 ng/L (SED-11) to 1,540 ng/L (SED-02). SPLP PFOS was detected above its selected screening level of 27 ng/L in 9 of the 12 SPLP sediment samples at concentrations ranging from 112 ng/L (SED-05) to 1,270 ng/L (SED-02). SPLP PFOA was not detected above its calculated screening level of 67 ng/L in the sediment samples.

Sediment sample analytical results for PFAS compounds compiled during the SCI are included in Attached Tables 11 and 12, and on Figures 8A and 8B.

2.6.3 Surface Water

PFOS and PFOA were detected in one or more surface water samples above their applicable proposed NYSDEC AWQSGVs for source of drinking water. PFOS was detected above its proposed NYSDEC AWQSGV of 2.7 ng/L in all of the surface water samples at concentrations ranging from an estimated concentration of 4.84 ng/L (SW-09) to 1,780 ng/L (SW-04). PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in 12 of 13 surface water samples at concentrations ranging from 7.54 ng/L (SW-12) to 123 ng/L (SW-04). Total PFAS concentrations were detected in surface water samples at concentrations ranging from 16.15 ng/L (SW-09) to 4,123 ng/L (SW-04).

Surface water sample analytical results for PFAS compounds compiled during the SCI are included in Attached Table 13. Surface water sample exceedances above NYSDEC AWQSGVS are depicted on Figures 8A and 8B.

2.6.4 Groundwater

PFOS was detected above its proposed NYSDEC AWQSGV of 2.7 ng/L in each of the 14 groundwater samples at concentrations ranging from 32.8 ng/L (DP-10) to 51,200 ng/L (MW-02). PFOS was also detected in field blanks submitted with the groundwater samples (FB-07, FB-08, and FB-10) at estimated concentrations ranging from 0.4 ng/L to 0.59 ng/L. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in 12 of 14 groundwater samples at concentrations ranging from 9.95 ng/L (DP-X01) to 1,120 ng/L (MW-03). Total PFAS concentrations were detected in each of the four groundwater samples collected on the FDDS property at concentrations ranging from 3,360 ng/L (MW-04) to 61,700 ng/L (MW-02). Total PFAS concentrations on the remainder of the Site ranged from 91.6 ng/L (DP-10) to 332 ng/L (CW-03).

Groundwater sample analytical results for PFAS compounds compiled during the SCI are presented in Attached Table 14. Figure 9 includes groundwater exceedances above NYSDEC AWQSGVs, and Figure 10 includes an overburden groundwater total PFAS isocontour map.

3.0 PROJECT MANAGEMENT

3.1 Project Organization

The Qualified Environmental Professional (QEP) responsible for preparation of this report is Marc S. Godick, QEP.

3.2 Health and Safety

All work described in this report was performed in full compliance with applicable laws and regulations, including Site and Occupational Safety and Health Administration (OSHA) worker safety requirements and Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements. The work described in this report was also performed in accordance with a Site-specific HASP dated September 2022 and included in Appendix A of the RIWP.

4.0 REMEDIAL INVESTIGATION ACTIVITIES

The RI and SRI field program included the collection of soil, sediment, surface water, and groundwater samples to further define the nature and extent of the PFAS source area and resulting contamination plume. Additionally, the RI included an ecological resource characterization as part of a fish and wildlife impact analysis, and the compiled data was used to complete a QHHEA as part of the RIR. The ecological resource characterization includes a determination as to whether ecological resources are present at or adjacent to the Site, are an important component of the Site, and whether there is an impact or threat of impact to those resources due to the presence of the PFAS contamination. The compiled RI data is anticipated to be used to complete a remedial feasibility study and remedy selection in accordance with NYSDEC DER-10.

4.1 Field Program Summary

The field sampling scope of work consisted of: the advancement of 14 soil borings, the installation of six new monitoring wells (two overburden wells and four bedrock wells), and the collection of 41 soil samples, eight co-located stream sediment and surface water samples, and 20 groundwater samples. In addition to completing the RI and SRI sampling scopes, two monitoring wells were installed to replace existing wells installed during the SCI that were damaged beyond repair. Soil samples were collected from the soil borings at multiple depths, as directed by the RIWP, for the purpose of identifying the vertical nature of contaminants. The sampling locations are shown on Figure 4A (FDDS) and Figure 4B (Project Study Area).

A review of the sample ID, location, and rationale is included in the following table:

In-Text Table 1
RI Sampling Locations and Rationale

Sample ID	Location	Rationale
SB-21	Access road west of on-site clearing	Soil quality west of the reported foam barrel/pump truck cleanout location and west of SCI soil boring SB-14 and RI soil boring SB-31
SB-22/ MW-10	Access road west of on-site clearing	Soil and bedrock groundwater quality west of the reported foam barrel/pump truck cleanout location, further delineate groundwater contamination to the northwest from SCI well MW-04 and the intermittent stream
SB-23	Between the asphalt area and adjacent stream, upgradient of the access road culvert.	Soil quality control point between asphalt clearing and adjacent intermittent stream that is upgradient of the firefighting practice areas and SCI boring SB-17
SB-24	Between the asphalt area and adjacent stream, upgradient of the access road culvert.	Soil quality control point between asphalt clearing and adjacent intermittent stream that is upgradient of the firefighting practice areas and cross gradient of SCI boring SB-01
MW-01	Existing well in the northeastern end of on-site clearing/asphalt area	Overburden groundwater upgradient of the burn building and firefighting practice areas, confirmation of SCI groundwater sampling results/establish baseline conditions
MW-02	Existing well in the central portion of on-site clearing/asphalt area	Overburden groundwater quality downgradient of the burn building and firefighting practice areas, confirmation of SCI groundwater sampling results/establish baseline conditions

Sample ID	Location	Rationale
MW-03	Existing well within the access road west of on-site clearing	Overburden groundwater quality downgradient of the burn building and firefighting practice areas, confirmation of SCI groundwater sampling results/establish baseline conditions
MW-04	Existing well within the grass covered area southwest of on-site clearing	Overburden groundwater quality at reported foam barrel/pump truck cleanout location, confirmation of SCI groundwater sampling results/establish baseline conditions
MW-05	Existing well west-adjacent to East Pond	Overburden groundwater quality between East Pond and the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
MW-06	Existing well west-adjacent to East Pond	Overburden groundwater quality between East Pond and the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
DP-02	Existing piezometer at southwest dam border	Groundwater quality between Reservoir No. 2 and the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
DP-05	Existing piezometer at southwest dam border	Groundwater quality between Reservoir No. 2 and the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
DP-08	Existing piezometer at southwest dam border	Groundwater quality between Reservoir No. 2 and the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
DP-10	Existing piezometer between East Pond and the OSPS	Groundwater quality between East Pond and the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
CW-01	Existing Cistern Well #1 at the OSPS	Groundwater quality at the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
CW-02	Existing Cistern Well #2 at the OSPS	Groundwater quality at the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
CW-03	Existing Cistern Well #3 at the OSPS	Groundwater quality at the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
CW-04	Existing Cistern Well #4 at the OSPS	Groundwater quality at the OSPS, confirmation of SCI groundwater sampling results/establish baseline conditions
MW-07/ SB-25	Northeastern end of on-site clearing/asphalt area	Overburden soil and groundwater quality upgradient of the burn building, firefighting practice areas, and SCI location MW-01/SB-01
MW-08/ SB-26	North-central portion of on-site clearing/asphalt area	Overburden soil and groundwater quality downgradient of the burn building and firefighting practice areas and cross gradient between SCI locations MW-01/SB-01 and MW-02/SB-09
SB-27	Northeastern portion of on-site clearing/asphalt area	Overburden soil quality up/cross gradient of the burn building and firefighting practice areas and upgradient of SCI locations MW-01 and MW-02. No overburden groundwater present.
SB-28	Central portion of on-site clearing/asphalt area	Overburden deep soil quality within the release area/firefighting practice areas

Sample ID	Location	Rationale
SB-29/ MW-09	Southwestern end of on-site clearing	Overburden soil and bedrock groundwater quality upgradient of the firefighting practice areas and downgradient of SCI location SB-03
SB-30	Grass covered area southwest of on-site clearing and access road	Soil quality south of the reported foam barrel/pump truck cleanout location and upgradient of SCI location SB-12
SB-31	Grass covered area west of access road	Soil quality west of the reported foam barrel/pump truck cleanout location and northwest of SCI location SB-14
SB-32	Grass covered area north of access road	Soil quality south of the reported foam barrel/pump truck cleanout location and northwest of SCI location SB-15
SB-33	Central portion of on-site clearing/asphalt area	Deep soil quality south of the reported firefighting practice areas and south of SCI location SB-09
SB-34	Central portion of on-site clearing/asphalt area	Deep soil quality south of the reported firefighting practice areas and southwest of SCI location SB-08
SED-13/ SW-13	Upgradient of access road culvert	Sediment and surface water quality upgradient of foam barrel/pump truck cleanout location and SCI location SED-01/SW-01
SED-14/ SW-14	Upgradient of access road culvert	Sediment and surface water quality upgradient of foam barrel/pump truck cleanout location and SCI location SED-01/SW-01
SED-15/ SW-15	Upgradient of access road culvert	Sediment and surface water quality upgradient of foam barrel/pump truck cleanout location and SCI location SED-01/SW-01
SED-16/ SW-16	Downgradient of Reservoir No. 2 dam and spillway; north of the OSPS	Sediment and surface water quality within spillway outfall area at the northeastern portion of the low-lying wetland located north and west-adjacent to the OSPS; and northwest of the SCI location OF-01
SED-17/ SW-17	Downgradient of Reservoir No. 2 dam and spillway; west of the OSPS	Sediment and surface water quality within the central-eastern portion of the low-lying wetland north and west-adjacent to the OSPS and SCI location CW-04
SED-18/ SW-18	Downgradient of Reservoir No. 2 dam and spillway; southwest of the OSPS	Sediment and surface water quality within the southern portion of the low-lying wetland south-adjacent to the OSPS and SCI locations CW-01, CW-02, and CW-03
SED-19/ SW-19	Downgradient of Reservoir No. 2 dam and spillway; west of the OSPS	Sediment and surface water quality within the western portion of the low-lying wetland north and west-adjacent to the OSPS and SCI location CW-04
SED-20/ SW-20	Downgradient of Reservoir No. 2 dam and spillway; northwest of the OSPS	Sediment and surface water quality within the northwestern portion of the low-lying wetland north and northwest-adjacent to the OSPS
MW-11	Northeastern end of on-site clearing/asphalt area	Bedrock groundwater quality upgradient of the PFAS source area to confirm bedrock groundwater flow and upgradient PFAS concentrations
MW-12	West-adjacent to East Pond	Bedrock groundwater quality downgradient of the PFAS source are to confirm bedrock groundwater flow and delineate the extent of downgradient PFAS contamination

4.2 Soil Boring Advancement

Between October 3 and October 4, 2022, 14 soil borings were advanced at the Site to depths ranging from 2.5 to 18 ftbg. A Geoprobe® direct-push drill rig was used to advance soil borings SB-21, SB-

22, and SB-25 through SB-34, operated by Aquifer Drilling and Testing of Mineola, New York, a subsidiary of Cascade Environmental. Soil borings SB-23 and SB-24 were advanced using a hand auger, as these locations were within the forested portion of the Site and not accessible with the direct-push drill rig. Where the direct-push drill rig was used, soil samples were collected continuously at each boring using 5-foot-long, 2-inch-diameter, stainless steel macrocore piston rod samplers fitted with an internal acetate liner. At the two locations where the hand auger was used, samples were collected in 6-inch intervals directly from the receptacle of the auger. Soil cores were visually inspected and field-screened for evidence of contamination using a photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp. The PID was calibrated at the beginning of each field day with 100 parts per million (ppm) isobutylene calibration gas in accordance with manufacturer's specifications. At each boring location, AKRF field personnel recorded and documented subsurface conditions, and logged the soil samples using the modified Burmister soil classification system. Two to three soil samples from each boring were designated for laboratory analysis. Sample collection and analysis are detailed in Section 4.5.

Advancement of soil borings for installation of MW-11 and MW-12 in October 2024 as part of the SRI did not include soil sampling for laboratory analysis as they were drilled for the purpose of bedrock well installation in areas with pre-existing soil borings (and associated soil sampling).

All sampling equipment (e.g., hand tools, drilling rods, and casing and probe rods) was either dedicated or decontaminated between sampling locations using Alconox® and certified PFAS-free water. The soil boring locations were surveyed during the SCI by American Engineering & Land Surveying, P.C. (AELS) of Plainview, NY and are shown on Figures 4A and 4B. AELS has been contracted for surveying the RI locations, and the figures will be updated upon completion. The Soil boring logs are provided in Appendix B.

4.3 Monitoring Well Installation

Due to difficult drilling conditions and encountering multiple shallow refusals while advancing the macrocore samplers during soil collection, a change was made to a sonic drilling rig on a Geoprobe® platform for installation of all monitoring wells. The RIWP included a plan to install seven monitoring wells at five boring locations, with two boring locations consisting of a nested overburden and bedrock monitoring well. Proposed monitoring well locations MW-9 (SB-27), MW-10 (SB-29), and MW-11 (SB-22) were not installed due to shallow refusal on bedrock with insufficient to no available overburden groundwater. Bedrock monitoring wells that were proposed as MW-12 (nested with proposed MW-10/SB-29) and MW-13 (nested with proposed MW-11/SB-22) were installed on their own with no nested overburden companion, and relabeled MW-09 (adjacent to SB-29) and MW-10 (adjacent to SB-22). Bedrock monitoring wells MW-11 and MW-12 were installed in accordance with the SRIWP.

The groundwater monitoring well locations were surveyed by American Engineering & Land Surveying, P.C. of Plainview, NY and are shown on Figures 4A and 4B. Soil boring and well installation logs are provided in Appendix B.

4.3.1 Overburden Monitoring Wells

Two (2) 2-inch-diameter permanent groundwater monitoring wells [MW-07 (SB-25) and MW-08 (SB-26)] were installed to approximate depths of 20 and 16.5 ftbg, respectively. Additionally, MW-02 and MW-03, which were installed during the April 2021 SCI, were damaged beyond repair due to upwelling/frost heave, were replaced with MW-02R and MW-03R installed adjacent to their original locations. The new and replacement overburden well construction consisted of 6 to 12 feet of 0.020-inch slotted polyvinyl chloride (PVC) monitoring well screen installed at the bedrock interface with a solid PVC

riser extending to ground surface. Monitoring well screen length varied to address areas where shallow depth to groundwater and/or depth to bedrock and/or potential upwelling/frost heave due to hydraulic pressure of the Site prevented the use of a standard screen length of 10 feet. A No. 2 morie sandpack was installed to approximately 2 feet above the well screen at each well, the annular space above the sandpack and around the solid well riser was sealed with 1 to 2 feet of bentonite, and the wells were finished with a locking j-plug and either a flush-mounted or stick-up protective locking well cover secured with a concrete collar.

4.3.2 Bedrock Monitoring Wells

Soil borings MW-9/SB-29, MW-10/SB-22, MW-11, and MW-12 were advanced for the purpose of installing bedrock monitoring wells. After encountering bedrock refusal, a 6-inch-diameter steel casing was spun approximately 10 feet into competent bedrock. The bottom of the casing was set and sealed using a slurry grout consisting of Type I Portland cement/sand mixture and left to cure for at least 24 hours. After the grout cured, a core barrel with a custom cutting shoe was advance through the inside of the steel casing and into bedrock at 5-foot intervals until the first water bearing fracture was encountered. The bedrock cores were placed in a core box and logged for geology and fracture content. The core barrel was advanced until the fractured bedrock exhibited evidence (i.e., scaling, staining, and mineral deposition) of being water bearing. After completing the coring process, the boring for the bedrock well was over drilled using the sonic drilling equipment.

Bedrock wells MW-09, MW-10, MW-11, and MW-12 were installed to approximate depths of 26.5, 25, 40, and 30 ftbg, respectively. Bedrock well construction consisted of 5 feet of 0.020-inch slotted 2-inch-diameter PVC monitoring well screen installed to the bottom of the boring, combined with a solid PVC riser extending to approximately 2.5 to 3 feet above ground surface for MW-09 and MW-10 and extending to grade for MW-11 and MW-12. A No. 2 morie sandpack was installed to 2 feet above the well screen, and the annular space above the sandpack and around the solid well riser was sealed with 1 to 2 feet of bentonite followed by a bentonite grout to 1 foot below the ground surface. The wells were finished with a locking j-plug, steel stick-up casings for MW-09 and MW-10 and flush mounted construction for MW-11 and MW-12, and secured by a concrete collar.

4.4 Groundwater Monitoring Well Development

Following installation, each newly installed monitoring well was developed via pumping and surging with a stainless steel monsoon pump and dedicated high-density polyethylene (HDPE) tubing to remove any accumulated fines from the well casing and sand filter pack, and establish a hydraulic connection with the surrounding aquifer. Purge water was monitored with a Horiba U-52 water quality monitor during development. Development continued until a sufficient volume of water had been purged. In the instance that turbidity within the wells did not achieve less than 50 nephelometric turbidity units (NTUs) and/or water quality indicators did not stabilize to within 10% for pH, temperature, and specific conductivity for three successive readings, the well development activities continued until the well ran dry three times, or 25 gallons was purged if recharge conditions were adequate. Purge water was containerized in properly labeled United States Department of Transportation (DOT)-approved 55-gallon drums for future off-site disposal at a permitted facility, pending test results. The groundwater monitoring well development logs are provided in Appendix B.

4.5 Sample Collection and Laboratory Analysis

Soil, sediment, surface water, and groundwater samples were collected during the investigation for laboratory analysis. This section includes the sampling details (frequency and depth) and selected laboratory testing parameters for each environmental media.

4.5.1 Soil Sampling

Between two and three soil sampling intervals in each boring were designated for laboratory analysis. Based on the RIWP, samples were collected at each boring from the subsurface (0 to 0.2 ftbg) beneath the vegetative layer, shallow soil (0.2 to 1 foot below grade), and intermediate soil (1 to 2 ftbg grade); the shallow sample was not collected at locations where asphalt was present. Additionally, one deep sample from the 1-foot interval above bedrock refusal was collected where overburden monitoring wells were proposed to be installed. Samples were collected from designated borings in accordance with the RIWP and the NYSDEC PFAS guidance document. A total of 41 soil samples were collected, as described in this Section. A sample summary table including soil sample depths and intervals is included below:

In-Text Table 2
Soil Sample Summary Table

Soil Boring	1st Soil Sample		2nd Soil Sample		3rd Soil Sample	
	BGS (ft)		BGS (ft)		BGS (ft)	
	Top	Bottom	Top	Bottom	Top	Bottom
SB-21	0	0.2	0.2	1	1	2
SB-22	0	0.2	0.2	1	1	2
SB-23	0	0.2	0.2	1	1	2
SB-24	0	0.2	0.2	1	1	2
SB-25	0.2	1	1	2	15	16
SB-26	0.2	1	1	2	10	11
SB-27	0.2	1	1	2	NS	NS
SB-28	0.2	1	1	2	10	11
SB-29	0	0.2	0.2	1	1	2
SB-30	0	0.2	0.2	1	1	2
SB-31	0	0.2	0.2	1	1	2
SB-32	0	0.2	0.2	1	1	2
SB-33	0.2	1	1	2	13	14
SB-34	0.2	1	1	2	10	11

Notes:
ft = feet
BGS = Below Ground Surface
NS = No Sample

All soil samples were analyzed for PFAS by modified United States Environmental Protection Agency (EPA) Method 537. A total of 20% of the soil samples represented by borings SB-21, SB-30, and SB-33 were also analyzed for SPLP PFAS by modified EPA Method 537. The RI was completed just prior to laboratories initiating draft Method 1633 capabilities, and the choses methods are consistent with the NYSDEC-approved RIWP.

4.5.2 Sediment Sampling

Eight (8) sediment samples (SED-13 through SED-20) were submitted to the laboratory for analysis. Three sediment samples were collected within the vernal pool and intermittent stream on the FDDS property, and five sediment samples were collected from the wetlands area to the west of the Orchard Street Pumping Station. All samples were collected with a stainless-steel spoon. All sampling equipment was either dedicated or decontaminated between sampling locations using Alconox® and certified PFAS-free water. Sediment was inspected and field-screened for evidence of contamination using a PID. No elevated PID readings, staining, or odors were observed during sediment sampling.

All sediment samples were analyzed for PFAS by modified EPA Method 537, total organic carbon (TOC) by EPA Method 5310B Modified (Lloyd Kahn), and SPLP PFAS by modified EPA Method 537.

4.5.3 Surface Water Sampling

Eight (8) surface water samples (SW-13 through SW-20) were submitted to the laboratory for analysis. Three surface water samples were collected within the vernal pool and intermittent stream on the FDDS property, and five surface water samples were collected from the wetlands area to the west of the Orchard Street Pumping Station. All samples were collected with a stainless-steel spoon. All sampling equipment was either dedicated or decontaminated between sampling locations using Alconox® and certified PFAS-free water.

All surface water samples were analyzed for PFAS by modified EPA Method 537.

4.5.4 Groundwater Sampling

Twenty (20) groundwater samples (plus the associated blind duplicate) were submitted to the laboratory for analysis. Four groundwater samples were collected from the three dam piezometers (DP-02, DP-05, and DP-08) along Reservoir Road and Old Orchard Street southwest of White Plains Reservoir No. 2 and one dam piezometer west-adjacent to East Pond (DP-10). Four groundwater samples were collected from the four cistern wells (CW-01 through CW-04) on the OSPS property. Approximately one week after well development, groundwater samples were also collected from each new and existing well (12 monitoring wells in total) using low flow sampling methodology with dedicated and decontaminated sampling equipment. Low flow sampling methodology was also utilized for the four dam piezometers. Groundwater samples collected from the existing cistern wells located on the OSPS property were sampled with a dedicated HDPE bailer.

Prior to collecting groundwater samples, the depth to groundwater and the total well depth were measured at each of the groundwater monitoring wells and dam piezometers using a water interface probe attached to a measuring tape accurate to 0.01 foot. No free phase product was observed in the groundwater monitoring wells or dam piezometers during installation, purging, or sampling. The wells and dam piezometers were purged until the turbidity of the water decreased below 50 NTU for three successive readings and groundwater quality parameters stabilized or two hours had passed.

The groundwater samples were analyzed for PFAS by modified EPA Method 537.

4.5.5 Sample Handling and Laboratory Reporting

Each sample was collected and handled in accordance with the procedures and guidelines included in the QAPP located in Appendix A of the RIWP. The sampling guidelines are

consistent with and were prepared to meet the revised NYSDEC Guidelines for *Sampling, Analysis, and Assessment of PFAS,* which are included in the QAPP for reference.

Sample containers were labeled, placed in an ice-filled cooler, and shipped to the laboratory via courier with appropriate chain-of-custody documentation. Samples slated for PFAS analysis were shipped to and analyzed by Eurofins of South Burlington, Vermont. TOC samples were shipped to and analyzed by Eurofins of Edison, New Jersey. Each Eurofins location is a NYSDOH ELAP-certified laboratory. Each laboratory report was prepared within a standard turnaround time using the latest NYSDEC format for Category B deliverables. Reporting limits for PFOA and PFOS in aqueous and solid samples were no higher than 2 ng/L and 0.5 µg/kg, respectively.

4.5.6 Quality Assurance/Quality Control (QA/QC) and Data Usability

QA/QC procedures were used to provide performance information with regard to accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analyses for this investigation. Field QA/QC procedures were used (1) to document that samples are representative of actual conditions at the Site and (2) to identify possible cross-contamination from field activities or sample transit. Laboratory QA/QC procedures and analyses were used to demonstrate whether analytical results have been biased either by interfering compounds in the sample matrix or by laboratory techniques that may have introduced systematic or random errors to the analytical process.

QA/QC samples were analyzed at Eurofins TestAmerica, an ELAP-certified laboratory. The third-party data validation was performed by L.A.B. Validation Corp. and reported in Data Usability Summary Reports (DUSRs) for soil, sediment, surface water, and groundwater. Laboratory analytical data reports and the DUSRs are provided in Appendix C. QA/QC sampling consisted of the following:

Soil

- Three blind duplicates (RI-SB-X_20221003, RI-SB-X01_20221004, and RI-SB-X02_20221004)
- Three matrix spike/matrix spike duplicate (MS/MSD) samples (RI-SB-28_1-2_20221003, RI-SB-29_1-2_20221004, and RI-SB-27_1-2_20221004)
- Six field blanks (FB-01_20221003, FB-01_20221017, FB-01_20221018, FB-01_20221019, FB-01_20221020, and FB-01_20221024)

Sediment

- One blind duplicate (RI-SED-X_20221014)
- One MS/MSD sample (RI-SED-17_20221014)
- One field blank (FB-01_20221014)

Surface Water

- One blind duplicate (RI-SW-X_20221014)
- One field blank (FB-01_20221014)

Groundwater

- Two blind duplicates (RI-MW-X_20221017 and MW-0X_20241107)
- Two MS/MSD samples (RI-MW-14_20221016 and MW-11_20241107)

- Six field blank samples (FB-01_20221017, FB-01_20221018, FB-01_20221019, FB-01_20221020, FB-01_20221024, and FB-01_20241107)

QA/QC samples were submitted with the collected soil, sediment, surface water, and groundwater samples. The field blanks, blind duplicates, and MS/MSDs were analyzed for the same analyte list as the accompanying samples.

Third Party Data Usability Review

A third-party laboratory results validation review was conducted by L.A.B Validation Corp. of East Northport, New York. The review was completed to confirm that the laboratory results were usable and could be relied upon to compare to guidance values and make decisions regarding future actions. The DUSR concluded that the overall assessment of the data generated was of acceptable quality. Results for the analyses are considered usable with each revised qualifier added to the summary tables.

4.5.7 Management of Investigation-Derived Waste (IDW)

IDW consisting of excess non-hazardous soil generated during soil boring and groundwater monitoring well installation activities, and liquids generated during well development and sampling, were containerized in DOT-approved 55-gallon drums.

The drums were sealed at the end of each workday and labeled with the date, the well or boring numbers, the type of waste, and the name of an AKRF point-of-contact. The drums were staged in a secure location on the Site for future off-site disposal.

4.6 Health and Safety/Community Air Monitoring

Air monitoring of work and perimeter areas was performed using a PID and a particulate meter in accordance with the HASP and CAMP. As required by NYSDEC, and in consultation with NYSDOH, one fixed CAMP station was established downwind of the work areas, in addition to roving readings taken with handheld equipment throughout the workday. The CAMP stations and roving equipment were utilized for the entirety of ground-intrusive activities performed during the RI.

No ongoing issues were observed or reported during the RI activities. No complaints were reported from surrounding community members due to RI-related air quality issues during all active work overseen by AKRF. Community air monitoring data collected from the CAMP stations during the RI are included in Appendix D.

5.0 INVESTIGATION RESULTS

5.1 Geological and Hydrogeological Conditions

5.1.1 Geology

The asphalt layer on the FDDS was observed to be underlain by native unconsolidated glacial deposits (till) consisting of sand combined with a heterogeneous mixture of silt, gravel, cobbles, and clay. Pockets of fill, consisting of the native deposits mixed with organics, wood fragments, and brick, were encountered at isolated locations below the asphalt. A schist bedrock was encountered below the sand and fill layers at variable depths ranging from 2.5 to 14 ftbg.

The geology surrounding the FDDS, as described in Section 1.3, included exposed schist bedrock with isolated areas of thin overlying glacial deposits. The exposed bedrock was observed at variable elevations, being higher than the FDDS at multiple locations to the north, east, south, and southwest, and lower than the FDDS where the west-adjacent wetland and intermittent stream ran down to East Pond. The stream also contained only thin layers of sediment over bedrock.

The exposed bedrock receded below grade in the area between East Pond and the OSPS, with 12.5 to 17 feet of native glacial deposits (same geology listed above) present above bedrock.

5.1.2 Hydrogeology

FDDS Property

The data from both the SCI and RI documented that groundwater was encountered overlying bedrock in 14 of the 31 soil borings drilled on the FDDS property at depths of approximately 4 to 16 ftbg.

After RI well development, the depth to groundwater was measured in MW-7 (northern edge of the asphalt area) at 8.82 ftbtoc, in MW-1 (northern portion of the asphalt area) at 8.22 ftbtoc, in MW-8 (central portion of the asphalt area) at 6.21 ftbtoc, and in MW-2 (southern portion of the asphalt area) at 4.89 ftbtoc. The depth to groundwater was measured in MW-3 (southwestern edge of asphalt/eastern end of the access driveway) at 3.49 ftbtoc, and in MW-4 (central portion of access driveway and adjacent to the stream) at 6.38 ftbtoc.

The borings that encountered groundwater within the overburden correlated to locations where bedrock was encountered typically beyond 5 ftbg. The depth to saturated overburden trended from deeper at the northern end of the asphalt clearing to shallower on the southern end of the clearing and access road. The soil borings demonstrated that isolated pockets of groundwater were present, more so on the northern end of the asphalt clearing, with more connectivity of the saturated zone on the southwestern and downgradient portion of the FDDS near the driveway access. This hydrogeologic scenario likely leads to restricted groundwater flow, especially on the northern and eastern portions of the FDDS property.

Based on topography documented in Section 1.3 and the hydrogeologic data collected during the SCI and RI events, overburden groundwater, where interconnectivity exists, is expected to flow in a south-southwesterly direction from the FDDS property toward the wetland area and intermittent stream. Groundwater is likely connected to the wetland area and intermittent stream based on water level depths (3.49 ftbtoc in MW-03).

Groundwater elevation measurements are presented in Attached Table 8. Based on the data set, limited lateral well coverage, and variable nature of the saturated zone at the FDDS, a groundwater contour map, which is applicable to a continuous aquifer, was not prepared as part of this report. Larger areas of groundwater flow would be expected during seasonably high-water table conditions, with low-water table conditions resulting in less flow as the areas of higher bedrock elevation would retain groundwater perched above the isolated areas where deeper bedrock is present.

East Pond Area

Groundwater was encountered at depths of 9.60 ftbtoc in MW-06 to 10.56 ftbtoc in MW-5 on the East Pond portion of the Site, comparable to the measurements collected during the SCI. The flatter topography and lower bedrock elevations suggests a more consistent zone of overburden saturation as the area transitions downgradient to the OSPS.

Dam Piezometers

Groundwater was encountered at depths ranging from 7.51 ftbtoc to 15.56 ftbtoc in the dam piezometers located within the dam structure on the southern end of Reservoir No. 2. It should be noted that a piezometer contains a solid casing with open bottom (no well screen) and the water level is indicative of the potentiometric hydraulic pressure at the bottom opening of the piezometer, and not the water table elevation.

5.2 Laboratory Results - Soil

Forty-one soil samples were submitted for laboratory analysis as part of the RI from soil borings SB-21 through SB-34. Soil sample analytical results were compared to Guidance Values listed in the NYSDEC PFAS Guidance document. Soil samples for SPLP PFAS were compared to a selected value of 10 times the value of the NYSDEC AWQSGVs for groundwater. This 10 times approach is being used for only qualitative comparison purposes, and is based on the concept that water leaching PFAS compounds is also diluting the leached parameter. Soil sample analytical results are presented in Attached Tables 9 and 10. Soil PFAS concentrations exceeding NYSDEC Guidance Values are shown on Figure 5. Shallow and deep soil PFAS isocontour and concentration maps are shown on Figures 6 and 7, respectively. The results from the SCI are included on Figures 6 and 7 for a comprehensive review of investigation results. The complete soil laboratory analytical data reports are included in Appendix C.

5.2.1 PFAS and SPLP PFAS in Soil

The laboratory analytical results documented that 7 to 19 PFAS compounds were detected in the soil samples. Between 3 and 14 of the detected PFAS compounds were flagged with a "J" qualifier in the laboratory report, indicating that the concentration was above the laboratory detection limit, but below the reporting limit and could not be quantified. The "J" flagged detections were typically below 1 µg/kg. Total PFAS concentrations ranged from 1.16 µg/kg (SB-21_0.2-1) to 289 µg/kg (SB-33_1-2).

NYSDEC's soil CGVs for PFOA and PFOS are 500 µg/kg and 440 µg/kg, respectively. NYSDEC's PGWGV for soil for PFOA and PFOS are 0.8 µg/kg and 1.0 µg/kg, respectively.

PFOS was detected above its PGWGV of 1.0 µg/kg but below its CGV of 440 µg/kg in 38 of the 44 samples (including three duplicates) at concentrations ranging from 1.32 µg/kg (SB-32_1-2) to 163 µg/kg (SB-1_1-2). PFOA was detected above its PGWGV of 0.8 µg/kg

but below its CGV of 500 µg/kg in seven of the 44 soil samples (including 3 duplicates) at concentrations ranging from 0.87 µg/kg (SB-31_0-0.2) to 2.53 µg/kg (SB-25_0.2-1).

A summary of PFAS guidance value exceedances in soil is included in the table below:

In-Text Table 3
PFAS in Soil Detected Above NYSDEC Guidance Values

Analyte	Sample ID	NYSDEC CGV (µg/kg)	NYSDEC PGWGV (µg/kg)	Result (µg/kg)
PFOS	SB-21_0-0.2_20221004	440	1.0	8.65
	SB-22_0-0.2_20221004			5.15
	SB-23_0-0.2_20221004			4.05
	SB-23_0.2-1_20221004			2.36
	SB-23_1-2_20221004SB-24_0-0.2_20221004			2.73 47.1
	SB-24_0.2-1_20221004			22.4
	SB-24_1-2_20221004			11.9
	SB-25_0.2-1_20221003			2.41
	SB-25_1-2_20221003			23
	SB-26_0.2-1_20221003			21.2
	SB-26_1-2_20221003			22.3
	SB-26_10-11_20221003			31.8
	SB-27_0.2-1_20221004			28.3
	SB-X_01_20221004			10.7
	SB-27_1-2_20221004			113
	SB-28_0.2-1_20221003			6.25
	SB-X_20221003			5.51
	SB-28_1-2_20221003			129
	SB-28_10-11_20221003			47.7
	SB-29_0-0.2_20221004			3.93
	SB-X_02_20221004			4.04
	SB-29_1-2_20221004			3.81
	SB-30_0-0.2_20221004			12.4
	SB-30_0.2-1_20221004			40.3
	SB-30_1-2_20221004			9.45
	SB-31_0-0.2_20221004			5.69
	SB-31_0.2-1_20221004			68.3
	SB-31_1-2_20221004			163
	SB-32_0-0.2_20221004			10.5
	SB-32_0.2-1_20221004			8.98
	SB-32_0.2-1_20221003			23.3

Analyte	Sample ID	NYSDEC CGV (µg/kg)	NYSDEC PGWGV (µg/kg)	Result (µg/kg)
PFOS (cont.)	SB-32_1-2_20221004	440	1	1.32
	SB-33_1-2_20221003			261
	SB-33_13-14_20221003			8.4
	SB-34_0.2-1_20221003			12.7
	SB-34_1-2_20221003			10.1
	SB-34_10-11_20221003			11.2
PFOA	SB-21_0-0.2_20221004	500	0.8	1.99
	SB-22_0-0.2_20221004			0.88
	SB-25_0.2-1_20221003			2.53
	SB-25_1-2_20221003			1.53
	SB-31_0-0.2_20221004			0.87
	SB-31_0.2-1_20221004			1.85
	SB-32_0-0.2_20221004			1.84
Notes: µg/kg = micrograms per kilogram				

Nine of the 44 soil samples were also analyzed for SPLP PFAS. PFAS compounds were not detected by SPLP in SB-21_0.2-1. Between three and 17 PFAS compounds were detected by SPLP analysis in the remaining soil samples ranging from an estimated concentration of 0.87 ng/L to 2,290 ng/L. Total SPLP PFAS concentrations ranged from 25.2 ng/L (SB-21_1-2) to 2,570 ng/L (SB-33_1-2).

SPLP PFAS analysis was selected for certain samples based on the NYSDEC PFAS guidance at the time of the investigation, which recommended leachable analysis as part of delineation and remedy selection. For the purpose of this report, predetermined values of 27 ng/L for SPLP PFOS and 67 ng/L for SPLP PFOA were used as screening levels to draw conclusions relative to the SPLP results. The value was based on 10 times the NYSDEC groundwater AWQSGVs, which is based on the anticipated dilution that would occur by groundwater during the leaching process.

SPLP PFOS was detected above its selected screening level of 27 ng/L in six of the nine SPLP soil samples at concentrations ranging from 68.5 ng/L (SB-30_0-0.2) to 2,290 ng/L (SB-33_1-2). SPLP PFOA was not detected in soil above its calculated screening level of 67 ng/L.

A summary of SPLP PFAS screening level exceedances is included in the table below:

In-Text Table 4
SPLP PFAS in Soil Detected Above Calculated SPLP Screening Level

Analyte	Sample ID	SPLP Screening Level (ng/L)	Result (ng/L)
SPLP PFOS	SB-30_0-0.2_20221004	27	68.5
	SB-30_0.2-1_20221004		1,380
	SB-30_1-2_20221004		606
	SB-33_0.2-1_20221003		204
	SB-33_1-2_20221003		2,290
	SB-33_13-14_20221003		332

Notes:
ng/L = nanograms per liter

Soil analytical results for PFAS and SPLP PFAS are presented in Attached Tables 9 and 10, respectively. Figure 5 (showing soil exceedances above CGVs and PGWGVs) includes the analytical results for soil samples collected during the RI. Figures 6 and 7 (shallow soil and deep soil isocontour maps, respectively) include the combined results for both the SCI and RI to depict a complete picture of the PFAS concentrations in soil.

The SCI documented that the highest PFAS concentrations were documented in samples collected from shallow soil (0-2 ftbg) within the two suspect release areas described by the conceptual site model in Section 2.4. The asphalt surface west-adjacent to the burn building was identified by total PFAS concentrations that ranged from 280 to 439 µg/kg (SB-05 to SB-9, SB-16, and SB-33), and the drum cleanout area adjacent to the hydrant along the access driveway was defined by total PFAS concentrations of 60.7 to 173 µg/kg (SB-13, SB-15, and SB-31). The total PFAS concentrations were comprised primarily of PFOS. The highest PFAS concentrations were in the shallow soil zone (0-2 ftbg), and tapered off with depth into the deeper zones down to the bedrock interface, which was typically 5 to 10 ftbg, but up to 20 ftbg.

During the RI, the highest PFOS concentrations in shallow soil along the western side of the FDDS site (SB-21 through SB-23) ranged from 4.03 µg/kg at SB-23 to 8.65 µg/kg at SB-21, indicating that PFAS concentrations in soil tapered off to the west of the release areas. The PFOS concentrations in shallow soil along the northern side of the FDDS site were 47.1 µg/kg at SB-24 and 23 µg/kg at SB-25. These concentrations are considerably less than those observed at the anticipated release location. The highest PFOS concentration in shallow soil at SB-27, located east-adjacent to the asphalt clearing, was 113 µg/kg (1-2 ftbg). Similar to the northern end, this detection is lower compared to the results from the anticipated release area. For the northern and eastern sampling locations, the extent of PFAS in soil will not extend much further as the soil is replaced by exposed bedrock. PFOS was detected at SB-29, located south of the release areas, at a concentration of 4.04 µg/kg. The laboratory results for soil samples collected from SB-29 and SB-03 (during the SCI) showed that the PFAS results tapered off approximately 100 feet to the south of the asphalt release area. PFOS concentrations in shallow soil at SB-30, which is downgradient of the release areas, peaked at 40.3 µg/kg (0.2-1 ftbg). Although this result suggests that the extent of the release areas is not defined at this location, exposed bedrock dominates the land surface further south and defines the release area at this location.

For deep soil, the PFOS results for soil samples collected from SB-28 (10-11 ftbg), SB-33 (13-14 ftbg), and SB-34 (10-11 ftbg) were 47.7 µg/kg, 8.4 µg/kg, and 11.2 µg/kg,

respectively. This was consistent with the sampling results from the SCI, where the concentrations ranged from 4.87 to 43.1 surrounding the release area high points of SB-09 (6-7 ftbg) at 192 µg/kg.

The SPLP analysis (combined SCI and RI) was completed on soil samples collected from the source areas (SB-12, SB-15, and SB-33), from locations within 150 downgradient of the source areas (SB-12 through SB-14, and SB-30), and from the western side of the FDDS site (SB-21). The concentration of SPLP PFOS ranged from 2,290 ng/L to 3,880 ng/L in shallow soil in the source areas, was approximately 155 ng/L to 1,380 ng/L in the downgradient areas, and was 17.1 ng/L in SB-21. The highest downgradient detection (SB-30) was collected near the stream where flooding could occur during heavy precipitation events.

In summary, the analytical results compiled during the RI confirmed that there are two primary PFAS release areas (the asphalt area west-adjacent to the burn building and the drum cleanout area along the access driveway). The highest PFAS concentrations are in the shallow soil zone (0-2 ftbg), and taper off with depth into the deeper zones (up to 14 ftbg) at the bedrock interface. The concentration of PFOS tapers off (0.89 µg/kg to 8.65 µg/kg) to the west, south and southeast of the release areas, as defined by SB-23, SB-21/SB-22, SB-29, SB-03, and SB-02. The concentration of PFAS compounds documented in soil samples collected from SB-24, SB-25 to the north, and SB-30 to the south of the release areas (23 µg/kg to 47.1 µg/kg) indicate a reduction from the source area. These results suggest that the extent of contamination may not be fully defined; however, any soil and associated PFAS contamination would be limited by exposed bedrock beyond these locations.

5.3 Sediment Chemistry

Eight (8) sediment samples were submitted for laboratory analysis as part of the RI. Sediment sample analytical results were compared to the freshwater sediment guidance values included in Table 5 of the NYSDEC *Screening and Assessment of Contaminated Sediments, 2014* guidance document. Sediment sample results for PFAS are summarized generally herein since PFAS standards or guidance values do not currently exist for sediment. Sediment sample results for SPLP PFAS were compared to 10 times the value of the NYSDEC AWQSGVs for surface water due to dilution of the sediment PFAS concentration when saturated. This 10 times approach is being used for only qualitative comparison purposes and is based on the concept that water leaching PFAS compounds is also diluting the leached parameter.

Sediment sample analytical results are presented in Attached Tables 11 and 12, and are shown on Figures 8A and 8B. The complete sediment laboratory analytical data reports are included in Appendix C.

5.3.1 PFAS and SPLP PFAS in Sediment

Between 11 and 17 of the 21 PFAS compounds were detected in the sediment samples at concentrations ranging from an estimated 0.086 µg/kg to 83.6 µg/kg, with total PFAS concentrations ranging from 5.37 µg/kg (SED-15) to 404 µg/kg (SED-14).

FDDS Site

Four sediment samples were collected from three locations (SED-13 to SED-15, and a duplicate at SED-13) along the stream on the FDDS site to delineate the upgradient extend of PFAS contamination north of the drum cleanout area. PFOS was detected in each sample at concentrations ranging from 1.74 µg/kg (SED-15) to 58.8 µg/kg (SED-X,

duplicate of SED-13). PFOA was detected in each sample at concentrations ranging from an estimated concentration of 0.62 µg/kg (SED-15) to 27.8 µg/kg (SED-14). SED-14 contained anomalous results that were not consistent with the remaining sediment results from the SCI and RI, as PFOS was not the dominant compound, and other PFAS compounds (8:2 fluorotelomer sulfonate, perfluorodecanoic acid, perfluorododecanoic acid, and perfluorohexanoic acid) were detected at higher concentrations ranging from 32.2 µg/kg to 83.6 µg/kg.

SPLP PFAS analysis for these samples showed that leachable PFOS was detected from 4.68 ng/L in SED-15 to 293 ng/L in SED-X (duplicate of SED-13). PFOA was detected from 4.02 ng/L in SED-15 to 113 ng/L in SED-14. SED-13 contained PFOS above the screening criteria, and SED-14 contained PFOA above the screening criteria. Total SPLP PFAS ranged from 13.3 ng/L in SED-15 to 687 ng/L in SED-14.

The sediment sampling on the FDDS site, as identified by SED-15, documented that the extent of PFAS contamination in sediment was approximately 350 feet north of the drum cleanout area.

OSPS Site

Samples SED-16 to SED-20 were collected from the wetland area west of the Orchard Street Pumping Station site. SED-16 was located in the wetland adjacent to the reservoir outfall, SED-17 was located in the middle of the wetland, and SED-18 to SED-20 were located on the southern, western, and northern borders of the wetland area, respectively.

PFOS was detected in these samples at concentrations ranging from 3.2 µg/kg to 10.8 µg/kg, with PFOA being detected at concentrations ranging from an estimated 0.62 µg/kg (SED-16) to 1.84 (SED-17). The results were consistent from sample to sample, and the total PFAS concentrations ranged from 6.96 µg/kg (SED-16) to 17.8 µg/kg (SED-19).

SPLP PFOS ranged from 3.49 ng/L in SED-18 to 15.7 in SED-16, and SPLP PFOA ranged from an estimated 1.64 ng/L in SED-16 to 15.6 ng/L in SED-17. These detections were below the calculated screening criteria.

The sediment sampling indicated a low level, widespread dispersion of PFAS compounds through the wetland, with leachable results being below the screening criteria, suggesting a low probability for PFAS compounds to mobilize from the sediment in the wetland and travel into the Bronx River.

A summary of SPLP PFAS screening level exceedances is included in the table below:

In-Text Table 5
SPLP PFAS in Sediment Detected Above Calculated SPLP Screening Levels

Analyte	Sample ID	SPLP PFAS Screening Level (ng/L)	Result (ng/L)
SPLP PFOS	SED-13_20221014 SED-X_20221014	27	164 293
SPLP PFOA	SED-14_20221014	67	113
Notes: ng/L = nanograms per liter			

5.4 Surface Water Chemistry

Eight (8) surface water samples that were co-located with the sediment samples were collected for laboratory analysis. The surface water samples were collected at each location with a decontaminated stainless steel cup. Surface water sample analytical results were compared to the NYSDEC AWQSGVs, which include guidance values for human health [source of drinking water (surface water)], fish survival [fresh water (acute)], and fish propagation [fresh water (chronic)]. The latest revision of the AWQSGVs, which was finalized in March 2023, includes human health and aquatic life criteria for PFAS compounds in raw water, and was utilized for this review. The surface water sample analytical results are presented on Attached Table 13. Surface water PFAS concentrations above proposed NYSDEC AWQSGVs are shown on Figure 8A and 8B. Surface water laboratory analytical data reports are included in Appendix C.

5.4.1 PFAS in Surface Water

Between 6 and 18 PFAS compounds were detected in the surface water samples ranging from an estimated 1.55 ng/L of perfluorodecanoic acid in SW-20 to 1,150 ng/L of perfluoropentanoic acid (PFPeA) in SW-13. Total PFAS concentrations ranged from approximately 65.08 ng/L (SW-15) to 2,693 ng/L (SW-13).

A summary of surface water AWQSGV exceedances for PFOA and PFOS is included in the table below:

In-Text Table 6
PFOA and PFOS in Surface Water Detected Above NYSDEC AWQSGVs

Analyte	Sample ID	Proposed NYSDEC AWQSGV (ng/L)	Result (ng/L)
PFOS	RI-SW-13_20221014	2.7	105
	RI-SW-X_20221014		147
	RI-SW-14_20221014		9.39 J
	RI-SW-16_20221014		45.1
	RI-SW-17_20221014		7.87 J
	RI-SW-18_20221014		9.69 J
	RI-SW-19_20221014		20.8
	RI-SW-20_20221014		53.6
PFOA	RI-SW-13_20221014	6.7	144
	RI-SW-X_20221014		149
	RI-SW-14_20221014		59.2
	RI-SW-15_20221014		8.71 J
	RI-SW-16_20221014		8.05 J
	RI-SW-17_20221014		30.1
	RI-SW-18_20221014		21.6
	RI-SW-19_20221014		8.65 J
	RI-SW-20_20221014		10.1

Notes:
ng/L = nanograms per liter
J = The concentration given is an estimated value.

FDDS Site

PFOS was detected above its proposed NYSDEC AWQSGV of 2.7 ng/L in SW-13 (105 ng/L), SW-X (duplicate of SW-13, 147 ng/L), and SW-14 (estimated 9.39 ng/L). PFOS was not detected in SW-15. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 in each sample at concentrations ranging from an estimated 8.71 ng/L in SW-15 to 149 ng/L (SW-X, duplicate of SW-13). Total PFAS ranged from approximately 2,870 ng/L in SW-X to 65.1 ng/L in SW-15. The higher total PFAS in SW-X was driven by the concentration of PFPeA (1,210 ng/L). Although the understanding of PFAS transformation pathways is still in the early stages of research, recent studies indicate that, under extreme laboratory conditions, certain short chained PFAS compounds like PFPeA were shown to be an oxidation breakdown product of long chained PFAS, like PFOA, or an oxidation breakdown component of one of the many PFAS precursor compounds. The natural oxidation potential of PFAS in the environment is not readily known at this time.

Consistent with the co-located sediment samples, the concentration of PFAS compounds tapered off going upstream, and SW-15 indicates a delineation point for upgradient surface water.

OSPS Site

PFOS was detected above its proposed NYSDEC AWQSGV of 2.7 ng/L in each sample ranging from an estimated 7.87 ng/L in SW-17 to 53.6 ng/L in SW-20. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in each sample at concentrations ranging from an estimated 8.05 ng/L in SW-16 to 30.1 ng/L in SW-17.

The surface water results were consistent with the results for surface water samples collected from the reservoir during the SCI, with some wetland sampling locations trending lower for PFOS and PFOA. The results indicate that the PFOS concentrations in surface water at the source area and immediately downstream range from 290 ng/L to 704 ng/L, drop to 30.9 ng/L to 34.9 ng/L in the reservoir, and exist at a range of 7.87 ng/L to 53.6 ng/L in the wetland.

5.5 Groundwater Chemistry

Twenty (20) groundwater samples were submitted to the laboratory for analysis. Four groundwater samples were collected from the three dam piezometers (DP-02, DP-05, and DP-08) along Reservoir Road and Old Orchard Street and one dam piezometer west-adjacent to East Pond (DP-10). Four groundwater samples were collected from the four cistern wells (CW-01 through CW-04) on the OSPS property. Twelve groundwater samples were collected from the six existing wells (MW-1 to MW-6, which includes replacement wells MW-2R and MW-3R) and the six newly installed wells (MW-7 to MW-12). Groundwater sample analytical results for all groundwater samples are presented in Attached Table 14.

On October 3, 2021, NYSDEC released three new draft Technical and Operational Guidance (TOGS) documents that included proposed AWQSGVs for PFOA (6.7 ng/L) and PFOS (2.7 ng/L) for source of drinking water (groundwater). The proposed AWQSGVs for raw water source were utilized in this report for the groundwater samples. The PFAS Groundwater concentrations above NYSDEC AWQSGVs are shown on Figure 9. A map showing total PFAS concentration isocontours for the overburden monitoring wells is provided as Figure 10. Groundwater laboratory analytical data reports are included in Appendix C.

5.5.1 PFAS in Groundwater

Eighteen (18) of the 21 PFAS compounds were detected in one or more groundwater samples ranging from an estimated 0.56 ng/L to 82,800 ng/L. Total PFAS concentrations ranged from 91.6 ng/L (DP-10) to 109,192 ng/L (MW-02).

PFOS was detected above its proposed NYSDEC AWQSGV of 2.7 ng/L in each of the 20 groundwater samples at concentrations ranging from 34.4 ng/L (MW-12) to 82,800 ng/L (MW-02). PFOS was also detected in field blanks submitted with the groundwater samples (FB-07, FB-08, and FB-10) at estimated concentrations ranging from 0.4 ng/L to 0.59 ng/L. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in 16 of 20 groundwater samples at concentrations ranging from an estimated 7.86 ng/L (DP-08) to 1,570 ng/L (MW-02). A summary of groundwater PFAS AWQSGV exceedances for PFOA and PFOS is included in the table below:

In-Text Table 7
PFOA and PFOS in Groundwater Detected Above NYSDEC AWQSGVs

Analyte	Sample ID	Proposed NYSDEC AWQSGVs (ng/L)	Result (ng/L)
PFOS	MW-01_20221017	2.7	2,570
	MW-X_20221017		2,610
	MW-02_20221020		82,800 E
	MW-03_20221020		34,800
	MW-04_20221017		11,600
	MW-05_20221019		50.1
	MW-06_20221019		45.5
	MW-07_20221020		1,300
	MW-08_20221020		1,980
	MW-09_20221024		18,800
	MW-10_20221024		186
	MW-11_20241107		356
	MW-12_20241107		34.4
	DP-02_20221018		48.1
	DP-05_20221018		51.9
	DP-08_20221018		36.7
	DP-10_20221019		39.2
	CW-01_20221014		88
	CW-02_20221014		80.8
	CW-03_20221014		76.2
	CW-04_20221014		71.3
PFOA	MW-01_20221017	6.7	649
	MW-X_20221017		683
	MW-02_20221020		1,570
	MW-03_20221020		1,080
	MW-04_20221017		923
	MW-07_20221020		162
	MW-08_20221020		254
	MW-09_20221024		301

Analyte	Sample ID	Proposed NYSDEC AWQSGVs (ng/L)	Result (ng/L)
PFOA (cont.)	MW-10_20221024	6.7	77.9
	MW-11_20241107		46.7
	DP-02_20221018		8 J
	DP-05_20221018		8.32 J
	DP-08_20221018		7.86 J
	CW-01_20221014		13.5
	CW-02_20221014		12.3
	CW-03_20221014		12.4
	CW-04_20221014		15.6
Notes: ng/L = nanograms per liter E = The reported concentration exceeded the calibration range of the instrument. J = Estimated concentration below the method reporting limit.			

Groundwater analytical results for PFAS are presented in Attached Table 14.

Overburden Groundwater

The groundwater sampling results compiled during the RI were consistent with the SCI, with PFAS contamination being detected in overburden groundwater across the FDDS, East Pond, perimeter of Reservoir No. 2, and OSPS portions of the Site. As shown on the PFAS isoconcentration map on Figure 10, the highest levels of groundwater contamination were observed within the overburden monitoring wells MW-2R (asphalt source area well) and MW-3 (downgradient edge of the asphalt source area). PFAS concentrations were one order of magnitude lower within monitoring wells MW-04 (located downgradient within the access driveway on the FDDS) and MW-01 (located at the northern edge of the asphalt-paved parking lot at the FDDS, upgradient of the two potential release areas on the FDDS site).

PFAS contamination in overburden groundwater was detected at two to three orders of magnitude lower within groundwater samples collected at the East Pond, perimeter of Reservoir No. 2, and the cistern wells when compared to the FDDS source area wells (MW-02 and MW-03).

Bedrock Groundwater

PFOS and PFOA were detected in bedrock monitoring well MW-09 at concentrations of 18,800 ng/L and 301 ng/L, respectively. PFOS and PFOA were detected in bedrock monitoring well MW-10 at concentrations of 186 ng/L and 77.9 ng/L, respectively. PFOS and PFOA were detected in bedrock monitoring well MW-11 at concentrations of 356 ng/L and 46.7 ng/L, respectively. PFOS and PFOA were detected in bedrock monitoring well MW-12 at concentrations of 34.4 ng/L and 5.55 ng/L, respectively

MW-09 is located approximately 40 feet south of the FDDS clearing. The concentration of PFOS in MW-09 (18,800 ng/l) is lower compared to overburden MW-2 (82,800 ng/l) and MW-3 (34,800 ng/l) The results confirm that PFAS compounds in the overburden groundwater have migrated into shallow bedrock groundwater, but at lower concentrations. The restricted overburden flow scenario in the overburden, where contaminated soil and groundwater was in contact with a shallow, highly foliated bedrock, provided a pathway for PFAS to enter the shallow bedrock aquifer.

For bedrock wells outside of the source area, the PFOS results for MW-10 (located approximately 75 feet west of the drum cleanout area, and 150 feet west of the FDDS clearing), MW-11 (located at the northern end of the FDDS clearing), and MW-12 (southwest-adjacent to East Pond) ranged from 34.4 to 341 ng/l . These results were two to three orders of magnitude lower than MW-09, which indicates that the PFAS concentrations in bedrock dissipate moving away from the source area towards the reservoir. In addition, the PFOS concentrations were generally one order of magnitude lower than the PFAS concentrations in the overlying overburden groundwater. The results suggest that the bedrock aquifer does not have a strong horizontal fracture connection with lateral groundwater flow, and the presence of PFAS in bedrock groundwater is more driven by vertical infiltration from the overlying overburden aquifer.

Groundwater Summary

The groundwater analytical data compiled during the RI provided additional confirmation that that the observed PFAS contamination in shallow soil at the FDDS site is considered a source of PFAS contamination in overburden groundwater. The higher concentrations at the FDDS, typical of groundwater quality in a contamination source area, are likely also affected by the variable depth to bedrock that was observed to isolate the zones of saturated overburden. The shallow bedrock ridges would limit upgradient inflow of water (dilution) and downgradient migration of contaminants, which can result in the retention of relatively higher groundwater concentrations in the source area. These pools of overburden groundwater that are isolated from flow are also in direct contact with and have contaminated shallow bedrock groundwater. The groundwater detections in overburden groundwater follow the CSM where available overburden flow at the FDDS would migrate to the groundwater discharge point in the wetland, and overburden flow from East Pond and Reservoir No. 2 would flow toward the OSPS and the wetland.

6.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT (QHHEA)

The objective of the qualitative exposure assessment is to identify potential receptors and pathways for human exposure to the COCs that are present at, or migrating from, the Site. The identification of exposure pathways describes the route that the COC takes to travel from the source to the receptor. An identified pathway indicates that the potential for exposure exists; it does not imply that exposures actually occur.

The RI documented in this RIR was used to complete a QHHEA. The QHHEA was performed to determine whether the Site poses an existing or future health hazard to the Site's exposed or potentially exposed population. The sampling data from the RI and SCI was evaluated to determine whether there is any health risk by characterizing the exposure setting, identifying exposure pathways, and evaluating contaminant fate and transport. This QHHEA was prepared in accordance with Appendix 3B and Section 3.3 (b) 8 of the NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation.

6.1 Contaminants of Concern (COCs) in Respective Media

The results of the RI are summarized in Section 5.0. Based on the results of the RI, the COCs are:

Soil

PFOS and PFOA were detected above their guidance values for commercial use and protection of groundwater.

Sediment

PFOS and PFOA were detected above their self-implemented value calculated for delineation purposes.

Groundwater/Surface Water

PFOS and PFOA were detected at concentrations above their respective AWQSGVs.

Soil Vapor

There were no soil vapor concerns documented during the SCI or RI.

6.2 Potential Routes of Exposure

The five elements of an exposure pathway are:

1. The source of contamination;
2. The environmental media and transport mechanisms;
3. The point of exposure;
4. The route of exposure; and
5. The receptor population.

These elements of an exposure pathway may be based on past, present, or future events. An exposure pathway is considered complete when all five elements of an exposure pathway are documented. A potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway cannot be documented. An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway has not existed in the past, does not exist in the present, and will never exist in the future.

6.3 Exposure Route

An exposure route is the mechanism by which a receptor comes into contact with a chemical. Three potential primary routes exist by which chemicals can enter the body:

- Ingestion of water, fill, and/or soil;
- Inhalation of vapors and/or particulates; and
- Dermal contact (absorption) with water, fill, soil, and/or building materials.

6.4 Potential Receptors

The Site, which is comprised of multiple parcels within an area of 141 acres, is mainly wooded with small streams. There are two development areas: the FDDS is situated within a 4-acre clearing that is located approximately 500 feet east of White Plains Reservoir No. 2, and the OSPS property and its facilities are located within the western portion of the Site and south-adjacent to Reservoir No. 2. The property class is identified as Public Services-Water Supply.

On-site Receptors: Potential sensitive receptors include City employees, including Department of Public Works (DPW) employees, firefighters, and maintenance staff, that are training and/or working at the FDDS or OSPS. These established on-site receptors would remain during the future use of the Site, which is expected to remain unchanged from the current use of the Site.

Off-site Receptors: Off-site receptors within a 0.25-mile radius of the Site include adult and child residents, commercial and construction workers, trespassers, and cyclists, based on the following:

- Residential Properties – existing and future
- Residential Buildings – existing and future
- Building Construction/Renovation – existing and future
- Construction Workers, Pedestrians, Trespassers, Cyclists – existing and future

It's important to note that Reservoir No. 2 is not open to public access or fishing, the FDDS is restricted by a security gate and locked fence, and the OSPS is a secure facility with 24 hour per day, 7 day per week security.

6.5 Existence of Human Health Exposure Pathways

This evaluation consists of the following components: contaminant source; contaminant release and transport mechanism; point of exposure; route of exposure; and receptor population.

On-site Historic Conditions: The exposure pathway for ingesting groundwater via a potable water supply was complete prior to the OSPS site being taken off-line in 2005, as the Site and neighboring properties were served by the municipal public water supply. The potential exposure pathway for ingestion of, or dermal contact with, fill/soil (at the FDDS property), sediment, surface water, and/or groundwater was considered complete as City employees, fire fighters, and utility/maintenance workers could have come into direct contact with contamination during Site operations or utility repair work.

Off-site Historic Conditions: The exposure pathway for ingesting groundwater via a potable water supply was complete prior to the OSPS site being taken off-line in 2005, as the Site and neighboring properties were serviced by the municipal public water supply.

On-site Existing Conditions: The exposure pathway for ingesting groundwater via a potable water supply is incomplete as the Site and neighboring properties are served by a municipal public water supply that is not affected by the Site. The OSPS is not online, and therefore, not currently a source

for drinking water. The potential exposure pathway for ingestion of, or dermal contact with, fill/soil (at the FDDS property), sediment, surface water, and/or groundwater is considered complete as City employees, firefighters, and utility/maintenance workers could come into direct contact with contamination during Site operations or utility repair work.

Off-site Existing Conditions: The exposure pathway for ingesting groundwater via a potable water supply is incomplete as the neighboring properties are served by a municipal public water supply that is not affected by the site. The OSPS is not online, and therefore, not currently a source for drinking water. The potential exposure pathway for dermal contact with surface water is complete as the public could come into direct contact with contamination within surface water bodies that are downgradient of the OSPS wetland.

On-site Future Conditions: The potential for future on-site exposure would be consistent with the existing conditions, unless the PFAS source area and resulting plume was addressed using a remedial effort. There would be a short-term potential for on-site ingestion of, or dermal contact with, soil/fill, sediment, surface water, or groundwater during any approved on-site remediation activities, especially during soil disturbance activities at the FDDS property. The potential for inhalation of particulate would also be a future short-term exposure during remediation. Similarly, off-site receptors could be exposed to particulates from on-site soil disturbance remediation work.

Future ingestion of or dermal contact with soil/fill, sediment and surface water, and groundwater exposure could be mitigated with an appropriate remedial action to address the soil source area at the FDDS property and the surface water flowing from the FDDS into East Pond/Reservoir No. 2.

Off-site Future Conditions: The exposure pathway for ingesting contaminated groundwater that is sourced by the OSPS, which is currently in the permit stage to go online as a source for a municipal water supply, would be incomplete as the NYSDEC permitting includes treatment for PFAS compounds with testing redundancies to confirm treatment goals/requirements.

6.6 Overall Human Health Exposure Assessment

There is a potential for a complete exposure pathway to fill/soil, sediment, surface water, and groundwater at the Site. During any remediation activities, there will be a potential exposure pathway from contaminated fill/soil, sediment, surface water, and groundwater to construction/remediation workers, as these workers could ingest, inhale, or have dermal contact with exposed contamination. Without remediation, the potential exposure pathway would remain in perpetuity for City employees, including DPW staff, firefighters, and maintenance staff that would be using the Site, especially at the FDDS property. The potential for off-site exposure to groundwater is limited as the neighboring properties are served by a municipal public water supply that is not affected by the site, and the OSPS is not a source of drinking water. The potential for off-site exposure to surface water would be addressed by treating the surface water discharge to East Pond/Reservoir No. 2.

Based on the results of the QHHEA, a NYSDEC-approved Remedial Action Work Plan (RAWP) should be prepared and implemented to address the PFAS contamination. The RAWP would identify the most feasible approach to achieve the remedial action objectives, include measures to minimize identified on-site and off-site receptors during the remediation process, and result in contaminant reduction that would mitigate the identified potential exposure pathways. If necessary, additional sampling may be conducted during implementation of the remedial action to fully delineate contamination in shallow soil near exposed bedrock. At the time of the issuance of this report, IRMs are being prepared to address the source area for the PFAS release while the City considers a full site RAWP.

7.0 FISH AND WILDLIFE IMPACT ANALYSIS

In October 2022, AKRF completed Part 1 a Fish and Wildlife Impact Assessment (FWIA) in accordance with the 1994 NYSDEC FWIA guidance document. The FWIA was completed with a focus on the 4-acre FDDS and the surrounding 87.2-acre area that includes Reservoir No. 2, East Pond, the OSPS, and the surrounding forested land. The analysis included three distinct FWIA study areas: a 2-mile area, a ½-mile area, the Project Study Area (shown on Figure 3), and the FDDS area. The FWIA documented existing conditions (topography, wetlands, surface waters, ecological communities, wildlife resources, soils, and drainage), any stressors to the natural resources, an assessment of the value of the resources, and a review of the applicable regulations. A complete copy of the FWIA report, including figures illustrating fish and wildlife resources, is attached as Appendix E.

Fish and Wildlife Resources

Of the NYSDEC-mapped wetlands within the 2-mile Study Area, only Wetland W-9 (a 14-acre Class I wetland) occupied 11.5 acres of the western side of the Project Study Area. This wetland was observed to be a common reed marsh (disturbed by draining, filling, and road salts) dominated by common reed with some narrowleaf cat tail on the eastern portion. A National Wetlands Inventory (NWI)-mapped flooded freshwater wetland was mapped south of East Pond, but that was observed to be an intermittent stream with a rocky stream bed that discharges into East Pond.

White Plains Reservoir No. 2 is mapped by NWI as a lacustrine system (permanently flooded lake), with East Pond being identified as a freshwater pond. Both are NYSDEC Class A surface waters and considered to be reservoir impoundments. Five vernal pools were identified in the project study area. Four were located east and south of the FDDS, with the fifth being the vernal pool that is northwest-adjacent to the FDDS. A westward flowing intermittent stream with a rocky bottom connects the fifth vernal pool to East Pond. The ecological communities for the Project Study Area include 33% surface waters and wetlands, 47% forested uplands (beech-maple mesic forest, southern hardwoods, and hemlock northern hardwoods), and 20% terrestrial cultural (roads, paths, lawns, roadside erosion control, etc.).

The habitat quality was supported by the presence of the identified intact forested communities, but due to their small size and fragmentation with roadways and surrounding development, in combination with being over browsed due to high deer densities, the Project Study Area has the potential to support wildlife that are tolerant of moderate levels of fragmentation and adapt to urban landscapes.

Approximately 29 common forested upland bird species and 8 wetland/surface water bird species have the potential to use the communities within the Project Study Area. Reptiles and amphibians with the potential to use the Project Study Area, especially East Pond, include a selection of frogs, newts, salamanders, snakes, and turtles. Mammals include bats, chipmunks, rabbits, coyotes, racoons, foxes, squirrels, mice, and the white-tailed deer. The aquatic biota for Reservoir No. 2 and East Pond included chain pickerel, bluegill, pumpkin seed, bullhead, shiners/fathead minnows, and trout.

Two animals (bald eagle and peregrine falcon) and six plants (American featherfoil, swollen bladderwort, narrow-leaved pinweed, tall beak sedge, Christmas fern, and wood fern) were listed threatened and/or endangered species with the potential to occur in the Project Study Area. The 7.1-acre portion of Reservoir No. 2 within the Project Study Area was identified as a critical environmental area. NYSDEC mapping did not indicate any Significant Natural Communities associated with the Site.

Observations of Stress

The FWIA documented that one area within the Project Study Area, the FDDS, had a potential for stress. However, no signs of stress on the ground, vegetation, or wildlife were observed in the vicinity of the FDDS area or any other part of the Project Study Area.

Value of Habitat to Associated Fauna

The gravel, asphalt, and concrete portions of the Project Study Area (roads, structures, erosional areas, etc.) were observed to provide poor to marginal habitat with insufficient food to sustain a diverse wildlife population. The vegetated terrestrial communities within the Project Study Area (properties with mowed lawns and trees) may provide habitat to specific wildlife (squirrel, racoon, mouse, cardinal, blue jay, sparrow, and dove) that is tolerant of the fragmented, disturbed habitats characterized by human activity. The reed marsh could provide limited habitat for adaptable species such as eastern meadow vole and red-winged blackbird. The surface waters and forests within the Project Study Area have the potential to provide the food and habitat to most of the wildlife species in the area, including some of the federally and state-listed threatened, endangered, and candidate species.

Value of Resources to Humans

The resources within the Project Study Area are not, for the most part, publicly accessible, but the Project Study Area is within a residential community that can provide for wildlife observations. The plan to include Reservoir No. 2 as a potential future municipal water supply makes it a value resource to humans.

Applicable Regulatory Criteria

Outside of the contaminant specific regulatory criteria, which include the PFAS Guidance Values and AWQSGVs described within the RIR, several Federal and State laws and regulations pertain to fish and wildlife resources. These include the Clean Water Act, Endangered Species Act, New York State Freshwater Wetlands Act, New York Article 15 Protection of Waters, and New York State Conservation Law for Critical Environmental Areas, Endangered, Threatened, and Special Concern Species, and Removal of Trees and Protected Plants.

Conclusions

Site-specific investigations were completed by a wildlife biologist and two wetland and plant ecologists in October 2023 to conduct a habitat and wildlife investigation and confirm the desktop mapping analysis for the Project Study Area. These investigations confirm that there are valuable natural resources within the 2-mile and ½-mile study areas, as well as the Project Study Area, for fish and wildlife and human use. Based on the results of the FWIA, an Ecological Impact Assessment (Part 2 of the FWIA) will be completed in accordance with DER-10 Section 3.10.12.

8.0 CONCLUSIONS

This Remedial Investigation Report (RIR) summarizes the Remedial Investigation (RI) work performed at the site identified as White Plains Fire Department Drill School (the Site) between October 2022 and November 2023, and the Supplemental Remedial Investigation (SRI) work performed between October and November 2024. The RI and SRI were completed to supplement the Site Characterization Investigation (SCI) to further define the nature and extent of the per- and polyfluoroalkyl substances (PFAS) source area and resulting plume, fill data gaps identified by previous investigations, complete an ecological study, and complete a Qualitative Human Health Exposure Assessment (QHHEA). The data compiled in this report establishes the basis for completing a remedial feasibility study and remedy selection, including the need for any interim remedial measures (IRMs), in accordance with the New York State Department of Environmental Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation (DER-10). The RI was conducted in accordance with AKRF's September 2022 NYSDEC-approved Remedial Investigation Work Plan (RIWP) and AKRF's July 2024 NYSDEC-approved Supplemental Remedial Investigation Work Plan (SRIWP), which included a Health and Safety Plan (HASP), Community Air Monitoring Plan (CAMP), and Quality Assurance Project Plan (QAPP).

The Site is 141 acres, mainly wooded with small streams, and includes the Fire Department Drill School (FDDS) within a 4-acre clearing that is located approximately 500 feet east of White Plains Reservoir No. 2 and the Orchard Street Pump Station (OSPS) property and its facilities, located within the western portion of the Site and south-adjacent to Reservoir No. 2. Access to the FDDS is gained by a driveway connecting to Old Orchard Street to the west. An intermittent stream runs along the western side of the FDDS and below the access driveway down to East Pond, which discharges directly into Reservoir No. 2.

The RI field sampling scope of work consisted of: the advancement of 14 soil borings, the installation of four new monitoring wells (two overburden wells and two bedrock wells), and the collection of 41 soil samples, eight co-located stream sediment and surface water samples, and 18 groundwater samples. Two replacement wells were also installed to take the place of damaged wells that were installed during the SCI. Soil samples were collected at multiple depths at selected boring locations, as directed by the RIWP, for the purpose of identifying the vertical nature of contaminants. The soil samples were analyzed for total and leachable PFAS compounds. The SRI field sampling scope of work consisted of: the installation of two additional bedrock monitoring wells, and the collection of two groundwater samples (one from each new well). The SRI groundwater samples were analyzed for PFAS compounds.

Geological conditions observed at the FDDS included an asphalt layer within a clearing that was underlain by native unconsolidated glacial deposits (till) with isolated pockets of fill. The fill was observed to consist of a sandy mixture combined with organics, wood fragments, concrete, and brick. A shist bedrock was encountered below the glacial deposits at depths ranging from 2.5 to 20 feet below grade (ftbg). The geology surrounding the FDDS clearing included exposed schist bedrock with isolated areas of thin overlying glacial deposits. The stream also contained only thin layers of sediment over bedrock. The exposed bedrock receded below grade in the area between East Pond and the OSPS, with 12.5 to 17 feet of native glacial deposits (same geology listed above) present above bedrock.

The data from both the SCI and RI documented that overburden groundwater was encountered overlying bedrock in approximately half of the 45 soil borings drilled on the FDDS property during the SCI and RI. The borings that encountered groundwater within the overburden correlated to locations where bedrock was encountered typically beyond 5 ftbg. This hydrogeologic scenario likely results in isolated pockets of groundwater with restricted groundwater flow, especially on the northern and eastern portions of the FDDS property. Groundwater was measured in October 2022 at depths ranging from 2.84 feet below top of well casing (ftbtoc) in MW-3 (southwestern edge of the asphalt area near the stream) to 8.91 ftbtoc in MW-7 (northern edge of the asphalt area). Overburden groundwater, where interconnectivity exists, is expected to

flow in a south-southwest direction from the FDDS property toward the intermittent stream and wetland area.

Summary of RI and SRI Laboratory Results

1. Perfluorooctanesulfonic acid (PFOS) was detected above its Protection of Groundwater Guidance Value (PGWGV) of 1.0 micrograms per kilogram (µg/kg) but below its Commercial Guidance Value (CGV) of 440 µg/kg in 38 of the 44 samples (including the three duplicate samples) at concentrations ranging from 1.32 µg/kg (SB-32_1-2) to 129 µg/kg (SB-28_1-2). Perfluorooctanoic Acid (PFOA) was detected above its PGWGV of 0.8 µg/kg but below its CGV of 500 µg/kg in seven of the 44 soil samples (including the three duplicate samples) at concentrations ranging from 0.87 µg/kg (SB-31_0-0.2) to 2.53 µg/kg (SB-25_0.2-1). Total PFAS concentrations in soil ranged from 1.16 µg/kg (SB-21_0.2-1) to 289 µg/kg (SB-33_1-2).
2. Nine of the 44 soil samples were also analyzed for Synthetic Precipitate Leachate Procedure (SPLP) PFAS. Between three and 17 PFAS compounds were detected by SPLP analysis in the soil samples, ranging from an estimated concentration of 0.54 nanograms per liter (ng/L) to 2,290 ng/L. Total SPLP PFAS concentrations ranged from 25.2 ng/L (SB-21_1-2) to 2,570 ng/L (SB-33_1-2). SPLP PFAS analysis was selected for certain samples based on the NYSDEC PFAS guidance to assist with delineation and remedy selection. Predetermined values of 27 ng/L for SPLP PFOS and 67 ng/L for SPLP PFOA, which are based on 10 times the NYSDEC groundwater Ambient Water Quality Standards and Guidance Values (AWQSGVs), were used as screening levels to draw conclusions relative to the SPLP results. The screening values were based on the anticipated dilution that would occur by groundwater during the leaching process. SPLP PFOS was detected above its selected screening level of 27 ng/L in six of the nine SPLP soil samples at concentrations ranging from 68.5 ng/L (SB-30_0-0.2) to 2,290 ng/L (SB-33_1-2). SPLP PFOA was not detected in soil above its calculated screening level of 67 ng/L.
3. PFOS was detected in each of the four sediment samples collected at the FDDS site (SED-13 to SED-15, and a duplicate at SED-13) at concentrations ranging from 1.74 µg/kg (SED-15) to 58.8 µg/kg (SED-X, duplicate of SED-13). PFOA was detected in each sample at concentrations ranging from an estimated concentration of 0.62 µg/kg (SED-15) to 27.8 µg/kg (SED-14). SPLP PFAS analysis for these samples showed that leachable PFOS was detected from 4.68 ng/L in SED-15 to 293 ng/L in SED-X (duplicate of SED-13). PFOA was detected from 40.2 ng/L in SED-15 to 113 ng/L in SED-14. SED-13 contained PFOS above the screening criteria, and SED-14 contained PFOA above the screening criteria. Total SPLP PFAS ranged from 13.3 ng/L in SED-15 to 687 ng/L in SED-14.
4. PFOS was detected in the five samples (SED-16 to SED-20) collected from the wetland west of the OSPS at concentrations ranging from 3.2 µg/kg to 10.8 µg/kg, with PFOA being detected at concentrations ranging from an estimated 0.62 µg/kg to 1.84 µg/kg. The results were consistent from sample to sample, and the total PFAS concentrations ranged from 6.96 µg/kg (SED-16) to 17.8 µg/kg (SED-19).
5. PFOS was detected at the FDDS site above its proposed NYSDEC AWQSGV of 2.7 ng/L in surface water samples SW-13 (105 ng/L), SW-X (duplicate of SW-13, 147 ng/L), and SW-14 (estimated 9.39 ng/L). PFOS was not detected in SW-15. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in each surface water sample at concentrations ranging from an estimated 8.71 ng/L in SW-15 to 149 ng/L in SW-X (duplicate of SW-13). Total PFAS ranged from approximately 2,870 ng/L in SW-X to 65.1 ng/L in SW-15. As mentioned above, the higher total PFAS in SW-X was driven by the concentration of perfluoropentanoic acid (PFPeA) (1,210 ng/L). Although the understanding of PFAS transformation pathways is still in the early stages of research, recent studies indicate that, under extreme laboratory conditions, certain short chained PFAS compounds like PFPeA were shown to be an oxidation breakdown product of long chained PFAS, like PFOA, or an oxidation breakdown

component of one of the many PFAS precursor compounds. The natural oxidation potential of PFAS in the environment is not readily known at this time.

6. PFOS was detected in the OSPS wetland above its proposed NYSDEC AWQSGV of 2.7 ng/L in each surface water sample ranging from an estimated 7.87 ng/L in SW-17 to 53.6 ng/L in SW-20. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 in each sample at concentrations ranging from an estimated 8.05 ng/L in SW-16 to 30.1 ng/L in SW-17.
7. PFOS was detected above its proposed NYSDEC AWQSGV of 2.7 ng/L in each of the 20 groundwater samples (plus blind duplicate sample). PFOS concentrations ranged from 36.7 ng/L (DP-8) to 82,800 ng/L (MW-02) in overburden groundwater, and 34.4 ng/L (MW-12) to 18,800 ng/L (MW-09) in bedrock groundwater. PFOA was detected above its proposed NYSDEC AWQSGV of 6.7 ng/L in 17 of 20 groundwater samples (including a blind duplicate sample). PFOA concentrations ranged from an estimated 7.86 ng/L (DP-08) to 1,570 ng/L (MW-02) in overburden groundwater, and 46.7 ng/L (MW-11) to 301 ng/L (MW-09) in bedrock groundwater.

The analytical results compiled during both the SCI and RI confirmed that there are two primary PFAS release areas: the asphalt area west-adjacent to the burn building, and the drum cleanout area along the access driveway. The asphalt area west-adjacent to the burn building was identified by total PFAS concentrations in soil that ranged from 280 µg/kg to 439 µg/kg (SB-05 to SB-9, SB-16, and SB-33), and the drum cleanout area adjacent to the hydrant along the access driveway was defined by total PFAS concentrations of 60.7 µg/kg to 173 µg/kg (SB-13, SB-15, and SB-31). The release areas converge into the intermittent stream south of the access driveway. The total PFAS concentrations were comprised primarily of PFOS. The highest PFAS concentrations are in the shallow soil zone (0-2 ftbg) and taper off with depth into the deeper zones down to the bedrock interface, which is typically 5 to 10 ftbg, but up to 20 ftbg at isolated locations.

The RI provided plume definition in soil to the west, south, and southeast of the release areas (defined by SB-23, SB-21/SB-22, SB-29, SB-03, and SB-02) as the concentration of PFOS reduces to 0.89 µg/kg to 8.65 µg/kg. The concentration of PFAS compounds documented in soil samples collected from SB-24, SB-25 to the north, and SB-27 to the east of the release areas ranged from 23 µg/kg to 113 µg/kg. Although these detections may indicate that the extent of contamination is not fully defined, exposed nearby bedrock limits the potential extent of PFAS soil contamination to the north and east. PFOS concentrations in shallow soil at SB-30, which is downgradient of the release areas, peaked at 40.3 µg/kg (0.2-1 ftbg). Although this result suggests that the extent of the release areas is not defined at this location, exposed bedrock also dominates the land surface further south and defines the release area at this location. PFOS peaked at SB-29, located south of the release areas, at a concentration of 4.04 µg/kg. The laboratory results for soil samples collected from SB-29 and SB-03 (during the SCI) provide for plume definition to the south.

For deep soil, the PFOS results for soil samples collected from the perimeter of the asphalt release area [SB-28 (10-11 ftbg), SB-33 (13-14 ftbg), and SB-34 (10-11 ftbg)] ranged from 8.4 µg/kg to 47.7 µg/kg. This was consistent with the sampling results from the SCI, where the concentrations in the deep soil samples ranged from 4.87 to 43.1 surrounding the release area high points of SB-09 (6-7) at 283 µg/kg and SB-13 at 59.7 µg/kg. The RI confirmed that the highest PFAS concentrations are in shallow soil, the concentrations reduce with depth, and also reduce moving away from the two release areas.

The SPLP analysis (combined SCI and RI) was completed on soil samples collected from the source areas (SB-12, SB-15, and SB-33), from locations within 150 ft downgradient of the source areas (SB-12 through SB-14, and SB-30), and from the western side of the FDDS site (SB-21). The concentration of PFOS ranged from 2,290 ng/L to 3,880 ng/L in shallow soil in the source areas, was approximately 155 ng/L to 1,380 ng/L in the downgradient areas, and was 17.1 ng/L in SB-21. The SPLP results are consistent with the mass results regarding the release model, which demonstrate the leachability of PFOS, and provide data

that can be used during a feasibility review for the design and implementation of potential IRMs and the full Site remedy.

The sediment and surface water sampling on the FDDS site documented that PFAS concentrations tapered off going upstream, and SW-15 (approximately 120 feet north of the drum cleanout area) identifies an upgradient delineation point. The results indicate that the PFOS concentrations in surface water at the source area and immediately downstream range from 290 ng/L to 704 ng/L, drop to 30.9 ng/L to 34.9 ng/L in the reservoir, and exist at a range of 7.87 ng/L to 53.6 ng/L in the wetland west of the OSPS. The sediment and surface water sampling in the wetland indicated a low level, widespread dispersion of PFAS compounds with leachable results in the sediment being below the screening criteria.

PFAS contamination in overburden groundwater was detected at two to three orders of magnitude higher in wells in the suspected source area (MW-02 and MW-03) than wells located near East Pond, Reservoir No. 2, and the cistern wells at the OSPS. The groundwater analytical data provided additional confirmation that the observed PFAS contamination in shallow soil at the FDDS site is considered the source of the PFAS contamination in overburden groundwater. The higher concentrations at the FDDS, typical of groundwater quality in a contamination source area, are likely also affected by the variable depth to bedrock that was observed to isolate the zones of saturated overburden. The shallow bedrock ridges would limit upgradient inflow of water (dilution) and downgradient migration of contaminants, which can result in the retention of relatively higher groundwater concentrations in the source area. The groundwater detections in overburden groundwater follow the CSM where available overburden flow at the FDDS would migrate to the groundwater discharge point in the stream and wetland, and overburden flow from East Pond and Reservoir No. 2 would flow toward the OSPS and the wetland.

The PFAS plume area in overburden groundwater was in direct contact with a shallow, highly foliated and fractured gneiss bedrock, and this provided a pathway for PFAS to migrate into the shallow bedrock aquifer. The PFAS concentration in bedrock groundwater near the source area (MW-9) was two orders of magnitude higher than at locations at the perimeter of the FDDS, and three orders of magnitude higher than bedrock groundwater at East Pond. These results follow the overburden trend where concentrations dissipate moving away from the source area, and also suggest that the bedrock aquifer does not have a strong horizontal fracture connection with lateral groundwater flow, and the presence of PFAS in bedrock groundwater is more driven by vertical infiltration from the overlying overburden aquifer.

A Qualitative Human Health Exposure Assessment (QHHEA) was completed to identify potential receptors and pathways for human exposure to the COCs that are present at, or migrating from, the Site. The QHHEA confirmed that there is a potential for a complete exposure pathway to fill/soil, sediment, surface water, and groundwater at the Site, and there is a potential for a complete exposure pathway to sediment, surface water, and groundwater for off-Site receptors within the extent of the plume. During any remediation activities, there will be a potential exposure pathway from contaminated fill/soil, sediment, surface water, and groundwater to construction/remediation workers, as these workers could ingest, inhale, or have dermal contact with exposed contamination. Without remediation, the potential exposure pathway would remain in perpetuity for City employees, including DPW staff, firefighters, and maintenance staff that would be using the Site, especially at the FDDS property, and the potential exposure pathway would remain for off-Site receptors (located within the extent of the plume) as well. Based on the results of the QHHEA, it was recommended that NYSDEC-approved remedial actions be implemented to address the PFAS contamination.

As part of the RI, site specific investigations (Step 1) of the Fish and Wildlife Impact Analysis (FWIA) were completed at the Site and surrounding area by a wildlife biologist and two wetland and plant ecologists. These investigations confirm that there are valuable natural resources within 2-mile and ½-mile study areas, as well as the Project Study Area, for fish and wildlife and human use. Based on the results of

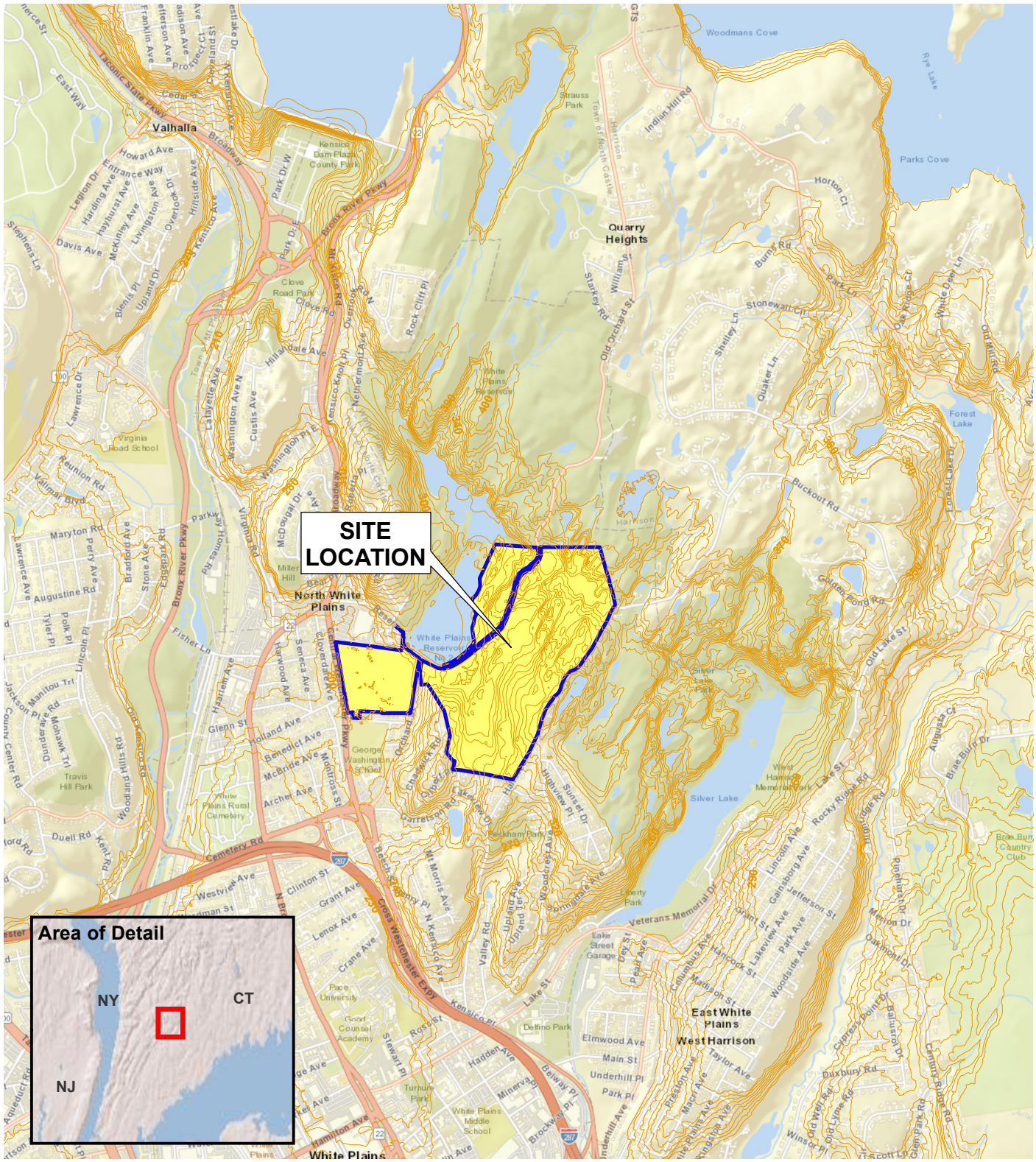
the FWIA, an Ecological Impact Assessment (Part 2 of the FWIA) will be completed in accordance with DER-10 Section 3.10.12.

The RI confirmed a PFAS contamination source area on the FDDS site, and a resulting plume emanating from the FDDS site through surface water into East Pond and Reservoir No. 2 and continuing downgradient through surface water and groundwater into the wetland adjacent to the OSPS, and in groundwater beneath the OSPS and wetland, respectively. The RI results provided definition of the plume for multiple environmental media, and included sufficient data to confirm the potential for exposure and complete design/implementation of a full Site remedy. IRMs are being prepared under NYSDEC review to address the high levels of PFAS contamination in the FDDS release area while developing a remedy for the full Site. The scope of work for completing the IRMs will be documented in the forthcoming NYSDEC-approved Interim Remedial Measures Work Plan (IRMWP) and Interim Remedial Measures Design Document (IRMDD). The scope of work for completing the full Site remedy will be included in a Remedial Action Work Plan (RAWP), which will be reviewed and approved by NYSDEC.

9.0 REFERENCES

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8. *Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs*, New York State Department of Environmental Conservation, October 2020 (Revised January and June 2021).
9. *Draft Technical and Operational Guidance for PFOA, PFOS, and 1,4-Dioxane,* New York State Department of Environmental Conservation, October 5, 2021.

FIGURES



©2023 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 1 Site Location Map.mxd 10/5/2023 11:43:40 AM mvelleux

AKRF
34 S. Broadway #401 White Plains, NY 10601

White Plains Fire Department Drill School

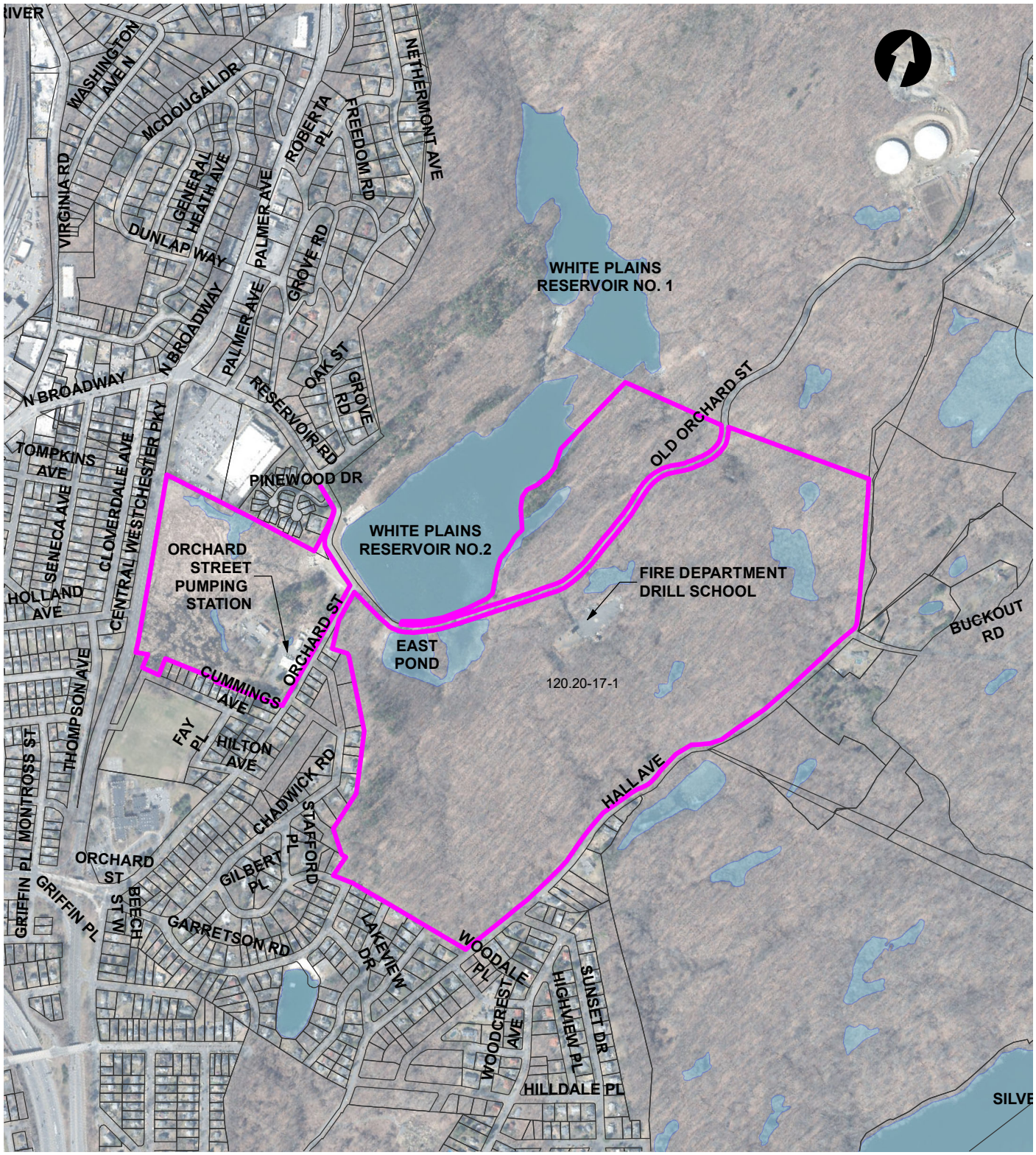
White Plains, New York

SITE LOCATION

DATE
10/5/2023

PROJECT NO.
200217

FIGURE
1



Aerial Source:
2023 ESRI Imagery.

LEGEND

PROJECT SITE BOUNDARY

TAX PARCEL

0 800 1,600

SCALE IN FEET

AKRF

34 S. Broadway #401 White Plains, NY 10601

White Plains Fire Department Drill School
White Plains, New York

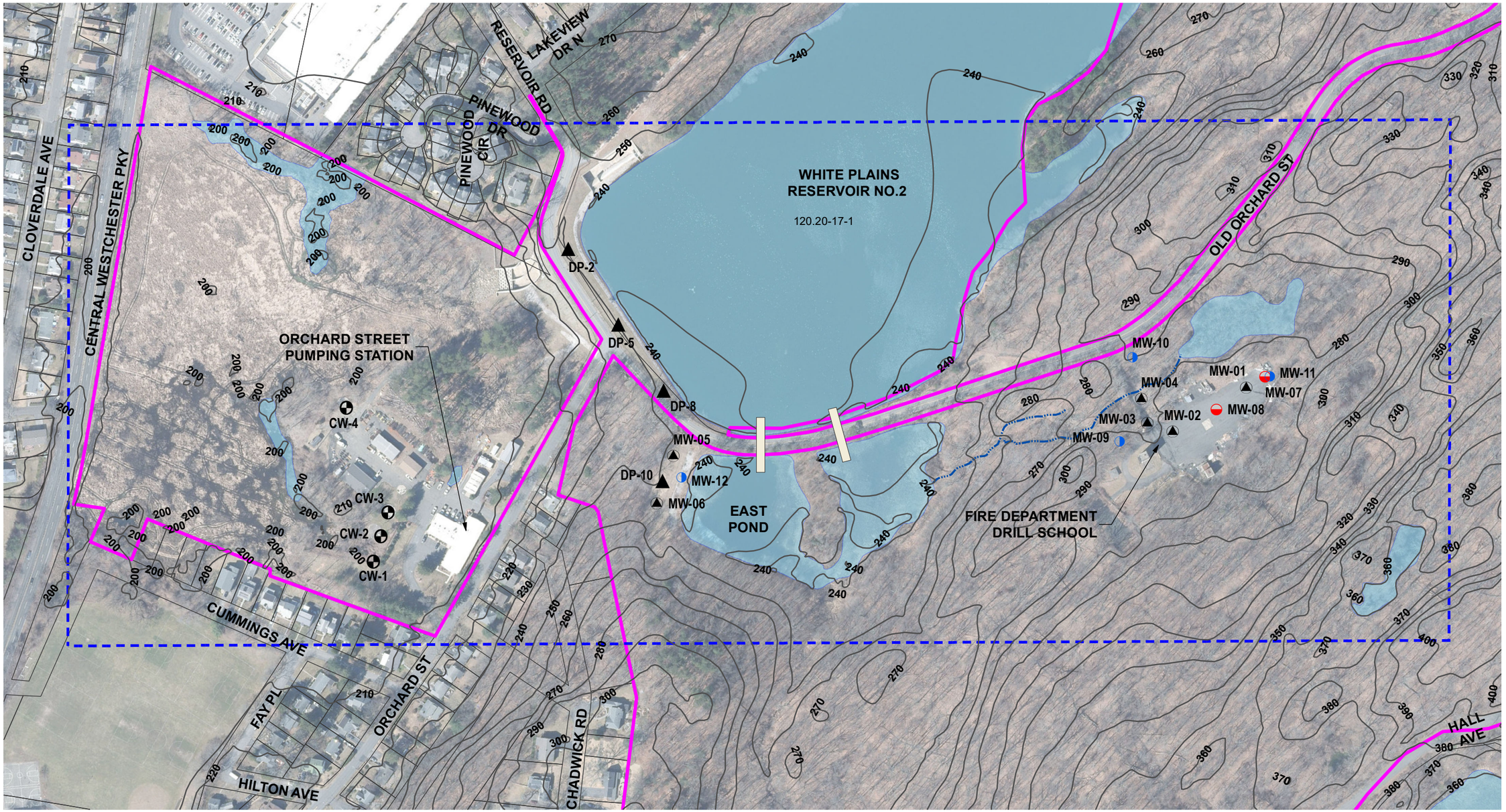
SITE PLAN

DATE
12/8/2023

PROJECT NO.
200217

FIGURE
2

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LEGEND

- PROJECT SITE BOUNDARY
- PROJECT STUDY AREA
- TAX PARCEL
- INTERMITTENT STREAM
- DAM PIEZOMETER
- CISTERN WELL
- SITE CHARACTERIZATION INVESTIGATION MONITORING WELL LOCATION
- REMEDIAL INVESTIGATION BEDROCK WELL LOCATION
- REMEDIAL INVESTIGATION OVERBURDEN MONITORING WELL LOCATION
- CULVERT PIPE

Aerial Source:
2020 ESRI Imagery.

0 200 400
SCALE IN FEET

AKRF
34 S. Broadway #401 White Plains, NY 10601

White Plains Fire Department Drill School
White Plains, New York

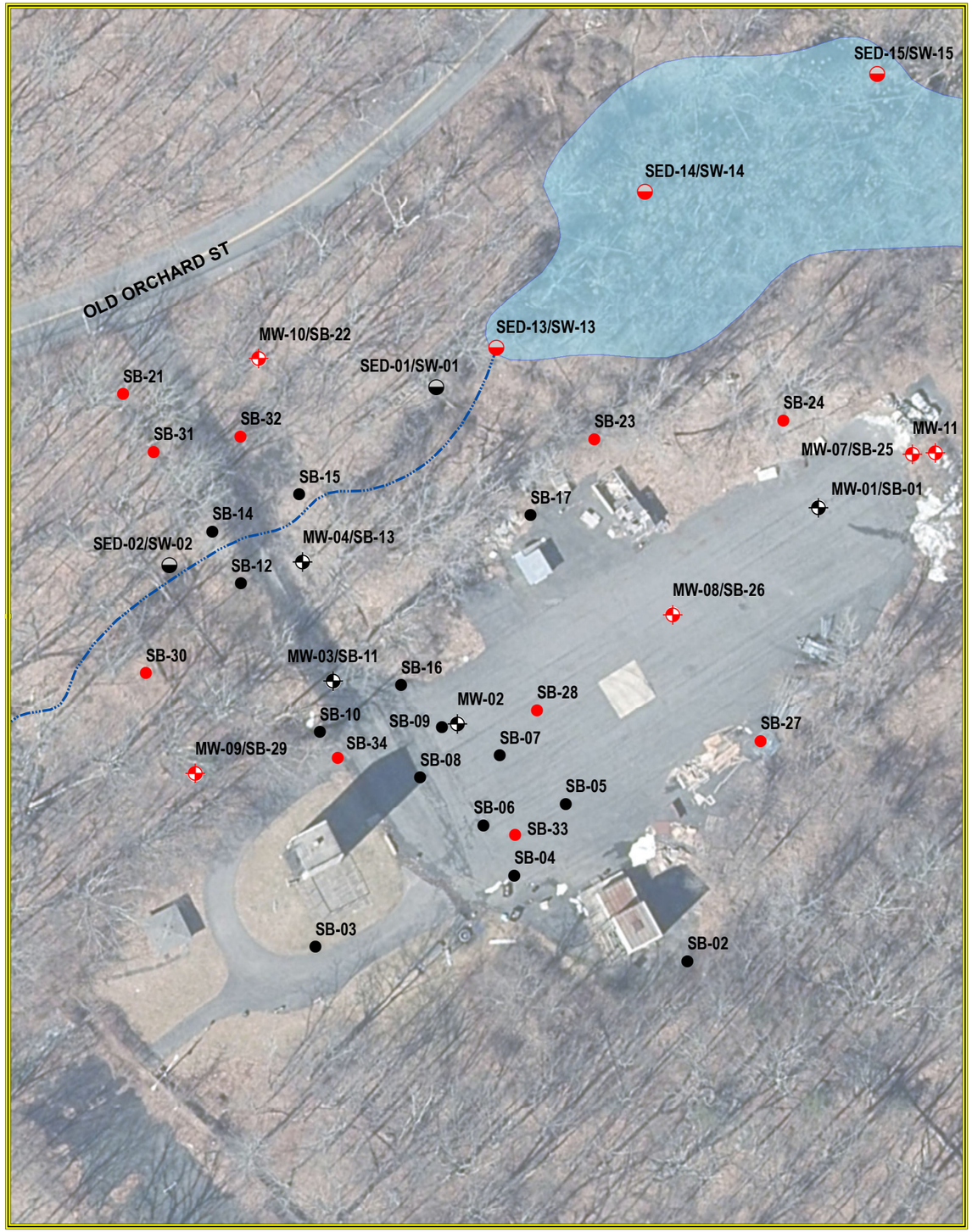
PROJECT STUDY AREA

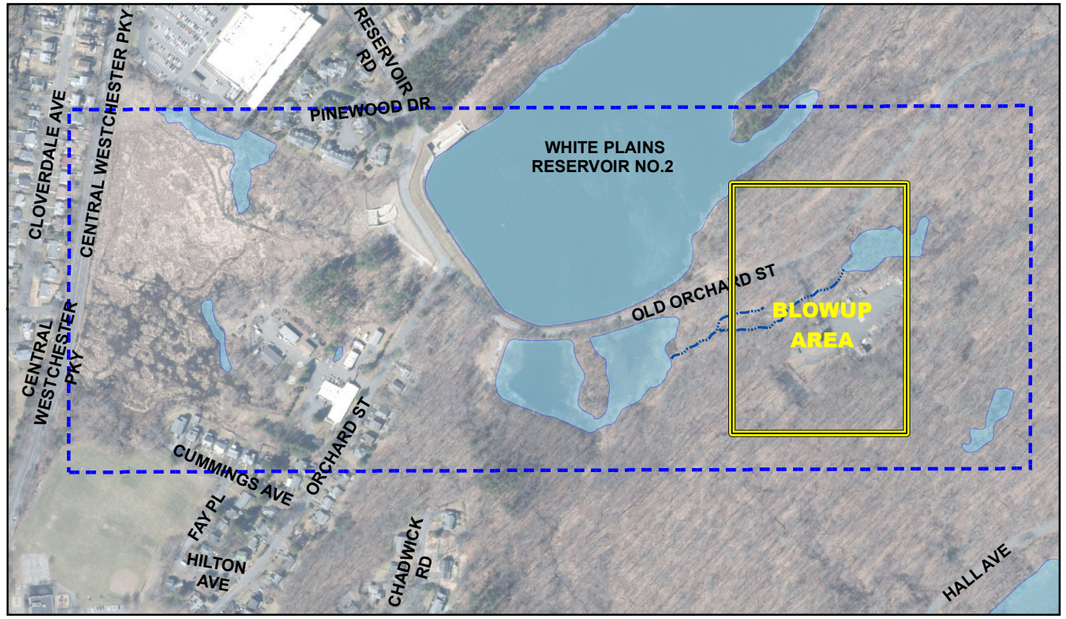
DATE
4/16/2025

PROJECT NO.
200217

FIGURE
3

©2025 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 3 Project Study Area.mxd4/16/2025 2:06:26 PM mveilleux





Key Map

Scale: 1" = 500'

LEGEND

- PROJECT STUDY AREA
- STREAM
- SITE CHARACTERIZATION INVESTIGATION SOIL BORING LOCATION
- SITE CHARACTERIZATION INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION
- SITE CHARACTERIZATION INVESTIGATION MONITORING WELL/SOIL BORING LOCATION
- REMEDIAL INVESTIGATION SOIL BORING LOCATION
- REMEDIAL INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION
- REMEDIAL INVESTIGATION MONITORING WELL/SOIL BORING LOCATION

0 60 120

SCALE IN FEET

Aerial Source: 2020 ESRI Imagery.

AKRF
34 S. Broadway #401 White Plains, NY 10601

White Plains Fire Department Drill School
White Plains, New York

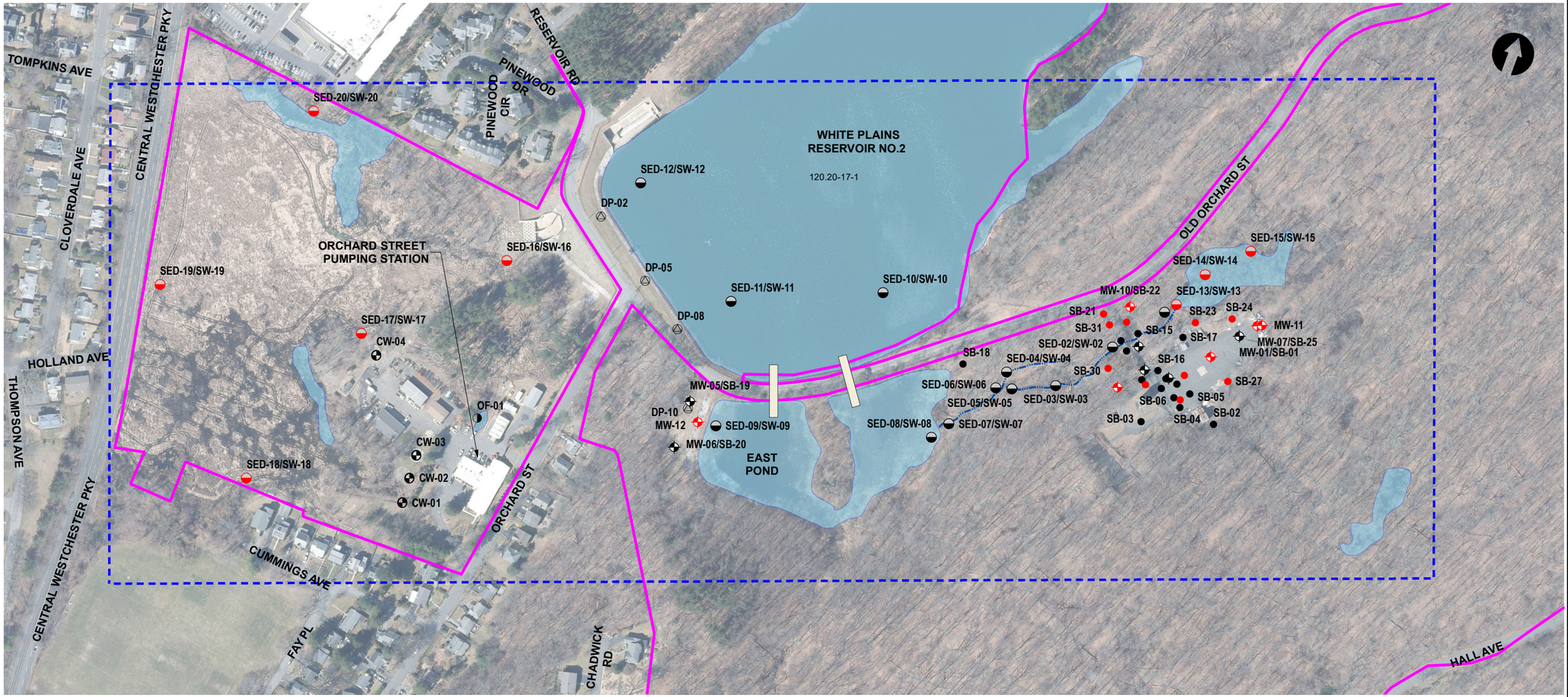
SAMPLE LOCATION PLAN - FIRE DEPARTMENT DRILL SCHOOL

DATE
4/17/2025

PROJECT NO.
200217

FIGURE
4A

©2025 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 4A Sample Location Plan.mxd4/17/2025 5:39:15 PM mveilleux



Aerial Source:
2020 ESRI Imagery.

LEGEND

- SITE CHARACTERIZATION INVESTIGATION SOIL BORING LOCATION
- SITE CHARACTERIZATION INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION
- SITE CHARACTERIZATION INVESTIGATION MONITORING WELL/SOIL BORING LOCATION
- REMEDIAL INVESTIGATION SOIL BORING LOCATION
- REMEDIAL INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION
- REMEDIAL INVESTIGATION MONITORING WELL/SOIL BORING LOCATION
- SURFACE WATER SAMPLE LOCATION
- DAM PIEZOMETER
- CISTERN WELL
- PROJECT SITE BOUNDARY
- PROJECT STUDY AREA
- STREAM
- CULVERT PIPE

0 250 500
SCALE IN FEET

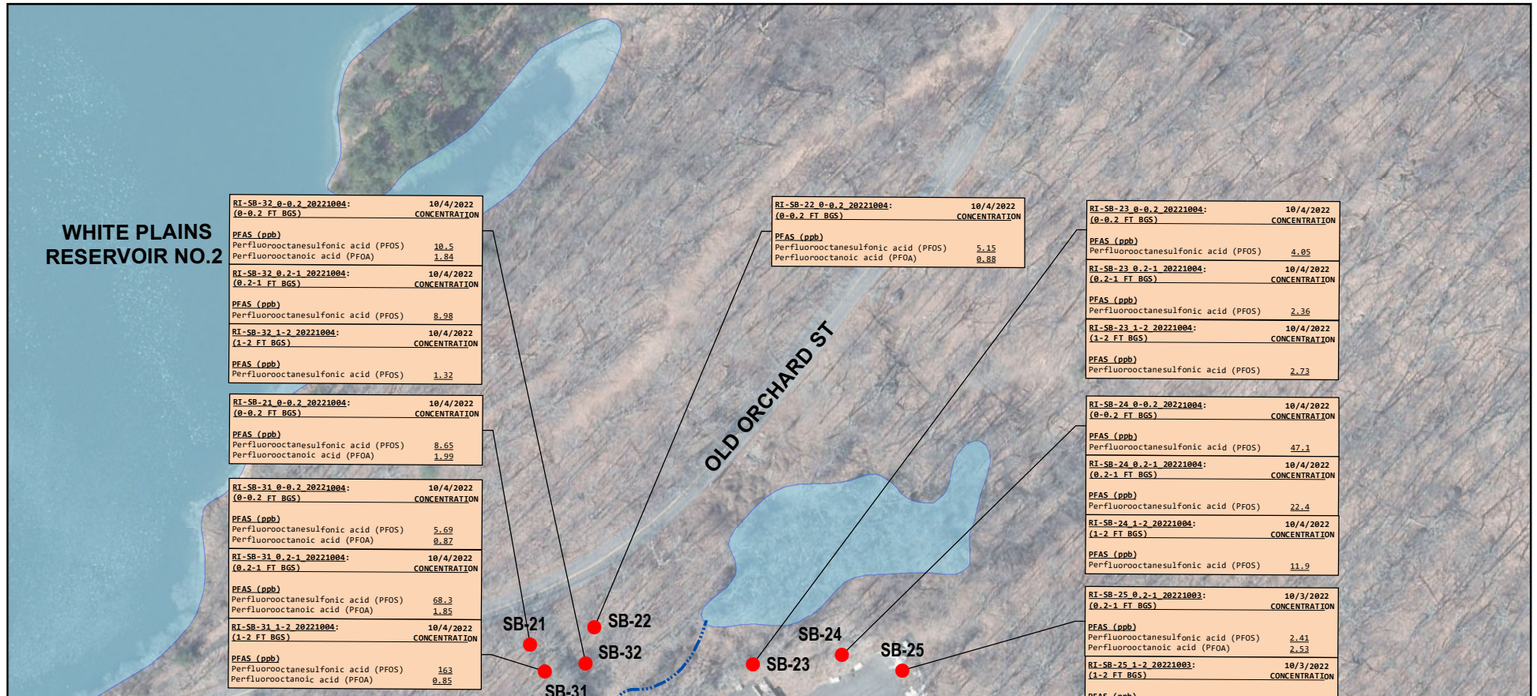
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White Plains Fire Department Drill School
White Plains, New York

SAMPLE LOCATION PLAN - PROJECT STUDY AREA

DATE
4/16/2025
PROJECT NO.
200217
FIGURE
4B

©2025 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 4B Sample Location Plan.mxd4/16/2025 3:55:28 PM mveilleux



Aerial Source: 2023 ESRI Imagery.

LEGEND

STREAM

REMEDIAL INVESTIGATION SOIL BORING LOCATION

SOIL

Exceedances of NYSDEC Protection of Groundwater Soil Guidance Values for PFOA and PFOS are presented in bold font.

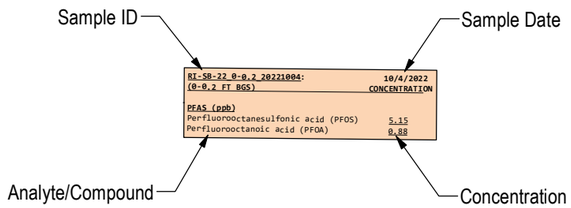
Exceedances of NYSDEC Commercial Soil Guidance Values for PFOA and PFOS are presented in underline font.

ug/kg: micrograms per kilogram = parts per billion (ppb)
ng/L - nanograms per Liter = parts per trillion (ppt)

D: Analyte concentration obtained from dilution.
J: The concentration given is an estimated value.

Notes:
1. PFAS in soil samples were compared to NYSDEC PFAS Guidance Values for Commercial Use and Protection of Groundwater.

	NYSDEC PFAS GUIDANCE VALUES PROTECTION OF GROUNDWATER ug/kg	NYSDEC PFAS GUIDANCE VALUES COMMERCIAL ug/kg
PFAS		
Perfluorooctanesulfonic acid (PFOS)	3.7	440
Perfluorooctanoic acid (PFOA)	1.1	500



0 150 300
SCALE IN FEET

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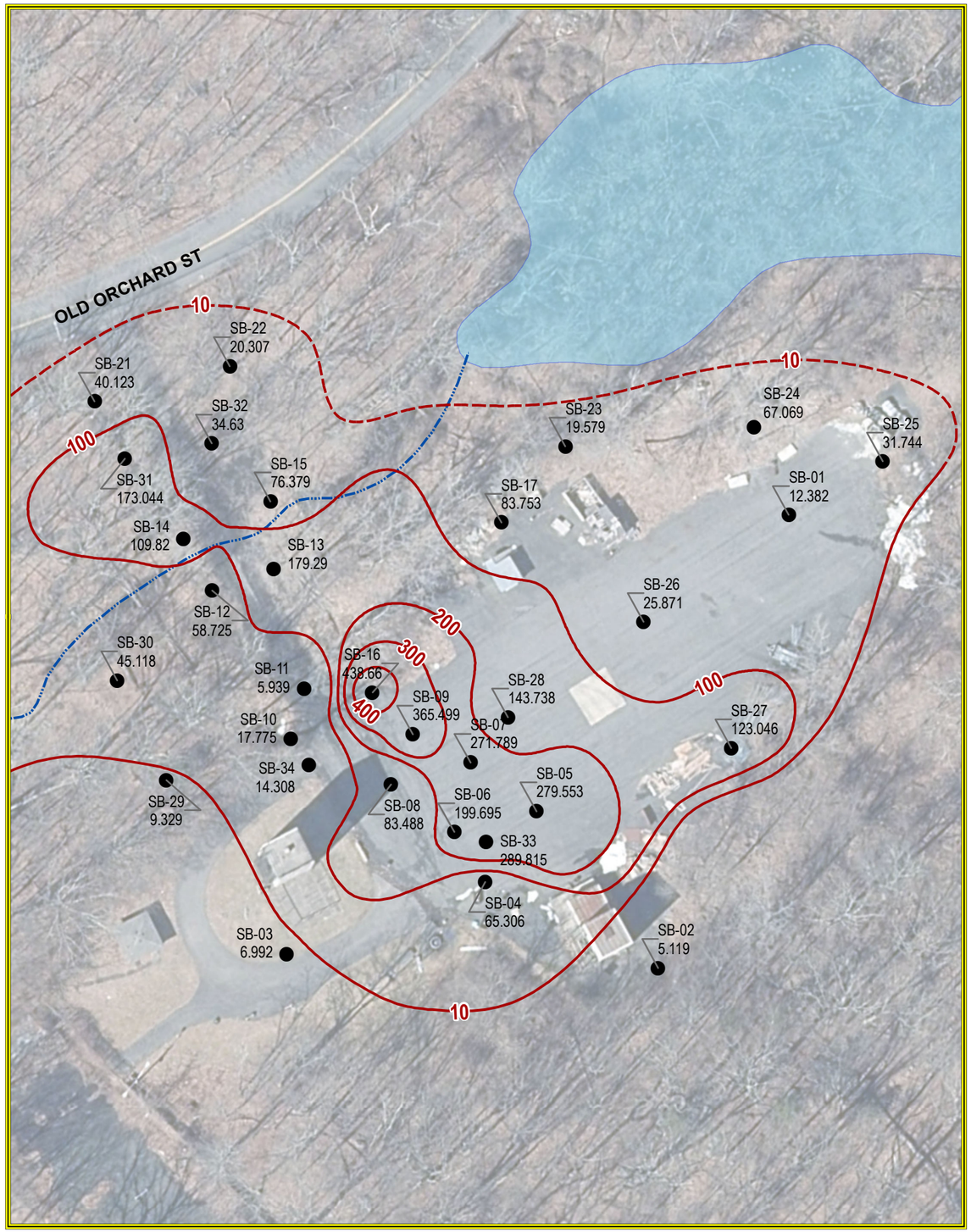
SOIL EXCEEDANCES FOR PFAS ABOVE NYSDEC GUIDANCE VALUES

DATE
12/8/2023

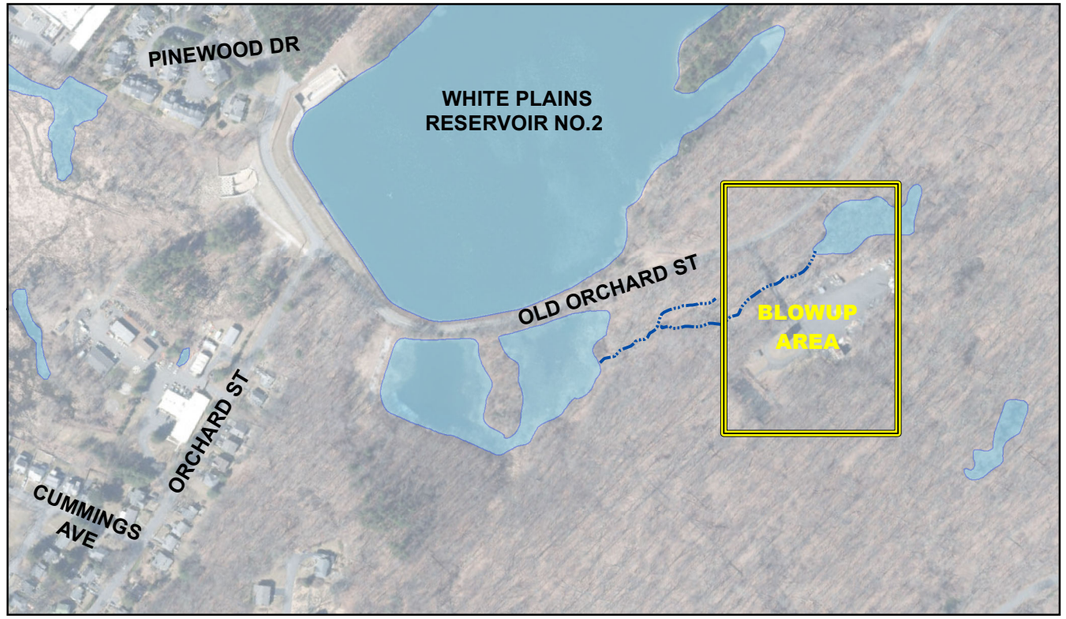
PROJECT NO.
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FIGURE
5

©2023 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 5 Soil Exceedances for PFAS Above NYSDEC Guidance Values.mxd12/8/2023 12:09:40 PM mvelleux



Aerial Source: 2020 ESRI Imagery.



Key Map

Scale: 1" = 400'

LEGEND

- STREAM
- SOIL BORING LOCATION
- TOTAL PFAS CONTOUR LINE (DASHED WHERE INFERRED) (MICROGRAMS PER KILOGRAM - µG/KG)

Note:
1. PFAS results shown are the highest concentration detected at each location within 0 - 2' below grade.

0 60 120
SCALE IN FEET

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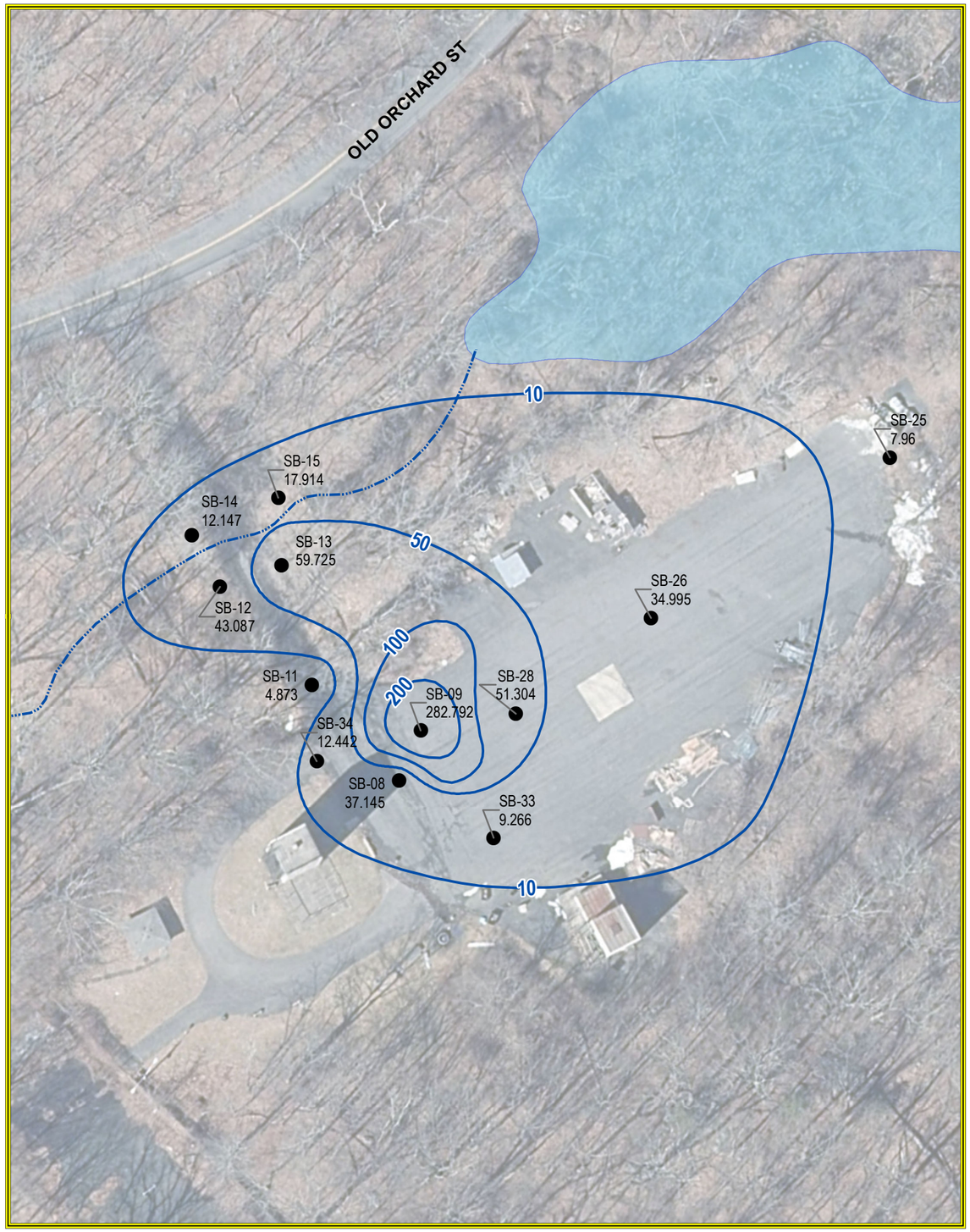
SHALLOW SOIL TOTAL PFAS ISOCONTOUR MAP

DATE
12/18/2023

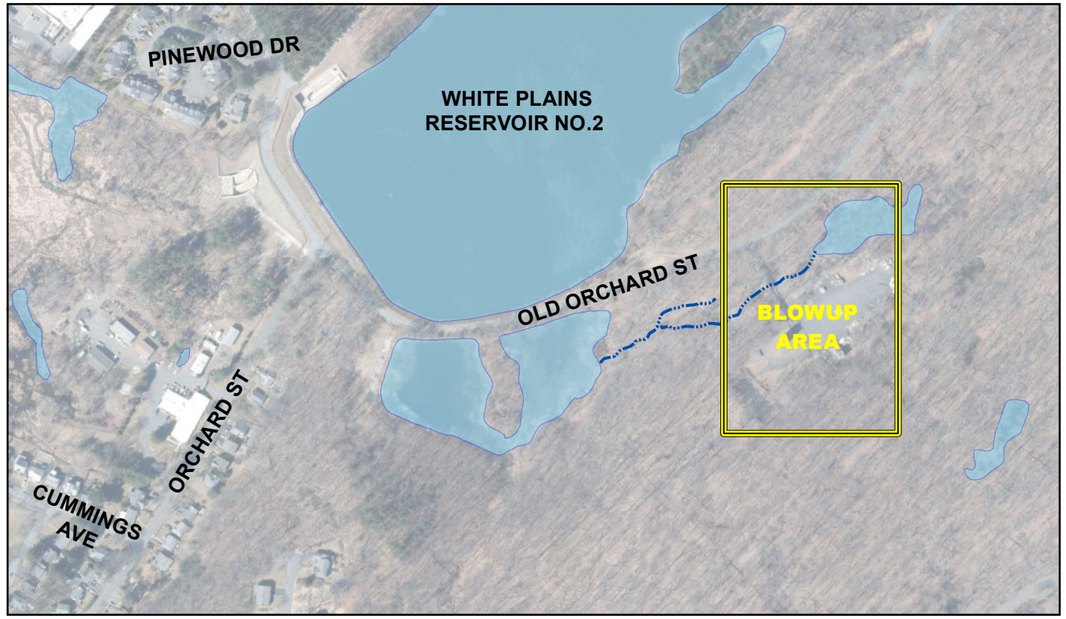
PROJECT NO.
200217

FIGURE
6

©2023 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 6 Shallow Soil Total PFAs Isocontour Map.mxd12/18/2023 4:33:50 PM mvelleux



Aerial Source: 2020 ESRI Imagery.



Key Map

Scale: 1" = 400'

LEGEND

- STREAM
- SOIL BORING LOCATION
- TOTAL PFAS CONTOUR LINE (MICROGRAMS PER KILOGRAM - µG/KG)

Note:
1. PFAS results shown are concentrations of total PFAS at each location for the sample depth interval juist above the bedrock interface between 4 - 16' below grade.

0 60 120
SCALE IN FEET

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White Plains Fire Department Drill School
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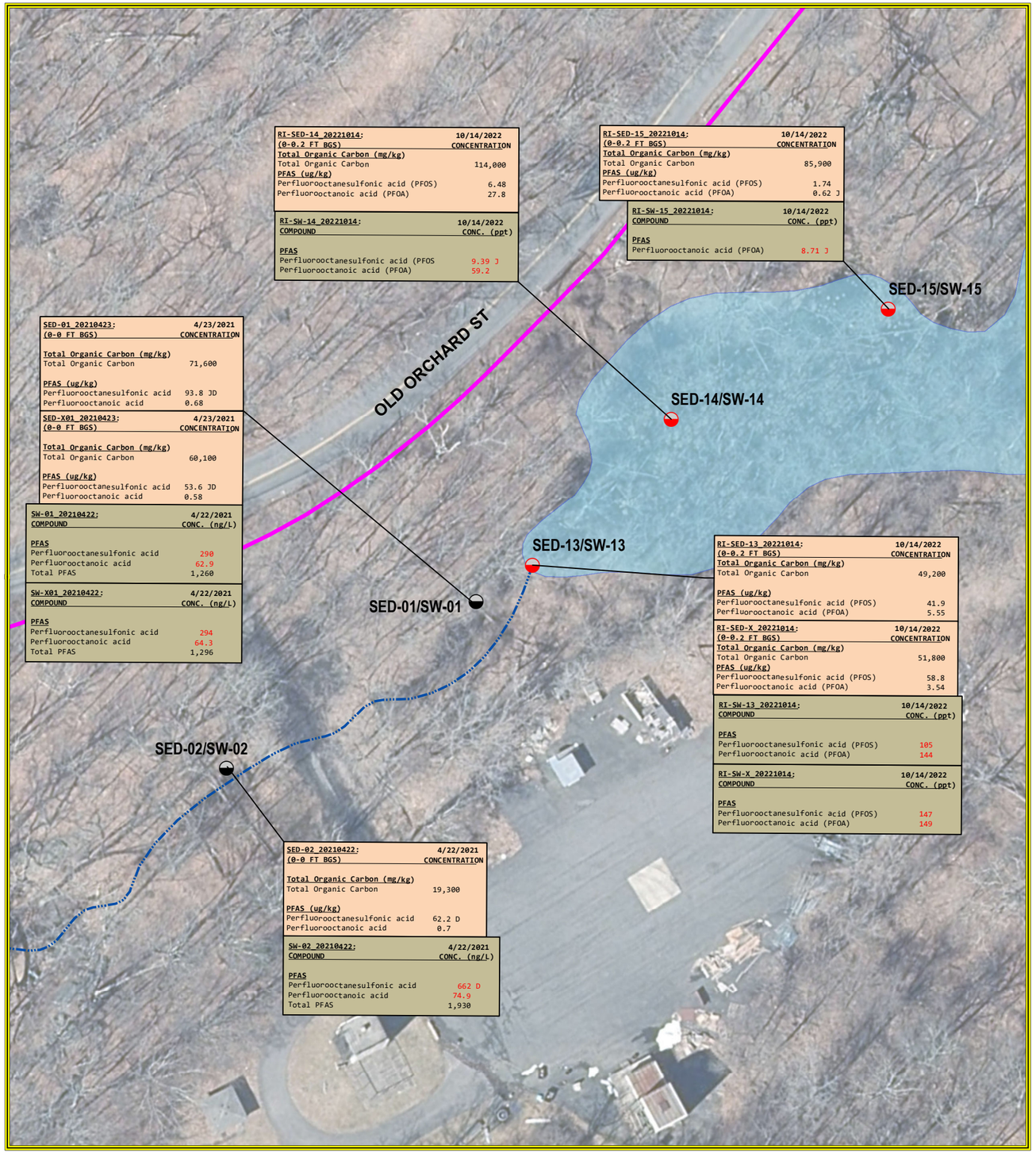
DEEP SOIL TOTAL PFAS ISOCONTOUR MAP

DATE
11/20/2023

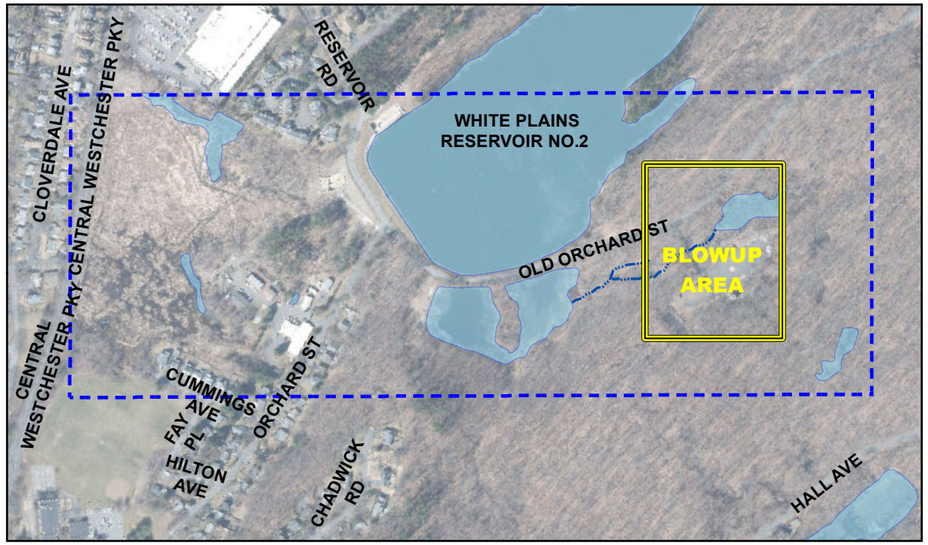
PROJECT NO.
200217

FIGURE
7

©2023 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 7 Deep Soil Total PFAs Isocontour Map.mxd 11/20/2023 11:34:55 AM mvellieux



Aerial Source: 2020 ESRI Imagery.



Key Map

Scale: 1" = 600'

LEGEND

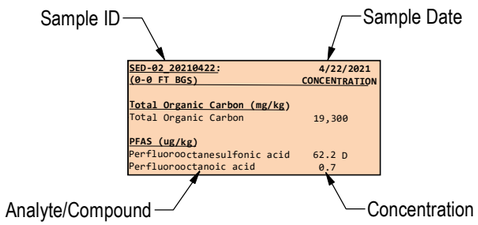
- PROJECT SITE BOUNDARY
- PROJECT STUDY AREA
- STREAM
- SITE CHARACTERIZATION INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION (APRIL/MAY 2021)
- REMEDIAL INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION

Sediment/Surface Water

Exceedances of NYSDEC's Final March 2023 Guidance Values for Human Health - Raw Water Source for PFOA and PFOS in surface water are presented red font.

mg/kg - milligrams per kilogram = parts per million (ppm)
ug/kg - micrograms per kilogram = parts per billion (ppb)
ng/L - nanograms per Liter = parts per trillion (ppt)

D: Analyte concentration obtained from dilution.
J: The concentration given is an estimated value.



Notes:
1. PFAS in sediment samples do not have applicable proposed guidance values.
PFOA and PFOS sediment values are provided for reference.
2.Total Organic Carbon concentrations are provided for reference only and are not compared to NYSDEC guidance values.
3. Total PFAS values above 500 ng/L are shown for reference only.

	NYSDEC PFAS AWQSGVs for Surface Water ng/l
PFAS	
Perfluorooctanesulfonic acid (PFOS)	2.7
Perfluorooctanoic acid (PFOA)	6.7

0 60 120
SCALE IN FEET

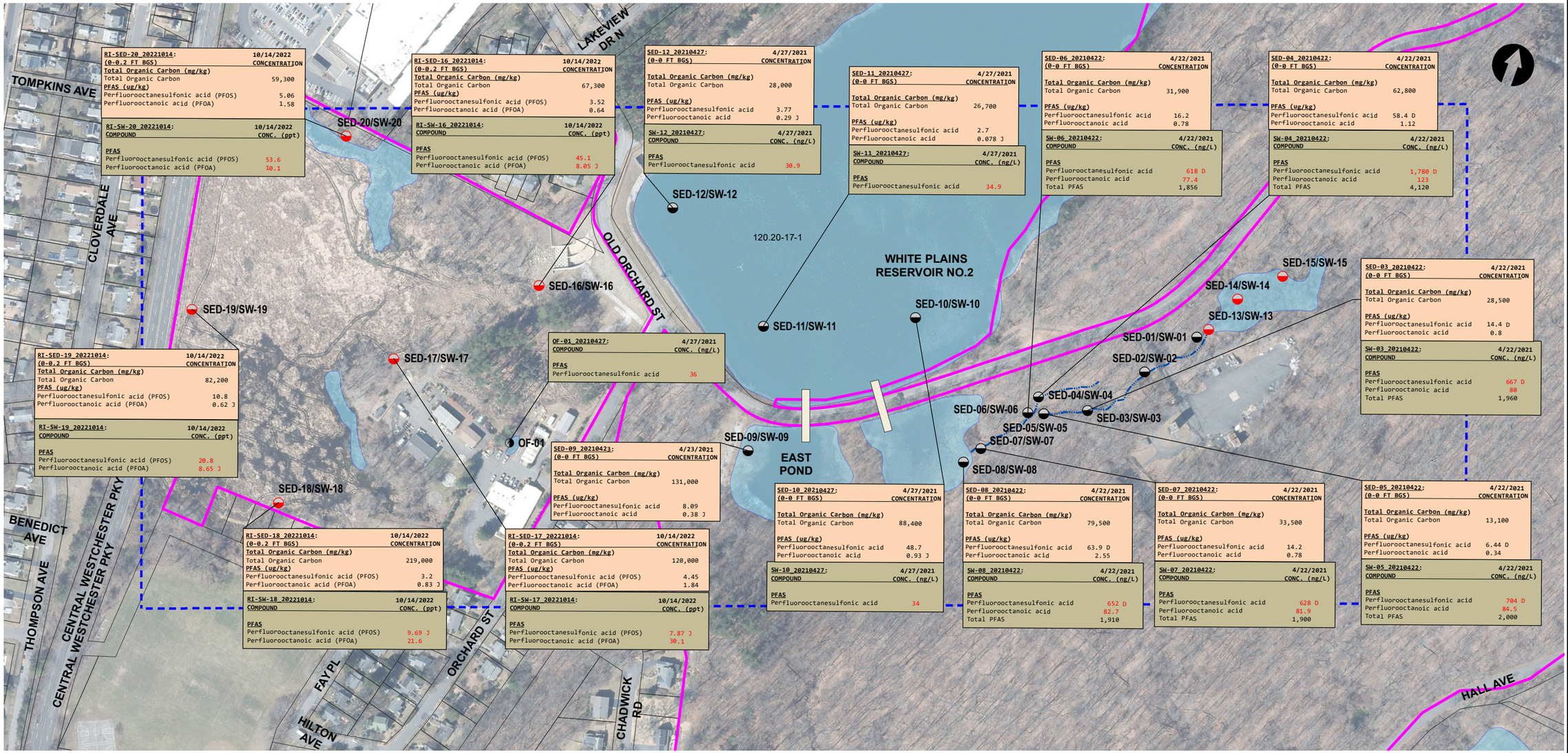
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White Plains, New York

SAMPLE LOCATION PLAN - FIRE DEPARTMENT DRILL SCHOOL

DATE
12/18/2023
PROJECT NO.
200217
FIGURE
8A

©2023 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 8A Sediment PFAS Results and Surface Water Exceedances for PFAS Above NYSDEC AWQSGVs – FDDS.mxd12/18/2023 5:15:52 PM mvelleux



RI-SED-20_20221014: (0-0.2 FT BGS) — 10/14/2022 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	59,300
PFAS (ug/kg)	
Perfluorooctanesulfonic acid (PFOS)	5.06
Perfluorooctanoic acid (PFOA)	1.58

RI-SW-20_20221014: COMPOUND — 10/14/2022 CONC. (ppt)

PFAS	
Perfluorooctanesulfonic acid (PFOS)	53.6
Perfluorooctanoic acid (PFOA)	10.1

RI-SED-16_20221014: (0-0.2 FT BGS) — 10/14/2022 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	67,300
PFAS (ug/kg)	
Perfluorooctanesulfonic acid (PFOS)	3.52
Perfluorooctanoic acid (PFOA)	0.64

RI-SW-16_20221014: COMPOUND — 10/14/2022 CONC. (ppt)

PFAS	
Perfluorooctanesulfonic acid (PFOS)	45.1
Perfluorooctanoic acid (PFOA)	8.05 J

SED-12_20210427: (0-0 FT BGS) — 4/27/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	28,000
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	3.77
Perfluorooctanoic acid	0.29 J

SW-12_20210427: COMPOUND — 4/27/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	30.9

SED-11_20210427: (0-0 FT BGS) — 4/27/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	26,700
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	2.7
Perfluorooctanoic acid	0.078 J

SW-11_20210427: COMPOUND — 4/27/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	34.9

SED-06_20210422: (0-0 FT BGS) — 4/22/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	31,900
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	16.2
Perfluorooctanoic acid	0.78

SW-06_20210422: COMPOUND — 4/22/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	618 D
Perfluorooctanoic acid	77.4
Total PFAS	1,856

SED-04_20210422: (0-0 FT BGS) — 4/22/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	62,800
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	58.4 D
Perfluorooctanoic acid	1.12

SW-04_20210422: COMPOUND — 4/22/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	1,780 D
Perfluorooctanoic acid	123
Total PFAS	4,120

SED-03_20210422: (0-0 FT BGS) — 4/22/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	28,500
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	14.4 D
Perfluorooctanoic acid	0.8

SW-03_20210422: COMPOUND — 4/22/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	667 D
Perfluorooctanoic acid	80
Total PFAS	1,960

OF-01_20210427: COMPOUND — 4/27/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	36

RI-SED-19_20221014: (0-0.2 FT BGS) — 10/14/2022 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	82,200
PFAS (ug/kg)	
Perfluorooctanesulfonic acid (PFOS)	10.8
Perfluorooctanoic acid (PFOA)	0.62 J

RI-SW-19_20221014: COMPOUND — 10/14/2022 CONC. (ppt)

PFAS	
Perfluorooctanesulfonic acid (PFOS)	20.8
Perfluorooctanoic acid (PFOA)	8.65 J

SED-09_20210423: (0-0 FT BGS) — 4/23/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	131,000
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	8.09
Perfluorooctanoic acid	0.38 J

RI-SED-18_20221014: (0-0.2 FT BGS) — 10/14/2022 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	219,000
PFAS (ug/kg)	
Perfluorooctanesulfonic acid (PFOS)	3.2
Perfluorooctanoic acid (PFOA)	0.83 J

RI-SW-18_20221014: COMPOUND — 10/14/2022 CONC. (ppt)

PFAS	
Perfluorooctanesulfonic acid (PFOS)	9.69 J
Perfluorooctanoic acid (PFOA)	21.6

RI-SED-17_20221014: (0-0.2 FT BGS) — 10/14/2022 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	120,000
PFAS (ug/kg)	
Perfluorooctanesulfonic acid (PFOS)	4.45
Perfluorooctanoic acid (PFOA)	1.84

RI-SW-17_20221014: COMPOUND — 10/14/2022 CONC. (ppt)

PFAS	
Perfluorooctanesulfonic acid (PFOS)	7.87 J
Perfluorooctanoic acid (PFOA)	30.1

SED-10_20210427: (0-0 FT BGS) — 4/27/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	88,400
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	48.7
Perfluorooctanoic acid	0.93 J

SW-10_20210427: COMPOUND — 4/27/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	34

SED-08_20210422: (0-0 FT BGS) — 4/22/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	79,500
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	63.9 D
Perfluorooctanoic acid	2.55

SW-08_20210422: COMPOUND — 4/22/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	652 D
Perfluorooctanoic acid	82.7
Total PFAS	1,910

SED-07_20210422: (0-0 FT BGS) — 4/22/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	33,500
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	14.2
Perfluorooctanoic acid	0.78

SW-07_20210422: COMPOUND — 4/22/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	628 D
Perfluorooctanoic acid	81.9
Total PFAS	1,900

SED-05_20210422: (0-0 FT BGS) — 4/22/2021 CONCENTRATION

Total Organic Carbon (mg/kg)	
Total Organic Carbon	13,100
PFAS (ug/kg)	
Perfluorooctanesulfonic acid	6.44 D
Perfluorooctanoic acid	0.34

SW-05_20210422: COMPOUND — 4/22/2021 CONC. (ng/L)

PFAS	
Perfluorooctanesulfonic acid	784 D
Perfluorooctanoic acid	84.5
Total PFAS	2,000

Aerial Source: 2020 ESRI Imagery.

LEGEND

- PROJECT SITE BOUNDARY
- PROJECT STUDY AREA
- STREAM
- TAX PARCEL
- SITE CHARACTERIZATION INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION (APRIL/MAY 2021)
- REMEDIAL INVESTIGATION SEDIMENT AND SURFACE WATER SAMPLE LOCATION
- SURFACE WATER SAMPLE LOCATION
- CULVERT PIPE

Sediment/Surface Water

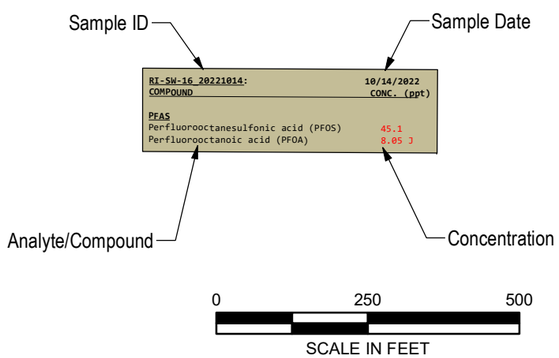
Exceedances of NYSDEC's Final March 2023 Guidance Values for Human Health - Raw Water Source for PFOA and PFOS in surface water are presented red font.

mg/kg - milligrams per kilogram = parts per million (ppm)
ug/kg - micrograms per kilogram = parts per billion (ppb)
ng/L - nanograms per Liter = parts per trillion (ppt)

D: Analyte concentration obtained from dilution.
J: The concentration given is an estimated value.

	NYSDEC PFAS AWQSGVs for Surface Water ng/l
PFAS	
Perfluorooctanesulfonic acid (PFOS)	2.7
Perfluorooctanoic acid (PFOA)	6.7

Notes:
1. PFAS in sediment samples do not have applicable proposed guidance values.
PFOA and PFOS sediment values are provided for reference.
2.Total Organic Carbon concentrations are provided for reference only and are not compared to NYSDEC guidance values.
3. Total PFAS values above 500 ng/L are shown for reference only.



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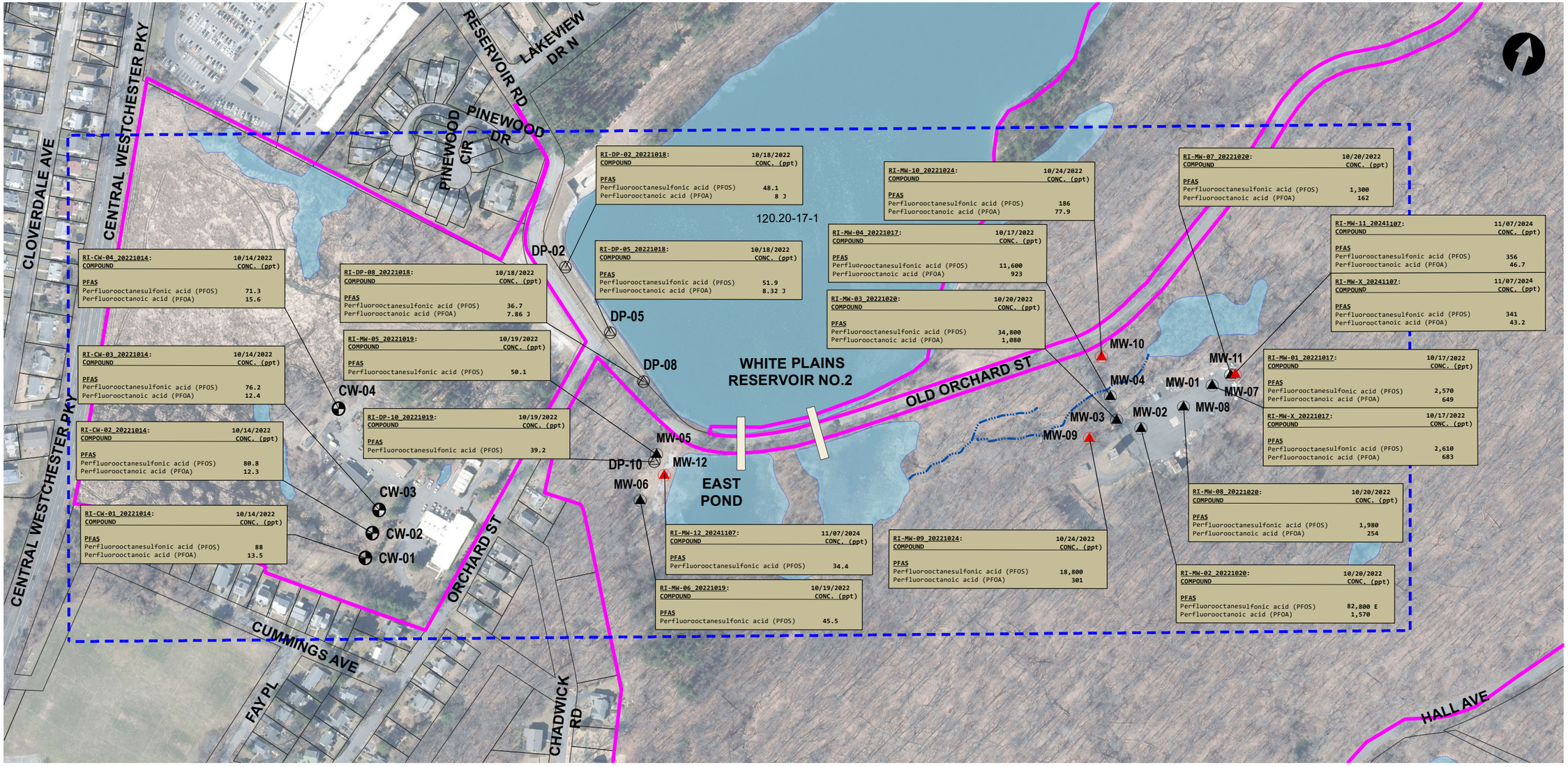
SEDIMENT PFAS RESULTS AND SURFACE WATER EXCEEDANCES FOR PFAS ABOVE NYSDEC AWQSGVS – PROJECT STUDY AREA

DATE
12/18/2023

PROJECT NO.
200217

FIGURE
8B

©2023 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 8B Sediment PFAS Results and Surface Water Exceedances for PFAS Above NYSDEC AWQSGVs – Project Study Area.mxd12/18/2023 5:27:28 PM mveilleux



LEGEND

- PROJECT SITE BOUNDARY
- PROJECT STUDY AREA
- TAX PARCEL
- STREAM
- CULVERT PIPE
- CISTERN WELL
- DAM PIEZOMETER
- MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION

GROUNDWATER

Exceedances of NYSDEC's Guidance Values for Human Health - Raw Water Source for PFOA and PFOS are presented in bold font

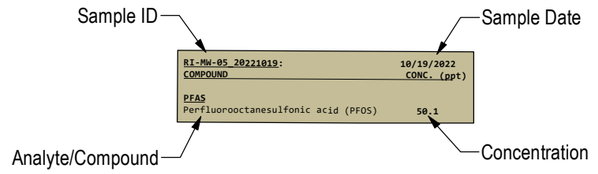
Groundwater PFAS results are compared to guidance values listed in NYSDEC's 2023 *Addendum to the Technical and Operational Guidance (TOGS) No. 1.1.1.*

ng/L - nanograms per Liter = parts per trillion (ppt)

D: Analyte concentration obtained from dilution.
J: The concentration given is an estimated value.

PFAS	NYSDEC PFAS AWQSGVs for Groundwater ng/l
Perfluorooctanesulfonic acid (PFOS)	2.7
Perfluorooctanoic acid (PFOA)	6.7

Aerial Source: 2023 ESRI Imagery.



0 250 500
SCALE IN FEET

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White Plains Fire Department Drill School
White Plains, New York

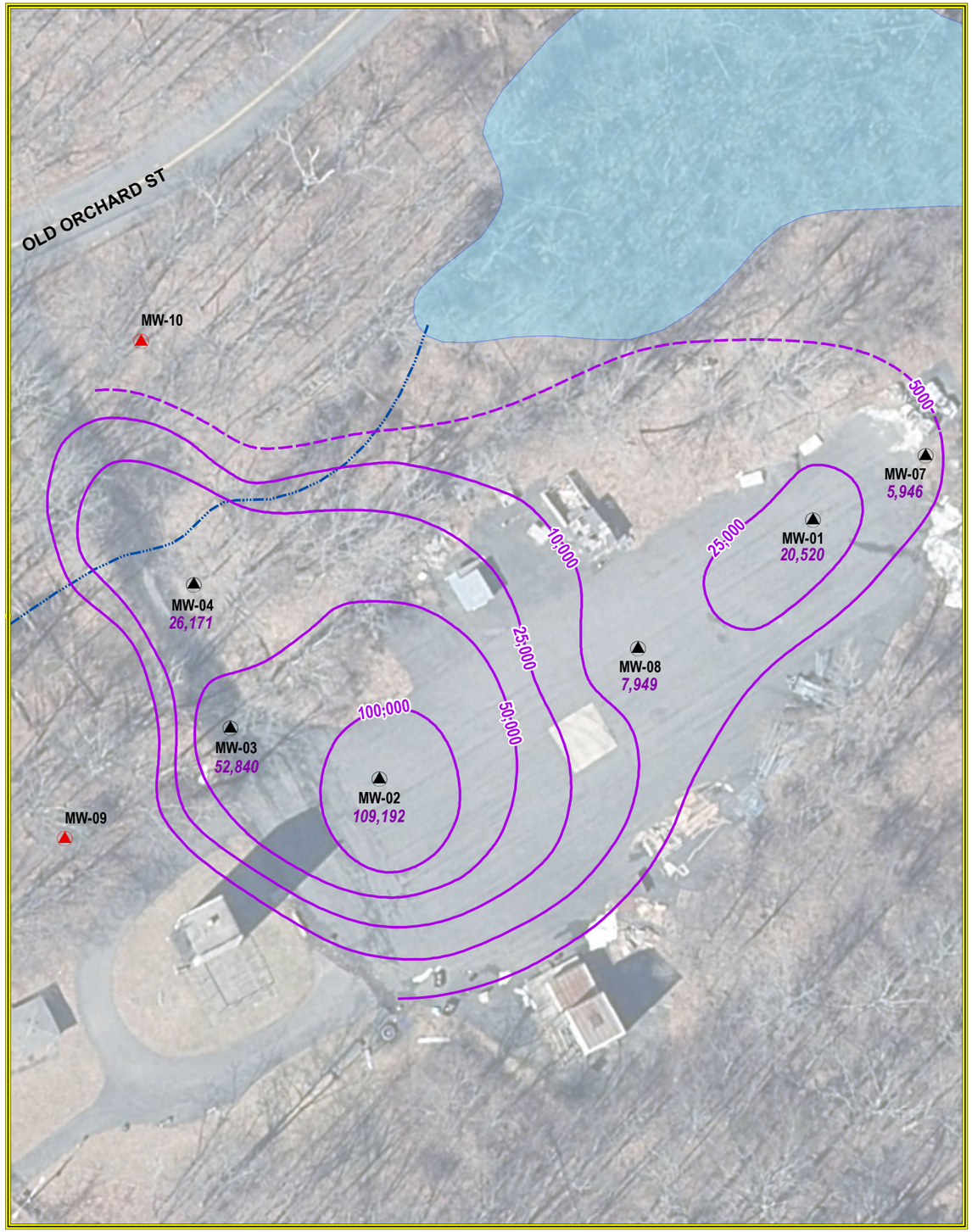
GROUNDWATER EXCEEDANCES FOR PFAS ABOVE NYSDEC AWQSGVS

DATE
1/21/2025

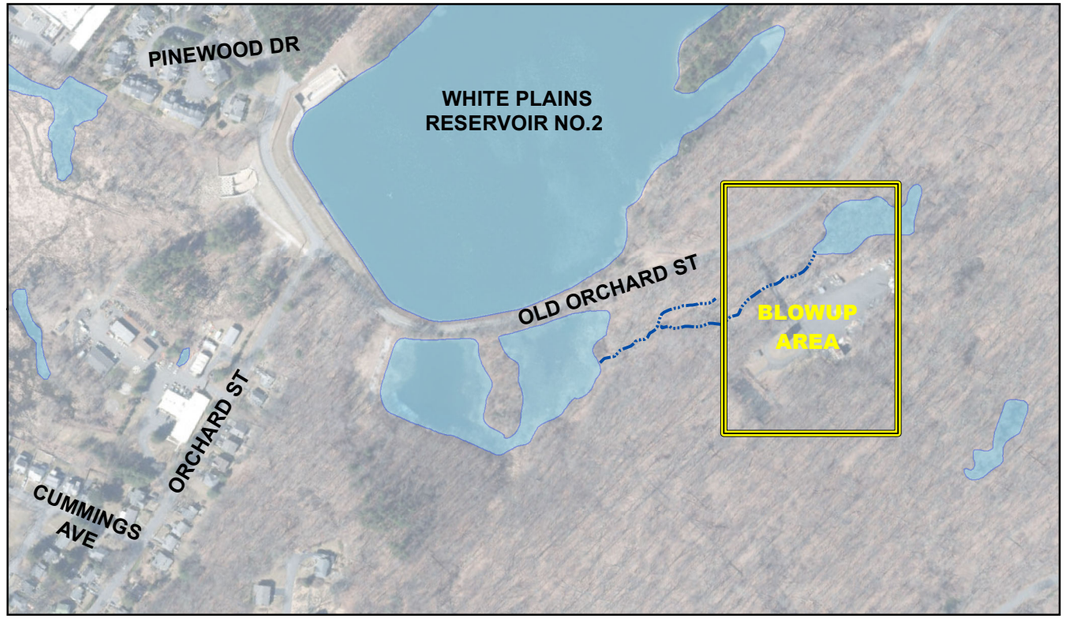
PROJECT NO.
200217

FIGURE
9

©2025 AKRF Q:\Projects\200217 - CITY OF WHITE PLAINS FD PFA SITE\Technical\GIS and Graphics\Hazmat\RIR\200217 Fig 9 Groundwater Exceedances for PFAS Above Proposed NYSDEC AWQSGVs.mxd 1/21/2025 4:23:22 PM mvelleux



Aerial Source: 2023 ESRI Imagery.



Key Map

Scale: 1" = 400'

LEGEND

- STREAM
- MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- TOTAL PFAS CONTOUR LINE (DASHED WHERE INFERRED) (MICROGRAMS PER KILOGRAM - µG/KG)

NOTE: MW-09 AND MW-10 ARE SCREENED WITHIN THE BEDROCK AQUIFER.

0 50 100

SCALE IN FEET

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White Plains Fire Department Drill School
White Plains, New York

OVERBURDEN GROUNDWATER TOTAL PFAS ISOCONTOUR MAP

DATE 12/18/2023

PROJECT NO. 200217

FIGURE 10

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ATTACHED TABLES

Table 8
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Groundwater Elevation Measurements

Monitor Well/Dam Piezometer ID	Location	Well Type and Setting	Date	Top of Casing (TOC) (feet elevation)	Depth to Water (feet below TOC)	Depth to Bottom (feet below TOC)	Water Table Elevation (feet below TOC)
MW-1	Fire Department Drill School	Overburden PVC Screen and Casing	5/7/2021	283.89	6.49	12.85	277.40
			10/24/2022		8.22	12.80	275.67
MW-2	Fire Department Drill School	Overburden PVC Screen and Casing	5/10/2021	280.93	1.11	10.97	279.82
			10/20/2022	Survey Pending	4.89	10.00	N/A
MW-3	Fire Department Drill School	Overburden PVC Screen and Casing	5/7/2021	278.82	0.75	12.88	278.07
			10/20/2022	Survey Pending	3.49	12.70	N/A
MW-4	Fire Department Drill School	Overburden PVC Screen and Casing	5/10/2021	280.77	5.87	13.08	274.90
			10/17/2022		6.38	13.25	274.39
MW-5	West of East Pond	Overburden PVC Screen and Casing	5/11/2021	245.63	11.06	18.10	234.57
			5/26/2021		10.81	18.10	234.82
			10/19/2022		10.56	18.05	235.07
MW-6	West of East Pond	Overburden PVC Screen and Casing	5/11/2021	246.08	9.56	13.95	236.52
			5/26/2021		9.34	13.95	236.74
			10/19/2022		9.60	13.87	236.48
MW-7	Fire Department Drill School	Overburden PVC Screen and Casing	10/20/2022	Survey Pending	8.82	20.58	N/A
MW-8	Fire Department Drill School	Overburden PVC Screen and Casing	10/20/2022	Survey Pending	6.21	16.64	N/A
MW-9	Fire Department Drill School	Bedrock PVC Screen and Casing	10/24/2022	Survey Pending	7.62	29.38	N/A
MW-10	Fire Department Drill School	Bedrock PVC Screen and Casing	10/24/2022	Survey Pending	6.52	27.75	N/A
MW-11	Fire Department Drill School	Bedrock PVC Screen and Casing	10/22/2024	Survey Pending	10.84	38.90	N/A
MW-12	West of East Pond	Bedrock PVC Screen and Casing	10/21/2024	Survey Pending	11.05	29.81	N/A
							Potentiomentric Surface Elevation (feet below TOC)
DP-02	West of Reservoir #2	Solid casing with open bottom	5/6/2021	244.73	15.27	27.34	229.46
			10/18/2022		15.56	32.68	229.17
DP-05	West of Reservoir #2	Solid casing with open bottom	5/6/2021	244.56	10.73	34.34	233.83
			10/18/2022		10.30	34.40	234.26
DP-08	West of Reservoir #2	Solid casing with open bottom	5/6/2021	244.77	10.60	22.64	234.17
			10/18/2022		10.67	22.30	234.10
DP-10	West of East Pond	Solid casing with open bottom	5/7/2021	243.00	7.74	16.93	235.26
			10/19/2022		7.51	16.90	235.49

Notes:
All elevations based on surveying activities refer to the North American Vertical Datum of 1988 (NAVD 88)
TOC - Top of Casing
Water Table elevations were not calculated for Dam Piezometers (DP) due to unknown piezometer construction
N/A - Not Available

Table 9
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		AKRF Sample ID	SB-01_0.2-1_20210419	SB-02_0.2-1_20210419	SB-03_0.2-1_20210419	SB-04_0.2-1_20210419
		Laboratory Sample ID	460-232416-12	460-232416-16	460-232416-18	460-232416-21
		Date Sampled	4/19/2021	4/19/2021	4/19/2021	4/19/2021
		Dilution Factor	1	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	0.67 J	2.32 U	1.21 J	NR
8:2 Fluorotelomer sulfonate	NS	NS	0.74 J	2.32 U	0.42 J	0.47 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.22 U	2.32 U	2.09 U	2.14 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.22 U	2.32 U	2.09 U	2.14 U
Perfluorobutanesulfonic acid	NS	NS	0.025 J	0.047 J	0.014 J	0.03 J
Perfluorobutanoic acid	NS	NS	0.56 U	0.19 J	0.31 J	0.63
Perfluorodecanesulfonic acid	NS	NS	0.055 J	0.23 U	0.023 J	0.055 J
Perfluorodecanoic acid	NS	NS	0.17 J	0.033 J	1.01	0.092 J
Perfluorododecanoic acid	NS	NS	0.085 J	0.23 U	0.64	0.051 J
Perfluoroheptanesulfonic acid	NS	NS	0.034 J	0.034 J	0.017 J	0.16 J
Perfluoroheptanoic acid	NS	NS	0.45	0.31	0.14 J	1.36
Perfluorohexanesulfonic acid	NS	NS	0.24	0.37	0.071 J	0.72
Perfluorohexanoic acid	NS	NS	0.31	0.38	0.13 J	2.33
Perfluorononanoic acid	NS	NS	0.21 J	0.053 J	0.21	0.057 J
Perfluorooctanesulfonic acid	440	1	8.56	2.7 J	0.89	12.9
Perfluorooctanoic acid	500	0.8	0.23	0.14 J	0.1 J	0.11 J
Perfluoropentanoic acid	NS	NS	0.36	0.82	0.37	2.81
Perfluorotetradecanoic acid	NS	NS	0.22 U	0.23 U	0.25	0.21 U
Perfluorotridecanoic acid	NS	NS	0.044 J	0.23 U	0.23	0.018 J
Perfluoroundecanoic acid	NS	NS	0.15 J	0.042 J	0.93	0.043 J
Perfluroroctanesulfonamide	NS	NS	0.049 J	0.23 U	0.027 J	0.27
Total PFAS	NS	NS	12.382	5.119	6.992	65.306

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		AKRF Sample ID	SB-04_0.2-1_20210419	SB-05_0.2-1_20210419	SB-05_0.2-1_20210419	SB-06_0.2-1_20210419
		Laboratory Sample ID	460-232416-21	460-232416-1	460-232416-1	460-232416-2
		Date Sampled	4/19/2021	4/19/2021	4/19/2021	4/19/2021
		Dilution Factor	10	1	20	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	43.2 D	2.11 J	NR	0.6 J
8:2 Fluorotelomer sulfonate	NS	NS	NR	0.59 J	NR	0.13 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	0.14 J	NR	0.061 J
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	0.13 J	NR	0.088 J
Perfluorobutanesulfonic acid	NS	NS	NR	0.41	NR	0.73
Perfluorobutanoic acid	NS	NS	NR	0.31 J	NR	0.17 J
Perfluorodecanesulfonic acid	NS	NS	NR	1.47	NR	0.79
Perfluorodecanoic acid	NS	NS	NR	0.17 J	NR	0.064 J
Perfluorododecanoic acid	NS	NS	NR	0.46	NR	0.16 J
Perfluoroheptanesulfonic acid	NS	NS	NR	2.22	NR	1.54
Perfluoroheptanoic acid	NS	NS	NR	0.22	NR	0.16 J
Perfluorohexanesulfonic acid	NS	NS	NR	9.14	NR	13.6
Perfluorohexanoic acid	NS	NS	NR	0.81	NR	0.75
Perfluorononanoic acid	NS	NS	NR	0.054 J	NR	0.048 J
Perfluorooctanesulfonic acid	440	1	NR	NR	252 D	NR
Perfluorooctanoic acid	500	0.8	NR	0.52	NR	0.4
Perfluoropentanoic acid	NS	NS	NR	0.37	NR	0.27
Perfluorotetradecanoic acid	NS	NS	NR	0.23	NR	0.024 J
Perfluorotridecanoic acid	NS	NS	NR	0.079 J	NR	0.032 J
Perfluoroundecanoic acid	NS	NS	NR	0.11 J	NR	0.068 J
Perfluroroctanesulfonamide	NS	NS	NR	8.01	NR	3.01
Total PFAS	NS	NS	NR	279.553	NR	199.695

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		AKRF Sample ID	SB-06_0.2-1_20210419	SB-07_0.2-1_20210419	SB-07_0.2-1_20210419	SB-08_0.2-1_20210419
		Laboratory Sample ID	460-232416-2	460-232416-3	460-232416-3	460-232416-4
		Date Sampled	4/19/2021	4/19/2021	4/19/2021	4/19/2021
		Dilution Factor	10	1	20	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	1.83 J	NR	0.72 J
8:2 Fluorotelomer sulfonate	NS	NS	NR	0.57 J	NR	0.12 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	0.23 J	NR	0.052 J
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	0.091 J	NR	0.057 J
Perfluorobutanesulfonic acid	NS	NS	NR	0.45	NR	0.68
Perfluorobutanoic acid	NS	NS	NR	0.24 J	NR	0.55 U
Perfluorodecanesulfonic acid	NS	NS	NR	2.01	NR	0.24
Perfluorodecanoic acid	NS	NS	NR	0.12 J	NR	0.082 J
Perfluorododecanoic acid	NS	NS	NR	0.26	NR	0.11 J
Perfluoroheptanesulfonic acid	NS	NS	NR	1.68	NR	1.25
Perfluoroheptanoic acid	NS	NS	NR	0.26	NR	0.18 J
Perfluorohexanesulfonic acid	NS	NS	NR	9.97	NR	14.4
Perfluorohexanoic acid	NS	NS	NR	1.14	NR	0.65
Perfluorononanoic acid	NS	NS	NR	0.061 J	NR	0.042 J
Perfluorooctanesulfonic acid	440	1	177 D	NR	244 D	NR
Perfluorooctanoic acid	500	0.8	NR	0.57	NR	0.46
Perfluoropentanoic acid	NS	NS	NR	0.37	NR	0.23
Perfluorotetradecanoic acid	NS	NS	NR	0.071 J	NR	0.03 J
Perfluorotridecanoic acid	NS	NS	NR	0.043 J	NR	0.02 J
Perfluoroundecanoic acid	NS	NS	NR	0.083 J	NR	0.045 J
Perfluroroctanesulfonamide	NS	NS	NR	7.74	NR	0.92
Total PFAS	NS	NS	NR	271.789	NR	83.488

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		AKRF Sample ID	SB-08_0.2-1_20210419	SB-08_5-6_20210419	SB-08_5-6_20210419	SB-09_0.2-1_20210419
		Laboratory Sample ID	460-232416-4	460-232416-6	460-232416-6	460-232416-7
		Date Sampled	4/19/2021	4/19/2021	4/19/2021	4/19/2021
		Dilution Factor	10	1	10	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	0.66 J	NR	1.78 J
8:2 Fluorotelomer sulfonate	NS	NS	NR	0.15 J	NR	0.59 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.31 U	NR	0.077 J
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	0.049 J	NR	0.092 J
Perfluorobutanesulfonic acid	NS	NS	NR	0.16 J	NR	0.34
Perfluorobutanoic acid	NS	NS	NR	0.58 U	NR	0.24 J
Perfluorodecanesulfonic acid	NS	NS	NR	0.13 J	NR	0.99
Perfluorodecanoic acid	NS	NS	NR	0.069 J	NR	0.69
Perfluorododecanoic acid	NS	NS	NR	0.23 U	NR	0.64
Perfluoroheptanesulfonic acid	NS	NS	NR	0.31	NR	1.53
Perfluoroheptanoic acid	NS	NS	NR	0.14 J	NR	0.7
Perfluorohexanesulfonic acid	NS	NS	NR	3.09	NR	7.34
Perfluorohexanoic acid	NS	NS	NR	0.44	NR	1.05
Perfluorononanoic acid	NS	NS	NR	0.037 J	NR	0.31
Perfluorooctanesulfonic acid	440	1	63.2 D	NR	30.7 D	NR
Perfluorooctanoic acid	500	0.8	NR	0.28	NR	0.57
Perfluoropentanoic acid	NS	NS	NR	0.2 J	NR	0.77
Perfluorotetradecanoic acid	NS	NS	NR	0.23 U	NR	0.31
Perfluorotridecanoic acid	NS	NS	NR	0.23 U	NR	0.11 J
Perfluoroundecanoic acid	NS	NS	NR	0.23 U	NR	0.29
Perfluroroctanesulfonamide	NS	NS	NR	0.73	NR	4.08
Total PFAS	NS	NS	NR	37.145	NR	365.499

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		AKRF Sample ID	SB-09_0.2-1_20210419	SB-09_6-7_20210419	SB-09_6-7_20210419	SB-09_6-7_20210419
		Laboratory Sample ID	460-232416-7	460-232416-8	460-232416-8	460-232416-8
		Date Sampled	4/19/2021	4/19/2021	4/19/2021	4/19/2021
		Dilution Factor	20	1	10	20
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	2.38 J	NR	NR
8:2 Fluorotelomer sulfonate	NS	NS	NR	0.18 J	NR	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.4 U	NR	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.4 U	NR	NR
Perfluorobutanesulfonic acid	NS	NS	NR	0.35	NR	NR
Perfluorobutanoic acid	NS	NS	NR	0.65	NR	NR
Perfluorodecanesulfonic acid	NS	NS	NR	0.24 U	NR	NR
Perfluorodecanoic acid	NS	NS	NR	0.039 J	NR	NR
Perfluorododecanoic acid	NS	NS	NR	0.039 J	NR	NR
Perfluoroheptanesulfonic acid	NS	NS	NR	18.6	NR	NR
Perfluoroheptanoic acid	NS	NS	NR	1.73	NR	NR
Perfluorohexanesulfonic acid	NS	NS	NR	NR	55.2 D	NR
Perfluorohexanoic acid	NS	NS	NR	2.07	NR	NR
Perfluorononanoic acid	NS	NS	NR	0.088 J	NR	NR
Perfluorooctanesulfonic acid	440	1	343 D	NR	NR	192 D
Perfluorooctanoic acid	500	0.8	NR	6.68	NR	NR
Perfluoropentanoic acid	NS	NS	NR	2.76	NR	NR
Perfluorotetradecanoic acid	NS	NS	NR	0.24 U	NR	NR
Perfluorotridecanoic acid	NS	NS	NR	0.24 U	NR	NR
Perfluoroundecanoic acid	NS	NS	NR	0.24 U	NR	NR
Perfluroroctanesulfonamide	NS	NS	NR	0.026 J	NR	NR
Total PFAS	NS	NS	NR	282.792	NR	NR

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		AKRF Sample ID	SB-10_0.2-1_20210419	SB-11_0.2-1_20210420	SB-11_4-5_20210420	SB-12_0-0.2_20210420
		Laboratory Sample ID	460-232416-9	460-232504-1	460-232504-3	460-232504-6
		Date Sampled	4/19/2021	4/20/2021	4/20/2021	4/20/2021
		Dilution Factor	1	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	1.09 J	0.58 J	0.63 J	7.72
8:2 Fluorotelomer sulfonate	NS	NS	2.89	0.43 J	2.23 U	4.93
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.6 U	2.04 U	2.23 U	0.084 J
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.6 U	2.04 U	2.23 U	0.077 J
Perfluorobutanesulfonic acid	NS	NS	0.028 J	0.2 U	0.22 U	0.24 U
Perfluorobutanoic acid	NS	NS	0.65 U	0.51 U	0.25 J	0.8
Perfluorodecanesulfonic acid	NS	NS	0.13 J	0.012 J	0.02 J	0.25
Perfluorodecanoic acid	NS	NS	0.36	0.16 J	0.033 J	2.79
Perfluorododecanoic acid	NS	NS	0.57	0.44	0.22 U	4.79
Perfluoroheptanesulfonic acid	NS	NS	0.066 J	0.029 J	0.051 J	0.16 J
Perfluoroheptanoic acid	NS	NS	0.18 J	0.14 J	0.54	0.79
Perfluorohexanesulfonic acid	NS	NS	0.64	0.11 J	0.33	1.9
Perfluorohexanoic acid	NS	NS	0.18 J	0.13 J	0.39	1.11
Perfluorononanoic acid	NS	NS	0.13 J	0.062 J	0.071 J	0.68
Perfluorooctanesulfonic acid	440	1	10.6	2.92	1.11	21.7
Perfluorooctanoic acid	500	0.8	0.14 J	0.12 J	0.28	0.86
Perfluoropentanoic acid	NS	NS	0.25 J	0.22	1.12	2.78
Perfluorotetradecanoic acid	NS	NS	0.099 J	0.29	0.22 U	2.79
Perfluorotridecanoic acid	NS	NS	0.082 J	0.18 J	0.22 U	1.15
Perfluoroundecanoic acid	NS	NS	0.23 J	0.084 J	0.032 J	2.95
Perfluroroctanesulfonamide	NS	NS	0.11 J	0.018 J	0.22 U	0.33
Total PFAS	NS	NS	17.775	5.925	4.857	58.641

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		AKRF Sample ID	SB-12_0.2-1_20210420	SB-12_0.2-1_20210420	SB-12_4-5_20210420	SB-12_4-5_20210420
		Laboratory Sample ID	460-232504-7	460-232504-7	460-232504-8	460-232504-8
		Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
		Dilution Factor	1	10	1	10
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	1.1 J	NR	4.91	NR
8:2 Fluorotelomer sulfonate	NS	NS	0.69 J	NR	3.06	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.23 U	NR	2.31 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.23 U	NR	0.071 J	NR
Perfluorobutanesulfonic acid	NS	NS	0.22 U	NR	0.23 U	NR
Perfluorobutanoic acid	NS	NS	0.56 U	NR	0.25 J	NR
Perfluorodecanesulfonic acid	NS	NS	0.16 J	NR	0.13 J	NR
Perfluorodecanoic acid	NS	NS	0.46	NR	0.73	NR
Perfluorododecanoic acid	NS	NS	0.22	NR	1.68	NR
Perfluoroheptanesulfonic acid	NS	NS	0.12 J	NR	0.22 J	NR
Perfluoroheptanoic acid	NS	NS	0.15 J	NR	0.31	NR
Perfluorohexanesulfonic acid	NS	NS	0.67	NR	1.17	NR
Perfluorohexanoic acid	NS	NS	0.18 J	NR	0.39	NR
Perfluorononanoic acid	NS	NS	0.15 J	NR	0.28	NR
Perfluorooctanesulfonic acid	440	1	NR	32.5 D	NR	26.4 D
Perfluorooctanoic acid	500	0.8	0.17 J	NR	0.35	NR
Perfluoropentanoic acid	NS	NS	0.28	NR	0.56	NR
Perfluorotetradecanoic acid	NS	NS	0.1 J	NR	1.13	NR
Perfluorotridecanoic acid	NS	NS	0.061 J	NR	0.51	NR
Perfluoroundecanoic acid	NS	NS	0.19 J	NR	0.72	NR
Perfluroroctanesulfonamide	NS	NS	0.15 J	NR	0.17 J	NR
Total PFAS	NS	NS	37.351	NR	43.041	NR

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		AKRF Sample ID	SB-13_0-0.2_20210420	SB-13_0-0.2_20210420	SB-13_0.2-1_20210420	SB-13_0.2-1_20210420
		Laboratory Sample ID	460-232504-9	460-232504-9	460-232504-10	460-232504-10
		Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
		Dilution Factor	1	10	1	10
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	8.8	NR	5.06	NR
8:2 Fluorotelomer sulfonate	NS	NS	18.7	NR	8.58	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	0.22 J	NR	3.26 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	1.62 J	NR	0.36 J	NR
Perfluorobutanesulfonic acid	NS	NS	0.87	NR	0.33 U	NR
Perfluorobutanoic acid	NS	NS	0.53 J	NR	0.35 J	NR
Perfluorodecanesulfonic acid	NS	NS	1.06	NR	1.01	NR
Perfluorodecanoic acid	NS	NS	4.15	NR	1.5	NR
Perfluorododecanoic acid	NS	NS	4.18	NR	1.01	NR
Perfluoroheptanesulfonic acid	NS	NS	1.09	NR	0.28 J	NR
Perfluoroheptanoic acid	NS	NS	0.78	NR	0.36	NR
Perfluorohexanesulfonic acid	NS	NS	11.7	NR	3.36	NR
Perfluorohexanoic acid	NS	NS	1.25	NR	0.6	NR
Perfluorononanoic acid	NS	NS	0.62	NR	0.26 J	NR
Perfluorooctanesulfonic acid	440	1	NR	114 D	NR	33.3 D
Perfluorooctanoic acid	500	0.8	1.14	NR	0.43	NR
Perfluoropentanoic acid	NS	NS	1.67	NR	0.78	NR
Perfluorotetradecanoic acid	NS	NS	1.33	NR	0.21 J	NR
Perfluorotridecanoic acid	NS	NS	0.88	NR	0.17 J	NR
Perfluoroundecanoic acid	NS	NS	2.91	NR	1.35	NR
Perfluoroctanesulfonamide	NS	NS	1.79	NR	1.5	NR
Total PFAS	NS	NS	179.29	NR	60.47	NR

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		AKRF Sample ID	SB-13_5-6_20210420	SB-13_5-6_20210420	SB-14_0-0.2_20210420	SB-14_0-0.2_20210420
		Laboratory Sample ID	460-232504-11	460-232504-11	460-232504-12	460-232504-12
		Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
		Dilution Factor	1	10	1	10
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	5	NR	14.6	NR
8:2 Fluorotelomer sulfonate	NS	NS	13.2	NR	9.42	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	0.075 J	NR	0.21 J	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	0.67 J	NR	0.35 J	NR
Perfluorobutanesulfonic acid	NS	NS	0.23 U	NR	0.28 U	NR
Perfluorobutanoic acid	NS	NS	0.3 J	NR	2.06	NR
Perfluorodecanesulfonic acid	NS	NS	0.99	NR	0.42	NR
Perfluorodecanoic acid	NS	NS	1.65	NR	6.94	NR
Perfluorododecanoic acid	NS	NS	1.68	NR	13.3	NR
Perfluoroheptanesulfonic acid	NS	NS	0.22 J	NR	0.27 J	NR
Perfluoroheptanoic acid	NS	NS	0.3	NR	1.55	NR
Perfluorohexanesulfonic acid	NS	NS	2.39	NR	3.53	NR
Perfluorohexanoic acid	NS	NS	0.53	NR	1.93	NR
Perfluorononanoic acid	NS	NS	0.26	NR	1.65	NR
Perfluorooctanesulfonic acid	440	1	NR	27.9 D	NR	24.7 D
Perfluorooctanoic acid	500	0.8	0.39	NR	2.05	NR
Perfluoropentanoic acid	NS	NS	0.86	NR	6.6	NR
Perfluorotetradecanoic acid	NS	NS	0.21 J	NR	8.73	NR
Perfluorotridecanoic acid	NS	NS	0.23	NR	3.47	NR
Perfluoroundecanoic acid	NS	NS	1.51	NR	7.25	NR
Perfluroroctanesulfonamide	NS	NS	1.23	NR	0.65	NR
Total PFAS	NS	NS	59.595	NR	109.68	NR

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		AKRF Sample ID	SB-14_0.2-1_20210420	SB-14_0.2-1_20210420	SB-14_4-5_20210420	SB-15_0-0.2_20210420
		Laboratory Sample ID	460-232504-13	460-232504-13	460-232504-14	460-232504-15
		Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
		Dilution Factor	1	10	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	1.61 J	NR	0.88 J	5.01
8:2 Fluorotelomer sulfonate	NS	NS	2.44	NR	0.19 J	6.01
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.33 U	NR	2.07 U	2.37 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.33 U	NR	2.07 U	0.067 J
Perfluorobutanesulfonic acid	NS	NS	0.23 U	NR	0.21 U	0.24 U
Perfluorobutanoic acid	NS	NS	0.58 U	NR	0.52 U	0.25 J
Perfluorodecanesulfonic acid	NS	NS	0.035 J	NR	0.21 U	0.22 J
Perfluorodecanoic acid	NS	NS	0.27	NR	0.037 J	0.84
Perfluorododecanoic acid	NS	NS	0.37	NR	0.023 J	1.92
Perfluoroheptanesulfonic acid	NS	NS	0.033 J	NR	0.15 J	0.26
Perfluoroheptanoic acid	NS	NS	0.14 J	NR	0.098 J	0.34
Perfluorohexanesulfonic acid	NS	NS	0.25	NR	0.7	1.86
Perfluorohexanoic acid	NS	NS	0.17 J	NR	0.23	0.52
Perfluorononanoic acid	NS	NS	0.097 J	NR	0.03 J	0.19 J
Perfluorooctanesulfonic acid	440	1	NR	21.3 D	9.37	NR
Perfluorooctanoic acid	500	0.8	0.12 J	NR	0.12 J	0.32
Perfluoropentanoic acid	NS	NS	0.29	NR	0.3	0.73
Perfluorotetradecanoic acid	NS	NS	0.3	NR	0.21 U	0.79
Perfluorotridecanoic acid	NS	NS	0.12 J	NR	0.21 U	0.42
Perfluoroundecanoic acid	NS	NS	0.099 J	NR	0.21 U	0.75
Perfluroroctanesulfonamide	NS	NS	0.084 J	NR	0.21 U	0.57
Total PFAS	NS	NS	27.728	NR	12.128	58.167

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		AKRF Sample ID	SB-15_0-0.2_20210420	SB-15_0.2-1_20210420	SB-15_0.2-1_20210420	SB-15_8-9_20210420
		Laboratory Sample ID	460-232504-15	460-232504-16	460-232504-16	460-232504-17
		Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
		Dilution Factor	10	1	10	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	1.57 J	NR	1.7 J
8:2 Fluorotelomer sulfonate	NS	NS	NR	1.85 J	NR	2.29 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.36 U	NR	2.29 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.36 U	NR	2.29 U
Perfluorobutanesulfonic acid	NS	NS	NR	0.24 U	NR	0.23 U
Perfluorobutanoic acid	NS	NS	NR	0.59 U	NR	0.21 J
Perfluorodecanesulfonic acid	NS	NS	NR	0.073 J	NR	0.23 U
Perfluorodecanoic acid	NS	NS	NR	0.83	NR	0.017 J
Perfluorododecanoic acid	NS	NS	NR	0.045 J	NR	0.23 U
Perfluoroheptanesulfonic acid	NS	NS	NR	0.14 J	NR	0.44
Perfluoroheptanoic acid	NS	NS	NR	0.28	NR	0.17 J
Perfluorohexanesulfonic acid	NS	NS	NR	0.7	NR	1.59
Perfluorohexanoic acid	NS	NS	NR	0.26	NR	0.28
Perfluorononanoic acid	NS	NS	NR	0.31	NR	0.04 J
Perfluorooctanesulfonic acid	440	1	37.1 D	NR	68.8 D	NR
Perfluorooctanoic acid	500	0.8	NR	0.37	NR	0.24
Perfluoropentanoic acid	NS	NS	NR	0.39	NR	0.48
Perfluorotetradecanoic acid	NS	NS	NR	0.24 U	NR	0.23 U
Perfluorotridecanoic acid	NS	NS	NR	0.24 U	NR	0.23 U
Perfluoroundecanoic acid	NS	NS	NR	0.074 J	NR	0.23 U
Perfluroroctanesulfonamide	NS	NS	NR	0.66	NR	0.23 U
Total PFAS	NS	NS	NR	76.352	NR	17.867

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		AKRF Sample ID	SB-15_8-9_20210420	SB-16_0.2-1_20210420	SB-16_0.2-1_20210420	SB-X04_0.2-1_20210420
		Laboratory Sample ID	460-232504-17	460-232504-4	460-232504-4	460-232504-5
		Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
		Dilution Factor	10	1	50	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	5.82	NR	6.97
8:2 Fluorotelomer sulfonate	NS	NS	NR	5.83	NR	8.72
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.4 U	NR	2.36 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	0.06 J	NR	0.092 J
Perfluorobutanesulfonic acid	NS	NS	NR	0.24 U	NR	0.24 U
Perfluorobutanoic acid	NS	NS	NR	0.37 J	NR	0.41 J
Perfluorodecanesulfonic acid	NS	NS	NR	0.74	NR	0.7
Perfluorodecanoic acid	NS	NS	NR	0.62	NR	0.95
Perfluorododecanoic acid	NS	NS	NR	1.7	NR	0.83
Perfluoroheptanesulfonic acid	NS	NS	NR	3.16	NR	3.34
Perfluoroheptanoic acid	NS	NS	NR	0.74	NR	0.66
Perfluorohexanesulfonic acid	NS	NS	NR	3.95	NR	4.84
Perfluorohexanoic acid	NS	NS	NR	1.01	NR	0.98
Perfluorononanoic acid	NS	NS	NR	0.37	NR	0.43
Perfluorooctanesulfonic acid	440	1	12.7 D	NR	410 D	NR
Perfluorooctanoic acid	500	0.8	NR	1.24	NR	1.25
Perfluoropentanoic acid	NS	NS	NR	1.41	NR	1.24
Perfluorotetradecanoic acid	NS	NS	NR	0.3	NR	0.16 J
Perfluorotridecanoic acid	NS	NS	NR	0.17 J	NR	0.086 J
Perfluoroundecanoic acid	NS	NS	NR	0.55	NR	0.44
Perfluroroctanesulfonamide	NS	NS	NR	0.51	NR	0.96
Total PFAS	NS	NS	NR	438.55	NR	389.058

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		AKRF Sample ID	SB-X04_0.2-1_20210420	SB-17_0.2-1_20210419	SB-17_0.2-1_20210419	SB-X01_0.2-1_20210419
		Laboratory Sample ID	460-232504-5	460-232416-14	460-232416-14	460-232416-15
		Date Sampled	4/20/2021	4/19/2021	4/19/2021	4/19/2021
		Dilution Factor	50	1	10	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	15.4	NR	19.6
8:2 Fluorotelomer sulfonate	NS	NS	NR	NR	28.9 D	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.18 U	NR	2.13 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.18 U	NR	2.13 U
Perfluorobutanesulfonic acid	NS	NS	NR	0.056 J	NR	0.033 J
Perfluorobutanoic acid	NS	NS	NR	0.75	NR	0.69
Perfluorodecanesulfonic acid	NS	NS	NR	0.076 J	NR	0.082 J
Perfluorodecanoic acid	NS	NS	NR	2.78	NR	3.29
Perfluorododecanoic acid	NS	NS	NR	2.82	NR	2.56
Perfluoroheptanesulfonic acid	NS	NS	NR	0.1 J	NR	0.075 J
Perfluoroheptanoic acid	NS	NS	NR	0.85	NR	0.72
Perfluorohexanesulfonic acid	NS	NS	NR	1.05	NR	0.89
Perfluorohexanoic acid	NS	NS	NR	1.16	NR	1.06
Perfluorononanoic acid	NS	NS	NR	0.52	NR	0.43
Perfluorooctanesulfonic acid	440	1	356 D	13.2	NR	10.8
Perfluorooctanoic acid	500	0.8	NR	0.8	NR	0.67
Perfluoropentanoic acid	NS	NS	NR	1.8	NR	1.7
Perfluorotetradecanoic acid	NS	NS	NR	1.39	NR	0.86
Perfluorotridecanoic acid	NS	NS	NR	0.68	NR	0.53
Perfluoroundecanoic acid	NS	NS	NR	2.03	NR	2.32
Perfluroroctanesulfonamide	NS	NS	NR	0.056 J	NR	0.043 J
Total PFAS	NS	NS	NR	74.418	NR	83.753

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		AKRF Sample ID	SB-X01_0.2-1_20210419	SB-19_7-8_20210504	SB-X01_7-8_20210504	SB-20_8-9_20210504
		Laboratory Sample ID	460-232416-15	460-233561-1	460-233561-3	460-233561-2
		Date Sampled	4/19/2021	5/04/2021	5/04/2021	5/04/2021
		Dilution Factor	10	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	2.43 U	2.4 U	2.11 U
8:2 Fluorotelomer sulfonate	NS	NS	37.4 D	2.43 U	2.4 U	2.11 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.43 U	2.4 U	2.11 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.43 U	2.4 U	2.11 UJ
Perfluorobutanesulfonic acid	NS	NS	NR	0.021 J	0.018 J	0.21 U
Perfluorobutanoic acid	NS	NS	NR	0.26 J	0.27 J	0.53 U
Perfluorodecanesulfonic acid	NS	NS	NR	0.24 U	0.24 U	0.21 U
Perfluorodecanoic acid	NS	NS	NR	0.24 UJ	0.016 J	0.21 UJ
Perfluorododecanoic acid	NS	NS	NR	0.24 U	0.24 U	0.21 UJ
Perfluoroheptanesulfonic acid	NS	NS	NR	0.026 J	0.019 J	0.21 UJ
Perfluoroheptanoic acid	NS	NS	NR	0.22 J	0.24	0.21 U
Perfluorohexanesulfonic acid	NS	NS	NR	0.1 J	0.11 J	0.21 U
Perfluorohexanoic acid	NS	NS	NR	0.17 J	0.17 J	0.21 U
Perfluorononanoic acid	NS	NS	NR	0.071 J	0.082 J	0.21 U
Perfluorooctanesulfonic acid	440	1	NR	2.44	1.19	0.21 U
Perfluorooctanoic acid	500	0.8	NR	1.14	1.63	0.21 UJ
Perfluoropentanoic acid	NS	NS	NR	0.12 J	0.14 J	0.21 U
Perfluorotetradecanoic acid	NS	NS	NR	0.24 U	0.24 U	0.21 UJ
Perfluorotridecanoic acid	NS	NS	NR	0.24 U	0.24 U	0.21 UJ
Perfluoroundecanoic acid	NS	NS	NR	0.24 U	0.24 U	0.21 U
Perfluroroctanesulfonamide	NS	NS	NR	0.24 U	0.24 U	0.21 UJ
Total PFAS	NS	NS	NR	4.568	3.885	0

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		AKRF Sample ID	RI-SB-21_0-0.2_20221004	RI-SB-21_0.2-1_20221004	RI-SB-21_1-2_20221004	RI-SB-22_0-0.2_20221004
		Laboratory Sample ID	460-266816-4	460-266816-5	460-266816-6	460-266816-7
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
		Dilution Factor	1	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	1.55 J	0.087 J	1.08 J	0.2 J
8:2 Fluorotelomer sulfonate	NS	NS	0.77 J	0.11 J	1.85 J	0.11 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	3.41 U	2.18 U	2.03 U	3.7 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	3.41 U	2.18 U	2.03 U	3.7 U
Perfluorobutanesulfonic acid	NS	NS	0.057 J	0.22 U	0.2 U	0.064 J
Perfluorobutanoic acid	NS	NS	1.84	0.55 U	0.51 U	1.58
Perfluorodecanesulfonic acid	NS	NS	0.47	0.22 U	0.2 U	0.073 J
Perfluorodecanoic acid	NS	NS	3.32	0.053 J	0.043 J	1.71
Perfluorododecanoic acid	NS	NS	4.1	0.04 J	0.19 J	1.06
Perfluoroheptanesulfonic acid	NS	NS	0.057 J	0.22 U	0.2 U	0.37 U
Perfluoroheptanoic acid	NS	NS	1.55	0.047 J	0.2 U	0.93
Perfluorohexanesulfonic acid	NS	NS	1.05	0.06 J	0.2 U	0.39
Perfluorohexanoic acid	NS	NS	1.96	0.05 J	0.2 U	1.28
Perfluorononanoic acid	NS	NS	1.45	0.22 U	0.2 U	0.83
Perfluorooctanesulfonic acid	440	1	8.65	0.5	0.2	5.15
Perfluorooctanoic acid	500	0.8	1.99	0.22 U	0.2 U	0.88
Perfluoropentanoic acid	NS	NS	4.94	0.17 J	0.081 J	3.57
Perfluorotetradecanoic acid	NS	NS	1.66	0.22 U	0.069 J	0.52
Perfluorotridecanoic acid	NS	NS	1.17	0.22 U	0.043 J	0.45
Perfluoroundecanoic acid	NS	NS	3.47	0.043 J	0.046 J	1.51
Perfluroroctanesulfonamide	NS	NS	0.069 J	0.22 U	0.2 U	0.37 U
Total PFAS	NS	NS	40.123	1.16	3.602	20.307

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		AKRF Sample ID	RI-SB-22_0.2-1_20221004	RI-SB-22_1-2_20221004	RI-SB-23_0-0.2_20221004	RI-SB-23_0.2-1_20221004
		Laboratory Sample ID	460-266816-8	460-266816-9	460-266816-26	460-266816-27
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
		Dilution Factor	1	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.13 U	2.09 U	0.37 J	0.091 J
8:2 Fluorotelomer sulfonate	NS	NS	2.13 U	0.043 J	0.5 J	0.13 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.13 U	2.09 U	2.38 U	2.18 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.13 U	2.09 U	2.38 U	2.18 U
Perfluorobutanesulfonic acid	NS	NS	0.21 U	0.21 U	0.24 U	0.22 U
Perfluorobutanoic acid	NS	NS	0.35 J	0.52 U	1.1	0.62
Perfluorodecanesulfonic acid	NS	NS	0.21 U	0.21 U	0.1 J	0.067 J
Perfluorodecanoic acid	NS	NS	0.21 U	0.065 J	1.97	0.76
Perfluorododecanoic acid	NS	NS	0.21 U	0.21 U	1.23	0.43
Perfluoroheptanesulfonic acid	NS	NS	0.21 U	0.21 U	0.039 J	0.22 U
Perfluoroheptanoic acid	NS	NS	0.16 J	0.12 J	0.96	0.44
Perfluorohexanesulfonic acid	NS	NS	0.21 U	0.046 J	0.26	0.16 J
Perfluorohexanoic acid	NS	NS	0.22	0.13 J	1.31	0.59
Perfluorononanoic acid	NS	NS	0.095 J	0.077 J	1.09	0.6
Perfluorooctanesulfonic acid	440	1	0.84	0.46	4.05	2.36
Perfluorooctanoic acid	500	0.8	0.099 J	0.094 J	0.79	0.37
Perfluoropentanoic acid	NS	NS	0.63	0.39	2.76	1.46
Perfluorotetradecanoic acid	NS	NS	0.21 U	0.21 U	0.42	0.13 J
Perfluorotridecanoic acid	NS	NS	0.21 U	0.21 U	0.41	0.14 J
Perfluoroundecanoic acid	NS	NS	0.21 U	0.048 J	2.22	0.72
Perfluroroctanesulfonamide	NS	NS	0.21 U	0.21 U	0.24 U	0.22 U
Total PFAS	NS	NS	2.394	1.473	19.579	9.068

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		AKRF Sample ID	RI-SB-23_1-2_20221004	RI-SB-24_0-0.2_20221004	RI-SB-24_0-0.2_20221004	RI-SB-24_0.2-1_20221004
		Laboratory Sample ID	460-266816-28	460-266816-23	460-266816-23	460-266816-24
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
		Dilution Factor	1	1	5	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	0.091 J	1.72 J	NR	0.82 J
8:2 Fluorotelomer sulfonate	NS	NS	0.11 J	3.94	NR	1.61 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.1 U	2.14 U	NR	2.16 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.1 U	2.14 U	NR	2.16 U
Perfluorobutanesulfonic acid	NS	NS	0.21 U	0.21 U	NR	0.22 U
Perfluorobutanoic acid	NS	NS	0.5 J	0.58	NR	0.54 U
Perfluorodecanesulfonic acid	NS	NS	0.093 J	0.27	NR	0.11 J
Perfluorodecanoic acid	NS	NS	0.61	2.32	NR	0.99
Perfluorododecanoic acid	NS	NS	0.29	1.53	NR	0.63
Perfluoroheptanesulfonic acid	NS	NS	0.21 U	0.19 J	NR	0.093 J
Perfluoroheptanoic acid	NS	NS	0.35	0.64	NR	0.34
Perfluorohexanesulfonic acid	NS	NS	0.2 J	1.95	NR	0.92
Perfluorohexanoic acid	NS	NS	0.49	0.71	NR	0.39
Perfluorononanoic acid	NS	NS	0.52	0.59	NR	0.28
Perfluorooctanesulfonic acid	440	1	2.73	NR	47.1	NR
Perfluorooctanoic acid	500	0.8	0.33	0.61	NR	0.3
Perfluoropentanoic acid	NS	NS	1.3	1.4	NR	0.83
Perfluorotetradecanoic acid	NS	NS	0.096 J	0.43	NR	0.16 J
Perfluorotridecanoic acid	NS	NS	0.11 J	0.3	NR	0.12 J
Perfluoroundecanoic acid	NS	NS	0.5	2.69	NR	1.14
Perfluroroctanesulfonamide	NS	NS	0.21 U	0.099 J	NR	0.22 U
Total PFAS	NS	NS	8.32	67.069	NR	31.133

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		AKRF Sample ID	RI-SB-24_0.2-1_20221004	RI-SB-24_1-2_20221004	RI-SB-25_0.2-1_20221003	RI-SB-25_1-2_20221003
		Laboratory Sample ID	460-266816-24	460-266816-25	460-266738-14	460-266738-15
		Date Sampled	10/04/2022	10/04/2022	10/03/2022	10/03/2022
		Dilution Factor	2	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	1.02 J	1.17 J	0.65 J
8:2 Fluorotelomer sulfonate	NS	NS	NR	2.26	2.39	0.44 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.15 U	2 U	2.07 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.15 U	2 U	2.07 U
Perfluorobutanesulfonic acid	NS	NS	NR	0.22 U	0.2 U	0.21 U
Perfluorobutanoic acid	NS	NS	NR	0.54 U	0.47 J	0.38 J
Perfluorodecanesulfonic acid	NS	NS	NR	0.098 J	0.2 U	0.038 J
Perfluorodecanoic acid	NS	NS	NR	0.69	2.15	0.25
Perfluorododecanoic acid	NS	NS	NR	0.64	1.03	0.065 J
Perfluoroheptanesulfonic acid	NS	NS	NR	0.052 J	0.2 U	0.097 J
Perfluoroheptanoic acid	NS	NS	NR	0.24	3.17	1.36
Perfluorohexanesulfonic acid	NS	NS	NR	0.62	0.35	0.91
Perfluorohexanoic acid	NS	NS	NR	0.27	1.8	0.74
Perfluorononanoic acid	NS	NS	NR	0.19 J	2.54	0.57
Perfluorooctanesulfonic acid	440	1	22.4	11.9	2.41	NR
Perfluorooctanoic acid	500	0.8	NR	0.21 J	2.53	1.53
Perfluoropentanoic acid	NS	NS	NR	0.56	2.32	1.57
Perfluorotetradecanoic acid	NS	NS	NR	0.15 J	0.44	0.03 J
Perfluorotridecanoic acid	NS	NS	NR	0.12 J	0.15 J	0.034 J
Perfluoroundecanoic acid	NS	NS	NR	0.85	0.54	0.08 J
Perfluroroctanesulfonamide	NS	NS	NR	0.04 J	0.2 U	0.21 U
Total PFAS	NS	NS	NR	19.91	23.46	31.744

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		AKRF Sample ID	RI-SB-25_1-2_20221003	RI-SB-25_15-16_20221003	RI-SB-26_0.2-1_20221003	RI-SB-26_0.2-1_20221003
		Laboratory Sample ID	460-266738-15	460-266738-16	460-266738-11	460-266738-11
		Date Sampled	10/03/2022	10/03/2022	10/03/2022	10/03/2022
		Dilution Factor	10	1	1	10
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	1.1 J	0.27 J	NR
8:2 Fluorotelomer sulfonate	NS	NS	NR	5.07 U	0.21 J	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	5.07 U	1.99 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	5.07 U	1.99 U	NR
Perfluorobutanesulfonic acid	NS	NS	NR	0.18 J	0.085 J	NR
Perfluorobutanoic acid	NS	NS	NR	1.27 U	0.5 U	NR
Perfluorodecanesulfonic acid	NS	NS	NR	0.51 U	0.27	NR
Perfluorodecanoic acid	NS	NS	NR	0.51 U	0.14 J	NR
Perfluorododecanoic acid	NS	NS	NR	0.51 U	0.27	NR
Perfluoroheptanesulfonic acid	NS	NS	NR	0.51 U	0.15 J	NR
Perfluoroheptanoic acid	NS	NS	NR	0.52	0.17 J	NR
Perfluorohexanesulfonic acid	NS	NS	NR	3.88	1.43	NR
Perfluorohexanoic acid	NS	NS	NR	0.8	0.33	NR
Perfluorononanoic acid	NS	NS	NR	0.51 U	0.15 J	NR
Perfluorooctanesulfonic acid	440	1	23	0.51 U	NR	21.2
Perfluorooctanoic acid	500	0.8	NR	0.33 J	0.21	NR
Perfluoropentanoic acid	NS	NS	NR	1.15	0.31	NR
Perfluorotetradecanoic acid	NS	NS	NR	0.51 U	0.17 J	NR
Perfluorotridecanoic acid	NS	NS	NR	0.51 U	0.1 J	NR
Perfluoroundecanoic acid	NS	NS	NR	0.51 U	0.076 J	NR
Perfluroroctanesulfonamide	NS	NS	NR	0.51 U	0.33	NR
Total PFAS	NS	NS	NR	7.96	25.871	NR

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		AKRF Sample ID	RI-SB-26_1-2_20221003	RI-SB-26_1-2_20221003	RI-SB-26_10-11_20221003	RI-SB-26_10-11_20221003
		Laboratory Sample ID	460-266738-12	460-266738-12	460-266738-13	460-266738-13
		Date Sampled	10/03/2022	10/03/2022	10/03/2022	10/03/2022
		Dilution Factor	1	10	1	10
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	0.23 J	NR	0.37 J	NR
8:2 Fluorotelomer sulfonate	NS	NS	0.16 J	NR	1.94 J	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.15 U	NR	2.4 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.15 U	NR	2.4 U	NR
Perfluorobutanesulfonic acid	NS	NS	0.21 U	NR	0.24 U	NR
Perfluorobutanoic acid	NS	NS	0.54 U	NR	0.6 U	NR
Perfluorodecanesulfonic acid	NS	NS	0.36	NR	0.24 U	NR
Perfluorodecanoic acid	NS	NS	0.098 J	NR	0.21 J	NR
Perfluorododecanoic acid	NS	NS	0.11 J	NR	0.24 U	NR
Perfluoroheptanesulfonic acid	NS	NS	0.11 J	NR	0.11 J	NR
Perfluoroheptanoic acid	NS	NS	0.14 J	NR	0.24 U	NR
Perfluorohexanesulfonic acid	NS	NS	0.79	NR	0.35	NR
Perfluorohexanoic acid	NS	NS	0.18 J	NR	0.07 J	NR
Perfluorononanoic acid	NS	NS	0.069 J	NR	0.058 J	NR
Perfluorooctanesulfonic acid	440	1	NR	22.3	NR	31.8
Perfluorooctanoic acid	500	0.8	0.071 J	NR	0.24 U	NR
Perfluoropentanoic acid	NS	NS	0.19 J	NR	0.087 J	NR
Perfluorotetradecanoic acid	NS	NS	0.064 J	NR	0.24 U	NR
Perfluorotridecanoic acid	NS	NS	0.037 J	NR	0.24 U	NR
Perfluoroundecanoic acid	NS	NS	0.071 J	NR	0.24 U	NR
Perfluroroctanesulfonamide	NS	NS	0.29	NR	0.24 U	NR
Total PFAS	NS	NS	25.27	NR	34.995	NR

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		AKRF Sample ID	RI-SB-27_0.2-1_20221004	RI-SB-27_0.2-1_20221004	RI-SB-X01_20221004	RI-SB-27_1-2_20221004
		Laboratory Sample ID	460-266816-1	460-266816-1	460-266816-3	460-266816-2
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
		Dilution Factor	1	10	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	0.98 J	NR	0.72 J	1.52 J
8:2 Fluorotelomer sulfonate	NS	NS	0.42 J	NR	0.18 J	1.31 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.06 U	NR	2.05 U	2.11 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.06 U	NR	2.05 U	2.11 U
Perfluorobutanesulfonic acid	NS	NS	0.13 J	NR	0.11 J	0.091 J
Perfluorobutanoic acid	NS	NS	0.51 U	NR	0.51 U	0.53 U
Perfluorodecanesulfonic acid	NS	NS	0.13 J	NR	0.052 J	0.15 J
Perfluorodecanoic acid	NS	NS	0.22	NR	0.095 J	0.59
Perfluorododecanoic acid	NS	NS	0.28	NR	0.11 J	0.057 J
Perfluoroheptanesulfonic acid	NS	NS	0.25	NR	0.093 J	0.62
Perfluoroheptanoic acid	NS	NS	0.15 J	NR	0.2 J	0.13 J
Perfluorohexanesulfonic acid	NS	NS	2.22	NR	0.96	4.13
Perfluorohexanoic acid	NS	NS	0.37	NR	0.48	0.33
Perfluorononanoic acid	NS	NS	0.061 J	NR	0.045 J	0.078 J
Perfluorooctanesulfonic acid	440	1	NR	28.3	10.7	NR
Perfluorooctanoic acid	500	0.8	0.12 J	NR	0.1 J	0.15 J
Perfluoropentanoic acid	NS	NS	0.48	NR	0.63	0.42
Perfluorotetradecanoic acid	NS	NS	0.17 J	NR	0.076 J	0.038 J
Perfluorotridecanoic acid	NS	NS	0.076 J	NR	0.032 J	0.21 U
Perfluoroundecanoic acid	NS	NS	0.1 J	NR	0.041 J	0.052 J
Perfluroroctanesulfonamide	NS	NS	0.36	NR	0.1 J	0.38
Total PFAS	NS	NS	34.817	NR	14.724	123.046

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		AKRF Sample ID	RI-SB-27_1-2_20221004	RI-SB-28_0.2-1_20221003	RI-SB-X_20221003	RI-SB-28_1-2_20221003
		Laboratory Sample ID	460-266816-2	460-266738-1	460-266738-7	460-266738-2
		Date Sampled	10/04/2022	10/03/2022	10/03/2022	10/03/2022
		Dilution Factor	10	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	0.31 J	0.3 J	1 J
8:2 Fluorotelomer sulfonate	NS	NS	NR	0.27 J	0.24 J	0.48 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.03 U	2.04 U	0.18 J
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.03 U	2.04 U	2.11 U
Perfluorobutanesulfonic acid	NS	NS	NR	0.2 U	0.2 U	0.17 J
Perfluorobutanoic acid	NS	NS	NR	0.51 U	0.51 U	0.53 U
Perfluorodecanesulfonic acid	NS	NS	NR	0.2 U	0.2 U	2.56
Perfluorodecanoic acid	NS	NS	NR	0.49	0.44	0.15 J
Perfluorododecanoic acid	NS	NS	NR	0.41	0.35	0.15 J
Perfluoroheptanesulfonic acid	NS	NS	NR	0.049 J	0.042 J	0.84
Perfluoroheptanoic acid	NS	NS	NR	0.63	0.53	0.33
Perfluorohexanesulfonic acid	NS	NS	NR	0.36	0.39	4.49
Perfluorohexanoic acid	NS	NS	NR	0.3	0.27	0.57
Perfluorononanoic acid	NS	NS	NR	0.35	0.34	0.12 J
Perfluorooctanesulfonic acid	440	1	113	6.25	5.51	NR
Perfluorooctanoic acid	500	0.8	NR	0.33	0.31	0.33
Perfluoropentanoic acid	NS	NS	NR	0.43	0.39	0.38
Perfluorotetradecanoic acid	NS	NS	NR	0.18 J	0.16 J	0.21 U
Perfluorotridecanoic acid	NS	NS	NR	0.084 J	0.066 J	0.21 U
Perfluoroundecanoic acid	NS	NS	NR	0.19 J	0.15 J	0.068 J
Perfluroroctanesulfonamide	NS	NS	NR	0.2 U	0.035 J	2.92
Total PFAS	NS	NS	NR	10.633	9.523	143.738

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		AKRF Sample ID	RI-SB-28_1-2_20221003	RI-SB-28_10-11_20221003	RI-SB-28_10-11_20221003	RI-SB-29_0-0.2_20221004
		Laboratory Sample ID	460-266738-2	460-266738-3	460-266738-3	460-266816-19
		Date Sampled	10/03/2022	10/03/2022	10/03/2022	10/04/2022
		Dilution Factor	10	1	10	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	0.37 J	NR	2.59 U
8:2 Fluorotelomer sulfonate	NS	NS	NR	0.052 J	NR	0.059 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.16 U	NR	2.59 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.16 U	NR	2.59 U
Perfluorobutanesulfonic acid	NS	NS	NR	0.062 J	NR	0.26 U
Perfluorobutanoic acid	NS	NS	NR	0.54 U	NR	1.25
Perfluorodecanesulfonic acid	NS	NS	NR	0.22 U	NR	0.035 J
Perfluorodecanoic acid	NS	NS	NR	0.22 U	NR	0.19 J
Perfluorododecanoic acid	NS	NS	NR	0.22 U	NR	0.17 J
Perfluoroheptanesulfonic acid	NS	NS	NR	0.5	NR	0.26 U
Perfluoroheptanoic acid	NS	NS	NR	0.17 J	NR	0.26
Perfluorohexanesulfonic acid	NS	NS	NR	1.75	NR	0.14 J
Perfluorohexanoic acid	NS	NS	NR	0.26	NR	0.39
Perfluorononanoic acid	NS	NS	NR	0.22 U	NR	0.27
Perfluorooctanesulfonic acid	440	1	129	NR	47.7	3.93
Perfluorooctanoic acid	500	0.8	NR	0.18 J	NR	0.29
Perfluoropentanoic acid	NS	NS	NR	0.26	NR	1.82
Perfluorotetradecanoic acid	NS	NS	NR	0.22 U	NR	0.065 J
Perfluorotridecanoic acid	NS	NS	NR	0.22 U	NR	0.12 J
Perfluoroundecanoic acid	NS	NS	NR	0.22 U	NR	0.34
Perfluroroctanesulfonamide	NS	NS	NR	0.22 U	NR	0.26 U
Total PFAS	NS	NS	NR	51.304	NR	9.329

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		AKRF Sample ID	RI-SB-X02_20221004	RI-SB-29_0.2-1_20221004	RI-SB-29_1-2_20221004	RI-SB-30_0-0.2_20221004
		Laboratory Sample ID	460-266816-22	460-266816-20	460-266816-21	460-266816-16
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
		Dilution Factor	1	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.55 U	1.99 U	0.081 J	0.11 J
8:2 Fluorotelomer sulfonate	NS	NS	0.057 J	1.99 U	0.059 J	0.15 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.55 U	1.99 U	2.07 U	2.65 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.55 U	1.99 U	2.07 U	2.65 U
Perfluorobutanesulfonic acid	NS	NS	0.046 J	0.2 U	0.21 U	0.046 J
Perfluorobutanoic acid	NS	NS	1.1	0.5 U	0.52 U	1.41
Perfluorodecanesulfonic acid	NS	NS	0.038 J	0.2 U	0.21 U	0.16 J
Perfluorodecanoic acid	NS	NS	0.19 J	0.2 U	0.045 J	0.23 J
Perfluorododecanoic acid	NS	NS	0.19 J	0.2 U	0.21 U	0.25 J
Perfluoroheptanesulfonic acid	NS	NS	0.26 U	0.2 U	0.032 J	0.058 J
Perfluoroheptanoic acid	NS	NS	0.28	0.082 J	0.1 J	0.43
Perfluorohexanesulfonic acid	NS	NS	0.13 J	0.06 J	0.27	0.63
Perfluorohexanoic acid	NS	NS	0.37	0.14 J	0.14 J	0.5
Perfluorononanoic acid	NS	NS	0.28	0.04 J	0.042 J	0.65
Perfluorooctanesulfonic acid	440	1	4.04	0.6	3.81	12.4
Perfluorooctanoic acid	500	0.8	0.26	0.083 J	0.21 U	0.53
Perfluoropentanoic acid	NS	NS	1.61	0.26	0.29	2.27
Perfluorotetradecanoic acid	NS	NS	0.079 J	0.2 U	0.21 U	0.13 J
Perfluorotridecanoic acid	NS	NS	0.13 J	0.2 U	0.21 U	0.16 J
Perfluoroundecanoic acid	NS	NS	0.34	0.2 U	0.21 U	0.48
Perfluroroctanesulfonamide	NS	NS	0.26 U	0.2 U	0.21 U	0.27 U
Total PFAS	NS	NS	9.14	1.265	4.869	20.594

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		AKRF Sample ID	RI-SB-30_0.2-1_20221004	RI-SB-30_0.2-1_20221004	RI-SB-30_1-2_20221004	RI-SB-31_0-0.2_20221004
		Laboratory Sample ID	460-266816-17	460-266816-17	460-266816-18	460-266816-13
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
		Dilution Factor	1	5	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.15 U	NR	0.099 J	2.01 J
8:2 Fluorotelomer sulfonate	NS	NS	2.15 U	NR	2.06 U	3.19
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.15 U	NR	2.06 U	2.11 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.15 U	NR	2.06 U	2.11 U
Perfluorobutanesulfonic acid	NS	NS	0.21 U	NR	0.21 U	0.21 U
Perfluorobutanoic acid	NS	NS	0.86	NR	0.51 U	0.72
Perfluorodecanesulfonic acid	NS	NS	0.21 U	NR	0.21 U	0.14 J
Perfluorodecanoic acid	NS	NS	0.063 J	NR	0.21 U	2.86
Perfluorododecanoic acid	NS	NS	0.21 U	NR	0.21 U	0.51
Perfluoroheptanesulfonic acid	NS	NS	0.059 J	NR	0.029 J	0.046 J
Perfluoroheptanoic acid	NS	NS	0.51	NR	0.27	0.67
Perfluorohexanesulfonic acid	NS	NS	0.29	NR	0.51	0.65
Perfluorohexanoic acid	NS	NS	0.42	NR	0.23	0.66
Perfluorononanoic acid	NS	NS	0.63	NR	0.074 J	0.77
Perfluorooctanesulfonic acid	440	1	NR	40.3	9.45	5.69
Perfluorooctanoic acid	500	0.8	0.53	NR	0.16 J	0.87
Perfluoropentanoic acid	NS	NS	1.42	NR	0.43	2.21
Perfluorotetradecanoic acid	NS	NS	0.21 U	NR	0.21 U	0.17 J
Perfluorotridecanoic acid	NS	NS	0.21 U	NR	0.21 U	0.16 J
Perfluoroundecanoic acid	NS	NS	0.036 J	NR	0.21 U	1.82
Perfluroroctanesulfonamide	NS	NS	0.21 U	NR	0.21 U	0.11 J
Total PFAS	NS	NS	45.118	NR	11.252	23.256

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		AKRF Sample ID	RI-SB-31_0.2-1_20221004	RI-SB-31_0.2-1_20221004	RI-SB-31_1-2_20221004	RI-SB-31_1-2_20221004
		Laboratory Sample ID	460-266816-14	460-266816-14	460-266816-15	460-266816-15
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
		Dilution Factor	1	5	1	10
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	4.68	NR	3.15	NR
8:2 Fluorotelomer sulfonate	NS	NS	0.71 J	NR	0.074 J	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.36 U	NR	2.18 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.36 U	NR	2.18 U	NR
Perfluorobutanesulfonic acid	NS	NS	0.075 J	NR	0.076 J	NR
Perfluorobutanoic acid	NS	NS	1.2	NR	0.55 U	NR
Perfluorodecanesulfonic acid	NS	NS	0.24 U	NR	0.22 U	NR
Perfluorodecanoic acid	NS	NS	3.26	NR	0.064 J	NR
Perfluorododecanoic acid	NS	NS	0.037 J	NR	0.22 U	NR
Perfluoroheptanesulfonic acid	NS	NS	0.21 J	NR	0.27	NR
Perfluoroheptanoic acid	NS	NS	1.24	NR	0.52	NR
Perfluorohexanesulfonic acid	NS	NS	2.71	NR	2.13	NR
Perfluorohexanoic acid	NS	NS	1.42	NR	0.79	NR
Perfluorononanoic acid	NS	NS	1.5	NR	0.81	NR
Perfluorooctanesulfonic acid	440	1	NR	68.3	NR	163
Perfluorooctanoic acid	500	0.8	1.85	NR	0.85	NR
Perfluoropentanoic acid	NS	NS	4.82	NR	1.31	NR
Perfluorotetradecanoic acid	NS	NS	0.24 U	NR	0.22 U	NR
Perfluorotridecanoic acid	NS	NS	0.24 U	NR	0.22 U	NR
Perfluoroundecanoic acid	NS	NS	0.54	NR	0.22 U	NR
Perfluroroctanesulfonamide	NS	NS	0.17 J	NR	0.22 U	NR
Total PFAS	NS	NS	92.722	NR	173.044	NR

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		AKRF Sample ID	RI-SB-32_0-0.2_20221004	RI-SB-32_0.2-1_20221004	RI-SB-32_1-2_20221004	RI-SB-33_0.2-1_20221003
		Laboratory Sample ID	460-266816-10	460-266816-11	460-266816-12	460-266738-4
		Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/03/2022
		Dilution Factor	1	1	1	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	0.89 J	0.58 J	0.19 J	0.09 J
8:2 Fluorotelomer sulfonate	NS	NS	0.82 J	1.13 J	0.25 J	1.96 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.77 U	2.18 U	2.08 U	1.96 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.77 U	2.18 U	2.08 U	1.96 U
Perfluorobutanesulfonic acid	NS	NS	0.06 J	0.055 J	0.21 U	0.2 U
Perfluorobutanoic acid	NS	NS	2.13	1.12	0.52 U	0.49 U
Perfluorodecanesulfonic acid	NS	NS	0.18 J	0.053 J	0.21 U	0.2 U
Perfluorodecanoic acid	NS	NS	2.14	1.08	0.13 J	0.12 J
Perfluorododecanoic acid	NS	NS	1.68	0.23	0.21 U	0.073 J
Perfluoroheptanesulfonic acid	NS	NS	0.28 U	0.047 J	0.21 U	0.077 J
Perfluoroheptanoic acid	NS	NS	1.64	0.85	0.098 J	0.19 J
Perfluorohexanesulfonic acid	NS	NS	0.82	0.64	0.095 J	1.19
Perfluorohexanoic acid	NS	NS	1.73	1.06	0.16 J	0.18 J
Perfluorononanoic acid	NS	NS	1.36	0.63	0.066 J	0.059 J
Perfluorooctanesulfonic acid	440	1	10.5	8.98	1.32	NR
Perfluorooctanoic acid	500	0.8	1.84	0.72	0.061 J	0.074 J
Perfluoropentanoic acid	NS	NS	5.49	3.1	0.35	0.17 J
Perfluorotetradecanoic acid	NS	NS	0.68	0.099 J	0.21 U	0.045 J
Perfluorotridecanoic acid	NS	NS	0.57	0.11 J	0.21 U	0.2 U
Perfluoroundecanoic acid	NS	NS	2.1	0.41	0.21 U	0.051 J
Perfluroroctanesulfonamide	NS	NS	0.28 U	0.22 U	0.21 U	0.2 U
Total PFAS	NS	NS	34.63	20.894	2.72	25.619

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		AKRF Sample ID	RI-SB-33_0.2-1_20221003	RI-SB-33_1-2_20221003	RI-SB-33_1-2_20221003	RI-SB-33_13-14_20221003
		Laboratory Sample ID	460-266738-4	460-266738-5	460-266738-5	460-266738-6
		Date Sampled	10/03/2022	10/03/2022	10/03/2022	10/03/2022
		Dilution Factor	10	1	20	1
		Unit	ppb	ppb	ppb	ppb
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	NR	1.37 J	NR	2.25 U
8:2 Fluorotelomer sulfonate	NS	NS	NR	0.72 J	NR	2.25 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.11 U	NR	2.25 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	NR	2.11 U	NR	2.25 U
Perfluorobutanesulfonic acid	NS	NS	NR	0.8	NR	0.23 U
Perfluorobutanoic acid	NS	NS	NR	0.53 U	NR	0.56 U
Perfluorodecanesulfonic acid	NS	NS	NR	1.26	NR	0.23 U
Perfluorodecanoic acid	NS	NS	NR	0.13 J	NR	0.23 U
Perfluorododecanoic acid	NS	NS	NR	0.2 J	NR	0.23 U
Perfluoroheptanesulfonic acid	NS	NS	NR	2.75	NR	0.094 J
Perfluoroheptanoic acid	NS	NS	NR	0.18 J	NR	0.055 J
Perfluorohexanesulfonic acid	NS	NS	NR	14.9	NR	0.54
Perfluorohexanoic acid	NS	NS	NR	0.87	NR	0.077 J
Perfluorononanoic acid	NS	NS	NR	0.042 J	NR	0.23 U
Perfluorooctanesulfonic acid	440	1	23.3	NR	261	8.4
Perfluorooctanoic acid	500	0.8	NR	0.44	NR	0.23 U
Perfluoropentanoic acid	NS	NS	NR	0.35	NR	0.1 J
Perfluorotetradecanoic acid	NS	NS	NR	0.11 J	NR	0.23 U
Perfluorotridecanoic acid	NS	NS	NR	0.04 J	NR	0.23 U
Perfluoroundecanoic acid	NS	NS	NR	0.073 J	NR	0.23 U
Perfluroroctanesulfonamide	NS	NS	NR	4.58	NR	0.23 U
Total PFAS	NS	NS	NR	289.815	NR	9.266

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		AKRF Sample ID	RI-SB-34_0.2-1_20221003	RI-SB-34_1-2_20221003	RI-SB-34_10-11_20221003	FB-01_20210419
		Laboratory Sample ID	460-266738-8	460-266738-9	460-266738-10	460-232416-11
		Date Sampled	10/03/2022	10/03/2022	10/03/2022	4/19/2021
		Dilution Factor	1	1	1	1
		Unit	ppb	ppb	ppb	ppt
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	0.092 J	2.27 U	0.097 J	4.25 U
8:2 Fluorotelomer sulfonate	NS	NS	0.28 J	2.27 U	2.12 U	1.7 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.29 U	2.27 U	2.12 U	4.25 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	2.29 U	2.27 U	2.12 U	4.25 U
Perfluorobutanesulfonic acid	NS	NS	0.23 U	0.23 U	0.21 U	1.7 U
Perfluorobutanoic acid	NS	NS	0.57 U	0.57 U	0.53 U	4.25 U
Perfluorodecanesulfonic acid	NS	NS	0.23 U	0.23 U	0.21 U	1.7 U
Perfluorodecanoic acid	NS	NS	0.056 J	0.23 U	0.21 U	1.7 U
Perfluorododecanoic acid	NS	NS	0.23 U	0.23 U	0.21 U	1.7 U
Perfluoroheptanesulfonic acid	NS	NS	0.23 U	0.23 U	0.14 J	1.7 U
Perfluoroheptanoic acid	NS	NS	0.22 J	0.15 J	0.061 J	1.7 U
Perfluorohexanesulfonic acid	NS	NS	0.19 J	0.11 J	0.69	1.7 U
Perfluorohexanoic acid	NS	NS	0.17 J	0.086 J	0.081 J	1.7 U
Perfluorononanoic acid	NS	NS	0.15 J	0.083 J	0.21 U	1.7 U
Perfluorooctanesulfonic acid	440	1	12.7	10.1	11.2	1.7 U
Perfluorooctanoic acid	500	0.8	0.11 J	0.076 J	0.073 J	1.7 U
Perfluoropentanoic acid	NS	NS	0.34	0.16 J	0.1 J	1.7 U
Perfluorotetradecanoic acid	NS	NS	0.23 U	0.23 U	0.21 U	1.7 U
Perfluorotridecanoic acid	NS	NS	0.23 U	0.23 U	0.21 U	1.7 U
Perfluoroundecanoic acid	NS	NS	0.23 U	0.23 U	0.21 U	1.7 U
Perfluroroctanesulfonamide	NS	NS	0.23 U	0.23 U	0.21 U	1.7 U
Total PFAS	NS	NS	14.308	10.765	12.442	0

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		AKRF Sample ID	FB-02_20210420	FB-05_20210504	FB-01_20221003	FB-01_20221017
		Laboratory Sample ID	460-232504-18	460-233561-4	460-266738-17	460-267702-4
		Date Sampled	4/20/2021	5/04/2021	10/03/2022	10/17/2022
		Dilution Factor	1	1	1	1
		Unit	ppt	ppt	ppt	ppt
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	4.06 U	4.24 U	4.07 U	4.61 U
8:2 Fluorotelomer sulfonate	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	4.06 U	4.24 U	4.07 U	4.61 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	4.06 U	4.24 U	4.07 U	4.61 U
Perfluorobutanesulfonic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorobutanoic acid	NS	NS	4.06 U	4.24 U	4.07 U	4.61 U
Perfluorodecanesulfonic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorodecanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorododecanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluoroheptanesulfonic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluoroheptanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorohexanesulfonic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorohexanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorononanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorooctanesulfonic acid	440	1	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorooctanoic acid	500	0.8	1.62 U	1.69 U	1.63 U	1.84 U
Perfluoropentanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorotetradecanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluorotridecanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluoroundecanoic acid	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Perfluroroctanesulfonamide	NS	NS	1.62 U	1.69 U	1.63 U	1.84 U
Total PFAS	NS	NS	0	0	0	0

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		AKRF Sample ID	FB-01_20221018	FB-01_20221019	FB-01_20221020	FB-01_20221024
		Laboratory Sample ID	460-267732-4	460-267827-4	460-267901-5	460-268208-3
		Date Sampled	10/18/2022	10/19/2022	10/20/2022	10/24/2022
		Dilution Factor	1	1	1	1
		Unit	ppt	ppt	ppt	ppt
Compound	**NYSDEC CGV**	**NYSDEC PGWGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NS	2.59 JT	4.83 UT	5.94 U	4.16 U
8:2 Fluorotelomer sulfonate	NS	NS	1.78 UT	1.93 UT	2.38 U	1.66 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NS	4.45 U	4.83 U	5.94 U	4.16 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NS	4.45 U	4.83 U	5.94 U	4.16 U
Perfluorobutanesulfonic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorobutanoic acid	NS	NS	4.45 U	4.83 U	5.94 U	4.16 U
Perfluorodecanesulfonic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorodecanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorododecanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluoroheptanesulfonic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluoroheptanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorohexanesulfonic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorohexanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorononanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorooctanesulfonic acid	440	1	1.78 U	1.93 U	1.65 J	1.66 U
Perfluorooctanoic acid	500	0.8	1.78 U	1.93 U	2.38 U	1.66 U
Perfluoropentanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorotetradecanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluorotridecanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluoroundecanoic acid	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Perfluroroctanesulfonamide	NS	NS	1.78 U	1.93 U	2.38 U	1.66 U
Total PFAS	NS	NS	2.59	0	1.65	0

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SPLP Soil Analytical Results - PFAS

	AKRF Sample ID	SB-12_0.2-1_20210420	SB-13_0.2-1_20210420	SB-14_0.2-1_20210420	SB-14_0.2-1_20210420
	Laboratory Sample ID	460-232504-7	460-232504-10	460-232504-13	460-232504-13
	Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
	Dilution Factor	5	1	1	2
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Calculated SPLP PFAS Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	NR	14 J	13.8	NR
8:2 Fluorotelomer sulfonate	N/A	NR	15	15.4	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	NR	25 U	4.43 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	NR	25 U	4.43 U	NR
Perfluorobutanesulfonic acid	N/A	NR	10 U	1.77 U	NR
Perfluorobutanoic acid	N/A	NR	9.55 J	3.89 J	NR
Perfluorodecanesulfonic acid	N/A	NR	2.49 J	0.34 J	NR
Perfluorodecanoic acid	N/A	NR	19.1	7.99	NR
Perfluorododecanoic acid	N/A	NR	2.68 J	4.6	NR
Perfluoroheptanesulfonic acid	N/A	NR	1.96 J	0.52 J	NR
Perfluoroheptanoic acid	N/A	NR	10 U	5.68	NR
Perfluorohexanesulfonic acid	N/A	NR	13	4.22	NR
Perfluorohexanoic acid	N/A	NR	10.4	6.27	NR
Perfluorononanoic acid	N/A	NR	10 U	3.18	NR
Perfluorooctanesulfonic acid	***27***	***643 D***	***155***	NR	***406 D***
Perfluorooctanoic acid	***67***	NR	10 U	4.28 JK	NR
Perfluoropentanoic acid	N/A	NR	24.8	13.3	NR
Perfluorotetradecanoic acid	N/A	NR	10 U	1.77 U	NR
Perfluorotridecanoic acid	N/A	NR	10 U	0.4 J	NR
Perfluoroundecanoic acid	N/A	NR	7.53 J	2.71	NR
Perfluroroctanesulfonamide	N/A	NR	14.5	3.25	NR
Total PFAS	N/A	643	290.01	495.83	NR

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	AKRF Sample ID	SB-15_0.2-1_20210420	SB-15_0.2-1_20210420	RI-SB-21_0-0.2_20221004	RI-SB-21_0.2-1_20221004
	Laboratory Sample ID	460-232504-16	460-232504-16	460-266816-4	460-266816-5
	Date Sampled	4/20/2021	4/20/2021	10/04/2022	10/04/2022
	Dilution Factor	1	5	1	1
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Calculated SPLP PFAS Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	56.5	NR	3.65 J	48.8 U
8:2 Fluorotelomer sulfonate	N/A	53.7	NR	2.07 U	19.5 U
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	24.8 U	NR	5.18 U	48.8 U
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	24.8 U	NR	5.18 U	48.8 U
Perfluorobutanesulfonic acid	N/A	9.9 U	NR	2.07 U	19.5 U
Perfluorobutanoic acid	N/A	4.85 J	NR	21.7	48.8 U
Perfluorodecanesulfonic acid	N/A	9.9 U	NR	2.07 U	19.5 U
Perfluorodecanoic acid	N/A	24	NR	4.29	19.5 U
Perfluorododecanoic acid	N/A	9.9 U	NR	2.07 U	19.5 U
Perfluoroheptanesulfonic acid	N/A	4.34 J	NR	2.07 U	19.5 U
Perfluoroheptanoic acid	N/A	12.9	NR	23.4	19.5 U
Perfluorohexanesulfonic acid	N/A	18.4	NR	11.8	19.5 U
Perfluorohexanoic acid	N/A	12.9	NR	25.8	19.5 U
Perfluorononanoic acid	N/A	12.8	NR	9.5	19.5 U
Perfluorooctanesulfonic acid	***27***	NR	***3,880 D***	17.1	19.5 U
Perfluorooctanoic acid	***67***	17.4	NR	19.6	19.5 U
Perfluoropentanoic acid	N/A	18.4	NR	46.8	19.5 U
Perfluorotetradecanoic acid	N/A	9.9 U	NR	2.07 U	19.5 U
Perfluorotridecanoic acid	N/A	9.9 U	NR	2.07 U	19.5 U
Perfluoroundecanoic acid	N/A	9.9 U	NR	2.07 U	19.5 U
Perfluroroctanesulfonamide	N/A	6.56 J	NR	2.07 U	19.5 U
Total PFAS	N/A	4,122.75	NR	183.64	0

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	AKRF Sample ID	RI-SB-21_1-2_20221004	RI-SB-30_0-0.2_20221004	RI-SB-30_0.2-1_20221004	RI-SB-30_0.2-1_20221004
	Laboratory Sample ID	460-266816-6	460-266816-16	460-266816-17	460-266816-17
	Date Sampled	10/04/2022	10/04/2022	10/04/2022	10/04/2022
	Dilution Factor	1	1	1	5
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Calculated SPLP PFAS Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	1.55 J	5.03 U	4.78 U	NR
8:2 Fluorotelomer sulfonate	N/A	3.39	2.01 U	1.91 U	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	4.73 U	5.03 U	4.78 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	4.73 U	5.03 U	4.78 U	NR
Perfluorobutanesulfonic acid	N/A	1.89 U	0.77 J	0.7 J	NR
Perfluorobutanoic acid	N/A	4.73 U	13.8	48.8	NR
Perfluorodecanesulfonic acid	N/A	1.89 U	2.01 U	1.91 U	NR
Perfluorodecanoic acid	N/A	1.26 J	1.14 J	1.33 J	NR
Perfluorododecanoic acid	N/A	2.59	2.01 U	1.91 U	NR
Perfluoroheptanesulfonic acid	N/A	1.89 U	2.01 U	2.41	NR
Perfluoroheptanoic acid	N/A	1.28 J	7.72	21.5	NR
Perfluorohexanesulfonic acid	N/A	0.92 J	3.64	9.34	NR
Perfluorohexanoic acid	N/A	1.1 J	6.79	19.2	NR
Perfluorononanoic acid	N/A	0.56 J	8.62	20.5	NR
Perfluorooctanesulfonic acid	***27***	6.24	***68.5***	NR	***1,380***
Perfluorooctanoic acid	***67***	0.88 J	8.63	21.5	NR
Perfluoropentanoic acid	N/A	2.94	20.2	76.6	NR
Perfluorotetradecanoic acid	N/A	1.89 U	2.01 U	1.91 U	NR
Perfluorotridecanoic acid	N/A	0.54 J	2.01 U	1.91 U	NR
Perfluoroundecanoic acid	N/A	0.99 J	2.01 U	1.91 U	NR
Perfluroroctanesulfonamide	N/A	0.95 J	2.01 U	1.91 U	NR
Total PFAS	N/A	25.19	139.81	1601.88	NR

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SPLP Soil Analytical Results - PFAS

	AKRF Sample ID	RI-SB-30_1-2_20221004	RI-SB-30_1-2_20221004	RI-SB-33_0.2-1_20221003	RI-SB-33_1-2_20221003
	Laboratory Sample ID	460-266816-18	460-266816-18	460-266738-4	460-266738-5
	Date Sampled	10/04/2022	10/04/2022	10/03/2022	10/03/2022
	Dilution Factor	1	5	1	1
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Calculated SPLP PFAS Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	4.1 J	NR	49.2 U	24.8
8:2 Fluorotelomer sulfonate	N/A	1.94 U	NR	19.7 U	9.95
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	4.85 U	NR	49.2 U	5.03 U
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	4.85 U	NR	49.2 U	5.03 U
Perfluorobutanesulfonic acid	N/A	1.06 J	NR	19.7 U	7.68
Perfluorobutanoic acid	N/A	29.8	NR	49.2 U	4.46 J
Perfluorodecanesulfonic acid	N/A	1.94 U	NR	19.7 U	11.4
Perfluorodecanoic acid	N/A	0.46 J	NR	19.7 U	2.04
Perfluorododecanoic acid	N/A	1.94 U	NR	19.7 U	1.3 J
Perfluoroheptanesulfonic acid	N/A	1.31 J	NR	19.7 U	11.2
Perfluoroheptanoic acid	N/A	21.2	NR	5.39 J	3.23
Perfluorohexanesulfonic acid	N/A	14.2	NR	12.1 J	72.8
Perfluorohexanoic acid	N/A	20.2	NR	19.7 U	20.9
Perfluorononanoic acid	N/A	5.24	NR	19.7 U	0.66 J
Perfluorooctanesulfonic acid	***27***	NR	***606***	***204***	NR
Perfluorooctanoic acid	***67***	16	NR	19.7 U	4.16
Perfluoropentanoic acid	N/A	45	NR	19.7 U	6.97
Perfluorotetradecanoic acid	N/A	1.94 U	NR	19.7 U	2.01 U
Perfluorotridecanoic acid	N/A	1.94 U	NR	19.7 U	2.01 U
Perfluoroundecanoic acid	N/A	1.94 U	NR	19.7 U	0.78 J
Perfluroroctanesulfonamide	N/A	1.94 U	NR	19.7 U	94.1
Total PFAS	N/A	764.57	NR	221.49	2,566.43

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	AKRF Sample ID	RI-SB-33_1-2_20221003	RI-SB-33_13-14_20221003
	Laboratory Sample ID	460-266738-5	460-266738-6
	Date Sampled	10/03/2022	10/03/2022
	Dilution Factor	10	1
	Unit	ng/l	ng/l
Compound	**Calculated SPLP PFAS Screening Criteria**	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	NR	1.77 J
8:2 Fluorotelomer sulfonate	N/A	NR	1.97 U
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	NR	4.92 U
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	NR	4.92 U
Perfluorobutanesulfonic acid	N/A	NR	0.96 J
Perfluorobutanoic acid	N/A	NR	4.92 U
Perfluorodecanesulfonic acid	N/A	NR	1.97 U
Perfluorodecanoic acid	N/A	NR	1.97 U
Perfluorododecanoic acid	N/A	NR	1.97 U
Perfluoroheptanesulfonic acid	N/A	NR	3.92
Perfluoroheptanoic acid	N/A	NR	1.97
Perfluorohexanesulfonic acid	N/A	NR	22.5
Perfluorohexanoic acid	N/A	NR	3.25
Perfluorononanoic acid	N/A	NR	1.97 U
Perfluorooctanesulfonic acid	***27***	***2,290***	***332***
Perfluorooctanoic acid	***67***	NR	1.66 J
Perfluoropentanoic acid	N/A	NR	3.42
Perfluorotetradecanoic acid	N/A	NR	1.97 U
Perfluorotridecanoic acid	N/A	NR	1.97 U
Perfluoroundecanoic acid	N/A	NR	1.97 U
Perfluroroctanesulfonamide	N/A	NR	1.97 U
Total PFAS	N/A	NR	371.45

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AKRF Sample ID	SED-01_20210423	SED-01_20210423	SED-X01_20210423	SED-X01_20210423	SED-02_20210422
Laboratory Sample ID	460-232805-1	460-232805-1	460-232805-6	460-232805-6	460-232693-8
Date Sampled	4/23/2021	4/23/2021	4/23/2021	4/23/2021	4/22/2021
Dilution Factor	1	10	1	10	1
Unit	ppb	ppb	ppb	ppb	ppb
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	1.16 J	NR	0.93 J	NR	4.15
8:2 Fluorotelomer sulfonate	1.37 J	NR	0.81 J	NR	1.72 J
N-ethyl perfluorooctanesulfonamidoacetic acid	4.01 U	NR	3.79 U	NR	0.095 J
N-methyl perfluorooctanesulfonamidoacetic acid	0.074 J	NR	3.79 U	NR	0.18 J
Perfluorobutanesulfonic acid	0.12 J	NR	0.12 J	NR	0.11 J
Perfluorobutanoic acid	0.43 J	NR	0.31 J	NR	0.35 J
Perfluorodecanesulfonic acid	0.066 J	NR	0.094 J	NR	0.21 J
Perfluorodecanoic acid	0.92	NR	0.78	NR	0.5
Perfluorododecanoic acid	1.15	NR	0.83	NR	0.86
Perfluoroheptanesulfonic acid	0.54	NR	0.38	NR	0.37
Perfluoroheptanoic acid	0.71	NR	0.66	NR	0.53
Perfluorohexanesulfonic acid	2.46	NR	2	NR	2.35
Perfluorohexanoic acid	1.1	NR	1.02	NR	0.99
Perfluorononanoic acid	0.38 J	NR	0.31 J	NR	0.35
Perfluorooctanesulfonic acid	NR	93.8 JD	NR	53.6 JD	NR
Perfluorooctanoic acid	0.68	NR	0.58	NR	0.7
Perfluoropentanoic acid	1.81	NR	1.4	NR	1.39
Perfluorotetradecanoic acid	0.52	NR	0.46	NR	1.08 JL
Perfluorotridecanoic acid	0.36 J	NR	0.35 J	NR	0.32
Perfluoroundecanoic acid	1.2	NR	1.09	NR	0.12 J
Perfluroroctanesulfonamide	0.066 J	NR	0.048 J	NR	0.55
Total PFAS	108.916	NR	65.772	NR	79.125

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AKRF Sample ID	SED-02_20210422	SED-03_20210422	SED-03_20210422	SED-04_20210422	SED-04_20210422
Laboratory Sample ID	460-232693-8	460-232693-9	460-232693-9	460-232693-10	460-232693-10
Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021	4/22/2021
Dilution Factor	10	1	10	1	10
Unit	ppb	ppb	ppb	ppb	ppb
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NR	2.36 J	NR	0.7 J	NR
8:2 Fluorotelomer sulfonate	NR	6.92	NR	0.04 J	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NR	2.97 U	NR	3.86 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NR	0.26 J	NR	3.86 U	NR
Perfluorobutanesulfonic acid	NR	0.04 J	NR	0.095 J	NR
Perfluorobutanoic acid	NR	0.74	NR	1.11	NR
Perfluorodecanesulfonic acid	NR	0.19 J	NR	0.11 J	NR
Perfluorodecanoic acid	NR	1.26	NR	0.34 J	NR
Perfluorododecanoic acid	NR	1.73	NR	0.17 J	NR
Perfluoroheptanesulfonic acid	NR	0.096 J	NR	0.32 J	NR
Perfluoroheptanoic acid	NR	0.54	NR	1.34	NR
Perfluorohexanesulfonic acid	NR	0.6	NR	2.5	NR
Perfluorohexanoic acid	NR	0.95	NR	1.79	NR
Perfluorononanoic acid	NR	0.33	NR	0.44	NR
Perfluorooctanesulfonic acid	62.2 D	NR	14.4 D	NR	58.4 D
Perfluorooctanoic acid	NR	0.8	NR	1.12	NR
Perfluoropentanoic acid	NR	2.53	NR	4.19	NR
Perfluorotetradecanoic acid	NR	1.31	NR	0.068 J	NR
Perfluorotridecanoic acid	NR	0.47	NR	0.13 J	NR
Perfluoroundecanoic acid	NR	0.83	NR	0.29 J	NR
Perfluroroctanesulfonamide	NR	0.16 J	NR	0.076 J	NR
Total PFAS	NR	36.516	NR	73.229	NR

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AKRF Sample ID	SED-05_20210422	SED-05_20210422	SED-06_20210422	SED-07_20210422	SED-08_20210422
Laboratory Sample ID	460-232693-11	460-232693-11	460-232693-12	460-232693-13	460-232693-14
Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021	4/22/2021
Dilution Factor	1	10	1	1	1
Unit	ppb	ppb	ppb	ppb	ppb
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	1.43 J	NR	3.94	1.6 J	5.79 J
8:2 Fluorotelomer sulfonate	3.54	NR	7.31	6.57	20.7
N-ethyl perfluorooctanesulfonamidoacetic acid	2.94 U	NR	3.9 U	3.3 U	6.8 U
N-methyl perfluorooctanesulfonamidoacetic acid	0.097 J	NR	0.19 J	0.17 J	0.5 J
Perfluorobutanesulfonic acid	0.017 J	NR	0.032 J	0.033 J	0.13 J
Perfluorobutanoic acid	0.4 J	NR	0.82 J	0.81 J	1.83
Perfluorodecanesulfonic acid	0.08 J	NR	0.24 J	0.21 J	0.84
Perfluorodecanoic acid	0.63	NR	1.75	1.45	6.35
Perfluorododecanoic acid	0.86	NR	3.27	2.06	9.03
Perfluoroheptanesulfonic acid	0.047 J	NR	0.1 J	0.087 J	0.41 J
Perfluoroheptanoic acid	0.27 J	NR	0.62	0.59	2.19
Perfluorohexanesulfonic acid	0.29	NR	0.67	0.56	2.62
Perfluorohexanoic acid	0.44	NR	0.93	0.86	3.42
Perfluorononanoic acid	0.19 J	NR	0.41	0.37	1.49
Perfluorooctanesulfonic acid	NR	6.44 D	16.2	14.2	NR
Perfluorooctanoic acid	0.34	NR	0.78	0.78	2.55
Perfluoropentanoic acid	1.24	NR	2.73	2.8	6.66
Perfluorotetradecanoic acid	0.28 J	NR	0.85	0.76	3.81
Perfluorotridecanoic acid	0.15 J	NR	0.55	0.37	1.75
Perfluoroundecanoic acid	0.42	NR	1.48	1.22	5.23
Perfluroroctanesulfonamide	0.094 J	NR	0.18 J	0.12 J	0.45 J
Total PFAS	17.255	NR	43.052	35.62	139.65

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AKRF Sample ID	SED-08_20210422	SED-09_20210423	SED-10_20210427	SED-11_20210427	SED-12_20210427
Laboratory Sample ID	460-232693-14	460-232805-2	460-233031-8	460-233031-9	460-233031-10
Date Sampled	4/22/2021	4/23/2021	4/27/2021	4/27/2021	4/27/2021
Dilution Factor	10	1	1	1	1
Unit	ppb	ppb	ppb	ppb	ppb
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NR	0.13 J	0.82 J	0.072 J	0.17 J
8:2 Fluorotelomer sulfonate	NR	7.15 U	1.4 J	3.8 U	0.1 J
N-ethyl perfluorooctanesulfonamidoacetic acid	NR	7.15 U	10.7 U	3.8 U	5.23 U
N-methyl perfluorooctanesulfonamidoacetic acid	NR	7.15 U	0.36 J	3.8 U	5.23 U
Perfluorobutanesulfonic acid	NR	0.045 J	0.16 J	0.04 J	0.098 J
Perfluorobutanoic acid	NR	1.79 U	2.68 U	0.95 U	1.31 U
Perfluorodecanesulfonic acid	NR	0.31 J	0.31 J	0.38 U	0.062 J
Perfluorodecanoic acid	NR	0.87	1.39	0.13 J	0.16 J
Perfluorododecanoic acid	NR	1.21	1.32	0.2 J	0.3 J
Perfluoroheptanesulfonic acid	NR	0.059 J	0.29 J	0.038 J	0.069 J
Perfluoroheptanoic acid	NR	0.53 J	0.39 J	0.072 J	0.13 J
Perfluorohexanesulfonic acid	NR	0.35 J	1.33	0.13 J	0.22 J
Perfluorohexanoic acid	NR	0.71 U	0.84 J	0.093 J	0.18 J
Perfluorononanoic acid	NR	0.4 J	0.3 J	0.052 J	0.09 J
Perfluorooctanesulfonic acid	63.9 D	8.09	48.7	2.7	3.77
Perfluorooctanoic acid	NR	0.38 J	0.93 J	0.078 J	0.29 J
Perfluoropentanoic acid	NR	0.73	0.36 J	0.1 J	0.19 J
Perfluorotetradecanoic acid	NR	0.5 J	1 J	0.087 J	0.15 J
Perfluorotridecanoic acid	NR	0.72	0.72 J	0.11 J	0.17 J
Perfluoroundecanoic acid	NR	2.07	0.64 J	0.12 J	0.27 J
Perfluroroctanesulfonamide	NR	0.064 J	0.42 J	0.38 U	0.066 J
Total PFAS	NR	16.458	61.68	4.022	6.485

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AKRF Sample ID	RI-SED-13_20221014	RI-SED-X_20221014	RI-SED-X_20221014	RI-SED-14_20221014	RI-SED-15_20221014
Laboratory Sample ID	460-267585-1	460-267585-9	460-267585-9	460-267585-2	460-267585-3
Date Sampled	10/14/2022	10/14/2022	10/14/2022	10/14/2022	10/14/2022
Dilution Factor	1	1	2	1	1
Unit	ppb	ppb	ppb	ppb	ppb
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	2.18 J	1.34 J	NR	23.1	8.36 U
8:2 Fluorotelomer sulfonate	6.51	3.51 J	NR	83.6	8.36 U
N-ethyl perfluorooctanesulfonamidoacetic acid	6.46 U	5.94 U	NR	15.5 U	8.36 U
N-methyl perfluorooctanesulfonamidoacetic acid	6.46 U	5.94 U	NR	15.5 U	8.36 U
Perfluorobutanesulfonic acid	0.65 U	0.13 J	NR	1.55 U	0.84 U
Perfluorobutanoic acid	2.28	2.34	NR	16.2	2.09 U
Perfluorodecanesulfonic acid	0.65 U	0.59 U	NR	1.55 U	0.84 U
Perfluorodecanoic acid	2.88	1.46	NR	32.2	0.3 J
Perfluorododecanoic acid	2.77	1.34	NR	39.5	0.32 J
Perfluoroheptanesulfonic acid	0.34 J	0.45 J	NR	1.55 U	0.84 U
Perfluoroheptanoic acid	3.32	2.79	NR	21.3	0.18 J
Perfluorohexanesulfonic acid	2.88	4.44	NR	1.31 J	0.61 J
Perfluorohexanoic acid	5.73	5.65	NR	32.9	0.35 J
Perfluorononanoic acid	1.05	0.68	NR	7.96	0.84 U
Perfluorooctanesulfonic acid	41.9	NR	58.8	6.48	1.74
Perfluorooctanoic acid	5.55	3.54	NR	27.8	0.62 J
Perfluoropentanoic acid	9.38	9.82	NR	57.7	0.25 J
Perfluorotetradecanoic acid	1.62	0.94	NR	30.9	0.27 J
Perfluorotridecanoic acid	0.7	0.43 J	NR	8.35	0.27 J
Perfluoroundecanoic acid	1.2	0.47 J	NR	14.3	0.36 J
Perfluroroctanesulfonamide	0.65 U	0.59 U	NR	1.55 U	0.84 U
Total PFAS	90.29	98.13	NR	403.6	5.27

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AKRF Sample ID	RI-SED-16_20221014		RI-SED-17_20221014		RI-SED-18_20221014		RI-SED-19_20221014		RI-SED-20_20221014	
Laboratory Sample ID	460-267585-4		460-267585-5		460-267585-6		460-267585-7		460-267585-8	
Date Sampled	10/14/2022		10/14/2022		10/14/2022		10/14/2022		10/14/2022	
Dilution Factor	1		1		1		1		1	
Unit	ppb		ppb		ppb		ppb		ppb	
Compound	CONC	Q	CONC	Q	CONC	Q	CONC	Q	CONC	Q
6:2 Fluorotelomer sulfonate	6.3	U	6.99	U	13.8	U	12.5	U	5.31	U
8:2 Fluorotelomer sulfonate	6.3	U	6.99	U	13.8	U	12.5	U	5.31	U
N-ethyl perfluorooctanesulfonamidoacetic acid	6.3	U	6.99	U	13.8	U	12.5	U	5.31	U
N-methyl perfluorooctanesulfonamidoacetic acid	6.3	U	6.99	U	13.8	U	12.5	U	5.31	U
Perfluorobutanesulfonic acid	0.63	U	0.7	U	1.38	U	1.25	U	0.53	U
Perfluorobutanoic acid	1.57	U	1.75	U	3.45	U	3.12	U	1.33	U
Perfluorodecanesulfonic acid	0.63	U	0.086	J	0.16	J	0.6	J	0.087	J
Perfluorodecanoic acid	0.34	J	0.84		0.35	J	1.15	J	0.75	
Perfluorododecanoic acid	0.36	J	0.6	J	2		1.04	J	0.4	J
Perfluoroheptanesulfonic acid	0.63	U	0.7	U	1.38	U	1.25	U	0.53	U
Perfluoroheptanoic acid	0.16	J	0.32	J	1.38	U	1.25	U	0.78	
Perfluorohexanesulfonic acid	0.19	J	0.72		0.36	J	0.62	J	0.59	
Perfluorohexanoic acid	0.42	J	0.47	J	0.66	J	1.25	U	0.87	
Perfluorononanoic acid	0.12	J	0.86		1.38	U	0.36	J	1.09	
Perfluorooctanesulfonic acid	3.52		4.45		3.2		10.8		5.06	
Perfluorooctanoic acid	0.64		1.84		0.83	J	0.62	J	1.58	
Perfluoropentanoic acid	0.33	J	1.04		0.47	J	0.43	J	1.18	
Perfluorotetradecanoic acid	0.28	J	0.23	J	0.96	J	0.56	J	0.26	J
Perfluorotridecanoic acid	0.23	J	0.36	J	1.02	J	0.61	J	0.36	J
Perfluoroundecanoic acid	0.37	J	1.29		0.88	J	0.98	J	0.81	
Perfluroroctanesulfonamide	0.63	U	0.7	U	1.38	U	1.25	U	0.53	U
Total PFAS	6.96		13.106		10.89		17.77		13.817	

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AKRF Sample ID	FB-03_20210423	FB-04_20210427	FB-01_20221014
Laboratory Sample ID	460-232805-4	460-233031-12	460-267585-23
Date Sampled	4/23/2021	4/27/2021	10/14/2022
Dilution Factor	1	1	1
Unit	ppt	ppt	ppt
Compound	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	4.33 U	4.77 U	4.38 U
8:2 Fluorotelomer sulfonate	1.73 U	1.91 U	1.75 U
N-ethyl perfluorooctanesulfonamidoacetic acid	4.33 U	4.77 U	4.38 U
N-methyl perfluorooctanesulfonamidoacetic acid	4.33 U	4.77 U	4.38 U
Perfluorobutanesulfonic acid	1.73 U	1.91 U	1.75 U
Perfluorobutanoic acid	4.33 U	4.77 U	4.38 U
Perfluorodecanesulfonic acid	1.73 U	1.91 U	1.75 U
Perfluorodecanoic acid	1.73 U	1.91 U	1.75 U
Perfluorododecanoic acid	1.73 U	1.91 U	1.75 U
Perfluoroheptanesulfonic acid	1.73 U	1.91 U	1.75 U
Perfluoroheptanoic acid	1.73 U	1.91 U	1.75 U
Perfluorohexanesulfonic acid	1.73 U	1.91 U	1.75 U
Perfluorohexanoic acid	1.73 U	1.91 U	1.75 U
Perfluorononanoic acid	1.73 U	1.91 U	1.75 U
Perfluorooctanesulfonic acid	1.73 U	1.91 U	1.75 U
Perfluorooctanoic acid	1.73 U	1.91 U	1.75 U
Perfluoropentanoic acid	1.73 U	1.91 U	1.75 U
Perfluorotetradecanoic acid	1.73 U	1.91 U	1.75 U
Perfluorotridecanoic acid	1.73 U	1.91 U	1.75 U
Perfluoroundecanoic acid	1.73 U	1.91 U	1.75 U
Perfluroroctanesulfonamide	1.73 U	1.91 U	1.75 U
Total PFAS	0	0	0

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SPLP Sediment Analytical Results - PFAS

	AKRF Sample ID	SED-01_20210423	SED-01_20210423	SED-X01_20210423	SED-X01_20210423
	Laboratory Sample ID	460-232805-1	460-232805-1	460-232805-6	460-232805-6
	Date Sampled	4/23/2021	4/23/2021	4/23/2021	4/23/2021
	Dilution Factor	1	5	1	2
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Site Specific SPLP Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	26.1 J	NR	18.8 J	NR
8:2 Fluorotelomer sulfonate	NS	2.08	NR	1.55 J	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	4.72 U	NR	4.59 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	NS	4.72 U	NR	4.59 U	NR
Perfluorobutanesulfonic acid	NS	2 JK	NR	2.25 JK	NR
Perfluorobutanoic acid	NS	6.24	NR	7.08	NR
Perfluorodecanesulfonic acid	NS	1.89 U	NR	1.84 U	NR
Perfluorodecanoic acid	NS	6.05	NR	6.18	NR
Perfluorododecanoic acid	NS	1.89 U	NR	1.84 U	NR
Perfluoroheptanesulfonic acid	NS	9.18 J	NR	4.81 J	NR
Perfluoroheptanoic acid	NS	15.6	NR	15.2	NR
Perfluorohexanesulfonic acid	NS	43.5 J	NR	29.5 J	NR
Perfluorohexanoic acid	NS	21.1	NR	20.8	NR
Perfluorononanoic acid	NS	5.76	NR	4.57	NR
Perfluorooctanesulfonic acid	**27**	NR	**1,160 JD**	NR	**517 JD**
Perfluorooctanoic acid	**67**	15.5	NR	12.7	NR
Perfluoropentanoic acid	NS	29.2	NR	32.1	NR
Perfluorotetradecanoic acid	NS	1.89 U	NR	1.84 U	NR
Perfluorotridecanoic acid	NS	1.89 U	NR	1.84 U	NR
Perfluoroundecanoic acid	NS	1.03 J	NR	1.54 J	NR
Perfluroroctanesulfonamide	NS	1.89 U	NR	1.84 U	NR
Total PFAS	NS	1,343.34	NR	674.08	NR

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SPLP Sediment Analytical Results - PFAS

	AKRF Sample ID	SED-02_20210422	SED-02_20210422	SED-03_20210422	SED-04_20210422
	Laboratory Sample ID	460-232693-8	460-232693-8	460-232693-9	460-232693-10
	Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021
	Dilution Factor	1	10	1	1
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Site Specific SPLP Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	71.5	NR	19.3	16.6
8:2 Fluorotelomer sulfonate	NS	17.2	NR	41.7	1.77 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	4.48 U	NR	4.6 U	4.43 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	4.48 U	NR	4.6 U	4.43 U
Perfluorobutanesulfonic acid	NS	1.79 U	NR	1.84 U	1.94 JK
Perfluorobutanoic acid	NS	7.65	NR	22.5	19.6
Perfluorodecanesulfonic acid	NS	1.15 J	NR	0.3 J	1.77 U
Perfluorodecanoic acid	NS	9.04	NR	21.1	2.61 JK
Perfluorododecanoic acid	NS	1.95	NR	1.15 J	1.77 U
Perfluoroheptanesulfonic acid	NS	9.23	NR	1.46 J	4.8
Perfluoroheptanoic acid	NS	17.6	NR	16.5	30.7
Perfluorohexanesulfonic acid	NS	51.2	NR	9.46	47.7
Perfluorohexanoic acid	NS	20.5	NR	24.8	37.5
Perfluorononanoic acid	NS	8.79	NR	8.72	7.8
Perfluorooctanesulfonic acid	**27**	NR	**1,270 D**	**245 D**	NR
Perfluorooctanoic acid	**67**	17.9	NR	16	25.8
Perfluoropentanoic acid	NS	32.5	NR	78.5	73
Perfluorotetradecanoic acid	NS	1.79 U	NR	1.84 U	1.77 U
Perfluorotridecanoic acid	NS	1.79 U	NR	1.84 U	1.77 U
Perfluoroundecanoic acid	NS	1.22 J	NR	3.98	1.77 U
Perfluroroctanesulfonamide	NS	6.45	NR	1.11 J	1.77 U
Total PFAS	NS	1,543.88	NR	511.58	826.05

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SPLP Sediment Analytical Results - PFAS

	AKRF Sample ID	SED-04_20210422	SED-05_20210422	SED-06_20210422	SED-07_20210422
	Laboratory Sample ID	460-232693-10	460-232693-11	460-232693-12	460-232693-13
	Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021
	Dilution Factor	5	1	1	1
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Site Specific SPLP Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	NR	30.8	38.2	18.3 J
8:2 Fluorotelomer sulfonate	NS	NR	28.7	47.5	39.7
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	NR	24.7 U	24.8 U	24.4 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	NR	24.7 U	24.8 U	24.4 U
Perfluorobutanesulfonic acid	NS	NR	9.86 U	9.9 U	9.75 U
Perfluorobutanoic acid	NS	NR	13.6 J	19.9 J	19.5 J
Perfluorodecanesulfonic acid	NS	NR	9.86 U	9.9 U	9.75 U
Perfluorodecanoic acid	NS	NR	10.9	23.9	17.3
Perfluorododecanoic acid	NS	NR	9.86 U	3.33 J	9.75 U
Perfluoroheptanesulfonic acid	NS	NR	9.86 U	1.47 J	1.27 J
Perfluoroheptanoic acid	NS	NR	9.86 U	13.7	13.8
Perfluorohexanesulfonic acid	NS	NR	9.86 U	9.9 U	9.75 U
Perfluorohexanoic acid	NS	NR	11.7	19.8	17.9
Perfluorononanoic acid	NS	NR	9.86 U	9.9 U	9.75 U
Perfluorooctanesulfonic acid	**27**	**558 D**	**112**	**248**	**200**
Perfluorooctanoic acid	**67**	NR	9.86 U	15.1	14.6
Perfluoropentanoic acid	NS	NR	37.6	60.9	59.2
Perfluorotetradecanoic acid	NS	NR	9.86 U	9.9 U	9.75 U
Perfluorotridecanoic acid	NS	NR	9.86 U	9.9 U	9.75 U
Perfluoroundecanoic acid	NS	NR	3.49 J	6.81 J	5.19 J
Perfluroroctanesulfonamide	NS	NR	9.86 U	9.9 U	9.75 U
Total PFAS	NS	NR	248.79	498.61	406.76

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	AKRF Sample ID	SED-08_20210422	SED-08_20210422	SED-09_20210423	SED-10_20210427
	Laboratory Sample ID	460-232693-14	460-232693-14	460-232805-2	460-233031-8
	Date Sampled	4/22/2021	4/22/2021	4/23/2021	4/27/2021
	Dilution Factor	1	2	1	1
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Site Specific SPLP Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	28.3	NR	4.62 U	4.22 J
8:2 Fluorotelomer sulfonate	NS	17.5	NR	1.85 U	3.72
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	4.47 U	NR	4.62 U	4.55 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	4.47 U	NR	4.62 U	4.55 U
Perfluorobutanesulfonic acid	NS	1.79 U	NR	1.85 U	1.82 U
Perfluorobutanoic acid	NS	15.2	NR	2.95 J	1.39 J
Perfluorodecanesulfonic acid	NS	1.79 U	NR	1.85 U	1.82 U
Perfluorodecanoic acid	NS	16.4	NR	0.64 J	5.54
Perfluorododecanoic acid	NS	0.63 J	NR	1.85 U	0.61 J
Perfluoroheptanesulfonic acid	NS	2.99	NR	0.25 J	0.79 J
Perfluoroheptanoic acid	NS	25.1	NR	3.32	2.3
Perfluorohexanesulfonic acid	NS	16.4	NR	1.81 J	3.63
Perfluorohexanoic acid	NS	25.5	NR	3.08	3.47
Perfluorononanoic acid	NS	11.5	NR	1.03 J	1.63 J
Perfluorooctanesulfonic acid	**27**	NR	**377 D**	9.21	**133**
Perfluorooctanoic acid	**67**	22.3	NR	1.94	3.32
Perfluoropentanoic acid	NS	61.7	NR	3.51	2.87
Perfluorotetradecanoic acid	NS	1.79 U	NR	1.85 U	1.82 U
Perfluorotridecanoic acid	NS	1.79 U	NR	1.85 U	1.82 U
Perfluoroundecanoic acid	NS	2.89	NR	1.85 U	0.94 J
Perfluroroctanesulfonamide	NS	1.79 U	NR	1.85 U	1.82 U
Total PFAS	NS	623.41	NR	27.74	167.43

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	AKRF Sample ID	SED-11_20210427	SED-12_20210427	RI-SED-13_20221014	RI-SED-X_20221014
	Laboratory Sample ID	460-233031-9	460-233031-10	460-267585-1	460-267585-9
	Date Sampled	4/27/2021	4/27/2021	10/14/2022	10/14/2022
	Dilution Factor	1	1	1	1
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Site Specific SPLP Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	3.22 J	3.65 J	13.400 J	24.800 U
8:2 Fluorotelomer sulfonate	NS	0.42 J	0.6 J	4.600 J	9.920 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	4.55 U	4.51 U	25.000 U	24.800 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	4.55 U	4.51 U	25.000 U	24.800 U
Perfluorobutanesulfonic acid	NS	1.82 U	1.8 U	9.980 U	9.920 U
Perfluorobutanoic acid	NS	4.55 U	0.97 J	22.300 J	22.200 J
Perfluorodecanesulfonic acid	NS	1.82 U	1.8 U	9.980 U	9.920 U
Perfluorodecanoic acid	NS	1.05 J	0.92 J	9.360 J	5.970 J
Perfluorododecanoic acid	NS	1.82 U	1.8 U	9.980 U	9.920 U
Perfluoroheptanesulfonic acid	NS	1.82 U	1.8 U	9.980 U	2.640 J
Perfluoroheptanoic acid	NS	0.89 J	1.36 J	35.200	33.100
Perfluorohexanesulfonic acid	NS	0.98 J	1.45 J	20.500	36.400
Perfluorohexanoic acid	NS	1.36 J	2.54	58.500	65.600
Perfluorononanoic acid	NS	0.5 J	0.54 J	6.700 J	4.720 J
Perfluorooctanesulfonic acid	**27**	11.6	10.1	**164.000**	**293.000**
Perfluorooctanoic acid	**67**	1.74 J	1.94	47.700	33.900
Perfluoropentanoic acid	NS	1.73 J	2.47	90.300	94.300
Perfluorotetradecanoic acid	NS	1.82 U	1.8 U	9.980 U	9.920 U
Perfluorotridecanoic acid	NS	1.82 U	1.8 U	9.980 U	9.920 U
Perfluoroundecanoic acid	NS	1.82 U	0.38 J	9.980 U	9.920 U
Perfluroroctanesulfonamide	NS	1.82 U	1.8 U	9.980 U	9.920 U
Total PFAS	NS	23.49	26.92	472.560	591.830

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	AKRF Sample ID	RI-SED-14_20221014	RI-SED-15_20221014	RI-SED-16_20221014	RI-SED-17_20221014
	Laboratory Sample ID	460-267585-2	460-267585-3	460-267585-4	460-267585-5
	Date Sampled	10/14/2022	10/14/2022	10/14/2022	10/14/2022
	Dilution Factor	1	1	1	1
	Unit	ng/l	ng/l	ng/l	ng/l
Compound	**Site Specific SPLP Screening Criteria**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	22.800	4.940 U	1.570 J	4.570 U
8:2 Fluorotelomer sulfonate	NS	8.080	1.970 U	1.820 U	1.830 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	4.840 U	4.940 U	4.560 U	4.570 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	4.840 U	4.940 U	4.560 U	4.570 U
Perfluorobutanesulfonic acid	NS	1.930 U	1.970 U	1.820 U	0.770 J
Perfluorobutanoic acid	NS	55.000	4.940 U	4.560 U	7.230
Perfluorodecanesulfonic acid	NS	1.930 U	1.970 U	1.820 U	1.830 U
Perfluorodecanoic acid	NS	31.000	1.970 U	1.080 J	0.700 J
Perfluorododecanoic acid	NS	1.930 U	1.970 U	1.820 U	1.830 U
Perfluoroheptanesulfonic acid	NS	1.930 U	1.970 U	1.820 U	1.830 U
Perfluoroheptanoic acid	NS	81.500	1.280 J	1.650 J	4.020
Perfluorohexanesulfonic acid	NS	2.890	2.300	1.690 J	4.840
Perfluorohexanoic acid	NS	133.000	1.010 J	2.130	4.900
Perfluorononanoic acid	NS	21.700	1.970 U	1.090 J	3.350
Perfluorooctanesulfonic acid	**27**	10.400	4.680	15.700	7.040
Perfluorooctanoic acid	**67**	**113.000**	4.020	1.640 J	15.600
Perfluoropentanoic acid	NS	207.000	1.970 U	3.620	12.100
Perfluorotetradecanoic acid	NS	1.930 U	1.970 U	1.820 U	1.830 U
Perfluorotridecanoic acid	NS	1.930 U	1.970 U	1.820 U	1.830 U
Perfluoroundecanoic acid	NS	0.910 J	1.970 U	1.820 U	1.830 U
Perfluroroctanesulfonamide	NS	1.930 U	1.970 U	1.820 U	1.830 U
Total PFAS	NS	687.280	13.290	30.170	60.550

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	AKRF Sample ID	RI-SED-18_20221014	RI-SED-19_20221014	RI-SED-20_20221014
	Laboratory Sample ID	460-267585-6	460-267585-7	460-267585-8
	Date Sampled	10/14/2022	10/14/2022	10/14/2022
	Dilution Factor	1	1	1
	Unit	ng/l	ng/l	ng/l
Compound	**Site Specific SPLP Screening Criteria**	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	NS	5.170 U	5.630 U	5.210 U
8:2 Fluorotelomer sulfonate	NS	2.070 U	2.250 U	2.090 U
N-ethyl perfluorooctanesulfonamidoacetic acid	NS	5.170 U	5.630 U	5.210 U
N-methyl perfluorooctanesulfonamidoacetic acid	NS	5.170 U	5.630 U	5.210 U
Perfluorobutanesulfonic acid	NS	2.070 U	2.250 U	0.690 J
Perfluorobutanoic acid	NS	5.170 U	5.630 U	5.450
Perfluorodecanesulfonic acid	NS	2.070 U	2.250 U	2.090 U
Perfluorodecanoic acid	NS	2.070 U	2.250 U	2.090 U
Perfluorododecanoic acid	NS	2.070 U	2.250 U	2.090 U
Perfluoroheptanesulfonic acid	NS	2.070 U	2.250 U	2.090 U
Perfluoroheptanoic acid	NS	1.100 J	0.810 J	3.770
Perfluorohexanesulfonic acid	NS	0.940 J	2.760	3.970
Perfluorohexanoic acid	NS	1.900 J	1.570 J	4.690
Perfluorononanoic acid	NS	2.070 U	0.850 J	0.910 J
Perfluorooctanesulfonic acid	**27**	3.490	11.200	4.090
Perfluorooctanoic acid	**67**	3.850	2.340	3.820
Perfluoropentanoic acid	NS	1.850 J	1.490 J	5.990
Perfluorotetradecanoic acid	NS	2.070 U	2.250 U	2.090 U
Perfluorotridecanoic acid	NS	2.070 U	2.250 U	2.090 U
Perfluoroundecanoic acid	NS	2.070 U	2.250 U	2.090 U
Perfluroroctanesulfonamide	NS	2.070 U	2.250 U	2.090 U
Total PFAS	NS	13.130	21.020	33.380

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	AKRF Sample ID	SW-01_20210422	SW-X01_20210422	SW-02_20210422	SW-02_20210422
	Laboratory Sample ID	460-232693-15	460-232693-16	460-232693-1	460-232693-1
	Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	1	1	5
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	122	131	169	NR
8:2 Fluorotelomer sulfonate	N/A	54.5	55.8	103	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	4.21 U	4.16 U	4.16 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	4.21 U	4.16 U	4.16 U	NR
Perfluorobutanesulfonic acid	N/A	4.56	4.22	6.38	NR
Perfluorobutanoic acid	N/A	74.2	74.5	85.4	NR
Perfluorodecanesulfonic acid	N/A	1.69 U	1.66 U	0.42 J	NR
Perfluorodecanoic acid	N/A	9.45	10.7	27.7	NR
Perfluorododecanoic acid	N/A	1.69 U	1.66 U	2.63	NR
Perfluoroheptanesulfonic acid	N/A	3.81	4.37	8.05	NR
Perfluoroheptanoic acid	N/A	106	108	123	NR
Perfluorohexanesulfonic acid	N/A	60.5	60.4	98.4	NR
Perfluorohexanoic acid	N/A	167	174	193	NR
Perfluorononanoic acid	N/A	15.9	15.9	24.8	NR
Perfluorooctanesulfonic acid	***2.7***	***290***	***294***	NR	***662 D***
Perfluorooctanoic acid	***6.7***	***62.9***	***64.3***	***74.9***	NR
Perfluoropentanoic acid	N/A	293	298	NR	347 D
Perfluorotetradecanoic acid	N/A	1.69 U	1.66 U	1.67 U	NR
Perfluorotridecanoic acid	N/A	1.69 U	1.66 U	1.67 U	NR
Perfluoroundecanoic acid	N/A	0.83 J	0.81 J	4.47	NR
Perfluroroctanesulfonamide	N/A	1.69 U	1.66 U	0.82 J	NR
Total PFAS	N/A	1,264.65	1,296	1,930.97	NR

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	AKRF Sample ID	SW-03_20210422	SW-03_20210422	SW-04_20210422	SW-04_20210422
	Laboratory Sample ID	460-232693-2	460-232693-2	460-232693-3	460-232693-3
	Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	5	1	10
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	170	NR	106	NR
8:2 Fluorotelomer sulfonate	N/A	91.6	NR	1.98 U	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	4.31 U	NR	4.95 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	4.31 U	NR	4.95 U	NR
Perfluorobutanesulfonic acid	N/A	7.16	NR	37.2	NR
Perfluorobutanoic acid	N/A	87.1	NR	182	NR
Perfluorodecanesulfonic acid	N/A	1.72 U	NR	1.98 U	NR
Perfluorodecanoic acid	N/A	22.6	NR	7.6	NR
Perfluorododecanoic acid	N/A	0.66 J	NR	1.98 U	NR
Perfluoroheptanesulfonic acid	N/A	9.48	NR	25.4	NR
Perfluoroheptanoic acid	N/A	129	NR	234	NR
Perfluorohexanesulfonic acid	N/A	118	NR	NR	431 D
Perfluorohexanoic acid	N/A	204	NR	382	NR
Perfluorononanoic acid	N/A	24.6	NR	*19.8*	NR
Perfluorooctanesulfonic acid	***2.7***	NR	***667 D***	NR	***1,780 D***
Perfluorooctanoic acid	***6.7***	***80***	NR	**123**	NR
Perfluoropentanoic acid	N/A	NR	347 D	NR	794 D
Perfluorotetradecanoic acid	N/A	1.72 U	NR	1.98 U	NR
Perfluorotridecanoic acid	N/A	1.72 U	NR	1.98 U	NR
Perfluoroundecanoic acid	N/A	2.08	NR	0.54 J	NR
Perfluroroctanesulfonamide	N/A	0.64 J	NR	1.98 U	NR
Total PFAS	N/A	1,960.92	NR	4,122.54	NR

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	AKRF Sample ID	SW-05_20210422	SW-05_20210422	SW-06_20210422	SW-06_20210422
	Laboratory Sample ID	460-232693-4	460-232693-4	460-232693-5	460-232693-5
	Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	5	1	5
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	177	NR	167	NR
8:2 Fluorotelomer sulfonate	N/A	90.1	NR	68.4	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	5.04 U	NR	4.24 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	5.04 U	NR	4.24 U	NR
Perfluorobutanesulfonic acid	N/A	7.35	NR	7.41	NR
Perfluorobutanoic acid	N/A	87.2	NR	85.8	NR
Perfluorodecanesulfonic acid	N/A	2.02 U	NR	1.7 U	NR
Perfluorodecanoic acid	N/A	22.5	NR	19.9	NR
Perfluorododecanoic acid	N/A	0.68 J	NR	0.61 J	NR
Perfluoroheptanesulfonic acid	N/A	9.16	NR	9.47	NR
Perfluoroheptanoic acid	N/A	131	NR	124	NR
Perfluorohexanesulfonic acid	N/A	NR	112 D	NR	108 D
Perfluorohexanoic acid	N/A	201	NR	194	NR
Perfluorononanoic acid	N/A	*24.7*	NR	*22.3*	NR
Perfluorooctanesulfonic acid	***2.7***	NR	***704 D***	NR	***618 D***
Perfluorooctanoic acid	***6.7***	**84.5**	NR	**77.4**	NR
Perfluoropentanoic acid	N/A	NR	351 D	NR	351 D
Perfluorotetradecanoic acid	N/A	2.02 U	NR	1.7 U	NR
Perfluorotridecanoic acid	N/A	2.02 U	NR	1.7 U	NR
Perfluoroundecanoic acid	N/A	2.02	NR	1.73	NR
Perfluroroctanesulfonamide	N/A	0.62 J	NR	0.51 J	NR
Total PFAS	N/A	2,004.83	NR	1,855.53	NR

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	AKRF Sample ID	SW-07_20210422	SW-07_20210422	SW-08_20210422	SW-08_20210422
	Laboratory Sample ID	460-232693-6	460-232693-6	460-232693-7	460-232693-7
	Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	5	1	5
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	152	NR	150	NR
8:2 Fluorotelomer sulfonate	N/A	62.9	NR	49.6	NR
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	4.3 U	NR	4.36 U	NR
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	4.3 U	NR	4.36 U	NR
Perfluorobutanesulfonic acid	N/A	7.78	NR	8.06	NR
Perfluorobutanoic acid	N/A	91.4	NR	87.9	NR
Perfluorodecanesulfonic acid	N/A	1.72 U	NR	0.28 J	NR
Perfluorodecanoic acid	N/A	19.8	NR	21	NR
Perfluorododecanoic acid	N/A	0.51 J	NR	1.55 J	NR
Perfluoroheptanesulfonic acid	N/A	9.67	NR	8.9	NR
Perfluoroheptanoic acid	N/A	136	NR	134	NR
Perfluorohexanesulfonic acid	N/A	122	NR	122	NR
Perfluorohexanoic acid	N/A	207	NR	204	NR
Perfluorononanoic acid	N/A	*23.6*	NR	*25.7*	NR
Perfluorooctanesulfonic acid	***2.7***	NR	***628 D***	NR	***652 D***
Perfluorooctanoic acid	***6.7***	**81.9**	NR	**82.7**	NR
Perfluoropentanoic acid	N/A	NR	358 D	NR	364 D
Perfluorotetradecanoic acid	N/A	1.72 U	NR	1.74 U	NR
Perfluorotridecanoic acid	N/A	1.72 U	NR	1.74 U	NR
Perfluoroundecanoic acid	N/A	1.79	NR	2.66	NR
Perfluroroctanesulfonamide	N/A	0.57 J	NR	0.67 J	NR
Total PFAS	N/A	1,902.92	NR	1,915.02	NR

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Surface Water Analytical Results - PFAS

	AKRF Sample ID	SW-09_20210423	SW-10_20210427	SW-11_20210427	SW-12_20210427
	Laboratory Sample ID	460-232805-3	460-233031-1	460-233031-2	460-233031-3
	Date Sampled	4/23/2021	4/27/2021	4/27/2021	4/27/2021
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	1	1	1
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	4.33 U	10.8	10	10.8
8:2 Fluorotelomer sulfonate	N/A	1.73 U	1.67 U	0.67 J	1.65 U
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	4.33 U	4.17 U	4.22 U	4.13 U
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	4.33 U	4.17 U	4.22 U	4.13 U
Perfluorobutanesulfonic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluorobutanoic acid	N/A	1.32 J	9.27 JK	9.48 JK	9.42 JK
Perfluorodecanesulfonic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluorodecanoic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluorododecanoic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluoroheptanesulfonic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluoroheptanoic acid	N/A	1.73 U	12.5	12.3	13.1
Perfluorohexanesulfonic acid	N/A	2.83 JK	9.5	10	9.85
Perfluorohexanoic acid	N/A	1.49 J	23.1	21.6	21.8
Perfluorononanoic acid	N/A	1.73 U	2.44 JK	2.22 JK	2.04 JK
Perfluorooctanesulfonic acid	***2.7***	4.84 JK	***34***	***34.9***	***30.9***
Perfluorooctanoic acid	***6.7***	1.73 U	**8.13**	**7.97**	**7.54**
Perfluoropentanoic acid	N/A	1.9 JK	37.5	37.2	34.8
Perfluorotetradecanoic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluorotridecanoic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluoroundecanoic acid	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Perfluroroctanesulfonamide	N/A	1.73 U	1.67 U	1.69 U	1.65 U
Total PFAS	N/A	12.38	147.24	146.34	140.25

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	AKRF Sample ID	RI-SW-13_20221014	RI-SW-X_20221014	RI-SW-14_20221014	RI-SW-15_20221014
	Laboratory Sample ID	460-267585-10	460-267585-18	460-267585-11	460-267585-12
	Date Sampled	10/14/2022	10/14/2022	10/14/2022	10/14/2022
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	1	1	1
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	108	133	24.9 U	47.9 U
8:2 Fluorotelomer sulfonate	N/A	9.36 J	15.7	9.96 U	19.2 U
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	24.9 U	24.6 U	24.9 U	47.9 U
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	24.9 U	24.6 U	24.9 U	47.9 U
Perfluorobutanesulfonic acid	N/A	4.46 J	4.59 J	9.96 U	19.2 U
Perfluorobutanoic acid	N/A	265	265	82.1	16.8 J
Perfluorodecanesulfonic acid	N/A	9.94 U	9.84 U	9.96 U	19.2 U
Perfluorodecanoic acid	N/A	14.7	24.2	3.2 J	19.2 U
Perfluorododecanoic acid	N/A	9.94 U	3.3 J	9.96 U	19.2 U
Perfluoroheptanesulfonic acid	N/A	9.94 U	9.84 U	9.96 U	19.2 U
Perfluoroheptanoic acid	N/A	253	252	59	6.1 J
Perfluorohexanesulfonic acid	N/A	40.6	39.3	9.23 J	8.97 J
Perfluorohexanoic acid	N/A	580	604	117	10.9 J
Perfluorononanoic acid	N/A	*20.6*	*22.5*	*6.54 J*	19.2 U
Perfluorooctanesulfonic acid	***2.7***	***105***	***147***	***9.39 J***	19.2 U
Perfluorooctanoic acid	***6.7***	**144**	**149**	**59.2**	**8.71** J
Perfluoropentanoic acid	N/A	1,150	1,210	221	13.6 J
Perfluorotetradecanoic acid	N/A	9.94 U	9.84 U	9.96 U	19.2 U
Perfluorotridecanoic acid	N/A	9.94 U	9.84 U	9.96 U	19.2 U
Perfluoroundecanoic acid	N/A	9.94 U	4.96 J	9.96 U	19.2 U
Perfluroroctanesulfonamide	N/A	9.94 U	9.84 U	9.96 U	19.2 U
Total PFAS	N/A	2,694.72	2,874.55	566.66	65.08

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	AKRF Sample ID	RI-SW-16_20221014	RI-SW-17_20221014	RI-SW-18_20221014	RI-SW-19_20221014
	Laboratory Sample ID	460-267585-13	460-267585-14	460-267585-15	460-267585-16
	Date Sampled	10/14/2022	10/14/2022	10/14/2022	10/14/2022
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	5	1	1
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	47.3 U	21.7 U	48.6 U	48.4 U
8:2 Fluorotelomer sulfonate	N/A	18.9 U	8.7 U	19.5 U	19.4 U
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	47.3 U	21.7 U	48.6 U	22.7 J
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	47.3 U	21.7 U	48.6 U	48.4 U
Perfluorobutanesulfonic acid	N/A	18.9 U	10.2	6.59 J	9.77 J
Perfluorobutanoic acid	N/A	16 J	24.3	15.8 J	13 J
Perfluorodecanesulfonic acid	N/A	18.9 U	8.7 U	19.5 U	38.8
Perfluorodecanoic acid	N/A	18.9 U	8.7 U	19.5 U	19.4 U
Perfluorododecanoic acid	N/A	18.9 U	8.7 U	19.5 U	34
Perfluoroheptanesulfonic acid	N/A	18.9 U	8.7 U	19.5 U	19.4 U
Perfluoroheptanoic acid	N/A	15.5 J	16.7	7.54 J	19.4 U
Perfluorohexanesulfonic acid	N/A	10.9 J	15.1	5.45 J	13.6 J
Perfluorohexanoic acid	N/A	28.8	32.7	18.4 J	13.5 J
Perfluorononanoic acid	N/A	18.9 U	8.7 U	19.5 U	19.4 U
Perfluorooctanesulfonic acid	***2.7***	***45.1***	***7.87 J***	***9.69 J***	***20.8***
Perfluorooctanoic acid	***6.7***	**8.05** J	**30.1**	**21.6**	**8.65** J
Perfluoropentanoic acid	N/A	41	49.4	31.1	14.1 J
Perfluorotetradecanoic acid	N/A	18.9 U	8.7 U	19.5 U	12.8 J
Perfluorotridecanoic acid	N/A	18.9 U	8.7 U	19.5 U	17.3 J
Perfluoroundecanoic acid	N/A	18.9 U	8.7 U	19.5 U	20
Perfluroroctanesulfonamide	N/A	18.9 U	8.7 U	19.5 U	19.4 U
Total PFAS	N/A	165.35	186.37	116.17	239.02

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	AKRF Sample ID	RI-SW-20_20221014	OF-01_20210427	FB-03_20210423	FB-01_20221014
	Laboratory Sample ID	460-267585-17	460-233031-11	460-232805-4	460-267585-23
	Date Sampled	10/14/2022	4/27/2021	4/23/2021	10/14/2022
	Unit	ppt	ppt	ppt	ppt
	Dilution Factor	1	1	1	1
Compound	**Proposed NYSDEC PFAS AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q
6:2 Fluorotelomer sulfonate	N/A	2.76 J	12.6	4.33 U	4.38 U
8:2 Fluorotelomer sulfonate	N/A	1.69 U	0.37 J	1.73 U	1.75 U
N-ethyl perfluorooctanesulfonamidoacetic acid	N/A	4.23 U	4.38 U	4.33 U	4.38 U
N-methyl perfluorooctanesulfonamidoacetic acid	N/A	4.23 U	4.38 U	4.33 U	4.38 U
Perfluorobutanesulfonic acid	N/A	2.15	1.75 U	1.73 U	1.75 U
Perfluorobutanoic acid	N/A	12	10.5 JK	4.33 U	4.38 U
Perfluorodecanesulfonic acid	N/A	1.69 U	1.75 U	1.73 U	1.75 U
Perfluorodecanoic acid	N/A	1.55 J	1.75 U	1.73 U	1.75 U
Perfluorododecanoic acid	N/A	1.69 U	1.75 U	1.73 U	1.75 U
Perfluoroheptanesulfonic acid	N/A	1.69 U	1.75 U	1.73 U	1.75 U
Perfluoroheptanoic acid	N/A	18.5	13.9	1.73 U	1.75 U
Perfluorohexanesulfonic acid	N/A	12.4	10.8	1.73 U	1.75 U
Perfluorohexanoic acid	N/A	27.4	25	1.73 U	1.75 U
Perfluorononanoic acid	N/A	*3.84*	2.31	1.73 U	1.75 U
Perfluorooctanesulfonic acid	***2.7***	***53.6***	***36***	1.73 U	1.75 U
Perfluorooctanoic acid	***6.7***	**10.1**	***8.49 JK***	1.73 U	1.75 U
Perfluoropentanoic acid	N/A	44.2	39.2	1.73 U	1.75 U
Perfluorotetradecanoic acid	N/A	1.69 U	1.75 U	1.73 U	1.75 U
Perfluorotridecanoic acid	N/A	1.69 U	1.75 U	1.73 U	1.75 U
Perfluoroundecanoic acid	N/A	1.69 U	1.75 U	1.73 U	1.75 U
Perfluroroctanesulfonamide	N/A	1.69 U	1.75 U	1.73 U	1.75 U
Total PFAS	N/A	188.5	159.17	0	0

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AKRF Sample ID		MW-01_20210507	MW-01_20210507	MW-02_20210510	MW-02_20210510	MW-02_20210510
Laboratory Sample ID		460-233871-1	460-233871-1	460-234057-1	460-234057-1	460-234057-1
Date Sampled		5/07/2021	5/07/2021	5/10/2021	5/10/2021	5/10/2021
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	5	1	20	150
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	9.55	NR	25.2	NR	NR
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	323	NR	NR	517 D	NR
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	4.56 U	NR	4.86 U	NR	NR
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	4.56 U	NR	4.86 U	NR	NR
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	13.5	NR	NR	361 D	NR
Perfluorobutanoic acid (PFBA)	NS	293	NR	307	NR	NR
Perfluorodecanesulfonic acid (PFDS)	NS	1.82 U	NR	0.94 J	NR	NR
Perfluorodecanoic acid (PFDA)	NS	1.92	NR	5.12	NR	NR
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	1.82 U	NR	1.95 U	NR	NR
Perfluoroheptanesulfonic acid (PFHpS)	NS	11.3	NR	NR	766 D	NR
Perfluoroheptanoic acid (PFHpA)	NS	NR	602 D	NR	510 D	NR
Perfluorohexanesulfonic acid (PFHxS)	NS	127	NR	NR	NR	5,440 D
Perfluorohexanoic acid (PFHxA)	NS	NR	610 D	NR	969 D	NR
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	22.8	NR	15.9	NR	NR
Perfluorooctanesulfonamide (PFOSA)	NS	1.82 U	NR	1.65 J	NR	NR
Perfluorooctanesulfonic acid (PFOS)	**2.7**	NR	**310 D**	NR	NR	**51,200 D**
Perfluorooctanoic acid (PFOA)	**6.7**	**146**	NR	NR	**496 D**	NR
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	NR	1,250 D	NR	1,040 D	NR
Perfluorotetradecanoic acid (PFTeDA)	NS	1.82 U	NR	1.95 U	NR	NR
Perfluorotridecanoic acid (PFTrDA)	NS	1.82 U	NR	1.95 U	NR	NR
Perfluoroundecanoic acid (PFUnA)	NS	1.82 U	NR	1.95 U	NR	NR

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AKRF Sample ID		MW-03_20210507	MW-03_20210507	MW-03_20210507	MW-04_20210510	MW-04_20210510
Laboratory Sample ID		460-233871-2	460-233871-2	460-233871-2	460-234057-2	460-234057-2
Date Sampled		5/07/2021	5/07/2021	5/07/2021	5/10/2021	5/10/2021
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	20	150	1	5
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	141	NR	NR	48	NR
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NR	1,810 D	NR	NR	300 D
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	4.62 U	NR	NR	4.79 U	NR
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	4.62 U	NR	NR	4.79 U	NR
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	324	NR	NR	NR	16.1 D
Perfluorobutanoic acid (PFBA)	NS	NR	645 D	NR	111	NR
Perfluorodecanesulfonic acid (PFDS)	NS	0.44 J	NR	NR	3.89	NR
Perfluorodecanoic acid (PFDA)	NS	30.5	NR	NR	84.4	NR
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	1.85 U	NR	NR	1.34 J	NR
Perfluoroheptanesulfonic acid (PFHpS)	NS	NR	1,020 D	NR	NR	15.4 D
Perfluoroheptanoic acid (PFHpA)	NS	NR	1,240 D	NR	NR	204 D
Perfluorohexanesulfonic acid (PFHxS)	NS	NR	NR	7,590 D	NR	282 D
Perfluorohexanoic acid (PFHxA)	NS	NR	1,640 D	NR	NR	249 D
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	87.5	NR	NR	64.9	NR
Perfluorooctanesulfonamide (PFOSA)	NS	0.71 J	NR	NR	9.53	NR
Perfluorooctanesulfonic acid (PFOS)	**2.7**	NR	NR	**29,100 D**	NR	**1,360 D**
Perfluorooctanoic acid (PFOA)	**6.7**	NR	**1,120 D**	NR	NR	**141 D**
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	NR	2,790 D	NR	NR	456 D
Perfluorotetradecanoic acid (PFTeDA)	NS	1.85 U	NR	NR	1.92 U	NR
Perfluorotridecanoic acid (PFTrDA)	NS	1.85 U	NR	NR	1.92 U	NR
Perfluoroundecanoic acid (PFUnA)	NS	0.63 J	NR	NR	12.1	NR

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AKRF Sample ID		MW-05_20210526	MW-06_20210526	MW-11_20241107	MW-0X_20241107	MW-12_20241107
Laboratory Sample ID		460-235177-1	460-235177-2	460-315062-1	460-315062-3	460-315062-2
Date Sampled		5/26/2021	5/26/2021	11/07/2024	11/07/2024	11/07/2024
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	7.01 U	6.94 U	6.73 U
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	0.53 J	0.42 J	3.53 J	3.26 J	6.73 U
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	7.01 U	6.94 U	6.73 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	1.14 J	1.02 J	65.8	62.8	6.73 U
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	43.8 U	43.4 U	42.1 U
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	43.8 U	43.4 U	42.1 U
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	8.76 U	8.68 U	8.41 U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	7.01 U	6.94 U	6.73 U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	7.01 U	6.94 U	6.73 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	7.01 U	6.94 U	6.73 U
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	1.75 U	1.74 U	1.68 U
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	17.5 UT	17.4 UT	16.8 UT
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	3.95 U	3.97 U	1.75 U	1.74 U	1.68 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	1.75 U	1.74 U	1.68 U
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	17.5 U	17.4 U	16.8 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	3.95 U	3.97 U	1.75 U	1.74 U	1.68 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	3.5 U	3.47 U	3.36 U
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	3.5 U	3.47 U	3.36 U
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	3.5 U	3.47 U	3.36 U
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	3.5 U	3.47 U	3.36 U
Perfluorobutanesulfonic acid (PFBS)	NS	1.45 J	1.85	8.18	7.83	1.52 J
Perfluorobutanoic acid (PFBA)	NS	6.53	7.1	66.3	63.7	5.07 J
Perfluorodecanesulfonic acid (PFDS)	NS	0.24 J	0.38 J	1.75 U	1.74 U	1.68 U
Perfluorodecanoic acid (PFDA)	NS	0.53 J	0.54 J	1.06 J	0.97 J	1.68 U
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	1.75 U	1.74 U	1.68 U
Perfluorododecanoic acid (PFDoA)	NS	0.33 J	0.47 J	1.75 U	1.74 U	1.68 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	0.6 J	1.02 J	8.89	8.55	0.45 J
Perfluoroheptanoic acid (PFHpA)	NS	8.61	6.94	115	111	4.13
Perfluorohexanesulfonic acid (PFHxS)	NS	8.42	13.5	126	118	7.76
Perfluorohexanoic acid (PFHxA)	NS	9.72	8	130	132	6.14
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	1.75 U	1.74 U	1.68 U
Perfluorononanoic acid (PFNA)	NS	1.97	1.48 J	6.9	6.45	1.95
Perfluorooctanesulfonamide (PFOSA)	NS	1.58 U	1.59 U	1.75 U	1.74 U	1.68 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	**26.8**	**42.5**	**356**	**341**	**34.4**
Perfluorooctanoic acid (PFOA)	**6.7**	4.69	4.84	**46.7**	**43.2**	5.55
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	10.9	10.5	0.94 J
Perfluoropentanoic acid (PFPeA)	NS	21.4	8.23	250	241	11
Perfluorotetradecanoic acid (PFTeDA)	NS	1.58 U	1.59 U	1.75 U	1.74 U	1.68 U
Perfluorotridecanoic acid (PFTrDA)	NS	1.58 U	0.34 J	1.75 U	1.74 U	1.68 U
Perfluoroundecanoic acid (PFUnA)	NS	0.41 J	0.42 J	1.75 U	1.74 U	1.68 U

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Remedial Investigation Report
Groundwater Analytical Results - PFAS

AKRF Sample ID		RI-MW-01_20221017	RI-MW-01_20221017	RI-MW-X_20221017	RI-MW-X_20221017	RI-MW-02_20221020
Laboratory Sample ID		460-267702-1	460-267702-1	460-267702-3	460-267702-3	460-267901-3
Date Sampled		10/17/2022	10/17/2022	10/17/2022	10/17/2022	10/20/2022
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	5	1	5	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	375	NR	411	NR	35.9 J
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NR	4,220 D	NR	4,310 D	NR
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	24.8 U	NR	24.8 U	NR	4.85 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	24.8 U	NR	24.8 U	NR	4.85 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	41.4	NR	43	NR	NR
Perfluorobutanoic acid (PFBA)	NS	1,120	NR	1,140	NR	NR
Perfluorodecanesulfonic acid (PFDS)	NS	9.92 U	NR	9.92 U	NR	2.54 J
Perfluorodecanoic acid (PFDA)	NS	23.1	NR	24.6	NR	6.82 J
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	9.92 U	NR	9.92 U	NR	1.94 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	60.3	NR	62.5	NR	NR
Perfluoroheptanoic acid (PFHpA)	NS	1,820	NR	1,780	NR	NR
Perfluorohexanesulfonic acid (PFHxS)	NS	598	NR	600	NR	NR
Perfluorohexanoic acid (PFHxA)	NS	NR	3,170 D	NR	3,000 D	NR
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	83.6	NR	85.7	NR	37.7 J
Perfluorooctanesulfonamide (PFOSA)	NS	9.92 U	NR	9.92 U	NR	2.68
Perfluorooctanesulfonic acid (PFOS)	**2.7**	NR	**2,570 D**	NR	**2,610 D**	NR
Perfluorooctanoic acid (PFOA)	**6.7**	**649**	NR	**683**	NR	NR
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	NR	5,790 D	NR	6,010 D	NR
Perfluorotetradecanoic acid (PFTeDA)	NS	9.92 U	NR	9.92 U	NR	1.94 U
Perfluorotridecanoic acid (PFTrDA)	NS	9.92 U	NR	9.92 U	NR	1.94 U
Perfluoroundecanoic acid (PFUnA)	NS	9.92 U	NR	9.92 U	NR	1.94 U

Table 14
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AKRF Sample ID		RI-MW-02_20221020	RI-MW-02_20221020	RI-MW-03_20221020	RI-MW-03_20221020	RI-MW-03_20221020
Laboratory Sample ID		460-267901-3	460-267901-3	460-267901-4	460-267901-4	460-267901-4
Date Sampled		10/20/2022	10/20/2022	10/20/2022	10/20/2022	10/20/2022
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		20	200	1	20	200
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NR	NR	264 J	NR	NR
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	1,520 D	NR	NR	2,320 D	NR
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NR	NR	4.87 U	NR	NR
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NR	NR	4.87 U	NR	NR
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	430 D	NR	252	NR	NR
Perfluorobutanoic acid (PFBA)	NS	636 D	NR	NR	522 D	NR
Perfluorodecanesulfonic acid (PFDS)	NS	NR	NR	1.95 U	NR	NR
Perfluorodecanoic acid (PFDA)	NS	NR	NR	42.6	NR	NR
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	NR	NR	0.61 J	NR	NR
Perfluoroheptanesulfonic acid (PFHpS)	NS	2,950 D	NR	NR	1,050 D	NR
Perfluoroheptanoic acid (PFHpA)	NS	1,430 D	NR	NR	1,040 D	NR
Perfluorohexanesulfonic acid (PFHxS)	NS	NR	13,400	NR	NR	7,520 D
Perfluorohexanoic acid (PFHxA)	NS	1,830 D	NR	NR	1,440 D	NR
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	NR	NR	87.2	NR	NR
Perfluorooctanesulfonamide (PFOSA)	NS	NR	NR	1.07 J	NR	NR
Perfluorooctanesulfonic acid (PFOS)	**2.7**	NR	**82,800 JLD**	NR	NR	**34,800 D**
Perfluorooctanoic acid (PFOA)	**6.7**	**1,570 D**	NR	NR	**1,080 D**	NR
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	2,540 D	NR	NR	2,420 D	NR
Perfluorotetradecanoic acid (PFTeDA)	NS	NR	NR	1.95 U	NR	NR
Perfluorotridecanoic acid (PFTrDA)	NS	NR	NR	1.95 U	NR	NR
Perfluoroundecanoic acid (PFUnA)	NS	NR	NR	0.89 J	NR	NR

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AKRF Sample ID		RI-MW-04_20221017	RI-MW-04_20221017	RI-MW-05_20221019	RI-MW-06_20221019	RI-MW-07_20221020
Laboratory Sample ID		460-267702-2	460-267702-2	460-267827-1	460-267827-2	460-267901-1
Date Sampled		10/17/2022	10/17/2022	10/19/2022	10/19/2022	10/20/2022
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	10	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	129	NR	1.76 UJ	1.87 UJ	24
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NR	1,990 D	2.94 J	4.69 UJ	749
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	24.6 U	NR	4.41 U	4.69 U	25 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	24.6 U	NR	4.41 U	4.69 U	25 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	158	NR	1.82	1.79 J	34.6
Perfluorobutanoic acid (PFBA)	NS	714	NR	8.96	8.65	305
Perfluorodecanesulfonic acid (PFDS)	NS	2.34 J	NR	1.76 U	1.87 U	9.98 U
Perfluorodecanoic acid (PFDA)	NS	54.1	NR	0.63 J	1.87 U	9.98 U
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	9.84 U	NR	1.76 U	1.87 U	9.98 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	282	NR	0.57 J	0.56 J	45.5
Perfluoroheptanoic acid (PFHpA)	NS	1,380	NR	8.99	8.63	593
Perfluorohexanesulfonic acid (PFHxS)	NS	NR	3,100 D	12.1	11.1	586
Perfluorohexanoic acid (PFHxA)	NS	1,950	NR	14.5	14.1	728
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	83.8	NR	2.9	1.32 J	18.9
Perfluorooctanesulfonamide (PFOSA)	NS	7.94 J	NR	1.16 J	1.87 U	9.98 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	NR	**11,600 D**	**50.1**	**45.5**	**1,300**
Perfluorooctanoic acid (PFOA)	**6.7**	**923**	NR	5.42	6.03	**162**
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	NR	3,790 D	23.9	28.5	1,400
Perfluorotetradecanoic acid (PFTeDA)	NS	9.84 U	NR	1.76 U	1.87 U	9.98 U
Perfluorotridecanoic acid (PFTrDA)	NS	9.84 U	NR	1.76 U	1.87 U	9.98 U
Perfluoroundecanoic acid (PFUnA)	NS	7.18 J	NR	1.76 U	1.87 U	9.98 U

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AKRF Sample ID		RI-MW-08_20221020	RI-MW-08_20221020	RI-MW-09_20221024	RI-MW-09_20221024	RI-MW-10_20221024
Laboratory Sample ID		460-267901-2	460-267901-2	460-268208-2	460-268208-2	460-268208-1
Date Sampled		10/20/2022	10/20/2022	10/24/2022	10/24/2022	10/24/2022
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	10	1	20	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	263	NR	41.6	NR	19.3
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NR	599 D	484	NR	68.3
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	5.57 U	NR	24.9 U	NR	3.96 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	5.57 U	NR	24.9 U	NR	3.96 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	30.9	NR	133	NR	9.22
Perfluorobutanoic acid (PFBA)	NS	441	NR	231	NR	116
Perfluorodecanesulfonic acid (PFDS)	NS	0.81 J	NR	9.94 U	NR	1.58 U
Perfluorodecanoic acid (PFDA)	NS	45.1	NR	11.5	NR	13.5
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	0.61 J	NR	9.94 U	NR	1.58 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	24.7	NR	458	NR	2.83
Perfluoroheptanoic acid (PFHpA)	NS	NR	789 D	413	NR	191
Perfluorohexanesulfonic acid (PFHxS)	NS	NR	491 D	NR	2,730 D	107
Perfluorohexanoic acid (PFHxA)	NS	NR	1,000 D	565	NR	208
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	66.5	NR	24	NR	21.6
Perfluorooctanesulfonamide (PFOSA)	NS	1.75 J	NR	9.94 U	NR	1.58 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	NR	**1,980 D**	NR	**18,800 D**	**186**
Perfluorooctanoic acid (PFOA)	**6.7**	**254**	NR	**301**	NR	**77.9**
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	NR	1,960 D	940	NR	NR
Perfluorotetradecanoic acid (PFTeDA)	NS	2.23 U	NR	9.94 U	NR	1.58 U
Perfluorotridecanoic acid (PFTrDA)	NS	2.23 U	NR	9.94 U	NR	1.58 U
Perfluoroundecanoic acid (PFUnA)	NS	1.86 J	NR	9.94 U	NR	0.81 J

Table 14
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AKRF Sample ID		RI-MW-10_20221024	MW-11_20241107	MW-0X_20241107	MW-12_20241107	DP-02_20210506
Laboratory Sample ID		460-268208-1	460-315062-1	460-315062-3	460-315062-2	460-233754-3
Date Sampled		10/24/2022	11/07/2024	11/07/2024	11/07/2024	5/06/2021
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		2	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	7.01 U	6.94 U	6.73 U	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	NR	3.53 J	3.26 J	6.73 U	1.27 J
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	7.01 U	6.94 U	6.73 U	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	NR	65.8	62.8	6.73 U	9.36
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	43.8 U	43.4 U	42.1 U	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	43.8 U	43.4 U	42.1 U	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	8.76 U	8.68 U	8.41 U	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	7.01 U	6.94 U	6.73 U	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	7.01 U	6.94 U	6.73 U	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	7.01 U	6.94 U	6.73 U	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	1.75 U	1.74 U	1.68 U	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	17.5 U *	17.4 U *	16.8 U *	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NR	1.75 U	1.74 U	1.68 U	4.88 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	1.75 U	1.74 U	1.68 U	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	17.5 U	17.4 U	16.8 U	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NR	1.75 U	1.74 U	1.68 U	4.88 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	3.5 U	3.47 U	3.36 U	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	3.5 U	3.47 U	3.36 U	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	3.5 U	3.47 U	3.36 U	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	3.5 U	3.47 U	3.36 U	NR
Perfluorobutanesulfonic acid (PFBS)	NS	NR	8.18	7.83	1.52 J	1.47 J
Perfluorobutanoic acid (PFBA)	NS	NR	66.3	63.7	5.07 J	13.4
Perfluorodecanesulfonic acid (PFDS)	NS	NR	1.75 U	1.74 U	1.68 U	1.95 U
Perfluorodecanoic acid (PFDA)	NS	NR	1.06 J	0.97 J	1.68 U	1.82 J
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	1.75 U	1.74 U	1.68 U	NR
Perfluorododecanoic acid (PFDoA)	NS	NR	1.75 U	1.74 U	1.68 U	1.95 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	NR	8.89	8.55	0.45 J	0.7 J
Perfluoroheptanoic acid (PFHpA)	NS	NR	115	111	4.13	18.5
Perfluorohexanesulfonic acid (PFHxS)	NS	NR	126	118	7.76	12.8
Perfluorohexanoic acid (PFHxA)	NS	NR	130	132	6.14	33.9
Perfluorononanesulfonic acid (PFNS)	NS	NR	1.75 U	1.74 U	1.68 U	NR
Perfluorononanoic acid (PFNA)	NS	NR	6.9	6.45	1.95	3.88
Perfluorooctanesulfonamide (PFOSA)	NS	NR	1.75 U	1.74 U	1.68 U	1.95 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	NR	**356**	**341**	**34.4**	**44.5**
Perfluorooctanoic acid (PFOA)	**6.7**	NR	**46.7**	**43.2**	5.55	**11.6**
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	10.9	10.5	0.94 J	NR
Perfluoropentanoic acid (PFPeA)	NS	462 D	250	241	11	51.1
Perfluorotetradecanoic acid (PFTeDA)	NS	NR	1.75 U	1.74 U	1.68 U	1.95 U
Perfluorotridecanoic acid (PFTrDA)	NS	NR	1.75 U	1.74 U	1.68 U	1.95 U
Perfluoroundecanoic acid (PFUnA)	NS	NR	1.75 U	1.74 U	1.68 U	0.61 J

Table 14
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AKRF Sample ID		DP-05_20210506	DP-08_20210506	DP-X01_20210506	DP-10_20210507	RI-DP-02_20221018
Laboratory Sample ID		460-233754-2	460-233754-1	460-233754-4	460-233871-3	460-267732-1
Date Sampled		5/06/2021	5/06/2021	5/06/2021	5/07/2021	10/18/2022
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	0.88 J	0.67 J	0.39 J	2.11	9.69 UJ
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	8.58	6.62	5.86	1.26 J	23.3 J
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	4.69 U	4.83 U	4.78 U	4.89 U	24.2 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	4.69 U	4.83 U	4.78 U	4.89 U	24.2 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	1.51 J	1.31 J	1.45 J	5.18	9.69 U
Perfluorobutanoic acid (PFBA)	NS	14.1	12.6	12.5	5.39 JK	10.2 J
Perfluorodecanesulfonic acid (PFDS)	NS	1.88 U	1.93 U	1.91 U	1.96 U	9.69 U
Perfluorodecanoic acid (PFDA)	NS	1.61 J	1.82 J	1.9 J	0.93 J	9.69 U
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	1.88 U	1.93 U	1.91 U	1.96 U	9.69 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	0.72 J	0.75 J	0.71 J	0.45 J	9.69 U
Perfluoroheptanoic acid (PFHpA)	NS	19.9	17.2	17.5	6.5	10.5
Perfluorohexanesulfonic acid (PFHxS)	NS	13.2	12.1	11.5	8.74	9.56 J
Perfluorohexanoic acid (PFHxA)	NS	33.4	31.1	30.1	7.72	20.7
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	3.38	4.23	3.87	3.08	2.67 J
Perfluorooctanesulfonamide (PFOSA)	NS	1.88 U	1.93 U	1.91 U	1.96 U	9.69 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	**40.7**	**48.5**	**48.1**	**32.8**	**48.1**
Perfluorooctanoic acid (PFOA)	**6.7**	**11.5**	**11.1**	**9.95**	3.93	**8 J**
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	56.6	52.4	49.1	13.5	31.1
Perfluorotetradecanoic acid (PFTeDA)	NS	1.88 U	1.93 U	1.91 U	1.96 U	9.69 U
Perfluorotridecanoic acid (PFTrDA)	NS	1.88 U	1.93 U	1.91 U	1.96 U	9.69 U
Perfluoroundecanoic acid (PFUnA)	NS	0.49 J	0.46 J	0.48 J	1.96 U	9.69 U

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AKRF Sample ID		RI-DP-05_20221018	RI-DP-08_20221018	RI-DP-10_20221019	CW-01_20210427	CW-02_20210427
Laboratory Sample ID		460-267732-2	460-267732-3	460-267827-3	460-233031-4	460-233031-5
Date Sampled		10/18/2022	10/18/2022	10/19/2022	4/27/2021	4/27/2021
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	9.8 UJ	9.98 UT	1.85 UJ	0.66 J	0.95 J
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	17.9 J	25.3 J	4.11 J	7.42	10.3
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	24.5 U	25 U	4.62 U	4.9 U	4.93 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	24.5 U	25 U	4.62 U	4.9 U	4.93 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	9.8 U	9.98 U	1.51 J	2.49 JK	2.66 JK
Perfluorobutanoic acid (PFBA)	NS	10.2 J	9.63 J	7.55	24.1	24
Perfluorodecanesulfonic acid (PFDS)	NS	9.8 U	9.98 U	1.85 U	1.96 U	1.97 U
Perfluorodecanoic acid (PFDA)	NS	2.46 J	9.98 U	0.5 J	1.96 U	1.97 U
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	9.8 U	9.98 U	1.85 U	1.96 U	1.97 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	9.8 U	9.98 U	0.48 J	1.96 U	1.97 U
Perfluoroheptanoic acid (PFHpA)	NS	11.5	11.1	8.49	25.6	25.3
Perfluorohexanesulfonic acid (PFHxS)	NS	9.69 J	8.72 J	9.22	23.6	22.8
Perfluorohexanoic acid (PFHxA)	NS	20.7	20.7	13.8	42.2	42.2
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	3.47 J	9.98 U	2.72	5.39	5.49
Perfluorooctanesulfonamide (PFOSA)	NS	9.8 U	9.98 U	1.85 U	1.96 U	1.97 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	**51.9**	**36.7**	**39.2**	**89.5**	**95.2**
Perfluorooctanoic acid (PFOA)	**6.7**	**8.32 J**	**7.86 J**	5.42	**17.1**	**17.6**
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	31.5	30.6	21.4	75.6	73.5
Perfluorotetradecanoic acid (PFTeDA)	NS	9.8 U	9.98 U	1.85 U	1.96 U	1.97 U
Perfluorotridecanoic acid (PFTrDA)	NS	9.8 U	9.98 U	1.85 U	1.96 U	1.97 U
Perfluoroundecanoic acid (PFUnA)	NS	9.8 U	9.98 U	1.85 U	1.96 U	1.97 U

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AKRF Sample ID		CW-03_20210427	CW-04_20210427	RI-CW-01_20221014	RI-CW-02_20221014	RI-CW-03_20221014
Laboratory Sample ID		460-233031-6	460-233031-7	460-267585-19	460-267585-20	460-267585-21
Date Sampled		4/27/2021	4/27/2021	10/14/2022	10/14/2022	10/14/2022
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	2.22	1.8 U	1.06 J	3.85	3.77
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	10.7	3.66 J	5.89	13	12.5
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	4.95 U	4.49 U	4.4 U	4.52 U	4.47 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	4.95 U	4.49 U	4.4 U	4.52 U	4.47 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	2.49 JK	3.01 JK	2.46	2.15	2.21
Perfluorobutanoic acid (PFBA)	NS	24.6	21.6	24.9	23.1	21.7
Perfluorodecanesulfonic acid (PFDS)	NS	1.98 U	1.8 U	1.76 U	1.81 U	1.79 U
Perfluorodecanoic acid (PFDA)	NS	1.98 U	1.8 U	1.45 J	1.56 J	1.44 J
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	1.98 U	1.8 U	1.76 U	1.81 U	1.79 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	1.98 U	1.8 U	1.04 J	1.03 J	1.05 J
Perfluoroheptanoic acid (PFHpA)	NS	26.5	25.1	22.4	20.1	17.9
Perfluorohexanesulfonic acid (PFHxS)	NS	22.5	27.5	21.2	20.1	18.7
Perfluorohexanoic acid (PFHxA)	NS	42.7	37.5	40.5	33.9	32.6
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	5.91	4.68	5.42	4.45	4.45
Perfluorooctanesulfonamide (PFOSA)	NS	1.98 U	1.8 U	1.76 U	1.81 U	1.79 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	**99**	**87.9**	**88**	**80.8**	**76.2**
Perfluorooctanoic acid (PFOA)	**6.7**	**17.7**	**19.8**	**13.5**	**12.3**	**12.4**
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	75.2	65.9	75	64.3	57.7
Perfluorotetradecanoic acid (PFTeDA)	NS	1.98 U	1.8 U	1.76 U	1.81 U	1.79 U
Perfluorotridecanoic acid (PFTrDA)	NS	1.98 U	1.8 U	1.76 U	1.81 U	1.79 U
Perfluoroundecanoic acid (PFUnA)	NS	1.98 U	1.8 U	1.76 U	1.81 U	1.79 U

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AKRF Sample ID		RI-CW-04_20221014	FB-04_20210427	FB-06_20210506	FB-07_20210507	FB-08_20210510
Laboratory Sample ID		460-267585-22	460-233031-12	460-233754-5	460-233871-4	460-234057-3
Date Sampled		10/14/2022	4/27/2021	5/06/2021	5/07/2021	5/10/2021
Unit		ppt	ppt	ppt	ppt	ppt
Dilution Factor		1	1	1	1	1
Compound	**AWQSGV**	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	1.1 J	1.91 U	1.64 U	1.8 U	1.65 U
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	NR	NR	NR	NR
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	3.98 J	4.77 U	4.11 U	4.5 U	4.13 U
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	NR	NR	NR	NR
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	NR	NR	NR	NR
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	NR	NR	NR	NR
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	NR	NR	NR	NR
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	NR	NR	NR	NR
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	4.36 U	4.77 U	4.11 U	4.5 U	4.13 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	NR	NR	NR	NR
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	4.36 U	4.77 U	4.11 U	4.5 U	4.13 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	NR	NR	NR	NR
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	NR	NR	NR	NR
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	NR	NR	NR	NR
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	NR	NR	NR	NR
Perfluorobutanesulfonic acid (PFBS)	NS	2.42	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorobutanoic acid (PFBA)	NS	18.1	4.77 U	0.8 J	0.89 J	4.13 U
Perfluorodecanesulfonic acid (PFDS)	NS	1.74 U	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorodecanoic acid (PFDA)	NS	0.98 J	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	NR	NR	NR	NR
Perfluorododecanoic acid (PFDoA)	NS	1.74 U	1.91 U	1.64 U	1.8 U	1.65 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	1.18 J	1.91 U	1.64 U	1.8 U	1.65 U
Perfluoroheptanoic acid (PFHpA)	NS	20.7	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorohexanesulfonic acid (PFHxS)	NS	21.9	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorohexanoic acid (PFHxA)	NS	28.4	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorononanesulfonic acid (PFNS)	NS	NR	NR	NR	NR	NR
Perfluorononanoic acid (PFNA)	NS	3.97	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorooctanesulfonamide (PFOSA)	NS	1.74 U	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	**71.3**	1.91 U	1.64 U	0.59 J	0.4 J
Perfluorooctanoic acid (PFOA)	**6.7**	**15.6**	1.91 U	1.64 U	1.8 U	1.65 U
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	NR	NR	NR	NR
Perfluoropentanoic acid (PFPeA)	NS	52.4	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorotetradecanoic acid (PFTeDA)	NS	1.74 U	1.91 U	1.64 U	1.8 U	1.65 U
Perfluorotridecanoic acid (PFTrDA)	NS	1.74 U	1.91 U	1.64 U	1.8 U	1.65 U
Perfluoroundecanoic acid (PFUnA)	NS	1.74 U	1.91 U	1.64 U	1.8 U	1.65 U

Table 14
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Groundwater Analytical Results - PFAS

	AKRF Sample ID	FB-10_20210526	FB-01_20241107
	Laboratory Sample ID	460-235177-3	460-315062-4
	Date Sampled	5/26/2021	11/07/2024
	Unit	ppt	ppt
	Dilution Factor	1	1
Compound	**AWQSGV**	CONC Q	CONC Q
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	NS	NR	6.68 U
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	NS	1.65 U	6.68 U
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	NS	NR	6.68 U
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	NS	4.12 U	6.68 U
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	NS	NR	41.8 U
3-Perfluoropentylpropanoic acid (5:3 FTCA)	NS	NR	41.8 U
3-Perfluoropropylpropanoic acid (3:3 FTCA)	NS	NR	8.36 U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	NR	6.68 U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	NS	NR	6.68 U
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	NS	NR	6.68 U
N-ethylperfluorooctane sulfonamide (NEtFOSA)	NS	NR	1.67 U
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	NS	NR	16.7 UT
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	4.12 U	1.67 U
N-methylperfluorooctane sulfonamide (NMeFOSA)	NS	NR	1.67 U
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	NS	NR	16.7 U
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	4.12 U	1.67 U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NR	3.34 U
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NR	3.34 U
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NR	3.34 U
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NR	3.34 U
Perfluorobutanesulfonic acid (PFBS)	NS	1.65 U	1.67 U
Perfluorobutanoic acid (PFBA)	NS	4.12 U	6.68 U
Perfluorodecanesulfonic acid (PFDS)	NS	1.65 U	1.67 U
Perfluorodecanoic acid (PFDA)	NS	1.65 U	1.67 U
Perfluorododecanesulfonic acid (PFDoS)	NS	NR	1.67 U
Perfluorododecanoic acid (PFDoA)	NS	1.65 U	1.67 U
Perfluoroheptanesulfonic acid (PFHpS)	NS	1.65 U	1.67 U
Perfluoroheptanoic acid (PFHpA)	NS	1.65 U	1.67 U
Perfluorohexanesulfonic acid (PFHxS)	NS	1.65 U	1.67 U
Perfluorohexanoic acid (PFHxA)	NS	1.65 U	1.67 U
Perfluorononanesulfonic acid (PFNS)	NS	NR	1.67 U
Perfluorononanoic acid (PFNA)	NS	1.65 U	1.67 U
Perfluorooctanesulfonamide (PFOSA)	NS	1.65 U	1.67 U
Perfluorooctanesulfonic acid (PFOS)	**2.7**	0.42 J	1.67 U
Perfluorooctanoic acid (PFOA)	**6.7**	1.65 U	1.67 U
Perfluoropentanesulfonic acid (PFPeS)	NS	NR	1.67 U
Perfluoropentanoic acid (PFPeA)	NS	1.65 U	3.34 U
Perfluorotetradecanoic acid (PFTeDA)	NS	1.65 U	1.67 U
Perfluorotridecanoic acid (PFTrDA)	NS	1.65 U	1.67 U
Perfluoroundecanoic acid (PFUnA)	NS	1.65 U	1.67 U

Table 15
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Soil Analytical Results - TOC

AKRF Sample ID	SB-06_0.2-1_20210419	SB-08_0.2-1_20210419	SB-X03_0.2-1_20210419	SB-11_0.2-1_20210420
Laboratory Sample ID	460-232416-2	460-232416-4	460-232416-5	460-232504-1
Date Sampled	4/19/2021	4/19/2021	4/19/2021	4/20/2021
Unit	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	1	1	1	1
Compound	CONC Q	CONC Q	CONC Q	CONC Q
Total Organic Carbon	36,500	52,900	21,400	4,180

Table 15
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Soil Analytical Results - TOC

AKRF Sample ID	SB-12_0.2-1_20210420	SB-13_0.2-1_20210420	SB-14_0.2-1_20210420	SB-15_0.2-1_20210420
Laboratory Sample ID	460-232504-7	460-232504-10	460-232504-13	460-232504-16
Date Sampled	4/20/2021	4/20/2021	4/20/2021	4/20/2021
Unit	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	1	1	1	1
Compound	CONC Q	CONC Q	CONC Q	CONC Q
Total Organic Carbon	606	16,800	3,550	4,710

Table 16
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Sediment Analytical Results - TOC

AKRF Sample ID	SED-01_20210423	SED-X01_20210423	SED-02_20210422	SED-03_20210422	SED-04_20210422
Laboratory Sample ID	460-232805-1	460-232805-6	460-232693-8	460-232693-9	460-232693-10
Date Sampled	4/23/2021	4/23/2021	4/22/2021	4/22/2021	4/22/2021
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	1	1	1	1	1
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Total Organic Carbon	71,600	60,100	19,300	28,500	62,800

Table 16
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Sediment Analytical Results - TOC

AKRF Sample ID	SED-05_20210422	SED-06_20210422	SED-07_20210422	SED-08_20210422	SED-09_20210423
Laboratory Sample ID	460-232693-11	460-232693-12	460-232693-13	460-232693-14	460-232805-2
Date Sampled	4/22/2021	4/22/2021	4/22/2021	4/22/2021	4/23/2021
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	1	1	1	1	1
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Total Organic Carbon	13,100	31,900	33,500	79,500	131,000

Table 16
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Sediment Analytical Results - TOC

AKRF Sample ID	SED-10_20210427	SED-11_20210427	RI-SED-13_20221014	RI-SED-X_20221014	RI-SED-14_20221014
Laboratory Sample ID	460-233031-8	460-233031-9	460-267587-1	460-267587-9	460-267587-2
Date Sampled	4/27/2021	4/27/2021	10/14/2022	10/14/2022	10/14/2022
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	1	1	1	1	1
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Total Organic Carbon	88,400	26,700	49,200	51,800	114,000

Table 16
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Sediment Analytical Results - TOC

AKRF Sample ID	RI-SED-15_20221014	RI-SED-16_20221014	RI-SED-17_20221014	RI-SED-18_20221014	RI-SED-19_20221014
Laboratory Sample ID	460-267587-3	460-267587-4	460-267587-5	460-267587-6	460-267587-7
Date Sampled	10/14/2022	10/14/2022	10/14/2022	10/14/2022	10/14/2022
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Dilution Factor	1	1	1	1	1
Compound	CONC Q	CONC Q	CONC Q	CONC Q	CONC Q
Total Organic Carbon	85,900	67,300	120,000	219,000	82,200

Table 16
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Sediment Analytical Results - TOC

AKRF Sample ID	RI-SED-20_20221014
Laboratory Sample ID	460-267587-8
Date Sampled	10/14/2022
Unit	mg/kg
Dilution Factor	1
Compound	CONC Q
Total Organic Carbon	59,300

Tables 9-16
White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
Remedial Investigation Report
Notes

DEFINITIONS

D : Indicates an identified compound in an analysis that has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analyses.

E : Identifies compounds whose concentration exceed the calibration range of the instrument for that specific analysis

J : The concentration given is an estimated value.

K : Reported concentration value is proportional to dilution factor and may be exaggerated

L : Sample result is estimated and biased low.

N/A : Not applicable.

ND : Not detected.

NR : Not reported.

NS : No standard.

T : Indicates that a quality control parameter has exceeded laboratory limits

U : The analyte was not detected at the indicated concentration.

mg/kg : milligrams per kilogram

ppb : parts per billion

ppt : parts per trillion

ng/l : nanograms per liter

SPLP : Synthetic Precipitation Leaching Procedure

TOC : Total Organic Carbon

PFAS : Per- and Polyfluoroalkyl Substances

STANDARDS

NYSDEC Part 375 PFAS Guidance Values : New York State Department of Environmental Conservation (NYSDEC) Sampling, Analysis and Assessment Of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs Issued April 2023.

Exceedances of NYSDEC PFAS Commercial Guidance Values (CGVs) are highlighted in bold font.
Exceedances of NYSDEC PFAS Protection of Groundwater Guidance Values (PGWGVs) are highlighted in gray shading.

SPLP PFAS Guidance Values : SPLP PFAS soil/sediment samples were compared to ten times the value of the NYSDEC Screening Levels and Standards for Raw Water Source - Human Health due to dilution of soil/sediment PFAS concentration when saturated during the SPLP analysis process.

Exceedances of NYSDEC SPLP PFAS Guidance Values are highlighted in bold italic font.

NYSDEC Class GA AWQSGVs : New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values (AWQSGVs).

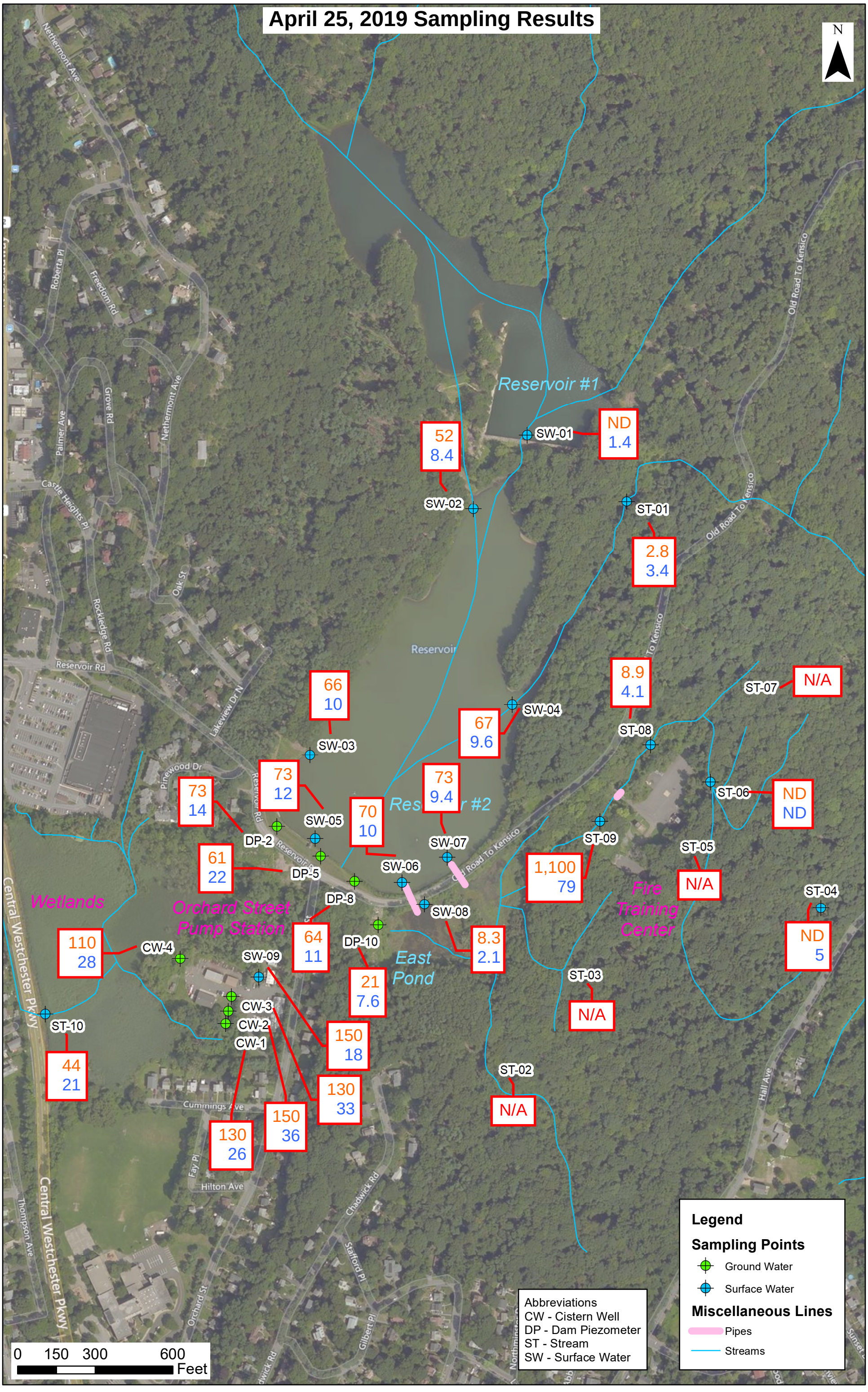
Exceedances of the Proposed NYSDEC PFAS AWQSGVs are highlighted in bold italic font.

DUPLICATES

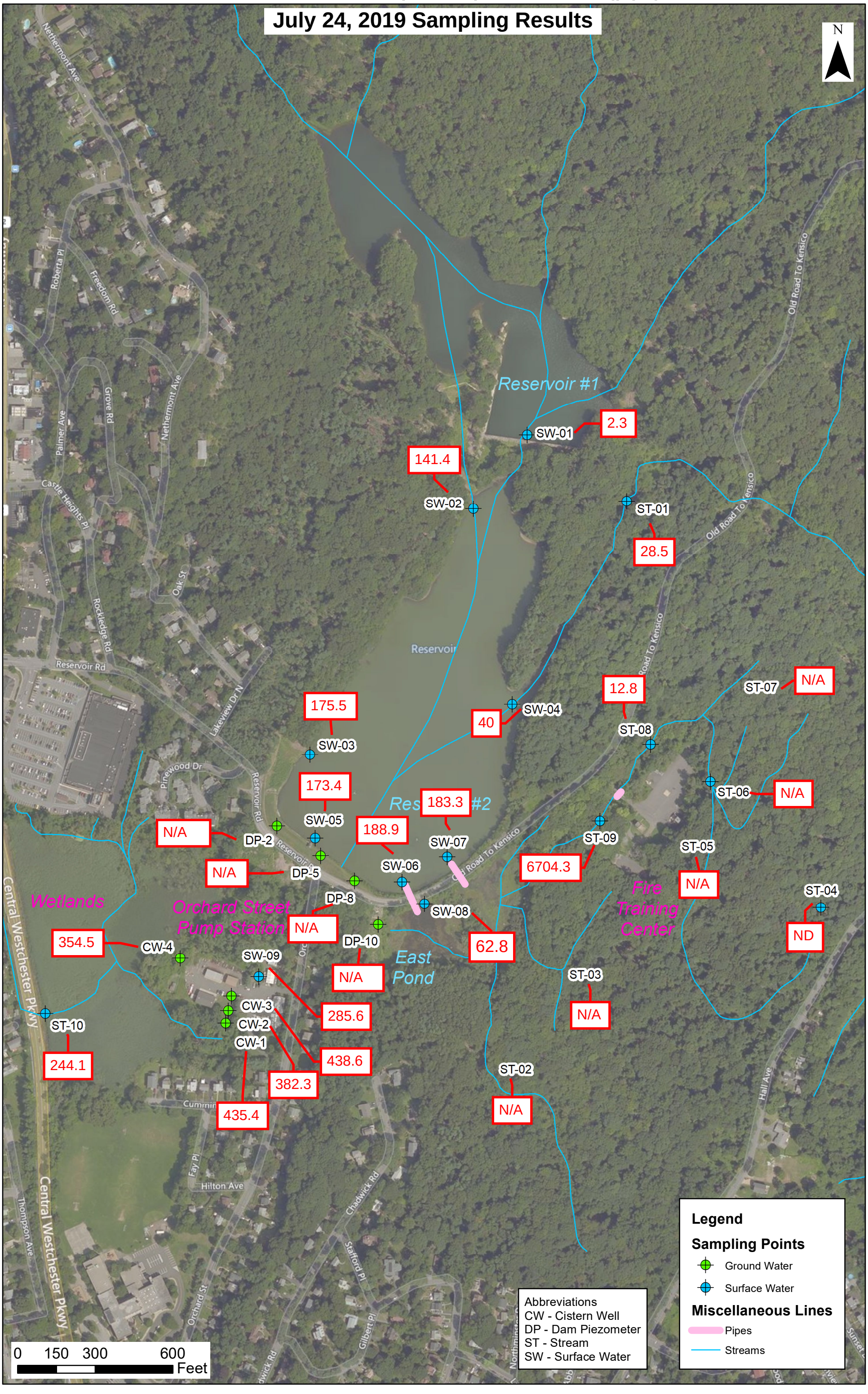
DP-X01_20210506 is a blind duplicate of sample DP-08_20210506
MW-0X_20241107 is a blind duplicate of sample MW-11_20241107
RI-MW-X_20221017 is a blind duplicate of sample RI-MW-01_20221017
RI-SB-X_20221003 is a blind duplicate of sample RI-SB-28_0.2-1_20221003
RI-SB-X01_20221004 is a blind duplicate of sample RI-SB-27_0.2-1_20221004
RI-SB-X02_20221004 is a blind duplicate of sample RI-SB-29_0-0.2_20221004
RI-SED-X_20221014 is a blind duplicate of sample RI-SED-13_20221014
RI-SW-X_20221014 is a blind duplicate of sample RI-SW-13_20221014
SB-X01_0.2-1_20210419 is a blind duplicate of sample SB-17_0.2-1_20210419
SB-X01_7-8_20210504 is a blind duplicate of sample SB-19_7-8_20210504
SB-X02_1-2_20210419 is a blind duplicate of sample SB-03_1-2_20210419
SB-X03_0.2-1_20210419 is a blind duplicate of sample SB-08_0.2-1_20210419
SB-X04_0.2-1_20210420 is a blind duplicate of sample SB-16_0.2-1_20210420
SED-X01_20210423 is a blind duplicate of sample SED-01_20210423
SW-X01_20210422 is a blind duplicate of sample SW-01_20210422

APPENDIX A
HISTORICAL ENVIRONMENTAL DATA

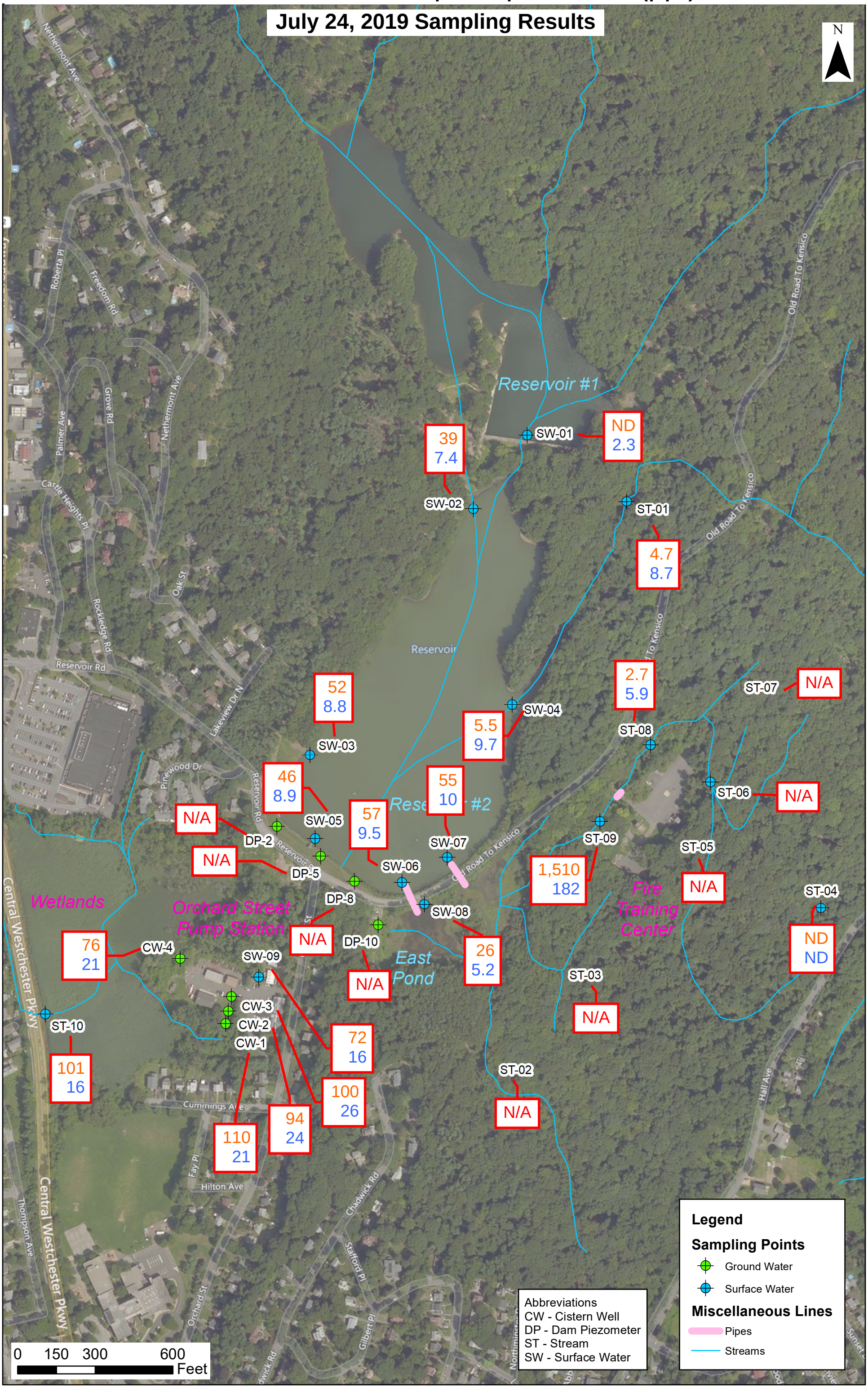
PFOS and PFOA in parts per trillion (ppt)



Total PFASs in parts per trillion (ppt)



PFOS and PFOA in parts per trillion (ppt)



APPENDIX B
SOIL BORING AND WELL INSTALLATION LOGS

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: SB-21
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Hand Auger
Sampling Method:	Hand Auger
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 9:15 **Finish Time:** 9:30
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	36	Top 31" : Brown SAND, little fine Gravel, trace Silt, Organics (Roots).	None	Dry	ND	ND	SB-21_0-0.2_20221004
2							SB-21_0.2-1_20221004
3		Bottom 15" : Weathered BEDROCK.	None	Dry	ND	ND	SB-21_1-2_20221004
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537) and synthetic precipitation leaching procedure (SPLP) PFAS.
Groundwater was not encountered during soil boring installation.
End of soil boring at 4 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-22**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Hand Auger
Sampling Method:	Hand Auger
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 12:50 **Finish Time:** 13:25
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	26	Top 3" : Brown SAND, trace Organics (Roots and Leaves), fine Gravel, Silt.	None	Dry	ND	ND	SB-22_0-0.2_20221004
2		Next 21" : Brown SAND, little fine Gravel.	None	Dry	ND	ND	SB-22_0.2-1_20221004
3		Bottom 2" : Weathered Bedrock.	None	Dry	ND	ND	SB-22_1-2_20221004
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater was not encountered during soil boring installation.
End of soil boring at 3 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-23**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Hand Auger
Sampling Method:	Hand Auger
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 12:50 **Finish Time:** 13:25
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1 2 3	36	Brown SAND, trace Organics (Roots), fine Gravel.	None	Dry	ND	ND	SB-23_0-0.2_20221004 SB-23_0.2-1_20221004 SB-23_1-2_20221004
4 5							
6 7 8 9 10							
11 12 13 14 15							
16 17 18 19 20							

Notes: Soil samples analyzed for PFAS (modified 537) and synthetic precipitation leaching procedure (SPLP) PFAS.
Groundwater was not encountered during soil boring installation.
End of soil boring at 3 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-24**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Hand Auger
Sampling Method:	Hand Auger
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 12:15 **Finish Time:** 12:45
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1 2	30	Brown SAND, trace fine Gravel, Silt.	None	Dry	ND	ND	SB-24_0-0.2_20221004 SB-24_0.2-1_20221004 SB-24_1-2_20221004
3 4 5							
6 7 8 9 10							
11 12 13 14 15							
16 17 18 19 20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater was not encountered during soil boring installation.
End of soil boring at 2.5 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-27**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 7:30 **Finish Time:** 8:30
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	51	Top 4" : ASPHALT.	None	Dry	ND	ND	SB-27_0.2-1_20221004
2							SB-27_1-2_20221004
3							
4		Bottom 47" : Brown SAND, trace Silt, Brick, fine Gravel (FILL).	None	Dry	ND	ND	
5							
6	29	Top 4" : Brown SAND, trace Silt, Brick, fine Gravel (FILL).	None	Dry	ND	ND	
7							
8		Next 4" : COBBLE.	None	Dry	ND	ND	
9							
10		Bottom 21" : Brown SAND, trace Silt, fine Gravel.	None	Dry	ND	ND	
11	12	Brown SAND, some fine Gravel, trace Silt.	None	Dry	ND	ND	
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater was not encountered during soil boring installation.
End of soil boring at 11 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-28**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~60°F, Cloudy
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 9:00 **Finish Time:** 10:20
Date: 10/3/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	39	Top 2" : ASPHALT.	None	Dry	ND	ND	SB-28_0.2-1_20221003
2							SB-28_1-2_20221003
3							
4		Bottom 37" : Brown SAND, little fine Gravel, trace Silt.	None	Dry	ND	ND	
5							
6	52	Top 28" : Brown SAND, little fine Gravel, trace Silt.	None	Moist @ 7' BG	ND	ND	
7							
8							
9		Bottom 24" : Grey SAND, little Silt, trace fine Gravel, weathered Bedrock.	None	Moist	ND	ND	
10							
11	20	Brownish-Grey SAND, little Silt, trace fine Gravel, weathered Bedrock.	None	Moist	ND	ND	SB-28_10-11_20221003
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater was not encountered during soil boring installation.
End of soil boring at 11.5 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-29**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~60°F, Cloudy
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 11:30 **Finish Time:** 11:55
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	48	Top 3" Brown SAND, trace Organics (Leaves and Roots), Silt, fine Gravel.	None	Dry	ND	ND	SB-29_0-0.2_20221004
2							SB-29_0.2-1_20221004
3							SB-29_1-2_20221004
4		Bottom 45" : Brown SAND, trace Silt, fine Gravel, weathered Bedrock	None	Dry	ND	ND	
5							
6	44	Weathered BEDROCK.	None	Dry	ND	ND	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater was not encountered during soil boring installation.
End of soil boring at 9 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-30**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 11:00 **Finish Time:** 11:20
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	43	Top 4" : Brown SAND, trace fine Gravel, Organics (Leaves and Roots), Silt.	None	Dry	ND	ND	SB-30_0-0.2_20221004
2		Next 20" : Brown SAND, trace fine Gravel, Silt.	None	Dry	ND	ND	SB-30_0.2-1_20221004
3		Bottom 4" : Weathered BEDROCK.	None	Dry	ND	ND	SB-30_1-2_20221004
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537) and synthetic precipitation leaching procedure (SPLP) PFAS.
Groundwater was not encountered during soil boring installation.
End of soil boring at 3 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: SB-31
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 10:35 **Finish Time:** 10:55
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	43	Top 3" : Dark Brown SAND, trace Silt, Organics (Leaves and Roots), fine Gravel.	None	Dry	ND	ND	SB-31_0-0.2_20221004
2							SB-31_0.2-1_20221004
3							SB-31_1-2_20221004
4		Bottom 30" : Brown SAND, trace Silt, fine Gravel.	None	Dry	ND	ND	
5							
6	45	Top 10" : Brown SAND, trace Silt, fine Gravel.	None	Dry	ND	ND	
7							
8							
9		Bottom 35" : Grey SILTY SAND, trace fine Gravel.	None	Moist @ 9' BG	ND	ND	
10							
11	36	Grey SILTY SAND, trace fine Gravel.	None	Wet @ 12' BG	ND	ND	
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater encountered at approximately 12 feet below grade during soil boring installation.
End of soil boring at 13 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-32**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~55°F, Cloudy and Rain
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 10:05 **Finish Time:** 10:30
Date: 10/4/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Vegetated Soil	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	50	Top 4" : Dark Brown SAND, trace Silt, Organics (Leaves and Roots), fine Gravel.	None	Dry	ND	ND	SB-32_0-0.2_20221004
2							SB-32_0.2-1_20221004
3		Next 36" : Brown SAND, trace Silt, fine Gravel.	None	Dry	ND	ND	SB-32_1-2_20221004
4							
5		Bottom 10" : Weathered BEDROCK.	None	Dry	ND	ND	
6	10	Weathered BEDROCK	None	Dry	ND	ND	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater was not encountered during soil boring installation.
End of soil boring at 6 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-33**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~60°F, Cloudy
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 10:30 **Finish Time:** 11:30
Date: 10/3/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	51	Top 3" : ASPHALT.	None	Dry	ND	ND	SB-33_0.2-1_20221003
2		Next 27" : Brown SAND, little fine Gravel, trace Silt.	None	Dry	ND	ND	SB-33_1-2_20221003
3							
4		Next 5" : COBBLE.	None	Dry	ND	ND	
5		Bottom 16" : Brown SAND, little Silt, trace fine Gravel, Organics (Roots).	None	Dry	ND	ND	
6	40	Top 30" : Brown SAND, little Silt, trace fine Gravel, Organics (Roots).	None	Dry	ND	ND	
7							
8							
9		Bottom 10" : Grey SAND, trace Silt, fine Gravel.	None	Dry	ND	ND	
10							
11	50	Top 15" : Brown SAND, little fine Gravel, trace Silt.	None	Moist @ 12' BG	ND	ND	
12		Next 16" : Light Brown SAND, little fine Gravel, trace Silt.	None	Moist	ND	ND	SB-33_13-14_20221003
13							
14		Bottom 19" : Weathered BEDROCK.	None	Moist	ND	ND	
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537) and synthetic precipitation leaching procedure (SPLP) PFAS.
Groundwater was not encountered during soil boring installation.
End of soil boring at 14 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING LOG

White Plains Fire Department Drill School
1402 Old Orchard Street, White Plains, NY
AKRF Project Number: 200217

Soil Boring ID: **SB-34**
Sheet 1 of 1

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP
Sampling Method:	5' Macrocore
Driller:	Cascade Environmental
Weather:	~60°F, Cloudy
Logged By:	S.Schmid, AKRF

Drilling
Start Time: 12:15 **Finish Time:** 13:10
Date: 10/3/2022

Depth (feet)	Recovery (Inches)	Surface Condition: Asphalt	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	42	Top 2" : ASPHALT.	None	Dry	ND	ND	SB-34_0.2-1_20221003
2		Next 30" : Brown SAND, trace Silt, fine Gravel.	None	Dry	ND	ND	SB-34_1-2_20221003
3							
4		Bottom 10" : Weathered BEDROCK.	None	Dry	ND	ND	
5							
6	52	Weathered BEDROCK.	None	Dry	ND	ND	
7							
8							
9							
10							
11	23	Top 8" : SLOUGH.	None	Wet @ 10' BG	ND	ND	SB-34_10-11_20221003
		Bottom 15" : Weathered BEDROCK.	None	Wet	ND	ND	
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: Soil samples analyzed for PFAS (modified 537).
Groundwater encountered at approximately 10 feet below grade during soil boring installation.
End of soil boring at 11 feet below grade due to refusal on apparent bedrock.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING AND WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY AKRF Project Number: 200217	Groundwater Monitoring Well ID: Sheet 1 of 1	MW-03R	Soil Boring ID:	SB-11

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP / Sonic
Sampling Method:	5' Macrocore
Driller:	Enviroprobe/Cascade
Weather:	~75°F, Sunny /~65F, Sunny
Logged by:	S.Schmid, AKRF

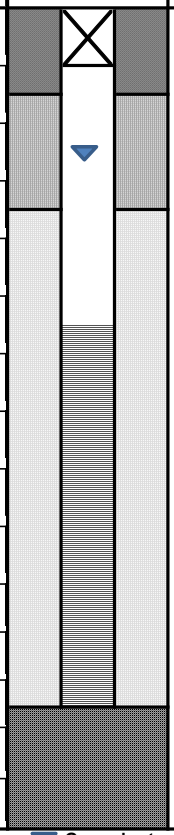
Drilling

Soil Characterization Start Time: 8:20 | **Soil Characterization Finish Time:** 9:30

Well Installation Start Time: 11:00 | **Well Installation Finish Time:** 12:00

Soil Characterization Date: 4/20/2021

Well Installation Date: 10/10/2022

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1		**Flush-mounted well cover, locking j-plug, and concrete seal: 0 to 1.5' below grade.** **Bentonite seal: 1.5' to 3.5' below grade** **2" diameter schedule 40 PVC well casing: 0' to 5.5' below grade.** **2" diameter 0.020-slot PVC well screen: 5.5' to 12.5' below grade.** **No. 2 clean silica sand pack: 3.5' to 12.5' below grade.**	30	Top 2" : ASPHALT	None	Dry	ND	ND	SB-11_0.2-1_20210420
2									SB-11_1-2_20210420
3									
4				Bottom 28" : Brown SAND, little fine Gravel, trace Silt, Brick (FILL).	None	Dry	ND	ND	
5									SB-11_4-5_20210420
6			12	Brown SAND, little Silt, trace fine Gravel.	None	Wet @ 6' bg	ND	ND	
7									
8									
9									
10									
11			28	Brown fine SAND, little Silt, fine Gravel.	None	Wet	ND	ND	
12									
13									
14									
15									

Notes: ▼ **Groundwater Depth Indicator**

Groundwater measured at 2.84 feet below grade in MW-02 on October 11, 2022

Groundwater monitoring well installed to 10 feet below grade.

Groundwater encountered at approximately 7.5 feet below grade during soil boring installation.

End of soil boring at 15 feet below grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING AND WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY AKRF Project Number: 200217	Groundwater Monitoring Well ID: Sheet 1 of 1	MW-02R	Soil Boring ID:	SB-09

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP / Sonic
Sampling Method:	5' Macrocore
Driller:	Enviroprobe/Cascade
Weather:	~65°F, Partly Cloudy /~65°F, Sunny
Logged by:	S.Schmid, AKRF

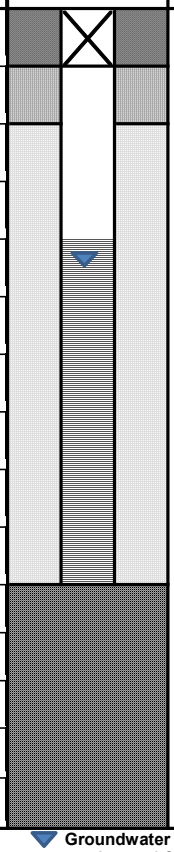
Drilling

Soil Characterization Start Time: 14:00 | **Soil Characterization Finish Time:** 14:20

Well Installation Start Time: 10:15 | **Well Installation Finish Time:** 11:00

Soil Characterization Date: 4/19/2021

Well Installation Date: 10/10/2022

Depth (feet)	Well Construction	Surface Condition: Asphalt	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1		**Flush-mounted well cover, locking j-plug, and concrete seal: 0 to 1' below grade.** **Bentonite seal: 1' to 2' below grade** **2" diameter schedule 40 PVC well casing: 0' to 4' below grade.** **2" diameter 0.020-slot PVC well screen: 4' to 10' below grade.** **No. 2 clean silica sand pack: 2' to 10' below grade.**	42	Top 3" : ASPHALT	None	Dry	ND	ND	SB-09_0.2-1_20210419
2									
3				Bottom 39" : Brown SAND, little fine Gravel, trace Silt.	None	Dry	ND	ND	
4									
5									
6			58	Brown SAND, some Silt, trace fine Gravel.	None	Wet @ 7.5' bg	ND	ND	SB-09_6-7_20210419
7									
8									
9									
10									
11			24	Brown SAND, some Silt, trace fine Gravel.	None	Wet	ND	ND	
12									
13									
14									
15									

Notes: ▼ **Groundwater Depth Indicator**

Groundwater measured at 4.41 feet below grade in MW-02 on October 11, 2022

Groundwater monitoring well installed to 10 feet below grade.

Groundwater encountered at approximately 7.5 feet below grade during soil boring installation.

End of soil boring at 15 feet below grade.

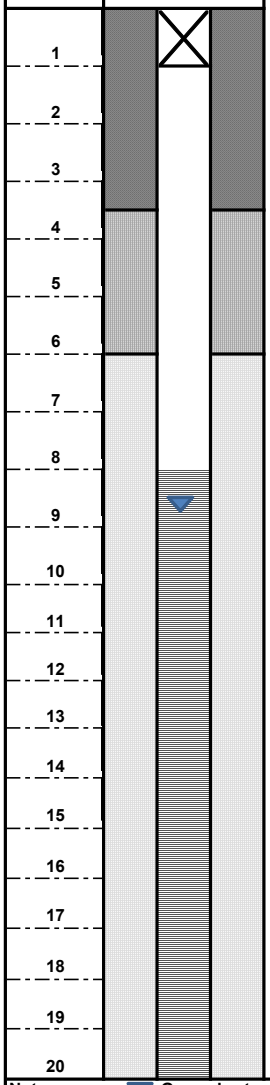
PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING AND WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY AKRF Project Number: 200217	Groundwater Monitoring Well ID: Sheet 1 of 1	MW-07	Soil Boring ID:	SB-25

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP / Sonic	Drilling	
Sampling Method:	5' Macrocore	Soil Characterization Start Time: 14:05	Soil Characterization Finish Time: 14:40
Driller:	Cascade Environmental	Well Installation Start Time: 8:00	Well Installation Finish Time: 9:00
Weather:	~60°F, Cloudy /~65F, Sunny	Soil Characterization Date: 10/3/2022	
Logged by:	S.Schmid, AKRF	Well Installation Date: 10/10/2022	



Surface Condition: Asphalt

Flush-mounted well cover, locking j-plug, and concrete seal: 0' to 4' beow grade.

Bentonite seal: 4' to 6' below grade

2" diameter schedule 40 PVC well casing: 0' to 8' below grade.

2" diameter 0.020-slot PVC well screen: 8' to 20' below grade.

No. 2 clean silica sand pack: 8' to 20' below grade.

Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1-4	48	Top 6" : ASPHALT.	None	Dry	ND	ND	SB-25_0.2-1_20221003 SB-25_1-2_20221003
		Bottom 42" : Brown SAND, little fine Gravel, trace Silt, Brick (FILL).	None	Dry	ND	ND	
5-8	36	Brown SAND, some fine Gravel, trace Silt.	None	Dry	ND	ND	
9-12	45	Top 20" : Brown SAND, some fine Gravel, trace Silt.	None	Dry	ND	ND	
		Bottom 25" : Brown SAND, some Silt, trace Organics (Roots), fine Gravel.	None	Dry	ND	ND	
13-16	31	Top 17" : Brown SAND, some Silt, trace Organics (Roots), fine Gravel.	None	Wet @ 16' BG	ND	ND	SB-25_15-16_20221003
		Bottom 14" : Grey SAND, little Silt, fine Gravel.	None	Wet	ND	ND	
17-20							

Notes:
Groundwater Depth Indicator
Groundwater measured at 8.91 feet below top of casing in MW-07 on October 11, 2022
Groundwater monitoring well installed to 20 feet below grade.

Groundwater encountered at approximately 16 feet below grade during soil boring installation.
End of soil boring at 18 feet below grade due to geoprobe refusal on apparent bedrock.

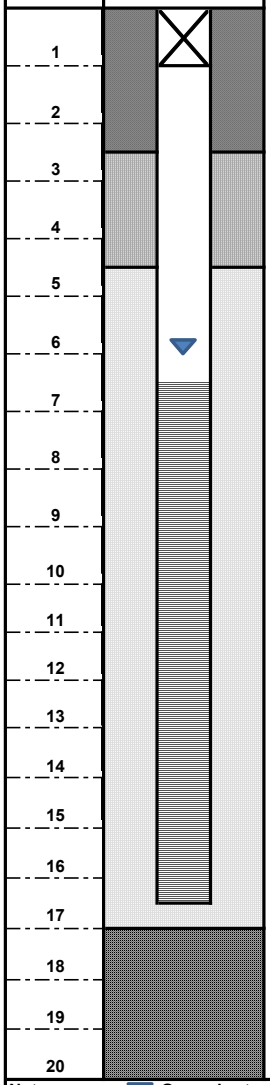
PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

SOIL BORING AND WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY AKRF Project Number: 200217	Groundwater Monitoring Well ID: Sheet 1 of 1	MW-08	Soil Boring ID:	SB-26

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Geoprobe DPP / Sonic	Drilling	
Sampling Method:	5' Macrocore	Soil Characterization Start Time: 13:20	Soil Characterization Finish Time: 14:00
Driller:	Cascade Environmental	Well Installation Start Time: 9:00	Well Installation Finish Time: 10:15
Weather:	~60°F, Cloudy /~65F, Sunny	Soil Characterization Date: 10/3/2022	
Logged by:	S.Schmid, AKRF	Well Installation Date: 10/10/2022	



Surface Condition: Asphalt

Flush-mounted well cover, locking j-plug, and concrete seal: 0' to 2.5' beow grade.

Bentonite seal: 2.5' to 4.5' below grade

2" diameter schedule 40 PVC well casing: 0' to 6.5' below grade.

2" diameter 0.020-slot PVC well screen: 6.5' to 16.5' below grade.

No. 2 clean silica sand pack: 4.5' to 16.5' below grade.

Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	47	Top 4" : ASPHALT.	None	Dry	ND	ND	SB-26_0.2-1_20221003
2		Next 38" : Brown SAND, little fine Gravel, trace Silt.	None	Dry	ND	ND	SB-26_1-2_20221003
3							
4		Bottom 5" : COBBLE.	None	Dry	ND	ND	
5							
6	30	Top 17" : Brown SAND, some fine Gravel, trace Silt.	None	Dry	ND	ND	
7							
8							
9		Bottom 13" : Brown SAND, some Organics (Wood), trace Silt, fine Gravel.	None	Dry	ND	ND	
10							
11	32	Brown SANDY SILT, trace fine Gravel.	None	Wet @ 11' BG	ND	ND	SB-26_10-11_20221003
12							
13							
14							
15							
16	28	Top 16" : Brown SANDY SILT, trace fine Gravel.	None	Wet	ND	ND	
17		Bottom 12" : Grey SAND, some Silt.	None	Wet	ND	ND	
18							
19							
20							

Notes:
Groundwater Depth Indicator
Groundwater measured at 6.18 feet below top of casing in MW-08 on October 11, 2022
Groundwater monitoring well installed to 16.5 feet below grade.

Groundwater encountered at approximately 11 feet below grade during soil boring installation.
End of soil boring at 17 feet below grade due to geoprobe refusal on apparent bedrock.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

AKRF, Inc.

ROCK CORE EVALUATION LOG

Project: White Plains Fire Department Drill School

Boring ID: SB-22/MW-10

Surface Elevation: Approximately 280 feet
(National Geodetic Vertical Datum of 1929 and an approximation of mean sea level)

Depth Drilled: From 5 to 25 feet below ground surface (fbgs)

Number of Runs: 4 (C1, C2, C3, C4)

Core Size: C1, C2, C3, C4 = 5 feet long and 2 inches in diameter

Date Evaluated: 10/12/2022

Evaluator (s): Stephen Schmid, AKRF, Inc.

Top of Rock: Approximately 2 fbgs (Depth) Approximately 278 feet (Elevation)

Top of Sound Rock Approximately 3 fbgs (Depth) 277 feet (Elevation)

Comments: None

RUN: #C1 Run Length = 5 feet Depth Range: From 5 to 10 fbgs

RQD: 17 inches (as measured) = 17/54 inches (~31.5%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite

Bedding: N/A

Fractures: Sheer fractures

Size Range of Pieces: Less than 2 inches to 17 inches

Hardness: Moderately hard

Weathering: Sheer fractures

Additional Comments: None

RUN: #C2 Run Length = 5 feet Depth Range: From 10 to 15 fbgs

RQD: 9 inches (as measured) = 9/54 inches (~16.5%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite, some rusting and mineralization towards the bottom half of the core run

Bedding: N/A

Fractures: Sheer fractures (top half of core run), rounded fractures (bottom half of core run)

Size Range of Pieces: 3 inches to 9 inches

Hardness: Moderately hard

Weathering: Sheer fractures (top half of core run), rounded fractures/weathering (bottom half of core run)

Additional Comments: None

RUN: #C3 Run Length = 5 feet Depth Range: From 15 to 20 fbgs

RQD: 5 inches (as measured) = 9/54 inches (~13.5%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite, rusting and mineralization at fractures throughout

Bedding: N/A

Fractures: Rounded fractures

Size Range of Pieces: less than 1 inch to 5 inches

Hardness: Moderately hard

Weathering: Weathering and rounding at all fractures

Additional Comments: None

RUN: #C4 Run Length = 5 feet Depth Range: From 20 to 25 fbgs

RQD: 5 inches (as measured) = 9/54 inches (~13.5%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite, rusting and mineralization at fractures throughout

Bedding: N/A

Fractures: Rounded fractures

Size Range of Pieces: less than 1 inch to 5 inches

Hardness: Moderately hard

Weathering: Weathering and rounding at all fractures

Additional Comments: None

AKRF, Inc.

ROCK CORE EVALUATION LOG

Project: White Plains Fire Department Drill School

Boring ID: SB-29/MW-09

Surface Elevation: Approximately 285 feet
(National Geodetic Vertical Datum of 1929 and an approximation of mean sea level)

Depth Drilled: From 6.5 to 26.5 feet below ground surface (fbgs)

Number of Runs: 4 (C1, C2, C3, C4)

Core Size: C1, C2, C3, C4 = 5 feet long and 2 inches in diameter

Date Evaluated: 10/11/2022

Evaluator (s): Stephen Schmid, AKRF, Inc.

Top of Rock: Approximately 4 fbgs (Depth) Approximately 281 feet (Elevation)

Top of Sound Rock Approximately 6 fbgs (Depth) 279 feet (Elevation)

Comments: None

RUN: #C1 Run Length = 5 feet Depth Range: From 6.5 to 11.5 fbgs

RQD: 14 inches (as measured) = 14/28 inches (~50%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite, some rusting and mineralization towards the bottom half of the core run

Bedding: N/A

Fractures: Sheer fractures (top half of core run), rounded fractures/weathering (bottom half of core run)

Size Range of Pieces: Less than 1 inch to 14 inches

Hardness: Moderately hard

Weathering: Sheer fractures (top half of core run), rounded fractures/weathering (bottom half of core run)

Additional Comments: None

RUN: #C2 Run Length = 5 feet Depth Range: From 11.5 to 16.5 fbgs

RQD: 3 inches (as measured) = 3/27 inches (~11%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite, rusting and mineralization at fractures

Bedding: N/A

Fractures: Rounded and weathered fractures

Size Range of Pieces: less than 1 inch to 3 inches

Hardness: Moderately hard

Weathering: Rounded fractures/weathering throughout

Additional Comments: None

RUN: #C3 Run Length = 5 feet Depth Range: From 16.5 to 21.5 fbgs

RQD: 5 inches (as measured) = 5/27 inches (~18.5%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite, rusting and mineralization at fractures throughout. Significant rusting and mineralization in bottom half of core run.

Bedding: N/A

Fractures: Rounded fractures

Size Range of Pieces: less than 1 inch to 5 inches

Hardness: Moderately hard

Weathering: Weathering and rounding at all fractures

Additional Comments: None

RUN: #C4 Run Length = 5 feet Depth Range: From 21.5 to 26.5 fbgs

RQD: 7 inches (as measured) = 7/39 inches (~18%) Photo(s): Attached

Rock Type: Gneiss bedrock

Color: Light to dark striated greys

Mineralogy, Grain Size, & Texture: Interlayed garnet and quartzite, heavy rusting and mineralization at fractures throughout

Bedding: N/A

Fractures: Rounded fractures

Size Range of Pieces: 2 inches to 7 inches

Hardness: Moderately hard

Weathering: Heavy weathering and rounding at all fractures

Additional Comments: None

BEDROCK WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY **AKRF Project Number:** 200217	**Groundwater Monitoring Well ID:** **Sheet 1 of 1**	**MW-12**

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic
Sampling Method:	Core Barrel
Driller:	Coastal Environmental
Weather:	~60F, Sunny
Logged by:	K.Veliky, AKRF

Drilling

Well Installation Start Time: 7:50

Well Installation Finish Time: 14:45

Well Installation Date: 10/22/2022

Depth (feet)	Well Construction	Construction Description
1		Flush mounted well cover and locking j-plug: grade to 1' below grade.
2		Non-shrinking cement grout: 0' to 21' below grade
3		Bentonite seal: 21' to 23' below grade
4		2" diameter schedule 40 PVC well casing: grade to 25' below grade.
5		2" diameter 0.020-slot PVC well screen: 25' to 30' below grade.
6		No. 2 clean silica sand pack: 23' to 30' below grade.
7		Outer Steel Casing : 0' to 20' below grade, 5' into competent rock.
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

Notes:
Groundwater measured at 11.05 feet below top of PVC casing in MW-12 on November 7, 2024
Groundwater monitoring well installed to 30 feet below grade.

Top of bedrock measured at 15 feet below grade.
Top of competent bedrock measured at 15 feet below grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

BEDROCK WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY AKRF Project Number: 200217	Groundwater Monitoring Well ID: Sheet 1 of 2	MW-11

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic
Sampling Method:	Core Barrel
Driller:	Coastal Environmental
Weather:	~55F, Sunny
Logged by:	K.Veliky, AKRF

Drilling

Well Installation Start Time: 8:38

Well Installation Finish Time: 12:25

Well Installation Date: 10/23/2024

Depth (feet)	Well Construction	Construction Description
1		Flush mounted well cover and locking j-plug: grade to 1' below grade.
2		Non-shrinking cement grout: 0' to 31' below grade
3		Bentonite seal: 31' to 33' below grade
4		2" diameter schedule 40 PVC well casing: grade to 35' below grade.
5		2" diameter 0.020-slot PVC well screen: 35' to 40' below grade.
6		No. 2 clean silica sand pack: 33' to 40' below grade.
7		Outer Steel Casing : 0' to 35' below grade, 7' into competent rock.
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Notes:
Groundwater measured at 10.84 feet below top of PVC casing in MW-11 on November 7, 2024
Groundwater monitoring well installed to 40 feet below grade.

Top of bedrock measured at 28 feet below grade.
Top of competent bedrock measured at 28 feet below grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

BEDROCK WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY **AKRF Project Number:** 200217	**Groundwater Monitoring Well ID:** **Sheet 1 of 2**	**MW-11**

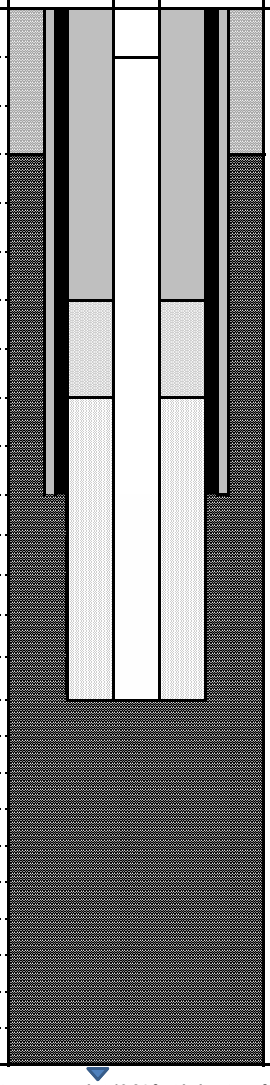
AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic
Sampling Method:	Core Barrel
Driller:	Coastal Environmental
Weather:	~55F, Sunny
Logged by:	K.Veliky, AKRF

Drilling

Well Installation Start Time: 8:38 | **Well Installation Finish Time:** 12:25

Well Installation Date: 10/23/2024



Construction Description

Flush mounted well cover and locking j-plug: grade to 1' below grade.

Non-shrinking cement grout: 0' to 31' below grade

Bentonite seal: 31' to 33' below grade

2" diameter schedule 40 PVC well casing: grade to 35' below grade.

2" diameter 0.020-slot PVC well screen: 35' to 40' below grade.

No. 2 clean silica sand pack: 33' to 40' below grade.

Outer Steel Casing : 0' to 35' below grade, 7' into competent rock.

Notes:
Groundwater measured at 10.84 feet below top of PVC casing in MW-11 on November 7, 2024
Groundwater monitoring well installed to 40 feet below grade.

Top of bedrock measured at 28 feet below grade.
Top of competent bedrock measured at 28 feet below grade.

PID = photoionization detector **NAPL = non-aqueous phase liquid** **ND = not detected**

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

BEDROCK WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY AKRF Project Number: 200217	Groundwater Monitoring Well ID: Sheet 1 of 1	MW-10

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

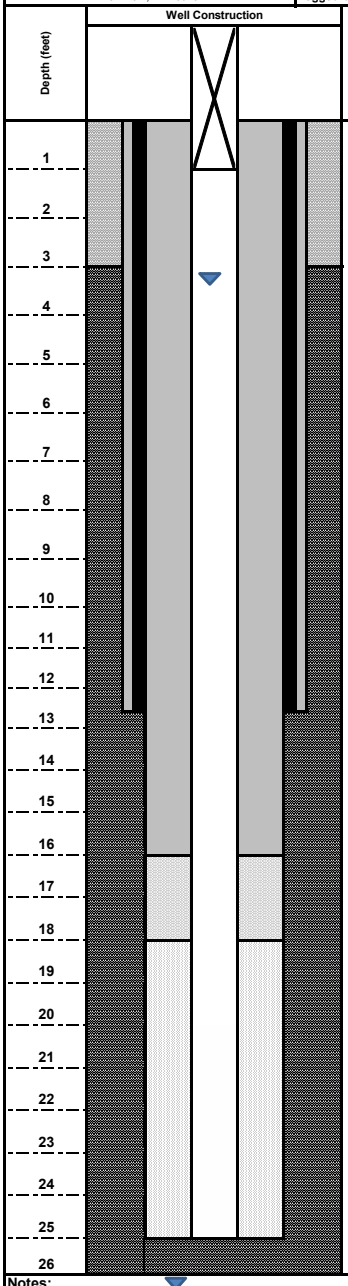
Drilling Method:	Sonic
Sampling Method:	Core Barrel
Driller:	Cascade Environmental
Weather:	~70F, Sunny
Logged by:	S.Schmid, AKRF

Drilling

Well Installation Start Time: 7:30

Well Installation Finish Time: 12:30

Well Installation Date: 10/12/2022



Construction Description

Stick-up well cover and locking j-plug: 3' above grade to 1' below grade.

Non-shrinking cement grout: 0' to 16' below grade

Bentonite seal: 16' to 18' below grade

2" diameter schedule 40 PVC well casing: 3' above grade to 20' below grade.

2" diameter 0.020-slot PVC well screen: 20' to 25' below grade.

No. 2 clean silica sand pack: 18' to 25' below grade.

Outer Steel Casing : 0' to 13' below grade, 10' into competent rock.

Notes:
Groundwater measured at 6.46 feet below top of PVC casing in MW-10 on October 17, 2022
Groundwater monitoring well installed to 25 feet below grade.

Top of bedrock measured at 2.8 feet below grade.
Top of competent bedrock measured at 3 feet below grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

BEDROCK WELL INSTALLATION LOG	White Plains Fire Department Drill School 1402 Old Orchard Street, White Plains, NY AKRF Project Number: 200217	Groundwater Monitoring Well ID: Sheet 1 of 1	MW-09

AKRF
440 Park Avenue South, 7th Floor
New York, NY 10016

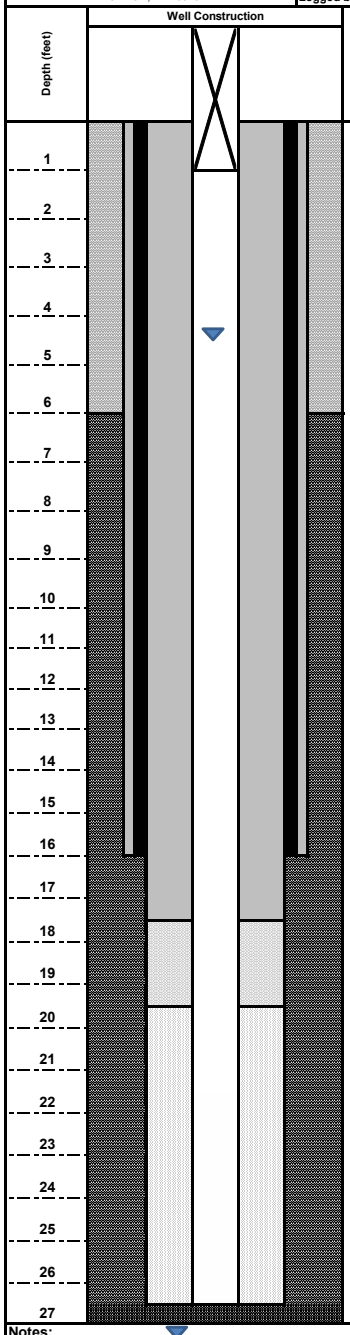
Drilling Method:	Sonic
Sampling Method:	Core Barrel
Driller:	Cascade Environmental
Weather:	~65F, Sunny
Logged by:	S.Schmid, AKRF

Drilling

Well Installation Start Time: 7:30

Well Installation Finish Time: 14:00

Well Installation Date: 10/11/2022



Construction Description

Stick-up well cover and locking j-plug: 3' above grade to 1' below grade.

Non-shrinking cement grout: 0' to 17.5' below grade

Bentonite seal: 17.5' to 19.5' below grade

2" diameter schedule 40 PVC well casing: 3' above grade to 21.5' below grade.

2" diameter 0.020-slot PVC well screen: 21.5' to 26.5' below grade.

No. 2 clean silica sand pack: 19.5' to 26.5' below grade.

Outer Steel Casing : 0' to 16' below grade, 10' into competent rock.

Notes:
Groundwater measured at 7.60 feet below top of PVC casing in MW-09 on October 17, 2022
Groundwater monitoring well installed to 26.5 feet below grade.

Top of bedrock measured at 4 feet below grade.
Top of competent bedrock measured at 6 feet below grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ND = not detected

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:** **DP-10**
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	
Date: 10/19/2022	**Sampling Time:** 11:00	
PID at surface: ND		
Total Depth: 16.90 ft. below top of casing	**Water Column (WC):** 9.39 feet	*= 0.092 * WC for 1.5" wells
Depth to Water: 7.51 ft. below top of casing	**Well Volume*:** 0.86 gallons	*= 0.163 * WC for 2" wells
Depth to Product: ND ft. below top of casing	**Volume Purged:** 2.25 gallons	*= 0.653 * WC for 4" wells
Depth to top of screen: NA ft. below top of casing	**Well Diam.:** 1.5 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: NA ft. below top of casing	**Purging Device (pump type):** Peristaltic Pump	
Approx. Pump Intake: 15.00 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
10:15	7.50	150	14.33	0.252	3.02	6.20	27	121	No color, odor or sheen observed.
10:20	7.50	150	14.75	0.252	2.18	6.11	10	177	
10:25	7.50	150	14.78	0.256	1.39	6.11	-1	128	
10:30	7.50	150	14.87	0.262	1.04	6.13	-13	96.5	
10:35	7.50	150	14.96	0.270	0.83	6.14	-22	60.3	
10:40	7.50	150	15.21	0.271	0.60	6.14	-25	33.9	
10:45	7.50	150	15.45	0.273	0.44	6.14	-29	7.6	
10:50	7.50	150	15.63	0.274	0.41	6.41	-34	0.0	
10:55	7.50	150	15.70	0.274	0.40	6.14	-35	0.0	
Sampling									
11:10	7.50	150	15.96	0.274	0.67	6.14	-36	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**	
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**DP-08**	
Date: 10/18/2022	**Sampling Time:** 13:15		
PID at surface: ND			
Total Depth: 22.30 ft. below top of casing	**Water Column (WC):** 11.63 feet	*= 0.092 * WC for 1.5" wells	
Depth to Water: 10.67 ft. below top of casing	**Well Volume*:** 1.07 gallons	*= 0.163 * WC for 2" wells	
Depth to Product: ND ft. below top of casing	**Volume Purged:** 4.75 gallons	*= 0.653 * WC for 4" wells	
Depth to top of screen: NA ft. below top of casing	**Well Diam.:** 1.5 inches	Target maximum flow rate is 100 ml/min	
Depth to bottom of screen: NA ft. below top of casing	**Purging Device (pump type):** Peristaltic Pump		
Approx. Pump Intake: 20.00 ft. below top of casing			

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
11:30	10.65	150	16.61	0.300	4.37	6.97	-127	389	No color, odor or sheen observed.
11:35	10.65	150	17.27	0.289	2.61	6.89	-102	594	
11:40	10.65	150	18.06	0.277	1.48	6.88	-93	>1000	
11:45	10.65	150	18.94	0.255	1.01	6.87	-88	>1000	
11:50	10.65	150	19.50	0.250	0.94	6.86	-83	>1000	
11:55	10.65	150	18.75	0.241	0.73	6.91	-95	886	
12:00	10.65	150	18.66	0.224	0.49	6.99	-117	723	
12:05	10.65	150	18.69	0.222	0.39	6.99	-139	654	
12:10	10.65	150	18.55	0.220	0.40	6.94	-140	413	
12:15	10.65	150	18.69	0.219	0.39	6.93	-141	282	
12:20	10.65	150	18.51	0.218	0.44	6.96	-142	226	
12:25	10.65	150	18.68	0.218	0.38	6.92	-143	164	
12:30	10.65	150	18.71	0.218	0.36	6.92	-143	114	
12:35	10.65	150	18.72	0.218	0.37	6.92	-143	98.7	
12:40	10.65	150	18.68	0.218	0.36	6.92	-143	87.4	
12:45	10.65	150	18.61	0.218	0.38	6.92	-143	77.9	
12:50	10.65	150	18.66	0.218	0.38	6.92	-143	64.7	
12:55	10.65	150	18.70	0.218	0.38	6.92	-143	53.2	
13:00	10.65	150	18.65	0.218	0.37	6.92	-143	44.6	
13:05	10.65	150	18.62	0.218	0.35	6.92	-143	37.3	
13:10	10.65	150	18.60	0.218	0.37	6.92	-143	31.8	
Sampling									
13:30	10.65	150	18.62	0.218	0.39	6.94	-141	39.6	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:** **DP-05**
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	
Date: 10/18/2022	**Sampling Time:** 10:10	
PID at surface: ND		
Total Depth: 34.40 ft. below top of casing	**Water Column (WC):** 24.10 feet	*= 0.092 * WC for 1.5" wells
Depth to Water: 10.30 ft. below top of casing	**Well Volume*:** 2.22 gallons	*= 0.163 * WC for 2" wells
Depth to Product: ND ft. below top of casing	**Volume Purged:** 2.5 gallons	*= 0.653 * WC for 4" wells
Depth to top of screen: NA ft. below top of casing	**Well Diam.:** 1.5 inches	Target maximum flow rate is 100 ml/min
Depth to bottom of screen: NA ft. below top of casing	**Purging Device (pump type):** Peristaltic Pump	
Approx. Pump Intake: 32.00 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
9:30	10.31	150	18.08	0.282	2.50	7.53	-263	67.8	No color, odor or sheen observed.
9:35	10.31	150	17.74	0.297	1.18	7.29	-216	62.7	
9:40	10.31	150	17.37	0.310	0.98	7.16	-183	57.4	
9:45	10.31	150	17.11	0.311	0.79	7.10	-179	48.3	
9:50	10.31	150	16.97	0.311	0.72	7.08	-174	26.1	
9:55	10.31	150	16.92	0.309	0.44	7.06	-171	1.8	
10:00	10.31	150	16.90	0.309	0.40	7.05	-169	0.0	
10:05	10.31	150	16.87	0.310	0.38	7.05	-167	0.0	
Sampling									
10:30	10.31	150	16.95	0.311	0.47	7.06	-167	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**	
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**DP-02**	
Date: 10/18/2022	**Sampling Time:** 8:55		
PID at surface: ND			
Total Depth: 32.68 ft. below top of casing	**Water Column (WC):** 17.12 feet	*= 0.092 * WC for 1.5" wells	
Depth to Water: 15.56 ft. below top of casing	**Well Volume*:** 1.58 gallons	*= 0.163 * WC for 2" wells	
Depth to Product: ND ft. below top of casing	**Volume Purged:** 2.25 gallons	*= 0.653 * WC for 4" wells	
Depth to top of screen: NA ft. below top of casing	**Well Diam.:** 1.5 inches	Target maximum flow rate is 100 ml/min	
Depth to bottom of screen: NA ft. below top of casing	**Purging Device (pump type):** Peristaltic Pump		
Approx. Pump Intake: 30.00 ft. below top of casing			

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
8:15	15.56	150	15.44	0.278	7.96	7.09	-88	84.8	No color, odor or sheen observed.
8:20	15.56	150	16.21	0.266	3.17	6.92	-103	81.3	
8:25	15.56	150	17.79	0.251	1.32	6.78	-111	70.4	
8:30	15.56	150	18.02	0.249	0.99	6.78	-116	62.9	
8:35	15.56	150	18.05	0.250	0.82	6.80	-122	55.3	
8:40	15.56	150	18.07	0.250	0.70	6.81	-125	41.8	
8:45	15.56	150	18.08	0.250	0.61	6.81	-128	22.1	
8:50	15.56	150	18.10	0.251	0.54	6.80	-130	0.0	
Sampling									
9:10	15.56	150	18.14	0.250	0.59	6.81	-131	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**
Project Location: White Plains Fire Department Drill School	**Sampled By:** M.Iodice, AKRF	**MW-12**
Date: 11/7/2024	**Sampling Time:** 15:30	
PID at surface: 0.6 ppm		

Total Depth:	29.81 ft. below top of casing	**Water Column (WC):**	18.76 feet	*= 0.163 * WC for 2" wells
Depth to Water:	11.05 ft. below top of casing	**Well Volume*:**	3.06 gallons	*= 0.653 * WC for 4" wells
Depth to Product:	ND ft. below top of casing	**Volume Purged:**	2 gallons	*= 1.469 * WC for 6" wells
Depth to top of screen:	25.00 ft. below top of casing	**Well Diam.:**	2 inches	
Depth to bottom of screen:	30.00 ft. below top of casing	**Purging Device (pump type):**		
Approx. Pump Intake:	25.00 ft. below top of casing	QED Sample Pro 1.75		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
15:10	11.05	100	15.78	0.219	0.97	8.95	87	0.0	No color, odor or sheen observed.
15:15	11.05	100	15.48	0.219	0.74	8.88	97	0.0	
15:20	11.10	100	15.42	0.219	0.73	8.87	101	0.0	
15:25	11.10	100	15.39	0.219	0.69	8.80	101	0.0	
Sampling									
15:34	11.10	100	15.43	0.221	0.78	8.78	111	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:** MW-11
Project Location: White Plains Fire Department Drill School	**Sampled By:** M.Iodice, AKRF	
Date: 11/7/2024	**Sampling Time:** 14:05	
PID at surface: 1.6 ppm		
Total Depth: 38.90 ft. below top of casing	**Water Column (WC):** 28.06 feet	*= 0.163 * WC for 2" wells
Depth to Water: 10.84 ft. below top of casing	**Well Volume*:** 4.57 gallons	*= 0.653 * WC for 4" wells
Depth to Product: ND ft. below top of casing	**Volume Purged:** 4 gallons	*= 1.469 * WC for 6" wells
Depth to top of screen: 35.00 ft. below top of casing	**Well Diam.:** 2 inches	
Depth to bottom of screen: 40.00 ft. below top of casing	**Purging Device (pump type):** QED Sample Pro 1.75	
Approx. Pump Intake: 34.00 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
13:30	10.89	100	17.15	0.315	2.63	9.55	-119	0.0	No color, odor or sheen observed. Duplicate MW-02_20241107 and MS/MSD collected.
13:35	11.00	100	16.23	0.347	1.70	9.52	-138	0.0	
13:40	11.12	100	15.94	0.365	1.30	9.55	-148	0.0	
13:45	11.12	100	15.71	0.373	1.10	9.51	-155	0.0	
13:40	11.12	100	15.52	0.379	0.91	9.47	-160	0.0	
13:55	11.12	100	15.30	0.385	0.78	9.43	-162	0.0	
14:00	11.12	100	15.18	0.390	0.69	9.39	-165	0.0	
Sampling									
14:26	11.12	100	14.19	0.421	0.74	9.02	-114	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:** **MW-10**
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	
Date: 10/24/2022	**Sampling Time:** 11:50	
PID at surface: ND		
Total Depth: 27.75 ft. below top of casing	**Water Column (WC):** 21.23 feet	*= 0.163 * WC for 2" wells
Depth to Water: 6.52 ft. below top of casing	**Well Volume*:** 3.46 gallons	*= 0.653 * WC for 4" wells
Depth to Product: ND ft. below top of casing	**Volume Purged:** 1.75 gallons	*= 1.469 * WC for 6" wells
Depth to top of screen: 23.00 ft. below top of casing	**Well Diam.:** 2 inches	
Depth to bottom of screen: 28.00 ft. below top of casing	**Purging Device (pump type):**	
Approx. Pump Intake: 25.50 ft. below top of casing	QED Sample Pro 1.75	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
11:15	6.53	150	14.06	1.04	2.73	6.64	132	0.0	No color, odor or sheen observed.
11:20	6.53	150	14.05	1.03	1.19	6.27	124	0.0	
11:25	6.53	150	14.04	1.02	1.62	6.24	125	0.0	
11:30	6.53	150	14.11	1.05	1.13	6.21	128	0.0	
11:35	6.53	150	14.14	1.04	0.91	6.21	128	0.0	
11:40	6.53	150	14.15	1.04	0.81	6.22	128	0.0	
11:45	6.53	150	14.16	1.04	0.77	6.22	128	0.0	
Sampling									
11:55	6.53	150	14.19	1.05	0.91	6.21	132	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**MW-09**
Date: 10/24/2022	**Sampling Time:** 13:55	
PID at surface: ND		

Total Depth:	29.38 ft. below top of casing	**Water Column (WC):**	21.76 feet	*= 0.163 * WC for 2" wells
Depth to Water:	7.62 ft. below top of casing	**Well Volume*:**	3.55 gallons	*= 0.653 * WC for 4" wells
Depth to Product:	ND ft. below top of casing	**Volume Purged:**	2 gallons	*= 1.469 * WC for 6" wells
Depth to top of screen:	24.50 ft. below top of casing	**Well Diam.:**	2 inches	
Depth to bottom of screen:	29.50 ft. below top of casing	**Purging Device (pump type):**		
Approx. Pump Intake:	27.00 ft. below top of casing	QED Sample Pro 1.75		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
13:20	7.60	150	14.04	0.519	2.28	6.35	81	6.3	No color, odor or sheen observed.
13:25	7.60	150	13.97	0.517	1.74	6.29	64	3.4	
13:30	7.60	150	13.94	0.516	1.13	6.31	53	1.8	
13:35	7.60	150	13.95	0.515	1.07	6.30	49	1.4	
13:40	7.60	150	13.95	0.513	0.87	6.29	43	0.0	
13:45	7.60	150	13.95	0.511	0.82	6.30	42	0.0	
13:50	7.60	150	13.95	0.510	0.81	6.28	43	0.0	
Sampling									
14:10	7.60	150	14.04	0.512	0.96	6.30	42	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**	
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**MW-08**	
Date: 10/20/2022	**Sampling Time:** 10:05		
PID at surface: ND			
Total Depth: 16.64 ft. below top of casing	**Water Column (WC):** 10.43 feet	*= 0.163 * WC for 2" wells	
Depth to Water: 6.21 ft. below top of casing	**Well Volume*:** 1.70 gallons	*= 0.653 * WC for 4" wells	
Depth to Product: ND ft. below top of casing	**Volume Purged:** 2.5 gallons	*= 1.469 * WC for 6" wells	
Depth to top of screen: 6.50 ft. below top of casing	**Well Diam.:** 2 inches		
Depth to bottom of screen: 16.50 ft. below top of casing	**Purging Device (pump type):**		
Approx. Pump Intake: 11.50 ft. below top of casing	QED Sample Pro 1.75		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
9:15	6.20	150	13.05	0.591	11.50	7.00	-92	206	
9:20	6.20	150	16.21	0.544	4.09	6.92	-81	166	
9:25	6.20	150	17.08	0.545	3.17	6.91	-80	123	
9:30	6.20	150	18.16	0.545	2.41	6.90	-80	97.8	
9:35	6.20	150	18.50	0.543	1.67	6.89	-84	70.7	
9:40	6.20	150	18.55	0.538	1.05	6.89	-88	45.2	No color, odor or sheen observed.
9:45	6.20	150	18.58	0.533	0.87	6.88	-91	20.8	
9:50	6.20	150	18.58	0.531	0.68	6.88	-93	9.2	
9:55	6.20	150	18.62	0.530	0.51	6.88	-94	0.0	
10:00	6.20	150	18.60	0.530	0.47	6.88	-95	0.0	
Sampling									
10:15	6.20	150	18.66	0.533	0.71	6.89	-96	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**	
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**MW-07**	
Date: 10/20/2022	**Sampling Time:** 8:25		
PID at surface: ND			
Total Depth: 20.58 ft. below top of casing	**Water Column (WC):** 11.76 feet	*= 0.163 * WC for 2" wells	
Depth to Water: 8.82 ft. below top of casing	**Well Volume*:** 1.92 gallons	*= 0.653 * WC for 4" wells	
Depth to Product: ND ft. below top of casing	**Volume Purged:** 2 gallons	*= 1.469 * WC for 6" wells	
Depth to top of screen: 8.00 ft. below top of casing	**Well Diam.:** 2 inches		
Depth to bottom of screen: 20.00 ft. below top of casing	**Purging Device (pump type):** QED Sample Pro 1.75		
Approx. Pump Intake: 13.50 ft. below top of casing			

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
7:45	8.82	150	11.40	0.912	1.78	6.40	-57	151	No color, odor or sheen observed.
7:50	8.82	150	12.53	0.813	4.30	6.47	-78	128	
7:55	8.82	150	13.64	0.793	2.62	6.54	-98	73.1	
8:00	8.82	150	14.17	0.780	1.51	6.54	-106	40.3	
8:05	8.82	150	14.33	0.770	0.94	6.54	-107	17.1	
8:10	8.82	150	14.54	0.766	0.70	6.54	-107	0.0	
8:15	8.82	150	14.58	0.765	0.54	6.54	-108	0.0	
8:20	8.82	150	14.60	0.765	0.50	6.54	-108	0.0	
Sampling									
8:35	8.82	150	14.68	0.765	0.47	6.54	-108	6.1	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:** MW-06
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	
Date: 10/19/2022	**Sampling Time:** 9:35	
PID at surface: ND		
Total Depth: 13.87 ft. below top of casing	**Water Column (WC):** 4.27 feet	*= 0.163 * WC for 2" wells
Depth to Water: 9.60 ft. below top of casing	**Well Volume*:** 0.70 gallons	*= 0.653 * WC for 4" wells
Depth to Product: ND ft. below top of casing	**Volume Purged:** 3 gallons	*= 1.469 * WC for 6" wells
Depth to top of screen: 5.50 ft. below top of casing	**Well Diam.:** 2 inches	
Depth to bottom of screen: 14.00 ft. below top of casing	**Purging Device (pump type):** QED Sample Pro 1.75	
Approx. Pump Intake: 11.75 ft. below top of casing		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
8:30	9.60	150	11.63	0.265	3.43	6.32	94	733	No color, odor or sheen observed.
8:35	9.60	150	12.12	0.261	2.96	6.22	95	593	
8:40	9.60	150	13.15	0.249	2.21	6.08	101	442	
8:45	9.60	150	14.09	0.240	1.50	6.03	114	368	
8:50	9.60	150	14.22	0.238	1.21	6.02	137	216	
8:55	9.60	150	14.55	0.235	1.06	6.01	152	154	
9:00	9.60	150	14.59	0.235	0.90	6.00	157	109	
9:05	9.60	150	14.62	0.235	0.83	6.00	168	91.4	
9:10	9.60	150	14.63	0.234	0.75	5.99	178	70.7	
9:15	9.60	150	14.66	0.233	0.73	5.99	181	56.1	
9:20	9.60	150	14.68	0.233	0.70	5.99	184	40.2	
9:25	9.60	150	14.71	0.233	0.68	5.99	185	19.7	
9:30	9.60	150	14.75	0.233	0.66	5.99	187	0.0	
Sampling									
9:45	9.60	150	14.80	0.233	0.75	5.99	190	17.3	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**	
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**MW-05**	
Date: 10/19/2022	**Sampling Time:** 12:50		
PID at surface: ND			
Total Depth: 18.05 ft. below top of casing	**Water Column (WC):** 7.49 feet	*= 0.163 * WC for 2" wells	
Depth to Water: 10.56 ft. below top of casing	**Well Volume*:** 1.22 gallons	*= 0.653 * WC for 4" wells	
Depth to Product: ND ft. below top of casing	**Volume Purged:** 2.5 gallons	*= 1.469 * WC for 6" wells	
Depth to top of screen: 8.00 ft. below top of casing	**Well Diam.:** 2 inches		
Depth to bottom of screen: 18.00 ft. below top of casing	**Purging Device (pump type):** QED Sample Pro 1.75		
Approx. Pump Intake: 14.00 ft. below top of casing			

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
12:00	10.57	150	15.96	0.230	5.17	6.05	32	0.2	No color, odor or sheen observed.
12:05	10.57	150	16.53	0.224	3.71	5.99	68	0.0	
12:10	10.57	150	17.02	0.223	2.26	5.80	101	0.0	
12:15	10.57	150	17.47	0.223	1.70	5.78	130	0.0	
12:20	10.57	150	17.36	0.229	1.22	5.80	147	0.0	
12:25	10.57	150	17.40	0.229	1.96	5.82	159	0.0	
12:30	10.57	150	17.45	0.230	2.51	5.84	176	0.0	
12:35	10.57	150	17.27	0.230	3.11	5.85	179	0.0	
12:40	10.57	150	17.33	0.230	3.27	5.85	180	0.0	
12:45	10.57	150	17.36	0.230	3.33	5.85	181	0.0	
Sampling									
13:00	10.57	150	17.41	0.230	3.10	5.85	184	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:** MW-04
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	
Date: 10/17/2022	**Sampling Time:** 14:05	
PID at surface: ND		
Total Depth: 13.25 ft. below top of casing	**Water Column (WC):** 6.87 feet	*= 0.163 * WC for 2" wells
Depth to Water: 6.38 ft. below top of casing	**Well Volume*:** 1.12 gallons	*= 0.653 * WC for 4" wells
Depth to Product: ND ft. below top of casing	**Volume Purged:** 1.5 gallons	*= 1.469 * WC for 6" wells
Depth to top of screen: 5.50 ft. below top of casing	**Well Diam.:** 2 inches	
Depth to bottom of screen: 13.00 ft. below top of casing	**Purging Device (pump type):**	
Approx. Pump Intake: 10.00 ft. below top of casing	QED Sample Pro 1.75	

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
13:30	6.34	150	18.18	0.735	3.78	6.94	-97	126	No color, odor or sheen observed.
13:35	6.34	150	16.77	0.684	1.89	6.80	-90	112	
13:40	6.34	150	16.75	0.650	1.17	6.58	-79	88.6	
13:45	6.34	150	16.70	0.635	0.83	6.44	-66	51.7	
13:50	6.34	150	16.67	0.622	0.50	6.39	-54	10.0	
13:55	6.34	150	16.66	0.641	0.47	6.38	-56	0.0	
14:00	6.34	150	16.64	0.643	0.45	6.38	-57	0.0	
Sampling									
14:10	6.34	150	16.69	0.645	0.41	6.37	-59	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**	
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**MW-03**	
Date: 10/20/2022	**Sampling Time:** 13:55		
PID at surface: ND			
Total Depth: 12.70 ft. below top of casing	**Water Column (WC):** 9.21 feet	*= 0.163 * WC for 2" wells	
Depth to Water: 3.49 ft. below top of casing	**Well Volume*:** 1.50 gallons	*= 0.653 * WC for 4" wells	
Depth to Product: ND ft. below top of casing	**Volume Purged:** 2.5 gallons	*= 1.469 * WC for 6" wells	
Depth to top of screen: 5.50 ft. below top of casing	**Well Diam.:** 2 inches		
Depth to bottom of screen: 12.50 ft. below top of casing	**Purging Device (pump type):**		
Approx. Pump Intake: 9.00 ft. below top of casing	QED Sample Pro 1.75		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
13:05	3.47	150	20.50	0.911	3.55	6.94	-91	100	
13:10	3.47	150	19.23	0.900	1.61	6.80	-88	95.1	
13:15	3.47	150	18.57	0.898	0.68	6.77	-86	88.6	
13:20	3.47	150	17.79	0.895	0.60	6.75	-85	78.1	
13:25	3.47	150	17.55	0.883	0.50	6.68	-78	66.4	
13:30	3.47	150	17.42	0.872	0.41	6.61	-73	59.3	No color, odor or sheen observed.
13:35	3.47	150	17.36	0.869	0.40	6.59	-70	51.6	
13:40	3.47	150	17.27	0.866	0.38	6.58	-68	49.7	
13:45	3.47	150	17.21	0.861	0.36	6.57	-67	45.6	
13:50	3.47	150	17.15	0.859	0.37	6.57	-67	41.3	
Sampling									
14:10	3.47	150	17.12	0.857	0.49	6.57	-65	32.3	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**MW-02**
Date: 10/20/2022	**Sampling Time:** 11:45	
PID at surface: ND		

Total Depth:	10.00 ft. below top of casing	**Water Column (WC):**	5.11 feet	*= 0.163 * WC for 2" wells
Depth to Water:	4.89 ft. below top of casing	**Well Volume*:**	0.83 gallons	*= 0.653 * WC for 4" wells
Depth to Product:	ND ft. below top of casing	**Volume Purged:**	2.5 gallons	*= 1.469 * WC for 6" wells
Depth to top of screen:	4.00 ft. below top of casing	**Well Diam.:**	2 inches	
Depth to bottom of screen:	10.00 ft. below top of casing	**Purging Device (pump type):**		
Approx. Pump Intake:	7.50 ft. below top of casing	QED Sample Pro 1.75		

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
11:00	4.86	150	18.00	1.06	7.05	6.81	-4	137	No color, odor or sheen observed.
11:05	4.86	150	18.68	1.05	2.71	6.71	-21	109	
11:10	4.86	150	19.33	1.06	1.22	6.68	-22	94.6	
11:15	4.86	150	20.02	1.06	0.84	6.65	-22	77.4	
11:20	4.86	150	20.51	1.06	0.63	6.64	-21	66.9	
11:25	4.86	150	50.57	1.06	0.48	6.61	-30	53.4	
11:30	4.86	150	50.58	1.06	0.45	6.58	-37	41.6	
11:35	4.86	150	20.68	1.06	0.43	6.56	-42	27.1	
11:40	4.86	150	20.72	1.06	0.42	6.55	-45	2.7	
Sampling									
12:00	4.86	150	20.77	1.06	0.57	6.55	-47	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Sampling Log

Job No: 200217	**Client:** City of White Plains	**Well No:**	
Project Location: White Plains Fire Department Drill School	**Sampled By:** S.Schmid, AKRF	**MW-01**	
Date: 10/24/2022	**Sampling Time:** 12:35		
PID at surface: ND			
Total Depth: 12.80 ft. below top of casing	**Water Column (WC):** 4.58 feet	*= 0.163 * WC for 2" wells	
Depth to Water: 8.22 ft. below top of casing	**Well Volume*:** 0.75 gallons	*= 0.653 * WC for 4" wells	
Depth to Product: ND ft. below top of casing	**Volume Purged:** 1.75 gallons	*= 1.469 * WC for 6" wells	
Depth to top of screen: 3.00 ft. below top of casing	**Well Diam.:** 2 inches		
Depth to bottom of screen: 13.00 ft. below top of casing	**Purging Device (pump type):** QED Sample Pro 1.75		
Approx. Pump Intake: 10.50 ft. below top of casing			

Time	Depth to Water (Ft.)	Purge Rate (ml/min)	Temp (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments (problems, odor, sheen)
12:00	8.26	150	17.63	1.59	5.88	7.13	-151	161	No color, odor or sheen observed. Triplicate volume collected for MS/MSD. Duplicate MW-X collected and labeled for 13:00
12:05	8.26	150	20.11	1.38	1.21	7.11	-178	123	
12:10	8.26	150	20.18	1.28	0.98	6.98	-169	103	
12:15	8.26	150	20.26	1.20	0.87	6.91	-164	60.5	
12:20	8.26	150	20.28	1.19	0.65	6.90	-162	22.7	
12:25	8.26	150	20.30	1.18	0.50	6.89	-160	0.0	
12:30	8.26	150	20.34	1.16	0.46	6.89	-164	0.0	
Sampling									
12:45	8.26	150	20.33	1.15	0.42	6.88	-163	0.0	
Stabilization Criteria:				**+/- 3 mS/cm**	**+/- 0.3 mg/L**	**+/- 0.1 pH units**	**+/- 10 mV**	**<50 NTU**	If water quality parameters do not stabilize and/or turbidity is greater than 50 NTU within two hours, discontinue purging and collect sample.

Groundwater samples analyzed for: PFAS (modified 537).

Well Development Log

Job No: 200217
Client: City of White Plains
Project Location: White Plains Fire Department Drill School
Developed By: S.Schmid, AKRF
Date: 10/17/2022

Well No: MW-10/SB-22

Total Depth: 27.68 ft.
Depth to Water: 6.46 ft.
Water Column (WC): 21.22 ft.

Well Diameter: 2 in.
Well Volume: 3.46 gal.

Well Volume (V) = Br 2 h (cf)

B = pi (approx. 3.14)
r = monitoring well radius in ft.
h = height of the water column in ft.
cf = conversion factor = 7.48 gal/ft^3

Time	Pump Rate (ml/min)	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Comments (note color or odors)
9:30	750	>1000	18.62	1.20	5.14	7.01	3	Monsoon Pump Development, no color, odor, or sheen
9:50	750	>1000	18.96	1.17	2.76	6.88	-47	Monsoon Pump Development, no color, odor, or sheen
10:10	750	>1000	19.17	1.17	2.66	6.79	-102	Monsoon Pump Development, no color, odor, or sheen
10:30	750	>1000	19.20	1.15	2.40	6.73	-129	Monsoon Pump Development, no color, odor, or sheen
10:50	750	>1000	19.18	1.14	2.20	6.69	-151	Monsoon Pump Development, no color, odor, or sheen
11:10	750	>1000	19.26	1.14	2.01	6.67	-155	Monsoon Pump Development, no color, odor, or sheen
11:20	750	>1000	19.30	1.14	1.99	6.65	-159	Monsoon Pump Development, no color, odor, or sheen
11:25	750	>1000	19.32	1.14	1.96	6.64	-159	Monsoon Pump Development, no color, odor, or sheen
11:30	750	>1000	19.25	1.13	1.97	6.64	-160	Monsoon Pump Development, no color, odor, or sheen
								DTB Post Development = 27.75ft

Total Volume Purged: approx. 25 gal.

For Surge Method: Purge until water quality parameters are stabile (within 10%) for three successive readings, and turbidity is less than 50 NTU for three successive readings.
For Bailer Method: Purge a minimum of three well volumes and water appears clear in the bailer.

Well Development Log

Job No: 200217
Client: City of White Plains
Project Location: White Plains Fire Department Drill School
Developed By: S.Schmid, AKRF
Date: 10/17/2022

Well No: MW-10/SB-22

Total Depth: 29.35 ft.
Depth to Water: 7.60 ft.
Water Column (WC): 21.75 ft.

Well Diameter: 2 in.
Well Volume: 3.55 gal.

Well Volume (V) = Br 2 h (cf)

B = pi (approx. 3.14)
r = monitoring well radius in ft.
h = height of the water column in ft.
cf = conversion factor = 7.48 gal/ft^3

Time	Pump Rate (ml/min)	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Comments (note color or odors)
7:30	750	>1000	17.07	1.00	3.98	7.11	197	Monsoon Pump Development, no color, odor, or sheen
7:50	750	>1000	17.13	1.10	3.31	7.05	190	Monsoon Pump Development, no color, odor, or sheen
8:10	750	>1000	17.36	1.16	2.97	7.03	188	Monsoon Pump Development, no color, odor, or sheen
8:30	750	>1000	17.41	1.21	2.68	7.02	185	Monsoon Pump Development, no color, odor, or sheen
8:50	750	>1000	17.48	1.23	2.41	7.02	177	Monsoon Pump Development, no color, odor, or sheen
9:10	750	>1000	17.58	1.24	2.30	7.02	175	Monsoon Pump Development, no color, odor, or sheen
9:20	750	>1000	17.59	1.25	2.22	7.02	175	Monsoon Pump Development, no color, odor, or sheen
9:25	750	>1000	17.63	1.26	2.19	7.02	174	Monsoon Pump Development, no color, odor, or sheen
9:30	750	>1000	17.68	1.26	2.27	7.02	173	Monsoon Pump Development, no color, odor, or sheen
								DTB Post Development = 29.38ft

Total Volume Purged: approx. 25 gal.

For Surge Method: Purge until water quality parameters are stabile (within 10%) for three successive readings, and turbidity is less than 50 NTU for three successive readings.
For Bailer Method: Purge a minimum of three well volumes and water appears clear in the bailer.

Well Development Log

Job No: 200217
Client: City of White Plains
Project Location: White Plains Fire Department Drill School
Developed By: S.Schmid, AKRF
Date: 10/12/2022

Well No: MW-08/SB-26

Total Depth: 16.61 ft.
Depth to Water: 5.99 ft.
Water Column (WC): 10.62 ft.

Well Diameter: 2 in.
Well Volume: 1.73 gal.

Well Volume (V) = Br 2 h (cf)

B = pi (approx. 3.14)
r = monitoring well radius in ft.
h = height of the water column in ft.
cf = conversion factor = 7.48 gal/ft^3

Time	Pump Rate (ml/min)	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Comments (note color or odors)
9:30	750	>1000	16.09	0.747	5.14	7.21	-26	Monsoon Pump Development, no color, odor, or sheen
9:50	750	>1000	16.23	0.717	3.09	7.02	-48	Monsoon Pump Development, no color, odor, or sheen
10:10	750	>1000	16.25	0.698	2.77	6.93	-71	Monsoon Pump Development, no color, odor, or sheen
10:30	750	>1000	16.21	0.688	2.70	6.90	-81	Monsoon Pump Development, no color, odor, or sheen
10:50	750	>1000	16.33	0.685	2.65	6.88	-97	Monsoon Pump Development, no color, odor, or sheen
11:10	750	>1000	16.37	0.686	2.44	6.87	-101	Monsoon Pump Development, no color, odor, or sheen
11:20	750	>1000	16.42	0.685	2.51	6.86	-111	Monsoon Pump Development, no color, odor, or sheen
11:25	750	>1000	16.40	0.684	2.43	6.86	-113	Monsoon Pump Development, no color, odor, or sheen
11:30	750	>1000	16.46	0.684	2.36	6.86	-115	Monsoon Pump Development, no color, odor, or sheen
								DTB Post Development = 16.64ft

Total Volume Purged: approx. 25 gal.

For Surge Method: Purge until water quality parameters are stabile (within 10%) for three successive readings, and turbidity is less than 50 NTU for three successive readings.
For Bailer Method: Purge a minimum of three well volumes and water appears clear in the bailer.

Well Development Log

Job No: 200217
Client: City of White Plains
Project Location: White Plains Fire Department Drill School
Developed By: S.Schmid, AKRF
Date: 10/12/2022

Well No: MW-07/SB-25

Total Depth: 20.50 ft.
Depth to Water: 8.71 ft.
Water Column (WC): 11.79 ft.

Well Diameter: 2 in.
Well Volume: 1.92 gal.

Well Volume (V) = Br 2 h (cf)

B = pi (approx. 3.14)
r = monitoring well radius in ft.
h = height of the water column in ft.
cf = conversion factor = 7.48 gal/ft^3

Time	Pump Rate (ml/min)	Turbidity (NTU)	Temperature (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Comments (note color or odors)
7:30	750	>1000	15.45	0.758	1.68	6.59	-76	Monsoon Pump Development, no color, odor, or sheen
7:40	750	>1000	15.46	0.818	4.28	6.54	-65	Monsoon Pump Development, no color, odor, or sheen
7:50	750	>1000	15.50	0.820	3.11	6.54	-77	Monsoon Pump Development, no color, odor, or sheen
8:20	750	>1000	15.56	0.821	2.73	6.54	-88	Monsoon Pump Development, no color, odor, or sheen
8:40	750	>1000	15.52	0.820	2.50	6.53	-95	Monsoon Pump Development, no color, odor, or sheen
9:00	750	>1000	15.55	0.820	2.44	6.54	-101	Monsoon Pump Development, no color, odor, or sheen
9:20	750	>1000	15.56	0.821	2.47	6.54	-105	Monsoon Pump Development, no color, odor, or sheen
9:25	750	>1000	15.71	0.822	2.40	6.54	-102	Monsoon Pump Development, no color, odor, or sheen
9:30	750	>1000	15.68	0.821	2.42	6.54	-102	Monsoon Pump Development, no color, odor, or sheen
								DTB Post Development = 20.58ft

Total Volume Purged: approx. 25 gal.

For Surge Method: Purge until water quality parameters are stabile (within 10%) for three successive readings, and turbidity is less than 50 NTU for three successive readings.
For Bailer Method: Purge a minimum of three well volumes and water appears clear in the bailer.

Well Development Log

Job No: 200217	**Client:** City of White Plains	**Well No: MW-03, redrilled at site characterization SB-11**
Project Location: White Plains Fire Department Drill School	**Developed By:** S.Schmid, AKRF	
Date: 10/12/2022		

Total Depth:	12.62 ft.	**Well Diameter:**	2 in.
Depth to Water:	3.13 ft.	**Well Volume:**	1.55 gal.
Water Column (WC):	9.49 ft.		

Well Volume (V) = Br 2 h (cf)

B = pi (approx. 3.14)
r = monitoring well radius in ft.
h = height of the water column in ft.
cf = conversion factor = 7.48 gal/ft^3

Time	**Pump Rate** (ml/min)	**Turbidity** (NTU)	**Temperature** (^{o}C)	**Conductivity** (mS/cm)	**DO** (mg/L)	**pH**	**ORP** (mV)	**Comments** (note color or odors)
13:30	750	>1000	17.12	1.03	2.78	6.99	-48	Monsoon Pump Development, no color, odor, or sheen
13:50	750	>1000	17.33	0.996	2.43	6.90	-56	Monsoon Pump Development, no color, odor, or sheen
14:10	750	>1000	17.30	0.961	2.20	6.84	-60	Monsoon Pump Development, no color, odor, or sheen
14:30	750	>1000	17.37	0.940	2.17	6.81	-62	Monsoon Pump Development, no color, odor, or sheen
14:50	750	>1000	17.38	0.927	2.11	6.79	-65	Monsoon Pump Development, no color, odor, or sheen
15:10	750	>1000	17.52	0.922	2.05	6.79	-69	Monsoon Pump Development, no color, odor, or sheen
15:20	750	>1000	17.46	0.920	2.01	6.78	-71	Monsoon Pump Development, no color, odor, or sheen
15:25	750	>1000	17.41	0.919	1.99	6.78	-70	Monsoon Pump Development, no color, odor, or sheen
15:30	750	>1000	17.45	0.919	1.94	6.77	-70	Monsoon Pump Development, no color, odor, or sheen
								DTB Post Development = 12.70ft

Total Volume Purged: approx. 25 gal.

For Surge Method: Purge until water quality parameters are stabile (within 10%) for three successive readings, and turbidity is less than 50 NTU for three successive readings.
For Bailer Method: Purge a minimum of three well volumes and water appears clear in the bailer.

Well Development Log

Job No: 200217	**Client:** City of White Plains	**Well No: MW-02, redrilled at site characterization SB-09**
Project Location: White Plains Fire Department Drill School	**Developed By:** S.Schmid, AKRF	
Date: 10/12/2022		

Total Depth:	9.91 ft.	**Well Diameter:**	2 in.
Depth to Water:	4.77 ft.	**Well Volume:**	0.84 gal.
Water Column (WC):	5.14 ft.		

Well Volume (V) = Br 2 h (cf)

B = pi (approx. 3.14)
r = monitoring well radius in ft.
h = height of the water column in ft.
cf = conversion factor = 7.48 gal/ft^3

Time	**Pump Rate** (ml/min)	**Turbidity** (NTU)	**Temperature** (^oC)	**Conductivity** (mS/cm)	**DO** (mg/L)	**pH**	**ORP** (mV)	**Comments** (note color or odors)
11:30	750	>1000	16.23	0.911	4.38	7.02	-7	Monsoon Pump Development, no color, odor, or sheen
11:50	750	>1000	16.30	0.981	3.11	6.70	-16	Monsoon Pump Development, no color, odor, or sheen
12:10	750	>1000	16.34	1.01	2.43	6.62	-28	Monsoon Pump Development, no color, odor, or sheen
12:30	750	>1000	16.31	1.02	1.99	6.58	-35	Monsoon Pump Development, no color, odor, or sheen
12:50	750	>1000	16.41	1.04	1.92	6.57	-37	Monsoon Pump Development, no color, odor, or sheen
13:10	750	>1000	16.45	1.05	1.68	6.55	-40	Monsoon Pump Development, no color, odor, or sheen
13:20	750	>1000	16.44	1.06	1.74	6.54	-41	Monsoon Pump Development, no color, odor, or sheen
13:25	750	>1000	16.50	1.08	1.70	6.53	-42	Monsoon Pump Development, no color, odor, or sheen
13:30	750	>1000	16.49	1.11	1.63	6.53	-42	Monsoon Pump Development, no color, odor, or sheen
								DTB Post Development = 10.00ft

Total Volume Purged: approx. 25 gal.

For Surge Method: Purge until water quality parameters are stabile (within 10%) for three successive readings, and turbidity is less than 50 NTU for three successive readings.
For Bailer Method: Purge a minimum of three well volumes and water appears clear in the bailer.

APPENDIX C
LABORATORY ANALYTICAL REPORTS AND DUSRS

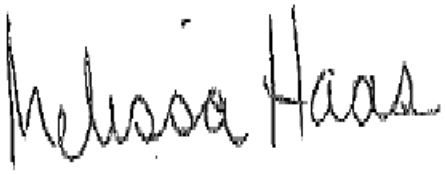
ANALYTICAL REPORT

Job Number: 460-266738-1

Job Description: WPFD

For:
AKRF Inc
34 South Broadway
Suite 314
White Plains, NY 10601

Attention: Mr. Bryan Zieroff



Approved for release.
Melissa Haas
Senior Project Manager
10/24/2022 11:51 AM

Melissa Haas, Senior Project Manager
777 New Durham Road, Edison, NJ, 08817
(203)308-0880
Melissa.Haas@et.eurofinsus.com
10/24/2022

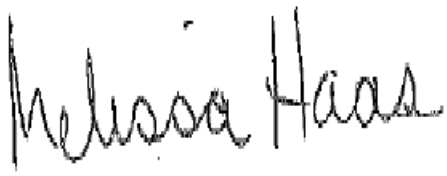
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Job Number: 460-266738-1

Job Description: WPFD

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Melissa Haas
Senior Project Manager
10/24/2022 11:51 AM

Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-266738-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/3/2022 7:00 PM and 10/4/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5º C and 3.0º C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): FB_01_20221003 (460-266738-17). The client confirmed that this sample should be analyzed.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-SB-28_0.2-1_20221003 (460-266738-1), RI-SB-27_0.2-1_20221004 (460-266816-1), RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-28_10-11_20221003 (460-266738-3), RI-SB-X01_20221004 (460-266816-3), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-21_0-0.2_20221004 (460-266816-4), RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-21_0.2-1_20221004 (460-266816-5), RI-SB-33_13-14_20221003 (460-266738-6), RI-SB-21_1-2_20221004 (460-266816-6), RI-SB-X_20221003 (460-266738-7), RI-SB-22_0-0.2_20221004 (460-266816-7), RI-SB-34_0.2-1_20221003 (460-266738-8), RI-SB-22_0.2-1_20221004 (460-266816-8), RI-SB-34_1-2_20221003 (460-266738-9), RI-SB-22_1-2_20221004 (460-266816-9), RI-SB-34_10-11_20221003 (460-266738-10), RI-SB-32_0-0.2_20221004 (460-266816-10), RI-SB-26_0.2-1_20221003 (460-266738-11), RI-SB-32_0.2-1_20221004 (460-266816-11), RI-SB-26_1-2_20221003 (460-266738-12), RI-SB-32_1-2_20221004 (460-266816-12), RI-SB-26_10-11_20221003 (460-266738-13), RI-SB-31_0-0.2_20221004 (460-266816-13), RI-SB-25_0.2-1_20221003 (460-266738-14), RI-SB-31_0.2-1_20221004 (460-266816-14), RI-SB-25_1-2_20221003 (460-266738-15), RI-SB-31_1-2_20221004 (460-266816-15), RI-SB-25_15-16_20221003 (460-266738-16), RI-SB-30_0-0.2_20221004 (460-266816-16), RI-SB-30_0.2-1_20221004 (460-266816-17), RI-SB-30_1-2_20221004 (460-266816-18), RI-SB-29_0-0.2_20221004 (460-266816-19), RI-SB-29_0.2-1_20221004 (460-266816-20), RI-SB-29_1-2_20221004 (460-266816-21), RI-SB-X02_20221004 (460-266816-22), RI-SB-24_0-0.2_20221004 (460-266816-23), RI-SB-24_0.2-1_20221004 (460-266816-24), RI-SB-24_1-2_20221004 (460-266816-25), RI-SB-23_0-0.2_20221004 (460-266816-26), RI-SB-23_0.2-1_20221004 (460-266816-27) and RI-SB-23_1-2_20221004 (460-266816-28) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/10/2022, 10/12/2022 and 10/17/2022 and analyzed on 10/11/2022, 10/12/2022, 10/13/2022 and 10/17/2022.

Sample FB_01_20221003 (460-266738-17) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared and analyzed on 10/07/2022.

Method 537 (modified): Results for samples RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-28_1-2_20221003 (460-266738-2[MS]), RI-SB-28_1-2_20221003 (460-266738-2[MSD]), RI-SB-28_10-11_20221003 (460-266738-3), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-26_0.2-1_20221003 (460-266738-11), RI-SB-26_1-2_20221003 (460-266738-12), RI-SB-26_10-11_20221003 (460-266738-13) and RI-SB-25_1-2_20221003 (460-266738-15) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): The matrix spike and matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-184460 and

analytical batch 200-184532 were outside control limits for Perfluorooctanesulfonic acid (PFOS). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): The matrix spike and matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-184459 and analytical batch 200-184546 were outside control limits for Perfluorooctanesulfonic acid (PFOS). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): Results for samples RI-SB-27_0.2-1_20221004 (460-266816-1), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-27_1-2_20221004 (460-266816-2[MS]) and RI-SB-27_1-2_20221004 (460-266816-2[MSD]) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-25_0.2-1_20221003 (460-266738-14). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: RI-SB-28_0.2-1_20221003 (460-266738-1), RI-SB-X_20221003 (460-266738-7) and RI-SB-X01_20221004 (460-266816-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): M2-8:2 FTS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: RI-SB-22_0-0.2_20221004 (460-266816-7). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Method 537 (modified): The “I” qualifier associated with sample RI-SB-X01_20221004 (460-266816-3) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Method 537 (modified): Results for sample RI-SB-33_1-2_20221003 (460-266738-5) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-26_0.2-1_20221003 (460-266738-11). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d5-NEtFOSAA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: RI-SB-25_1-2_20221003 (460-266738-15). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-33_1-2_20221003 (460-266738-5) and RI-SB-27_0.2-1_20221004 (460-266816-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: RI-SB-28_1-2_20221003 (460-266738-2[MS]), RI-SB-28_1-2_20221003 (460-266738-2[MSD]), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-27_1-2_20221004 (460-266816-2[MS]) and RI-SB-27_1-2_20221004 (460-266816-2[MSD]). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The matrix spike and matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-184460 and analytical batch 200-184599 were outside control limits for Perfluorooctanesulfonamide (PFOSA). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): M2-8:2 FTS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: RI-SB-32_0-0.2_20221004 (460-266816-10), RI-SB-30_0-0.2_20221004 (460-266816-16) and RI-SB-24_0.2-1_20221004 (460-266816-24). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: RI-SB-30_0.2-1_20221004 (460-266816-17). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-24_0-0.2_20221004 (460-266816-23). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended

limit for the following samples: RI-SB-24_1-2_20221004 (460-266816-25) and RI-SB-23_0-0.2_20221004 (460-266816-26). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The matrix spike (MS) recovery for preparation batch 200-184585 and analytical batch 200-184626 were outside control limits for Perfluorooctanesulfonic acid (PFOS) Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): Results for samples RI-SB-31_0.2-1_20221004 (460-266816-14), RI-SB-31_1-2_20221004 (460-266816-15), RI-SB-30_0.2-1_20221004 (460-266816-17) and RI-SB-24_0-0.2_20221004 (460-266816-23) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Method 537 (modified): The “I” qualifier associated with samples RI-SB-23_0.2-1_20221004 (460-266816-27) and RI-SB-23_1-2_20221004 (460-266816-28) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-33_1-2_20221003 (460-266738-5). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for samples RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-30_0.2-1_20221004 (460-266816-17) and RI-SB-30_1-2_20221004 (460-266816-18) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method SHAKE: While loading the sample onto the SPE cartridge, the extraction process was stopped after roughly 90 of the 125 mLS of sample made it through the cartridge. This was done to ensure the SPE cartridge would not fully clog and allow the rest of extraction process to able to be performed. The sample had a high level of suspended solids that did not spin down during the centrifugation step. The sample extraction did continue normally per the SOP.

RI-SB-21_0-0.2_20221004 (460-266816-4)

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

SPLP PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-21_0-0.2_20221004 (460-266816-4), RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-21_0.2-1_20221004 (460-266816-5), RI-SB-33_13-14_20221003 (460-266738-6), RI-SB-21_1-2_20221004 (460-266816-6), RI-SB-30_0-0.2_20221004 (460-266816-16), RI-SB-30_0.2-1_20221004 (460-266816-17) and RI-SB-30_1-2_20221004 (460-266816-18) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified)/1312. The samples were leached on 10/17/2022, prepared on 10/18/2022 and analyzed on 10/19/2022 and 10/20/2022.

Samples RI-SB-33_1-2_20221003 (460-266738-5)[10X], RI-SB-30_0.2-1_20221004 (460-266738-17)[5X] and RI-SB-30_1-2_20221004 (460-266738-18)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples RI-SB-28_0.2-1_20221003 (460-266738-1), RI-SB-27_0.2-1_20221004 (460-266816-1), RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-28_10-11_20221003 (460-266738-3), RI-SB-X01_20221004 (460-266816-3), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-21_0-0.2_20221004 (460-266816-4), RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-21_0.2-1_20221004 (460-266816-5), RI-SB-33_13-14_20221003 (460-266738-6), RI-SB-21_1-2_20221004 (460-266816-6), RI-SB-X_20221003 (460-266738-7), RI-SB-22_0-0.2_20221004 (460-266816-7), RI-SB-34_0.2-1_20221003 (460-266738-8), RI-SB-22_0.2-1_20221004 (460-266816-8), RI-SB-34_1-2_20221003 (460-266738-9), RI-SB-22_1-2_20221004 (460-266816-9), RI-SB-34_10-11_20221003 (460-266738-10), RI-SB-32_0-0.2_20221004 (460-266816-10), RI-SB-26_0.2-1_20221003 (460-266738-11), RI-SB-32_0.2-1_20221004 (460-266816-11), RI-SB-26_1-2_20221003 (460-266738-12), RI-SB-32_1-2_20221004 (460-266816-12), RI-SB-26_10-11_20221003 (460-266738-13), RI-SB-31_0-0.2_20221004 (460-266816-13), RI-SB-25_0.2-1_20221003 (460-266738-14), RI-SB-31_0.2-1_20221004 (460-266816-14), RI-SB-25_1-2_20221003 (460-266738-15), RI-SB-31_1-2_20221004 (460-266816-15), RI-SB-25_15-16_20221003 (460-266738-16), RI-SB-30_0-0.2_20221004 (460-266816-16), RI-SB-30_0.2-1_20221004 (460-266816-17), RI-SB-30_1-2_20221004 (460-266816-18), RI-SB-29_0-0.2_20221004 (460-266816-19), RI-SB-29_0.2-1_20221004 (460-266816-20), RI-SB-29_1-2_20221004 (460-266816-21), RI-SB-X02_20221004 (460-266816-22), RI-SB-24_0-0.2_20221004

(460-266816-23), RI-SB-24_0.2-1_20221004 (460-266816-24), RI-SB-24_1-2_20221004 (460-266816-25), RI-SB-23_0-0.2_20221004 (460-266816-26), RI-SB-23_0.2-1_20221004 (460-266816-27) and RI-SB-23_1-2_20221004 (460-266816-28) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 10/07/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Sample Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-266738-1	RI-SB-28_0.2-1_20221003	Solid	10/03/22 10:00	10/03/22 19:00
460-266738-2	RI-SB-28_1-2_20221003	Solid	10/03/22 10:10	10/03/22 19:00
460-266738-3	RI-SB-28_10-11_20221003	Solid	10/03/22 10:20	10/03/22 19:00
460-266738-4	RI-SB-33_0.2-1_20221003	Solid	10/03/22 11:20	10/03/22 19:00
460-266738-5	RI-SB-33_1-2_20221003	Solid	10/03/22 11:10	10/03/22 19:00
460-266738-6	RI-SB-33_13-14_20221003	Solid	10/03/22 11:30	10/03/22 19:00
460-266738-7	RI-SB-X_20221003	Solid	10/03/22 11:00	10/03/22 19:00
460-266738-8	RI-SB-34_0.2-1_20221003	Solid	10/03/22 13:10	10/03/22 19:00
460-266738-9	RI-SB-34_1-2_20221003	Solid	10/03/22 13:00	10/03/22 19:00
460-266738-10	RI-SB-34_10-11_20221003	Solid	10/03/22 12:50	10/03/22 19:00
460-266738-11	RI-SB-26_0.2-1_20221003	Solid	10/03/22 13:40	10/03/22 19:00
460-266738-12	RI-SB-26_1-2_20221003	Solid	10/03/22 13:50	10/03/22 19:00
460-266738-13	RI-SB-26_10-11_20221003	Solid	10/03/22 14:00	10/03/22 19:00
460-266738-14	RI-SB-25_0.2-1_20221003	Solid	10/03/22 14:20	10/03/22 19:00
460-266738-15	RI-SB-25_1-2_20221003	Solid	10/03/22 14:30	10/03/22 19:00
460-266738-16	RI-SB-25_15-16_20221003	Solid	10/03/22 14:40	10/03/22 19:00
460-266738-17	FB_01_20221003	Water	10/03/22 12:15	10/03/22 19:00
460-266816-1	RI-SB-27_0.2-1_20221004	Solid	10/04/22 08:20	10/04/22 18:30
460-266816-2	RI-SB-27_1-2_20221004	Solid	10/04/22 08:30	10/04/22 18:30
460-266816-3	RI-SB-X01_20221004	Solid	10/04/22 08:45	10/04/22 18:30
460-266816-4	RI-SB-21_0-0.2_20221004	Solid	10/04/22 09:20	10/04/22 18:30
460-266816-5	RI-SB-21_0.2-1_20221004	Solid	10/04/22 09:25	10/04/22 18:30
460-266816-6	RI-SB-21_1-2_20221004	Solid	10/04/22 09:35	10/04/22 18:30
460-266816-7	RI-SB-22_0-0.2_20221004	Solid	10/04/22 09:40	10/04/22 18:30
460-266816-8	RI-SB-22_0.2-1_20221004	Solid	10/04/22 09:50	10/04/22 18:30
460-266816-9	RI-SB-22_1-2_20221004	Solid	10/04/22 09:55	10/04/22 18:30
460-266816-10	RI-SB-32_0-0.2_20221004	Solid	10/04/22 10:10	10/04/22 18:30
460-266816-11	RI-SB-32_0.2-1_20221004	Solid	10/04/22 10:20	10/04/22 18:30
460-266816-12	RI-SB-32_1-2_20221004	Solid	10/04/22 10:30	10/04/22 18:30
460-266816-13	RI-SB-31_0-0.2_20221004	Solid	10/04/22 10:40	10/04/22 18:30
460-266816-14	RI-SB-31_0.2-1_20221004	Solid	10/04/22 10:45	10/04/22 18:30
460-266816-15	RI-SB-31_1-2_20221004	Solid	10/04/22 10:50	10/04/22 18:30
460-266816-16	RI-SB-30_0-0.2_20221004	Solid	10/04/22 11:10	10/04/22 18:30
460-266816-17	RI-SB-30_0.2-1_20221004	Solid	10/04/22 11:20	10/04/22 18:30
460-266816-18	RI-SB-30_1-2_20221004	Solid	10/04/22 11:30	10/04/22 18:30
460-266816-19	RI-SB-29_0-0.2_20221004	Solid	10/04/22 11:55	10/04/22 18:30
460-266816-20	RI-SB-29_0.2-1_20221004	Solid	10/04/22 12:00	10/04/22 18:30
460-266816-21	RI-SB-29_1-2_20221004	Solid	10/04/22 12:10	10/04/22 18:30
460-266816-22	RI-SB-X02_20221004	Solid	10/04/22 14:05	10/04/22 18:30
460-266816-23	RI-SB-24_0-0.2_20221004	Solid	10/04/22 12:45	10/04/22 18:30
460-266816-24	RI-SB-24_0.2-1_20221004	Solid	10/04/22 12:50	10/04/22 18:30
460-266816-25	RI-SB-24_1-2_20221004	Solid	10/04/22 12:55	10/04/22 18:30
460-266816-26	RI-SB-23_0-0.2_20221004	Solid	10/04/22 13:25	10/04/22 18:30
460-266816-27	RI-SB-23_0.2-1_20221004	Solid	10/04/22 13:30	10/04/22 18:30
460-266816-28	RI-SB-23_1-2_20221004	Solid	10/04/22 13:40	10/04/22 18:30

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Client Sample ID: RI-SB-28_0.2-1_20221003 — Lab Sample ID: 460-266738-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.43		0.20	0.056	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.30		0.20	0.047	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.63		0.20	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.33		0.20	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.35		0.20	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.49		0.20	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.19	J	0.20	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.41		0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.084	J	0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.18	J	0.20	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.36		0.20	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.049	J	0.20	0.023	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.25		0.20	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.31	J	2.03	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.27	J	2.03	0.038	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-28_1-2_20221003 — Lab Sample ID: 460-266738-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.38		0.21	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.57		0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.33		0.21	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.33		0.21	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.12	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.15	J	0.21	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.068	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.15	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.17	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.49		0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.84		0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	2.56		0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	2.92		0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.18	J	2.11	0.088	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.0	J	2.11	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.48	J	2.11	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	129		2.11	1.16	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-28_10-11_20221003 — Lab Sample ID: 460-266738-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.26		0.22	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.26		0.22	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.17	J	0.22	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.18	J	0.22	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.062	J	0.22	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.75		0.22	0.044	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-28_10-11_20221003 (Continued) — Lab Sample ID: 460-266738-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	0.50		0.22	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.37	J	2.16	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.052	J	2.16	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	47.7		2.16	1.19	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-33_0.2-1_20221003 — Lab Sample ID: 460-266738-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.17	J	0.20	0.054	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.18	J	0.20	0.045	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.19	J	0.20	0.038	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.074	J	0.20	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.059	J	0.20	0.033	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.12	J	0.20	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.051	J	0.20	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.073	J	0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.045	J	0.20	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.19		0.20	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.077	J	0.20	0.023	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.090	J	1.96	0.056	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	23.3		1.96	1.08	ug/Kg	10	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.39	J	19.7	5.31	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	12.1	J	19.7	5.41	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	204		19.7	8.37	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SB-33_1-2_20221003 — Lab Sample ID: 460-266738-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.35		0.21	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.87		0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.18	J	0.21	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.44		0.21	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.042	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.13	J	0.21	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.073	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.20	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.040	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.11	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.80		0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	14.9		0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.75		0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	1.26		0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	4.58		0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.37	J	2.11	0.060	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-33_1-2_20221003 (Continued) — Lab Sample ID: 460-266738-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.72	J	2.11	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	261		4.23	2.33	ug/Kg	20	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	4.46	J	5.03	1.21	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	6.97		2.01	0.68	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	20.9		2.01	0.65	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	3.23		2.01	0.54	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	4.16		2.01	0.76	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	0.66	J	2.01	0.49	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	2.04		2.01	0.46	ng/L	1		537 (modified)	SPLP East
Perfluoroundecanoic acid (PFUnA)	0.78	J	2.01	0.55	ng/L	1		537 (modified)	SPLP East
Perfluorododecanoic acid (PFDoA)	1.30	J	2.01	0.49	ng/L	1		537 (modified)	SPLP East
Perfluorobutanesulfonic acid (PFBS)	7.68		2.01	0.62	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	72.8		2.01	0.55	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanesulfonic acid (PFHpS)	11.2		2.01	0.41	ng/L	1		537 (modified)	SPLP East
Perfluorodecanesulfonic acid (PFDS)	11.4		2.01	0.40	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonamide (PFOSA)	94.1		2.01	0.93	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.8		5.03	1.31	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.95		2.01	0.77	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS) - DL	2290		20.1	8.55	ng/L	10		537 (modified)	SPLP East

Client Sample ID: RI-SB-33_13-14_20221003 — Lab Sample ID: 460-266738-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.10	J	0.23	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.077	J	0.23	0.052	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.055	J	0.23	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.54		0.23	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.094	J	0.23	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.40		0.23	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.42		1.97	0.67	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	3.25		1.97	0.64	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	1.97		1.97	0.53	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	1.66	J	1.97	0.75	ng/L	1		537 (modified)	SPLP East
Perfluorobutanesulfonic acid (PFBS)	0.96	J	1.97	0.61	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	22.5		1.97	0.54	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanesulfonic acid (PFHpS)	3.92		1.97	0.40	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	332		1.97	0.84	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.77	J	4.92	1.28	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SB-X_20221003 — Lab Sample ID: 460-266738-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.39		0.20	0.056	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.27		0.20	0.047	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.53		0.20	0.040	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-X_20221003 (Continued) — Lab Sample ID: 460-266738-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.31		0.20	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.34		0.20	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.44		0.20	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.15	J	0.20	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.35		0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.066	J	0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.16	J	0.20	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.39		0.20	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.042	J	0.20	0.023	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.51		0.20	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.035	J	0.20	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.30	J	2.04	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.24	J	2.04	0.038	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-34_0.2-1_20221003 — Lab Sample ID: 460-266738-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.34		0.23	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.17	J	0.23	0.053	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.22	J	0.23	0.045	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.11	J	0.23	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.15	J	0.23	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.056	J	0.23	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.23	0.047	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	12.7		0.23	0.13	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.092	J	2.29	0.065	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.28	J	2.29	0.042	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-34_1-2_20221003 — Lab Sample ID: 460-266738-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.16	J	0.23	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.086	J	0.23	0.052	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.15	J	0.23	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.076	J	0.23	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.083	J	0.23	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.11	J	0.23	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10.1		0.23	0.12	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-34_10-11_20221003 — Lab Sample ID: 460-266738-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.10	J	0.21	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.081	J	0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.061	J	0.21	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.073	J	0.21	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.69		0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.14	J	0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-34_10-11_20221003 (Continued) — Lab Sample ID: 460-266738-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	11.2		0.21	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.097	J	2.12	0.060	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-26_0.2-1_20221003 — Lab Sample ID: 460-266738-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.31		0.20	0.055	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.33		0.20	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.17	J	0.20	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.21		0.20	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.15	J	0.20	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.14	J	0.20	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.076	J	0.20	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.27		0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.10	J	0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.17	J	0.20	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.085	J	0.20	0.033	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.43		0.20	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.20	0.023	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.27		0.20	0.019	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.33		0.20	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.27	J	1.99	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.21	J	1.99	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	21.2		1.99	1.09	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-26_1-2_20221003 — Lab Sample ID: 460-266738-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.19	J	0.21	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.18	J	0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.14	J	0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.071	J	0.21	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.069	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.098	J	0.21	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.071	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.11	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.037	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.064	J	0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.79		0.21	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.11	J	0.21	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.36		0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.29		0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.23	J	2.15	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.16	J	2.15	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	22.3		2.15	1.18	ug/Kg	10	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Client Sample ID: RI-SB-26_10-11_20221003 — Lab Sample ID: 460-266738-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.087	J	0.24	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.070	J	0.24	0.055	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.058	J	0.24	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.21	J	0.24	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.35		0.24	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.11	J	0.24	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.37	J	2.40	0.068	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.94	J	2.40	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	31.8		2.40	1.32	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-25_0.2-1_20221003 — Lab Sample ID: 460-266738-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.47	J	0.50	0.33	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.32		0.20	0.055	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.80		0.20	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.17		0.20	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	2.53		0.20	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.54		0.20	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.15		0.20	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.54		0.20	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.03		0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.15	J	0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.44		0.20	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.35		0.20	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.41		0.20	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.17	J	2.00	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.39		2.00	0.037	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-25_1-2_20221003 — Lab Sample ID: 460-266738-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.38	J	0.52	0.34	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.57		0.21	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.74		0.21	0.048	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.36		0.21	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.53		0.21	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.57		0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.25		0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.080	J	0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.065	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.034	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.030	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.91		0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.097	J	0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.038	J	0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Client Sample ID: RI-SB-25_1-2_20221003 (Continued) — Lab Sample ID: 460-266738-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.65	J	2.07	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.44	J	2.07	0.038	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	23.0		2.07	1.14	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-25_15-16_20221003 — Lab Sample ID: 460-266738-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.15		0.51	0.14	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.80		0.51	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.52		0.51	0.099	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.33	J	0.51	0.15	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.18	J	0.51	0.084	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.88		0.51	0.10	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.10	J	5.07	0.14	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: FB_01_20221003 — Lab Sample ID: 460-266738-17

No Detections.

Client Sample ID: RI-SB-27_0.2-1_20221004 — Lab Sample ID: 460-266816-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.48		0.21	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.37		0.21	0.047	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.15	J	0.21	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.12	J	0.21	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.061	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.22		0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.10	J	0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.28		0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.076	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.17	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.13	J	0.21	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.22		0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.25		0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.13	J	0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.36		0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.98	J	2.06	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.42	J	2.06	0.038	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	28.3		2.06	1.13	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-27_1-2_20221004 — Lab Sample ID: 460-266816-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.42		0.21	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.33		0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.13	J	0.21	0.041	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-27_1-2_20221004 (Continued) — Lab Sample ID: 460-266816-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.15	J	0.21	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.078	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.59		0.21	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.052	J	0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.057	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.038	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.091	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.13		0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.62		0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.15	J	0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.38		0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.52	J	2.11	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.31	J	2.11	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	113		2.11	1.16	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-X01_20221004 — Lab Sample ID: 460-266816-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.63		0.21	0.056	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.48		0.21	0.047	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.20	J	0.21	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.10	J	0.21	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.045	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.095	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.041	J	0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.11	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.032	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.076	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.21	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.96		0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.093	J	0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10.7		0.21	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.052	J	0.21	0.019	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.10	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.72	J	2.05	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.18	J	2.05	0.038	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-21_0-0.2_20221004 — Lab Sample ID: 460-266816-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.84		0.85	0.56	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.94		0.34	0.094	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.96		0.34	0.078	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.55		0.34	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.99		0.34	0.099	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.45		0.34	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	3.32		0.34	0.048	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-21_0-0.2_20221004 (Continued) — Lab Sample ID: 460-266816-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid (PFUnA)	3.47		0.34	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	4.10		0.34	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	1.17		0.34	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	1.66		0.34	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.057	J	0.34	0.056	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.05		0.34	0.070	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.057	J	0.34	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.65		0.34	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.47		0.34	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.069	J	0.34	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.55	J	3.41	0.097	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.77	J	3.41	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	21.7		5.18	1.24	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	46.8		2.07	0.71	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	25.8		2.07	0.67	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	23.4		2.07	0.56	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	19.6		2.07	0.79	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	9.50		2.07	0.51	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	4.29		2.07	0.48	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	11.8		2.07	0.57	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	17.1		2.07	0.88	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.65	J	5.18	1.35	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SB-21_0.2-1_20221004 — Lab Sample ID: 460-266816-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.17	J	0.22	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.050	J	0.22	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.047	J	0.22	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.053	J	0.22	0.031	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.043	J	0.22	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.040	J	0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.060	J	0.22	0.045	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.50		0.22	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.087	J	2.18	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.11	J	2.18	0.040	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-21_1-2_20221004 — Lab Sample ID: 460-266816-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.081	J	0.20	0.056	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.043	J	0.20	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.046	J	0.20	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.19	J	0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.043	J	0.20	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.069	J	0.20	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.20		0.20	0.11	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-21_1-2_20221004 (Continued) — Lab Sample ID: 460-266816-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.08	J	2.03	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.85	J	2.03	0.038	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.94		1.89	0.64	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	1.10	J	1.89	0.62	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	1.28	J	1.89	0.51	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	0.88	J	1.89	0.72	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	0.56	J	1.89	0.46	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	1.26	J	1.89	0.44	ng/L	1		537 (modified)	SPLP East
Perfluoroundecanoic acid (PFUnA)	0.99	J	1.89	0.52	ng/L	1		537 (modified)	SPLP East
Perfluorododecanoic acid (PFDoA)	2.59		1.89	0.46	ng/L	1		537 (modified)	SPLP East
Perfluorotridecanoic acid (PFTriA)	0.54	J	1.89	0.45	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	0.92	J	1.89	0.52	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	6.24		1.89	0.80	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonamide (PFOSA)	0.95	J	1.89	0.87	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.55	J	4.73	1.23	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.39		1.89	0.73	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SB-22_0-0.2_20221004 — Lab Sample ID: 460-266816-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.58		0.92	0.61	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.57		0.37	0.10	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.28		0.37	0.085	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.93		0.37	0.072	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.88		0.37	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.83		0.37	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.71		0.37	0.052	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.51		0.37	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.06		0.37	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.45		0.37	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.52		0.37	0.048	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.064	J	0.37	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.39		0.37	0.076	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.15		0.37	0.20	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.073	J	0.37	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.20	J	3.70	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.11	J	3.70	0.068	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-22_0.2-1_20221004 — Lab Sample ID: 460-266816-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.35	J	0.53	0.35	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	0.63		0.21	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.22		0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.16	J	0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.099	J	0.21	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.095	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-22_0.2-1_20221004 (Continued) — Lab Sample ID: 460-266816-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	0.84		0.21	0.12	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-22_1-2_20221004 — Lab Sample ID: 460-266816-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.39		0.21	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.13	J	0.21	0.048	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.12	J	0.21	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.094	J	0.21	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.077	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.065	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.048	J	0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.046	J	0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.46		0.21	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.043	J	2.09	0.039	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-32_0-0.2_20221004 — Lab Sample ID: 460-266816-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.13		0.69	0.46	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	5.49		0.28	0.076	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.73		0.28	0.064	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.64		0.28	0.054	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.84		0.28	0.080	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.36		0.28	0.047	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.14		0.28	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.10		0.28	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.68		0.28	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.57		0.28	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.68		0.28	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.060	J	0.28	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.82		0.28	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10.5		0.28	0.15	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.18	J	0.28	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.89	J	2.77	0.079	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.82	J	2.77	0.051	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-32_0.2-1_20221004 — Lab Sample ID: 460-266816-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.12		0.54	0.36	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.10		0.22	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.06		0.22	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.85		0.22	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.72		0.22	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.63		0.22	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.08		0.22	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.41		0.22	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.23		0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.11	J	0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-32_0.2-1_20221004 (Continued) — Lab Sample ID: 460-266816-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorotetradecanoic acid (PFTeA)	0.099	J	0.22	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.055	J	0.22	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.64		0.22	0.045	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.047	J	0.22	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	8.98		0.22	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.053	J	0.22	0.021	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.58	J	2.18	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.13	J	2.18	0.040	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-32_1-2_20221004 — Lab Sample ID: 460-266816-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.35		0.21	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.16	J	0.21	0.048	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.098	J	0.21	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.061	J	0.21	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.066	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.13	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.095	J	0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.32		0.21	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.19	J	2.08	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.25	J	2.08	0.038	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-31_0-0.2_20221004 — Lab Sample ID: 460-266816-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.72		0.53	0.35	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.21		0.21	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.66		0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.67		0.21	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.87		0.21	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.77		0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.86		0.21	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.82		0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.51		0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.16	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.17	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.65		0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.046	J	0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.69		0.21	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.14	J	0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.11	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.01	J	2.11	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.19		2.11	0.039	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Client Sample ID: RI-SB-31_0.2-1_20221004 — Lab Sample ID: 460-266816-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.20		0.59	0.39	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	4.82		0.24	0.065	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.42		0.24	0.054	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.24		0.24	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.85		0.24	0.069	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.50		0.24	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	3.26		0.24	0.033	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.54		0.24	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.037	J	0.24	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.075	J	0.24	0.039	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.71		0.24	0.048	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.21	J	0.24	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.17	J	0.24	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.68		2.36	0.067	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.71	J	2.36	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	68.3		1.18	0.65	ug/Kg	5	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-31_1-2_20221004 — Lab Sample ID: 460-266816-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.31		0.22	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.79		0.22	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.52		0.22	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.85		0.22	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.81		0.22	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.064	J	0.22	0.031	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.076	J	0.22	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.13		0.22	0.045	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.27		0.22	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.15		2.18	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.074	J	2.18	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	163		2.18	1.20	ug/Kg	10	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-30_0-0.2_20221004 — Lab Sample ID: 460-266816-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.41		0.66	0.44	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.27		0.27	0.073	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.50		0.27	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.43		0.27	0.052	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.53		0.27	0.077	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.65		0.27	0.045	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.23	J	0.27	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.48		0.27	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.25	J	0.27	0.033	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.16	J	0.27	0.033	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-30_0-0.2_20221004 (Continued) — Lab Sample ID: 460-266816-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorotetradecanoic acid (PFTeA)	0.13	J	0.27	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.046	J	0.27	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.63		0.27	0.054	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.058	J	0.27	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	12.4		0.27	0.15	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.16	J	0.27	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.11	J	2.65	0.076	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.15	J	2.65	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	13.8		5.03	1.21	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	20.2		2.01	0.68	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	6.79		2.01	0.65	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	7.72		2.01	0.54	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	8.63		2.01	0.76	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	8.62		2.01	0.49	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	1.14	J	2.01	0.46	ng/L	1		537 (modified)	SPLP East
Perfluorobutanesulfonic acid (PFBS)	0.77	J	2.01	0.62	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	3.64		2.01	0.55	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	68.5		2.01	0.85	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SB-30_0.2-1_20221004 — Lab Sample ID: 460-266816-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.86		0.54	0.35	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.42		0.21	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.42		0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.51		0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.53		0.21	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.63		0.21	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.063	J	0.21	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.036	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.29		0.21	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.059	J	0.21	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	40.3		1.07	0.59	ug/Kg	5	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	48.8		4.78	1.15	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	76.6		1.91	0.65	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	19.2		1.91	0.62	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	21.5		1.91	0.52	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	21.5		1.91	0.73	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	20.5		1.91	0.47	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	1.33	J	1.91	0.44	ng/L	1		537 (modified)	SPLP East
Perfluorobutanesulfonic acid (PFBS)	0.70	J	1.91	0.59	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	9.34		1.91	0.53	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanesulfonic acid (PFHpS)	2.41		1.91	0.39	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS) - DL	1380		9.56	4.06	ng/L	5		537 (modified)	SPLP East

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Client Sample ID: RI-SB-30_1-2_20221004 — Lab Sample ID: 460-266816-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.43		0.21	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.23		0.21	0.047	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.27		0.21	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.16	J	0.21	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.074	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.51		0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.029	J	0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.45		0.21	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.099	J	2.06	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	29.8		4.85	1.17	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	45.0		1.94	0.66	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	20.2		1.94	0.63	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	21.2		1.94	0.52	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	16.0		1.94	0.74	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	5.24		1.94	0.48	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	0.46	J	1.94	0.45	ng/L	1		537 (modified)	SPLP East
Perfluorobutanesulfonic acid (PFBS)	1.06	J	1.94	0.60	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	14.2		1.94	0.53	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanesulfonic acid (PFHpS)	1.31	J	1.94	0.40	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.10	J	4.85	1.26	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS) - DL	606		9.71	4.13	ng/L	5		537 (modified)	SPLP East

Client Sample ID: RI-SB-29_0-0.2_20221004 — Lab Sample ID: 460-266816-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.25		0.65	0.43	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.82		0.26	0.071	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.39		0.26	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.26		0.26	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.29		0.26	0.075	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.27		0.26	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.19	J	0.26	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.34		0.26	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.17	J	0.26	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.12	J	0.26	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.065	J	0.26	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.14	J	0.26	0.053	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.93		0.26	0.14	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.035	J	0.26	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.059	J	2.59	0.048	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-29_0.2-1_20221004 — Lab Sample ID: 460-266816-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.26		0.20	0.055	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.14	J	0.20	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.082	J	0.20	0.039	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-29_0.2-1_20221004 (Continued) — Lab Sample ID: 460-266816-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.083	J	0.20	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.040	J	0.20	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.060	J	0.20	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.60		0.20	0.11	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-29_1-2_20221004 — Lab Sample ID: 460-266816-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.29		0.21	0.057	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.14	J	0.21	0.048	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.10	J	0.21	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.042	J	0.21	0.035	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.045	J	0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.27		0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.032	J	0.21	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.81		0.21	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.081	J	2.07	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.059	J	2.07	0.038	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-X02_20221004 — Lab Sample ID: 460-266816-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.10		0.64	0.42	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.61		0.26	0.070	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.37		0.26	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.28		0.26	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.26		0.26	0.074	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.28		0.26	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.19	J	0.26	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.34		0.26	0.034	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.19	J	0.26	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.13	J	0.26	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.079	J	0.26	0.033	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.046	J	0.26	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.13	J	0.26	0.052	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.04		0.26	0.14	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.038	J	0.26	0.024	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.057	J	2.55	0.047	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-24_0-0.2_20221004 — Lab Sample ID: 460-266816-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.58		0.54	0.35	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.40		0.21	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.71		0.21	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.64		0.21	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.61		0.21	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.59		0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.32		0.21	0.030	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-24_0-0.2_20221004 (Continued) — Lab Sample ID: 460-266816-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroundecanoic acid (PFUnA)	2.69		0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.53		0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.30		0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.43		0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.95		0.21	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.19	J	0.21	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.27		0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.099	J	0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.72	J	2.14	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.94		2.14	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	47.1		1.07	0.59	ug/Kg	5	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-24_0.2-1_20221004 — Lab Sample ID: 460-266816-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.83		0.22	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.39		0.22	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.34		0.22	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.30		0.22	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.28		0.22	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.99		0.22	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.14		0.22	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.63		0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.12	J	0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.16	J	0.22	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.92		0.22	0.044	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.093	J	0.22	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.11	J	0.22	0.021	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.82	J	2.16	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.61	J	2.16	0.040	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	22.4		0.43	0.24	ug/Kg	2	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-24_1-2_20221004 — Lab Sample ID: 460-266816-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.56		0.22	0.059	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.27		0.22	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.24		0.22	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.21	J	0.22	0.062	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.19	J	0.22	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.69		0.22	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.85		0.22	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.64		0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.12	J	0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.15	J	0.22	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.62		0.22	0.044	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-24_1-2_20221004 (Continued) — Lab Sample ID: 460-266816-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	0.052	J	0.22	0.025	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	11.9		0.22	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.098	J	0.22	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	0.040	J	0.22	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.02	J	2.15	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.26		2.15	0.040	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-23_0-0.2_20221004 — Lab Sample ID: 460-266816-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.10		0.60	0.39	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.76		0.24	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.31		0.24	0.055	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.96		0.24	0.046	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.79		0.24	0.069	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.09		0.24	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.97		0.24	0.033	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	2.22		0.24	0.032	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.23		0.24	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.41		0.24	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.42		0.24	0.031	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.26		0.24	0.049	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.039	J	0.24	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.05		0.24	0.13	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.10	J	0.24	0.023	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.37	J	2.38	0.068	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.50	J	2.38	0.044	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-23_0.2-1_20221004 — Lab Sample ID: 460-266816-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.62		0.54	0.36	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.46		0.22	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.59		0.22	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.44		0.22	0.042	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.37		0.22	0.063	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.60		0.22	0.037	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.76		0.22	0.030	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.72		0.22	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.43		0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.14	J	0.22	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.13	J	0.22	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.16	J	0.22	0.045	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.36		0.22	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.067	J	0.22	0.021	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.091	J	2.18	0.062	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SB-23_0.2-1_20221004 (Continued) — Lab Sample ID: 460-266816-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.13	J	2.18	0.040	ug/Kg	1	☼	537 (modified)	Total/NA

Client Sample ID: RI-SB-23_1-2_20221004 — Lab Sample ID: 460-266816-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.50	J	0.52	0.35	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.30		0.21	0.058	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.49		0.21	0.048	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.35		0.21	0.041	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.33		0.21	0.061	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.52		0.21	0.036	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.61		0.21	0.029	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.50		0.21	0.028	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.29		0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.11	J	0.21	0.026	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.096	J	0.21	0.027	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.20	J	0.21	0.043	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.73		0.21	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.093	J	0.21	0.020	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.091	J	2.10	0.060	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.11	J	2.10	0.039	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET BUR
Moisture	Percent Moisture	EPA	EET BUR
1312	SPLP Extraction	SW846	EET BUR
3535	Solid-Phase Extraction (SPE)	SW846	EET BUR
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Client Sample ID: RI-SB-28_0.2-1_20221003

Date Collected: 10/03/22 10:00
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-1

Matrix: Solid
Percent Solids: 98.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluoropentanoic acid (PFPeA)	**0.43**		0.20	0.056	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorohexanoic acid (PFHxA)	**0.30**		0.20	0.047	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluoroheptanoic acid (PFHpA)	**0.63**		0.20	0.040	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorooctanoic acid (PFOA)	**0.33**		0.20	0.059	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorononanoic acid (PFNA)	**0.35**		0.20	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorodecanoic acid (PFDA)	**0.49**		0.20	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluoroundecanoic acid (PFUnA)	**0.19**	**J**	0.20	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorododecanoic acid (PFDoA)	**0.41**		0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorotridecanoic acid (PFTriA)	**0.084**	**J**	0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorotetradecanoic acid (PFTeA)	**0.18**	**J**	0.20	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorohexanesulfonic acid (PFHxS)	**0.36**		0.20	0.042	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.049**	**J**	0.20	0.023	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorooctanesulfonic acid (PFOS)	**6.25**		0.20	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.03	U	2.03	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.03	U	2.03	0.084	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.31**	**J**	2.03	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.27**	**J**	2.03	0.038	ug/Kg	☼	10/10/22 08:33	10/12/22 14:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C4 PFHpA	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C4 PFOA	*91*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C5 PFNA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C4 PFBA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C2 PFHxA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C2 PFDA	*96*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C2 PFUnA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C2 PFDoA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C8 FOSA	*70*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C5 PFPeA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C2 PFTeDA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
d3-NMeFOSAA	*169*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
d5-NEtFOSAA	*184*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
M2-6:2 FTS	*128*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
M2-8:2 FTS	*211*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*
13C3 PFBS	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:47*	*1*

Client Sample ID: RI-SB-28_1-2_20221003

Date Collected: 10/03/22 10:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-2

Matrix: Solid
Percent Solids: 92.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluoropentanoic acid (PFPeA)	**0.38**		0.21	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorohexanoic acid (PFHxA)	**0.57**		0.21	0.049	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluoroheptanoic acid (PFHpA)	**0.33**		0.21	0.041	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorooctanoic acid (PFOA)	**0.33**		0.21	0.061	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorononanoic acid (PFNA)	**0.12**	**J**	0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorodecanoic acid (PFDA)	**0.15**	**J**	0.21	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluoroundecanoic acid (PFUnA)	**0.068**	**J**	0.21	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorododecanoic acid (PFDoA)	**0.15**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorobutanesulfonic acid (PFBS)	**0.17**	**J**	0.21	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorohexanesulfonic acid (PFHxS)	**4.49**		0.21	0.043	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.84**		0.21	0.024	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorodecanesulfonic acid (PFDS)	**2.56**		0.21	0.020	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
Perfluorooctanesulfonamide (PFOSA)	**2.92**		0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**0.18**	**J**	2.11	0.088	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.0**	**J**	2.11	0.060	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.48**	**J**	2.11	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 17:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*77*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C4 PFHpA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C4 PFOA	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C4 PFOS	*68*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C5 PFNA	*75*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C4 PFBA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C2 PFHxA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C2 PFDA	*91*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C2 PFUnA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C2 PFDoA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C8 FOSA	*74*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C5 PFPeA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
d3-NMeFOSAA	*142*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
d5-NEtFOSAA	*159*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
M2-8:2 FTS	*154*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*
13C3 PFBS	*76*		*50 - 150*	*10/10/22 08:33*	*10/12/22 17:39*	*1*

Client Sample ID: RI-SB-28_1-2_20221003

Lab Sample ID: 460-266738-2

Date Collected: 10/03/22 10:10
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 92.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**129**		2.11	1.16	ug/Kg	☼	10/10/22 08:33	10/11/22 14:41	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*85*		*50 - 150*	*10/10/22 08:33*	*10/11/22 14:41*	*10*

Client Sample ID: RI-SB-28_10-11_20221003

Lab Sample ID: 460-266738-3

Date Collected: 10/03/22 10:20
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 89.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.36	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluoropentanoic acid (PFPeA)	**0.26**		0.22	0.059	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorohexanoic acid (PFHxA)	**0.26**		0.22	0.050	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluoroheptanoic acid (PFHpA)	**0.17**	**J**	0.22	0.042	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorooctanoic acid (PFOA)	**0.18**	**J**	0.22	0.063	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.037	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorodecanoic acid (PFDA)	0.22	U	0.22	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluoroundecanoic acid (PFUnA)	0.22	U	0.22	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorododecanoic acid (PFDoA)	0.22	U	0.22	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorotridecanoic acid (PFTriA)	0.22	U	0.22	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorobutanesulfonic acid (PFBS)	**0.062**	**J**	0.22	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorohexanesulfonic acid (PFHxS)	**1.75**		0.22	0.044	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.50**		0.22	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorodecanesulfonic acid (PFDS)	0.22	U	0.22	0.020	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.089	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.37**	**J**	2.16	0.061	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.052**	**J**	2.16	0.040	ug/Kg	☼	10/10/22 08:33	10/12/22 18:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C4 PFHpA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C4 PFOA	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C4 PFOS	*77*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C5 PFNA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C4 PFBA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C2 PFHxA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C2 PFDA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C2 PFUnA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C2 PFDoA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C8 FOSA	*79*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:03*	*1*

Client Sample ID: RI-SB-28_10-11_20221003

Date Collected: 10/03/22 10:20
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-3

Matrix: Solid
Percent Solids: 89.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	95		50 - 150	10/10/22 08:33	10/12/22 18:03	1
d3-NMeFOSAA	104		50 - 150	10/10/22 08:33	10/12/22 18:03	1
d5-NEtFOSAA	118		50 - 150	10/10/22 08:33	10/12/22 18:03	1
M2-6:2 FTS	90		50 - 150	10/10/22 08:33	10/12/22 18:03	1
M2-8:2 FTS	108		50 - 150	10/10/22 08:33	10/12/22 18:03	1
13C3 PFBS	81		50 - 150	10/10/22 08:33	10/12/22 18:03	1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**47.7**		2.16	1.19	ug/Kg	☼	10/10/22 08:33	10/11/22 15:06	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	81		50 - 150	10/10/22 08:33	10/11/22 15:06	10

Client Sample ID: RI-SB-33_0.2-1_20221003

Date Collected: 10/03/22 11:20
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-4

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	49.2	U	49.2	11.8	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluoropentanoic acid (PFPeA)	19.7	U	19.7	6.69	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorohexanoic acid (PFHxA)	19.7	U	19.7	6.40	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluoroheptanoic acid (PFHpA)	**5.39**	**J**	19.7	5.31	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorooctanoic acid (PFOA)	19.7	U	19.7	7.48	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorononanoic acid (PFNA)	19.7	U	19.7	4.82	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorodecanoic acid (PFDA)	19.7	U	19.7	4.53	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluoroundecanoic acid (PFUnA)	19.7	U	19.7	5.41	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorododecanoic acid (PFDoA)	19.7	U	19.7	4.82	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorotridecanoic acid (PFTriA)	19.7	U	19.7	4.72	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorotetradecanoic acid (PFTeA)	19.7	U	19.7	6.30	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorobutanesulfonic acid (PFBS)	19.7	U	19.7	6.10	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorohexanesulfonic acid (PFHxS)	**12.1**	**J**	19.7	5.41	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluoroheptanesulfonic acid (PFHpS)	19.7	U	19.7	4.04	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorooctanesulfonic acid (PFOS)	**204**		19.7	8.37	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorodecanesulfonic acid (PFDS)	19.7	U	19.7	3.94	ng/L		10/18/22 14:09	10/19/22 16:43	1
Perfluorooctanesulfonamide (PFOSA)	19.7	U	19.7	9.06	ng/L		10/18/22 14:09	10/19/22 16:43	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	49.2	U	49.2	18.7	ng/L		10/18/22 14:09	10/19/22 16:43	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	49.2	U	49.2	15.7	ng/L		10/18/22 14:09	10/19/22 16:43	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	49.2	U	49.2	12.8	ng/L		10/18/22 14:09	10/19/22 16:43	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.7	U	19.7	7.58	ng/L		10/18/22 14:09	10/19/22 16:43	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	92		50 - 150	10/18/22 14:09	10/19/22 16:43	1
13C4 PFHpA	88		50 - 150	10/18/22 14:09	10/19/22 16:43	1
13C4 PFOA	98		50 - 150	10/18/22 14:09	10/19/22 16:43	1

Client Sample ID: RI-SB-33_0.2-1_20221003

Lab Sample ID: 460-266738-4

Date Collected: 10/03/22 11:20
Matrix: Solid
Date Received: 10/03/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C5 PFNA	*91*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C2 PFHxA	*93*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C2 PFDA	*97*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C2 PFUnA	*108*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C2 PFDoA	*110*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C8 FOSA	*92*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C5 PFPeA	*82*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C2 PFTeDA	*102*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
d3-NMeFOSAA	*122*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
d5-NEtFOSAA	*127*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
M2-8:2 FTS	*109*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*
13C3 PFBS	*90*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:43*	*1*

Client Sample ID: RI-SB-33_0.2-1_20221003

Lab Sample ID: 460-266738-4

Date Collected: 10/03/22 11:20
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 98.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.49	U	0.49	0.32	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluoropentanoic acid (PFPeA)	**0.17**	**J**	0.20	0.054	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorohexanoic acid (PFHxA)	**0.18**	**J**	0.20	0.045	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluoroheptanoic acid (PFHpA)	**0.19**	**J**	0.20	0.038	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorooctanoic acid (PFOA)	**0.074**	**J**	0.20	0.057	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorononanoic acid (PFNA)	**0.059**	**J**	0.20	0.033	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorodecanoic acid (PFDA)	**0.12**	**J**	0.20	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluoroundecanoic acid (PFUnA)	**0.051**	**J**	0.20	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorododecanoic acid (PFDoA)	**0.073**	**J**	0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorotetradecanoic acid (PFTeA)	**0.045**	**J**	0.20	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.032	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorohexanesulfonic acid (PFHxS)	**1.19**		0.20	0.040	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.077**	**J**	0.20	0.023	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.033	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.96	U	1.96	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.96	U	1.96	0.081	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.090**	**J**	1.96	0.056	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.96	U	1.96	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 18:12	1

Client Sample ID: RI-SB-33_0.2-1_20221003

Date Collected: 10/03/22 11:20
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-4

Matrix: Solid
Percent Solids: 98.9

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	87		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C4 PFHpA	84		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C4 PFOA	94		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C4 PFOS	85		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C5 PFNA	88		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C4 PFBA	87		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C2 PFHxA	82		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C2 PFDA	96		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C2 PFUnA	97		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C2 PFDoA	94		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C8 FOSA	70		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C5 PFPeA	85		50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C2 PFTeDA	84		50 - 150	10/10/22 08:33	10/12/22 18:12	1
d3-NMeFOSAA	162	*	50 - 150	10/10/22 08:33	10/12/22 18:12	1
d5-NEtFOSAA	172	*	50 - 150	10/10/22 08:33	10/12/22 18:12	1
M2-6:2 FTS	121		50 - 150	10/10/22 08:33	10/12/22 18:12	1
M2-8:2 FTS	203	*	50 - 150	10/10/22 08:33	10/12/22 18:12	1
13C3 PFBS	84		50 - 150	10/10/22 08:33	10/12/22 18:12	1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	23.3		1.96	1.08	ug/Kg	☼	10/10/22 08:33	10/11/22 15:14	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	100		50 - 150	10/10/22 08:33	10/11/22 15:14	10

Client Sample ID: RI-SB-33_1-2_20221003

Date Collected: 10/03/22 11:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-5

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.46	J	5.03	1.21	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluoropentanoic acid (PFPeA)	6.97		2.01	0.68	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorohexanoic acid (PFHxA)	20.9		2.01	0.65	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluoroheptanoic acid (PFHpA)	3.23		2.01	0.54	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorooctanoic acid (PFOA)	4.16		2.01	0.76	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorononanoic acid (PFNA)	0.66	J	2.01	0.49	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorodecanoic acid (PFDA)	2.04		2.01	0.46	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluoroundecanoic acid (PFUnA)	0.78	J	2.01	0.55	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorododecanoic acid (PFDoA)	1.30	J	2.01	0.49	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorotridecanoic acid (PFTriA)	2.01	U	2.01	0.48	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorotetradecanoic acid (PFTeA)	2.01	U	2.01	0.64	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorobutanesulfonic acid (PFBS)	7.68		2.01	0.62	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorohexanesulfonic acid (PFHxS)	72.8		2.01	0.55	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluoroheptanesulfonic acid (PFHpS)	11.2		2.01	0.41	ng/L		10/18/22 14:09	10/19/22 16:51	1
Perfluorodecanesulfonic acid (PFDS)	11.4		2.01	0.40	ng/L		10/18/22 14:09	10/19/22 16:51	1

Client Sample ID: RI-SB-33_1-2_20221003

Date Collected: 10/03/22 11:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-5

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	**94.1**		2.01	0.93	ng/L		10/18/22 14:09	10/19/22 16:51	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.03	U	5.03	1.91	ng/L		10/18/22 14:09	10/19/22 16:51	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.03	U	5.03	1.61	ng/L		10/18/22 14:09	10/19/22 16:51	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**24.8**		5.03	1.31	ng/L		10/18/22 14:09	10/19/22 16:51	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**9.95**		2.01	0.77	ng/L		10/18/22 14:09	10/19/22 16:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*102*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C4 PFHpA	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C4 PFOA	*97*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C4 PFOS	*89*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C5 PFNA	*90*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C4 PFBA	*96*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C2 PFHxA	*98*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C2 PFDA	*111*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C2 PFUnA	*112*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C2 PFDoA	*109*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C8 FOSA	*92*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C5 PFPeA	*96*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C2 PFTeDA	*103*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
d3-NMeFOSAA	*189*	*	*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
d5-NEtFOSAA	*193*	*	*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
M2-6:2 FTS	*137*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
M2-8:2 FTS	*185*	*	*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*
13C3 PFBS	*100*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:51*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**2290**		20.1	8.55	ng/L		10/18/22 14:09	10/20/22 14:59	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*97*		*50 - 150*	*10/18/22 14:09*	*10/20/22 14:59*	*10*

Client Sample ID: RI-SB-33_1-2_20221003

Date Collected: 10/03/22 11:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-5

Matrix: Solid
Percent Solids: 92.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluoropentanoic acid (PFPeA)	**0.35**		0.21	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorohexanoic acid (PFHxA)	**0.87**		0.21	0.049	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluoroheptanoic acid (PFHpA)	**0.18**	**J**	0.21	0.041	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorooctanoic acid (PFOA)	**0.44**		0.21	0.061	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorononanoic acid (PFNA)	**0.042**	**J**	0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorodecanoic acid (PFDA)	**0.13**	**J**	0.21	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1

Client Sample ID: RI-SB-33_1-2_20221003

Date Collected: 10/03/22 11:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-5

Matrix: Solid
Percent Solids: 92.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	**0.073**	**J**	0.21	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorododecanoic acid (PFDoA)	**0.20**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorotridecanoic acid (PFTriA)	**0.040**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorotetradecanoic acid (PFTeA)	**0.11**	**J**	0.21	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorobutanesulfonic acid (PFBS)	**0.80**		0.21	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorohexanesulfonic acid (PFHxS)	**14.9**		0.21	0.043	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluoroheptanesulfonic acid (PFHpS)	**2.75**		0.21	0.024	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorodecanesulfonic acid (PFDS)	**1.26**		0.21	0.020	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
Perfluorooctanesulfonamide (PFOSA)	**4.58**		0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.11	0.088	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.37**	**J**	2.11	0.060	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.72**	**J**	2.11	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 18:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*90*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C4 PFHpA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C4 PFOA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C4 PFOS	*68*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C5 PFNA	*70*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C4 PFBA	*93*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C2 PFHxA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C2 PFDA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C2 PFUnA	*102*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C2 PFDoA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C8 FOSA	*70*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C5 PFPeA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C2 PFTeDA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
d3-NMeFOSAA	*145*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
d5-NEtFOSAA	*164*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
M2-6:2 FTS	*130*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
M2-8:2 FTS	*196*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*
13C3 PFBS	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:20*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**261**		4.23	2.33	ug/Kg	☼	10/10/22 08:33	10/12/22 16:09	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*95*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:09*	*20*

Client Sample ID: RI-SB-33_13-14_20221003

Date Collected: 10/03/22 11:30
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-6

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.92	U	4.92	1.18	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluoropentanoic acid (PFPeA)	**3.42**		1.97	0.67	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorohexanoic acid (PFHxA)	**3.25**		1.97	0.64	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluoroheptanoic acid (PFHpA)	**1.97**		1.97	0.53	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorooctanoic acid (PFOA)	**1.66**	**J**	1.97	0.75	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorononanoic acid (PFNA)	1.97	U	1.97	0.48	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorodecanoic acid (PFDA)	1.97	U	1.97	0.45	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluoroundecanoic acid (PFUnA)	1.97	U	1.97	0.54	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorododecanoic acid (PFDoA)	1.97	U	1.97	0.48	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorotridecanoic acid (PFTriA)	1.97	U	1.97	0.47	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorotetradecanoic acid (PFTeA)	1.97	U	1.97	0.63	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorobutanesulfonic acid (PFBS)	**0.96**	**J**	1.97	0.61	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorohexanesulfonic acid (PFHxS)	**22.5**		1.97	0.54	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluoroheptanesulfonic acid (PFHpS)	**3.92**		1.97	0.40	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorooctanesulfonic acid (PFOS)	**332**		1.97	0.84	ng/L		10/18/22 14:09	10/20/22 15:08	1
Perfluorodecanesulfonic acid (PFDS)	1.97	U	1.97	0.39	ng/L		10/18/22 14:09	10/19/22 16:59	1
Perfluorooctanesulfonamide (PFOSA)	1.97	U	1.97	0.91	ng/L		10/18/22 14:09	10/19/22 16:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.92	U	4.92	1.87	ng/L		10/18/22 14:09	10/19/22 16:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.92	U	4.92	1.57	ng/L		10/18/22 14:09	10/19/22 16:59	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.77**	**J**	4.92	1.28	ng/L		10/18/22 14:09	10/19/22 16:59	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.97	U	1.97	0.76	ng/L		10/18/22 14:09	10/19/22 16:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*97*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C4 PFHpA	*95*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C4 PFOA	*93*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C4 PFOS	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C4 PFOS	*104*		*50 - 150*	*10/18/22 14:09*	*10/20/22 15:08*	*1*
13C5 PFNA	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C4 PFBA	*87*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C2 PFHxA	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C2 PFDA	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C2 PFUnA	*109*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C2 PFDoA	*111*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C8 FOSA	*98*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C5 PFPeA	*89*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C2 PFTeDA	*106*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
d3-NMeFOSAA	*123*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
d5-NEtFOSAA	*128*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
M2-6:2 FTS	*123*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
M2-8:2 FTS	*109*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*
13C3 PFBS	*93*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:59*	*1*

Client Sample ID: RI-SB-33_13-14_20221003

Date Collected: 10/03/22 11:30
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-6

Matrix: Solid
Percent Solids: 87.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.56	U	0.56	0.37	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluoropentanoic acid (PFPeA)	**0.10**	**J**	0.23	0.062	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorohexanoic acid (PFHxA)	**0.077**	**J**	0.23	0.052	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluoroheptanoic acid (PFHpA)	**0.055**	**J**	0.23	0.044	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorooctanoic acid (PFOA)	0.23	U	0.23	0.065	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorononanoic acid (PFNA)	0.23	U	0.23	0.038	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorodecanoic acid (PFDA)	0.23	U	0.23	0.032	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluoroundecanoic acid (PFUnA)	0.23	U	0.23	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorododecanoic acid (PFDoA)	0.23	U	0.23	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorotridecanoic acid (PFTriA)	0.23	U	0.23	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorotetradecanoic acid (PFTeA)	0.23	U	0.23	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.037	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorohexanesulfonic acid (PFHxS)	**0.54**		0.23	0.046	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.094**	**J**	0.23	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorooctanesulfonic acid (PFOS)	**8.40**		0.23	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorodecanesulfonic acid (PFDS)	0.23	U	0.23	0.021	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.038	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.25	U	2.25	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.25	U	2.25	0.093	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.25	U	2.25	0.064	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.25	U	2.25	0.042	ug/Kg	☼	10/10/22 08:33	10/12/22 14:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C4 PFHpA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C4 PFOA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C4 PFOS	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C5 PFNA	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C2 PFHxA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C2 PFDA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C2 PFUnA	*79*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C2 PFDoA	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C8 FOSA	*74*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C2 PFTeDA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
d3-NMeFOSAA	*101*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
d5-NEtFOSAA	*103*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
M2-6:2 FTS	*90*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
M2-8:2 FTS	*100*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*
13C3 PFBS	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 14:55*	*1*

Client Sample ID: RI-SB-X_20221003

Date Collected: 10/03/22 11:00
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-7

Matrix: Solid
Percent Solids: 97.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluoropentanoic acid (PFPeA)	**0.39**		0.20	0.056	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorohexanoic acid (PFHxA)	**0.27**		0.20	0.047	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluoroheptanoic acid (PFHpA)	**0.53**		0.20	0.040	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorooctanoic acid (PFOA)	**0.31**		0.20	0.059	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorononanoic acid (PFNA)	**0.34**		0.20	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorodecanoic acid (PFDA)	**0.44**		0.20	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluoroundecanoic acid (PFUnA)	**0.15**	**J**	0.20	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorododecanoic acid (PFDoA)	**0.35**		0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorotridecanoic acid (PFTriA)	**0.066**	**J**	0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorotetradecanoic acid (PFTeA)	**0.16**	**J**	0.20	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorohexanesulfonic acid (PFHxS)	**0.39**		0.20	0.042	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.042**	**J**	0.20	0.023	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorooctanesulfonic acid (PFOS)	**5.51**		0.20	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
Perfluorooctanesulfonamide (PFOSA)	**0.035**	**J**	0.20	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.04	U	2.04	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.04	U	2.04	0.085	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.30**	**J**	2.04	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.24**	**J**	2.04	0.038	ug/Kg	☼	10/10/22 08:33	10/12/22 15:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C4 PFHpA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C4 PFOA	*90*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C4 PFOS	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C5 PFNA	*93*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C4 PFBA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C2 PFHxA	*79*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C2 PFDA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C2 PFUnA	*98*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C2 PFDoA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C8 FOSA	*71*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C5 PFPeA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C2 PFTeDA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
d3-NMeFOSAA	*165*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
d5-NEtFOSAA	*180*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
M2-6:2 FTS	*120*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
M2-8:2 FTS	*207*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*
13C3 PFBS	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:03*	*1*

Client Sample ID: RI-SB-34_0.2-1_20221003

Date Collected: 10/03/22 13:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-8

Matrix: Solid
Percent Solids: 87.3

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.57	U	0.57	0.38	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluoropentanoic acid (PFPeA)	**0.34**		0.23	0.063	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorohexanoic acid (PFHxA)	**0.17**	**J**	0.23	0.053	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluoroheptanoic acid (PFHpA)	**0.22**	**J**	0.23	0.045	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorooctanoic acid (PFOA)	**0.11**	**J**	0.23	0.066	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorononanoic acid (PFNA)	**0.15**	**J**	0.23	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorodecanoic acid (PFDA)	**0.056**	**J**	0.23	0.032	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluoroundecanoic acid (PFUnA)	0.23	U	0.23	0.031	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorododecanoic acid (PFDoA)	0.23	U	0.23	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorotridecanoic acid (PFTriA)	0.23	U	0.23	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorotetradecanoic acid (PFTeA)	0.23	U	0.23	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.038	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorohexanesulfonic acid (PFHxS)	**0.19**	**J**	0.23	0.047	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluoroheptanesulfonic acid (PFHpS)	0.23	U	0.23	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorooctanesulfonic acid (PFOS)	**12.7**		0.23	0.13	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorodecanesulfonic acid (PFDS)	0.23	U	0.23	0.022	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.29	U	2.29	0.13	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.29	U	2.29	0.095	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.092**	**J**	2.29	0.065	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.28**	**J**	2.29	0.042	ug/Kg	☼	10/10/22 08:33	10/12/22 15:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C4 PFHpA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C4 PFOA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C4 PFOS	*78*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C5 PFNA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C4 PFBA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C2 PFHxA	*79*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C2 PFDA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C2 PFUnA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C2 PFDoA	*103*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C8 FOSA	*76*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C5 PFPeA	*81*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C2 PFTeDA	*100*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
d3-NMeFOSAA	*126*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
d5-NEtFOSAA	*147*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
M2-8:2 FTS	*148*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*
13C3 PFBS	*81*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:12*	*1*

Client Sample ID: RI-SB-34_1-2_20221003

Date Collected: 10/03/22 13:00
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-9

Matrix: Solid
Percent Solids: 86.5

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.57	U	0.57	0.37	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluoropentanoic acid (PFPeA)	**0.16**	**J**	0.23	0.062	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorohexanoic acid (PFHxA)	**0.086**	**J**	0.23	0.052	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluoroheptanoic acid (PFHpA)	**0.15**	**J**	0.23	0.044	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorooctanoic acid (PFOA)	**0.076**	**J**	0.23	0.066	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorononanoic acid (PFNA)	**0.083**	**J**	0.23	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorodecanoic acid (PFDA)	0.23	U	0.23	0.032	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluoroundecanoic acid (PFUnA)	0.23	U	0.23	0.031	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorododecanoic acid (PFDoA)	0.23	U	0.23	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorotridecanoic acid (PFTriA)	0.23	U	0.23	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorotetradecanoic acid (PFTeA)	0.23	U	0.23	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.037	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorohexanesulfonic acid (PFHxS)	**0.11**	**J**	0.23	0.046	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluoroheptanesulfonic acid (PFHpS)	0.23	U	0.23	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorooctanesulfonic acid (PFOS)	**10.1**		0.23	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorodecanesulfonic acid (PFDS)	0.23	U	0.23	0.022	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.27	U	2.27	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.27	U	2.27	0.094	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.27	U	2.27	0.065	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.27	U	2.27	0.042	ug/Kg	☼	10/10/22 08:33	10/12/22 15:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C4 PFHpA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C4 PFOA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C5 PFNA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C2 PFHxA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C2 PFDA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C2 PFUnA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C2 PFDoA	*100*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C8 FOSA	*81*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C2 PFTeDA	*100*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
d3-NMeFOSAA	*103*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
d5-NEtFOSAA	*109*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
M2-6:2 FTS	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
M2-8:2 FTS	*103*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*
13C3 PFBS	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:20*	*1*

Client Sample ID: RI-SB-34_10-11_20221003

Date Collected: 10/03/22 12:50
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-10

Matrix: Solid
Percent Solids: 92.2

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluoropentanoic acid (PFPeA)	**0.10**	**J**	0.21	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorohexanoic acid (PFHxA)	**0.081**	**J**	0.21	0.049	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluoroheptanoic acid (PFHpA)	**0.061**	**J**	0.21	0.041	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorooctanoic acid (PFOA)	**0.073**	**J**	0.21	0.061	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorononanoic acid (PFNA)	0.21	U	0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorodecanoic acid (PFDA)	0.21	U	0.21	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorohexanesulfonic acid (PFHxS)	**0.69**		0.21	0.043	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.14**	**J**	0.21	0.024	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorooctanesulfonic acid (PFOS)	**11.2**		0.21	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.12	U	2.12	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.12	U	2.12	0.088	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.097**	**J**	2.12	0.060	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.12	U	2.12	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 15:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C4 PFHpA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C4 PFOA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C5 PFNA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C2 PFHxA	*90*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C2 PFDA	*81*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C2 PFUnA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C2 PFDoA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C8 FOSA	*81*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C2 PFTeDA	*90*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
d3-NMeFOSAA	*97*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
d5-NEtFOSAA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
M2-6:2 FTS	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
M2-8:2 FTS	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*
13C3 PFBS	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:28*	*1*

Client Sample ID: RI-SB-26_0.2-1_20221003

Date Collected: 10/03/22 13:40
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-11

Matrix: Solid
Percent Solids: 95.1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluoropentanoic acid (PFPeA)	**0.31**		0.20	0.055	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorohexanoic acid (PFHxA)	**0.33**		0.20	0.046	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluoroheptanoic acid (PFHpA)	**0.17**	**J**	0.20	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorooctanoic acid (PFOA)	**0.21**		0.20	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorononanoic acid (PFNA)	**0.15**	**J**	0.20	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorodecanoic acid (PFDA)	**0.14**	**J**	0.20	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluoroundecanoic acid (PFUnA)	**0.076**	**J**	0.20	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorododecanoic acid (PFDoA)	**0.27**		0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorotridecanoic acid (PFTriA)	**0.10**	**J**	0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorotetradecanoic acid (PFTeA)	**0.17**	**J**	0.20	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorobutanesulfonic acid (PFBS)	**0.085**	**J**	0.20	0.033	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorohexanesulfonic acid (PFHxS)	**1.43**		0.20	0.041	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.15**	**J**	0.20	0.023	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorodecanesulfonic acid (PFDS)	**0.27**		0.20	0.019	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
Perfluorooctanesulfonamide (PFOSA)	**0.33**		0.20	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.99	U	1.99	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.99	U	1.99	0.082	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.27**	**J**	1.99	0.057	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.21**	**J**	1.99	0.037	ug/Kg	☼	10/10/22 08:33	10/12/22 16:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C4 PFHpA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C4 PFOA	*95*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C4 PFOS	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C5 PFNA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C4 PFBA	*91*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C2 PFHxA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C2 PFDA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C2 PFUnA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C2 PFDoA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C8 FOSA	*65*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C5 PFPeA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
d3-NMeFOSAA	*177*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
d5-NEtFOSAA	*184*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
M2-6:2 FTS	*151*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
M2-8:2 FTS	*240*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*
13C3 PFBS	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:25*	*1*

Client Sample ID: RI-SB-26_0.2-1_20221003

Lab Sample ID: 460-266738-11

Date Collected: 10/03/22 13:40
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 95.1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**21.2**		1.99	1.09	ug/Kg	☼	10/10/22 08:33	10/11/22 16:20	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*96*		*50 - 150*	*10/10/22 08:33*	*10/11/22 16:20*	*10*

Client Sample ID: RI-SB-26_1-2_20221003

Lab Sample ID: 460-266738-12

Date Collected: 10/03/22 13:50
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 89.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.35	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluoropentanoic acid (PFPeA)	**0.19**	**J**	0.21	0.059	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorohexanoic acid (PFHxA)	**0.18**	**J**	0.21	0.049	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluoroheptanoic acid (PFHpA)	**0.14**	**J**	0.21	0.042	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorooctanoic acid (PFOA)	**0.071**	**J**	0.21	0.062	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorononanoic acid (PFNA)	**0.069**	**J**	0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorodecanoic acid (PFDA)	**0.098**	**J**	0.21	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluoroundecanoic acid (PFUnA)	**0.071**	**J**	0.21	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorododecanoic acid (PFDoA)	**0.11**	**J**	0.21	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorotridecanoic acid (PFTriA)	**0.037**	**J**	0.21	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorotetradecanoic acid (PFTeA)	**0.064**	**J**	0.21	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorohexanesulfonic acid (PFHxS)	**0.79**		0.21	0.044	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.11**	**J**	0.21	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorodecanesulfonic acid (PFDS)	**0.36**		0.21	0.020	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
Perfluorooctanesulfonamide (PFOSA)	**0.29**		0.21	0.036	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.15	U	2.15	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.15	U	2.15	0.089	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.23**	**J**	2.15	0.061	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.16**	**J**	2.15	0.040	ug/Kg	☼	10/10/22 08:33	10/12/22 16:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*72*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C4 PFHpA	*81*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C4 PFOA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C4 PFOS	*72*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C5 PFNA	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C4 PFBA	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C2 PFHxA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C2 PFDA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C2 PFUnA	*102*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*

Client Sample ID: RI-SB-26_1-2_20221003

Lab Sample ID: 460-266738-12

Date Collected: 10/03/22 13:50
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 89.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDoA	*96*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C8 FOSA	*67*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C5 PFPeA	*79*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
d3-NMeFOSAA	*130*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
d5-NEtFOSAA	*149*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
M2-6:2 FTS	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
M2-8:2 FTS	*111*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*
13C3 PFBS	*71*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:17*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**22.3**		2.15	1.18	ug/Kg	☼	10/10/22 08:33	10/11/22 16:28	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*74*		*50 - 150*	*10/10/22 08:33*	*10/11/22 16:28*	*10*

Client Sample ID: RI-SB-26_10-11_20221003

Lab Sample ID: 460-266738-13

Date Collected: 10/03/22 14:00
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 82.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.60	U	0.60	0.40	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluoropentanoic acid (PFPeA)	**0.087**	**J**	0.24	0.066	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorohexanoic acid (PFHxA)	**0.070**	**J**	0.24	0.055	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluoroheptanoic acid (PFHpA)	0.24	U	0.24	0.047	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorooctanoic acid (PFOA)	0.24	U	0.24	0.070	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorononanoic acid (PFNA)	**0.058**	**J**	0.24	0.041	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorodecanoic acid (PFDA)	**0.21**	**J**	0.24	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluoroundecanoic acid (PFUnA)	0.24	U	0.24	0.032	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorododecanoic acid (PFDoA)	0.24	U	0.24	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorotridecanoic acid (PFTriA)	0.24	U	0.24	0.030	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorotetradecanoic acid (PFTeA)	0.24	U	0.24	0.031	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorobutanesulfonic acid (PFBS)	0.24	U	0.24	0.040	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorohexanesulfonic acid (PFHxS)	**0.35**		0.24	0.049	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.11**	**J**	0.24	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorodecanesulfonic acid (PFDS)	0.24	U	0.24	0.023	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
Perfluorooctanesulfonamide (PFOSA)	0.24	U	0.24	0.041	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.40	U	2.40	0.13	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.40	U	2.40	0.10	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.37**	**J**	2.40	0.068	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**1.94**	**J**	2.40	0.044	ug/Kg	☼	10/10/22 08:33	10/12/22 18:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*

Client Sample ID: RI-SB-26_10-11_20221003

Lab Sample ID: 460-266738-13

Date Collected: 10/03/22 14:00
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 82.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFHpA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C4 PFOA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C5 PFNA	*78*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C2 PFHxA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C2 PFDA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C2 PFUnA	*99*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C2 PFDoA	*104*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C8 FOSA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C2 PFTeDA	*106*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
d3-NMeFOSAA	*105*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
d5-NEtFOSAA	*118*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
M2-6:2 FTS	*103*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
M2-8:2 FTS	*116*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*
13C3 PFBS	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 18:28*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**31.8**		2.40	1.32	ug/Kg	☼	10/10/22 08:33	10/11/22 16:36	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*87*		*50 - 150*	*10/10/22 08:33*	*10/11/22 16:36*	*10*

Client Sample ID: RI-SB-25_0.2-1_20221003

Lab Sample ID: 460-266738-14

Date Collected: 10/03/22 14:20
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 96.2

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.47**	**J**	0.50	0.33	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluoropentanoic acid (PFPeA)	**2.32**		0.20	0.055	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorohexanoic acid (PFHxA)	**1.80**		0.20	0.046	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluoroheptanoic acid (PFHpA)	**3.17**		0.20	0.039	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorooctanoic acid (PFOA)	**2.53**		0.20	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorononanoic acid (PFNA)	**2.54**		0.20	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorodecanoic acid (PFDA)	**2.15**		0.20	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluoroundecanoic acid (PFUnA)	**0.54**		0.20	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorododecanoic acid (PFDoA)	**1.03**		0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorotridecanoic acid (PFTriA)	**0.15**	**J**	0.20	0.025	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorotetradecanoic acid (PFTeA)	**0.44**		0.20	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorohexanesulfonic acid (PFHxS)	**0.35**		0.20	0.041	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorooctanesulfonic acid (PFOS)	**2.41**		0.20	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1

Client Sample ID: RI-SB-25_0.2-1_20221003

Lab Sample ID: 460-266738-14

Date Collected: 10/03/22 14:20
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 96.2

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.083	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.17**	**J**	2.00	0.057	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**2.39**		2.00	0.037	ug/Kg	☼	10/10/22 08:33	10/12/22 15:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C4 PFHpA	*85*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C4 PFOA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C4 PFOS	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C5 PFNA	*90*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C2 PFHxA	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C2 PFDA	*96*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C2 PFUnA	*100*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C2 PFDoA	*95*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C8 FOSA	*58*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C5 PFPeA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
d3-NMeFOSAA	*170*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
d5-NEtFOSAA	*180*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
M2-6:2 FTS	*160*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
M2-8:2 FTS	*235*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*
13C3 PFBS	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:36*	*1*

Client Sample ID: RI-SB-25_1-2_20221003

Lab Sample ID: 460-266738-15

Date Collected: 10/03/22 14:30
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 96.2

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.38**	**J**	0.52	0.34	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluoropentanoic acid (PFPeA)	**1.57**		0.21	0.057	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorohexanoic acid (PFHxA)	**0.74**		0.21	0.048	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluoroheptanoic acid (PFHpA)	**1.36**		0.21	0.040	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorooctanoic acid (PFOA)	**1.53**		0.21	0.060	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorononanoic acid (PFNA)	**0.57**		0.21	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorodecanoic acid (PFDA)	**0.25**		0.21	0.029	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluoroundecanoic acid (PFUnA)	**0.080**	**J**	0.21	0.028	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorododecanoic acid (PFDoA)	**0.065**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorotridecanoic acid (PFTriA)	**0.034**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorotetradecanoic acid (PFTeA)	**0.030**	**J**	0.21	0.027	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1

Client Sample ID: RI-SB-25_1-2_20221003

Lab Sample ID: 460-266738-15

Date Collected: 10/03/22 14:30
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 96.2

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	**0.91**		0.21	0.043	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.097**	**J**	0.21	0.024	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorodecanesulfonic acid (PFDS)	**0.038**	**J**	0.21	0.020	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.07	U	2.07	0.11	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.07	U	2.07	0.086	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.65**	**J**	2.07	0.059	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.44**	**J**	2.07	0.038	ug/Kg	☼	10/10/22 08:33	10/12/22 16:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C4 PFHpA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C4 PFOA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C4 PFOS	*78*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C5 PFNA	*89*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C2 PFHxA	*87*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C2 PFDA	*92*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C2 PFUnA	*105*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C2 PFDoA	*102*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C8 FOSA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C2 PFTeDA	*94*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
d3-NMeFOSAA	*135*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
d5-NEtFOSAA	*158*	*	*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
M2-6:2 FTS	*95*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
M2-8:2 FTS	*125*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*
13C3 PFBS	*77*		*50 - 150*	*10/10/22 08:33*	*10/12/22 16:33*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**23.0**		2.07	1.14	ug/Kg	☼	10/10/22 08:33	10/11/22 16:52	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*80*		*50 - 150*	*10/10/22 08:33*	*10/11/22 16:52*	*10*

Client Sample ID: RI-SB-25_15-16_20221003

Lab Sample ID: 460-266738-16

Date Collected: 10/03/22 14:40
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 38.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.27	U	1.27	0.84	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluoropentanoic acid (PFPeA)	**1.15**		0.51	0.14	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorohexanoic acid (PFHxA)	**0.80**		0.51	0.12	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluoroheptanoic acid (PFHpA)	**0.52**		0.51	0.099	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1

Client Sample ID: RI-SB-25_15-16_20221003

Lab Sample ID: 460-266738-16

Date Collected: 10/03/22 14:40
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 38.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**0.33**	**J**	0.51	0.15	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorononanoic acid (PFNA)	0.51	U	0.51	0.086	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorodecanoic acid (PFDA)	0.51	U	0.51	0.071	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluoroundecanoic acid (PFUnA)	0.51	U	0.51	0.068	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorododecanoic acid (PFDoA)	0.51	U	0.51	0.063	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorotridecanoic acid (PFTriA)	0.51	U	0.51	0.063	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorotetradecanoic acid (PFTeA)	0.51	U	0.51	0.066	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorobutanesulfonic acid (PFBS)	**0.18**	**J**	0.51	0.084	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorohexanesulfonic acid (PFHxS)	**3.88**		0.51	0.10	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluoroheptanesulfonic acid (PFHpS)	0.51	U	0.51	0.058	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorooctanesulfonic acid (PFOS)	0.51	U	0.51	0.28	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorodecanesulfonic acid (PFDS)	0.51	U	0.51	0.048	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
Perfluorooctanesulfonamide (PFOSA)	0.51	U	0.51	0.086	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.07	U	5.07	0.28	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.07	U	5.07	0.21	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.10**	**J**	5.07	0.14	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	5.07	U	5.07	0.094	ug/Kg	☼	10/10/22 08:33	10/12/22 15:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*64*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C4 PFHpA	*62*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C4 PFOA	*64*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C4 PFOS	*64*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C5 PFNA	*64*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C4 PFBA	*65*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C2 PFHxA	*61*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C2 PFDA	*63*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C2 PFUnA	*70*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C2 PFDoA	*67*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C8 FOSA	*58*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C5 PFPeA	*64*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C2 PFTeDA	*58*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
d3-NMeFOSAA	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
d5-NEtFOSAA	*86*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
M2-6:2 FTS	*80*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*
13C3 PFBS	*63*		*50 - 150*	*10/10/22 08:33*	*10/12/22 15:44*	*1*

Client Sample ID: FB_01_20221003

Lab Sample ID: 460-266738-17

Date Collected: 10/03/22 12:15
Matrix: Water
Date Received: 10/03/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.07	U	4.07	0.98	ng/L		10/07/22 09:42	10/07/22 17:54	1

Client Sample ID: FB_01_20221003

Date Collected: 10/03/22 12:15
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-17

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	1.63	U	1.63	0.55	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorohexanoic acid (PFHxA)	1.63	U	1.63	0.53	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluoroheptanoic acid (PFHpA)	1.63	U	1.63	0.44	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorooctanoic acid (PFOA)	1.63	U	1.63	0.62	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorononanoic acid (PFNA)	1.63	U	1.63	0.40	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorodecanoic acid (PFDA)	1.63	U	1.63	0.37	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluoroundecanoic acid (PFUnA)	1.63	U	1.63	0.45	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorododecanoic acid (PFDoA)	1.63	U	1.63	0.40	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorotridecanoic acid (PFTriA)	1.63	U	1.63	0.39	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorotetradecanoic acid (PFTeA)	1.63	U	1.63	0.52	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorobutanesulfonic acid (PFBS)	1.63	U	1.63	0.51	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorohexanesulfonic acid (PFHxS)	1.63	U	1.63	0.45	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluoroheptanesulfonic acid (PFHpS)	1.63	U	1.63	0.33	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorooctanesulfonic acid (PFOS)	1.63	U	1.63	0.69	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorodecanesulfonic acid (PFDS)	1.63	U	1.63	0.33	ng/L		10/07/22 09:42	10/07/22 17:54	1
Perfluorooctanesulfonamide (PFOSA)	1.63	U	1.63	0.75	ng/L		10/07/22 09:42	10/07/22 17:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.07	U	4.07	1.55	ng/L		10/07/22 09:42	10/07/22 17:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.07	U	4.07	1.30	ng/L		10/07/22 09:42	10/07/22 17:54	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.07	U	4.07	1.06	ng/L		10/07/22 09:42	10/07/22 17:54	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.63	U	1.63	0.63	ng/L		10/07/22 09:42	10/07/22 17:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*102*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C4 PFHpA	*100*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C4 PFOA	*101*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C4 PFOS	*106*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C5 PFNA	*98*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C4 PFBA	*96*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C2 PFHxA	*100*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C2 PFDA	*105*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C2 PFUnA	*108*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C2 PFDoA	*79*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C8 FOSA	*87*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C5 PFPeA	*97*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C2 PFTeDA	*94*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
d3-NMeFOSAA	*111*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
d5-NEtFOSAA	*120*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
M2-8:2 FTS	*111*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*
13C3 PFBS	*102*		*50 - 150*	*10/07/22 09:42*	*10/07/22 17:54*	*1*

Client Sample ID: RI-SB-27_0.2-1_20221004

Date Collected: 10/04/22 08:20
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-1

Matrix: Solid
Percent Solids: 93.0

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluoropentanoic acid (PFPeA)	**0.48**		0.21	0.057	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorohexanoic acid (PFHxA)	**0.37**		0.21	0.047	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluoroheptanoic acid (PFHpA)	**0.15**	**J**	0.21	0.040	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorooctanoic acid (PFOA)	**0.12**	**J**	0.21	0.060	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorononanoic acid (PFNA)	**0.061**	**J**	0.21	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorodecanoic acid (PFDA)	**0.22**		0.21	0.029	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluoroundecanoic acid (PFUnA)	**0.10**	**J**	0.21	0.028	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorododecanoic acid (PFDoA)	**0.28**		0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorotridecanoic acid (PFTriA)	**0.076**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorotetradecanoic acid (PFTeA)	**0.17**	**J**	0.21	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorobutanesulfonic acid (PFBS)	**0.13**	**J**	0.21	0.034	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorohexanesulfonic acid (PFHxS)	**2.22**		0.21	0.042	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.25**		0.21	0.024	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorodecanesulfonic acid (PFDS)	**0.13**	**J**	0.21	0.020	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
Perfluorooctanesulfonamide (PFOSA)	**0.36**		0.21	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.06	U	2.06	0.11	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.06	U	2.06	0.085	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.98**	**J**	2.06	0.059	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.42**	**J**	2.06	0.038	ug/Kg	☼	10/10/22 08:28	10/12/22 16:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*77*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C4 PFHpA	*79*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C4 PFOA	*82*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C4 PFOS	*76*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C5 PFNA	*82*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C4 PFBA	*80*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C2 PFHxA	*74*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C2 PFDA	*78*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C2 PFUnA	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C2 PFDoA	*84*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C8 FOSA	*61*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C5 PFPeA	*74*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C2 PFTeDA	*75*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
d3-NMeFOSAA	*149*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
d5-NEtFOSAA	*167*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
M2-6:2 FTS	*123*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
M2-8:2 FTS	*190*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*
13C3 PFBS	*74*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:41*	*1*

Client Sample ID: RI-SB-27_0.2-1_20221004

Lab Sample ID: 460-266816-1

Date Collected: 10/04/22 08:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 93.0

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**28.3**		2.06	1.13	ug/Kg	☼	10/10/22 08:28	10/11/22 18:55	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*91*		*50 - 150*	*10/10/22 08:28*	*10/11/22 18:55*	*10*

Client Sample ID: RI-SB-27_1-2_20221004

Lab Sample ID: 460-266816-2

Date Collected: 10/04/22 08:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 89.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluoropentanoic acid (PFPeA)	**0.42**		0.21	0.058	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorohexanoic acid (PFHxA)	**0.33**		0.21	0.049	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluoroheptanoic acid (PFHpA)	**0.13**	**J**	0.21	0.041	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorooctanoic acid (PFOA)	**0.15**	**J**	0.21	0.061	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorononanoic acid (PFNA)	**0.078**	**J**	0.21	0.036	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorodecanoic acid (PFDA)	**0.59**		0.21	0.030	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluoroundecanoic acid (PFUnA)	**0.052**	**J**	0.21	0.028	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorododecanoic acid (PFDoA)	**0.057**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorotetradecanoic acid (PFTeA)	**0.038**	**J**	0.21	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorobutanesulfonic acid (PFBS)	**0.091**	**J**	0.21	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorohexanesulfonic acid (PFHxS)	**4.13**		0.21	0.043	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.62**		0.21	0.024	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorodecanesulfonic acid (PFDS)	**0.15**	**J**	0.21	0.020	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
Perfluorooctanesulfonamide (PFOSA)	**0.38**		0.21	0.036	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.11	0.088	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.52**	**J**	2.11	0.060	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**1.31**	**J**	2.11	0.039	ug/Kg	☼	10/10/22 08:28	10/12/22 16:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*76*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C4 PFHpA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C4 PFOA	*91*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C4 PFOS	*73*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C5 PFNA	*85*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C2 PFHxA	*83*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C2 PFDA	*100*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C2 PFUnA	*109*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*

Client Sample ID: RI-SB-27_1-2_20221004

Lab Sample ID: 460-266816-2

Date Collected: 10/04/22 08:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 89.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDoA	*106*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C8 FOSA	*74*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C2 PFTeDA	*92*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
d3-NMeFOSAA	*180*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
d5-NEtFOSAA	*199*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
M2-6:2 FTS	*98*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
M2-8:2 FTS	*164*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*
13C3 PFBS	*77*		*50 - 150*	*10/10/22 08:28*	*10/12/22 16:50*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**113**		2.11	1.16	ug/Kg	☼	10/10/22 08:28	10/11/22 19:03	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*78*		*50 - 150*	*10/10/22 08:28*	*10/11/22 19:03*	*10*

Client Sample ID: RI-SB-X01_20221004

Lab Sample ID: 460-266816-3

Date Collected: 10/04/22 08:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluoropentanoic acid (PFPeA)	**0.63**		0.21	0.056	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorohexanoic acid (PFHxA)	**0.48**		0.21	0.047	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluoroheptanoic acid (PFHpA)	**0.20**	**J**	0.21	0.040	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorooctanoic acid (PFOA)	**0.10**	**J**	0.21	0.059	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorononanoic acid (PFNA)	**0.045**	**J**	0.21	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorodecanoic acid (PFDA)	**0.095**	**J**	0.21	0.029	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluoroundecanoic acid (PFUnA)	**0.041**	**J**	0.21	0.028	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorododecanoic acid (PFDoA)	**0.11**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorotridecanoic acid (PFTriA)	**0.032**	**J**	0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorotetradecanoic acid (PFTeA)	**0.076**	**J**	0.21	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorobutanesulfonic acid (PFBS)	**0.11**	**J**	0.21	0.034	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorohexanesulfonic acid (PFHxS)	**0.96**		0.21	0.042	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.093**	**J**	0.21	0.024	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorooctanesulfonic acid (PFOS)	**10.7**		0.21	0.11	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorodecanesulfonic acid (PFDS)	**0.052**	**J**	0.21	0.019	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
Perfluorooctanesulfonamide (PFOSA)	**0.10**	**J**	0.21	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.05	U	2.05	0.11	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.05	U	2.05	0.085	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1

Client Sample ID: RI-SB-X01_20221004

Lab Sample ID: 460-266816-3

Date Collected: 10/04/22 08:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.72**	**J**	2.05	0.058	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.18**	**J**	2.05	0.038	ug/Kg	☼	10/10/22 08:28	10/12/22 13:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*88*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C4 PFHpA	*91*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C4 PFOA	*96*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C4 PFOS	*87*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C5 PFNA	*93*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C2 PFHxA	*83*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C2 PFDA	*94*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C2 PFUnA	*100*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C2 PFDoA	*99*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C8 FOSA	*68*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C2 PFTeDA	*91*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
d3-NMeFOSAA	*173*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
d5-NEtFOSAA	*186*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
M2-6:2 FTS	*142*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
M2-8:2 FTS	*225*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*
13C3 PFBS	*83*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:42*	*1*

Client Sample ID: RI-SB-21_0-0.2_20221004

Lab Sample ID: 460-266816-4

Date Collected: 10/04/22 09:20
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**21.7**		5.18	1.24	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluoropentanoic acid (PFPeA)	**46.8**		2.07	0.71	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorohexanoic acid (PFHxA)	**25.8**		2.07	0.67	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluoroheptanoic acid (PFHpA)	**23.4**		2.07	0.56	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorooctanoic acid (PFOA)	**19.6**		2.07	0.79	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorononanoic acid (PFNA)	**9.50**		2.07	0.51	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorodecanoic acid (PFDA)	**4.29**		2.07	0.48	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluoroundecanoic acid (PFUnA)	2.07	U	2.07	0.57	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorododecanoic acid (PFDoA)	2.07	U	2.07	0.51	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorotridecanoic acid (PFTriA)	2.07	U	2.07	0.50	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorotetradecanoic acid (PFTeA)	2.07	U	2.07	0.66	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorobutanesulfonic acid (PFBS)	2.07	U	2.07	0.64	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorohexanesulfonic acid (PFHxS)	**11.8**		2.07	0.57	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluoroheptanesulfonic acid (PFHpS)	2.07	U	2.07	0.43	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorooctanesulfonic acid (PFOS)	**17.1**		2.07	0.88	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorodecanesulfonic acid (PFDS)	2.07	U	2.07	0.41	ng/L		10/18/22 14:09	10/19/22 17:15	1
Perfluorooctanesulfonamide (PFOSA)	2.07	U	2.07	0.95	ng/L		10/18/22 14:09	10/19/22 17:15	1

Client Sample ID: RI-SB-21_0-0.2_20221004

Lab Sample ID: 460-266816-4

Date Collected: 10/04/22 09:20
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.18	U	5.18	1.97	ng/L		10/18/22 14:09	10/19/22 17:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.18	U	5.18	1.66	ng/L		10/18/22 14:09	10/19/22 17:15	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**3.65**	**J**	5.18	1.35	ng/L		10/18/22 14:09	10/19/22 17:15	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.07	U	2.07	0.80	ng/L		10/18/22 14:09	10/19/22 17:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*98*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C4 PFHpA	*95*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C4 PFOA	*100*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C4 PFOS	*100*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C5 PFNA	*95*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C2 PFHxA	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C2 PFDA	*107*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C2 PFUnA	*103*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C2 PFDoA	*111*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C8 FOSA	*102*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C5 PFPeA	*89*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C2 PFTeDA	*71*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
d3-NMeFOSAA	*125*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
d5-NEtFOSAA	*126*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
M2-6:2 FTS	*129*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
M2-8:2 FTS	*111*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*
13C3 PFBS	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:15*	*1*

Client Sample ID: RI-SB-21_0-0.2_20221004

Lab Sample ID: 460-266816-4

Date Collected: 10/04/22 09:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 57.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.84**		0.85	0.56	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluoropentanoic acid (PFPeA)	**4.94**		0.34	0.094	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorohexanoic acid (PFHxA)	**1.96**		0.34	0.078	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluoroheptanoic acid (PFHpA)	**1.55**		0.34	0.066	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorooctanoic acid (PFOA)	**1.99**		0.34	0.099	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorononanoic acid (PFNA)	**1.45**		0.34	0.058	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorodecanoic acid (PFDA)	**3.32**		0.34	0.048	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluoroundecanoic acid (PFUnA)	**3.47**		0.34	0.046	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorododecanoic acid (PFDoA)	**4.10**		0.34	0.043	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorotridecanoic acid (PFTriA)	**1.17**		0.34	0.043	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorotetradecanoic acid (PFTeA)	**1.66**		0.34	0.044	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorobutanesulfonic acid (PFBS)	**0.057**	**J**	0.34	0.056	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorohexanesulfonic acid (PFHxS)	**1.05**		0.34	0.070	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1

Client Sample ID: RI-SB-21_0-0.2_20221004

Lab Sample ID: 460-266816-4

Date Collected: 10/04/22 09:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 57.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	**0.057**	**J**	0.34	0.039	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorooctanesulfonic acid (PFOS)	**8.65**		0.34	0.19	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorodecanesulfonic acid (PFDS)	**0.47**		0.34	0.032	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
Perfluorooctanesulfonamide (PFOSA)	**0.069**	**J**	0.34	0.058	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.41	U	3.41	0.19	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.41	U	3.41	0.14	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.55**	**J**	3.41	0.097	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.77**	**J**	3.41	0.063	ug/Kg	☼	10/10/22 08:28	10/12/22 13:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*60*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C4 PFHpA	*59*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C4 PFOA	*60*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C4 PFOS	*60*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C5 PFNA	*61*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C4 PFBA	*61*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C2 PFHxA	*58*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C2 PFDA	*61*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C2 PFUnA	*68*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C2 PFDoA	*63*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C8 FOSA	*50*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C5 PFPeA	*60*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C2 PFTeDA	*58*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
d3-NMeFOSAA	*93*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
d5-NEtFOSAA	*106*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
M2-6:2 FTS	*92*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
M2-8:2 FTS	*131*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*
13C3 PFBS	*60*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:50*	*1*

Client Sample ID: RI-SB-21_0.2-1_20221004

Lab Sample ID: 460-266816-5

Date Collected: 10/04/22 09:25
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	48.8	U	48.8	11.7	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluoropentanoic acid (PFPeA)	19.5	U	19.5	6.64	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorohexanoic acid (PFHxA)	19.5	U	19.5	6.35	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluoroheptanoic acid (PFHpA)	19.5	U	19.5	5.27	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorooctanoic acid (PFOA)	19.5	U	19.5	7.42	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorononanoic acid (PFNA)	19.5	U	19.5	4.79	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorodecanoic acid (PFDA)	19.5	U	19.5	4.49	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluoroundecanoic acid (PFUnA)	19.5	U	19.5	5.37	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorododecanoic acid (PFDoA)	19.5	U	19.5	4.79	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorotridecanoic acid (PFTriA)	19.5	U	19.5	4.69	ng/L		10/18/22 14:09	10/19/22 17:24	1

Client Sample ID: RI-SB-21_0.2-1_20221004

Lab Sample ID: 460-266816-5

Date Collected: 10/04/22 09:25
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	19.5	U	19.5	6.25	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorobutanesulfonic acid (PFBS)	19.5	U	19.5	6.05	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorohexanesulfonic acid (PFHxS)	19.5	U	19.5	5.37	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluoroheptanesulfonic acid (PFHpS)	19.5	U	19.5	4.00	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorooctanesulfonic acid (PFOS)	19.5	U	19.5	8.30	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorodecanesulfonic acid (PFDS)	19.5	U	19.5	3.91	ng/L		10/18/22 14:09	10/19/22 17:24	1
Perfluorooctanesulfonamide (PFOSA)	19.5	U	19.5	8.98	ng/L		10/18/22 14:09	10/19/22 17:24	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	48.8	U	48.8	18.6	ng/L		10/18/22 14:09	10/19/22 17:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	48.8	U	48.8	15.6	ng/L		10/18/22 14:09	10/19/22 17:24	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	48.8	U	48.8	12.7	ng/L		10/18/22 14:09	10/19/22 17:24	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.5	U	19.5	7.52	ng/L		10/18/22 14:09	10/19/22 17:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*90*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C4 PFHpA	*88*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C4 PFOA	*95*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C4 PFOS	*93*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C5 PFNA	*88*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C2 PFHxA	*89*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C2 PFDA	*95*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C2 PFUnA	*91*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C2 PFDoA	*81*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C8 FOSA	*95*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C5 PFPeA	*84*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
d3-NMeFOSAA	*107*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
d5-NEtFOSAA	*102*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
M2-6:2 FTS	*108*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
M2-8:2 FTS	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*
13C3 PFBS	*88*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:24*	*1*

Client Sample ID: RI-SB-21_0.2-1_20221004

Lab Sample ID: 460-266816-5

Date Collected: 10/04/22 09:25
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 91.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.36	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluoropentanoic acid (PFPeA)	**0.17**	**J**	0.22	0.060	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorohexanoic acid (PFHxA)	**0.050**	**J**	0.22	0.050	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluoroheptanoic acid (PFHpA)	**0.047**	**J**	0.22	0.043	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorooctanoic acid (PFOA)	0.22	U	0.22	0.063	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.037	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorodecanoic acid (PFDA)	**0.053**	**J**	0.22	0.031	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluoroundecanoic acid (PFUnA)	**0.043**	**J**	0.22	0.029	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1

Client Sample ID: RI-SB-21_0.2-1_20221004

Lab Sample ID: 460-266816-5

Date Collected: 10/04/22 09:25
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 91.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	**0.040**	**J**	0.22	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorotridecanoic acid (PFTriA)	0.22	U	0.22	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.028	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorohexanesulfonic acid (PFHxS)	**0.060**	**J**	0.22	0.045	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluoroheptanesulfonic acid (PFHpS)	0.22	U	0.22	0.025	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorooctanesulfonic acid (PFOS)	**0.50**		0.22	0.12	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorodecanesulfonic acid (PFDS)	0.22	U	0.22	0.021	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.091	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.087**	**J**	2.18	0.062	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.11**	**J**	2.18	0.040	ug/Kg	☼	10/10/22 08:28	10/12/22 13:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*77*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C4 PFHpA	*88*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C4 PFOA	*94*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C4 PFOS	*78*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C5 PFNA	*93*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C4 PFBA	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C2 PFHxA	*87*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C2 PFDA	*99*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C2 PFUnA	*110*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C2 PFDoA	*109*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C8 FOSA	*81*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C2 PFTeDA	*98*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
d3-NMeFOSAA	*131*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
d5-NEtFOSAA	*146*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
M2-6:2 FTS	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
M2-8:2 FTS	*120*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*
13C3 PFBS	*75*		*50 - 150*	*10/10/22 08:28*	*10/12/22 13:58*	*1*

Client Sample ID: RI-SB-21_1-2_20221004

Lab Sample ID: 460-266816-6

Date Collected: 10/04/22 09:35
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.73	U	4.73	1.14	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluoropentanoic acid (PFPeA)	**2.94**		1.89	0.64	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorohexanoic acid (PFHxA)	**1.10**	**J**	1.89	0.62	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluoroheptanoic acid (PFHpA)	**1.28**	**J**	1.89	0.51	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorooctanoic acid (PFOA)	**0.88**	**J**	1.89	0.72	ng/L		10/18/22 14:09	10/19/22 17:32	1

Client Sample ID: RI-SB-21_1-2_20221004

Date Collected: 10/04/22 09:35
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-6

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	**0.56**	**J**	1.89	0.46	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorodecanoic acid (PFDA)	**1.26**	**J**	1.89	0.44	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluoroundecanoic acid (PFUnA)	**0.99**	**J**	1.89	0.52	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorododecanoic acid (PFDoA)	**2.59**		1.89	0.46	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorotridecanoic acid (PFTriA)	**0.54**	**J**	1.89	0.45	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorotetradecanoic acid (PFTeA)	1.89	U	1.89	0.61	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorobutanesulfonic acid (PFBS)	1.89	U	1.89	0.59	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorohexanesulfonic acid (PFHxS)	**0.92**	**J**	1.89	0.52	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluoroheptanesulfonic acid (PFHpS)	1.89	U	1.89	0.39	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorooctanesulfonic acid (PFOS)	**6.24**		1.89	0.80	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorodecanesulfonic acid (PFDS)	1.89	U	1.89	0.38	ng/L		10/18/22 14:09	10/19/22 17:32	1
Perfluorooctanesulfonamide (PFOSA)	**0.95**	**J**	1.89	0.87	ng/L		10/18/22 14:09	10/19/22 17:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.73	U	4.73	1.80	ng/L		10/18/22 14:09	10/19/22 17:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.73	U	4.73	1.51	ng/L		10/18/22 14:09	10/19/22 17:32	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.55**	**J**	4.73	1.23	ng/L		10/18/22 14:09	10/19/22 17:32	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**3.39**		1.89	0.73	ng/L		10/18/22 14:09	10/19/22 17:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C4 PFHpA	*97*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C4 PFOA	*102*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C4 PFOS	*103*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C5 PFNA	*96*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C2 PFHxA	*98*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C2 PFDA	*106*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C2 PFUnA	*103*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C2 PFDoA	*109*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C8 FOSA	*103*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C5 PFPeA	*89*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C2 PFTeDA	*95*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
d3-NMeFOSAA	*128*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
d5-NEtFOSAA	*122*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
M2-6:2 FTS	*127*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
M2-8:2 FTS	*118*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*
13C3 PFBS	*97*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:32*	*1*

Client Sample ID: RI-SB-21_1-2_20221004

Date Collected: 10/04/22 09:35
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-6

Matrix: Solid
Percent Solids: 93.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluoropentanoic acid (PFPeA)	**0.081**	**J**	0.20	0.056	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.047	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.040	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.059	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorodecanoic acid (PFDA)	**0.043**	**J**	0.20	0.028	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluoroundecanoic acid (PFUnA)	**0.046**	**J**	0.20	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorododecanoic acid (PFDoA)	**0.19**	**J**	0.20	0.025	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorotridecanoic acid (PFTriA)	**0.043**	**J**	0.20	0.025	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorotetradecanoic acid (PFTeA)	**0.069**	**J**	0.20	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.034	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.042	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorooctanesulfonic acid (PFOS)	**0.20**		0.20	0.11	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.03	U	2.03	0.11	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.03	U	2.03	0.084	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.08**	**J**	2.03	0.058	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**1.85**	**J**	2.03	0.038	ug/Kg	☼	10/10/22 08:28	10/12/22 14:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C4 PFHpA	*92*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C4 PFOA	*96*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C5 PFNA	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C4 PFBA	*92*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C2 PFHxA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C2 PFDA	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C2 PFUnA	*87*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C2 PFDoA	*83*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C8 FOSA	*72*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C5 PFPeA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C2 PFTeDA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
d3-NMeFOSAA	*103*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
d5-NEtFOSAA	*97*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
M2-6:2 FTS	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
M2-8:2 FTS	*95*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*
13C3 PFBS	*77*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:06*	*1*

Client Sample ID: RI-SB-22_0-0.2_20221004

Date Collected: 10/04/22 09:40
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-7

Matrix: Solid
Percent Solids: 52.0

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.58**		0.92	0.61	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluoropentanoic acid (PFPeA)	**3.57**		0.37	0.10	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorohexanoic acid (PFHxA)	**1.28**		0.37	0.085	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluoroheptanoic acid (PFHpA)	**0.93**		0.37	0.072	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorooctanoic acid (PFOA)	**0.88**		0.37	0.11	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorononanoic acid (PFNA)	**0.83**		0.37	0.063	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorodecanoic acid (PFDA)	**1.71**		0.37	0.052	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluoroundecanoic acid (PFUnA)	**1.51**		0.37	0.050	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorododecanoic acid (PFDoA)	**1.06**		0.37	0.046	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorotridecanoic acid (PFTriA)	**0.45**		0.37	0.046	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorotetradecanoic acid (PFTeA)	**0.52**		0.37	0.048	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorobutanesulfonic acid (PFBS)	**0.064**	**J**	0.37	0.061	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorohexanesulfonic acid (PFHxS)	**0.39**		0.37	0.076	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluoroheptanesulfonic acid (PFHpS)	0.37	U	0.37	0.043	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorooctanesulfonic acid (PFOS)	**5.15**		0.37	0.20	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorodecanesulfonic acid (PFDS)	**0.073**	**J**	0.37	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
Perfluorooctanesulfonamide (PFOSA)	0.37	U	0.37	0.063	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.70	U	3.70	0.20	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.70	U	3.70	0.15	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.20**	**J**	3.70	0.11	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.11**	**J**	3.70	0.068	ug/Kg	☼	10/10/22 08:28	10/12/22 14:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*75*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C4 PFHpA	*72*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C4 PFOA	*73*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C4 PFOS	*73*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C5 PFNA	*69*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C4 PFBA	*72*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C2 PFHxA	*69*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C2 PFDA	*78*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C2 PFUnA	*80*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C2 PFDoA	*80*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C8 FOSA	*68*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C5 PFPeA	*70*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C2 PFTeDA	*68*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
d3-NMeFOSAA	*111*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
d5-NEtFOSAA	*118*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
M2-6:2 FTS	*118*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
M2-8:2 FTS	*158*	*	*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*
13C3 PFBS	*73*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:14*	*1*

Client Sample ID: RI-SB-22_0.2-1_20221004

Date Collected: 10/04/22 09:50
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-8

Matrix: Solid
Percent Solids: 91.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.35**	**J**	0.53	0.35	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluoropentanoic acid (PFPeA)	**0.63**		0.21	0.059	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorohexanoic acid (PFHxA)	**0.22**		0.21	0.049	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluoroheptanoic acid (PFHpA)	**0.16**	**J**	0.21	0.042	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorooctanoic acid (PFOA)	**0.099**	**J**	0.21	0.062	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorononanoic acid (PFNA)	**0.095**	**J**	0.21	0.036	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorodecanoic acid (PFDA)	0.21	U	0.21	0.030	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.029	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.028	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorohexanesulfonic acid (PFHxS)	0.21	U	0.21	0.044	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorooctanesulfonic acid (PFOS)	**0.84**		0.21	0.12	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.13	U	2.13	0.12	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.13	U	2.13	0.088	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.13	U	2.13	0.061	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.13	U	2.13	0.039	ug/Kg	☼	10/10/22 08:28	10/12/22 14:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*82*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C4 PFHpA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C4 PFOA	*93*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C4 PFOS	*81*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C5 PFNA	*87*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C4 PFBA	*91*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C2 PFHxA	*88*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C2 PFDA	*88*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C2 PFUnA	*96*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C2 PFDoA	*108*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C8 FOSA	*85*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C2 PFTeDA	*103*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
d3-NMeFOSAA	*107*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
d5-NEtFOSAA	*112*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
M2-6:2 FTS	*84*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
M2-8:2 FTS	*96*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*
13C3 PFBS	*78*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:22*	*1*

Client Sample ID: RI-SB-22_1-2_20221004

Date Collected: 10/04/22 09:55
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-9

Matrix: Solid
Percent Solids: 92.5

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.52	U	0.52	0.35	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluoropentanoic acid (PFPeA)	**0.39**		0.21	0.058	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorohexanoic acid (PFHxA)	**0.13**	**J**	0.21	0.048	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluoroheptanoic acid (PFHpA)	**0.12**	**J**	0.21	0.041	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorooctanoic acid (PFOA)	**0.094**	**J**	0.21	0.061	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorononanoic acid (PFNA)	**0.077**	**J**	0.21	0.036	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorodecanoic acid (PFDA)	**0.065**	**J**	0.21	0.029	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluoroundecanoic acid (PFUnA)	**0.048**	**J**	0.21	0.028	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorohexanesulfonic acid (PFHxS)	**0.046**	**J**	0.21	0.043	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorooctanesulfonic acid (PFOS)	**0.46**		0.21	0.12	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.09	U	2.09	0.12	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.09	U	2.09	0.087	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.09	U	2.09	0.060	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.043**	**J**	2.09	0.039	ug/Kg	☼	10/10/22 08:28	10/12/22 14:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*75*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C4 PFHpA	*87*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C4 PFOA	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C4 PFOS	*79*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C5 PFNA	*87*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C4 PFBA	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C2 PFHxA	*89*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C2 PFDA	*90*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C2 PFUnA	*95*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C2 PFDoA	*100*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C8 FOSA	*80*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C2 PFTeDA	*101*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
d3-NMeFOSAA	*102*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
d5-NEtFOSAA	*110*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
M2-6:2 FTS	*87*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
M2-8:2 FTS	*96*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*
13C3 PFBS	*76*		*50 - 150*	*10/10/22 08:28*	*10/12/22 14:31*	*1*

Client Sample ID: RI-SB-32_0-0.2_20221004

Date Collected: 10/04/22 10:10
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-10

Matrix: Solid
Percent Solids: 70.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.13**		0.69	0.46	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluoropentanoic acid (PFPeA)	**5.49**		0.28	0.076	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorohexanoic acid (PFHxA)	**1.73**		0.28	0.064	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluoroheptanoic acid (PFHpA)	**1.64**		0.28	0.054	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorooctanoic acid (PFOA)	**1.84**		0.28	0.080	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorononanoic acid (PFNA)	**1.36**		0.28	0.047	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorodecanoic acid (PFDA)	**2.14**		0.28	0.039	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluoroundecanoic acid (PFUnA)	**2.10**		0.28	0.037	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorododecanoic acid (PFDoA)	**1.68**		0.28	0.035	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorotridecanoic acid (PFTriA)	**0.57**		0.28	0.035	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorotetradecanoic acid (PFTeA)	**0.68**		0.28	0.036	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorobutanesulfonic acid (PFBS)	**0.060**	**J**	0.28	0.046	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorohexanesulfonic acid (PFHxS)	**0.82**		0.28	0.057	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluoroheptanesulfonic acid (PFHpS)	0.28	U	0.28	0.032	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorooctanesulfonic acid (PFOS)	**10.5**		0.28	0.15	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorodecanesulfonic acid (PFDS)	**0.18**	**J**	0.28	0.026	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
Perfluorooctanesulfonamide (PFOSA)	0.28	U	0.28	0.047	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.77	U	2.77	0.15	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.77	U	2.77	0.11	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.89**	**J**	2.77	0.079	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.82**	**J**	2.77	0.051	ug/Kg	☼	10/12/22 07:36	10/12/22 23:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*79*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C4 PFHpA	*82*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C4 PFOA	*85*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C5 PFNA	*85*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C4 PFBA	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C2 PFHxA	*81*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C2 PFDA	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C2 PFUnA	*100*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C2 PFDoA	*94*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C8 FOSA	*72*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C2 PFTeDA	*91*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
d3-NMeFOSAA	*121*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
d5-NEtFOSAA	*138*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
M2-6:2 FTS	*125*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
M2-8:2 FTS	*159*	*	*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*
13C3 PFBS	*82*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:06*	*1*

Client Sample ID: RI-SB-32_0.2-1_20221004

Date Collected: 10/04/22 10:20
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-11

Matrix: Solid
Percent Solids: 91.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.12**		0.54	0.36	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluoropentanoic acid (PFPeA)	**3.10**		0.22	0.060	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorohexanoic acid (PFHxA)	**1.06**		0.22	0.050	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluoroheptanoic acid (PFHpA)	**0.85**		0.22	0.042	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorooctanoic acid (PFOA)	**0.72**		0.22	0.063	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorononanoic acid (PFNA)	**0.63**		0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorodecanoic acid (PFDA)	**1.08**		0.22	0.030	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluoroundecanoic acid (PFUnA)	**0.41**		0.22	0.029	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorododecanoic acid (PFDoA)	**0.23**		0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorotridecanoic acid (PFTriA)	**0.11**	**J**	0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorotetradecanoic acid (PFTeA)	**0.099**	**J**	0.22	0.028	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorobutanesulfonic acid (PFBS)	**0.055**	**J**	0.22	0.036	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorohexanesulfonic acid (PFHxS)	**0.64**		0.22	0.045	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.047**	**J**	0.22	0.025	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorooctanesulfonic acid (PFOS)	**8.98**		0.22	0.12	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorodecanesulfonic acid (PFDS)	**0.053**	**J**	0.22	0.021	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.090	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.58**	**J**	2.18	0.062	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**1.13**	**J**	2.18	0.040	ug/Kg	☼	10/12/22 07:36	10/12/22 23:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C4 PFHpA	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C4 PFOA	*86*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C4 PFOS	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C5 PFNA	*92*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C4 PFBA	*90*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C2 PFHxA	*88*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C2 PFDA	*95*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C2 PFUnA	*105*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C2 PFDoA	*109*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C8 FOSA	*83*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C2 PFTeDA	*104*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
d3-NMeFOSAA	*109*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
d5-NEtFOSAA	*124*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
M2-6:2 FTS	*109*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
M2-8:2 FTS	*125*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*
13C3 PFBS	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:14*	*1*

Client Sample ID: RI-SB-32_1-2_20221004

Date Collected: 10/04/22 10:30
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-12

Matrix: Solid
Percent Solids: 95.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.52	U	0.52	0.34	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluoropentanoic acid (PFPeA)	**0.35**		0.21	0.057	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorohexanoic acid (PFHxA)	**0.16**	**J**	0.21	0.048	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluoroheptanoic acid (PFHpA)	**0.098**	**J**	0.21	0.040	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorooctanoic acid (PFOA)	**0.061**	**J**	0.21	0.060	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorononanoic acid (PFNA)	**0.066**	**J**	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorodecanoic acid (PFDA)	**0.13**	**J**	0.21	0.029	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.028	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorohexanesulfonic acid (PFHxS)	**0.095**	**J**	0.21	0.043	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorooctanesulfonic acid (PFOS)	**1.32**		0.21	0.11	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.08	U	2.08	0.11	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.08	U	2.08	0.086	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.19**	**J**	2.08	0.059	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.25**	**J**	2.08	0.038	ug/Kg	☼	10/12/22 07:36	10/12/22 23:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C4 PFHpA	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C4 PFOA	*90*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C4 PFOS	*81*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C5 PFNA	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C2 PFHxA	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C2 PFDA	*86*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C2 PFUnA	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C2 PFDoA	*97*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C8 FOSA	*78*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C5 PFPeA	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C2 PFTeDA	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
d3-NMeFOSAA	*93*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
d5-NEtFOSAA	*98*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
M2-6:2 FTS	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
M2-8:2 FTS	*90*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*
13C3 PFBS	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:23*	*1*

Client Sample ID: RI-SB-31_0-0.2_20221004

Date Collected: 10/04/22 10:40
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-13

Matrix: Solid
Percent Solids: 91.1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.72**		0.53	0.35	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluoropentanoic acid (PFPeA)	**2.21**		0.21	0.058	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorohexanoic acid (PFHxA)	**0.66**		0.21	0.049	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluoroheptanoic acid (PFHpA)	**0.67**		0.21	0.041	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorooctanoic acid (PFOA)	**0.87**		0.21	0.061	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorononanoic acid (PFNA)	**0.77**		0.21	0.036	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorodecanoic acid (PFDA)	**2.86**		0.21	0.030	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluoroundecanoic acid (PFUnA)	**1.82**		0.21	0.029	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorododecanoic acid (PFDoA)	**0.51**		0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorotridecanoic acid (PFTriA)	**0.16**	**J**	0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorotetradecanoic acid (PFTeA)	**0.17**	**J**	0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorohexanesulfonic acid (PFHxS)	**0.65**		0.21	0.043	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.046**	**J**	0.21	0.024	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorooctanesulfonic acid (PFOS)	**5.69**		0.21	0.12	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorodecanesulfonic acid (PFDS)	**0.14**	**J**	0.21	0.020	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
Perfluorooctanesulfonamide (PFOSA)	**0.11**	**J**	0.21	0.036	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.11	0.088	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**2.01**	**J**	2.11	0.060	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**3.19**		2.11	0.039	ug/Kg	☼	10/12/22 07:36	10/12/22 23:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*82*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C4 PFHpA	*86*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C4 PFOA	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C4 PFOS	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C5 PFNA	*86*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C4 PFBA	*91*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C2 PFHxA	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C2 PFDA	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C2 PFUnA	*100*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C2 PFDoA	*101*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C8 FOSA	*82*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C5 PFPeA	*88*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C2 PFTeDA	*105*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
d3-NMeFOSAA	*106*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
d5-NEtFOSAA	*108*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
M2-6:2 FTS	*98*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
M2-8:2 FTS	*102*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*
13C3 PFBS	*81*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:31*	*1*

Client Sample ID: RI-SB-31_0.2-1_20221004

Date Collected: 10/04/22 10:45
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-14

Matrix: Solid
Percent Solids: 83.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.20**		0.59	0.39	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluoropentanoic acid (PFPeA)	**4.82**		0.24	0.065	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorohexanoic acid (PFHxA)	**1.42**		0.24	0.054	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluoroheptanoic acid (PFHpA)	**1.24**		0.24	0.046	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorooctanoic acid (PFOA)	**1.85**		0.24	0.069	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorononanoic acid (PFNA)	**1.50**		0.24	0.040	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorodecanoic acid (PFDA)	**3.26**		0.24	0.033	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluoroundecanoic acid (PFUnA)	**0.54**		0.24	0.032	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorododecanoic acid (PFDoA)	**0.037**	**J**	0.24	0.030	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorotridecanoic acid (PFTriA)	0.24	U	0.24	0.030	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorotetradecanoic acid (PFTeA)	0.24	U	0.24	0.031	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorobutanesulfonic acid (PFBS)	**0.075**	**J**	0.24	0.039	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorohexanesulfonic acid (PFHxS)	**2.71**		0.24	0.048	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.21**	**J**	0.24	0.027	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorodecanesulfonic acid (PFDS)	0.24	U	0.24	0.022	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
Perfluorooctanesulfonamide (PFOSA)	**0.17**	**J**	0.24	0.040	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.36	U	2.36	0.13	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.36	U	2.36	0.098	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**4.68**		2.36	0.067	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.71**	**J**	2.36	0.044	ug/Kg	☼	10/12/22 07:36	10/12/22 23:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C4 PFHpA	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C4 PFOA	*81*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C4 PFOS	*80*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C5 PFNA	*75*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C2 PFHxA	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C2 PFDA	*88*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C2 PFUnA	*93*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C2 PFDoA	*93*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C8 FOSA	*79*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C2 PFTeDA	*102*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
d3-NMeFOSAA	*105*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
d5-NEtFOSAA	*121*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
M2-6:2 FTS	*112*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
M2-8:2 FTS	*129*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*
13C3 PFBS	*85*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:39*	*1*

Client Sample ID: RI-SB-31_0.2-1_20221004

Lab Sample ID: 460-266816-14

Date Collected: 10/04/22 10:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 83.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**68.3**		1.18	0.65	ug/Kg	☼	10/12/22 07:36	10/13/22 13:01	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 13:01*	*5*

Client Sample ID: RI-SB-31_1-2_20221004

Lab Sample ID: 460-266816-15

Date Collected: 10/04/22 10:50
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 90.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.36	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluoropentanoic acid (PFPeA)	**1.31**		0.22	0.060	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorohexanoic acid (PFHxA)	**0.79**		0.22	0.050	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluoroheptanoic acid (PFHpA)	**0.52**		0.22	0.043	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorooctanoic acid (PFOA)	**0.85**		0.22	0.063	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorononanoic acid (PFNA)	**0.81**		0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorodecanoic acid (PFDA)	**0.064**	**J**	0.22	0.031	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluoroundecanoic acid (PFUnA)	0.22	U	0.22	0.029	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorododecanoic acid (PFDoA)	0.22	U	0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorotridecanoic acid (PFTriA)	0.22	U	0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.028	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorobutanesulfonic acid (PFBS)	**0.076**	**J**	0.22	0.036	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorohexanesulfonic acid (PFHxS)	**2.13**		0.22	0.045	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.27**		0.22	0.025	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorodecanesulfonic acid (PFDS)	0.22	U	0.22	0.021	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.091	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**3.15**		2.18	0.062	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.074**	**J**	2.18	0.040	ug/Kg	☼	10/12/22 07:36	10/12/22 23:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C4 PFHpA	*85*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C4 PFOA	*83*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C4 PFOS	*71*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C5 PFNA	*66*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C2 PFHxA	*83*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C2 PFDA	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C2 PFUnA	*95*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C2 PFDoA	*93*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C8 FOSA	*81*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:47*	*1*

Client Sample ID: RI-SB-31_1-2_20221004

Lab Sample ID: 460-266816-15

Date Collected: 10/04/22 10:50
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 90.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFTeDA	82		50 - 150	10/12/22 07:36	10/12/22 23:47	1
d3-NMeFOSAA	101		50 - 150	10/12/22 07:36	10/12/22 23:47	1
d5-NEtFOSAA	103		50 - 150	10/12/22 07:36	10/12/22 23:47	1
M2-6:2 FTS	102		50 - 150	10/12/22 07:36	10/12/22 23:47	1
M2-8:2 FTS	114		50 - 150	10/12/22 07:36	10/12/22 23:47	1
13C3 PFBS	82		50 - 150	10/12/22 07:36	10/12/22 23:47	1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**163**		2.18	1.20	ug/Kg	☼	10/12/22 07:36	10/13/22 13:10	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	78		50 - 150	10/12/22 07:36	10/13/22 13:10	10

Client Sample ID: RI-SB-30_0-0.2_20221004

Lab Sample ID: 460-266816-16

Date Collected: 10/04/22 11:10
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**13.8**		5.03	1.21	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluoropentanoic acid (PFPeA)	**20.2**		2.01	0.68	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorohexanoic acid (PFHxA)	**6.79**		2.01	0.65	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluoroheptanoic acid (PFHpA)	**7.72**		2.01	0.54	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorooctanoic acid (PFOA)	**8.63**		2.01	0.76	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorononanoic acid (PFNA)	**8.62**		2.01	0.49	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorodecanoic acid (PFDA)	**1.14**	**J**	2.01	0.46	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluoroundecanoic acid (PFUnA)	2.01	U	2.01	0.55	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorododecanoic acid (PFDoA)	2.01	U	2.01	0.49	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorotridecanoic acid (PFTriA)	2.01	U	2.01	0.48	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorotetradecanoic acid (PFTeA)	2.01	U	2.01	0.64	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorobutanesulfonic acid (PFBS)	**0.77**	**J**	2.01	0.62	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorohexanesulfonic acid (PFHxS)	**3.64**		2.01	0.55	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluoroheptanesulfonic acid (PFHpS)	2.01	U	2.01	0.41	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorooctanesulfonic acid (PFOS)	**68.5**		2.01	0.85	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorodecanesulfonic acid (PFDS)	2.01	U	2.01	0.40	ng/L		10/18/22 14:09	10/19/22 17:40	1
Perfluorooctanesulfonamide (PFOSA)	2.01	U	2.01	0.92	ng/L		10/18/22 14:09	10/19/22 17:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.03	U	5.03	1.91	ng/L		10/18/22 14:09	10/19/22 17:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.03	U	5.03	1.61	ng/L		10/18/22 14:09	10/19/22 17:40	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.03	U	5.03	1.31	ng/L		10/18/22 14:09	10/19/22 17:40	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.01	U	2.01	0.77	ng/L		10/18/22 14:09	10/19/22 17:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	90		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C4 PFHpA	89		50 - 150	10/18/22 14:09	10/19/22 17:40	1

Client Sample ID: RI-SB-30_0-0.2_20221004

Lab Sample ID: 460-266816-16

Date Collected: 10/04/22 11:10

Matrix: Solid

Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	97		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C4 PFOS	90		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C5 PFNA	87		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C4 PFBA	85		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C2 PFHxA	84		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C2 PFDA	90		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C2 PFUnA	94		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C2 PFDoA	98		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C8 FOSA	91		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C5 PFPeA	84		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C2 PFTeDA	86		50 - 150	10/18/22 14:09	10/19/22 17:40	1
d3-NMeFOSAA	111		50 - 150	10/18/22 14:09	10/19/22 17:40	1
d5-NEtFOSAA	107		50 - 150	10/18/22 14:09	10/19/22 17:40	1
M2-6:2 FTS	116		50 - 150	10/18/22 14:09	10/19/22 17:40	1
M2-8:2 FTS	101		50 - 150	10/18/22 14:09	10/19/22 17:40	1
13C3 PFBS	86		50 - 150	10/18/22 14:09	10/19/22 17:40	1

Client Sample ID: RI-SB-30_0-0.2_20221004

Lab Sample ID: 460-266816-16

Date Collected: 10/04/22 11:10

Matrix: Solid

Date Received: 10/04/22 18:30

Percent Solids: 74.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.41**		0.66	0.44	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluoropentanoic acid (PFPeA)	**2.27**		0.27	0.073	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorohexanoic acid (PFHxA)	**0.50**		0.27	0.061	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluoroheptanoic acid (PFHpA)	**0.43**		0.27	0.052	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorooctanoic acid (PFOA)	**0.53**		0.27	0.077	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorononanoic acid (PFNA)	**0.65**		0.27	0.045	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorodecanoic acid (PFDA)	**0.23**	**J**	0.27	0.037	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluoroundecanoic acid (PFUnA)	**0.48**		0.27	0.036	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorododecanoic acid (PFDoA)	**0.25**	**J**	0.27	0.033	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorotridecanoic acid (PFTriA)	**0.16**	**J**	0.27	0.033	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorotetradecanoic acid (PFTeA)	**0.13**	**J**	0.27	0.034	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorobutanesulfonic acid (PFBS)	**0.046**	**J**	0.27	0.044	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorohexanesulfonic acid (PFHxS)	**0.63**		0.27	0.054	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.058**	**J**	0.27	0.030	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorooctanesulfonic acid (PFOS)	**12.4**		0.27	0.15	ug/Kg	☼	10/12/22 07:36	10/13/22 13:18	1
Perfluorodecanesulfonic acid (PFDS)	**0.16**	**J**	0.27	0.025	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
Perfluorooctanesulfonamide (PFOSA)	0.27	U	0.27	0.045	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.65	U	2.65	0.15	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.65	U	2.65	0.11	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1

Client Sample ID: RI-SB-30_0-0.2_20221004

Lab Sample ID: 460-266816-16

Date Collected: 10/04/22 11:10
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 74.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.11	J	2.65	0.076	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.15	J	2.65	0.049	ug/Kg	☼	10/12/22 07:36	10/12/22 23:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*88*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C4 PFHpA	*84*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C4 PFOA	*88*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C4 PFOS	*91*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C4 PFOS	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 13:18*	*1*
13C5 PFNA	*85*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C4 PFBA	*80*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C2 PFHxA	*78*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C2 PFDA	*94*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C2 PFUnA	*101*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C2 PFDoA	*96*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C8 FOSA	*75*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C5 PFPeA	*81*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C2 PFTeDA	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
d3-NMeFOSAA	*132*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
d5-NEtFOSAA	*140*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
M2-6:2 FTS	*143*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
M2-8:2 FTS	*187*	*	*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*
13C3 PFBS	*87*		*50 - 150*	*10/12/22 07:36*	*10/12/22 23:55*	*1*

Client Sample ID: RI-SB-30_0.2-1_20221004

Lab Sample ID: 460-266816-17

Date Collected: 10/04/22 11:20
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	48.8		4.78	1.15	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluoropentanoic acid (PFPeA)	76.6		1.91	0.65	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorohexanoic acid (PFHxA)	19.2		1.91	0.62	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluoroheptanoic acid (PFHpA)	21.5		1.91	0.52	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorooctanoic acid (PFOA)	21.5		1.91	0.73	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorononanoic acid (PFNA)	20.5		1.91	0.47	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorodecanoic acid (PFDA)	1.33	J	1.91	0.44	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluoroundecanoic acid (PFUnA)	1.91	U	1.91	0.53	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorododecanoic acid (PFDoA)	1.91	U	1.91	0.47	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorotridecanoic acid (PFTriA)	1.91	U	1.91	0.46	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorotetradecanoic acid (PFTeA)	1.91	U	1.91	0.61	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorobutanesulfonic acid (PFBS)	0.70	J	1.91	0.59	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorohexanesulfonic acid (PFHxS)	9.34		1.91	0.53	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluoroheptanesulfonic acid (PFHpS)	2.41		1.91	0.39	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorodecanesulfonic acid (PFDS)	1.91	U	1.91	0.38	ng/L		10/18/22 14:09	10/19/22 17:48	1
Perfluorooctanesulfonamide (PFOSA)	1.91	U	1.91	0.88	ng/L		10/18/22 14:09	10/19/22 17:48	1

Client Sample ID: RI-SB-30_0.2-1_20221004

Date Collected: 10/04/22 11:20
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-17

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.78	U	4.78	1.82	ng/L		10/18/22 14:09	10/19/22 17:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.78	U	4.78	1.53	ng/L		10/18/22 14:09	10/19/22 17:48	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.78	U	4.78	1.24	ng/L		10/18/22 14:09	10/19/22 17:48	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.91	U	1.91	0.74	ng/L		10/18/22 14:09	10/19/22 17:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*89*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C4 PFHpA	*90*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C4 PFOA	*97*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C5 PFNA	*79*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C2 PFHxA	*87*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C2 PFDA	*93*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C2 PFUnA	*105*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C2 PFDoA	*107*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C8 FOSA	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C5 PFPeA	*84*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C2 PFTeDA	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
d3-NMeFOSAA	*113*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
d5-NEtFOSAA	*115*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
M2-6:2 FTS	*113*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*
13C3 PFBS	*87*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:48*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**1380**		9.56	4.06	ng/L		10/18/22 14:09	10/20/22 15:16	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*102*		*50 - 150*	*10/18/22 14:09*	*10/20/22 15:16*	*5*

Client Sample ID: RI-SB-30_0.2-1_20221004

Date Collected: 10/04/22 11:20
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-17

Matrix: Solid
Percent Solids: 92.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.86**		0.54	0.35	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluoropentanoic acid (PFPeA)	**1.42**		0.21	0.059	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorohexanoic acid (PFHxA)	**0.42**		0.21	0.049	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluoroheptanoic acid (PFHpA)	**0.51**		0.21	0.042	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorooctanoic acid (PFOA)	**0.53**		0.21	0.062	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorononanoic acid (PFNA)	**0.63**		0.21	0.037	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorodecanoic acid (PFDA)	**0.063**	**J**	0.21	0.030	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluoroundecanoic acid (PFUnA)	**0.036**	**J**	0.21	0.029	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1

Client Sample ID: RI-SB-30_0.2-1_20221004

Lab Sample ID: 460-266816-17

Date Collected: 10/04/22 11:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 92.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.028	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorohexanesulfonic acid (PFHxS)	**0.29**		0.21	0.044	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.059**	**J**	0.21	0.025	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.037	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.15	U	2.15	0.12	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.15	U	2.15	0.089	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.15	U	2.15	0.061	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.15	U	2.15	0.040	ug/Kg	☼	10/12/22 07:36	10/13/22 00:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C4 PFHpA	*86*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C4 PFOA	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C4 PFOS	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C5 PFNA	*80*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C2 PFHxA	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C2 PFDA	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C2 PFUnA	*96*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C2 PFDoA	*75*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C8 FOSA	*82*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C5 PFPeA	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C2 PFTeDA	*48*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
d3-NMeFOSAA	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
d5-NEtFOSAA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
M2-6:2 FTS	*108*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
M2-8:2 FTS	*111*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*
13C3 PFBS	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:04*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**40.3**		1.07	0.59	ug/Kg	☼	10/12/22 07:36	10/13/22 13:26	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*89*		*50 - 150*	*10/12/22 07:36*	*10/13/22 13:26*	*5*

Client Sample ID: RI-SB-30_1-2_20221004

Lab Sample ID: 460-266816-18

Date Collected: 10/04/22 11:30
Matrix: Solid
Date Received: 10/04/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**29.8**		4.85	1.17	ng/L		10/18/22 14:09	10/19/22 17:56	1

Client Sample ID: RI-SB-30_1-2_20221004

Date Collected: 10/04/22 11:30
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-18

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**45.0**		1.94	0.66	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorohexanoic acid (PFHxA)	**20.2**		1.94	0.63	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluoroheptanoic acid (PFHpA)	**21.2**		1.94	0.52	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorooctanoic acid (PFOA)	**16.0**		1.94	0.74	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorononanoic acid (PFNA)	**5.24**		1.94	0.48	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorodecanoic acid (PFDA)	**0.46**	**J**	1.94	0.45	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluoroundecanoic acid (PFUnA)	1.94	U	1.94	0.53	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorododecanoic acid (PFDoA)	1.94	U	1.94	0.48	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorotridecanoic acid (PFTriA)	1.94	U	1.94	0.47	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorotetradecanoic acid (PFTeA)	1.94	U	1.94	0.62	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorobutanesulfonic acid (PFBS)	**1.06**	**J**	1.94	0.60	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorohexanesulfonic acid (PFHxS)	**14.2**		1.94	0.53	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.31**	**J**	1.94	0.40	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorodecanesulfonic acid (PFDS)	1.94	U	1.94	0.39	ng/L		10/18/22 14:09	10/19/22 17:56	1
Perfluorooctanesulfonamide (PFOSA)	1.94	U	1.94	0.89	ng/L		10/18/22 14:09	10/19/22 17:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.85	U	4.85	1.84	ng/L		10/18/22 14:09	10/19/22 17:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.85	U	4.85	1.55	ng/L		10/18/22 14:09	10/19/22 17:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**4.10**	**J**	4.85	1.26	ng/L		10/18/22 14:09	10/19/22 17:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.94	U	1.94	0.75	ng/L		10/18/22 14:09	10/19/22 17:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*87*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C4 PFHpA	*87*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C4 PFOA	*96*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C4 PFOS	*87*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C5 PFNA	*83*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C4 PFBA	*84*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C2 PFHxA	*85*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C2 PFDA	*92*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C2 PFUnA	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C2 PFDoA	*93*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C8 FOSA	*90*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
d3-NMeFOSAA	*107*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
d5-NEtFOSAA	*105*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
M2-8:2 FTS	*96*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*
13C3 PFBS	*87*		*50 - 150*	*10/18/22 14:09*	*10/19/22 17:56*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**606**		9.71	4.13	ng/L		10/18/22 14:09	10/20/22 15:24	5

Client Sample ID: RI-SB-30_1-2_20221004

Lab Sample ID: 460-266816-18

Date Collected: 10/04/22 11:30
Matrix: Solid
Date Received: 10/04/22 18:30

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	90		50 - 150	10/18/22 14:09	10/20/22 15:24	5

Client Sample ID: RI-SB-30_1-2_20221004

Lab Sample ID: 460-266816-18

Date Collected: 10/04/22 11:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.3

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluoropentanoic acid (PFPeA)	**0.43**		0.21	0.057	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorohexanoic acid (PFHxA)	**0.23**		0.21	0.047	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluoroheptanoic acid (PFHpA)	**0.27**		0.21	0.040	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorooctanoic acid (PFOA)	**0.16**	**J**	0.21	0.060	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorononanoic acid (PFNA)	**0.074**	**J**	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorodecanoic acid (PFDA)	0.21	U	0.21	0.029	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.028	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorohexanesulfonic acid (PFHxS)	**0.51**		0.21	0.042	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.029**	**J**	0.21	0.024	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorooctanesulfonic acid (PFOS)	**9.45**		0.21	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.06	U	2.06	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.06	U	2.06	0.085	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.099**	**J**	2.06	0.059	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.06	U	2.06	0.038	ug/Kg	☼	10/12/22 07:36	10/13/22 00:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	89		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C4 PFHpA	86		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C4 PFOA	89		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C4 PFOS	86		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C5 PFNA	81		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C4 PFBA	90		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C2 PFHxA	88		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C2 PFDA	86		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C2 PFUnA	94		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C2 PFDoA	90		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C8 FOSA	81		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C5 PFPeA	86		50 - 150	10/12/22 07:36	10/13/22 00:12	1
13C2 PFTeDA	53		50 - 150	10/12/22 07:36	10/13/22 00:12	1
d3-NMeFOSAA	92		50 - 150	10/12/22 07:36	10/13/22 00:12	1
d5-NEtFOSAA	94		50 - 150	10/12/22 07:36	10/13/22 00:12	1

Client Sample ID: RI-SB-30_1-2_20221004

Lab Sample ID: 460-266816-18

Date Collected: 10/04/22 11:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.3

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	*95*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:12*	*1*
M2-8:2 FTS	*99*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:12*	*1*
13C3 PFBS	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:12*	*1*

Client Sample ID: RI-SB-29_0-0.2_20221004

Lab Sample ID: 460-266816-19

Date Collected: 10/04/22 11:55
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 74.0

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.25**		0.65	0.43	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluoropentanoic acid (PFPeA)	**1.82**		0.26	0.071	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorohexanoic acid (PFHxA)	**0.39**		0.26	0.060	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluoroheptanoic acid (PFHpA)	**0.26**		0.26	0.050	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorooctanoic acid (PFOA)	**0.29**		0.26	0.075	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorononanoic acid (PFNA)	**0.27**		0.26	0.044	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorodecanoic acid (PFDA)	**0.19**	**J**	0.26	0.036	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluoroundecanoic acid (PFUnA)	**0.34**		0.26	0.035	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorododecanoic acid (PFDoA)	**0.17**	**J**	0.26	0.032	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorotridecanoic acid (PFTriA)	**0.12**	**J**	0.26	0.032	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorotetradecanoic acid (PFTeA)	**0.065**	**J**	0.26	0.034	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorobutanesulfonic acid (PFBS)	0.26	U	0.26	0.043	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorohexanesulfonic acid (PFHxS)	**0.14**	**J**	0.26	0.053	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluoroheptanesulfonic acid (PFHpS)	0.26	U	0.26	0.030	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorooctanesulfonic acid (PFOS)	**3.93**		0.26	0.14	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorodecanesulfonic acid (PFDS)	**0.035**	**J**	0.26	0.025	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
Perfluorooctanesulfonamide (PFOSA)	0.26	U	0.26	0.044	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.59	U	2.59	0.14	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.59	U	2.59	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.59	U	2.59	0.074	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.059**	**J**	2.59	0.048	ug/Kg	☼	10/12/22 07:36	10/13/22 00:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C4 PFHpA	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C4 PFOA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C4 PFOS	*90*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C5 PFNA	*92*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C4 PFBA	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C2 PFHxA	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C2 PFDA	*91*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C2 PFUnA	*102*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*

Client Sample ID: RI-SB-29_0-0.2_20221004

Lab Sample ID: 460-266816-19

Date Collected: 10/04/22 11:55
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 74.0

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFDoA	*100*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C8 FOSA	*79*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C5 PFPeA	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C2 PFTeDA	*97*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
d3-NMeFOSAA	*117*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
d5-NEtFOSAA	*130*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
M2-6:2 FTS	*124*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
M2-8:2 FTS	*144*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*
13C3 PFBS	*89*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:20*	*1*

Client Sample ID: RI-SB-29_0.2-1_20221004

Lab Sample ID: 460-266816-20

Date Collected: 10/04/22 12:00
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluoropentanoic acid (PFPeA)	**0.26**		0.20	0.055	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorohexanoic acid (PFHxA)	**0.14**	**J**	0.20	0.046	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluoroheptanoic acid (PFHpA)	**0.082**	**J**	0.20	0.039	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorooctanoic acid (PFOA)	**0.083**	**J**	0.20	0.058	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorononanoic acid (PFNA)	**0.040**	**J**	0.20	0.034	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.028	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.025	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.026	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorohexanesulfonic acid (PFHxS)	**0.060**	**J**	0.20	0.041	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorooctanesulfonic acid (PFOS)	**0.60**		0.20	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.99	U	1.99	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.99	U	1.99	0.083	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.99	U	1.99	0.057	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.99	U	1.99	0.037	ug/Kg	☼	10/12/22 07:36	10/13/22 00:53	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:53*	*1*
13C4 PFHpA	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:53*	*1*
13C4 PFOA	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:53*	*1*
13C4 PFOS	*79*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:53*	*1*
13C5 PFNA	*79*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:53*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/12/22 07:36*	*10/13/22 00:53*	*1*

Client Sample ID: RI-SB-29_0.2-1_20221004

Lab Sample ID: 460-266816-20

Date Collected: 10/04/22 12:00
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	87		50 - 150	10/12/22 07:36	10/13/22 00:53	1
13C2 PFDA	85		50 - 150	10/12/22 07:36	10/13/22 00:53	1
13C2 PFUnA	89		50 - 150	10/12/22 07:36	10/13/22 00:53	1
13C2 PFDoA	90		50 - 150	10/12/22 07:36	10/13/22 00:53	1
13C8 FOSA	79		50 - 150	10/12/22 07:36	10/13/22 00:53	1
13C5 PFPeA	84		50 - 150	10/12/22 07:36	10/13/22 00:53	1
13C2 PFTeDA	70		50 - 150	10/12/22 07:36	10/13/22 00:53	1
d3-NMeFOSAA	89		50 - 150	10/12/22 07:36	10/13/22 00:53	1
d5-NEtFOSAA	93		50 - 150	10/12/22 07:36	10/13/22 00:53	1
M2-6:2 FTS	87		50 - 150	10/12/22 07:36	10/13/22 00:53	1
M2-8:2 FTS	89		50 - 150	10/12/22 07:36	10/13/22 00:53	1
13C3 PFBS	83		50 - 150	10/12/22 07:36	10/13/22 00:53	1

Client Sample ID: RI-SB-29_1-2_20221004

Lab Sample ID: 460-266816-21

Date Collected: 10/04/22 12:10
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 93.1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.52	U	0.52	0.34	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluoropentanoic acid (PFPeA)	**0.29**		0.21	0.057	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorohexanoic acid (PFHxA)	**0.14**	**J**	0.21	0.048	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluoroheptanoic acid (PFHpA)	**0.10**	**J**	0.21	0.040	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorooctanoic acid (PFOA)	0.21	U	0.21	0.060	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorononanoic acid (PFNA)	**0.042**	**J**	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorodecanoic acid (PFDA)	**0.045**	**J**	0.21	0.029	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.028	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorohexanesulfonic acid (PFHxS)	**0.27**		0.21	0.042	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.032**	**J**	0.21	0.024	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorooctanesulfonic acid (PFOS)	**3.81**		0.21	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.07	U	2.07	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.07	U	2.07	0.086	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.081**	**J**	2.07	0.059	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.059**	**J**	2.07	0.038	ug/Kg	☼	10/12/22 07:36	10/13/22 01:01	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	76		50 - 150	10/12/22 07:36	10/13/22 01:01	1
13C4 PFHpA	82		50 - 150	10/12/22 07:36	10/13/22 01:01	1
13C4 PFOA	90		50 - 150	10/12/22 07:36	10/13/22 01:01	1

Client Sample ID: RI-SB-29_1-2_20221004

Lab Sample ID: 460-266816-21

Date Collected: 10/04/22 12:10
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 93.1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*79*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C5 PFNA	*82*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C2 PFHxA	*88*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C2 PFDA	*86*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C2 PFUnA	*96*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C2 PFDoA	*95*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C8 FOSA	*81*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C2 PFTeDA	*96*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
d3-NMeFOSAA	*97*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
d5-NEtFOSAA	*105*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
M2-6:2 FTS	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
M2-8:2 FTS	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*
13C3 PFBS	*75*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:01*	*1*

Client Sample ID: RI-SB-X02_20221004

Lab Sample ID: 460-266816-22

Date Collected: 10/04/22 14:05
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 75.3

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.10**		0.64	0.42	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluoropentanoic acid (PFPeA)	**1.61**		0.26	0.070	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorohexanoic acid (PFHxA)	**0.37**		0.26	0.059	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluoroheptanoic acid (PFHpA)	**0.28**		0.26	0.050	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorooctanoic acid (PFOA)	**0.26**		0.26	0.074	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorononanoic acid (PFNA)	**0.28**		0.26	0.043	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorodecanoic acid (PFDA)	**0.19**	**J**	0.26	0.036	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluoroundecanoic acid (PFUnA)	**0.34**		0.26	0.034	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorododecanoic acid (PFDoA)	**0.19**	**J**	0.26	0.032	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorotridecanoic acid (PFTriA)	**0.13**	**J**	0.26	0.032	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorotetradecanoic acid (PFTeA)	**0.079**	**J**	0.26	0.033	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorobutanesulfonic acid (PFBS)	**0.046**	**J**	0.26	0.042	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorohexanesulfonic acid (PFHxS)	**0.13**	**J**	0.26	0.052	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluoroheptanesulfonic acid (PFHpS)	0.26	U	0.26	0.029	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorooctanesulfonic acid (PFOS)	**4.04**		0.26	0.14	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorodecanesulfonic acid (PFDS)	**0.038**	**J**	0.26	0.024	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
Perfluorooctanesulfonamide (PFOSA)	0.26	U	0.26	0.043	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.55	U	2.55	0.14	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.55	U	2.55	0.11	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.55	U	2.55	0.073	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1

Client Sample ID: RI-SB-X02_20221004

Lab Sample ID: 460-266816-22

Date Collected: 10/04/22 14:05
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 75.3

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.057	J	2.55	0.047	ug/Kg	☼	10/12/22 07:36	10/13/22 01:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C4 PFHpA	*81*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C4 PFOA	*82*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C4 PFOS	*84*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C5 PFNA	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C2 PFHxA	*78*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C2 PFDA	*88*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C2 PFUnA	*94*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C2 PFDoA	*97*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C8 FOSA	*76*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C2 PFTeDA	*95*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
d3-NMeFOSAA	*114*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
d5-NEtFOSAA	*126*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
M2-8:2 FTS	*137*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*
13C3 PFBS	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:25*	*1*

Client Sample ID: RI-SB-24_0-0.2_20221004

Lab Sample ID: 460-266816-23

Date Collected: 10/04/22 12:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 90.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.58		0.54	0.35	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluoropentanoic acid (PFPeA)	1.40		0.21	0.059	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorohexanoic acid (PFHxA)	0.71		0.21	0.049	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluoroheptanoic acid (PFHpA)	0.64		0.21	0.042	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorooctanoic acid (PFOA)	0.61		0.21	0.062	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorononanoic acid (PFNA)	0.59		0.21	0.036	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorodecanoic acid (PFDA)	2.32		0.21	0.030	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluoroundecanoic acid (PFUnA)	2.69		0.21	0.029	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorododecanoic acid (PFDoA)	1.53		0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorotridecanoic acid (PFTriA)	0.30		0.21	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorotetradecanoic acid (PFTeA)	0.43		0.21	0.028	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorohexanesulfonic acid (PFHxS)	1.95		0.21	0.044	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluoroheptanesulfonic acid (PFHpS)	0.19	J	0.21	0.025	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorodecanesulfonic acid (PFDS)	0.27		0.21	0.020	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
Perfluorooctanesulfonamide (PFOSA)	0.099	J	0.21	0.036	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1

Client Sample ID: RI-SB-24_0-0.2_20221004

Lab Sample ID: 460-266816-23

Date Collected: 10/04/22 12:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 90.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.14	U	2.14	0.12	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.14	U	2.14	0.089	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.72**	**J**	2.14	0.061	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**3.94**		2.14	0.040	ug/Kg	☼	10/12/22 07:36	10/13/22 01:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*91*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C4 PFHpA	*92*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C4 PFOA	*95*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C4 PFOS	*82*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C5 PFNA	*88*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C4 PFBA	*91*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C2 PFHxA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C2 PFDA	*96*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C2 PFUnA	*109*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C2 PFDoA	*101*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C8 FOSA	*64*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C2 PFTeDA	*88*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
d3-NMeFOSAA	*163*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
d5-NEtFOSAA	*187*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
M2-6:2 FTS	*156*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
M2-8:2 FTS	*256*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*
13C3 PFBS	*90*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:34*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**47.1**		1.07	0.59	ug/Kg	☼	10/12/22 07:36	10/13/22 13:51	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*95*		*50 - 150*	*10/12/22 07:36*	*10/13/22 13:51*	*5*

Client Sample ID: RI-SB-24_0.2-1_20221004

Lab Sample ID: 460-266816-24

Date Collected: 10/04/22 12:50
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 92.1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.36	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluoropentanoic acid (PFPeA)	**0.83**		0.22	0.059	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorohexanoic acid (PFHxA)	**0.39**		0.22	0.050	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluoroheptanoic acid (PFHpA)	**0.34**		0.22	0.042	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorooctanoic acid (PFOA)	**0.30**		0.22	0.063	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorononanoic acid (PFNA)	**0.28**		0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorodecanoic acid (PFDA)	**0.99**		0.22	0.030	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluoroundecanoic acid (PFUnA)	**1.14**		0.22	0.029	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1

Client Sample ID: RI-SB-24_0.2-1_20221004

Date Collected: 10/04/22 12:50
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-24

Matrix: Solid
Percent Solids: 92.1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	**0.63**		0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorotridecanoic acid (PFTriA)	**0.12**	**J**	0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorotetradecanoic acid (PFTeA)	**0.16**	**J**	0.22	0.028	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorohexanesulfonic acid (PFHxS)	**0.92**		0.22	0.044	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.093**	**J**	0.22	0.025	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorodecanesulfonic acid (PFDS)	**0.11**	**J**	0.22	0.021	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.12	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.090	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.82**	**J**	2.16	0.062	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**1.61**	**J**	2.16	0.040	ug/Kg	☼	10/12/22 07:36	10/13/22 01:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*73*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C4 PFHpA	*74*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C4 PFOA	*77*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C4 PFOS	*68*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C5 PFNA	*74*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C4 PFBA	*75*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C2 PFHxA	*71*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C2 PFDA	*78*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C2 PFUnA	*88*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C2 PFDoA	*81*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C8 FOSA	*59*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C5 PFPeA	*73*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C2 PFTeDA	*74*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
d3-NMeFOSAA	*117*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
d5-NEtFOSAA	*128*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
M2-6:2 FTS	*93*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
M2-8:2 FTS	*151*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*
13C3 PFBS	*71*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:42*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**22.4**		0.43	0.24	ug/Kg	☼	10/12/22 07:36	10/13/22 13:59	2

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*67*		*50 - 150*	*10/12/22 07:36*	*10/13/22 13:59*	*2*

Client Sample ID: RI-SB-24_1-2_20221004

Date Collected: 10/04/22 12:55
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-25

Matrix: Solid
Percent Solids: 92.9

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.36	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluoropentanoic acid (PFPeA)	**0.56**		0.22	0.059	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorohexanoic acid (PFHxA)	**0.27**		0.22	0.050	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluoroheptanoic acid (PFHpA)	**0.24**		0.22	0.042	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorooctanoic acid (PFOA)	**0.21**	**J**	0.22	0.062	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorononanoic acid (PFNA)	**0.19**	**J**	0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorodecanoic acid (PFDA)	**0.69**		0.22	0.030	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluoroundecanoic acid (PFUnA)	**0.85**		0.22	0.029	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorododecanoic acid (PFDoA)	**0.64**		0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorotridecanoic acid (PFTriA)	**0.12**	**J**	0.22	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorotetradecanoic acid (PFTeA)	**0.15**	**J**	0.22	0.028	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorohexanesulfonic acid (PFHxS)	**0.62**		0.22	0.044	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.052**	**J**	0.22	0.025	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorooctanesulfonic acid (PFOS)	**11.9**		0.22	0.12	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorodecanesulfonic acid (PFDS)	**0.098**	**J**	0.22	0.020	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
Perfluorooctanesulfonamide (PFOSA)	**0.040**	**J**	0.22	0.037	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.15	U	2.15	0.12	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.15	U	2.15	0.089	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.02**	**J**	2.15	0.061	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**2.26**		2.15	0.040	ug/Kg	☼	10/12/22 07:36	10/13/22 01:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*73*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C4 PFHpA	*81*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C4 PFOA	*87*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C4 PFOS	*75*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C5 PFNA	*89*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C4 PFBA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C2 PFHxA	*82*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C2 PFDA	*99*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C2 PFUnA	*115*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C2 PFDoA	*107*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C8 FOSA	*73*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C5 PFPeA	*82*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C2 PFTeDA	*95*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
d3-NMeFOSAA	*150*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
d5-NEtFOSAA	*188*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
M2-6:2 FTS	*91*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
M2-8:2 FTS	*157*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*
13C3 PFBS	*73*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:50*	*1*

Client Sample ID: RI-SB-23_0-0.2_20221004

Date Collected: 10/04/22 13:25
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-26

Matrix: Solid
Percent Solids: 82.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1.10**		0.60	0.39	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluoropentanoic acid (PFPeA)	**2.76**		0.24	0.066	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorohexanoic acid (PFHxA)	**1.31**		0.24	0.055	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluoroheptanoic acid (PFHpA)	**0.96**		0.24	0.046	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorooctanoic acid (PFOA)	**0.79**		0.24	0.069	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorononanoic acid (PFNA)	**1.09**		0.24	0.041	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorodecanoic acid (PFDA)	**1.97**		0.24	0.033	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluoroundecanoic acid (PFUnA)	**2.22**		0.24	0.032	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorododecanoic acid (PFDoA)	**1.23**		0.24	0.030	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorotridecanoic acid (PFTriA)	**0.41**		0.24	0.030	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorotetradecanoic acid (PFTeA)	**0.42**		0.24	0.031	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorobutanesulfonic acid (PFBS)	0.24	U	0.24	0.039	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorohexanesulfonic acid (PFHxS)	**0.26**		0.24	0.049	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.039**	**J**	0.24	0.027	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorooctanesulfonic acid (PFOS)	**4.05**		0.24	0.13	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorodecanesulfonic acid (PFDS)	**0.10**	**J**	0.24	0.023	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
Perfluorooctanesulfonamide (PFOSA)	0.24	U	0.24	0.041	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.38	U	2.38	0.13	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.38	U	2.38	0.099	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.37**	**J**	2.38	0.068	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.50**	**J**	2.38	0.044	ug/Kg	☼	10/12/22 07:36	10/13/22 01:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C4 PFHpA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C4 PFOA	*89*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C4 PFOS	*88*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C5 PFNA	*90*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C4 PFBA	*89*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C2 PFHxA	*83*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C2 PFDA	*97*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C2 PFUnA	*105*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C2 PFDoA	*101*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C8 FOSA	*75*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C2 PFTeDA	*94*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
d3-NMeFOSAA	*147*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
d5-NEtFOSAA	*182*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
M2-6:2 FTS	*132*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
M2-8:2 FTS	*189*	*	*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*
13C3 PFBS	*85*		*50 - 150*	*10/12/22 07:36*	*10/13/22 01:58*	*1*

Client Sample ID: RI-SB-23_0.2-1_20221004

Date Collected: 10/04/22 13:30
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-27

Matrix: Solid
Percent Solids: 88.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.62**		0.54	0.36	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluoropentanoic acid (PFPeA)	**1.46**		0.22	0.060	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorohexanoic acid (PFHxA)	**0.59**		0.22	0.050	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluoroheptanoic acid (PFHpA)	**0.44**		0.22	0.042	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorooctanoic acid (PFOA)	**0.37**		0.22	0.063	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorononanoic acid (PFNA)	**0.60**		0.22	0.037	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorodecanoic acid (PFDA)	**0.76**		0.22	0.030	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluoroundecanoic acid (PFUnA)	**0.72**		0.22	0.029	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorododecanoic acid (PFDoA)	**0.43**		0.22	0.027	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorotridecanoic acid (PFTriA)	**0.14**	**J**	0.22	0.027	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorotetradecanoic acid (PFTeA)	**0.13**	**J**	0.22	0.028	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorohexanesulfonic acid (PFHxS)	**0.16**	**J**	0.22	0.045	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluoroheptanesulfonic acid (PFHpS)	0.22	U	0.22	0.025	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorooctanesulfonic acid (PFOS)	**2.36**		0.22	0.12	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorodecanesulfonic acid (PFDS)	**0.067**	**J**	0.22	0.021	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.090	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.091**	**J**	2.18	0.062	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.13**	**J**	2.18	0.040	ug/Kg	☼	10/17/22 10:30	10/17/22 21:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*77*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C4 PFHpA	*83*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C4 PFOA	*88*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C4 PFOS	*79*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C5 PFNA	*86*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C4 PFBA	*90*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C2 PFHxA	*88*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C2 PFDA	*95*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C2 PFUnA	*102*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C2 PFDoA	*105*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C8 FOSA	*80*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C2 PFTeDA	*102*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
d3-NMeFOSAA	*113*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
d5-NEtFOSAA	*129*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
M2-6:2 FTS	*98*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
M2-8:2 FTS	*102*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*
13C3 PFBS	*77*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:12*	*1*

Client Sample ID: RI-SB-23_1-2_20221004

Date Collected: 10/04/22 13:40
Date Received: 10/04/22 18:30

Lab Sample ID: 460-266816-28

Matrix: Solid
Percent Solids: 91.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**0.50**	**J**	0.52	0.35	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluoropentanoic acid (PFPeA)	**1.30**		0.21	0.058	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorohexanoic acid (PFHxA)	**0.49**		0.21	0.048	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluoroheptanoic acid (PFHpA)	**0.35**		0.21	0.041	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorooctanoic acid (PFOA)	**0.33**		0.21	0.061	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorononanoic acid (PFNA)	**0.52**		0.21	0.036	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorodecanoic acid (PFDA)	**0.61**		0.21	0.029	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluoroundecanoic acid (PFUnA)	**0.50**		0.21	0.028	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorododecanoic acid (PFDoA)	**0.29**		0.21	0.026	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorotridecanoic acid (PFTriA)	**0.11**	**J**	0.21	0.026	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorotetradecanoic acid (PFTeA)	**0.096**	**J**	0.21	0.027	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorohexanesulfonic acid (PFHxS)	**0.20**	**J**	0.21	0.043	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorooctanesulfonic acid (PFOS)	**2.73**		0.21	0.12	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorodecanesulfonic acid (PFDS)	**0.093**	**J**	0.21	0.020	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.10	U	2.10	0.12	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.10	U	2.10	0.087	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**0.091**	**J**	2.10	0.060	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**0.11**	**J**	2.10	0.039	ug/Kg	☼	10/17/22 10:30	10/17/22 21:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*79*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C4 PFHpA	*88*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C4 PFOA	*91*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C4 PFOS	*81*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C5 PFNA	*89*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C4 PFBA	*90*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C2 PFHxA	*89*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C2 PFDA	*100*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C2 PFUnA	*111*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C2 PFDoA	*111*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C8 FOSA	*85*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C5 PFPeA	*89*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C2 PFTeDA	*109*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
d3-NMeFOSAA	*118*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
d5-NEtFOSAA	*133*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
M2-6:2 FTS	*105*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
M2-8:2 FTS	*114*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*
13C3 PFBS	*80*		*50 - 150*	*10/17/22 10:30*	*10/17/22 21:20*	*1*

Isotope Dilution Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (50-150)	PFHxA (50-150)	PFDA (50-150)
460-266738-1	RI-SB-28_0.2-1_20221003	83	83	91	82	92	85	80	96
460-266738-2 - DL	RI-SB-28_1-2_20221003				85				
460-266738-2	RI-SB-28_1-2_20221003	77	82	88	68	75	85	82	91
460-266738-2 MS - DL	RI-SB-28_1-2_20221003				92				
460-266738-2 MS	RI-SB-28_1-2_20221003	81	84	90	69	71	86	81	97
460-266738-2 MSD - DL	RI-SB-28_1-2_20221003				92				
460-266738-2 MSD	RI-SB-28_1-2_20221003	92	91	96	79	81	96	91	104
460-266738-3 - DL	RI-SB-28_10-11_20221003				81				
460-266738-3	RI-SB-28_10-11_20221003	85	86	88	77	80	87	84	87
460-266738-4 - DL	RI-SB-33_0.2-1_20221003				100				
460-266738-4	RI-SB-33_0.2-1_20221003	87	84	94	85	88	87	82	96
460-266738-5	RI-SB-33_1-2_20221003	90	87	94	68	70	93	86	97
460-266738-5 - DL	RI-SB-33_1-2_20221003				95				
460-266738-6	RI-SB-33_13-14_20221003	85	89	92	80	88	89	85	87
460-266738-7	RI-SB-X_20221003	83	82	90	85	93	85	79	94
460-266738-8	RI-SB-34_0.2-1_20221003	83	80	84	78	84	84	79	89
460-266738-9	RI-SB-34_1-2_20221003	85	82	86	82	80	86	82	82
460-266738-10	RI-SB-34_10-11_20221003	84	87	89	82	85	89	90	81
460-266738-11 - DL	RI-SB-26_0.2-1_20221003				96				
460-266738-11	RI-SB-26_0.2-1_20221003	88	94	95	88	94	91	86	92
460-266738-12 - DL	RI-SB-26_1-2_20221003				74				
460-266738-12	RI-SB-26_1-2_20221003	72	81	85	72	82	83	80	86
460-266738-13 - DL	RI-SB-26_10-11_20221003				87				
460-266738-13	RI-SB-26_10-11_20221003	88	85	86	82	78	89	84	86
460-266738-14	RI-SB-25_0.2-1_20221003	84	85	92	89	90	89	83	96
460-266738-15 - DL	RI-SB-25_1-2_20221003				80				
460-266738-15	RI-SB-25_1-2_20221003	80	86	87	78	89	88	87	92
460-266738-16	RI-SB-25_15-16_20221003	64	62	64	64	64	65	61	63
460-266813-A-1-D MS	Matrix Spike	74	83	87	75	87	89	86	93
460-266813-A-1-E MSD	Matrix Spike Duplicate	76	86	90	79	92	91	84	97
460-266816-1 - DL	RI-SB-27_0.2-1_20221004				91				
460-266816-1	RI-SB-27_0.2-1_20221004	77	79	82	76	82	80	74	78
460-266816-2 - DL	RI-SB-27_1-2_20221004				78				
460-266816-2	RI-SB-27_1-2_20221004	76	89	91	73	85	89	83	100
460-266816-2 MS - DL	RI-SB-27_1-2_20221004				88				
460-266816-2 MS	RI-SB-27_1-2_20221004	76	82	91	70	82	84	82	96
460-266816-2 MSD - DL	RI-SB-27_1-2_20221004				86				
460-266816-2 MSD	RI-SB-27_1-2_20221004	78	87	95	71	84	90	84	98
460-266816-3	RI-SB-X01_20221004	88	91	96	87	93	89	83	94
460-266816-4	RI-SB-21_0-0.2_20221004	60	59	60	60	61	61	58	61
460-266816-5	RI-SB-21_0.2-1_20221004	77	88	94	78	93	90	87	99
460-266816-6	RI-SB-21_1-2_20221004	80	92	96	82	90	92	89	90
460-266816-7	RI-SB-22_0-0.2_20221004	75	72	73	73	69	72	69	78
460-266816-8	RI-SB-22_0.2-1_20221004	82	89	93	81	87	91	88	88
460-266816-9	RI-SB-22_1-2_20221004	75	87	90	79	87	90	89	90
460-266816-10	RI-SB-32_0-0.2_20221004	79	82	85	82	85	84	81	87
460-266816-11	RI-SB-32_0.2-1_20221004	87	89	86	84	92	90	88	95
460-266816-12	RI-SB-32_1-2_20221004	84	89	90	81	84	88	84	86
460-266816-13	RI-SB-31_0-0.2_20221004	82	86	89	84	86	91	89	89

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-266738-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-266816-14	RI-SB-31_0.2-1_20221004	84	84	81	80	75	89	84	88
460-266816-14 - DL	RI-SB-31_0.2-1_20221004				84				
460-266816-15	RI-SB-31_1-2_20221004	80	85	83	71	66	89	83	87
460-266816-15 - DL	RI-SB-31_1-2_20221004				78				
460-266816-16	RI-SB-30_0-0.2_20221004	88	84	88	91	85	80	78	94
460-266816-16	RI-SB-30_0-0.2_20221004				84				
460-266816-17	RI-SB-30_0.2-1_20221004	87	86	84	83	80	89	84	87
460-266816-17 - DL	RI-SB-30_0.2-1_20221004				89				
460-266816-18	RI-SB-30_1-2_20221004	89	86	89	86	81	90	88	86
460-266816-19	RI-SB-29_0-0.2_20221004	83	87	85	90	92	87	83	91
460-266816-20	RI-SB-29_0.2-1_20221004	83	83	84	79	79	86	87	85
460-266816-21	RI-SB-29_1-2_20221004	76	82	90	79	82	88	88	86
460-266816-21 MS	RI-SB-29_1-2_20221004	79	91	91	81	88	89	89	88
460-266816-21 MSD	RI-SB-29_1-2_20221004	77	87	89	76	86	91	90	84
460-266816-22	RI-SB-X02_20221004	85	81	82	84	87	86	78	88
460-266816-23	RI-SB-24_0-0.2_20221004	91	92	95	82	88	91	85	96
460-266816-23 - DL	RI-SB-24_0-0.2_20221004				95				
460-266816-24	RI-SB-24_0.2-1_20221004	73	74	77	68	74	75	71	78
460-266816-24 - DL	RI-SB-24_0.2-1_20221004				67				
460-266816-25	RI-SB-24_1-2_20221004	73	81	87	75	89	85	82	99
460-266816-26	RI-SB-23_0-0.2_20221004	85	85	89	88	90	89	83	97
460-266816-27	RI-SB-23_0.2-1_20221004	77	83	88	79	86	90	88	95
460-266816-28	RI-SB-23_1-2_20221004	79	88	91	81	89	90	89	100
LCS 200-184459/2-A	Lab Control Sample	79	75	77	82	77	76	75	75
LCS 200-184460/2-A	Lab Control Sample	106	97	100	103	100	97	98	93
LCS 200-184585/2-A	Lab Control Sample	88	88	91	94	88	90	91	88
LCS 200-184746/2-A	Lab Control Sample	89	89	89	95	94	71	90	93
LCS 200-184807/2-A	Lab Control Sample	102	93	99	102	95	90	93	103
LCSD 200-184807/3-A	Lab Control Sample Dup	100	98	96	103	94	90	97	99
MB 200-184459/1-A	Method Blank	94	91	88	94	86	89	91	88
MB 200-184460/1-A	Method Blank	92	87	88	89	80	86	86	79
MB 200-184585/1-A	Method Blank	92	89	94	95	87	91	89	87
MB 200-184746/1-A	Method Blank	80	83	84	83	80	65	83	83
MB 200-184807/1-A	Method Blank	91	90	91	95	90	85	87	98

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-266738-1	RI-SB-28_0.2-1_20221003	97	92	70	82	85	169 *	184 *	128
460-266738-2 - DL	RI-SB-28_1-2_20221003								
460-266738-2	RI-SB-28_1-2_20221003	97	97	74	80	84	142	159 *	111
460-266738-2 MS - DL	RI-SB-28_1-2_20221003								
460-266738-2 MS	RI-SB-28_1-2_20221003	100	91	73	81	85	153 *	173 *	110
460-266738-2 MSD - DL	RI-SB-28_1-2_20221003								
460-266738-2 MSD	RI-SB-28_1-2_20221003	111	110	80	92	98	164 *	180 *	122
460-266738-3 - DL	RI-SB-28_10-11_20221003								
460-266738-3	RI-SB-28_10-11_20221003	97	97	79	83	95	104	118	90
460-266738-4 - DL	RI-SB-33_0.2-1_20221003								
460-266738-4	RI-SB-33_0.2-1_20221003	97	94	70	85	84	162 *	172 *	121
460-266738-5	RI-SB-33_1-2_20221003	102	97	70	87	89	145	164 *	130
460-266738-5 - DL	RI-SB-33_1-2_20221003								

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-266738-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (50-150)	PFPeA (50-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (50-150)
460-266738-6	RI-SB-33_13-14_20221003	79	83	74	85	86	101	103	90
460-266738-7	RI-SB-X_20221003	98	92	71	80	85	165 *	180 *	120
460-266738-8	RI-SB-34_0.2-1_20221003	92	103	76	81	100	126	147	116
460-266738-9	RI-SB-34_1-2_20221003	92	100	81	83	100	103	109	94
460-266738-10	RI-SB-34_10-11_20221003	80	80	81	86	90	97	94	94
460-266738-11 - DL	RI-SB-26_0.2-1_20221003								
460-266738-11	RI-SB-26_0.2-1_20221003	94	94	65	87	84	177 *	184 *	151 *
460-266738-12 - DL	RI-SB-26_1-2_20221003								
460-266738-12	RI-SB-26_1-2_20221003	102	96	67	79	84	130	149	82
460-266738-13 - DL	RI-SB-26_10-11_20221003								
460-266738-13	RI-SB-26_10-11_20221003	99	104	84	85	106	105	118	103
460-266738-14	RI-SB-25_0.2-1_20221003	100	95	58	84	84	170 *	180 *	160 *
460-266738-15 - DL	RI-SB-25_1-2_20221003								
460-266738-15	RI-SB-25_1-2_20221003	105	102	80	83	94	135	158 *	95
460-266738-16	RI-SB-25_15-16_20221003	70	67	58	64	58	80	86	80
460-266813-A-1-D MS	Matrix Spike	105	101	72	83	103	122	134	93
460-266813-A-1-E MSD	Matrix Spike Duplicate	109	104	76	87	103	127	139	92
460-266816-1 - DL	RI-SB-27_0.2-1_20221004								
460-266816-1	RI-SB-27_0.2-1_20221004	90	84	61	74	75	149	167 *	123
460-266816-2 - DL	RI-SB-27_1-2_20221004								
460-266816-2	RI-SB-27_1-2_20221004	109	106	74	86	92	180 *	199 *	98
460-266816-2 MS - DL	RI-SB-27_1-2_20221004								
460-266816-2 MS	RI-SB-27_1-2_20221004	95	95	69	80	86	177 *	193 *	108
460-266816-2 MSD - DL	RI-SB-27_1-2_20221004								
460-266816-2 MSD	RI-SB-27_1-2_20221004	105	100	70	84	89	177 *	194 *	103
460-266816-3	RI-SB-X01_20221004	100	99	68	86	91	173 *	186 *	142
460-266816-4	RI-SB-21_0-0.2_20221004	68	63	50	60	58	93	106	92
460-266816-5	RI-SB-21_0.2-1_20221004	110	109	81	86	98	131	146	89
460-266816-6	RI-SB-21_1-2_20221004	87	83	72	89	89	103	97	90
460-266816-7	RI-SB-22_0-0.2_20221004	80	80	68	70	68	111	118	118
460-266816-8	RI-SB-22_0.2-1_20221004	96	108	85	86	103	107	112	84
460-266816-9	RI-SB-22_1-2_20221004	95	100	80	85	101	102	110	87
460-266816-10	RI-SB-32_0-0.2_20221004	100	94	72	83	91	121	138	125
460-266816-11	RI-SB-32_0.2-1_20221004	105	109	83	86	104	109	124	109
460-266816-12	RI-SB-32_1-2_20221004	87	97	78	87	87	93	98	89
460-266816-13	RI-SB-31_0-0.2_20221004	100	101	82	88	105	106	108	98
460-266816-14	RI-SB-31_0.2-1_20221004	93	93	79	85	102	105	121	112
460-266816-14 - DL	RI-SB-31_0.2-1_20221004								
460-266816-15	RI-SB-31_1-2_20221004	95	93	81	83	82	101	103	102
460-266816-15 - DL	RI-SB-31_1-2_20221004								
460-266816-16	RI-SB-30_0-0.2_20221004	101	96	75	81	87	132	140	143
460-266816-16	RI-SB-30_0-0.2_20221004								
460-266816-17	RI-SB-30_0.2-1_20221004	96	75	82	84	48 *	84	85	108
460-266816-17 - DL	RI-SB-30_0.2-1_20221004								
460-266816-18	RI-SB-30_1-2_20221004	94	90	81	86	53	92	94	95
460-266816-19	RI-SB-29_0-0.2_20221004	102	100	79	87	97	117	130	124
460-266816-20	RI-SB-29_0.2-1_20221004	89	90	79	84	70	89	93	87
460-266816-21	RI-SB-29_1-2_20221004	96	95	81	85	96	97	105	83
460-266816-21 MS	RI-SB-29_1-2_20221004	94	96	83	87	89	100	97	83
460-266816-21 MSD	RI-SB-29_1-2_20221004	88	97	78	90	102	98	96	86

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-266738-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (50-150)	PFPeA (50-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (50-150)
460-266816-22	RI-SB-X02_20221004	94	97	76	85	95	114	126	114
460-266816-23	RI-SB-24_0-0.2_20221004	109	101	64	86	88	163 *	187 *	156 *
460-266816-23 - DL	RI-SB-24_0-0.2_20221004								
460-266816-24	RI-SB-24_0.2-1_20221004	88	81	59	73	74	117	128	93
460-266816-24 - DL	RI-SB-24_0.2-1_20221004								
460-266816-25	RI-SB-24_1-2_20221004	115	107	73	82	95	150	188 *	91
460-266816-26	RI-SB-23_0-0.2_20221004	105	101	75	85	94	147	182 *	132
460-266816-27	RI-SB-23_0.2-1_20221004	102	105	80	85	102	113	129	98
460-266816-28	RI-SB-23_1-2_20221004	111	111	85	89	109	118	133	105
LCS 200-184459/2-A	Lab Control Sample	80	75	72	74	77	91	90	84
LCS 200-184460/2-A	Lab Control Sample	87	83	94	94	87	113	103	113
LCS 200-184585/2-A	Lab Control Sample	93	91	86	88	95	99	97	99
LCS 200-184746/2-A	Lab Control Sample	98	92	93	88	95	110	109	97
LCS 200-184807/2-A	Lab Control Sample	107	99	87	87	99	127	120	104
LCSD 200-184807/3-A	Lab Control Sample Dup	104	94	87	87	98	121	116	104
MB 200-184459/1-A	Method Blank	90	84	84	86	92	103	106	97
MB 200-184460/1-A	Method Blank	74	72	80	83	82	90	87	100
MB 200-184585/1-A	Method Blank	89	87	76	90	91	97	93	98
MB 200-184746/1-A	Method Blank	86	76	84	76	72	98	94	85
MB 200-184807/1-A	Method Blank	101	101	83	85	96	113	113	98

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)						
460-266738-1	RI-SB-28_0.2-1_20221003	211 *	83						
460-266738-2 - DL	RI-SB-28_1-2_20221003								
460-266738-2	RI-SB-28_1-2_20221003	154 *	76						
460-266738-2 MS - DL	RI-SB-28_1-2_20221003								
460-266738-2 MS	RI-SB-28_1-2_20221003	172 *	79						
460-266738-2 MSD - DL	RI-SB-28_1-2_20221003								
460-266738-2 MSD	RI-SB-28_1-2_20221003	186 *	89						
460-266738-3 - DL	RI-SB-28_10-11_20221003								
460-266738-3	RI-SB-28_10-11_20221003	108	81						
460-266738-4 - DL	RI-SB-33_0.2-1_20221003								
460-266738-4	RI-SB-33_0.2-1_20221003	203 *	84						
460-266738-5	RI-SB-33_1-2_20221003	196 *	92						
460-266738-5 - DL	RI-SB-33_1-2_20221003								
460-266738-6	RI-SB-33_13-14_20221003	100	83						
460-266738-7	RI-SB-X_20221003	207 *	82						
460-266738-8	RI-SB-34_0.2-1_20221003	148	81						
460-266738-9	RI-SB-34_1-2_20221003	103	85						
460-266738-10	RI-SB-34_10-11_20221003	92	84						
460-266738-11 - DL	RI-SB-26_0.2-1_20221003								
460-266738-11	RI-SB-26_0.2-1_20221003	240 *	83						
460-266738-12 - DL	RI-SB-26_1-2_20221003								
460-266738-12	RI-SB-26_1-2_20221003	111	71						
460-266738-13 - DL	RI-SB-26_10-11_20221003								
460-266738-13	RI-SB-26_10-11_20221003	116	88						
460-266738-14	RI-SB-25_0.2-1_20221003	235 *	87						
460-266738-15 - DL	RI-SB-25_1-2_20221003								
460-266738-15	RI-SB-25_1-2_20221003	125	77						

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-266738-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)
460-266738-16	RI-SB-25_15-16_20221003	104	63
460-266813-A-1-D MS	Matrix Spike	111	72
460-266813-A-1-E MSD	Matrix Spike Duplicate	114	77
460-266816-1 - DL	RI-SB-27_0.2-1_20221004		
460-266816-1	RI-SB-27_0.2-1_20221004	190 *	74
460-266816-2 - DL	RI-SB-27_1-2_20221004		
460-266816-2	RI-SB-27_1-2_20221004	164 *	77
460-266816-2 MS - DL	RI-SB-27_1-2_20221004		
460-266816-2 MS	RI-SB-27_1-2_20221004	190 *	71
460-266816-2 MSD - DL	RI-SB-27_1-2_20221004		
460-266816-2 MSD	RI-SB-27_1-2_20221004	183 *	76
460-266816-3	RI-SB-X01_20221004	225 *	83
460-266816-4	RI-SB-21_0-0.2_20221004	131	60
460-266816-5	RI-SB-21_0.2-1_20221004	120	75
460-266816-6	RI-SB-21_1-2_20221004	95	77
460-266816-7	RI-SB-22_0-0.2_20221004	158 *	73
460-266816-8	RI-SB-22_0.2-1_20221004	96	78
460-266816-9	RI-SB-22_1-2_20221004	96	76
460-266816-10	RI-SB-32_0-0.2_20221004	159 *	82
460-266816-11	RI-SB-32_0.2-1_20221004	125	84
460-266816-12	RI-SB-32_1-2_20221004	90	84
460-266816-13	RI-SB-31_0-0.2_20221004	102	81
460-266816-14	RI-SB-31_0.2-1_20221004	129	85
460-266816-14 - DL	RI-SB-31_0.2-1_20221004		
460-266816-15	RI-SB-31_1-2_20221004	114	82
460-266816-15 - DL	RI-SB-31_1-2_20221004		
460-266816-16	RI-SB-30_0-0.2_20221004	187 *	87
460-266816-16	RI-SB-30_0-0.2_20221004		
460-266816-17	RI-SB-30_0.2-1_20221004	111	85
460-266816-17 - DL	RI-SB-30_0.2-1_20221004		
460-266816-18	RI-SB-30_1-2_20221004	99	87
460-266816-19	RI-SB-29_0-0.2_20221004	144	89
460-266816-20	RI-SB-29_0.2-1_20221004	89	83
460-266816-21	RI-SB-29_1-2_20221004	84	75
460-266816-21 MS	RI-SB-29_1-2_20221004	84	77
460-266816-21 MSD	RI-SB-29_1-2_20221004	83	79
460-266816-22	RI-SB-X02_20221004	137	83
460-266816-23	RI-SB-24_0-0.2_20221004	256 *	90
460-266816-23 - DL	RI-SB-24_0-0.2_20221004		
460-266816-24	RI-SB-24_0.2-1_20221004	151 *	71
460-266816-24 - DL	RI-SB-24_0.2-1_20221004		
460-266816-25	RI-SB-24_1-2_20221004	157 *	73
460-266816-26	RI-SB-23_0-0.2_20221004	189 *	85
460-266816-27	RI-SB-23_0.2-1_20221004	102	77
460-266816-28	RI-SB-23_1-2_20221004	114	80
LCS 200-184459/2-A	Lab Control Sample	84	78
LCS 200-184460/2-A	Lab Control Sample	111	102
LCS 200-184585/2-A	Lab Control Sample	97	92
LCS 200-184746/2-A	Lab Control Sample	100	89
LCS 200-184807/2-A	Lab Control Sample	112	95

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	C3PFBS						
Lab Sample ID	Client Sample ID	(50-150)	(50-150)						
LCSD 200-184807/3-A	Lab Control Sample Dup	108	96						
MB 200-184459/1-A	Method Blank	98	88						
MB 200-184460/1-A	Method Blank	84	90						
MB 200-184585/1-A	Method Blank	99	95						
MB 200-184746/1-A	Method Blank	94	81						
MB 200-184807/1-A	Method Blank	101	89						

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: SPLP East**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-266738-4	RI-SB-33_0.2-1_20221003	92	88	98	94	91	86	93	97
460-266738-5	RI-SB-33_1-2_20221003	102	99	97	89	90	96	98	111
460-266738-5 - DL	RI-SB-33_1-2_20221003				97				
460-266738-6	RI-SB-33_13-14_20221003	97	95	93	94	94	87	94	99
460-266738-6	RI-SB-33_13-14_20221003				104				
460-266816-4	RI-SB-21_0-0.2_20221004	98	95	100	100	95	88	94	107
460-266816-5	RI-SB-21_0.2-1_20221004	90	88	95	93	88	86	89	95
460-266816-6	RI-SB-21_1-2_20221004	99	97	102	103	96	89	98	106
460-266816-16	RI-SB-30_0-0.2_20221004	90	89	97	90	87	85	84	90
460-266816-17	RI-SB-30_0.2-1_20221004	89	90	97	82	79	88	87	93
460-266816-17 - DL	RI-SB-30_0.2-1_20221004				102				
460-266816-18	RI-SB-30_1-2_20221004	87	87	96	87	83	84	85	92
460-266816-18 - DL	RI-SB-30_1-2_20221004				90				
LB 200-184586/1-B	Method Blank	90	96	99	97	92	94	92	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-266738-4	RI-SB-33_0.2-1_20221003	108	110	92	82	102	122	127	111

Isotope Dilution Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid

Prep Type: SPLP East

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFUnA (50-150)	PFDoA (50-150)	PFOSA (50-150)	PFPeA (50-150)	PFTDA (50-150)	d3NMFOS (50-150)	d5NEFOS (50-150)	M262FTS (50-150)
460-266738-5	RI-SB-33_1-2_20221003	112	109	92	96	103	189 *	193 *	137
460-266738-5 - DL	RI-SB-33_1-2_20221003								
460-266738-6	RI-SB-33_13-14_20221003	109	111	98	89	106	123	128	123
460-266738-6	RI-SB-33_13-14_20221003								
460-266816-4	RI-SB-21_0-0.2_20221004	103	111	102	89	71	125	126	129
460-266816-5	RI-SB-21_0.2-1_20221004	91	81	95	84	79	107	102	108
460-266816-6	RI-SB-21_1-2_20221004	103	109	103	89	95	128	122	127
460-266816-16	RI-SB-30_0-0.2_20221004	94	98	91	84	86	111	107	116
460-266816-17	RI-SB-30_0.2-1_20221004	105	107	94	84	99	113	115	113
460-266816-17 - DL	RI-SB-30_0.2-1_20221004								
460-266816-18	RI-SB-30_1-2_20221004	94	93	90	83	84	107	105	107
460-266816-18 - DL	RI-SB-30_1-2_20221004								
LB 200-184586/1-B	Method Blank	101	99	99	88	107	120	124	125

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)
460-266738-4	RI-SB-33_0.2-1_20221003	109	90
460-266738-5	RI-SB-33_1-2_20221003	185 *	100
460-266738-5 - DL	RI-SB-33_1-2_20221003		
460-266738-6	RI-SB-33_13-14_20221003	109	93
460-266738-6	RI-SB-33_13-14_20221003		
460-266816-4	RI-SB-21_0-0.2_20221004	111	94
460-266816-5	RI-SB-21_0.2-1_20221004	99	88
460-266816-6	RI-SB-21_1-2_20221004	118	97
460-266816-16	RI-SB-30_0-0.2_20221004	101	86
460-266816-17	RI-SB-30_0.2-1_20221004	104	87
460-266816-17 - DL	RI-SB-30_0.2-1_20221004		
460-266816-18	RI-SB-30_1-2_20221004	96	87
460-266816-18 - DL	RI-SB-30_1-2_20221004		
LB 200-184586/1-B	Method Blank	104	91

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-266738-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-266738-17	FB_01_20221003	102	100	101	106	98	96	100	105
LCS 200-184408/2-A	Lab Control Sample	102	94	99	99	93	93	98	92
LCSD 200-184408/3-A	Lab Control Sample Dup	100	97	99	96	96	91	97	94
MB 200-184408/1-A	Method Blank	98	94	97	98	91	86	95	92

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-266738-17	FB_01_20221003	108	79	87	97	94	111	120	107
LCS 200-184408/2-A	Lab Control Sample	83	75	79	91	83	97	86	99
LCSD 200-184408/3-A	Lab Control Sample Dup	91	85	84	91	93	98	93	99
MB 200-184408/1-A	Method Blank	85	78	76	85	80	95	84	98

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	C3PFBS						
Lab Sample ID	Client Sample ID	(50-150)	(50-150)						
460-266738-17	FB_01_20221003	111	102						
LCS 200-184408/2-A	Lab Control Sample	98	96						
LCSD 200-184408/3-A	Lab Control Sample Dup	98	99						
MB 200-184408/1-A	Method Blank	100	92						

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-184408/1-A
Matrix: Water
Analysis Batch: 184431

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		10/07/22 09:42	10/07/22 14:46	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		10/07/22 09:42	10/07/22 14:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		10/07/22 09:42	10/07/22 14:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		10/07/22 09:42	10/07/22 14:46	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		10/07/22 09:42	10/07/22 14:46	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		10/07/22 09:42	10/07/22 14:46	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*98*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C4 PFHpA	*94*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C4 PFOA	*97*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C4 PFOS	*98*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C5 PFNA	*91*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C2 PFHxA	*95*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C2 PFDA	*92*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C2 PFUnA	*85*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C2 PFDoA	*78*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C8 FOSA	*76*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C2 PFTeDA	*80*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
d3-NMeFOSAA	*95*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
d5-NEtFOSAA	*84*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
M2-6:2 FTS	*98*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
M2-8:2 FTS	*100*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*
13C3 PFBS	*92*		*50 - 150*	*10/07/22 09:42*	*10/07/22 14:46*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-184408/2-A
Matrix: Water
Analysis Batch: 184431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	79.03		ng/L		99	70 - 130
Perfluoropentanoic acid (PFPeA)	80.0	83.97		ng/L		105	70 - 130
Perfluorohexanoic acid (PFHxA)	80.0	80.74		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	80.0	82.82		ng/L		104	70 - 130
Perfluorooctanoic acid (PFOA)	80.0	78.22		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	80.0	81.34		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	80.0	87.42		ng/L		109	70 - 130
Perfluoroundecanoic acid (PFUnA)	80.0	81.02		ng/L		101	70 - 130
Perfluorododecanoic acid (PFDoA)	80.0	81.98		ng/L		102	70 - 130
Perfluorotridecanoic acid (PFTriA)	80.0	82.10		ng/L		103	70 - 130
Perfluorotetradecanoic acid (PFTeA)	80.0	75.33		ng/L		94	70 - 130
Perfluorobutanesulfonic acid (PFBS)	70.7	72.41		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	72.8	72.42		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	76.2	80.64		ng/L		106	70 - 130
Perfluorooctanesulfonic acid (PFOS)	74.2	74.17		ng/L		100	70 - 130
Perfluorodecanesulfonic acid (PFDS)	77.1	61.20		ng/L		79	70 - 130
Perfluorooctanesulfonamide (PFOSA)	80.0	78.71		ng/L		98	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	80.0	83.23		ng/L		104	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	80.0	82.07		ng/L		103	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	75.8	85.33		ng/L		113	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	76.6	88.57		ng/L		116	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*102*		*50 - 150*
13C4 PFHpA	*94*		*50 - 150*
13C4 PFOA	*99*		*50 - 150*
13C4 PFOS	*99*		*50 - 150*
13C5 PFNA	*93*		*50 - 150*
13C4 PFBA	*93*		*50 - 150*
13C2 PFHxA	*98*		*50 - 150*
13C2 PFDA	*92*		*50 - 150*
13C2 PFUnA	*83*		*50 - 150*
13C2 PFDoA	*75*		*50 - 150*
13C8 FOSA	*79*		*50 - 150*
13C5 PFPeA	*91*		*50 - 150*
13C2 PFTeDA	*83*		*50 - 150*
d3-NMeFOSAA	*97*		*50 - 150*
d5-NEtFOSAA	*86*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-184408/2-A
Matrix: Water
Analysis Batch: 184431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184408

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	99		50 - 150
M2-8:2 FTS	98		50 - 150
13C3 PFBS	96		50 - 150

Lab Sample ID: LCSD 200-184408/3-A
Matrix: Water
Analysis Batch: 184431

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184408

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	83.76		ng/L		105	70 - 130	6	30
Perfluoropentanoic acid (PFPeA)			80.0	84.85		ng/L		106	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)			80.0	84.53		ng/L		106	70 - 130	5	30
Perfluoroheptanoic acid (PFHpA)			80.0	84.39		ng/L		105	70 - 130	2	30
Perfluorooctanoic acid (PFOA)			80.0	80.34		ng/L		100	70 - 130	3	30
Perfluorononanoic acid (PFNA)			80.0	81.78		ng/L		102	70 - 130	1	30
Perfluorodecanoic acid (PFDA)			80.0	83.31		ng/L		104	70 - 130	5	30
Perfluoroundecanoic acid (PFUnA)			80.0	83.74		ng/L		105	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)			80.0	77.09		ng/L		96	70 - 130	6	30
Perfluorotridecanoic acid (PFTriA)			80.0	83.49		ng/L		104	70 - 130	2	30
Perfluorotetradecanoic acid (PFTeA)			80.0	76.99		ng/L		96	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)			70.7	71.70		ng/L		101	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)			72.8	73.63		ng/L		101	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)			76.2	85.69		ng/L		113	70 - 130	6	30
Perfluorooctanesulfonic acid (PFOS)			74.2	77.72		ng/L		105	70 - 130	5	30
Perfluorodecanesulfonic acid (PFDS)			77.1	70.82		ng/L		92	70 - 130	15	30
Perfluorooctanesulfonamide (PFOSA)			80.0	81.27		ng/L		102	70 - 130	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			80.0	85.59		ng/L		107	70 - 130	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			80.0	83.48		ng/L		104	70 - 130	2	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			75.8	88.17		ng/L		116	60 - 140	3	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			76.6	87.08		ng/L		114	70 - 130	2	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
18O2 PFHxS	100		50 - 150
13C4 PFHpA	97		50 - 150
13C4 PFOA	99		50 - 150
13C4 PFOS	96		50 - 150
13C5 PFNA	96		50 - 150
13C4 PFBA	91		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 200-184408/3-A
Matrix: Water
Analysis Batch: 184431

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184408

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFHxA	97		50 - 150
13C2 PFDA	94		50 - 150
13C2 PFUnA	91		50 - 150
13C2 PFDoA	85		50 - 150
13C8 FOSA	84		50 - 150
13C5 PFPeA	91		50 - 150
13C2 PFTeDA	93		50 - 150
d3-NMeFOSAA	98		50 - 150
d5-NEtFOSAA	93		50 - 150
M2-6:2 FTS	99		50 - 150
M2-8:2 FTS	98		50 - 150
13C3 PFBS	99		50 - 150

Lab Sample ID: MB 200-184459/1-A
Matrix: Solid
Analysis Batch: 184546

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184459

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluoropentanoic acid (PFPeA)	0.20	U	0.20	0.055	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.046	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.039	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.058	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.034	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.028	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.027	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.025	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.026	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.041	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorooctanesulfonic acid (PFOS)	0.20	U	0.20	0.11	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.11	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.083	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	2.00	0.057	ug/Kg		10/10/22 08:28	10/11/22 17:25	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.037	ug/Kg		10/10/22 08:28	10/11/22 17:25	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	94		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C4 PFHpA	91		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C4 PFOA	88		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C4 PFOS	94		50 - 150	10/10/22 08:28	10/11/22 17:25	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-184459/1-A
Matrix: Solid
Analysis Batch: 184546

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184459

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	86		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C4 PFBA	89		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C2 PFHxA	91		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C2 PFDA	88		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C2 PFUnA	90		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C2 PFDoA	84		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C8 FOSA	84		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C5 PFPeA	86		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C2 PFTeDA	92		50 - 150	10/10/22 08:28	10/11/22 17:25	1
d3-NMeFOSAA	103		50 - 150	10/10/22 08:28	10/11/22 17:25	1
d5-NEtFOSAA	106		50 - 150	10/10/22 08:28	10/11/22 17:25	1
M2-6:2 FTS	97		50 - 150	10/10/22 08:28	10/11/22 17:25	1
M2-8:2 FTS	98		50 - 150	10/10/22 08:28	10/11/22 17:25	1
13C3 PFBS	88		50 - 150	10/10/22 08:28	10/11/22 17:25	1

Lab Sample ID: LCS 200-184459/2-A
Matrix: Solid
Analysis Batch: 184546

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184459

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	2.00	2.378		ug/Kg		119	60 - 140
Perfluoropentanoic acid (PFPeA)	2.00	2.433		ug/Kg		122	60 - 140
Perfluorohexanoic acid (PFHxA)	2.00	2.225		ug/Kg		111	60 - 140
Perfluoroheptanoic acid (PFHpA)	2.00	2.297		ug/Kg		115	60 - 140
Perfluorooctanoic acid (PFOA)	2.00	2.207		ug/Kg		110	60 - 140
Perfluorononanoic acid (PFNA)	2.00	2.203		ug/Kg		110	60 - 140
Perfluorodecanoic acid (PFDA)	2.00	2.315		ug/Kg		116	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.00	2.188		ug/Kg		109	60 - 140
Perfluorododecanoic acid (PFDoA)	2.00	2.316		ug/Kg		116	60 - 140
Perfluorotridecanoic acid (PFTriA)	2.00	2.305		ug/Kg		115	60 - 140
Perfluorotetradecanoic acid (PFTeA)	2.00	2.114		ug/Kg		106	60 - 140
Perfluorobutanesulfonic acid (PFBS)	1.77	2.048		ug/Kg		116	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	1.82	2.117		ug/Kg		116	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	1.90	2.177		ug/Kg		114	60 - 140
Perfluorooctanesulfonic acid (PFOS)	1.86	2.125		ug/Kg		115	60 - 140
Perfluorodecanesulfonic acid (PFDS)	1.93	2.178		ug/Kg		113	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.00	2.347		ug/Kg		117	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.410		ug/Kg		121	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.258		ug/Kg		113	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-184459/2-A
Matrix: Solid
Analysis Batch: 184546

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184459

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			1.90	2.407		ug/Kg		127	50 - 150		
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			1.92	2.620		ug/Kg		137	60 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*79*		*50 - 150*
13C4 PFHpA	*75*		*50 - 150*
13C4 PFOA	*77*		*50 - 150*
13C4 PFOS	*82*		*50 - 150*
13C5 PFNA	*77*		*50 - 150*
13C4 PFBA	*76*		*50 - 150*
13C2 PFHxA	*75*		*50 - 150*
13C2 PFDA	*75*		*50 - 150*
13C2 PFUnA	*80*		*50 - 150*
13C2 PFDoA	*75*		*50 - 150*
13C8 FOSA	*72*		*50 - 150*
13C5 PFPeA	*74*		*50 - 150*
13C2 PFTeDA	*77*		*50 - 150*
d3-NMeFOSAA	*91*		*50 - 150*
d5-NEtFOSAA	*90*		*50 - 150*
M2-6:2 FTS	*84*		*50 - 150*
M2-8:2 FTS	*84*		*50 - 150*
13C3 PFBS	*78*		*50 - 150*

Lab Sample ID: 460-266816-2 MS
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-27_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184459

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)	0.53	U	2.22	2.326		ug/Kg	☼	105	60 - 140		
Perfluoropentanoic acid (PFPeA)	0.42		2.22	2.748		ug/Kg	☼	105	60 - 140		
Perfluorohexanoic acid (PFHxA)	0.33		2.22	2.478		ug/Kg	☼	97	60 - 140		
Perfluoroheptanoic acid (PFHpA)	0.13	J	2.22	2.265		ug/Kg	☼	96	60 - 140		
Perfluorooctanoic acid (PFOA)	0.15	J	2.22	2.213		ug/Kg	☼	93	60 - 140		
Perfluorononanoic acid (PFNA)	0.078	J	2.22	2.332		ug/Kg	☼	101	60 - 140		
Perfluorodecanoic acid (PFDA)	0.59		2.22	2.582		ug/Kg	☼	90	60 - 140		
Perfluoroundecanoic acid (PFUnA)	0.052	J	2.22	2.345		ug/Kg	☼	103	60 - 140		
Perfluorododecanoic acid (PFDoA)	0.057	J	2.22	2.477		ug/Kg	☼	109	60 - 140		
Perfluorotridecanoic acid (PFTriA)	0.21	U	2.22	2.310		ug/Kg	☼	104	60 - 140		
Perfluorotetradecanoic acid (PFTeA)	0.038	J	2.22	2.300		ug/Kg	☼	102	60 - 140		
Perfluorobutanesulfonic acid (PFBS)	0.091	J	1.97	2.133		ug/Kg	☼	104	60 - 140		
Perfluorohexanesulfonic acid (PFHxS)	4.13		2.02	5.552		ug/Kg	☼	70	60 - 140		
Perfluoroheptanesulfonic acid (PFHpS)	0.62		2.12	2.823		ug/Kg	☼	104	60 - 140		

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266816-2 MS
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-27_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184459

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorodecanesulfonic acid (PFDS)	0.15	J	2.14	2.696		ug/Kg	☼	119	60 - 140
Perfluorooctanesulfonamide (PFOSA)	0.38		2.22	2.618		ug/Kg	☼	101	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.22	2.247		ug/Kg	☼	101	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.22	2.116	J	ug/Kg	☼	95	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.52	J	2.11	3.699		ug/Kg	☼	103	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.31	J	2.13	3.449		ug/Kg	☼	100	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*76*		*50 - 150*
13C4 PFHpA	*82*		*50 - 150*
13C4 PFOA	*91*		*50 - 150*
13C4 PFOS	*70*		*50 - 150*
13C5 PFNA	*82*		*50 - 150*
13C4 PFBA	*84*		*50 - 150*
13C2 PFHxA	*82*		*50 - 150*
13C2 PFDA	*96*		*50 - 150*
13C2 PFUnA	*95*		*50 - 150*
13C2 PFDoA	*95*		*50 - 150*
13C8 FOSA	*69*		*50 - 150*
13C5 PFPeA	*80*		*50 - 150*
13C2 PFTeDA	*86*		*50 - 150*
d3-NMeFOSAA	*177*	*	*50 - 150*
d5-NEtFOSAA	*193*	*	*50 - 150*
M2-6:2 FTS	*108*		*50 - 150*
M2-8:2 FTS	*190*	*	*50 - 150*
13C3 PFBS	*71*		*50 - 150*

Lab Sample ID: 460-266816-2 MSD
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-27_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184459

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	0.53	U	2.22	2.381		ug/Kg	☼	107	60 - 140	2	30
Perfluoropentanoic acid (PFPeA)	0.42		2.22	2.722		ug/Kg	☼	103	60 - 140	1	30
Perfluorohexanoic acid (PFHxA)	0.33		2.22	2.515		ug/Kg	☼	98	60 - 140	1	30
Perfluoroheptanoic acid (PFHpA)	0.13	J	2.22	2.411		ug/Kg	☼	103	60 - 140	6	30
Perfluorooctanoic acid (PFOA)	0.15	J	2.22	2.223		ug/Kg	☼	93	60 - 140	0	30
Perfluorononanoic acid (PFNA)	0.078	J	2.22	2.281		ug/Kg	☼	99	60 - 140	2	30
Perfluorodecanoic acid (PFDA)	0.59		2.22	2.700		ug/Kg	☼	95	60 - 140	4	30
Perfluoroundecanoic acid (PFUnA)	0.052	J	2.22	2.167		ug/Kg	☼	95	60 - 140	8	30
Perfluorododecanoic acid (PFDoA)	0.057	J	2.22	2.160		ug/Kg	☼	95	60 - 140	14	30
Perfluorotridecanoic acid (PFTriA)	0.21	U	2.22	2.170		ug/Kg	☼	98	60 - 140	6	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266816-2 MSD
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-27_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184459

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorotetradecanoic acid (PFTeA)	0.038	J	2.22	2.187		ug/Kg	☼	97	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	0.091	J	1.97	1.989		ug/Kg	☼	97	60 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)	4.13		2.02	6.174		ug/Kg	☼	101	60 - 140	11	30
Perfluoroheptanesulfonic acid (PFHpS)	0.62		2.12	3.084		ug/Kg	☼	116	60 - 140	9	30
Perfluorodecanesulfonic acid (PFDS)	0.15	J	2.14	2.598		ug/Kg	☼	114	60 - 140	4	30
Perfluorooctanesulfonamide (PFOSA)	0.38		2.22	2.725		ug/Kg	☼	105	60 - 140	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.22	2.269		ug/Kg	☼	102	60 - 140	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.22	2.293		ug/Kg	☼	103	60 - 140	8	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.52	J	2.11	3.627		ug/Kg	☼	100	50 - 150	2	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.31	J	2.13	3.448		ug/Kg	☼	100	60 - 140	0	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*78*		*50 - 150*
13C4 PFHpA	*87*		*50 - 150*
13C4 PFOA	*95*		*50 - 150*
13C4 PFOS	*71*		*50 - 150*
13C5 PFNA	*84*		*50 - 150*
13C4 PFBA	*90*		*50 - 150*
13C2 PFHxA	*84*		*50 - 150*
13C2 PFDA	*98*		*50 - 150*
13C2 PFUnA	*105*		*50 - 150*
13C2 PFDoA	*100*		*50 - 150*
13C8 FOSA	*70*		*50 - 150*
13C5 PFPeA	*84*		*50 - 150*
13C2 PFTeDA	*89*		*50 - 150*
d3-NMeFOSAA	*177*	*	*50 - 150*
d5-NEtFOSAA	*194*	*	*50 - 150*
M2-6:2 FTS	*103*		*50 - 150*
M2-8:2 FTS	*183*	*	*50 - 150*
13C3 PFBS	*76*		*50 - 150*

Lab Sample ID: MB 200-184460/1-A
Matrix: Solid
Analysis Batch: 184532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluoropentanoic acid (PFPeA)	0.20	U	0.20	0.055	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.046	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.039	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.058	ug/Kg		10/10/22 08:33	10/11/22 13:44	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-184460/1-A
Matrix: Solid
Analysis Batch: 184532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.034	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.028	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.027	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.025	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.026	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.041	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorooctanesulfonic acid (PFOS)	0.20	U	0.20	0.11	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.11	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.083	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	2.00	0.057	ug/Kg		10/10/22 08:33	10/11/22 13:44	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.037	ug/Kg		10/10/22 08:33	10/11/22 13:44	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*92*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C4 PFHpA	*87*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C4 PFOA	*88*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C4 PFOS	*89*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C5 PFNA	*80*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C4 PFBA	*86*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C2 PFHxA	*86*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C2 PFDA	*79*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C2 PFUnA	*74*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C2 PFDoA	*72*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C8 FOSA	*80*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C2 PFTeDA	*82*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
d3-NMeFOSAA	*90*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
d5-NEtFOSAA	*87*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
M2-6:2 FTS	*100*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
M2-8:2 FTS	*84*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*
13C3 PFBS	*90*		*50 - 150*	*10/10/22 08:33*	*10/11/22 13:44*	*1*

Lab Sample ID: LCS 200-184460/2-A
Matrix: Solid
Analysis Batch: 184532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	2.00	1.947		ug/Kg		97	60 - 140
Perfluoropentanoic acid (PFPeA)	2.00	1.997		ug/Kg		100	60 - 140
Perfluorohexanoic acid (PFHxA)	2.00	1.927		ug/Kg		96	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-184460/2-A
Matrix: Solid
Analysis Batch: 184532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanoic acid (PFHpA)	2.00	1.983		ug/Kg		99	60 - 140
Perfluorooctanoic acid (PFOA)	2.00	1.867		ug/Kg		93	60 - 140
Perfluorononanoic acid (PFNA)	2.00	1.846		ug/Kg		92	60 - 140
Perfluorodecanoic acid (PFDA)	2.00	1.982		ug/Kg		99	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.00	1.853		ug/Kg		93	60 - 140
Perfluorododecanoic acid (PFDoA)	2.00	1.769		ug/Kg		88	60 - 140
Perfluorotridecanoic acid (PFTriA)	2.00	2.045		ug/Kg		102	60 - 140
Perfluorotetradecanoic acid (PFTeA)	2.00	1.942		ug/Kg		97	60 - 140
Perfluorobutanesulfonic acid (PFBS)	1.77	1.697		ug/Kg		96	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.722		ug/Kg		95	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	1.90	1.936		ug/Kg		102	60 - 140
Perfluorooctanesulfonic acid (PFOS)	1.86	1.801		ug/Kg		97	60 - 140
Perfluorodecanesulfonic acid (PFDS)	1.93	1.538		ug/Kg		80	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.00	1.927		ug/Kg		96	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.834	J	ug/Kg		92	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	1.776	J	ug/Kg		89	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.90	2.031		ug/Kg		107	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.92	1.988	J	ug/Kg		104	60 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*106*		*50 - 150*
13C4 PFHpA	*97*		*50 - 150*
13C4 PFOA	*100*		*50 - 150*
13C4 PFOS	*103*		*50 - 150*
13C5 PFNA	*100*		*50 - 150*
13C4 PFBA	*97*		*50 - 150*
13C2 PFHxA	*98*		*50 - 150*
13C2 PFDA	*93*		*50 - 150*
13C2 PFUnA	*87*		*50 - 150*
13C2 PFDoA	*83*		*50 - 150*
13C8 FOSA	*94*		*50 - 150*
13C5 PFPeA	*94*		*50 - 150*
13C2 PFTeDA	*87*		*50 - 150*
d3-NMeFOSAA	*113*		*50 - 150*
d5-NEtFOSAA	*103*		*50 - 150*
M2-6:2 FTS	*113*		*50 - 150*
M2-8:2 FTS	*111*		*50 - 150*
13C3 PFBS	*102*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266738-2 MS
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-28_1-2_20221003
Prep Type: Total/NA
Prep Batch: 184460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.53	U	2.13	2.260		ug/Kg	☼	106	60 - 140
Perfluoropentanoic acid (PFPeA)	0.38		2.13	2.524		ug/Kg	☼	101	60 - 140
Perfluorohexanoic acid (PFHxA)	0.57		2.13	2.572		ug/Kg	☼	94	60 - 140
Perfluoroheptanoic acid (PFHpA)	0.33		2.13	2.303		ug/Kg	☼	92	60 - 140
Perfluorooctanoic acid (PFOA)	0.33		2.13	2.233		ug/Kg	☼	89	60 - 140
Perfluorononanoic acid (PFNA)	0.12	J	2.13	2.257		ug/Kg	☼	100	60 - 140
Perfluorodecanoic acid (PFDA)	0.15	J	2.13	2.227		ug/Kg	☼	98	60 - 140
Perfluoroundecanoic acid (PFUnA)	0.068	J	2.13	2.088		ug/Kg	☼	95	60 - 140
Perfluorododecanoic acid (PFDoA)	0.15	J	2.13	2.374		ug/Kg	☼	104	60 - 140
Perfluorotridecanoic acid (PFTriA)	0.21	U	2.13	2.190		ug/Kg	☼	103	60 - 140
Perfluorotetradecanoic acid (PFTeA)	0.21	U	2.13	2.071		ug/Kg	☼	97	60 - 140
Perfluorobutanesulfonic acid (PFBS)	0.17	J	1.89	1.966		ug/Kg	☼	96	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	4.49		1.94	6.888		ug/Kg	☼	123	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	0.84		2.03	3.371		ug/Kg	☼	125	60 - 140
Perfluorodecanesulfonic acid (PFDS)	2.56		2.06	4.840		ug/Kg	☼	111	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.92		2.13	5.961	*	ug/Kg	☼	143	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.13	2.090	J	ug/Kg	☼	98	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.18	J	2.13	2.292		ug/Kg	☼	99	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.0	J	2.02	3.063		ug/Kg	☼	102	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.48	J	2.04	2.683		ug/Kg	☼	108	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*81*		*50 - 150*
13C4 PFHpA	*84*		*50 - 150*
13C4 PFOA	*90*		*50 - 150*
13C4 PFOS	*69*		*50 - 150*
13C5 PFNA	*71*		*50 - 150*
13C4 PFBA	*86*		*50 - 150*
13C2 PFHxA	*81*		*50 - 150*
13C2 PFDA	*97*		*50 - 150*
13C2 PFUnA	*100*		*50 - 150*
13C2 PFDoA	*91*		*50 - 150*
13C8 FOSA	*73*		*50 - 150*
13C5 PFPeA	*81*		*50 - 150*
13C2 PFTeDA	*85*		*50 - 150*
d3-NMeFOSAA	*153*	*	*50 - 150*
d5-NEtFOSAA	*173*	*	*50 - 150*
M2-6:2 FTS	*110*		*50 - 150*
M2-8:2 FTS	*172*	*	*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266738-2 MS
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-28_1-2_20221003
Prep Type: Total/NA
Prep Batch: 184460

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 PFBS	79		50 - 150

Lab Sample ID: 460-266738-2 MSD
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-28_1-2_20221003
Prep Type: Total/NA
Prep Batch: 184460

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	0.53	U	2.08	2.265		ug/Kg	☼	109	60 - 140	0	30
Perfluoropentanoic acid (PFPeA)	0.38		2.08	2.402		ug/Kg	☼	97	60 - 140	5	30
Perfluorohexanoic acid (PFHxA)	0.57		2.08	2.549		ug/Kg	☼	95	60 - 140	1	30
Perfluoroheptanoic acid (PFHpA)	0.33		2.08	2.250		ug/Kg	☼	92	60 - 140	2	30
Perfluorooctanoic acid (PFOA)	0.33		2.08	2.247		ug/Kg	☼	92	60 - 140	1	30
Perfluorononanoic acid (PFNA)	0.12	J	2.08	2.168		ug/Kg	☼	98	60 - 140	4	30
Perfluorodecanoic acid (PFDA)	0.15	J	2.08	2.339		ug/Kg	☼	105	60 - 140	5	30
Perfluoroundecanoic acid (PFUnA)	0.068	J	2.08	2.079		ug/Kg	☼	97	60 - 140	0	30
Perfluorododecanoic acid (PFDoA)	0.15	J	2.08	2.150		ug/Kg	☼	96	60 - 140	10	30
Perfluorotridecanoic acid (PFTriA)	0.21	U	2.08	1.980		ug/Kg	☼	95	60 - 140	10	30
Perfluorotetradecanoic acid (PFTeA)	0.21	U	2.08	1.919		ug/Kg	☼	92	60 - 140	8	30
Perfluorobutanesulfonic acid (PFBS)	0.17	J	1.84	2.009		ug/Kg	☼	100	60 - 140	2	30
Perfluorohexanesulfonic acid (PFHxS)	4.49		1.90	6.839		ug/Kg	☼	124	60 - 140	1	30
Perfluoroheptanesulfonic acid (PFHpS)	0.84		1.98	3.367		ug/Kg	☼	127	60 - 140	0	30
Perfluorodecanesulfonic acid (PFDS)	2.56		2.01	4.005		ug/Kg	☼	72	60 - 140	19	30
Perfluorooctanesulfonamide (PFOSA)	2.92		2.08	6.371	*	ug/Kg	☼	166	60 - 140	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.08	2.111		ug/Kg	☼	101	60 - 140	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.18	J	2.08	2.228		ug/Kg	☼	98	60 - 140	3	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.0	J	1.97	3.046		ug/Kg	☼	104	50 - 150	1	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.48	J	2.00	2.694		ug/Kg	☼	111	60 - 140	0	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
18O2 PFHxS	92		50 - 150
13C4 PFHpA	91		50 - 150
13C4 PFOA	96		50 - 150
13C4 PFOS	79		50 - 150
13C5 PFNA	81		50 - 150
13C4 PFBA	96		50 - 150
13C2 PFHxA	91		50 - 150
13C2 PFDA	104		50 - 150
13C2 PFUnA	111		50 - 150
13C2 PFDoA	110		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266738-2 MSD
Matrix: Solid
Analysis Batch: 184599

Client Sample ID: RI-SB-28_1-2_20221003
Prep Type: Total/NA
Prep Batch: 184460

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C8 FOSA	80		50 - 150
13C5 PFPeA	92		50 - 150
13C2 PFTeDA	98		50 - 150
d3-NMeFOSAA	164	*	50 - 150
d5-NEtFOSAA	180	*	50 - 150
M2-6:2 FTS	122		50 - 150
M2-8:2 FTS	186	*	50 - 150
13C3 PFBS	89		50 - 150

Lab Sample ID: MB 200-184585/1-A
Matrix: Solid
Analysis Batch: 184626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184585

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluoropentanoic acid (PFPeA)	0.20	U	0.20	0.055	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.046	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.039	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.058	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.034	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.028	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.027	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.025	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.026	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.041	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorooctanesulfonic acid (PFOS)	0.20	U	0.20	0.11	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.11	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.083	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	2.00	0.057	ug/Kg		10/12/22 07:35	10/12/22 22:50	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.037	ug/Kg		10/12/22 07:35	10/12/22 22:50	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	92		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C4 PFHpA	89		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C4 PFOA	94		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C4 PFOS	95		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C5 PFNA	87		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C4 PFBA	91		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C2 PFHxA	89		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C2 PFDA	87		50 - 150	10/12/22 07:35	10/12/22 22:50	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-184585/1-A
Matrix: Solid
Analysis Batch: 184626

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184585

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFUnA	89		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C2 PFDoA	87		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C8 FOSA	76		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C5 PFPeA	90		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C2 PFTeDA	91		50 - 150	10/12/22 07:35	10/12/22 22:50	1
d3-NMeFOSAA	97		50 - 150	10/12/22 07:35	10/12/22 22:50	1
d5-NEtFOSAA	93		50 - 150	10/12/22 07:35	10/12/22 22:50	1
M2-6:2 FTS	98		50 - 150	10/12/22 07:35	10/12/22 22:50	1
M2-8:2 FTS	99		50 - 150	10/12/22 07:35	10/12/22 22:50	1
13C3 PFBS	95		50 - 150	10/12/22 07:35	10/12/22 22:50	1

Lab Sample ID: LCS 200-184585/2-A
Matrix: Solid
Analysis Batch: 184626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	2.00	2.106		ug/Kg		105	60 - 140
Perfluoropentanoic acid (PFPeA)	2.00	2.018		ug/Kg		101	60 - 140
Perfluorohexanoic acid (PFHxA)	2.00	1.992		ug/Kg		100	60 - 140
Perfluoroheptanoic acid (PFHpA)	2.00	2.013		ug/Kg		101	60 - 140
Perfluorooctanoic acid (PFOA)	2.00	1.945		ug/Kg		97	60 - 140
Perfluorononanoic acid (PFNA)	2.00	1.983		ug/Kg		99	60 - 140
Perfluorodecanoic acid (PFDA)	2.00	2.032		ug/Kg		102	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.00	1.959		ug/Kg		98	60 - 140
Perfluorododecanoic acid (PFDoA)	2.00	1.992		ug/Kg		100	60 - 140
Perfluorotridecanoic acid (PFTriA)	2.00	2.092		ug/Kg		105	60 - 140
Perfluorotetradecanoic acid (PFTeA)	2.00	1.890		ug/Kg		94	60 - 140
Perfluorobutanesulfonic acid (PFBS)	1.77	1.772		ug/Kg		100	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.899		ug/Kg		104	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	1.90	1.957		ug/Kg		103	60 - 140
Perfluorooctanesulfonic acid (PFOS)	1.86	1.836		ug/Kg		99	60 - 140
Perfluorodecanesulfonic acid (PFDS)	1.93	1.957		ug/Kg		101	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.00	2.043		ug/Kg		102	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.999	J	ug/Kg		100	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.009		ug/Kg		100	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.90	2.091		ug/Kg		110	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.92	2.222		ug/Kg		116	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	88		50 - 150
13C4 PFHpA	88		50 - 150
13C4 PFOA	91		50 - 150
13C4 PFOS	94		50 - 150
13C5 PFNA	88		50 - 150
13C4 PFBA	90		50 - 150
13C2 PFHxA	91		50 - 150
13C2 PFDA	88		50 - 150
13C2 PFUnA	93		50 - 150
13C2 PFDoA	91		50 - 150
13C8 FOSA	86		50 - 150
13C5 PFPeA	88		50 - 150
13C2 PFTeDA	95		50 - 150
d3-NMeFOSAA	99		50 - 150
d5-NEtFOSAA	97		50 - 150
M2-6:2 FTS	99		50 - 150
M2-8:2 FTS	97		50 - 150
13C3 PFBS	92		50 - 150

Lab Sample ID: 460-266816-21 MS
Matrix: Solid
Analysis Batch: 184626

Client Sample ID: RI-SB-29_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184585

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.52	U	2.13	2.291		ug/Kg	☼	107	60 - 140
Perfluoropentanoic acid (PFPeA)	0.29		2.13	2.532		ug/Kg	☼	105	60 - 140
Perfluorohexanoic acid (PFHxA)	0.14	J	2.13	2.339		ug/Kg	☼	103	60 - 140
Perfluoroheptanoic acid (PFHpA)	0.10	J	2.13	2.238		ug/Kg	☼	100	60 - 140
Perfluorooctanoic acid (PFOA)	0.21	U	2.13	2.194		ug/Kg	☼	103	60 - 140
Perfluorononanoic acid (PFNA)	0.042	J	2.13	2.194		ug/Kg	☼	101	60 - 140
Perfluorodecanoic acid (PFDA)	0.045	J	2.13	2.184		ug/Kg	☼	100	60 - 140
Perfluoroundecanoic acid (PFUnA)	0.21	U	2.13	2.230		ug/Kg	☼	104	60 - 140
Perfluorododecanoic acid (PFDoA)	0.21	U	2.13	2.178		ug/Kg	☼	102	60 - 140
Perfluorotridecanoic acid (PFTriA)	0.21	U	2.13	2.158		ug/Kg	☼	101	60 - 140
Perfluorotetradecanoic acid (PFTeA)	0.21	U	2.13	2.140		ug/Kg	☼	100	60 - 140
Perfluorobutanesulfonic acid (PFBS)	0.21	U	1.89	1.941		ug/Kg	☼	103	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	0.27		1.94	2.310		ug/Kg	☼	105	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	0.032	J	2.03	2.100		ug/Kg	☼	102	60 - 140
Perfluorooctanesulfonic acid (PFOS)	3.81		1.98	6.607	*	ug/Kg	☼	141	60 - 140
Perfluorodecanesulfonic acid (PFDS)	0.21	U	2.06	2.163		ug/Kg	☼	105	60 - 140
Perfluorooctanesulfonamide (PFOSA)	0.21	U	2.13	2.251		ug/Kg	☼	105	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.07	U	2.13	2.193		ug/Kg	☼	103	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.07	U	2.13	2.216		ug/Kg	☼	104	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266816-21 MS
Matrix: Solid
Analysis Batch: 184626

Client Sample ID: RI-SB-29_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184585

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.081	J	2.02	2.364		ug/Kg	☼	113	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.059	J	2.04	2.504		ug/Kg	☼	120	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*79*		*50 - 150*
13C4 PFHpA	*91*		*50 - 150*
13C4 PFOA	*91*		*50 - 150*
13C4 PFOS	*81*		*50 - 150*
13C5 PFNA	*88*		*50 - 150*
13C4 PFBA	*89*		*50 - 150*
13C2 PFHxA	*89*		*50 - 150*
13C2 PFDA	*88*		*50 - 150*
13C2 PFUnA	*94*		*50 - 150*
13C2 PFDoA	*96*		*50 - 150*
13C8 FOSA	*83*		*50 - 150*
13C5 PFPeA	*87*		*50 - 150*
13C2 PFTeDA	*89*		*50 - 150*
d3-NMeFOSAA	*100*		*50 - 150*
d5-NEtFOSAA	*97*		*50 - 150*
M2-6:2 FTS	*83*		*50 - 150*
M2-8:2 FTS	*84*		*50 - 150*
13C3 PFBS	*77*		*50 - 150*

Lab Sample ID: 460-266816-21 MSD
Matrix: Solid
Analysis Batch: 184626

Client Sample ID: RI-SB-29_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184585

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	0.52	U	2.09	2.210		ug/Kg	☼	106	60 - 140	4	30
Perfluoropentanoic acid (PFPeA)	0.29		2.09	2.374		ug/Kg	☼	100	60 - 140	6	30
Perfluorohexanoic acid (PFHxA)	0.14	J	2.09	2.184		ug/Kg	☼	98	60 - 140	7	30
Perfluoroheptanoic acid (PFHpA)	0.10	J	2.09	2.222		ug/Kg	☼	102	60 - 140	1	30
Perfluorooctanoic acid (PFOA)	0.21	U	2.09	2.066		ug/Kg	☼	99	60 - 140	6	30
Perfluorononanoic acid (PFNA)	0.042	J	2.09	2.120		ug/Kg	☼	99	60 - 140	3	30
Perfluorodecanoic acid (PFDA)	0.045	J	2.09	2.155		ug/Kg	☼	101	60 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	0.21	U	2.09	2.112		ug/Kg	☼	101	60 - 140	5	30
Perfluorododecanoic acid (PFDoA)	0.21	U	2.09	2.007		ug/Kg	☼	96	60 - 140	8	30
Perfluorotridecanoic acid (PFTriA)	0.21	U	2.09	2.226		ug/Kg	☼	107	60 - 140	3	30
Perfluorotetradecanoic acid (PFTeA)	0.21	U	2.09	2.019		ug/Kg	☼	97	60 - 140	6	30
Perfluorobutanesulfonic acid (PFBS)	0.21	U	1.85	1.848		ug/Kg	☼	100	60 - 140	5	30
Perfluorohexanesulfonic acid (PFHxS)	0.27		1.90	2.202		ug/Kg	☼	101	60 - 140	5	30
Perfluoroheptanesulfonic acid (PFHpS)	0.032	J	1.99	2.146		ug/Kg	☼	106	60 - 140	2	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266816-21 MSD
Matrix: Solid
Analysis Batch: 184626

Client Sample ID: RI-SB-29_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184585

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	3.81		1.94	5.987		ug/Kg	☼	113	60 - 140	10	30
Perfluorodecanesulfonic acid (PFDS)	0.21	U	2.01	1.922		ug/Kg	☼	95	60 - 140	12	30
Perfluorooctanesulfonamide (PFOSA)	0.21	U	2.09	2.171		ug/Kg	☼	104	60 - 140	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.07	U	2.09	2.082	J	ug/Kg	☼	100	60 - 140	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.07	U	2.09	2.134		ug/Kg	☼	102	60 - 140	4	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.081	J	1.98	2.292		ug/Kg	☼	112	50 - 150	3	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.059	J	2.00	2.480		ug/Kg	☼	121	60 - 140	1	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*77*		*50 - 150*
13C4 PFHpA	*87*		*50 - 150*
13C4 PFOA	*89*		*50 - 150*
13C4 PFOS	*76*		*50 - 150*
13C5 PFNA	*86*		*50 - 150*
13C4 PFBA	*91*		*50 - 150*
13C2 PFHxA	*90*		*50 - 150*
13C2 PFDA	*84*		*50 - 150*
13C2 PFUnA	*88*		*50 - 150*
13C2 PFDoA	*97*		*50 - 150*
13C8 FOSA	*78*		*50 - 150*
13C5 PFPeA	*90*		*50 - 150*
13C2 PFTeDA	*102*		*50 - 150*
d3-NMeFOSAA	*98*		*50 - 150*
d5-NEtFOSAA	*96*		*50 - 150*
M2-6:2 FTS	*86*		*50 - 150*
M2-8:2 FTS	*83*		*50 - 150*
13C3 PFBS	*79*		*50 - 150*

Lab Sample ID: MB 200-184746/1-A
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184746

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluoropentanoic acid (PFPeA)	0.20	U	0.20	0.055	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.046	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.039	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.058	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.034	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.028	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.027	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.025	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.026	ug/Kg		10/17/22 10:30	10/17/22 19:01	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-184746/1-A
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184746

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.041	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorooctanesulfonic acid (PFOS)	0.20	U	0.20	0.11	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.11	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.083	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	2.00	0.057	ug/Kg		10/17/22 10:30	10/17/22 19:01	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.037	ug/Kg		10/17/22 10:30	10/17/22 19:01	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*80*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C4 PFHpA	*83*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C4 PFOA	*84*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C4 PFOS	*83*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C5 PFNA	*80*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C4 PFBA	*65*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C2 PFHxA	*83*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C2 PFDA	*83*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C2 PFUnA	*86*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C2 PFDoA	*76*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C8 FOSA	*84*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C5 PFPeA	*76*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C2 PFTeDA	*72*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
d3-NMeFOSAA	*98*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
d5-NEtFOSAA	*94*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
M2-6:2 FTS	*85*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
M2-8:2 FTS	*94*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*
13C3 PFBS	*81*		*50 - 150*	*10/17/22 10:30*	*10/17/22 19:01*	*1*

Lab Sample ID: LCS 200-184746/2-A
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	2.00	1.975		ug/Kg		99	60 - 140
Perfluoropentanoic acid (PFPeA)	2.00	1.976		ug/Kg		99	60 - 140
Perfluorohexanoic acid (PFHxA)	2.00	1.880		ug/Kg		94	60 - 140
Perfluoroheptanoic acid (PFHpA)	2.00	1.895		ug/Kg		95	60 - 140
Perfluorooctanoic acid (PFOA)	2.00	2.000		ug/Kg		100	60 - 140
Perfluorononanoic acid (PFNA)	2.00	1.852		ug/Kg		93	60 - 140
Perfluorodecanoic acid (PFDA)	2.00	2.078		ug/Kg		104	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.00	1.910		ug/Kg		95	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-184746/2-A
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184746

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorododecanoic acid (PFDoA)			2.00	1.953		ug/Kg		98	60 - 140		
Perfluorotridecanoic acid (PFTriA)			2.00	1.890		ug/Kg		94	60 - 140		
Perfluorotetradecanoic acid (PFTeA)			2.00	1.756		ug/Kg		88	60 - 140		
Perfluorobutanesulfonic acid (PFBS)			1.77	1.683		ug/Kg		95	60 - 140		
Perfluorohexanesulfonic acid (PFHxS)			1.82	1.751		ug/Kg		96	60 - 140		
Perfluoroheptanesulfonic acid (PFHpS)			1.90	1.852		ug/Kg		97	60 - 140		
Perfluorooctanesulfonic acid (PFOS)			1.86	1.720		ug/Kg		93	60 - 140		
Perfluorodecanesulfonic acid (PFDS)			1.93	1.762		ug/Kg		91	60 - 140		
Perfluorooctanesulfonamide (PFOSA)			2.00	1.980		ug/Kg		99	60 - 140		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			2.00	1.819	J	ug/Kg		91	60 - 140		
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			2.00	1.970	J	ug/Kg		98	60 - 140		
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			1.90	2.028		ug/Kg		107	50 - 150		
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			1.92	2.119		ug/Kg		111	60 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*89*		*50 - 150*
13C4 PFHpA	*89*		*50 - 150*
13C4 PFOA	*89*		*50 - 150*
13C4 PFOS	*95*		*50 - 150*
13C5 PFNA	*94*		*50 - 150*
13C4 PFBA	*71*		*50 - 150*
13C2 PFHxA	*90*		*50 - 150*
13C2 PFDA	*93*		*50 - 150*
13C2 PFUnA	*98*		*50 - 150*
13C2 PFDoA	*92*		*50 - 150*
13C8 FOSA	*93*		*50 - 150*
13C5 PFPeA	*88*		*50 - 150*
13C2 PFTeDA	*95*		*50 - 150*
d3-NMeFOSAA	*110*		*50 - 150*
d5-NEtFOSAA	*109*		*50 - 150*
M2-6:2 FTS	*97*		*50 - 150*
M2-8:2 FTS	*100*		*50 - 150*
13C3 PFBS	*89*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266813-A-1-D MS
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 184746

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	0.54	U	2.22	2.271		ug/Kg	☼	102	60 - 140
Perfluoropentanoic acid (PFPeA)	0.22	U	2.22	2.426		ug/Kg	☼	110	60 - 140
Perfluorohexanoic acid (PFHxA)	0.22	U	2.22	2.113		ug/Kg	☼	95	60 - 140
Perfluoroheptanoic acid (PFHpA)	0.22	U	2.22	2.183		ug/Kg	☼	99	60 - 140
Perfluorooctanoic acid (PFOA)	0.16	J	2.22	2.198		ug/Kg	☼	92	60 - 140
Perfluorononanoic acid (PFNA)	0.22	U	2.22	2.194		ug/Kg	☼	99	60 - 140
Perfluorodecanoic acid (PFDA)	0.22	U	2.22	2.371		ug/Kg	☼	107	60 - 140
Perfluoroundecanoic acid (PFUnA)	0.22	U	2.22	2.169		ug/Kg	☼	98	60 - 140
Perfluorododecanoic acid (PFDoA)	0.22	U	2.22	2.292		ug/Kg	☼	103	60 - 140
Perfluorotridecanoic acid (PFTriA)	0.22	U	2.22	2.344		ug/Kg	☼	106	60 - 140
Perfluorotetradecanoic acid (PFTeA)	0.22	U	2.22	2.068		ug/Kg	☼	93	60 - 140
Perfluorobutanesulfonic acid (PFBS)	0.22	U	1.96	2.008		ug/Kg	☼	103	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	2.02	2.010		ug/Kg	☼	100	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	0.22	U	2.11	2.194		ug/Kg	☼	104	60 - 140
Perfluorooctanesulfonic acid (PFOS)	0.55		2.06	2.698		ug/Kg	☼	105	60 - 140
Perfluorodecanesulfonic acid (PFDS)	0.22	U	2.14	2.258		ug/Kg	☼	106	60 - 140
Perfluorooctanesulfonamide (PFOSA)	0.22	U	2.22	2.368		ug/Kg	☼	107	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.22	2.099	J	ug/Kg	☼	95	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.22	2.308		ug/Kg	☼	104	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.18	U	2.10	2.404		ug/Kg	☼	114	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.18	U	2.12	2.597		ug/Kg	☼	122	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*74*		*50 - 150*
13C4 PFHpA	*83*		*50 - 150*
13C4 PFOA	*87*		*50 - 150*
13C4 PFOS	*75*		*50 - 150*
13C5 PFNA	*87*		*50 - 150*
13C4 PFBA	*89*		*50 - 150*
13C2 PFHxA	*86*		*50 - 150*
13C2 PFDA	*93*		*50 - 150*
13C2 PFUnA	*105*		*50 - 150*
13C2 PFDoA	*101*		*50 - 150*
13C8 FOSA	*72*		*50 - 150*
13C5 PFPeA	*83*		*50 - 150*
13C2 PFTeDA	*103*		*50 - 150*
d3-NMeFOSAA	*122*		*50 - 150*
d5-NEtFOSAA	*134*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266813-A-1-D MS
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 184746

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
M2-6:2 FTS	93		50 - 150
M2-8:2 FTS	111		50 - 150
13C3 PFBS	72		50 - 150

Lab Sample ID: 460-266813-A-1-E MSD
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 184746

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	0.54	U	2.18	2.170		ug/Kg	☼	100	60 - 140	5	30
Perfluoropentanoic acid (PFPeA)	0.22	U	2.18	2.214		ug/Kg	☼	102	60 - 140	9	30
Perfluorohexanoic acid (PFHxA)	0.22	U	2.18	2.230		ug/Kg	☼	102	60 - 140	5	30
Perfluoroheptanoic acid (PFHpA)	0.22	U	2.18	2.145		ug/Kg	☼	99	60 - 140	2	30
Perfluorooctanoic acid (PFOA)	0.16	J	2.18	2.182		ug/Kg	☼	93	60 - 140	1	30
Perfluorononanoic acid (PFNA)	0.22	U	2.18	2.130		ug/Kg	☼	98	60 - 140	3	30
Perfluorodecanoic acid (PFDA)	0.22	U	2.18	2.045		ug/Kg	☼	94	60 - 140	15	30
Perfluoroundecanoic acid (PFUnA)	0.22	U	2.18	2.097		ug/Kg	☼	96	60 - 140	3	30
Perfluorododecanoic acid (PFDoA)	0.22	U	2.18	2.153		ug/Kg	☼	99	60 - 140	6	30
Perfluorotridecanoic acid (PFTriA)	0.22	U	2.18	2.194		ug/Kg	☼	101	60 - 140	7	30
Perfluorotetradecanoic acid (PFTeA)	0.22	U	2.18	1.966		ug/Kg	☼	90	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	0.22	U	1.92	1.874		ug/Kg	☼	97	60 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)	0.22	U	1.98	2.011		ug/Kg	☼	102	60 - 140	0	30
Perfluoroheptanesulfonic acid (PFHpS)	0.22	U	2.07	2.054		ug/Kg	☼	99	60 - 140	7	30
Perfluorooctanesulfonic acid (PFOS)	0.55		2.02	2.505		ug/Kg	☼	97	60 - 140	7	30
Perfluorodecanesulfonic acid (PFDS)	0.22	U	2.10	2.117		ug/Kg	☼	101	60 - 140	6	30
Perfluorooctanesulfonamide (PFOSA)	0.22	U	2.18	2.225		ug/Kg	☼	102	60 - 140	6	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	2.091	J	ug/Kg	☼	96	60 - 140	0	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	2.077	J	ug/Kg	☼	95	60 - 140	11	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.18	U	2.06	2.340		ug/Kg	☼	113	50 - 150	3	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.18	U	2.09	2.362		ug/Kg	☼	113	60 - 140	9	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
18O2 PFHxS	76		50 - 150
13C4 PFHpA	86		50 - 150
13C4 PFOA	90		50 - 150
13C4 PFOS	79		50 - 150
13C5 PFNA	92		50 - 150
13C4 PFBA	91		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-266813-A-1-E MSD
Matrix: Solid
Analysis Batch: 184778

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 184746

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C2 PFHxA	84		50 - 150
13C2 PFDA	97		50 - 150
13C2 PFUnA	109		50 - 150
13C2 PFDoA	104		50 - 150
13C8 FOSA	76		50 - 150
13C5 PFPeA	87		50 - 150
13C2 PFTeDA	103		50 - 150
d3-NMeFOSAA	127		50 - 150
d5-NEtFOSAA	139		50 - 150
M2-6:2 FTS	92		50 - 150
M2-8:2 FTS	114		50 - 150
13C3 PFBS	77		50 - 150

Lab Sample ID: MB 200-184807/1-A
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184807

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		10/18/22 14:09	10/19/22 14:40	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		10/18/22 14:09	10/19/22 14:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		10/18/22 14:09	10/19/22 14:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		10/18/22 14:09	10/19/22 14:40	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		10/18/22 14:09	10/19/22 14:40	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		10/18/22 14:09	10/19/22 14:40	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	91		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C4 PFHpA	90		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C4 PFOA	91		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C4 PFOS	95		50 - 150	10/18/22 14:09	10/19/22 14:40	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-184807/1-A
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184807

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	90		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C4 PFBA	85		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C2 PFHxA	87		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C2 PFDA	98		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C2 PFUnA	101		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C2 PFDoA	101		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C8 FOSA	83		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C5 PFPeA	85		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C2 PFTeDA	96		50 - 150	10/18/22 14:09	10/19/22 14:40	1
d3-NMeFOSAA	113		50 - 150	10/18/22 14:09	10/19/22 14:40	1
d5-NEtFOSAA	113		50 - 150	10/18/22 14:09	10/19/22 14:40	1
M2-6:2 FTS	98		50 - 150	10/18/22 14:09	10/19/22 14:40	1
M2-8:2 FTS	101		50 - 150	10/18/22 14:09	10/19/22 14:40	1
13C3 PFBS	89		50 - 150	10/18/22 14:09	10/19/22 14:40	1

Lab Sample ID: LCS 200-184807/2-A
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184807

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	77.01		ng/L		96	60 - 140
Perfluoropentanoic acid (PFPeA)	80.0	82.44		ng/L		103	60 - 140
Perfluorohexanoic acid (PFHxA)	80.0	78.07		ng/L		98	60 - 140
Perfluoroheptanoic acid (PFHpA)	80.0	78.62		ng/L		98	60 - 140
Perfluorooctanoic acid (PFOA)	80.0	76.12		ng/L		95	60 - 140
Perfluorononanoic acid (PFNA)	80.0	80.27		ng/L		100	60 - 140
Perfluorodecanoic acid (PFDA)	80.0	77.34		ng/L		97	60 - 140
Perfluoroundecanoic acid (PFUnA)	80.0	77.37		ng/L		97	60 - 140
Perfluorododecanoic acid (PFDoA)	80.0	82.07		ng/L		103	60 - 140
Perfluorotridecanoic acid (PFTriA)	80.0	80.89		ng/L		101	60 - 140
Perfluorotetradecanoic acid (PFTeA)	80.0	75.65		ng/L		95	60 - 140
Perfluorobutanesulfonic acid (PFBS)	70.7	66.57		ng/L		94	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	72.8	66.37		ng/L		91	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	76.2	75.18		ng/L		99	60 - 140
Perfluorooctanesulfonic acid (PFOS)	74.2	70.61		ng/L		95	60 - 140
Perfluorodecanesulfonic acid (PFDS)	77.1	77.25		ng/L		100	60 - 140
Perfluorooctanesulfonamide (PFOSA)	80.0	77.06		ng/L		96	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	80.0	78.81		ng/L		99	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	80.0	76.15		ng/L		95	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-184807/2-A
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184807

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			75.8	81.68		ng/L		108	50 - 150		
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			76.6	84.02		ng/L		110	60 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*102*		*50 - 150*
13C4 PFHpA	*93*		*50 - 150*
13C4 PFOA	*99*		*50 - 150*
13C4 PFOS	*102*		*50 - 150*
13C5 PFNA	*95*		*50 - 150*
13C4 PFBA	*90*		*50 - 150*
13C2 PFHxA	*93*		*50 - 150*
13C2 PFDA	*103*		*50 - 150*
13C2 PFUnA	*107*		*50 - 150*
13C2 PFDoA	*99*		*50 - 150*
13C8 FOSA	*87*		*50 - 150*
13C5 PFPeA	*87*		*50 - 150*
13C2 PFTeDA	*99*		*50 - 150*
d3-NMeFOSAA	*127*		*50 - 150*
d5-NEtFOSAA	*120*		*50 - 150*
M2-6:2 FTS	*104*		*50 - 150*
M2-8:2 FTS	*112*		*50 - 150*
13C3 PFBS	*95*		*50 - 150*

Lab Sample ID: LCSD 200-184807/3-A
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184807

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	77.13		ng/L		96	60 - 140	0	30
Perfluoropentanoic acid (PFPeA)			80.0	80.68		ng/L		101	60 - 140	2	30
Perfluorohexanoic acid (PFHxA)			80.0	74.80		ng/L		94	60 - 140	4	30
Perfluoroheptanoic acid (PFHpA)			80.0	77.95		ng/L		97	60 - 140	1	30
Perfluorooctanoic acid (PFOA)			80.0	79.68		ng/L		100	60 - 140	5	30
Perfluorononanoic acid (PFNA)			80.0	82.99		ng/L		104	60 - 140	3	30
Perfluorodecanoic acid (PFDA)			80.0	79.28		ng/L		99	60 - 140	2	30
Perfluoroundecanoic acid (PFUnA)			80.0	76.15		ng/L		95	60 - 140	2	30
Perfluorododecanoic acid (PFDoA)			80.0	77.84		ng/L		97	60 - 140	5	30
Perfluorotridecanoic acid (PFTriA)			80.0	77.19		ng/L		96	60 - 140	5	30
Perfluorotetradecanoic acid (PFTeA)			80.0	71.70		ng/L		90	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)			70.7	67.70		ng/L		96	60 - 140	2	30
Perfluorohexanesulfonic acid (PFHxS)			72.8	69.48		ng/L		95	60 - 140	5	30
Perfluoroheptanesulfonic acid (PFHpS)			76.2	75.88		ng/L		100	60 - 140	1	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 200-184807/3-A
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184807

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)			74.2	70.75		ng/L		95	60 - 140	0	30
Perfluorodecanesulfonic acid (PFDS)			77.1	72.69		ng/L		94	60 - 140	6	30
Perfluorooctanesulfonamide (PFOSA)			80.0	77.06		ng/L		96	60 - 140	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			80.0	79.94		ng/L		100	60 - 140	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			80.0	80.60		ng/L		101	60 - 140	6	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			75.8	83.86		ng/L		111	50 - 150	3	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			76.6	87.59		ng/L		114	60 - 140	4	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
18O2 PFHxS	*100*		*50 - 150*
13C4 PFHpA	*98*		*50 - 150*
13C4 PFOA	*96*		*50 - 150*
13C4 PFOS	*103*		*50 - 150*
13C5 PFNA	*94*		*50 - 150*
13C4 PFBA	*90*		*50 - 150*
13C2 PFHxA	*97*		*50 - 150*
13C2 PFDA	*99*		*50 - 150*
13C2 PFUnA	*104*		*50 - 150*
13C2 PFDoA	*94*		*50 - 150*
13C8 FOSA	*87*		*50 - 150*
13C5 PFPeA	*87*		*50 - 150*
13C2 PFTeDA	*98*		*50 - 150*
d3-NMeFOSAA	*121*		*50 - 150*
d5-NEtFOSAA	*116*		*50 - 150*
M2-6:2 FTS	*104*		*50 - 150*
M2-8:2 FTS	*108*		*50 - 150*
13C3 PFBS	*96*		*50 - 150*

Lab Sample ID: LB 200-184586/1-B
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 184807

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.83	U	4.83	1.16	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluoropentanoic acid (PFPeA)	1.93	U	1.93	0.66	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorohexanoic acid (PFHxA)	1.93	U	1.93	0.63	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluoroheptanoic acid (PFHpA)	1.93	U	1.93	0.52	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorooctanoic acid (PFOA)	1.93	U	1.93	0.73	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorononanoic acid (PFNA)	1.93	U	1.93	0.47	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorodecanoic acid (PFDA)	1.93	U	1.93	0.44	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluoroundecanoic acid (PFUnA)	1.93	U	1.93	0.53	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorododecanoic acid (PFDoA)	1.93	U	1.93	0.47	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorotridecanoic acid (PFTriA)	1.93	U	1.93	0.46	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorotetradecanoic acid (PFTeA)	1.93	U	1.93	0.62	ng/L		10/18/22 14:09	10/19/22 16:34	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LB 200-184586/1-B
Matrix: Solid
Analysis Batch: 184847

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 184807

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	1.93	U	1.93	0.60	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorohexanesulfonic acid (PFHxS)	1.93	U	1.93	0.53	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluoroheptanesulfonic acid (PFHpS)	1.93	U	1.93	0.40	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorooctanesulfonic acid (PFOS)	1.93	U	1.93	0.82	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorodecanesulfonic acid (PFDS)	1.93	U	1.93	0.39	ng/L		10/18/22 14:09	10/19/22 16:34	1
Perfluorooctanesulfonamide (PFOSA)	1.93	U	1.93	0.89	ng/L		10/18/22 14:09	10/19/22 16:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.83	U	4.83	1.84	ng/L		10/18/22 14:09	10/19/22 16:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.83	U	4.83	1.55	ng/L		10/18/22 14:09	10/19/22 16:34	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.83	U	4.83	1.26	ng/L		10/18/22 14:09	10/19/22 16:34	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.93	U	1.93	0.74	ng/L		10/18/22 14:09	10/19/22 16:34	1

Isotope Dilution	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*90*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C4 PFHpA	*96*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C4 PFOA	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C4 PFOS	*97*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C5 PFNA	*92*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C4 PFBA	*94*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C2 PFHxA	*92*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C2 PFDA	*102*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C2 PFUnA	*101*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C2 PFDoA	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C8 FOSA	*99*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C5 PFPeA	*88*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C2 PFTeDA	*107*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
d3-NMeFOSAA	*120*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
d5-NEtFOSAA	*124*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
M2-6:2 FTS	*125*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*
13C3 PFBS	*91*		*50 - 150*	*10/18/22 14:09*	*10/19/22 16:34*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Lab Sample ID: 460-266816-2 MS
Matrix: Solid
Analysis Batch: 184546

Client Sample ID: RI-SB-27_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184459

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS) - DL	113		2.06	93.21	*	ug/Kg	☼	-941	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFOS - DL	*88*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Lab Sample ID: 460-266816-2 MSD
Matrix: Solid
Analysis Batch: 184546

Client Sample ID: RI-SB-27_1-2_20221004
Prep Type: Total/NA
Prep Batch: 184459

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS) - DL	113		2.06	122.3	*	ug/Kg	☼	466	60 - 140	27	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFOS - DL	*86*		*50 - 150*

Lab Sample ID: 460-266738-2 MS
Matrix: Solid
Analysis Batch: 184532

Client Sample ID: RI-SB-28_1-2_20221003
Prep Type: Total/NA
Prep Batch: 184460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS) - DL	129		1.98	156.9	*	ug/Kg	☼	1391	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFOS - DL	*92*		*50 - 150*

Lab Sample ID: 460-266738-2 MSD
Matrix: Solid
Analysis Batch: 184532

Client Sample ID: RI-SB-28_1-2_20221003
Prep Type: Total/NA
Prep Batch: 184460

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS) - DL	129		1.93	151.6	*	ug/Kg	☼	1153	60 - 140	3	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFOS - DL	*92*		*50 - 150*

Definitions/Glossary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

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

LCMS

Prep Batch: 184408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-17	FB_01_20221003	Total/NA	Water	3535	
MB 200-184408/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-184408/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-184408/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 184431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-17	FB_01_20221003	Total/NA	Water	537 (modified)	184408
MB 200-184408/1-A	Method Blank	Total/NA	Water	537 (modified)	184408
LCS 200-184408/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	184408
LCSD 200-184408/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	184408

Prep Batch: 184459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-1 - DL	RI-SB-27_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-1	RI-SB-27_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-2 - DL	RI-SB-27_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-2	RI-SB-27_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-3	RI-SB-X01_20221004	Total/NA	Solid	SHAKE	
460-266816-4	RI-SB-21_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-5	RI-SB-21_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-6	RI-SB-21_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-7	RI-SB-22_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-8	RI-SB-22_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-9	RI-SB-22_1-2_20221004	Total/NA	Solid	SHAKE	
MB 200-184459/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 200-184459/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-266816-2 MS	RI-SB-27_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-2 MS - DL	RI-SB-27_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-2 MSD	RI-SB-27_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-2 MSD - DL	RI-SB-27_1-2_20221004	Total/NA	Solid	SHAKE	

Prep Batch: 184460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-1	RI-SB-28_0.2-1_20221003	Total/NA	Solid	SHAKE	
460-266738-2 - DL	RI-SB-28_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-2	RI-SB-28_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-3	RI-SB-28_10-11_20221003	Total/NA	Solid	SHAKE	
460-266738-3 - DL	RI-SB-28_10-11_20221003	Total/NA	Solid	SHAKE	
460-266738-4	RI-SB-33_0.2-1_20221003	Total/NA	Solid	SHAKE	
460-266738-4 - DL	RI-SB-33_0.2-1_20221003	Total/NA	Solid	SHAKE	
460-266738-5 - DL	RI-SB-33_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-5	RI-SB-33_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-6	RI-SB-33_13-14_20221003	Total/NA	Solid	SHAKE	
460-266738-7	RI-SB-X_20221003	Total/NA	Solid	SHAKE	
460-266738-8	RI-SB-34_0.2-1_20221003	Total/NA	Solid	SHAKE	
460-266738-9	RI-SB-34_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-10	RI-SB-34_10-11_20221003	Total/NA	Solid	SHAKE	
460-266738-11 - DL	RI-SB-26_0.2-1_20221003	Total/NA	Solid	SHAKE	
460-266738-11	RI-SB-26_0.2-1_20221003	Total/NA	Solid	SHAKE	
460-266738-12 - DL	RI-SB-26_1-2_20221003	Total/NA	Solid	SHAKE	

LCMS (Continued)

Prep Batch: 184460 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-12	RI-SB-26_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-13	RI-SB-26_10-11_20221003	Total/NA	Solid	SHAKE	
460-266738-13 - DL	RI-SB-26_10-11_20221003	Total/NA	Solid	SHAKE	
460-266738-14	RI-SB-25_0.2-1_20221003	Total/NA	Solid	SHAKE	
460-266738-15	RI-SB-25_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-15 - DL	RI-SB-25_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-16	RI-SB-25_15-16_20221003	Total/NA	Solid	SHAKE	
MB 200-184460/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 200-184460/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-266738-2 MS	RI-SB-28_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-2 MS - DL	RI-SB-28_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-2 MSD - DL	RI-SB-28_1-2_20221003	Total/NA	Solid	SHAKE	
460-266738-2 MSD	RI-SB-28_1-2_20221003	Total/NA	Solid	SHAKE	

Analysis Batch: 184532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-2 - DL	RI-SB-28_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-3 - DL	RI-SB-28_10-11_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-4 - DL	RI-SB-33_0.2-1_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-11 - DL	RI-SB-26_0.2-1_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-12 - DL	RI-SB-26_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-13 - DL	RI-SB-26_10-11_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-15 - DL	RI-SB-25_1-2_20221003	Total/NA	Solid	537 (modified)	184460
MB 200-184460/1-A	Method Blank	Total/NA	Solid	537 (modified)	184460
LCS 200-184460/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	184460
460-266738-2 MS - DL	RI-SB-28_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-2 MSD - DL	RI-SB-28_1-2_20221003	Total/NA	Solid	537 (modified)	184460

Analysis Batch: 184546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-1 - DL	RI-SB-27_0.2-1_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-2 - DL	RI-SB-27_1-2_20221004	Total/NA	Solid	537 (modified)	184459
MB 200-184459/1-A	Method Blank	Total/NA	Solid	537 (modified)	184459
LCS 200-184459/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	184459
460-266816-2 MS - DL	RI-SB-27_1-2_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-2 MSD - DL	RI-SB-27_1-2_20221004	Total/NA	Solid	537 (modified)	184459

Prep Batch: 184585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-10	RI-SB-32_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-11	RI-SB-32_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-12	RI-SB-32_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-13	RI-SB-31_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-14	RI-SB-31_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-14 - DL	RI-SB-31_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-15	RI-SB-31_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-15 - DL	RI-SB-31_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-16	RI-SB-30_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-17 - DL	RI-SB-30_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-17	RI-SB-30_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-18	RI-SB-30_1-2_20221004	Total/NA	Solid	SHAKE	

LCMS (Continued)

Prep Batch: 184585 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-19	RI-SB-29_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-20	RI-SB-29_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-21	RI-SB-29_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-22	RI-SB-X02_20221004	Total/NA	Solid	SHAKE	
460-266816-23	RI-SB-24_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-23 - DL	RI-SB-24_0-0.2_20221004	Total/NA	Solid	SHAKE	
460-266816-24	RI-SB-24_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-24 - DL	RI-SB-24_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-25	RI-SB-24_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-26	RI-SB-23_0-0.2_20221004	Total/NA	Solid	SHAKE	
MB 200-184585/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 200-184585/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-266816-21 MS	RI-SB-29_1-2_20221004	Total/NA	Solid	SHAKE	
460-266816-21 MSD	RI-SB-29_1-2_20221004	Total/NA	Solid	SHAKE	

Leach Batch: 184586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-4	RI-SB-33_0.2-1_20221003	SPLP East	Solid	1312	
460-266738-5	RI-SB-33_1-2_20221003	SPLP East	Solid	1312	
460-266738-5 - DL	RI-SB-33_1-2_20221003	SPLP East	Solid	1312	
460-266738-6	RI-SB-33_13-14_20221003	SPLP East	Solid	1312	
460-266816-4	RI-SB-21_0-0.2_20221004	SPLP East	Solid	1312	
460-266816-5	RI-SB-21_0.2-1_20221004	SPLP East	Solid	1312	
460-266816-6	RI-SB-21_1-2_20221004	SPLP East	Solid	1312	
460-266816-16	RI-SB-30_0-0.2_20221004	SPLP East	Solid	1312	
460-266816-17 - DL	RI-SB-30_0.2-1_20221004	SPLP East	Solid	1312	
460-266816-17	RI-SB-30_0.2-1_20221004	SPLP East	Solid	1312	
460-266816-18 - DL	RI-SB-30_1-2_20221004	SPLP East	Solid	1312	
460-266816-18	RI-SB-30_1-2_20221004	SPLP East	Solid	1312	
LB 200-184586/1-B	Method Blank	SPLP East	Solid	1312	

Analysis Batch: 184598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-1	RI-SB-28_0.2-1_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-6	RI-SB-33_13-14_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-7	RI-SB-X_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-8	RI-SB-34_0.2-1_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-9	RI-SB-34_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-10	RI-SB-34_10-11_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-14	RI-SB-25_0.2-1_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-16	RI-SB-25_15-16_20221003	Total/NA	Solid	537 (modified)	184460
460-266816-3	RI-SB-X01_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-4	RI-SB-21_0-0.2_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-5	RI-SB-21_0.2-1_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-6	RI-SB-21_1-2_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-7	RI-SB-22_0-0.2_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-8	RI-SB-22_0.2-1_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-9	RI-SB-22_1-2_20221004	Total/NA	Solid	537 (modified)	184459

LCMS

Analysis Batch: 184599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-2	RI-SB-28_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-3	RI-SB-28_10-11_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-4	RI-SB-33_0.2-1_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-5 - DL	RI-SB-33_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-5	RI-SB-33_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-11	RI-SB-26_0.2-1_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-12	RI-SB-26_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-13	RI-SB-26_10-11_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-15	RI-SB-25_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266816-1	RI-SB-27_0.2-1_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-2	RI-SB-27_1-2_20221004	Total/NA	Solid	537 (modified)	184459
460-266738-2 MS	RI-SB-28_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266738-2 MSD	RI-SB-28_1-2_20221003	Total/NA	Solid	537 (modified)	184460
460-266816-2 MS	RI-SB-27_1-2_20221004	Total/NA	Solid	537 (modified)	184459
460-266816-2 MSD	RI-SB-27_1-2_20221004	Total/NA	Solid	537 (modified)	184459

Analysis Batch: 184626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-10	RI-SB-32_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-11	RI-SB-32_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-12	RI-SB-32_1-2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-13	RI-SB-31_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-14	RI-SB-31_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-15	RI-SB-31_1-2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-16	RI-SB-30_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-17	RI-SB-30_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-18	RI-SB-30_1-2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-19	RI-SB-29_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-20	RI-SB-29_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-21	RI-SB-29_1-2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-22	RI-SB-X02_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-23	RI-SB-24_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-24	RI-SB-24_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-25	RI-SB-24_1-2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-26	RI-SB-23_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
MB 200-184585/1-A	Method Blank	Total/NA	Solid	537 (modified)	184585
LCS 200-184585/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	184585
460-266816-21 MS	RI-SB-29_1-2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-21 MSD	RI-SB-29_1-2_20221004	Total/NA	Solid	537 (modified)	184585

Analysis Batch: 184669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-14 - DL	RI-SB-31_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-15 - DL	RI-SB-31_1-2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-16	RI-SB-30_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-17 - DL	RI-SB-30_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-23 - DL	RI-SB-24_0-0.2_20221004	Total/NA	Solid	537 (modified)	184585
460-266816-24 - DL	RI-SB-24_0.2-1_20221004	Total/NA	Solid	537 (modified)	184585

LCMS

Prep Batch: 184746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-27	RI-SB-23_0.2-1_20221004	Total/NA	Solid	SHAKE	
460-266816-28	RI-SB-23_1-2_20221004	Total/NA	Solid	SHAKE	
MB 200-184746/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 200-184746/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-266813-A-1-D MS	Matrix Spike	Total/NA	Solid	SHAKE	
460-266813-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	SHAKE	

Analysis Batch: 184778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-27	RI-SB-23_0.2-1_20221004	Total/NA	Solid	537 (modified)	184746
460-266816-28	RI-SB-23_1-2_20221004	Total/NA	Solid	537 (modified)	184746
MB 200-184746/1-A	Method Blank	Total/NA	Solid	537 (modified)	184746
LCS 200-184746/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	184746
460-266813-A-1-D MS	Matrix Spike	Total/NA	Solid	537 (modified)	184746
460-266813-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	537 (modified)	184746

Prep Batch: 184807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-4	RI-SB-33_0.2-1_20221003	SPLP East	Solid	3535	184586
460-266738-5 - DL	RI-SB-33_1-2_20221003	SPLP East	Solid	3535	184586
460-266738-5	RI-SB-33_1-2_20221003	SPLP East	Solid	3535	184586
460-266738-6	RI-SB-33_13-14_20221003	SPLP East	Solid	3535	184586
460-266816-4	RI-SB-21_0-0.2_20221004	SPLP East	Solid	3535	184586
460-266816-5	RI-SB-21_0.2-1_20221004	SPLP East	Solid	3535	184586
460-266816-6	RI-SB-21_1-2_20221004	SPLP East	Solid	3535	184586
460-266816-16	RI-SB-30_0-0.2_20221004	SPLP East	Solid	3535	184586
460-266816-17 - DL	RI-SB-30_0.2-1_20221004	SPLP East	Solid	3535	184586
460-266816-17	RI-SB-30_0.2-1_20221004	SPLP East	Solid	3535	184586
460-266816-18	RI-SB-30_1-2_20221004	SPLP East	Solid	3535	184586
460-266816-18 - DL	RI-SB-30_1-2_20221004	SPLP East	Solid	3535	184586
LB 200-184586/1-B	Method Blank	SPLP East	Solid	3535	184586
MB 200-184807/1-A	Method Blank	Total/NA	Solid	3535	
LCS 200-184807/2-A	Lab Control Sample	Total/NA	Solid	3535	
LCSD 200-184807/3-A	Lab Control Sample Dup	Total/NA	Solid	3535	

Analysis Batch: 184847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-4	RI-SB-33_0.2-1_20221003	SPLP East	Solid	537 (modified)	184807
460-266738-5	RI-SB-33_1-2_20221003	SPLP East	Solid	537 (modified)	184807
460-266738-6	RI-SB-33_13-14_20221003	SPLP East	Solid	537 (modified)	184807
460-266816-4	RI-SB-21_0-0.2_20221004	SPLP East	Solid	537 (modified)	184807
460-266816-5	RI-SB-21_0.2-1_20221004	SPLP East	Solid	537 (modified)	184807
460-266816-6	RI-SB-21_1-2_20221004	SPLP East	Solid	537 (modified)	184807
460-266816-16	RI-SB-30_0-0.2_20221004	SPLP East	Solid	537 (modified)	184807
460-266816-17	RI-SB-30_0.2-1_20221004	SPLP East	Solid	537 (modified)	184807
460-266816-18	RI-SB-30_1-2_20221004	SPLP East	Solid	537 (modified)	184807
LB 200-184586/1-B	Method Blank	SPLP East	Solid	537 (modified)	184807
MB 200-184807/1-A	Method Blank	Total/NA	Solid	537 (modified)	184807
LCS 200-184807/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	184807
LCSD 200-184807/3-A	Lab Control Sample Dup	Total/NA	Solid	537 (modified)	184807

LCMS

Analysis Batch: 184906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-5 - DL	RI-SB-33_1-2_20221003	SPLP East	Solid	537 (modified)	184807
460-266738-6	RI-SB-33_13-14_20221003	SPLP East	Solid	537 (modified)	184807
460-266816-17 - DL	RI-SB-30_0.2-1_20221004	SPLP East	Solid	537 (modified)	184807
460-266816-18 - DL	RI-SB-30_1-2_20221004	SPLP East	Solid	537 (modified)	184807

General Chemistry

Analysis Batch: 184432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266738-1	RI-SB-28_0.2-1_20221003	Total/NA	Solid	Moisture	
460-266738-2	RI-SB-28_1-2_20221003	Total/NA	Solid	Moisture	
460-266738-3	RI-SB-28_10-11_20221003	Total/NA	Solid	Moisture	
460-266738-4	RI-SB-33_0.2-1_20221003	Total/NA	Solid	Moisture	
460-266738-5	RI-SB-33_1-2_20221003	Total/NA	Solid	Moisture	
460-266738-6	RI-SB-33_13-14_20221003	Total/NA	Solid	Moisture	
460-266738-7	RI-SB-X_20221003	Total/NA	Solid	Moisture	
460-266738-8	RI-SB-34_0.2-1_20221003	Total/NA	Solid	Moisture	
460-266738-9	RI-SB-34_1-2_20221003	Total/NA	Solid	Moisture	
460-266738-10	RI-SB-34_10-11_20221003	Total/NA	Solid	Moisture	
460-266738-11	RI-SB-26_0.2-1_20221003	Total/NA	Solid	Moisture	
460-266738-12	RI-SB-26_1-2_20221003	Total/NA	Solid	Moisture	
460-266738-13	RI-SB-26_10-11_20221003	Total/NA	Solid	Moisture	
460-266738-14	RI-SB-25_0.2-1_20221003	Total/NA	Solid	Moisture	
460-266738-15	RI-SB-25_1-2_20221003	Total/NA	Solid	Moisture	
460-266738-16	RI-SB-25_15-16_20221003	Total/NA	Solid	Moisture	
460-266816-1	RI-SB-27_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-2	RI-SB-27_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-3	RI-SB-X01_20221004	Total/NA	Solid	Moisture	
460-266816-4	RI-SB-21_0-0.2_20221004	Total/NA	Solid	Moisture	
460-266816-5	RI-SB-21_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-6	RI-SB-21_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-7	RI-SB-22_0-0.2_20221004	Total/NA	Solid	Moisture	
460-266816-8	RI-SB-22_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-9	RI-SB-22_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-10	RI-SB-32_0-0.2_20221004	Total/NA	Solid	Moisture	
460-266816-11	RI-SB-32_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-12	RI-SB-32_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-13	RI-SB-31_0-0.2_20221004	Total/NA	Solid	Moisture	
460-266816-14	RI-SB-31_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-15	RI-SB-31_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-16	RI-SB-30_0-0.2_20221004	Total/NA	Solid	Moisture	
460-266816-17	RI-SB-30_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-18	RI-SB-30_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-19	RI-SB-29_0-0.2_20221004	Total/NA	Solid	Moisture	
460-266816-20	RI-SB-29_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-21	RI-SB-29_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-22	RI-SB-X02_20221004	Total/NA	Solid	Moisture	
460-266816-23	RI-SB-24_0-0.2_20221004	Total/NA	Solid	Moisture	
460-266816-24	RI-SB-24_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-25	RI-SB-24_1-2_20221004	Total/NA	Solid	Moisture	
460-266816-26	RI-SB-23_0-0.2_20221004	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 184432 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-266816-27	RI-SB-23_0.2-1_20221004	Total/NA	Solid	Moisture	
460-266816-28	RI-SB-23_1-2_20221004	Total/NA	Solid	Moisture	
460-266738-15 DU	RI-SB-25_1-2_20221003	Total/NA	Solid	Moisture	
460-266816-8 DU	RI-SB-22_0.2-1_20221004	Total/NA	Solid	Moisture	

Client Sample ID: RI-SB-28_0.2-1_20221003
Lab Sample ID: 460-266738-1
Date Collected: 10/03/22 10:00
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-28_0.2-1_20221003
Lab Sample ID: 460-266738-1
Date Collected: 10/03/22 10:00
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 98.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 14:47

Client Sample ID: RI-SB-28_1-2_20221003
Lab Sample ID: 460-266738-2
Date Collected: 10/03/22 10:10
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-28_1-2_20221003
Lab Sample ID: 460-266738-2
Date Collected: 10/03/22 10:10
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	10	184532	ND	EET BUR	10/11/22 14:41
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 17:39

Client Sample ID: RI-SB-28_10-11_20221003
Lab Sample ID: 460-266738-3
Date Collected: 10/03/22 10:20
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-28_10-11_20221003
Lab Sample ID: 460-266738-3
Date Collected: 10/03/22 10:20
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	10	184532	ND	EET BUR	10/11/22 15:06
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 18:03

Client Sample ID: RI-SB-33_0.2-1_20221003
Date Collected: 10/03/22 11:20
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 16:43
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-33_0.2-1_20221003
Date Collected: 10/03/22 11:20
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-4
Matrix: Solid
Percent Solids: 98.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	10	184532	ND	EET BUR	10/11/22 15:14
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 18:12

Client Sample ID: RI-SB-33_1-2_20221003
Date Collected: 10/03/22 11:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 16:51
SPLP East	Leach	1312	DL		184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535	DL		184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)	DL	10	184906	ND	EET BUR	10/20/22 14:59
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-33_1-2_20221003
Date Collected: 10/03/22 11:10
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-5
Matrix: Solid
Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	20	184599	ND	EET BUR	10/12/22 16:09
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 18:20

Client Sample ID: RI-SB-33_13-14_20221003
Date Collected: 10/03/22 11:30
Date Received: 10/03/22 19:00

Lab Sample ID: 460-266738-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 16:59

Client Sample ID: RI-SB-33_13-14_20221003
Lab Sample ID: 460-266738-6
Date Collected: 10/03/22 11:30
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184906	ND	EET BUR	10/20/22 15:08
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-33_13-14_20221003
Lab Sample ID: 460-266738-6
Date Collected: 10/03/22 11:30
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 14:55

Client Sample ID: RI-SB-X_20221003
Lab Sample ID: 460-266738-7
Date Collected: 10/03/22 11:00
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-X_20221003
Lab Sample ID: 460-266738-7
Date Collected: 10/03/22 11:00
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 97.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 15:03

Client Sample ID: RI-SB-34_0.2-1_20221003
Lab Sample ID: 460-266738-8
Date Collected: 10/03/22 13:10
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-34_0.2-1_20221003
Lab Sample ID: 460-266738-8
Date Collected: 10/03/22 13:10
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 15:12

Client Sample ID: RI-SB-34_1-2_20221003
Lab Sample ID: 460-266738-9
Date Collected: 10/03/22 13:00
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-34_1-2_20221003
Lab Sample ID: 460-266738-9
Date Collected: 10/03/22 13:00
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 15:20

Client Sample ID: RI-SB-34_10-11_20221003
Lab Sample ID: 460-266738-10
Date Collected: 10/03/22 12:50
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-34_10-11_20221003
Lab Sample ID: 460-266738-10
Date Collected: 10/03/22 12:50
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 15:28

Client Sample ID: RI-SB-26_0.2-1_20221003
Lab Sample ID: 460-266738-11
Date Collected: 10/03/22 13:40
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-26_0.2-1_20221003
Lab Sample ID: 460-266738-11
Date Collected: 10/03/22 13:40
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	10	184532	ND	EET BUR	10/11/22 16:20
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 16:25

Client Sample ID: RI-SB-26_1-2_20221003
Lab Sample ID: 460-266738-12
Date Collected: 10/03/22 13:50
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-26_1-2_20221003
Lab Sample ID: 460-266738-12
Date Collected: 10/03/22 13:50
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	10	184532	ND	EET BUR	10/11/22 16:28
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 16:17

Client Sample ID: RI-SB-26_10-11_20221003
Lab Sample ID: 460-266738-13
Date Collected: 10/03/22 14:00
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-26_10-11_20221003
Lab Sample ID: 460-266738-13
Date Collected: 10/03/22 14:00
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	10	184532	ND	EET BUR	10/11/22 16:36
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 18:28

Client Sample ID: RI-SB-25_0.2-1_20221003
Lab Sample ID: 460-266738-14
Date Collected: 10/03/22 14:20
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-25_0.2-1_20221003
Lab Sample ID: 460-266738-14
Date Collected: 10/03/22 14:20
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 96.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 15:36

Client Sample ID: RI-SB-25_1-2_20221003
Lab Sample ID: 460-266738-15
Date Collected: 10/03/22 14:30
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-25_1-2_20221003
Lab Sample ID: 460-266738-15
Date Collected: 10/03/22 14:30
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 96.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)	DL	10	184532	ND	EET BUR	10/11/22 16:52
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 16:33

Client Sample ID: RI-SB-25_15-16_20221003
Lab Sample ID: 460-266738-16
Date Collected: 10/03/22 14:40
Matrix: Solid
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-25_15-16_20221003
Lab Sample ID: 460-266738-16
Date Collected: 10/03/22 14:40
Matrix: Solid
Date Received: 10/03/22 19:00
Percent Solids: 38.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184460	KFW	EET BUR	10/10/22 08:33
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 15:44

Client Sample ID: FB_01_20221003
Lab Sample ID: 460-266738-17
Date Collected: 10/03/22 12:15
Matrix: Water
Date Received: 10/03/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			184408	KFW	EET BUR	10/07/22 09:42
Total/NA	Analysis	537 (modified)		1	184431	ND	EET BUR	10/07/22 17:54

Client Sample ID: RI-SB-27_0.2-1_20221004
Lab Sample ID: 460-266816-1
Date Collected: 10/04/22 08:20
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-27_0.2-1_20221004
Lab Sample ID: 460-266816-1
Date Collected: 10/04/22 08:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)	DL	10	184546	ND	EET BUR	10/11/22 18:55
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 16:41

Client Sample ID: RI-SB-27_1-2_20221004
Lab Sample ID: 460-266816-2
Date Collected: 10/04/22 08:30
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-27_1-2_20221004
Lab Sample ID: 460-266816-2
Date Collected: 10/04/22 08:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE	DL		184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)	DL	10	184546	ND	EET BUR	10/11/22 19:03
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184599	ND	EET BUR	10/12/22 16:50

Client Sample ID: RI-SB-X01_20221004
Lab Sample ID: 460-266816-3
Date Collected: 10/04/22 08:45
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-X01_20221004
Lab Sample ID: 460-266816-3
Date Collected: 10/04/22 08:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 13:42

Client Sample ID: RI-SB-21_0-0.2_20221004
Lab Sample ID: 460-266816-4
Date Collected: 10/04/22 09:20
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 17:15
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-21_0-0.2_20221004
Lab Sample ID: 460-266816-4
Date Collected: 10/04/22 09:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 57.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 13:50

Client Sample ID: RI-SB-21_0.2-1_20221004
Lab Sample ID: 460-266816-5
Date Collected: 10/04/22 09:25
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 17:24
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-21_0.2-1_20221004
Lab Sample ID: 460-266816-5
Date Collected: 10/04/22 09:25
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 13:58

Client Sample ID: RI-SB-21_1-2_20221004
Lab Sample ID: 460-266816-6
Date Collected: 10/04/22 09:35
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 17:32
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-21_1-2_20221004
Lab Sample ID: 460-266816-6
Date Collected: 10/04/22 09:35
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 14:06

Client Sample ID: RI-SB-22_0-0.2_20221004
Lab Sample ID: 460-266816-7
Date Collected: 10/04/22 09:40
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-22_0-0.2_20221004
Lab Sample ID: 460-266816-7

Date Collected: 10/04/22 09:40
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 52.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 14:14

Client Sample ID: RI-SB-22_0.2-1_20221004
Lab Sample ID: 460-266816-8

Date Collected: 10/04/22 09:50
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-22_0.2-1_20221004
Lab Sample ID: 460-266816-8

Date Collected: 10/04/22 09:50
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 91.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 14:22

Client Sample ID: RI-SB-22_1-2_20221004
Lab Sample ID: 460-266816-9

Date Collected: 10/04/22 09:55
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-22_1-2_20221004
Lab Sample ID: 460-266816-9

Date Collected: 10/04/22 09:55
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184459	KFW	EET BUR	10/10/22 08:28
Total/NA	Analysis	537 (modified)		1	184598	ND	EET BUR	10/12/22 14:31

Client Sample ID: RI-SB-32_0-0.2_20221004
Lab Sample ID: 460-266816-10

Date Collected: 10/04/22 10:10
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-32_0-0.2_20221004
Lab Sample ID: 460-266816-10
Date Collected: 10/04/22 10:10
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 70.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/12/22 23:06

Client Sample ID: RI-SB-32_0.2-1_20221004
Lab Sample ID: 460-266816-11
Date Collected: 10/04/22 10:20
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-32_0.2-1_20221004
Lab Sample ID: 460-266816-11
Date Collected: 10/04/22 10:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/12/22 23:14

Client Sample ID: RI-SB-32_1-2_20221004
Lab Sample ID: 460-266816-12
Date Collected: 10/04/22 10:30
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-32_1-2_20221004
Lab Sample ID: 460-266816-12
Date Collected: 10/04/22 10:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/12/22 23:23

Client Sample ID: RI-SB-31_0-0.2_20221004
Lab Sample ID: 460-266816-13
Date Collected: 10/04/22 10:40
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-31_0-0.2_20221004
Lab Sample ID: 460-266816-13
Date Collected: 10/04/22 10:40
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/12/22 23:31

Client Sample ID: RI-SB-31_0.2-1_20221004
Lab Sample ID: 460-266816-14
Date Collected: 10/04/22 10:45
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-31_0.2-1_20221004
Lab Sample ID: 460-266816-14
Date Collected: 10/04/22 10:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/12/22 23:39
Total/NA	Prep	SHAKE	DL		184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)	DL	5	184669	ND	EET BUR	10/13/22 13:01

Client Sample ID: RI-SB-31_1-2_20221004
Lab Sample ID: 460-266816-15
Date Collected: 10/04/22 10:50
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-31_1-2_20221004
Lab Sample ID: 460-266816-15
Date Collected: 10/04/22 10:50
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/12/22 23:47
Total/NA	Prep	SHAKE	DL		184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)	DL	10	184669	ND	EET BUR	10/13/22 13:10

Client Sample ID: RI-SB-30_0-0.2_20221004
Lab Sample ID: 460-266816-16
Date Collected: 10/04/22 11:10
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 17:40
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Lab Chronicle

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Client Sample ID: RI-SB-30_0-0.2_20221004
Lab Sample ID: 460-266816-16
Date Collected: 10/04/22 11:10
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 74.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/12/22 23:55
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184669	ND	EET BUR	10/13/22 13:18

Client Sample ID: RI-SB-30_0.2-1_20221004
Lab Sample ID: 460-266816-17
Date Collected: 10/04/22 11:20
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 17:48
SPLP East	Leach	1312	DL		184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535	DL		184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)	DL	5	184906	ND	EET BUR	10/20/22 15:16
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-30_0.2-1_20221004
Lab Sample ID: 460-266816-17
Date Collected: 10/04/22 11:20
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 00:04
Total/NA	Prep	SHAKE	DL		184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)	DL	5	184669	ND	EET BUR	10/13/22 13:26

Client Sample ID: RI-SB-30_1-2_20221004
Lab Sample ID: 460-266816-18
Date Collected: 10/04/22 11:30
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535			184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)		1	184847	ND	EET BUR	10/19/22 17:56
SPLP East	Leach	1312	DL		184586	KFW	EET BUR	10/17/22 14:30 - 10/18/22 08:30 [1]
SPLP East	Prep	3535	DL		184807	EK	EET BUR	10/18/22 14:09
SPLP East	Analysis	537 (modified)	DL	5	184906	ND	EET BUR	10/20/22 15:24
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-30_1-2_20221004
Lab Sample ID: 460-266816-18
Date Collected: 10/04/22 11:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 00:12

Client Sample ID: RI-SB-29_0-0.2_20221004
Lab Sample ID: 460-266816-19
Date Collected: 10/04/22 11:55
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-29_0-0.2_20221004
Lab Sample ID: 460-266816-19
Date Collected: 10/04/22 11:55
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 74.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 00:20

Client Sample ID: RI-SB-29_0.2-1_20221004
Lab Sample ID: 460-266816-20
Date Collected: 10/04/22 12:00
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-29_0.2-1_20221004
Lab Sample ID: 460-266816-20
Date Collected: 10/04/22 12:00
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 96.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 00:53

Client Sample ID: RI-SB-29_1-2_20221004
Lab Sample ID: 460-266816-21
Date Collected: 10/04/22 12:10
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-29_1-2_20221004
Lab Sample ID: 460-266816-21
Date Collected: 10/04/22 12:10
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 01:01

Client Sample ID: RI-SB-X02_20221004
Lab Sample ID: 460-266816-22
Date Collected: 10/04/22 14:05
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-X02_20221004
Lab Sample ID: 460-266816-22
Date Collected: 10/04/22 14:05
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 75.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 01:25

Client Sample ID: RI-SB-24_0-0.2_20221004
Lab Sample ID: 460-266816-23
Date Collected: 10/04/22 12:45
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-24_0-0.2_20221004
Lab Sample ID: 460-266816-23
Date Collected: 10/04/22 12:45
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 01:34
Total/NA	Prep	SHAKE	DL		184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)	DL	5	184669	ND	EET BUR	10/13/22 13:51

Client Sample ID: RI-SB-24_0.2-1_20221004
Lab Sample ID: 460-266816-24
Date Collected: 10/04/22 12:50
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-24_0.2-1_20221004 — Lab Sample ID: 460-266816-24

Date Collected: 10/04/22 12:50 — **Matrix: Solid**
Date Received: 10/04/22 18:30 — **Percent Solids: 92.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 01:42
Total/NA	Prep	SHAKE	DL		184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)	DL	2	184669	ND	EET BUR	10/13/22 13:59

Client Sample ID: RI-SB-24_1-2_20221004 — Lab Sample ID: 460-266816-25

Date Collected: 10/04/22 12:55 — **Matrix: Solid**
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-24_1-2_20221004 — Lab Sample ID: 460-266816-25

Date Collected: 10/04/22 12:55 — **Matrix: Solid**
Date Received: 10/04/22 18:30 — **Percent Solids: 92.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 01:50

Client Sample ID: RI-SB-23_0-0.2_20221004 — Lab Sample ID: 460-266816-26

Date Collected: 10/04/22 13:25 — **Matrix: Solid**
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-23_0-0.2_20221004 — Lab Sample ID: 460-266816-26

Date Collected: 10/04/22 13:25 — **Matrix: Solid**
Date Received: 10/04/22 18:30 — **Percent Solids: 82.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184585	KFW	EET BUR	10/12/22 07:36
Total/NA	Analysis	537 (modified)		1	184626	ND	EET BUR	10/13/22 01:58

Client Sample ID: RI-SB-23_0.2-1_20221004 — Lab Sample ID: 460-266816-27

Date Collected: 10/04/22 13:30 — **Matrix: Solid**
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Lab Chronicle

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Client Sample ID: RI-SB-23_0.2-1_20221004
Lab Sample ID: 460-266816-27
Date Collected: 10/04/22 13:30
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184746	KFW	EET BUR	10/17/22 10:30
Total/NA	Analysis	537 (modified)		1	184778	BWC	EET BUR	10/17/22 21:12

Client Sample ID: RI-SB-23_1-2_20221004
Lab Sample ID: 460-266816-28
Date Collected: 10/04/22 13:40
Matrix: Solid
Date Received: 10/04/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	184432	RJH	EET BUR	10/07/22 14:06

Client Sample ID: RI-SB-23_1-2_20221004
Lab Sample ID: 460-266816-28
Date Collected: 10/04/22 13:40
Matrix: Solid
Date Received: 10/04/22 18:30
Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			184746	KFW	EET BUR	10/17/22 10:30
Total/NA	Analysis	537 (modified)		1	184778	BWC	EET BUR	10/17/22 21:20

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-266738-1

Laboratory: Eurofins Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Solid	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Solid	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Solid	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Solid	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Solid	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Solid	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Solid	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 (modified)	3535	Solid	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Solid	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Solid	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Solid	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Solid	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Solid	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Solid	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Solid	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Solid	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Solid	Perfluoroundecanoic acid (PFUnA)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)

Laboratory: Eurofins Burlington (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)
537 (modified)	SHAKE	Solid	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	SHAKE	Solid	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	SHAKE	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	SHAKE	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	SHAKE	Solid	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	SHAKE	Solid	Perfluorobutanoic acid (PFBA)
537 (modified)	SHAKE	Solid	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	SHAKE	Solid	Perfluorodecanoic acid (PFDA)
537 (modified)	SHAKE	Solid	Perfluorododecanoic acid (PFDoA)
537 (modified)	SHAKE	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 (modified)	SHAKE	Solid	Perfluoroheptanoic acid (PFHpA)
537 (modified)	SHAKE	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	SHAKE	Solid	Perfluorohexanoic acid (PFHxA)
537 (modified)	SHAKE	Solid	Perfluorononanoic acid (PFNA)
537 (modified)	SHAKE	Solid	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	SHAKE	Solid	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	SHAKE	Solid	Perfluorooctanoic acid (PFOA)
537 (modified)	SHAKE	Solid	Perfluoropentanoic acid (PFPeA)
537 (modified)	SHAKE	Solid	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	SHAKE	Solid	Perfluorotridecanoic acid (PFTriA)
537 (modified)	SHAKE	Solid	Perfluoroundecanoic acid (PFUnA)
Moisture		Solid	Percent Solids

Method PFC IDA

Fluorinated Hydrocarbons by Method PFAS IDA

Subcontract Data

Shipping and Receiving Documents

Chain of Custody Record

583998 eurofins | Environment Testing TestAmerica

264738

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zierott	Site Contact: Steve Sinek	Date: 10/3/2022	COC No:
Company Name: AKRF Inc.	Tel/Email: BZierott@akrf.com	Lab Contact: Melissa Hurr	Carrier:	1 of 2 COCs
Address: 440 Park Ave S. 7th FL	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPFD Dark Sand	☐ 1 week			Job / SDG No.:
Site: White Plains NY 1402 Brone St.	☐ 2 days			
PO# 20027	☐ 1 day			

460-266738 Chain of Custody

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	PFAS	SPLP PFAS	Sample Specific Notes:
1	RI-SB-28_0.2-1_20221003	10/3/22	1000	G	S	1			X		
2	RI-SB-28_1-2_20221003		1010			3		Y	X		
3	RI-SB-28_10-11_20221003		1020			1			X		
4	RI-SB-33_0.2-1_20221003		1120			2			X	X	
5	RI-SB-33_1-2_20221003		1120			2			X	X	
6	RI-SB-33_13-14_20221003		1130			2			X	X	
7	RI-SB-X_20221003		1100			1			X		
8	RI-SB-34_0.2-1_20221003		1310			1			X		
9	RI-SB-34_1-2_20221003		1300			1			X		
10	RI-SB-34_10-11_20221003		1250			1			X		
11	RI-SB-26_0.2-1_20221003		1340			1			X		
12	RI-SB-26_1-2_20221003		1350			1			X		

SUB WORK

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Cat B, EQuIS, Keep SDG open, MS/MSD @ SB-28_1-2

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

	Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
1		AKRF	10/3/22			10/3/22 15:00
2	Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 10/3/22 1700
3	Relinquished by:	Company:	Date/Time: 10/4/22 1100	Received in Laboratory by:	Company:	Date/Time: 10/3/22 1644

30 ZRQ 30 ZRQ

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10/24/2022

246738

Chain of Custody Record 583999

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zakroff	Site Contact: Steve Schmidt	Date: 10/31/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: BZakroff@akrf.com	Lab Contact: Melissa Hall	Carrier:	2 of 2 COCs
Address: 440 Park Ave S. 7th FL	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WP120 Dorl School	☐ 1 week			
Site: 1402 Offset St, White Plains NY	☐ 2 days			Job / SDG No.:
P O # 240217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-SB-26_10-11_20221003	10/3/22	1400	G	S	1			X	
RI-SB-25_0-2-1_20221003	"	1420	"	"	1			X	
RI-SB-25_1-2_20221003	"	1430	"	"	1			X	
RI-SB-25_15-16_20221003	"	1440	"	"	1			X	

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
Cat B, Equis, keep SDG open

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	AKRF	10/3/22			10/3/22 15:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
					10/3/22 1700
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
		10/3/22 1900			10/3/22 1900

10/24/2022

30 CRG 30 CRG

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 246738

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3.0 °C	3.0 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: _____ **Date:** 10 3 22

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-266738 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa		COC No: 460-66476 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266738-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/18/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
RI-SB-28_0 2-1_20221003 (460-266738-1)	10/3/22	10:00 Eastern		Solid			X	X			1	
RI-SB-28_1-2_20221003 (460-266738-2)	10/3/22	10:10 Eastern		Solid			X	X			1	
RI-SB-28_1-2_20221003 (460-266738-2MS)	10/3/22	10:10 Eastern	MS	Solid			X				1	
RI-SB-28_1-2_20221003 (460-266738-2MSD)	10/3/22	10.10 Eastern	MSD	Solid			X				1	
RI-SB-28_10-11_20221003 (460-266738-3)	10/3/22	10:20 Eastern		Solid			X	X			1	
RI-SB-33_0 2-1_20221003 (460-266738-4)	10/3/22	11:20 Eastern		Solid			X	X	X		2	
RI-SB-33_1-2_20221003 (460-266738-5)	10/3/22	11.10 Eastern		Solid			X	X	X		2	
RI-SB-33_13-14_20221003 (460-266738-6)	10/3/22	11:30 Eastern		Solid			X	X	X		2	
RI-SB-X_20221003 (460-266738-7)	10/3/22	11:00 Eastern		Solid			X	X			1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10/5/22 1600	Company: ESTNE	Received by:	Date/Time: 10/6/22 10:35	Company: TABYC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks.

Page 5 of 5
10/24/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476.2
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus com	State of Origin: New York	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266738-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/18/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
RI-SB-34_0.2-1_20221003 (460-266738-8)	10/3/22	13:10 Eastern		Solid			X	X			1	
RI-SB-34_1-2_20221003 (460-266738-9)	10/3/22	13:00 Eastern		Solid			X	X			1	
RI-SB-34_10-11_20221003 (460-266738-10)	10/3/22	12:50 Eastern		Solid			X	X			1	
RI-SB-26_0.2-1_20221003 (460-266738-11)	10/3/22	13:40 Eastern		Solid			X	X			1	
RI-SB-26_1-2_20221003 (460-266738-12)	10/3/22	13:50 Eastern		Solid			X	X			1	
RI-SB-26_10-11_20221003 (460-266738-13)	10/3/22	14:00 Eastern		Solid			X	X			1	
RI-SB-25_0.2-1_20221003 (460-266738-14)	10/3/22	14:20 Eastern		Solid			X	X			1	
RI-SB-25_1-2_20221003 (460-266738-15)	10/3/22	14:30 Eastern		Solid			X	X			1	
RI-SB-25_15-16_20221003 (460-266738-16)	10/3/22	14:40 Eastern		Solid			X	X			1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank. 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	10/5/22 1600	ET NE	[signature]	10/6/22 10:35	DAB FE
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476.3
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266738-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/18/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	PFC_IDA/3535_iVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
FB_01_20221003 (460-266738-17)	10/3/22	12:15 Eastern		Water						X	2	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

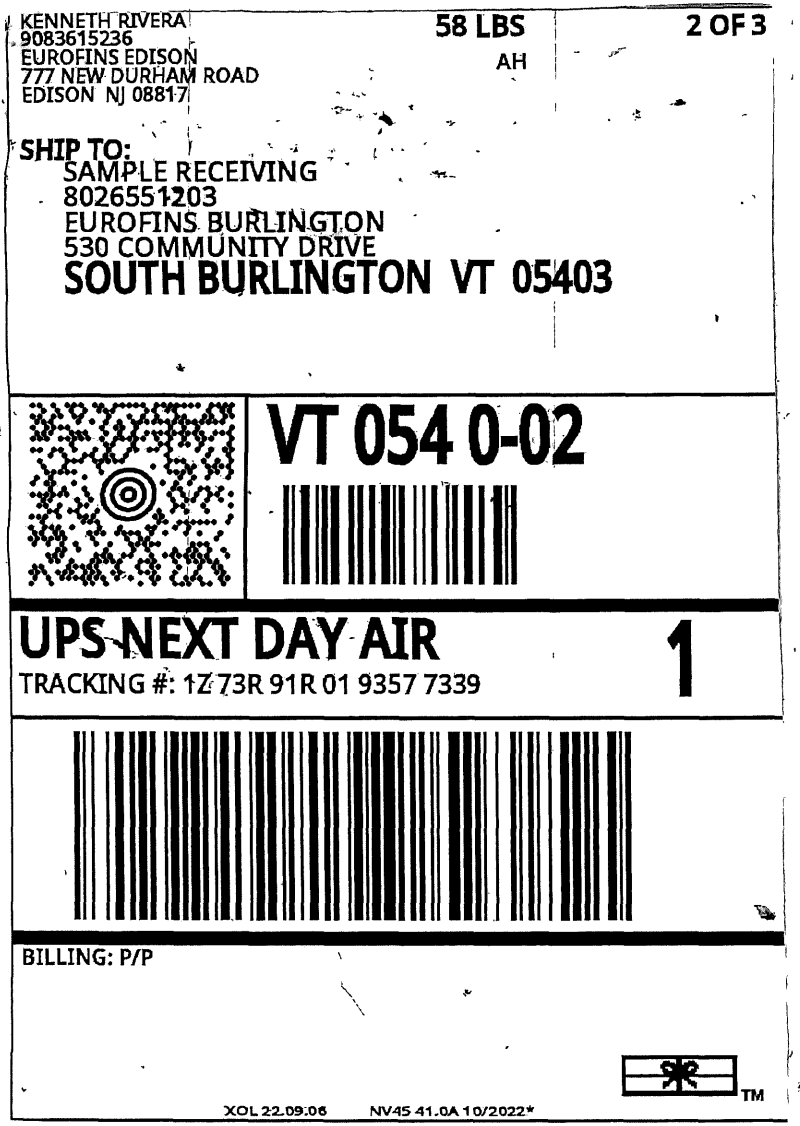
Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
		10/5/22 1600	EET NE		10/6/22 10:35	
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

10/24/2022


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817

58 LBS
AH

2 OF 3

SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403

VT 054 0-02

UPS NEXT DAY AIR

1

TRACKING #: 1Z 73R 91R 01 9357 7339

BILLING: P/P

XOL 22.09.06 NV45 41.0A 10/2022*

TM


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817

57 LBS
AH

1 OF 3

SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403

VT 054 0-02

UPS NEXT DAY AIR

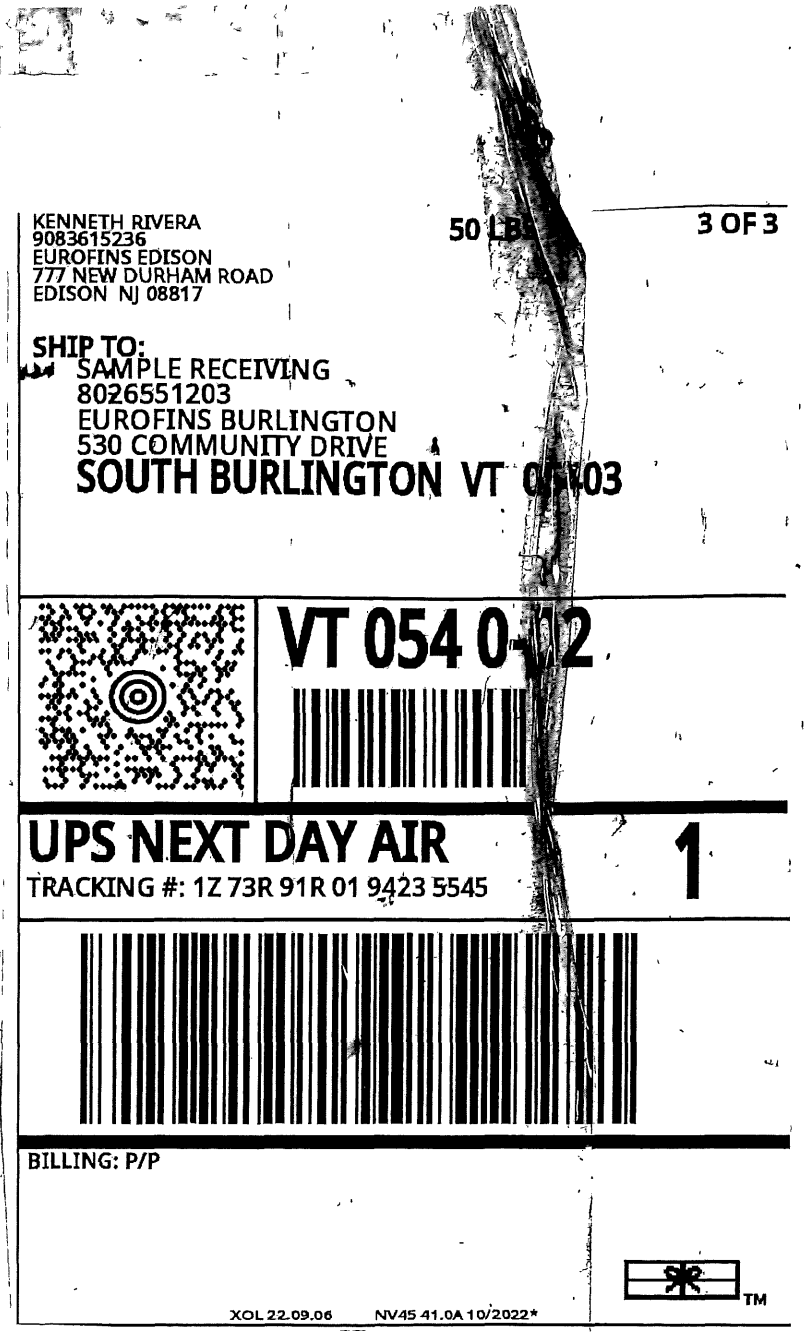
1

TRACKING #: 1Z 73R 91R 01 9463 0724

BILLING: P/P

XOL 22.09.06 NV45 41.0A 10/2022*

TM


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
50 LB
3 OF 3
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-12
UPS NEXT DAY AIR
1
TRACKING #: 1Z 73R 91R 01 9423 5545
BILLING: P/P
XOL 22.09.06 NV45 41.0A 10/2022*
TM

Chain of Custody Record

636808

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zweibel	Site Contact: Steve Schmit	Date: 10/4/2022	COC No:
Company Name: AKRF, Inc	Tel/Email: BZweibel@akrf.com	Lab Contact: Melissa Hug	Carrier:	1 of 3 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 862-922-2382	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: WPED Dunn School				Job / SDG No: 76816
Site: 1402 Orchard St, White Plains NY				
P O # 200217				

460-266816 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	SPLP PFAS	Sample Specific Notes:
RI-SB-27_0.2-1_20221004	10/4/22	820	G	S	1			X		1
RI-SB-27_1-2_20221004		830			3		Y	X		2
RI-SB-X01_20221004		845			1			X		3
RI-SB-21_0-0.2_20221004		920			2			X	X	4
RI-SB-21_0.2-1_20221004		925			2			X	X	5
RI-SB-21_1-2_20221004		935			2			X	X	6
RI-SB-22_0-0.2_20221004		940			1			X		7
RI-SB-22_0.2-1_20221004		950			1			X		8
RI-SB-22_1-2_20221004		955			1			X		9
RI-SB-32_0-0.2_20221004		1010			1			X		10
RI-SB-32_0.2-1_20221004		1020			1			X		11
RI-SB-32_1-2_20221004		1030			1			X		12

SUB WORK

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD on SB-27_1-2, CAT B, EQuIS, add to prior SDG then close

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company: AKRF	Date/Time: 10/4/22 1430	Received by:	Company: T.A.	Date/Time: 10/4/22 14:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 0422 1120
Relinquished by:	Company:	Date/Time: 10/5/22 1830	Received in Laboratory by:	Company:	Date/Time: 10/5/22 1830

15 ZRQ 15 ZRQ

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10/24/2022

Chain of Custody Record

636809

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zieroff	Site Contact: Steve Schmid	Date: 10/4/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: BZieroff@akrf.com	Lab Contact: Melissa Hess	Carrier:	2 of 3 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPED Dan School	☐ 1 week			Job / SDG No: 266816
Site: 1402 Orchard St. White Plains NY	☐ 2 days			
PO # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAS	SPLP PFAS	Sample Specific Notes:
RI-SB-31_0-0.2_20221004	10/4/22	1040	G	S	1			X		13
RI-SB-31_0.2-1_20221004		1045			1			X		14
RI-SB-31_1-2_20221004		1050			1			X		15
RI-SB-30_0-0.2_20221004		1110			2			X	X	16
RI-SB-30_0.2-1_20221004		1120			2			X	X	17
RI-SB-30_1-2_20221004		1130			2			X	X	18
RI-SB-29_0-0.2_20221004		1155			1			X		19 RL 10/5/22
RI-SB-29_0.2-1_20221004		1200			1			X		20
RI-SB-29_1-2_20221004		1210			3		Y	X		21
RI-SB-X02_20221004		1405			1			X		22
RI-SB-24_0-0.2_20221004		1245			1					23
RI-SB-24_0.2-1_20221004		1250			1					24

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

MS/MSD on SB-29_1-2 CAT B, Equis, add to existing SDG this case

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	AKRF	10/4/22 1400			10/4/22 1400
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
					10/4/22 1700
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
		10/4/22 1830			10/4/22 1830

10/24/2022

Chain of Custody Record

636810

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zerkle	Site Contact: Steve Schuh	Date: 10/4/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: BZerkle@akrfcom	Lab Contact: Melissa Hay	Carrier:	3 of 3 COCs
Address: 440 Park Ave S. 7th FL	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPFD daniel school	☐ 1 week			Job / SDG No.: 266816
Site: 1402 Dahlons Street White Plains NY	☐ 2 days			
P O # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-SB-24_1-2_2022 1004	10/4/22	1255	G	S	1		X		25
RI-SB-23_0-0.2_2022 1004	↓	1325	↓	↓	1		X		26
RI-SB-23_0.2-1_2022 1004		1330			1		X		27
RI-SB-23_1-2_2022 1004		1340			1		X		28

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: CAT B, Equis, add to prior SDG then Close

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

	Company	Date/Time		Company	Date/Time
Relinquished by:	AKRF	10/4/22	Received by:	T.A	10/4/22 1400
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 10/5/22 1700
Relinquished by:	Company:	Date/Time: 10/5/22 1830	Received in Laboratory by:	Company:	Date/Time: 10/5/22 1822

10/24/2022

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Job Number: 266816

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	1.5 °C	1.5 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: Keenal **Date:** 10 4 22

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-266816 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	COC No: 460-66476 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Page: Page 1 of 4
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022		Job #: 460-266816-1
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email	WO #:		
Project Name: WPFD	Project #: 46034945		
Site	SSOW#:		

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB_0.2-1_20221004 (460-266816-1)	10/4/22	08:20 Eastern		Solid			X	X		1	
RI-SB-27_1-2_20221004 (460-266816-2)	10/4/22	08:30 Eastern		Solid			X	X		1	
RI-SB-27_1-2_20221004 (460-266816-2MS)	10/4/22	08:30 Eastern	MS	Solid			X	X		1	
RI-SB-27_1-2_20221004 (460-266816-2MSD)	10/4/22	08:30 Eastern	MSD	Solid			X	X		1	
RI-SB-X01_20221004 (460-266816-3)	10/4/22	08:45 Eastern		Solid			X	X		1	
RI-SB-21_0-0 2_20221004 (460-266816-4)	10/4/22	09 20 Eastern		Solid			X	X	X	2	
RI-SB-21_0 2-1_20221004 (460-266816-5)	10/4/22	09:25 Eastern		Solid			X	X	X	2	
RI-SB-21_1-2_20221004 (460-266816-6)	10/4/22	09:35 Eastern		Solid			X	X	X	2	
RI-SB-22_0-0 2_20221004 (460-266816-7)	10/4/22	09:40 Eastern		Solid			X	X		1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
		10/5/22 1600	ESTNEL		10/6/22 10:35	TAL SAV
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks:

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10/27/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476.2
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 2 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266816-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB-22_0 2-1_20221004 (460-266816-8)	10/4/22	09.50 Eastern		Solid			X	X		1	
RI-SB-22_1-2_20221004 (460-266816-9)	10/4/22	09:55 Eastern		Solid			X	X		1	
RI-SB-32_0-0.2_20221004 (460-266816-10)	10/4/22	10 10 Eastern		Solid			X	X		1	
RI-SB-32_0 2-1_20221004 (460-266816-11)	10/4/22	10.20 Eastern		Solid			X	X		1	
RI-SB-32_1-2_20221004 (460-266816-12)	10/4/22	10:30 Eastern		Solid			X	X		1	
RI-SB-31_0-2_20221004 (460-266816-13)	10/4/22	10 40 Eastern		Solid			X	X		1	
RI-SB-31_0.2-1_20221004 (460-266816-14)	10/4/22	10:45 Eastern		Solid			X	X		1	
RI-SB-31_1-2_20221004 (460-266816-15)	10/4/22	10:50 Eastern		Solid			X	X		1	
RI-SB-30_0-0.2_20221004 (460-266816-16)	10/4/22	11:10 Eastern		Solid			X	X	X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank 1	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/5/22 1600	EEGNE		10/6/22 10:35	DAR
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No .	Cooler Temperature(s) °C and Other Remarks:

Page 21 of 81
10/25/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa	Carrier Tracking No(s):	COC No: 460-66476 3
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 3 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266816-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB-30_0 2-1_20221004 (460-266816-17)	10/4/22	11 20 Eastern		Solid			X	X	X	2	
RI-SB-30_1-2_20221004 (460-266816-18)	10/4/22	11.30 Eastern		Solid			X	X	X	2	
RI-SB-29_0-0 2_20221004 (460-266816-19)	10/4/22	11.55 Eastern		Solid			X	X		1	
RI-SB-29_0 2-1_20221004 (460-266816-20)	10/4/22	12:00 Eastern		Solid			X	X		1	
RI-SB-29_1-2_20221004 (460-266816-21)	10/4/22	12.10 Eastern		Solid			X	X		1	
RI-SB-29_1-2_20221004 (460-266816-21MS)	10/4/22	12:10 Eastern	MS	Solid			X	X		1	
RI-SB-29_1-2_20221004 (460-266816-21MSD)	10/4/22	12:10 Eastern	MSD	Solid			X	X		1	
RI-SB-X02_20221004 (460-266816-22)	10/4/22	14:05 Eastern		Solid			X	X		1	
RI-SB-24_0-0 2_20221004 (460-266816-23)	10/4/22	12 45 Eastern		Solid			X	X		1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date:	Time	Method of Shipment.

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/5/22 1600	EET NE		10/6/22 1035	TAL
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No .	Cooler Temperature(s) °C and Other Remarks:

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10/24/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476 4
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 4 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266816-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB-24_0 2-1_20221004 (460-266816-24)	10/4/22	12:50 Eastern		Solid			X	X		1	
RI-SB-24_1-2_20221004 (460-266816-25)	10/4/22	12:55 Eastern		Solid			X	X		1	
RI-SB-23_0-0 2_20221004 (460-266816-26)	10/4/22	13.25 Eastern		Solid			X	X		1	
RI-SB-23_0.2-1_20221004 (460-266816-27)	10/4/22	13:30 Eastern		Solid			X	X		1	
RI-SB-23_1-2_20221004 (460-266816-28)	10/4/22	13.40 Eastern		Solid			X	X		1	

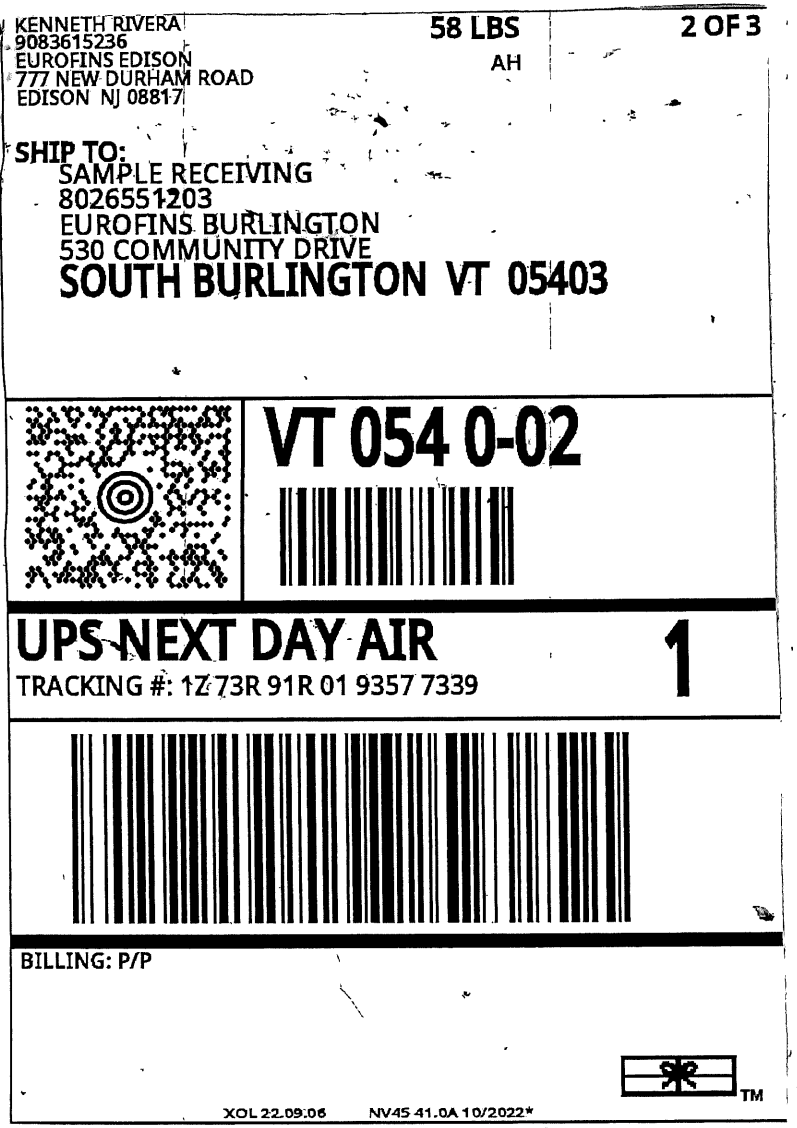
Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

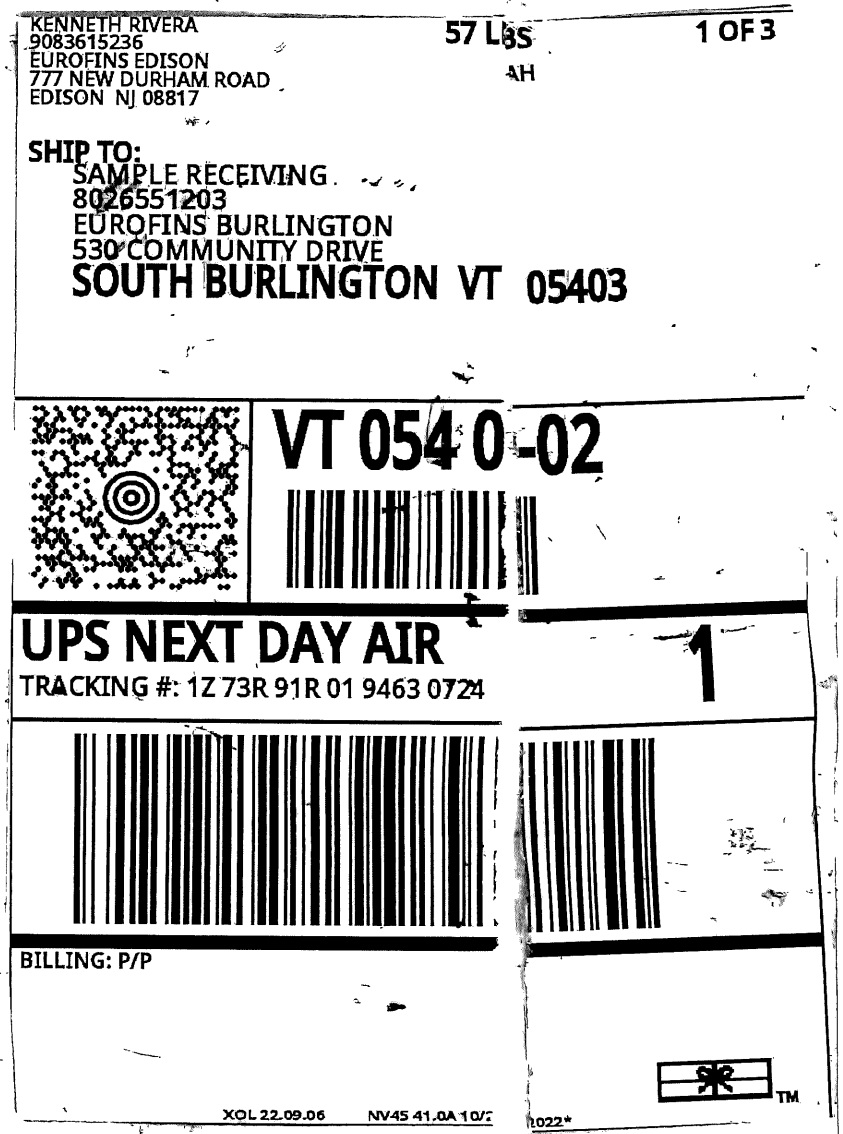
Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements

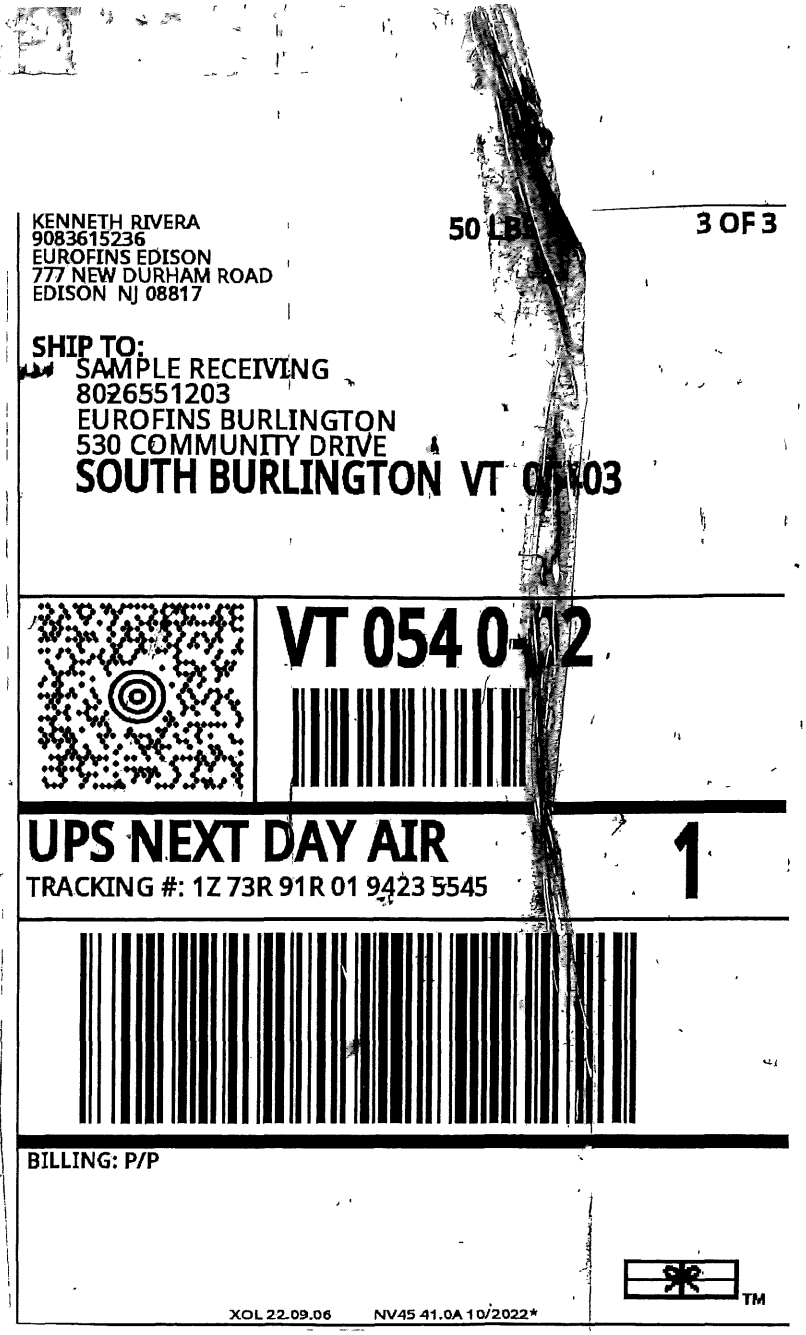
Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		10/5/22 1600	FEDEX		10/6/22 10:35	DAB
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No :	Cooler Temperature(s) °C and Other Remarks:


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
58 LBS
AH
2 OF 3
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-02
UPS NEXT DAY AIR
1
TRACKING #: 1Z 73R 91R 01 9357 7339
BILLING: P/P
XOL 22.09.06 NV45 41.0A 10/2022*
TM


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
57 LBS
AH
1 OF 3
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-02
UPS NEXT DAY AIR
1
TRACKING #: 1Z 73R 91R 01 9463 0724
BILLING: P/P
TM


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
50 LB
3 OF 3
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-12
UPS NEXT DAY AIR
TRACKING #: 1Z 73R 91R 01 9423 5545
1
BILLING: P/P
XOL 22.09.06 NV45 41.0A 10/2022*
TM

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266738
List Number: 1
Creator: Narinkhum, Nudjarin 1

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266738
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/06/22 04:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861087, 1861088, 1861089
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6ºC, 1.3ºC, 1.6ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266816
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266816
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/06/22 05:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861087, 1861088, 1861089
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6ºC, 1.3ºC, 1.6ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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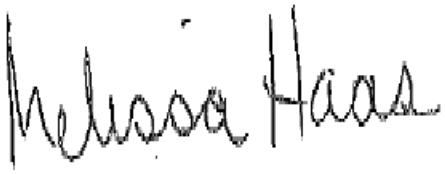
ANALYTICAL REPORT

Job Number: 460-267585-1

Job Description: WPFD

For:
AKRF Inc
34 South Broadway
Suite 314
White Plains, NY 10601

Attention: Mr. Bryan Zieroff



Approved for release.
Melissa Haas
Senior Project Manager
11/4/2022 10:58 AM

Melissa Haas, Senior Project Manager
777 New Durham Road, Edison, NJ, 08817
(203)308-0880
Melissa.Haas@et.eurofinsus.com
11/04/2022

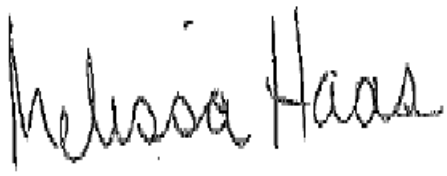
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Job Number: 460-267585-1

Job Description: WPFD

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Melissa Haas
Senior Project Manager
11/4/2022 10:58 AM

Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-267585-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/14/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-SED-13_20221014 (460-267585-1), RI-SED-14_20221014 (460-267585-2), RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4), RI-SED-17_20221014 (460-267585-5), RI-SED-18_20221014 (460-267585-6), RI-SED-19_20221014 (460-267585-7), RI-SED-20_20221014 (460-267585-8) and RI-SED-X_20221014 (460-267585-9) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/27/2022 and analyzed on 10/31/2022 and 11/02/2022.

Samples RI-SW-13_20221014 (460-267585-10), RI-SW-14_20221014 (460-267585-11), RI-SW-15_20221014 (460-267585-12), RI-SW-16_20221014 (460-267585-13), RI-SW-17_20221014 (460-267585-14), RI-SW-18_20221014 (460-267585-15), RI-SW-19_20221014 (460-267585-16), RI-SW-20_20221014 (460-267585-17), RI-SW-X_20221014 (460-267585-18), RI-CW-01_20221014 (460-267585-19), RI-CW-02_20221014 (460-267585-20), RI-CW-03_20221014 (460-267585-21), RI-CW-04_20221014 (460-267585-22) and FB-01_20221014 (460-267585-23) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/27/2022 and analyzed on 10/27/2022 and 10/28/2022.

Samples RI-SED-13_20221014 (460-267585-1), RI-SED-14_20221014 (460-267585-2), RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4), RI-SED-17_20221014 (460-267585-5), RI-SED-18_20221014 (460-267585-6), RI-SED-19_20221014 (460-267585-7), RI-SED-20_20221014 (460-267585-8) and RI-SED-X_20221014 (460-267585-9) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were leached on 10/25/2022, and prepared and analyzed on 10/28/2022.

Method 3535: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to sample matrix concerns (dark in color and turbid), the following samples were diluted prior to extraction: RI-SW-13_20221014 (460-267585-10), RI-SW-14_20221014 (460-267585-11), RI-SW-15_20221014 (460-267585-12), RI-SW-16_20221014 (460-267585-13), RI-SW-18_20221014 (460-267585-15), RI-SW-19_20221014 (460-267585-16) and RI-SW-X_20221014 (460-267585-18).

Method 537 (modified): Results for samples RI-SW-17_20221014 (460-267585-14), RI-SW-17_20221014 (460-267585-14[MS]) and RI-SW-17_20221014 (460-267585-14[MSD]) were reported from the analysis of a diluted extract due to matrix concerns the undiluted extract. The extract was dark in color and turbid, suggesting the presence suspended particulates, which could pose a threat to the instrument. Thus, a more concentrated analysis was not possible. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Method 537 (modified): The “I” qualifier associated with samples RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4) and RI-SED-17_20221014 (460-267585-5) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Method 537 (modified): 13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: RI-SED-14_20221014 (460-267585-2). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SED-16_20221014 (460-267585-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185360 was outside acceptance criteria: (CCB 200-185360/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples RI-SED-13_20221014 (460-267585-1), RI-SED-14_20221014 (460-267585-2), RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4), RI-SED-17_20221014 (460-267585-5), RI-SED-18_20221014 (460-267585-6), RI-SED-19_20221014 (460-267585-7), RI-SED-20_20221014 (460-267585-8) and RI-SED-X_20221014 (460-267585-9) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 10/27/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Sample Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-267585-1	RI-SED-13_20221014	Solid	10/14/22 09:15	10/14/22 18:00
460-267585-2	RI-SED-14_20221014	Solid	10/14/22 08:45	10/14/22 18:00
460-267585-3	RI-SED-15_20221014	Solid	10/14/22 08:00	10/14/22 18:00
460-267585-4	RI-SED-16_20221014	Solid	10/14/22 13:00	10/14/22 18:00
460-267585-5	RI-SED-17_20221014	Solid	10/14/22 12:00	10/14/22 18:00
460-267585-6	RI-SED-18_20221014	Solid	10/14/22 11:15	10/14/22 18:00
460-267585-7	RI-SED-19_20221014	Solid	10/14/22 10:30	10/14/22 18:00
460-267585-8	RI-SED-20_20221014	Solid	10/14/22 09:45	10/14/22 18:00
460-267585-9	RI-SED-X_20221014	Solid	10/14/22 09:30	10/14/22 18:00
460-267585-10	RI-SW-13_20221014	Water	10/14/22 09:15	10/14/22 18:00
460-267585-11	RI-SW-14_20221014	Water	10/14/22 08:45	10/14/22 18:00
460-267585-12	RI-SW-15_20221014	Water	10/14/22 08:00	10/14/22 18:00
460-267585-13	RI-SW-16_20221014	Water	10/14/22 13:00	10/14/22 18:00
460-267585-14	RI-SW-17_20221014	Water	10/14/22 12:00	10/14/22 18:00
460-267585-15	RI-SW-18_20221014	Water	10/14/22 11:15	10/14/22 18:00
460-267585-16	RI-SW-19_20221014	Water	10/14/22 10:30	10/14/22 18:00
460-267585-17	RI-SW-20_20221014	Water	10/14/22 09:45	10/14/22 18:00
460-267585-18	RI-SW-X_20221014	Water	10/14/22 09:30	10/14/22 18:00
460-267585-19	RI-CW-01_20221014	Water	10/14/22 13:30	10/14/22 18:00
460-267585-20	RI-CW-02_20221014	Water	10/14/22 13:45	10/14/22 18:00
460-267585-21	RI-CW-03_20221014	Water	10/14/22 14:00	10/14/22 18:00
460-267585-22	RI-CW-04_20221014	Water	10/14/22 14:15	10/14/22 18:00
460-267585-23	FB-01_20221014	Water	10/14/22 13:20	10/14/22 18:00

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Client Sample ID: RI-SED-13_20221014 — Lab Sample ID: 460-267585-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.28		1.61	1.07	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	9.38		0.65	0.18	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.73		0.65	0.15	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.32		0.65	0.13	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.55		0.65	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.05		0.65	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.88		0.65	0.090	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.20		0.65	0.087	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	2.77		0.65	0.081	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.70		0.65	0.081	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	1.62		0.65	0.084	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.88		0.65	0.13	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.34	J	0.65	0.074	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	41.9		0.65	0.36	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.18	J	6.46	0.18	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.51		6.46	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	22.3	J	25.0	5.99	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	90.3		9.98	3.39	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	58.5		9.98	3.24	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	35.2		9.98	2.69	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	47.7		9.98	3.79	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	6.70	J	9.98	2.45	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	9.36	J	9.98	2.30	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	20.5		9.98	2.74	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	164		9.98	4.24	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	13.4	J	25.0	6.49	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	4.60	J	9.98	3.84	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SED-14_20221014 — Lab Sample ID: 460-267585-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16.2		3.88	2.56	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	57.7		1.55	0.43	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	32.9		1.55	0.36	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	21.3		1.55	0.30	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	27.8		1.55	0.45	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	7.96		1.55	0.26	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	32.2		1.55	0.22	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	14.3		1.55	0.21	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	39.5		1.55	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	8.35		1.55	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	30.9		1.55	0.20	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	1.31	J	1.55	0.32	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	6.48		1.55	0.85	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	23.1		15.5	0.44	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	83.6		15.5	0.29	ug/Kg	1	☼	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SED-14_20221014 (Continued) — Lab Sample ID: 460-267585-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	55.0		4.84	1.16	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	207		1.93	0.66	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	133		1.93	0.63	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	81.5		1.93	0.52	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	113		1.93	0.74	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	21.7		1.93	0.47	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	31.0		1.93	0.44	ng/L	1		537 (modified)	SPLP East
Perfluoroundecanoic acid (PFUnA)	0.91	J	1.93	0.53	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	2.89		1.93	0.53	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	10.4		1.93	0.82	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	22.8		4.84	1.26	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.08		1.93	0.74	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SED-15_20221014 — Lab Sample ID: 460-267585-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.25	J	0.84	0.23	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.35	J	0.84	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.18	J	0.84	0.16	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.62	J	0.84	0.24	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.30	J	0.84	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.36	J	0.84	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.32	J	0.84	0.10	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.27	J	0.84	0.10	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.27	J	0.84	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.61	J	0.84	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1.74		0.84	0.46	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.01	J	1.97	0.64	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	1.28	J	1.97	0.53	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	4.02		1.97	0.75	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	2.30		1.97	0.54	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	4.68		1.97	0.84	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SED-16_20221014 — Lab Sample ID: 460-267585-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.33	J	0.63	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.42	J	0.63	0.14	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.16	J	0.63	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.64		0.63	0.18	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.12	J	0.63	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.34	J	0.63	0.088	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.37	J	0.63	0.085	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.36	J	0.63	0.079	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.23	J	0.63	0.079	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.28	J	0.63	0.082	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.63	0.13	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.52		0.63	0.35	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.62		1.82	0.62	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	2.13		1.82	0.59	ng/L	1		537 (modified)	SPLP East

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SED-16_20221014 (Continued) — Lab Sample ID: 460-267585-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	1.65	J	1.82	0.49	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	1.64	J	1.82	0.69	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	1.09	J	1.82	0.45	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	1.08	J	1.82	0.42	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	1.69	J	1.82	0.50	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	15.7		1.82	0.77	ng/L	1		537 (modified)	SPLP East
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.57	J	4.56	1.18	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SED-17_20221014 — Lab Sample ID: 460-267585-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.04		0.70	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.47	J	0.70	0.16	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.32	J	0.70	0.14	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.84		0.70	0.20	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.86		0.70	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.84		0.70	0.098	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.29		0.70	0.094	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.60	J	0.70	0.087	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.36	J	0.70	0.087	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.23	J	0.70	0.091	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.72		0.70	0.14	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.45		0.70	0.38	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.086	J	0.70	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	7.23		4.57	1.10	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	12.1		1.83	0.62	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	4.90		1.83	0.59	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	4.02		1.83	0.49	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	15.6		1.83	0.69	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	3.35		1.83	0.45	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	0.70	J	1.83	0.42	ng/L	1		537 (modified)	SPLP East
Perfluorobutanesulfonic acid (PFBS)	0.77	J	1.83	0.57	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	4.84		1.83	0.50	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	7.04		1.83	0.78	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SED-18_20221014 — Lab Sample ID: 460-267585-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.47	J	1.38	0.38	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.66	J	1.38	0.32	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.83	J	1.38	0.40	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.35	J	1.38	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.88	J	1.38	0.19	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	2.00		1.38	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	1.02	J	1.38	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.96	J	1.38	0.18	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.36	J	1.38	0.28	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.20		1.38	0.76	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.16	J	1.38	0.13	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.85	J	2.07	0.70	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	1.90	J	2.07	0.67	ng/L	1		537 (modified)	SPLP East

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SED-18_20221014 (Continued) — Lab Sample ID: 460-267585-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	1.10	J	2.07	0.56	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	3.85		2.07	0.79	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	0.94	J	2.07	0.57	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	3.49		2.07	0.88	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SED-19_20221014 — Lab Sample ID: 460-267585-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.43	J	1.25	0.34	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.62	J	1.25	0.36	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.36	J	1.25	0.21	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.15	J	1.25	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.98	J	1.25	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.04	J	1.25	0.16	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.61	J	1.25	0.16	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.56	J	1.25	0.16	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.62	J	1.25	0.26	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10.8		1.25	0.69	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.60	J	1.25	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.49	J	2.25	0.77	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	1.57	J	2.25	0.73	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	0.81	J	2.25	0.61	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	2.34		2.25	0.86	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	0.85	J	2.25	0.55	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	2.76		2.25	0.62	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	11.2		2.25	0.96	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SED-20_20221014 — Lab Sample ID: 460-267585-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	1.18		0.53	0.15	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.87		0.53	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.78		0.53	0.10	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.58		0.53	0.15	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.09		0.53	0.090	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.75		0.53	0.074	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.81		0.53	0.072	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.40	J	0.53	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.36	J	0.53	0.066	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.26	J	0.53	0.069	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.59		0.53	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.06		0.53	0.29	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.087	J	0.53	0.050	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	5.45		5.21	1.25	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	5.99		2.09	0.71	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	4.69		2.09	0.68	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	3.77		2.09	0.56	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	3.82		2.09	0.79	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	0.91	J	2.09	0.51	ng/L	1		537 (modified)	SPLP East
Perfluorobutanesulfonic acid (PFBS)	0.69	J	2.09	0.65	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	3.97		2.09	0.57	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	4.09		2.09	0.89	ng/L	1		537 (modified)	SPLP East

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Client Sample ID: RI-SED-X_20221014 — Lab Sample ID: 460-267585-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	2.34		1.49	0.98	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	9.82		0.59	0.16	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.65		0.59	0.14	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.79		0.59	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.54		0.59	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.68		0.59	0.10	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.46		0.59	0.083	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.47	J	0.59	0.080	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.34		0.59	0.074	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.43	J	0.59	0.074	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.94		0.59	0.077	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.13	J	0.59	0.098	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.44		0.59	0.12	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.45	J	0.59	0.068	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.34	J	5.94	0.17	ug/Kg	1	☼	537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.51	J	5.94	0.11	ug/Kg	1	☼	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	58.8		1.19	0.65	ug/Kg	2	☼	537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA)	22.2	J	24.8	5.95	ng/L	1		537 (modified)	SPLP East
Perfluoropentanoic acid (PFPeA)	94.3		9.92	3.37	ng/L	1		537 (modified)	SPLP East
Perfluorohexanoic acid (PFHxA)	65.6		9.92	3.22	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanoic acid (PFHpA)	33.1		9.92	2.68	ng/L	1		537 (modified)	SPLP East
Perfluorooctanoic acid (PFOA)	33.9		9.92	3.77	ng/L	1		537 (modified)	SPLP East
Perfluorononanoic acid (PFNA)	4.72	J	9.92	2.43	ng/L	1		537 (modified)	SPLP East
Perfluorodecanoic acid (PFDA)	5.97	J	9.92	2.28	ng/L	1		537 (modified)	SPLP East
Perfluorohexanesulfonic acid (PFHxS)	36.4		9.92	2.73	ng/L	1		537 (modified)	SPLP East
Perfluoroheptanesulfonic acid (PFHpS)	2.64	J	9.92	2.03	ng/L	1		537 (modified)	SPLP East
Perfluorooctanesulfonic acid (PFOS)	293		9.92	4.22	ng/L	1		537 (modified)	SPLP East

Client Sample ID: RI-SW-13_20221014 — Lab Sample ID: 460-267585-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	265		24.9	5.96	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1150		9.94	3.38	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	580		9.94	3.23	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	253		9.94	2.68	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	144		9.94	3.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	20.6		9.94	2.44	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	14.7		9.94	2.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.46	J	9.94	3.08	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	40.6		9.94	2.73	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	105		9.94	4.22	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	108		24.9	6.46	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.36	J	9.94	3.83	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Client Sample ID: RI-SW-14_20221014 — Lab Sample ID: 460-267585-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	82.1		24.9	5.98	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	221		9.96	3.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	117		9.96	3.24	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	59.0		9.96	2.69	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	59.2		9.96	3.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	6.54	J	9.96	2.44	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	3.20	J	9.96	2.29	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.23	J	9.96	2.74	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	9.39	J	9.96	4.23	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-SW-15_20221014 — Lab Sample ID: 460-267585-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16.8	J	47.9	11.5	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	13.6	J	19.2	6.51	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	10.9	J	19.2	6.23	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	6.10	J	19.2	5.17	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.71	J	19.2	7.28	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.97	J	19.2	5.27	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-SW-16_20221014 — Lab Sample ID: 460-267585-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	16.0	J	47.3	11.4	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	41.0		18.9	6.44	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	28.8		18.9	6.16	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	15.5	J	18.9	5.11	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.05	J	18.9	7.20	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	10.9	J	18.9	5.21	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	45.1		18.9	8.05	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-SW-17_20221014 — Lab Sample ID: 460-267585-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	24.3		21.7	5.22	ng/L	5		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	49.4		8.70	2.96	ng/L	5		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	32.7		8.70	2.83	ng/L	5		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	16.7		8.70	2.35	ng/L	5		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	30.1		8.70	3.31	ng/L	5		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	10.2		8.70	2.70	ng/L	5		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	15.1		8.70	2.39	ng/L	5		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	7.87	J	8.70	3.70	ng/L	5		537 (modified)	Total/NA

Client Sample ID: RI-SW-18_20221014 — Lab Sample ID: 460-267585-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	15.8	J	48.6	11.7	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	31.1		19.5	6.61	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	18.4	J	19.5	6.32	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	7.54	J	19.5	5.25	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	21.6		19.5	7.39	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	6.59	J	19.5	6.03	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	5.45	J	19.5	5.35	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SW-18_20221014 (Continued) — Lab Sample ID: 460-267585-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	9.69	J	19.5	8.27	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-SW-19_20221014 — Lab Sample ID: 460-267585-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	13.0	J	48.4	11.6	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	14.1	J	19.4	6.59	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	13.5	J	19.4	6.30	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.65	J	19.4	7.36	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	20.0		19.4	5.33	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	34.0		19.4	4.75	ng/L	1		537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	17.3	J	19.4	4.65	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	12.8	J	19.4	6.20	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.77	J	19.4	6.01	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	13.6	J	19.4	5.33	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	20.8		19.4	8.24	ng/L	1		537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	38.8		19.4	3.88	ng/L	1		537 (modified)	Total/NA
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	22.7	J	48.4	15.5	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-SW-20_20221014 — Lab Sample ID: 460-267585-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	12.0		4.23	1.02	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	44.2		1.69	0.58	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	27.4		1.69	0.55	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	18.5		1.69	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	10.1		1.69	0.64	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.84		1.69	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.55	J	1.69	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.15		1.69	0.53	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	12.4		1.69	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	53.6		1.69	0.72	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.76	J	4.23	1.10	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-SW-X_20221014 — Lab Sample ID: 460-267585-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	265		24.6	5.91	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1210		9.84	3.35	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	604		9.84	3.20	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	252		9.84	2.66	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	149		9.84	3.74	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	22.5		9.84	2.41	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	24.2		9.84	2.26	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	4.96	J	9.84	2.71	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	3.30	J	9.84	2.41	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	4.59	J	9.84	3.05	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	39.3		9.84	2.71	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	147		9.84	4.18	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	133		24.6	6.40	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-SW-X_20221014 (Continued) — Lab Sample ID: 460-267585-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	15.7		9.84	3.79	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-CW-01_20221014 — Lab Sample ID: 460-267585-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	24.9		4.40	1.05	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	75.0		1.76	0.60	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	40.5		1.76	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	22.4		1.76	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	13.5		1.76	0.67	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	5.42		1.76	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.45	J	1.76	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.46		1.76	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	21.2		1.76	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.04	J	1.76	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	88.0		1.76	0.75	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.89		4.40	1.14	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.06	J	1.76	0.68	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-CW-02_20221014 — Lab Sample ID: 460-267585-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	23.1		4.52	1.08	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	64.3		1.81	0.61	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	33.9		1.81	0.59	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	20.1		1.81	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	12.3		1.81	0.69	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	4.45		1.81	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.56	J	1.81	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.15		1.81	0.56	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	20.1		1.81	0.50	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.03	J	1.81	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	80.8		1.81	0.77	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	13.0		4.52	1.18	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.85		1.81	0.70	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-CW-03_20221014 — Lab Sample ID: 460-267585-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	21.7		4.47	1.07	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	57.7		1.79	0.61	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	32.6		1.79	0.58	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	17.9		1.79	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	12.4		1.79	0.68	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	4.45		1.79	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	1.44	J	1.79	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.21		1.79	0.55	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-CW-03_20221014 (Continued) — Lab Sample ID: 460-267585-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	18.7		1.79	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.05	J	1.79	0.37	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	76.2		1.79	0.76	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	12.5		4.47	1.16	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.77		1.79	0.69	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-CW-04_20221014 — Lab Sample ID: 460-267585-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	18.1		4.36	1.05	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	52.4		1.74	0.59	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	28.4		1.74	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	20.7		1.74	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	15.6		1.74	0.66	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.97		1.74	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.98	J	1.74	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.42		1.74	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	21.9		1.74	0.48	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	1.18	J	1.74	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	71.3		1.74	0.74	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.98	J	4.36	1.13	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.10	J	1.74	0.67	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-01_20221014 — Lab Sample ID: 460-267585-23

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET BUR
Moisture	Percent Moisture	EPA	EET BUR
1312	SPLP Extraction	SW846	EET BUR
3535	Solid-Phase Extraction (SPE)	SW846	EET BUR
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Client Sample ID: RI-SED-13_20221014

Date Collected: 10/14/22 09:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-1

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**22.3**	**J**	25.0	5.99	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluoropentanoic acid (PFPeA)	**90.3**		9.98	3.39	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorohexanoic acid (PFHxA)	**58.5**		9.98	3.24	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluoroheptanoic acid (PFHpA)	**35.2**		9.98	2.69	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorooctanoic acid (PFOA)	**47.7**		9.98	3.79	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorononanoic acid (PFNA)	**6.70**	**J**	9.98	2.45	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorodecanoic acid (PFDA)	**9.36**	**J**	9.98	2.30	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluoroundecanoic acid (PFUnA)	9.98	U	9.98	2.74	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorododecanoic acid (PFDoA)	9.98	U	9.98	2.45	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorotridecanoic acid (PFTriA)	9.98	U	9.98	2.40	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorotetradecanoic acid (PFTeA)	9.98	U	9.98	3.19	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorobutanesulfonic acid (PFBS)	9.98	U	9.98	3.09	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorohexanesulfonic acid (PFHxS)	**20.5**		9.98	2.74	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluoroheptanesulfonic acid (PFHpS)	9.98	U	9.98	2.05	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorooctanesulfonic acid (PFOS)	**164**		9.98	4.24	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorodecanesulfonic acid (PFDS)	9.98	U	9.98	2.00	ng/L		10/28/22 09:54	10/28/22 20:22	1
Perfluorooctanesulfonamide (PFOSA)	9.98	U	9.98	4.59	ng/L		10/28/22 09:54	10/28/22 20:22	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	U	25.0	9.48	ng/L		10/28/22 09:54	10/28/22 20:22	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	U	25.0	7.98	ng/L		10/28/22 09:54	10/28/22 20:22	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**13.4**	**J**	25.0	6.49	ng/L		10/28/22 09:54	10/28/22 20:22	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**4.60**	**J**	9.98	3.84	ng/L		10/28/22 09:54	10/28/22 20:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C4 PFHpA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C4 PFOA	*101*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C4 PFOS	*105*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C5 PFNA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C4 PFBA	*92*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C2 PFHxA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C2 PFDA	*101*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C2 PFUnA	*109*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C2 PFDoA	*107*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C8 FOSA	*99*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C5 PFPeA	*91*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C2 PFTeDA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
d3-NMeFOSAA	*129*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
d5-NEtFOSAA	*125*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
M2-6:2 FTS	*108*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*
13C3 PFBS	*99*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:22*	*1*

Client Sample ID: RI-SED-13_20221014

Date Collected: 10/14/22 09:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-1

Matrix: Solid
Percent Solids: 30.7

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.28**		1.61	1.07	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluoropentanoic acid (PFPeA)	**9.38**		0.65	0.18	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorohexanoic acid (PFHxA)	**5.73**		0.65	0.15	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluoroheptanoic acid (PFHpA)	**3.32**		0.65	0.13	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorooctanoic acid (PFOA)	**5.55**		0.65	0.19	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorononanoic acid (PFNA)	**1.05**		0.65	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorodecanoic acid (PFDA)	**2.88**		0.65	0.090	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluoroundecanoic acid (PFUnA)	**1.20**		0.65	0.087	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorododecanoic acid (PFDoA)	**2.77**		0.65	0.081	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorotridecanoic acid (PFTriA)	**0.70**		0.65	0.081	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorotetradecanoic acid (PFTeA)	**1.62**		0.65	0.084	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorobutanesulfonic acid (PFBS)	0.65	U	0.65	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorohexanesulfonic acid (PFHxS)	**2.88**		0.65	0.13	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.34**	**J**	0.65	0.074	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorooctanesulfonic acid (PFOS)	**41.9**		0.65	0.36	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorodecanesulfonic acid (PFDS)	0.65	U	0.65	0.061	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
Perfluorooctanesulfonamide (PFOSA)	0.65	U	0.65	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.46	U	6.46	0.36	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.46	U	6.46	0.27	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**2.18**	**J**	6.46	0.18	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**6.51**		6.46	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 17:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C4 PFHpA	*83*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C4 PFOA	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C4 PFOS	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C5 PFNA	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C4 PFBA	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C2 PFHxA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C2 PFDA	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C2 PFUnA	*101*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C2 PFDoA	*99*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C8 FOSA	*77*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C5 PFPeA	*83*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C2 PFTeDA	*100*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
d3-NMeFOSAA	*131*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
d5-NEtFOSAA	*134*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
M2-6:2 FTS	*125*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
M2-8:2 FTS	*140*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*
13C3 PFBS	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:42*	*1*

Client Sample ID: RI-SED-14_20221014

Date Collected: 10/14/22 08:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-2

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**55.0**		4.84	1.16	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluoropentanoic acid (PFPeA)	**207**		1.93	0.66	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorohexanoic acid (PFHxA)	**133**		1.93	0.63	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluoroheptanoic acid (PFHpA)	**81.5**		1.93	0.52	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorooctanoic acid (PFOA)	**113**		1.93	0.74	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorononanoic acid (PFNA)	**21.7**		1.93	0.47	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorodecanoic acid (PFDA)	**31.0**		1.93	0.44	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluoroundecanoic acid (PFUnA)	**0.91**	**J**	1.93	0.53	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorododecanoic acid (PFDoA)	1.93	U	1.93	0.47	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorotridecanoic acid (PFTriA)	1.93	U	1.93	0.46	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorotetradecanoic acid (PFTeA)	1.93	U	1.93	0.62	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorobutanesulfonic acid (PFBS)	1.93	U	1.93	0.60	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorohexanesulfonic acid (PFHxS)	**2.89**		1.93	0.53	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluoroheptanesulfonic acid (PFHpS)	1.93	U	1.93	0.40	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorooctanesulfonic acid (PFOS)	**10.4**		1.93	0.82	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorodecanesulfonic acid (PFDS)	1.93	U	1.93	0.39	ng/L		10/28/22 09:54	10/28/22 20:30	1
Perfluorooctanesulfonamide (PFOSA)	1.93	U	1.93	0.89	ng/L		10/28/22 09:54	10/28/22 20:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.84	U	4.84	1.84	ng/L		10/28/22 09:54	10/28/22 20:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.84	U	4.84	1.55	ng/L		10/28/22 09:54	10/28/22 20:30	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**22.8**		4.84	1.26	ng/L		10/28/22 09:54	10/28/22 20:30	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**8.08**		1.93	0.74	ng/L		10/28/22 09:54	10/28/22 20:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*103*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C4 PFHpA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C4 PFOA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C4 PFOS	*106*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C5 PFNA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C4 PFBA	*87*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C2 PFHxA	*93*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C2 PFDA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C2 PFUnA	*104*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C2 PFDoA	*114*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C8 FOSA	*104*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C5 PFPeA	*90*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C2 PFTeDA	*87*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
d3-NMeFOSAA	*125*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
d5-NEtFOSAA	*128*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
M2-6:2 FTS	*110*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*
13C3 PFBS	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:30*	*1*

Client Sample ID: RI-SED-14_20221014

Date Collected: 10/14/22 08:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-2

Matrix: Solid
Percent Solids: 12.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**16.2**		3.88	2.56	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluoropentanoic acid (PFPeA)	**57.7**		1.55	0.43	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorohexanoic acid (PFHxA)	**32.9**		1.55	0.36	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluoroheptanoic acid (PFHpA)	**21.3**		1.55	0.30	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorooctanoic acid (PFOA)	**27.8**		1.55	0.45	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorononanoic acid (PFNA)	**7.96**		1.55	0.26	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorodecanoic acid (PFDA)	**32.2**		1.55	0.22	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluoroundecanoic acid (PFUnA)	**14.3**		1.55	0.21	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorododecanoic acid (PFDoA)	**39.5**		1.55	0.19	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorotridecanoic acid (PFTriA)	**8.35**		1.55	0.19	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorotetradecanoic acid (PFTeA)	**30.9**		1.55	0.20	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorobutanesulfonic acid (PFBS)	1.55	U	1.55	0.26	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorohexanesulfonic acid (PFHxS)	**1.31**	**J**	1.55	0.32	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluoroheptanesulfonic acid (PFHpS)	1.55	U	1.55	0.18	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorooctanesulfonic acid (PFOS)	**6.48**		1.55	0.85	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorodecanesulfonic acid (PFDS)	1.55	U	1.55	0.15	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
Perfluorooctanesulfonamide (PFOSA)	1.55	U	1.55	0.26	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	15.5	U	15.5	0.85	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	15.5	U	15.5	0.64	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**23.1**		15.5	0.44	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**83.6**		15.5	0.29	ug/Kg	☼	10/27/22 09:00	10/31/22 17:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*85*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C4 PFHpA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C4 PFOA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C4 PFOS	*88*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C5 PFNA	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C4 PFBA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C2 PFHxA	*78*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C2 PFDA	*86*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C2 PFUnA	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C2 PFDoA	*59*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C8 FOSA	*68*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C5 PFPeA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C2 PFTeDA	*41*	*	*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
d3-NMeFOSAA	*94*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
d5-NEtFOSAA	*105*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
M2-6:2 FTS	*105*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
M2-8:2 FTS	*122*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*
13C3 PFBS	*82*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:50*	*1*

Client Sample ID: RI-SED-15_20221014

Date Collected: 10/14/22 08:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-3

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.94	U	4.94	1.18	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluoropentanoic acid (PFPeA)	1.97	U	1.97	0.67	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorohexanoic acid (PFHxA)	**1.01**	**J**	1.97	0.64	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluoroheptanoic acid (PFHpA)	**1.28**	**J**	1.97	0.53	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorooctanoic acid (PFOA)	**4.02**		1.97	0.75	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorononanoic acid (PFNA)	1.97	U	1.97	0.48	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorodecanoic acid (PFDA)	1.97	U	1.97	0.45	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluoroundecanoic acid (PFUnA)	1.97	U	1.97	0.54	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorododecanoic acid (PFDoA)	1.97	U	1.97	0.48	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorotridecanoic acid (PFTriA)	1.97	U	1.97	0.47	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorotetradecanoic acid (PFTeA)	1.97	U	1.97	0.63	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorobutanesulfonic acid (PFBS)	1.97	U	1.97	0.61	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorohexanesulfonic acid (PFHxS)	**2.30**		1.97	0.54	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluoroheptanesulfonic acid (PFHpS)	1.97	U	1.97	0.40	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorooctanesulfonic acid (PFOS)	**4.68**		1.97	0.84	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorodecanesulfonic acid (PFDS)	1.97	U	1.97	0.39	ng/L		10/28/22 09:54	10/28/22 20:38	1
Perfluorooctanesulfonamide (PFOSA)	1.97	U	1.97	0.91	ng/L		10/28/22 09:54	10/28/22 20:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.94	U	4.94	1.88	ng/L		10/28/22 09:54	10/28/22 20:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.94	U	4.94	1.58	ng/L		10/28/22 09:54	10/28/22 20:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.94	U	4.94	1.28	ng/L		10/28/22 09:54	10/28/22 20:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.97	U	1.97	0.76	ng/L		10/28/22 09:54	10/28/22 20:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*103*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C4 PFHpA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C4 PFOA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C4 PFOS	*110*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C5 PFNA	*101*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C4 PFBA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C2 PFHxA	*98*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C2 PFDA	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C2 PFUnA	*107*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C2 PFDoA	*121*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C8 FOSA	*107*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C5 PFPeA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C2 PFTeDA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
d3-NMeFOSAA	*127*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
d5-NEtFOSAA	*134*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*
13C3 PFBS	*104*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:38*	*1*

Client Sample ID: RI-SED-15_20221014

Date Collected: 10/14/22 08:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-3

Matrix: Solid
Percent Solids: 23.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	2.09	U	2.09	1.38	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluoropentanoic acid (PFPeA)	**0.25**	**J**	0.84	0.23	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorohexanoic acid (PFHxA)	**0.35**	**J**	0.84	0.19	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluoroheptanoic acid (PFHpA)	**0.18**	**J**	0.84	0.16	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorooctanoic acid (PFOA)	**0.62**	**J**	0.84	0.24	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorononanoic acid (PFNA)	0.84	U	0.84	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorodecanoic acid (PFDA)	**0.30**	**J**	0.84	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluoroundecanoic acid (PFUnA)	**0.36**	**J**	0.84	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorododecanoic acid (PFDoA)	**0.32**	**J**	0.84	0.10	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorotridecanoic acid (PFTriA)	**0.27**	**J**	0.84	0.10	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorotetradecanoic acid (PFTeA)	**0.27**	**J**	0.84	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorobutanesulfonic acid (PFBS)	0.84	U	0.84	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorohexanesulfonic acid (PFHxS)	**0.61**	**J**	0.84	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluoroheptanesulfonic acid (PFHpS)	0.84	U	0.84	0.096	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorooctanesulfonic acid (PFOS)	**1.74**		0.84	0.46	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorodecanesulfonic acid (PFDS)	0.84	U	0.84	0.079	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
Perfluorooctanesulfonamide (PFOSA)	0.84	U	0.84	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	8.36	U	8.36	0.46	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	8.36	U	8.36	0.35	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	8.36	U	8.36	0.24	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.36	U	8.36	0.15	ug/Kg	☼	10/27/22 09:00	10/31/22 17:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*88*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C4 PFHpA	*77*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C4 PFOA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C4 PFOS	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C5 PFNA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C4 PFBA	*83*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C2 PFHxA	*80*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C2 PFDA	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C2 PFUnA	*100*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C2 PFDoA	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C8 FOSA	*76*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C5 PFPeA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C2 PFTeDA	*72*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
d3-NMeFOSAA	*104*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
d5-NEtFOSAA	*112*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
M2-8:2 FTS	*118*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*
13C3 PFBS	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:59*	*1*

Client Sample ID: RI-SED-16_20221014

Date Collected: 10/14/22 13:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-4

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.56	U	4.56	1.09	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluoropentanoic acid (PFPeA)	**3.62**		1.82	0.62	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorohexanoic acid (PFHxA)	**2.13**		1.82	0.59	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluoroheptanoic acid (PFHpA)	**1.65**	**J**	1.82	0.49	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorooctanoic acid (PFOA)	**1.64**	**J**	1.82	0.69	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorononanoic acid (PFNA)	**1.09**	**J**	1.82	0.45	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorodecanoic acid (PFDA)	**1.08**	**J**	1.82	0.42	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluoroundecanoic acid (PFUnA)	1.82	U	1.82	0.50	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorododecanoic acid (PFDoA)	1.82	U	1.82	0.45	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorotridecanoic acid (PFTriA)	1.82	U	1.82	0.44	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorotetradecanoic acid (PFTeA)	1.82	U	1.82	0.58	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorobutanesulfonic acid (PFBS)	1.82	U	1.82	0.57	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorohexanesulfonic acid (PFHxS)	**1.69**	**J**	1.82	0.50	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluoroheptanesulfonic acid (PFHpS)	1.82	U	1.82	0.37	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorooctanesulfonic acid (PFOS)	**15.7**		1.82	0.77	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorodecanesulfonic acid (PFDS)	1.82	U	1.82	0.36	ng/L		10/28/22 09:54	10/28/22 20:46	1
Perfluorooctanesulfonamide (PFOSA)	1.82	U	1.82	0.84	ng/L		10/28/22 09:54	10/28/22 20:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.56	U	4.56	1.73	ng/L		10/28/22 09:54	10/28/22 20:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.56	U	4.56	1.46	ng/L		10/28/22 09:54	10/28/22 20:46	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.57**	**J**	4.56	1.18	ng/L		10/28/22 09:54	10/28/22 20:46	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.82	U	1.82	0.70	ng/L		10/28/22 09:54	10/28/22 20:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*107*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C4 PFHpA	*97*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C4 PFOA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C4 PFOS	*110*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C5 PFNA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C4 PFBA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C2 PFHxA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C2 PFDA	*108*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C2 PFUnA	*112*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C2 PFDoA	*106*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C8 FOSA	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C5 PFPeA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C2 PFTeDA	*64*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
d3-NMeFOSAA	*129*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
d5-NEtFOSAA	*134*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
M2-6:2 FTS	*124*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
M2-8:2 FTS	*118*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*
13C3 PFBS	*105*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:46*	*1*

Client Sample ID: RI-SED-16_20221014

Date Collected: 10/14/22 13:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-4

Matrix: Solid
Percent Solids: 31.2

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.57	U	1.57	1.04	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluoropentanoic acid (PFPeA)	**0.33**	**J**	0.63	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorohexanoic acid (PFHxA)	**0.42**	**J**	0.63	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluoroheptanoic acid (PFHpA)	**0.16**	**J**	0.63	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorooctanoic acid (PFOA)	**0.64**		0.63	0.18	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorononanoic acid (PFNA)	**0.12**	**J**	0.63	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorodecanoic acid (PFDA)	**0.34**	**J**	0.63	0.088	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluoroundecanoic acid (PFUnA)	**0.37**	**J**	0.63	0.085	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorododecanoic acid (PFDoA)	**0.36**	**J**	0.63	0.079	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorotridecanoic acid (PFTriA)	**0.23**	**J**	0.63	0.079	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorotetradecanoic acid (PFTeA)	**0.28**	**J**	0.63	0.082	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorobutanesulfonic acid (PFBS)	0.63	U	0.63	0.10	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorohexanesulfonic acid (PFHxS)	**0.19**	**J**	0.63	0.13	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluoroheptanesulfonic acid (PFHpS)	0.63	U	0.63	0.072	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorooctanesulfonic acid (PFOS)	**3.52**		0.63	0.35	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorodecanesulfonic acid (PFDS)	0.63	U	0.63	0.060	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
Perfluorooctanesulfonamide (PFOSA)	0.63	U	0.63	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.30	U	6.30	0.35	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.30	U	6.30	0.26	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	6.30	U	6.30	0.18	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.30	U	6.30	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 18:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C4 PFHpA	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C4 PFOA	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C4 PFOS	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C5 PFNA	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C4 PFBA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C2 PFHxA	*82*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C2 PFDA	*95*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C2 PFUnA	*96*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C2 PFDoA	*92*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C8 FOSA	*73*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C5 PFPeA	*85*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
d3-NMeFOSAA	*142*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
d5-NEtFOSAA	*156*	*	*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
M2-6:2 FTS	*161*	*	*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
M2-8:2 FTS	*213*	*	*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*
13C3 PFBS	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:07*	*1*

Client Sample ID: RI-SED-17_20221014

Date Collected: 10/14/22 12:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-5

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.23**		4.57	1.10	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluoropentanoic acid (PFPeA)	**12.1**		1.83	0.62	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorohexanoic acid (PFHxA)	**4.90**		1.83	0.59	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluoroheptanoic acid (PFHpA)	**4.02**		1.83	0.49	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorooctanoic acid (PFOA)	**15.6**		1.83	0.69	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorononanoic acid (PFNA)	**3.35**		1.83	0.45	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorodecanoic acid (PFDA)	**0.70**	**J**	1.83	0.42	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluoroundecanoic acid (PFUnA)	1.83	U	1.83	0.50	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorododecanoic acid (PFDoA)	1.83	U	1.83	0.45	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorotridecanoic acid (PFTriA)	1.83	U	1.83	0.44	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorotetradecanoic acid (PFTeA)	1.83	U	1.83	0.58	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorobutanesulfonic acid (PFBS)	**0.77**	**J**	1.83	0.57	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorohexanesulfonic acid (PFHxS)	**4.84**		1.83	0.50	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluoroheptanesulfonic acid (PFHpS)	1.83	U	1.83	0.37	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorooctanesulfonic acid (PFOS)	**7.04**		1.83	0.78	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorodecanesulfonic acid (PFDS)	1.83	U	1.83	0.37	ng/L		10/28/22 09:54	10/28/22 20:55	1
Perfluorooctanesulfonamide (PFOSA)	1.83	U	1.83	0.84	ng/L		10/28/22 09:54	10/28/22 20:55	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.57	U	4.57	1.74	ng/L		10/28/22 09:54	10/28/22 20:55	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.57	U	4.57	1.46	ng/L		10/28/22 09:54	10/28/22 20:55	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.57	U	4.57	1.19	ng/L		10/28/22 09:54	10/28/22 20:55	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.83	U	1.83	0.70	ng/L		10/28/22 09:54	10/28/22 20:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*114*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C4 PFHpA	*98*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C4 PFOA	*101*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C4 PFOS	*114*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C5 PFNA	*104*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C4 PFBA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C2 PFHxA	*97*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C2 PFDA	*109*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C2 PFUnA	*113*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C2 PFDoA	*113*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C8 FOSA	*109*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C5 PFPeA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C2 PFTeDA	*83*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
d3-NMeFOSAA	*133*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
d5-NEtFOSAA	*137*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
M2-6:2 FTS	*115*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
M2-8:2 FTS	*114*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*
13C3 PFBS	*109*		*50 - 150*	*10/28/22 09:54*	*10/28/22 20:55*	*1*

Client Sample ID: RI-SED-17_20221014

Date Collected: 10/14/22 12:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-5

Matrix: Solid
Percent Solids: 27.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.75	U	1.75	1.15	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluoropentanoic acid (PFPeA)	**1.04**		0.70	0.19	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorohexanoic acid (PFHxA)	**0.47**	**J**	0.70	0.16	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluoroheptanoic acid (PFHpA)	**0.32**	**J**	0.70	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorooctanoic acid (PFOA)	**1.84**		0.70	0.20	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorononanoic acid (PFNA)	**0.86**		0.70	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorodecanoic acid (PFDA)	**0.84**		0.70	0.098	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluoroundecanoic acid (PFUnA)	**1.29**		0.70	0.094	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorododecanoic acid (PFDoA)	**0.60**	**J**	0.70	0.087	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorotridecanoic acid (PFTriA)	**0.36**	**J**	0.70	0.087	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorotetradecanoic acid (PFTeA)	**0.23**	**J**	0.70	0.091	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorobutanesulfonic acid (PFBS)	0.70	U	0.70	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorohexanesulfonic acid (PFHxS)	**0.72**		0.70	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluoroheptanesulfonic acid (PFHpS)	0.70	U	0.70	0.080	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorooctanesulfonic acid (PFOS)	**4.45**		0.70	0.38	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorodecanesulfonic acid (PFDS)	**0.086**	**J**	0.70	0.066	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
Perfluorooctanesulfonamide (PFOSA)	0.70	U	0.70	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.99	U	6.99	0.38	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.99	U	6.99	0.29	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	6.99	U	6.99	0.20	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.99	U	6.99	0.13	ug/Kg	☼	10/27/22 09:00	10/31/22 18:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C4 PFHpA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C4 PFOA	*82*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C4 PFOS	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C5 PFNA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C4 PFBA	*75*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C2 PFHxA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C2 PFDA	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C2 PFUnA	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C2 PFDoA	*93*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C8 FOSA	*73*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C5 PFPeA	*76*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C2 PFTeDA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
d3-NMeFOSAA	*106*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
d5-NEtFOSAA	*109*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
M2-6:2 FTS	*101*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
M2-8:2 FTS	*115*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*
13C3 PFBS	*82*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:15*	*1*

Client Sample ID: RI-SED-18_20221014

Date Collected: 10/14/22 11:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-6

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.17	U	5.17	1.24	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluoropentanoic acid (PFPeA)	**1.85**	**J**	2.07	0.70	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorohexanoic acid (PFHxA)	**1.90**	**J**	2.07	0.67	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluoroheptanoic acid (PFHpA)	**1.10**	**J**	2.07	0.56	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorooctanoic acid (PFOA)	**3.85**		2.07	0.79	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorononanoic acid (PFNA)	2.07	U	2.07	0.51	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorodecanoic acid (PFDA)	2.07	U	2.07	0.48	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluoroundecanoic acid (PFUnA)	2.07	U	2.07	0.57	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorododecanoic acid (PFDoA)	2.07	U	2.07	0.51	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorotridecanoic acid (PFTriA)	2.07	U	2.07	0.50	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorotetradecanoic acid (PFTeA)	2.07	U	2.07	0.66	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorobutanesulfonic acid (PFBS)	2.07	U	2.07	0.64	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorohexanesulfonic acid (PFHxS)	**0.94**	**J**	2.07	0.57	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluoroheptanesulfonic acid (PFHpS)	2.07	U	2.07	0.42	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorooctanesulfonic acid (PFOS)	**3.49**		2.07	0.88	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorodecanesulfonic acid (PFDS)	2.07	U	2.07	0.41	ng/L		10/28/22 09:54	10/28/22 21:19	1
Perfluorooctanesulfonamide (PFOSA)	2.07	U	2.07	0.95	ng/L		10/28/22 09:54	10/28/22 21:19	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.17	U	5.17	1.97	ng/L		10/28/22 09:54	10/28/22 21:19	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.17	U	5.17	1.66	ng/L		10/28/22 09:54	10/28/22 21:19	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.17	U	5.17	1.35	ng/L		10/28/22 09:54	10/28/22 21:19	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.07	U	2.07	0.80	ng/L		10/28/22 09:54	10/28/22 21:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*103*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C4 PFHpA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C4 PFOA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C4 PFOS	*103*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C5 PFNA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C4 PFBA	*92*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C2 PFHxA	*92*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C2 PFDA	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C2 PFUnA	*108*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C2 PFDoA	*113*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C8 FOSA	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C5 PFPeA	*90*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
d3-NMeFOSAA	*126*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
d5-NEtFOSAA	*125*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
M2-6:2 FTS	*110*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
M2-8:2 FTS	*111*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*
13C3 PFBS	*99*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:19*	*1*

Client Sample ID: RI-SED-18_20221014

Date Collected: 10/14/22 11:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-6

Matrix: Solid
Percent Solids: 14.2

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.45	U	3.45	2.28	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluoropentanoic acid (PFPeA)	**0.47**	**J**	1.38	0.38	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorohexanoic acid (PFHxA)	**0.66**	**J**	1.38	0.32	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluoroheptanoic acid (PFHpA)	1.38	U	1.38	0.27	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorooctanoic acid (PFOA)	**0.83**	**J**	1.38	0.40	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorononanoic acid (PFNA)	1.38	U	1.38	0.23	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorodecanoic acid (PFDA)	**0.35**	**J**	1.38	0.19	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluoroundecanoic acid (PFUnA)	**0.88**	**J**	1.38	0.19	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorododecanoic acid (PFDoA)	**2.00**		1.38	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorotridecanoic acid (PFTriA)	**1.02**	**J**	1.38	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorotetradecanoic acid (PFTeA)	**0.96**	**J**	1.38	0.18	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorobutanesulfonic acid (PFBS)	1.38	U	1.38	0.23	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorohexanesulfonic acid (PFHxS)	**0.36**	**J**	1.38	0.28	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluoroheptanesulfonic acid (PFHpS)	1.38	U	1.38	0.16	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorooctanesulfonic acid (PFOS)	**3.20**		1.38	0.76	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorodecanesulfonic acid (PFDS)	**0.16**	**J**	1.38	0.13	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
Perfluorooctanesulfonamide (PFOSA)	1.38	U	1.38	0.23	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	13.8	U	13.8	0.76	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	13.8	U	13.8	0.57	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	13.8	U	13.8	0.39	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	13.8	U	13.8	0.26	ug/Kg	☼	10/27/22 09:00	10/31/22 18:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C4 PFHpA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C4 PFOA	*82*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C4 PFOS	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C5 PFNA	*88*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C4 PFBA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C2 PFHxA	*75*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C2 PFDA	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C2 PFUnA	*96*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C2 PFDoA	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C8 FOSA	*72*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C5 PFPeA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C2 PFTeDA	*75*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
d3-NMeFOSAA	*108*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
d5-NEtFOSAA	*119*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
M2-8:2 FTS	*134*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*
13C3 PFBS	*85*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:40*	*1*

Client Sample ID: RI-SED-19_20221014

Date Collected: 10/14/22 10:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-7

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.63	U	5.63	1.35	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluoropentanoic acid (PFPeA)	**1.49**	**J**	2.25	0.77	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorohexanoic acid (PFHxA)	**1.57**	**J**	2.25	0.73	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluoroheptanoic acid (PFHpA)	**0.81**	**J**	2.25	0.61	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorooctanoic acid (PFOA)	**2.34**		2.25	0.86	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorononanoic acid (PFNA)	**0.85**	**J**	2.25	0.55	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorodecanoic acid (PFDA)	2.25	U	2.25	0.52	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluoroundecanoic acid (PFUnA)	2.25	U	2.25	0.62	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorododecanoic acid (PFDoA)	2.25	U	2.25	0.55	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorotridecanoic acid (PFTriA)	2.25	U	2.25	0.54	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorotetradecanoic acid (PFTeA)	2.25	U	2.25	0.72	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorobutanesulfonic acid (PFBS)	2.25	U	2.25	0.70	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorohexanesulfonic acid (PFHxS)	**2.76**		2.25	0.62	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluoroheptanesulfonic acid (PFHpS)	2.25	U	2.25	0.46	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorooctanesulfonic acid (PFOS)	**11.2**		2.25	0.96	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorodecanesulfonic acid (PFDS)	2.25	U	2.25	0.45	ng/L		10/28/22 09:54	10/28/22 21:27	1
Perfluorooctanesulfonamide (PFOSA)	2.25	U	2.25	1.04	ng/L		10/28/22 09:54	10/28/22 21:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.63	U	5.63	2.14	ng/L		10/28/22 09:54	10/28/22 21:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.63	U	5.63	1.80	ng/L		10/28/22 09:54	10/28/22 21:27	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.63	U	5.63	1.46	ng/L		10/28/22 09:54	10/28/22 21:27	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.25	U	2.25	0.87	ng/L		10/28/22 09:54	10/28/22 21:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C4 PFHpA	*97*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C4 PFOA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C4 PFOS	*108*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C5 PFNA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C4 PFBA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C2 PFHxA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C2 PFDA	*106*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C2 PFUnA	*110*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C2 PFDoA	*118*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C8 FOSA	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C5 PFPeA	*95*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C2 PFTeDA	*76*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
d3-NMeFOSAA	*131*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
d5-NEtFOSAA	*132*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
M2-6:2 FTS	*115*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
M2-8:2 FTS	*110*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*
13C3 PFBS	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:27*	*1*

Client Sample ID: RI-SED-19_20221014

Date Collected: 10/14/22 10:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-7

Matrix: Solid
Percent Solids: 15.4

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	3.12	U	3.12	2.06	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluoropentanoic acid (PFPeA)	**0.43**	**J**	1.25	0.34	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorohexanoic acid (PFHxA)	1.25	U	1.25	0.29	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluoroheptanoic acid (PFHpA)	1.25	U	1.25	0.24	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorooctanoic acid (PFOA)	**0.62**	**J**	1.25	0.36	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorononanoic acid (PFNA)	**0.36**	**J**	1.25	0.21	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorodecanoic acid (PFDA)	**1.15**	**J**	1.25	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluoroundecanoic acid (PFUnA)	**0.98**	**J**	1.25	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorododecanoic acid (PFDoA)	**1.04**	**J**	1.25	0.16	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorotridecanoic acid (PFTriA)	**0.61**	**J**	1.25	0.16	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorotetradecanoic acid (PFTeA)	**0.56**	**J**	1.25	0.16	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorobutanesulfonic acid (PFBS)	1.25	U	1.25	0.21	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorohexanesulfonic acid (PFHxS)	**0.62**	**J**	1.25	0.26	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluoroheptanesulfonic acid (PFHpS)	1.25	U	1.25	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorooctanesulfonic acid (PFOS)	**10.8**		1.25	0.69	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorodecanesulfonic acid (PFDS)	**0.60**	**J**	1.25	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
Perfluorooctanesulfonamide (PFOSA)	1.25	U	1.25	0.21	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12.5	U	12.5	0.69	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12.5	U	12.5	0.52	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	12.5	U	12.5	0.36	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	12.5	U	12.5	0.23	ug/Kg	☼	10/27/22 09:00	10/31/22 18:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C4 PFHpA	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C4 PFOA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C4 PFOS	*83*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C5 PFNA	*83*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C4 PFBA	*72*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C2 PFHxA	*77*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C2 PFDA	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C2 PFUnA	*98*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C2 PFDoA	*88*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C8 FOSA	*68*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C5 PFPeA	*76*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C2 PFTeDA	*60*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
d3-NMeFOSAA	*117*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
d5-NEtFOSAA	*124*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
M2-6:2 FTS	*125*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
M2-8:2 FTS	*147*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*
13C3 PFBS	*80*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:48*	*1*

Client Sample ID: RI-SED-20_20221014

Date Collected: 10/14/22 09:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-8

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.45**		5.21	1.25	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluoropentanoic acid (PFPeA)	**5.99**		2.09	0.71	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorohexanoic acid (PFHxA)	**4.69**		2.09	0.68	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluoroheptanoic acid (PFHpA)	**3.77**		2.09	0.56	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorooctanoic acid (PFOA)	**3.82**		2.09	0.79	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorononanoic acid (PFNA)	**0.91**	**J**	2.09	0.51	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorodecanoic acid (PFDA)	2.09	U	2.09	0.48	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluoroundecanoic acid (PFUnA)	2.09	U	2.09	0.57	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorododecanoic acid (PFDoA)	2.09	U	2.09	0.51	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorotridecanoic acid (PFTriA)	2.09	U	2.09	0.50	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorotetradecanoic acid (PFTeA)	2.09	U	2.09	0.67	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorobutanesulfonic acid (PFBS)	**0.69**	**J**	2.09	0.65	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorohexanesulfonic acid (PFHxS)	**3.97**		2.09	0.57	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluoroheptanesulfonic acid (PFHpS)	2.09	U	2.09	0.43	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorooctanesulfonic acid (PFOS)	**4.09**		2.09	0.89	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorodecanesulfonic acid (PFDS)	2.09	U	2.09	0.42	ng/L		10/28/22 09:54	10/28/22 21:36	1
Perfluorooctanesulfonamide (PFOSA)	2.09	U	2.09	0.96	ng/L		10/28/22 09:54	10/28/22 21:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.21	U	5.21	1.98	ng/L		10/28/22 09:54	10/28/22 21:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.21	U	5.21	1.67	ng/L		10/28/22 09:54	10/28/22 21:36	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.21	U	5.21	1.36	ng/L		10/28/22 09:54	10/28/22 21:36	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.09	U	2.09	0.80	ng/L		10/28/22 09:54	10/28/22 21:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*105*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C4 PFHpA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C4 PFOA	*99*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C4 PFOS	*112*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C5 PFNA	*103*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C4 PFBA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C2 PFHxA	*94*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C2 PFDA	*107*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C2 PFUnA	*116*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C2 PFDoA	*117*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C8 FOSA	*107*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C5 PFPeA	*91*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C2 PFTeDA	*73*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
d3-NMeFOSAA	*131*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
d5-NEtFOSAA	*128*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
M2-8:2 FTS	*115*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*
13C3 PFBS	*103*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:36*	*1*

Client Sample ID: RI-SED-20_20221014

Date Collected: 10/14/22 09:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-8

Matrix: Solid
Percent Solids: 36.6

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.33	U	1.33	0.88	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluoropentanoic acid (PFPeA)	**1.18**		0.53	0.15	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorohexanoic acid (PFHxA)	**0.87**		0.53	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluoroheptanoic acid (PFHpA)	**0.78**		0.53	0.10	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorooctanoic acid (PFOA)	**1.58**		0.53	0.15	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorononanoic acid (PFNA)	**1.09**		0.53	0.090	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorodecanoic acid (PFDA)	**0.75**		0.53	0.074	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluoroundecanoic acid (PFUnA)	**0.81**		0.53	0.072	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorododecanoic acid (PFDoA)	**0.40**	**J**	0.53	0.066	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorotridecanoic acid (PFTriA)	**0.36**	**J**	0.53	0.066	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorotetradecanoic acid (PFTeA)	**0.26**	**J**	0.53	0.069	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorobutanesulfonic acid (PFBS)	0.53	U	0.53	0.088	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorohexanesulfonic acid (PFHxS)	**0.59**		0.53	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluoroheptanesulfonic acid (PFHpS)	0.53	U	0.53	0.061	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorooctanesulfonic acid (PFOS)	**5.06**		0.53	0.29	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorodecanesulfonic acid (PFDS)	**0.087**	**J**	0.53	0.050	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
Perfluorooctanesulfonamide (PFOSA)	0.53	U	0.53	0.090	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.31	U	5.31	0.29	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.31	U	5.31	0.22	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.31	U	5.31	0.15	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	5.31	U	5.31	0.098	ug/Kg	☼	10/27/22 09:00	10/31/22 18:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C4 PFHpA	*71*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C4 PFOA	*77*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C4 PFOS	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C5 PFNA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C4 PFBA	*73*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C2 PFHxA	*74*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C2 PFDA	*84*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C2 PFUnA	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C2 PFDoA	*88*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C8 FOSA	*71*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C5 PFPeA	*62*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C2 PFTeDA	*80*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
d3-NMeFOSAA	*110*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
d5-NEtFOSAA	*121*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
M2-6:2 FTS	*102*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
M2-8:2 FTS	*124*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*
13C3 PFBS	*75*		*50 - 150*	*10/27/22 09:00*	*10/31/22 18:56*	*1*

Client Sample ID: RI-SED-X_20221014

Date Collected: 10/14/22 09:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-9

Matrix: Solid

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - SPLP East

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**22.2**	**J**	24.8	5.95	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluoropentanoic acid (PFPeA)	**94.3**		9.92	3.37	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorohexanoic acid (PFHxA)	**65.6**		9.92	3.22	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluoroheptanoic acid (PFHpA)	**33.1**		9.92	2.68	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorooctanoic acid (PFOA)	**33.9**		9.92	3.77	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorononanoic acid (PFNA)	**4.72**	**J**	9.92	2.43	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorodecanoic acid (PFDA)	**5.97**	**J**	9.92	2.28	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluoroundecanoic acid (PFUnA)	9.92	U	9.92	2.73	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorododecanoic acid (PFDoA)	9.92	U	9.92	2.43	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorotridecanoic acid (PFTriA)	9.92	U	9.92	2.38	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorotetradecanoic acid (PFTeA)	9.92	U	9.92	3.17	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorobutanesulfonic acid (PFBS)	9.92	U	9.92	3.08	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorohexanesulfonic acid (PFHxS)	**36.4**		9.92	2.73	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluoroheptanesulfonic acid (PFHpS)	**2.64**	**J**	9.92	2.03	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorooctanesulfonic acid (PFOS)	**293**		9.92	4.22	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorodecanesulfonic acid (PFDS)	9.92	U	9.92	1.98	ng/L		10/28/22 09:54	10/28/22 21:44	1
Perfluorooctanesulfonamide (PFOSA)	9.92	U	9.92	4.56	ng/L		10/28/22 09:54	10/28/22 21:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	24.8	9.42	ng/L		10/28/22 09:54	10/28/22 21:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	24.8	7.94	ng/L		10/28/22 09:54	10/28/22 21:44	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.8	U	24.8	6.45	ng/L		10/28/22 09:54	10/28/22 21:44	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.92	U	9.92	3.82	ng/L		10/28/22 09:54	10/28/22 21:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C4 PFHpA	*91*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C4 PFOA	*102*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C4 PFOS	*105*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C5 PFNA	*96*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C4 PFBA	*91*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C2 PFHxA	*93*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C2 PFDA	*104*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C2 PFUnA	*100*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C2 PFDoA	*109*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C8 FOSA	*98*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C5 PFPeA	*87*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C2 PFTeDA	*97*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
d3-NMeFOSAA	*125*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
d5-NEtFOSAA	*127*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
M2-8:2 FTS	*109*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*
13C3 PFBS	*98*		*50 - 150*	*10/28/22 09:54*	*10/28/22 21:44*	*1*

Client Sample ID: RI-SED-X_20221014

Date Collected: 10/14/22 09:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-9

Matrix: Solid
Percent Solids: 33.5

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**2.34**		1.49	0.98	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluoropentanoic acid (PFPeA)	**9.82**		0.59	0.16	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorohexanoic acid (PFHxA)	**5.65**		0.59	0.14	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluoroheptanoic acid (PFHpA)	**2.79**		0.59	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorooctanoic acid (PFOA)	**3.54**		0.59	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorononanoic acid (PFNA)	**0.68**		0.59	0.10	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorodecanoic acid (PFDA)	**1.46**		0.59	0.083	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluoroundecanoic acid (PFUnA)	**0.47**	**J**	0.59	0.080	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorododecanoic acid (PFDoA)	**1.34**		0.59	0.074	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorotridecanoic acid (PFTriA)	**0.43**	**J**	0.59	0.074	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorotetradecanoic acid (PFTeA)	**0.94**		0.59	0.077	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorobutanesulfonic acid (PFBS)	**0.13**	**J**	0.59	0.098	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorohexanesulfonic acid (PFHxS)	**4.44**		0.59	0.12	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.45**	**J**	0.59	0.068	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorodecanesulfonic acid (PFDS)	0.59	U	0.59	0.056	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
Perfluorooctanesulfonamide (PFOSA)	0.59	U	0.59	0.10	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.94	U	5.94	0.33	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.94	U	5.94	0.25	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1.34**	**J**	5.94	0.17	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**3.51**	**J**	5.94	0.11	ug/Kg	☼	10/27/22 09:00	10/31/22 19:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*88*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C4 PFHpA	*83*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C4 PFOA	*85*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C4 PFOS	*86*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C5 PFNA	*83*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C4 PFBA	*80*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C2 PFHxA	*79*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C2 PFDA	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C2 PFUnA	*98*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C2 PFDoA	*95*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C8 FOSA	*75*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C5 PFPeA	*80*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C2 PFTeDA	*95*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
d3-NMeFOSAA	*117*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
d5-NEtFOSAA	*137*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
M2-8:2 FTS	*141*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*
13C3 PFBS	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 19:04*	*1*

Client Sample ID: RI-SED-X_20221014

Lab Sample ID: 460-267585-9

Date Collected: 10/14/22 09:30
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 33.5

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**58.8**		1.19	0.65	ug/Kg	☼	10/27/22 09:00	11/02/22 16:43	2

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*90*		*50 - 150*	*10/27/22 09:00*	*11/02/22 16:43*	*2*

Client Sample ID: RI-SW-13_20221014

Lab Sample ID: 460-267585-10

Date Collected: 10/14/22 09:15
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**265**		24.9	5.96	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluoropentanoic acid (PFPeA)	**1150**		9.94	3.38	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorohexanoic acid (PFHxA)	**580**		9.94	3.23	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluoroheptanoic acid (PFHpA)	**253**		9.94	2.68	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorooctanoic acid (PFOA)	**144**		9.94	3.78	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorononanoic acid (PFNA)	**20.6**		9.94	2.44	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorodecanoic acid (PFDA)	**14.7**		9.94	2.29	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluoroundecanoic acid (PFUnA)	9.94	U	9.94	2.73	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorododecanoic acid (PFDoA)	9.94	U	9.94	2.44	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorotridecanoic acid (PFTriA)	9.94	U	9.94	2.39	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorotetradecanoic acid (PFTeA)	9.94	U	9.94	3.18	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorobutanesulfonic acid (PFBS)	**4.46**	**J**	9.94	3.08	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorohexanesulfonic acid (PFHxS)	**40.6**		9.94	2.73	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluoroheptanesulfonic acid (PFHpS)	9.94	U	9.94	2.04	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorooctanesulfonic acid (PFOS)	**105**		9.94	4.22	ng/L		10/27/22 10:15	10/28/22 16:00	1
Perfluorodecanesulfonic acid (PFDS)	9.94	U	9.94	1.99	ng/L		10/27/22 10:15	10/27/22 21:20	1
Perfluorooctanesulfonamide (PFOSA)	9.94	U	9.94	4.57	ng/L		10/27/22 10:15	10/27/22 21:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	U	24.9	9.44	ng/L		10/27/22 10:15	10/27/22 21:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	U	24.9	7.95	ng/L		10/27/22 10:15	10/27/22 21:20	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**108**		24.9	6.46	ng/L		10/27/22 10:15	10/27/22 21:20	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**9.36**	**J**	9.94	3.83	ng/L		10/27/22 10:15	10/27/22 21:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*109*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C4 PFHpA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C4 PFOA	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C4 PFOS	*109*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C4 PFOS	*111*		*50 - 150*	*10/27/22 10:15*	*10/28/22 16:00*	*1*
13C5 PFNA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C4 PFBA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C2 PFHxA	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C2 PFDA	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C2 PFUnA	*109*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*
13C2 PFDoA	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 21:20*	*1*

Client Sample ID: RI-SW-13_20221014

Lab Sample ID: 460-267585-10

Date Collected: 10/14/22 09:15

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	106		50 - 150	10/27/22 10:15	10/27/22 21:20	1
13C5 PFPeA	95		50 - 150	10/27/22 10:15	10/27/22 21:20	1
13C2 PFTeDA	106		50 - 150	10/27/22 10:15	10/27/22 21:20	1
d3-NMeFOSAA	118		50 - 150	10/27/22 10:15	10/27/22 21:20	1
d5-NEtFOSAA	131		50 - 150	10/27/22 10:15	10/27/22 21:20	1
M2-6:2 FTS	111		50 - 150	10/27/22 10:15	10/27/22 21:20	1
M2-8:2 FTS	107		50 - 150	10/27/22 10:15	10/27/22 21:20	1
13C3 PFBS	106		50 - 150	10/27/22 10:15	10/27/22 21:20	1

Client Sample ID: RI-SW-14_20221014

Lab Sample ID: 460-267585-11

Date Collected: 10/14/22 08:45

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**82.1**		24.9	5.98	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluoropentanoic acid (PFPeA)	**221**		9.96	3.39	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorohexanoic acid (PFHxA)	**117**		9.96	3.24	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluoroheptanoic acid (PFHpA)	**59.0**		9.96	2.69	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorooctanoic acid (PFOA)	**59.2**		9.96	3.78	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorononanoic acid (PFNA)	**6.54**	**J**	9.96	2.44	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorodecanoic acid (PFDA)	**3.20**	**J**	9.96	2.29	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluoroundecanoic acid (PFUnA)	9.96	U	9.96	2.74	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorododecanoic acid (PFDoA)	9.96	U	9.96	2.44	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorotridecanoic acid (PFTriA)	9.96	U	9.96	2.39	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorotetradecanoic acid (PFTeA)	9.96	U	9.96	3.19	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorobutanesulfonic acid (PFBS)	9.96	U	9.96	3.09	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorohexanesulfonic acid (PFHxS)	**9.23**	**J**	9.96	2.74	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluoroheptanesulfonic acid (PFHpS)	9.96	U	9.96	2.04	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorooctanesulfonic acid (PFOS)	**9.39**	**J**	9.96	4.23	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorodecanesulfonic acid (PFDS)	9.96	U	9.96	1.99	ng/L		10/27/22 10:15	10/27/22 18:37	1
Perfluorooctanesulfonamide (PFOSA)	9.96	U	9.96	4.58	ng/L		10/27/22 10:15	10/27/22 18:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	U	24.9	9.46	ng/L		10/27/22 10:15	10/27/22 18:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	U	24.9	7.97	ng/L		10/27/22 10:15	10/27/22 18:37	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.9	U	24.9	6.47	ng/L		10/27/22 10:15	10/27/22 18:37	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.96	U	9.96	3.83	ng/L		10/27/22 10:15	10/27/22 18:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	103		50 - 150	10/27/22 10:15	10/27/22 18:37	1
13C4 PFHpA	96		50 - 150	10/27/22 10:15	10/27/22 18:37	1
13C4 PFOA	94		50 - 150	10/27/22 10:15	10/27/22 18:37	1
13C4 PFOS	110		50 - 150	10/27/22 10:15	10/27/22 18:37	1
13C5 PFNA	94		50 - 150	10/27/22 10:15	10/27/22 18:37	1
13C4 PFBA	93		50 - 150	10/27/22 10:15	10/27/22 18:37	1
13C2 PFHxA	95		50 - 150	10/27/22 10:15	10/27/22 18:37	1

Client Sample ID: RI-SW-14_20221014

Lab Sample ID: 460-267585-11

Date Collected: 10/14/22 08:45

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFDA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
13C2 PFUnA	*112*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
13C2 PFDoA	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
13C8 FOSA	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
13C5 PFPeA	*89*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
13C2 PFTeDA	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
d3-NMeFOSAA	*121*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
d5-NEtFOSAA	*120*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
M2-6:2 FTS	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
M2-8:2 FTS	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*
13C3 PFBS	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:37*	*1*

Client Sample ID: RI-SW-15_20221014

Lab Sample ID: 460-267585-12

Date Collected: 10/14/22 08:00

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**16.8**	**J**	47.9	11.5	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluoropentanoic acid (PFPeA)	**13.6**	**J**	19.2	6.51	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorohexanoic acid (PFHxA)	**10.9**	**J**	19.2	6.23	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluoroheptanoic acid (PFHpA)	**6.10**	**J**	19.2	5.17	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorooctanoic acid (PFOA)	**8.71**	**J**	19.2	7.28	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorononanoic acid (PFNA)	19.2	U	19.2	4.69	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorodecanoic acid (PFDA)	19.2	U	19.2	4.41	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluoroundecanoic acid (PFUnA)	19.2	U	19.2	5.27	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorododecanoic acid (PFDoA)	19.2	U	19.2	4.69	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorotridecanoic acid (PFTriA)	19.2	U	19.2	4.60	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorotetradecanoic acid (PFTeA)	19.2	U	19.2	6.13	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorobutanesulfonic acid (PFBS)	19.2	U	19.2	5.94	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorohexanesulfonic acid (PFHxS)	**8.97**	**J**	19.2	5.27	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluoroheptanesulfonic acid (PFHpS)	19.2	U	19.2	3.93	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorooctanesulfonic acid (PFOS)	19.2	U	19.2	8.14	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorodecanesulfonic acid (PFDS)	19.2	U	19.2	3.83	ng/L		10/27/22 10:15	10/27/22 18:45	1
Perfluorooctanesulfonamide (PFOSA)	19.2	U	19.2	8.81	ng/L		10/27/22 10:15	10/27/22 18:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	47.9	U	47.9	18.2	ng/L		10/27/22 10:15	10/27/22 18:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	47.9	U	47.9	15.3	ng/L		10/27/22 10:15	10/27/22 18:45	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47.9	U	47.9	12.5	ng/L		10/27/22 10:15	10/27/22 18:45	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.2	U	19.2	7.38	ng/L		10/27/22 10:15	10/27/22 18:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C4 PFHpA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C4 PFOA	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C4 PFOS	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C5 PFNA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*

Client Sample ID: RI-SW-15_20221014

Lab Sample ID: 460-267585-12

Date Collected: 10/14/22 08:00
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C2 PFHxA	*95*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C2 PFDA	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C2 PFUnA	*111*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C2 PFDoA	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C8 FOSA	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C5 PFPeA	*92*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C2 PFTeDA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
d3-NMeFOSAA	*123*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
d5-NEtFOSAA	*128*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
M2-6:2 FTS	*107*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
M2-8:2 FTS	*112*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*
13C3 PFBS	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:45*	*1*

Client Sample ID: RI-SW-16_20221014

Lab Sample ID: 460-267585-13

Date Collected: 10/14/22 13:00
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**16.0**	**J**	47.3	11.4	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluoropentanoic acid (PFPeA)	**41.0**		18.9	6.44	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorohexanoic acid (PFHxA)	**28.8**		18.9	6.16	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluoroheptanoic acid (PFHpA)	**15.5**	**J**	18.9	5.11	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorooctanoic acid (PFOA)	**8.05**	**J**	18.9	7.20	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorononanoic acid (PFNA)	18.9	U	18.9	4.64	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorodecanoic acid (PFDA)	18.9	U	18.9	4.36	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluoroundecanoic acid (PFUnA)	18.9	U	18.9	5.21	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorododecanoic acid (PFDoA)	18.9	U	18.9	4.64	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorotridecanoic acid (PFTriA)	18.9	U	18.9	4.55	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorotetradecanoic acid (PFTeA)	18.9	U	18.9	6.06	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorobutanesulfonic acid (PFBS)	18.9	U	18.9	5.87	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorohexanesulfonic acid (PFHxS)	**10.9**	**J**	18.9	5.21	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluoroheptanesulfonic acid (PFHpS)	18.9	U	18.9	3.88	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorooctanesulfonic acid (PFOS)	**45.1**		18.9	8.05	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorodecanesulfonic acid (PFDS)	18.9	U	18.9	3.79	ng/L		10/27/22 10:15	10/27/22 18:53	1
Perfluorooctanesulfonamide (PFOSA)	18.9	U	18.9	8.71	ng/L		10/27/22 10:15	10/27/22 18:53	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	47.3	U	47.3	18.0	ng/L		10/27/22 10:15	10/27/22 18:53	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	47.3	U	47.3	15.2	ng/L		10/27/22 10:15	10/27/22 18:53	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47.3	U	47.3	12.3	ng/L		10/27/22 10:15	10/27/22 18:53	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	18.9	U	18.9	7.29	ng/L		10/27/22 10:15	10/27/22 18:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C4 PFHpA	*100*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*

Client Sample ID: RI-SW-16_20221014

Lab Sample ID: 460-267585-13

Date Collected: 10/14/22 13:00
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C4 PFOS	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C5 PFNA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C4 PFBA	*95*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C2 PFHxA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C2 PFDA	*100*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C2 PFUnA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C2 PFDoA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C8 FOSA	*92*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C5 PFPeA	*90*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C2 PFTeDA	*84*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
d3-NMeFOSAA	*111*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
d5-NEtFOSAA	*113*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
M2-6:2 FTS	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
M2-8:2 FTS	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*
13C3 PFBS	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 18:53*	*1*

Client Sample ID: RI-SW-17_20221014

Lab Sample ID: 460-267585-14

Date Collected: 10/14/22 12:00
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**24.3**		21.7	5.22	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluoropentanoic acid (PFPeA)	**49.4**		8.70	2.96	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorohexanoic acid (PFHxA)	**32.7**		8.70	2.83	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluoroheptanoic acid (PFHpA)	**16.7**		8.70	2.35	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorooctanoic acid (PFOA)	**30.1**		8.70	3.31	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorononanoic acid (PFNA)	8.70	U	8.70	2.13	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorodecanoic acid (PFDA)	8.70	U	8.70	2.00	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluoroundecanoic acid (PFUnA)	8.70	U	8.70	2.39	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorododecanoic acid (PFDoA)	8.70	U	8.70	2.13	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorotridecanoic acid (PFTriA)	8.70	U	8.70	2.09	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorotetradecanoic acid (PFTeA)	8.70	U	8.70	2.78	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorobutanesulfonic acid (PFBS)	**10.2**		8.70	2.70	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorohexanesulfonic acid (PFHxS)	**15.1**		8.70	2.39	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluoroheptanesulfonic acid (PFHpS)	8.70	U	8.70	1.78	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorooctanesulfonic acid (PFOS)	**7.87**	**J**	8.70	3.70	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorodecanesulfonic acid (PFDS)	8.70	U	8.70	1.74	ng/L		10/27/22 10:15	10/27/22 19:01	5
Perfluorooctanesulfonamide (PFOSA)	8.70	U	8.70	4.00	ng/L		10/27/22 10:15	10/27/22 19:01	5
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	21.7	U	21.7	8.26	ng/L		10/27/22 10:15	10/27/22 19:01	5
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	21.7	U	21.7	6.96	ng/L		10/27/22 10:15	10/27/22 19:01	5
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	21.7	U	21.7	5.65	ng/L		10/27/22 10:15	10/27/22 19:01	5
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.70	U	8.70	3.35	ng/L		10/27/22 10:15	10/27/22 19:01	5

Client Sample ID: RI-SW-17_20221014

Lab Sample ID: 460-267585-14

Date Collected: 10/14/22 12:00
Matrix: Water
Date Received: 10/14/22 18:00

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*112*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C4 PFHpA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C4 PFOA	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C4 PFOS	*122*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C5 PFNA	*107*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C4 PFBA	*85*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C2 PFHxA	*94*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C2 PFDA	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C2 PFUnA	*128*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C2 PFDoA	*124*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C8 FOSA	*113*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C5 PFPeA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C2 PFTeDA	*93*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
d3-NMeFOSAA	*131*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
d5-NEtFOSAA	*147*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
M2-6:2 FTS	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
M2-8:2 FTS	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*
13C3 PFBS	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:01*	*5*

Client Sample ID: RI-SW-18_20221014

Lab Sample ID: 460-267585-15

Date Collected: 10/14/22 11:15
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**15.8**	**J**	48.6	11.7	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluoropentanoic acid (PFPeA)	**31.1**		19.5	6.61	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorohexanoic acid (PFHxA)	**18.4**	**J**	19.5	6.32	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluoroheptanoic acid (PFHpA)	**7.54**	**J**	19.5	5.25	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorooctanoic acid (PFOA)	**21.6**		19.5	7.39	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorononanoic acid (PFNA)	19.5	U	19.5	4.77	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorodecanoic acid (PFDA)	19.5	U	19.5	4.47	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluoroundecanoic acid (PFUnA)	19.5	U	19.5	5.35	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorododecanoic acid (PFDoA)	19.5	U	19.5	4.77	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorotridecanoic acid (PFTriA)	19.5	U	19.5	4.67	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorotetradecanoic acid (PFTeA)	19.5	U	19.5	6.23	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorobutanesulfonic acid (PFBS)	**6.59**	**J**	19.5	6.03	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorohexanesulfonic acid (PFHxS)	**5.45**	**J**	19.5	5.35	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluoroheptanesulfonic acid (PFHpS)	19.5	U	19.5	3.99	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorooctanesulfonic acid (PFOS)	**9.69**	**J**	19.5	8.27	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorodecanesulfonic acid (PFDS)	19.5	U	19.5	3.89	ng/L		10/27/22 10:15	10/27/22 19:26	1
Perfluorooctanesulfonamide (PFOSA)	19.5	U	19.5	8.95	ng/L		10/27/22 10:15	10/27/22 19:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	48.6	U	48.6	18.5	ng/L		10/27/22 10:15	10/27/22 19:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	48.6	U	48.6	15.6	ng/L		10/27/22 10:15	10/27/22 19:26	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	48.6	U	48.6	12.6	ng/L		10/27/22 10:15	10/27/22 19:26	1

Client Sample ID: RI-SW-18_20221014

Lab Sample ID: 460-267585-15

Date Collected: 10/14/22 11:15

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.5	U	19.5	7.49	ng/L		10/27/22 10:15	10/27/22 19:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C4 PFHpA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C4 PFOA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C4 PFOS	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C5 PFNA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C4 PFBA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C2 PFHxA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C2 PFDA	*100*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C2 PFUnA	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C2 PFDoA	*118*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C8 FOSA	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C5 PFPeA	*91*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C2 PFTeDA	*109*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
d3-NMeFOSAA	*122*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
d5-NEtFOSAA	*131*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
M2-8:2 FTS	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*
13C3 PFBS	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:26*	*1*

Client Sample ID: RI-SW-19_20221014

Lab Sample ID: 460-267585-16

Date Collected: 10/14/22 10:30

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**13.0**	**J**	48.4	11.6	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluoropentanoic acid (PFPeA)	**14.1**	**J**	19.4	6.59	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorohexanoic acid (PFHxA)	**13.5**	**J**	19.4	6.30	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluoroheptanoic acid (PFHpA)	19.4	U	19.4	5.23	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorooctanoic acid (PFOA)	**8.65**	**J**	19.4	7.36	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorononanoic acid (PFNA)	19.4	U	19.4	4.75	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorodecanoic acid (PFDA)	19.4	U	19.4	4.46	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluoroundecanoic acid (PFUnA)	**20.0**		19.4	5.33	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorododecanoic acid (PFDoA)	**34.0**		19.4	4.75	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorotridecanoic acid (PFTriA)	**17.3**	**J**	19.4	4.65	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorotetradecanoic acid (PFTeA)	**12.8**	**J**	19.4	6.20	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorobutanesulfonic acid (PFBS)	**9.77**	**J**	19.4	6.01	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorohexanesulfonic acid (PFHxS)	**13.6**	**J**	19.4	5.33	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluoroheptanesulfonic acid (PFHpS)	19.4	U	19.4	3.97	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorooctanesulfonic acid (PFOS)	**20.8**		19.4	8.24	ng/L		10/27/22 10:15	10/27/22 19:34	1
Perfluorodecanesulfonic acid (PFDS)	**38.8**		19.4	3.88	ng/L		10/27/22 10:15	10/27/22 19:34	1

Client Sample ID: RI-SW-19_20221014

Lab Sample ID: 460-267585-16

Date Collected: 10/14/22 10:30

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	19.4	U	19.4	8.91	ng/L		10/27/22 10:15	10/27/22 19:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	48.4	U	48.4	18.4	ng/L		10/27/22 10:15	10/27/22 19:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**22.7**	**J**	48.4	15.5	ng/L		10/27/22 10:15	10/27/22 19:34	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	48.4	U	48.4	12.6	ng/L		10/27/22 10:15	10/27/22 19:34	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.4	U	19.4	7.46	ng/L		10/27/22 10:15	10/27/22 19:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*115*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C4 PFHpA	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C4 PFOA	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C4 PFOS	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C5 PFNA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C4 PFBA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C2 PFHxA	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C2 PFDA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C2 PFUnA	*109*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C2 PFDoA	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C8 FOSA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C5 PFPeA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
d3-NMeFOSAA	*116*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
d5-NEtFOSAA	*122*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*
13C3 PFBS	*109*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:34*	*1*

Client Sample ID: RI-SW-20_20221014

Lab Sample ID: 460-267585-17

Date Collected: 10/14/22 09:45

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**12.0**		4.23	1.02	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluoropentanoic acid (PFPeA)	**44.2**		1.69	0.58	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorohexanoic acid (PFHxA)	**27.4**		1.69	0.55	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluoroheptanoic acid (PFHpA)	**18.5**		1.69	0.46	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorooctanoic acid (PFOA)	**10.1**		1.69	0.64	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorononanoic acid (PFNA)	**3.84**		1.69	0.41	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorodecanoic acid (PFDA)	**1.55**	**J**	1.69	0.39	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluoroundecanoic acid (PFUnA)	1.69	U	1.69	0.47	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorododecanoic acid (PFDoA)	1.69	U	1.69	0.41	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorotridecanoic acid (PFTriA)	1.69	U	1.69	0.41	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorotetradecanoic acid (PFTeA)	1.69	U	1.69	0.54	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorobutanesulfonic acid (PFBS)	**2.15**		1.69	0.53	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorohexanesulfonic acid (PFHxS)	**12.4**		1.69	0.47	ng/L		10/27/22 10:15	10/27/22 19:42	1

Client Sample ID: RI-SW-20_20221014

Lab Sample ID: 460-267585-17

Date Collected: 10/14/22 09:45
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	1.69	U	1.69	0.35	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorooctanesulfonic acid (PFOS)	**53.6**		1.69	0.72	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorodecanesulfonic acid (PFDS)	1.69	U	1.69	0.34	ng/L		10/27/22 10:15	10/27/22 19:42	1
Perfluorooctanesulfonamide (PFOSA)	1.69	U	1.69	0.78	ng/L		10/27/22 10:15	10/27/22 19:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.23	U	4.23	1.61	ng/L		10/27/22 10:15	10/27/22 19:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.23	U	4.23	1.36	ng/L		10/27/22 10:15	10/27/22 19:42	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**2.76**	**J**	4.23	1.10	ng/L		10/27/22 10:15	10/27/22 19:42	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.69	U	1.69	0.65	ng/L		10/27/22 10:15	10/27/22 19:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*107*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C4 PFHpA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C4 PFOA	*95*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C4 PFOS	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C5 PFNA	*91*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C4 PFBA	*74*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C2 PFHxA	*89*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C2 PFDA	*89*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C2 PFUnA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C2 PFDoA	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C8 FOSA	*95*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C5 PFPeA	*90*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C2 PFTeDA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
d3-NMeFOSAA	*116*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
d5-NEtFOSAA	*118*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
M2-6:2 FTS	*113*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
M2-8:2 FTS	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*
13C3 PFBS	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:42*	*1*

Client Sample ID: RI-SW-X_20221014

Lab Sample ID: 460-267585-18

Date Collected: 10/14/22 09:30
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**265**		24.6	5.91	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluoropentanoic acid (PFPeA)	**1210**		9.84	3.35	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorohexanoic acid (PFHxA)	**604**		9.84	3.20	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluoroheptanoic acid (PFHpA)	**252**		9.84	2.66	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorooctanoic acid (PFOA)	**149**		9.84	3.74	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorononanoic acid (PFNA)	**22.5**		9.84	2.41	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorodecanoic acid (PFDA)	**24.2**		9.84	2.26	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluoroundecanoic acid (PFUnA)	**4.96**	**J**	9.84	2.71	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorododecanoic acid (PFDoA)	**3.30**	**J**	9.84	2.41	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorotridecanoic acid (PFTriA)	9.84	U	9.84	2.36	ng/L		10/27/22 10:15	10/27/22 19:50	1

Client Sample ID: RI-SW-X_20221014

Lab Sample ID: 460-267585-18

Date Collected: 10/14/22 09:30

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeA)	9.84	U	9.84	3.15	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorobutanesulfonic acid (PFBS)	**4.59**	**J**	9.84	3.05	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorohexanesulfonic acid (PFHxS)	**39.3**		9.84	2.71	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluoroheptanesulfonic acid (PFHpS)	9.84	U	9.84	2.02	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorooctanesulfonic acid (PFOS)	**147**		9.84	4.18	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorodecanesulfonic acid (PFDS)	9.84	U	9.84	1.97	ng/L		10/27/22 10:15	10/27/22 19:50	1
Perfluorooctanesulfonamide (PFOSA)	9.84	U	9.84	4.53	ng/L		10/27/22 10:15	10/27/22 19:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.6	U	24.6	9.35	ng/L		10/27/22 10:15	10/27/22 19:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.6	U	24.6	7.87	ng/L		10/27/22 10:15	10/27/22 19:50	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**133**		24.6	6.40	ng/L		10/27/22 10:15	10/27/22 19:50	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**15.7**		9.84	3.79	ng/L		10/27/22 10:15	10/27/22 19:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C4 PFHpA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C4 PFOA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C4 PFOS	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C5 PFNA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C4 PFBA	*94*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C2 PFHxA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C2 PFDA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C2 PFUnA	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C2 PFDoA	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C8 FOSA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C5 PFPeA	*92*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C2 PFTeDA	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
d3-NMeFOSAA	*122*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
d5-NEtFOSAA	*129*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
M2-6:2 FTS	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
M2-8:2 FTS	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*
13C3 PFBS	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 19:50*	*1*

Client Sample ID: RI-CW-01_20221014

Lab Sample ID: 460-267585-19

Date Collected: 10/14/22 13:30

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**24.9**		4.40	1.05	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluoropentanoic acid (PFPeA)	**75.0**		1.76	0.60	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorohexanoic acid (PFHxA)	**40.5**		1.76	0.57	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluoroheptanoic acid (PFHpA)	**22.4**		1.76	0.47	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorooctanoic acid (PFOA)	**13.5**		1.76	0.67	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorononanoic acid (PFNA)	**5.42**		1.76	0.43	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorodecanoic acid (PFDA)	**1.45**	**J**	1.76	0.40	ng/L		10/27/22 10:15	10/27/22 20:07	1

Client Sample ID: RI-CW-01_20221014

Lab Sample ID: 460-267585-19

Date Collected: 10/14/22 13:30

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	1.76	U	1.76	0.48	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorododecanoic acid (PFDoA)	1.76	U	1.76	0.43	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorotridecanoic acid (PFTriA)	1.76	U	1.76	0.42	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorotetradecanoic acid (PFTeA)	1.76	U	1.76	0.56	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorobutanesulfonic acid (PFBS)	**2.46**		1.76	0.55	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorohexanesulfonic acid (PFHxS)	**21.2**		1.76	0.48	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.04**	**J**	1.76	0.36	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorooctanesulfonic acid (PFOS)	**88.0**		1.76	0.75	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorodecanesulfonic acid (PFDS)	1.76	U	1.76	0.35	ng/L		10/27/22 10:15	10/27/22 20:07	1
Perfluorooctanesulfonamide (PFOSA)	1.76	U	1.76	0.81	ng/L		10/27/22 10:15	10/27/22 20:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.40	U	4.40	1.67	ng/L		10/27/22 10:15	10/27/22 20:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.40	U	4.40	1.41	ng/L		10/27/22 10:15	10/27/22 20:07	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**5.89**		4.40	1.14	ng/L		10/27/22 10:15	10/27/22 20:07	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**1.06**	**J**	1.76	0.68	ng/L		10/27/22 10:15	10/27/22 20:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C4 PFHpA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C4 PFOA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C4 PFOS	*107*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C5 PFNA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C4 PFBA	*93*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C2 PFHxA	*94*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C2 PFDA	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C2 PFUnA	*111*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C2 PFDoA	*115*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C8 FOSA	*107*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C5 PFPeA	*92*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C2 PFTeDA	*113*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
d3-NMeFOSAA	*118*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
d5-NEtFOSAA	*129*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
M2-8:2 FTS	*115*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*
13C3 PFBS	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:07*	*1*

Client Sample ID: RI-CW-02_20221014

Lab Sample ID: 460-267585-20

Date Collected: 10/14/22 13:45

Matrix: Water

Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**23.1**		4.52	1.08	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluoropentanoic acid (PFPeA)	**64.3**		1.81	0.61	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorohexanoic acid (PFHxA)	**33.9**		1.81	0.59	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluoroheptanoic acid (PFHpA)	**20.1**		1.81	0.49	ng/L		10/27/22 10:15	10/27/22 20:15	1

Client Sample ID: RI-CW-02_20221014

Lab Sample ID: 460-267585-20

Date Collected: 10/14/22 13:45
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**12.3**		1.81	0.69	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorononanoic acid (PFNA)	**4.45**		1.81	0.44	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorodecanoic acid (PFDA)	**1.56**	**J**	1.81	0.42	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluoroundecanoic acid (PFUnA)	1.81	U	1.81	0.50	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorododecanoic acid (PFDoA)	1.81	U	1.81	0.44	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorotridecanoic acid (PFTriA)	1.81	U	1.81	0.43	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorotetradecanoic acid (PFTeA)	1.81	U	1.81	0.58	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorobutanesulfonic acid (PFBS)	**2.15**		1.81	0.56	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorohexanesulfonic acid (PFHxS)	**20.1**		1.81	0.50	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.03**	**J**	1.81	0.37	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorooctanesulfonic acid (PFOS)	**80.8**		1.81	0.77	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorodecanesulfonic acid (PFDS)	1.81	U	1.81	0.36	ng/L		10/27/22 10:15	10/27/22 20:15	1
Perfluorooctanesulfonamide (PFOSA)	1.81	U	1.81	0.83	ng/L		10/27/22 10:15	10/27/22 20:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.52	U	4.52	1.72	ng/L		10/27/22 10:15	10/27/22 20:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.52	U	4.52	1.45	ng/L		10/27/22 10:15	10/27/22 20:15	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**13.0**		4.52	1.18	ng/L		10/27/22 10:15	10/27/22 20:15	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**3.85**		1.81	0.70	ng/L		10/27/22 10:15	10/27/22 20:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C4 PFHpA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C4 PFOA	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C4 PFOS	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C5 PFNA	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C4 PFBA	*103*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C2 PFHxA	*100*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C2 PFDA	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C2 PFUnA	*112*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C2 PFDoA	*107*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C8 FOSA	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C5 PFPeA	*92*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C2 PFTeDA	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
d3-NMeFOSAA	*123*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
d5-NEtFOSAA	*125*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*
13C3 PFBS	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:15*	*1*

Client Sample ID: RI-CW-03_20221014

Lab Sample ID: 460-267585-21

Date Collected: 10/14/22 14:00
Matrix: Water
Date Received: 10/14/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**21.7**		4.47	1.07	ng/L		10/27/22 10:15	10/27/22 20:23	1

Client Sample ID: RI-CW-03_20221014

Date Collected: 10/14/22 14:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-21

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**57.7**		1.79	0.61	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorohexanoic acid (PFHxA)	**32.6**		1.79	0.58	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluoroheptanoic acid (PFHpA)	**17.9**		1.79	0.48	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorooctanoic acid (PFOA)	**12.4**		1.79	0.68	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorononanoic acid (PFNA)	**4.45**		1.79	0.44	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorodecanoic acid (PFDA)	**1.44**	**J**	1.79	0.41	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluoroundecanoic acid (PFUnA)	1.79	U	1.79	0.49	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorododecanoic acid (PFDoA)	1.79	U	1.79	0.44	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorotridecanoic acid (PFTriA)	1.79	U	1.79	0.43	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorotetradecanoic acid (PFTeA)	1.79	U	1.79	0.57	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorobutanesulfonic acid (PFBS)	**2.21**		1.79	0.55	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorohexanesulfonic acid (PFHxS)	**18.7**		1.79	0.49	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.05**	**J**	1.79	0.37	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorooctanesulfonic acid (PFOS)	**76.2**		1.79	0.76	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorodecanesulfonic acid (PFDS)	1.79	U	1.79	0.36	ng/L		10/27/22 10:15	10/27/22 20:23	1
Perfluorooctanesulfonamide (PFOSA)	1.79	U	1.79	0.82	ng/L		10/27/22 10:15	10/27/22 20:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.47	U	4.47	1.70	ng/L		10/27/22 10:15	10/27/22 20:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.47	U	4.47	1.43	ng/L		10/27/22 10:15	10/27/22 20:23	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**12.5**		4.47	1.16	ng/L		10/27/22 10:15	10/27/22 20:23	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**3.77**		1.79	0.69	ng/L		10/27/22 10:15	10/27/22 20:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C4 PFHpA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C4 PFOA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C4 PFOS	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C5 PFNA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C4 PFBA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C2 PFHxA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C2 PFDA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C2 PFUnA	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C2 PFDoA	*124*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C8 FOSA	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C5 PFPeA	*95*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C2 PFTeDA	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
d3-NMeFOSAA	*126*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
d5-NEtFOSAA	*138*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
M2-6:2 FTS	*115*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
M2-8:2 FTS	*113*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*
13C3 PFBS	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:23*	*1*

Client Sample ID: RI-CW-04_20221014

Date Collected: 10/14/22 14:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-22

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**18.1**		4.36	1.05	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluoropentanoic acid (PFPeA)	**52.4**		1.74	0.59	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorohexanoic acid (PFHxA)	**28.4**		1.74	0.57	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluoroheptanoic acid (PFHpA)	**20.7**		1.74	0.47	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorooctanoic acid (PFOA)	**15.6**		1.74	0.66	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorononanoic acid (PFNA)	**3.97**		1.74	0.43	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorodecanoic acid (PFDA)	**0.98**	**J**	1.74	0.40	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluoroundecanoic acid (PFUnA)	1.74	U	1.74	0.48	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorododecanoic acid (PFDoA)	1.74	U	1.74	0.43	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorotridecanoic acid (PFTriA)	1.74	U	1.74	0.42	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorotetradecanoic acid (PFTeA)	1.74	U	1.74	0.56	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorobutanesulfonic acid (PFBS)	**2.42**		1.74	0.54	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorohexanesulfonic acid (PFHxS)	**21.9**		1.74	0.48	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluoroheptanesulfonic acid (PFHpS)	**1.18**	**J**	1.74	0.36	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorooctanesulfonic acid (PFOS)	**71.3**		1.74	0.74	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorodecanesulfonic acid (PFDS)	1.74	U	1.74	0.35	ng/L		10/27/22 10:15	10/27/22 20:31	1
Perfluorooctanesulfonamide (PFOSA)	1.74	U	1.74	0.80	ng/L		10/27/22 10:15	10/27/22 20:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.36	U	4.36	1.66	ng/L		10/27/22 10:15	10/27/22 20:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.36	U	4.36	1.40	ng/L		10/27/22 10:15	10/27/22 20:31	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**3.98**	**J**	4.36	1.13	ng/L		10/27/22 10:15	10/27/22 20:31	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**1.10**	**J**	1.74	0.67	ng/L		10/27/22 10:15	10/27/22 20:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C4 PFHpA	*92*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C4 PFOA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C4 PFOS	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C5 PFNA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C4 PFBA	*79*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C2 PFHxA	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C2 PFDA	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C2 PFUnA	*120*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C2 PFDoA	*119*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C8 FOSA	*110*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C5 PFPeA	*93*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C2 PFTeDA	*116*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
d3-NMeFOSAA	*126*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
d5-NEtFOSAA	*133*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
M2-8:2 FTS	*116*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*
13C3 PFBS	*104*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:31*	*1*

Client Sample ID: FB-01_20221014

Date Collected: 10/14/22 13:20
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-23

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.38	U	4.38	1.05	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluoropentanoic acid (PFPeA)	1.75	U	1.75	0.60	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorohexanoic acid (PFHxA)	1.75	U	1.75	0.57	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluoroheptanoic acid (PFHpA)	1.75	U	1.75	0.47	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorooctanoic acid (PFOA)	1.75	U	1.75	0.67	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorononanoic acid (PFNA)	1.75	U	1.75	0.43	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorodecanoic acid (PFDA)	1.75	U	1.75	0.40	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluoroundecanoic acid (PFUnA)	1.75	U	1.75	0.48	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorododecanoic acid (PFDoA)	1.75	U	1.75	0.43	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorotridecanoic acid (PFTriA)	1.75	U	1.75	0.42	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorotetradecanoic acid (PFTeA)	1.75	U	1.75	0.56	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorobutanesulfonic acid (PFBS)	1.75	U	1.75	0.54	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorohexanesulfonic acid (PFHxS)	1.75	U	1.75	0.48	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluoroheptanesulfonic acid (PFHpS)	1.75	U	1.75	0.36	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorooctanesulfonic acid (PFOS)	1.75	U	1.75	0.74	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorodecanesulfonic acid (PFDS)	1.75	U	1.75	0.35	ng/L		10/27/22 10:15	10/27/22 20:39	1
Perfluorooctanesulfonamide (PFOSA)	1.75	U	1.75	0.81	ng/L		10/27/22 10:15	10/27/22 20:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.38	U	4.38	1.66	ng/L		10/27/22 10:15	10/27/22 20:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.38	U	4.38	1.40	ng/L		10/27/22 10:15	10/27/22 20:39	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.38	U	4.38	1.14	ng/L		10/27/22 10:15	10/27/22 20:39	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.75	U	1.75	0.67	ng/L		10/27/22 10:15	10/27/22 20:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*112*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C4 PFHpA	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C4 PFOA	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C4 PFOS	*108*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C5 PFNA	*91*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C4 PFBA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C2 PFHxA	*105*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C2 PFDA	*101*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C2 PFUnA	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C2 PFDoA	*112*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C8 FOSA	*100*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C5 PFPeA	*93*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C2 PFTeDA	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
d3-NMeFOSAA	*127*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
d5-NEtFOSAA	*121*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
M2-6:2 FTS	*118*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
M2-8:2 FTS	*107*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*
13C3 PFBS	*102*		*50 - 150*	*10/27/22 10:15*	*10/27/22 20:39*	*1*

Isotope Dilution Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-1	RI-SED-13_20221014	90	83	87	90	89	84	81	90
460-267585-2	RI-SED-14_20221014	85	79	81	88	84	79	78	86
460-267585-3	RI-SED-15_20221014	88	77	81	87	79	83	80	89
460-267585-4	RI-SED-16_20221014	89	84	87	90	84	81	82	95
460-267585-5	RI-SED-17_20221014	84	79	82	84	81	75	79	84
460-267585-5 MS	RI-SED-17_20221014	86	79	79	85	83	78	80	83
460-267585-5 MSD	RI-SED-17_20221014	85	81	79	86	81	79	76	86
460-267585-6	RI-SED-18_20221014	87	79	82	89	88	81	75	90
460-267585-7	RI-SED-19_20221014	81	87	81	83	83	72	77	89
460-267585-8	RI-SED-20_20221014	79	71	77	81	79	73	74	84
460-267585-9	RI-SED-X_20221014	88	83	85	86	83	80	79	87
460-267585-9 - DL	RI-SED-X_20221014				90				
LCS 200-185134/2-A	Lab Control Sample	96	87	90	100	91	75	88	93
LCS 200-185200/2-A	Lab Control Sample	109	100	106	111	107	93	102	105
MB 200-185134/1-A	Method Blank	96	89	91	101	90	78	87	92
MB 200-185200/1-A	Method Blank	110	102	103	111	102	97	100	107

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-1	RI-SED-13_20221014	101	99	77	83	100	131	134	125
460-267585-2	RI-SED-14_20221014	90	59	68	79	41 *	94	105	105
460-267585-3	RI-SED-15_20221014	100	90	76	81	72	104	112	107
460-267585-4	RI-SED-16_20221014	96	92	73	85	79	142	156 *	161 *
460-267585-5	RI-SED-17_20221014	90	93	73	76	81	106	109	101
460-267585-5 MS	RI-SED-17_20221014	88	81	57	77	73	93	99	99
460-267585-5 MSD	RI-SED-17_20221014	95	97	76	79	86	103	109	100
460-267585-6	RI-SED-18_20221014	96	90	72	79	75	108	119	107
460-267585-7	RI-SED-19_20221014	98	88	68	76	60	117	124	125
460-267585-8	RI-SED-20_20221014	89	88	71	62	80	110	121	102
460-267585-9	RI-SED-X_20221014	98	95	75	80	95	117	137	114
460-267585-9 - DL	RI-SED-X_20221014								
LCS 200-185134/2-A	Lab Control Sample	95	88	100	83	82	119	115	97
LCS 200-185200/2-A	Lab Control Sample	116	111	92	92	103	135	130	116
MB 200-185134/1-A	Method Blank	95	87	98	81	77	119	113	100
MB 200-185200/1-A	Method Blank	104	97	88	96	95	131	117	115

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	C3PFBS						
Lab Sample ID	Client Sample ID	(50-150)	(50-150)						
460-267585-1	RI-SED-13_20221014	140	90						
460-267585-2	RI-SED-14_20221014	122	82						
460-267585-3	RI-SED-15_20221014	118	84						
460-267585-4	RI-SED-16_20221014	213 *	89						
460-267585-5	RI-SED-17_20221014	115	82						
460-267585-5 MS	RI-SED-17_20221014	105	83						
460-267585-5 MSD	RI-SED-17_20221014	112	82						
460-267585-6	RI-SED-18_20221014	134	85						
460-267585-7	RI-SED-19_20221014	147	80						
460-267585-8	RI-SED-20_20221014	124	75						
460-267585-9	RI-SED-X_20221014	141	87						

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-267585-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)									
		M282FTS	C3PFBS								
Lab Sample ID	Client Sample ID	(50-150)	(50-150)								
460-267585-9 - DL	RI-SED-X_20221014										
LCS 200-185134/2-A	Lab Control Sample	97	88								
LCS 200-185200/2-A	Lab Control Sample	111	101								
MB 200-185134/1-A	Method Blank	99	92								
MB 200-185200/1-A	Method Blank	114	105								

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid
Prep Type: SPLP East

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-1	RI-SED-13_20221014	102	96	101	105	95	92	95	101
460-267585-2	RI-SED-14_20221014	103	94	100	106	96	87	93	100
460-267585-3	RI-SED-15_20221014	103	94	100	110	101	95	98	102
460-267585-4	RI-SED-16_20221014	107	97	100	110	100	94	94	108
460-267585-5	RI-SED-17_20221014	114	98	101	114	104	95	97	109
460-267585-5 MS	RI-SED-17_20221014	103	96	101	108	96	95	94	100
460-267585-5 MSD	RI-SED-17_20221014	103	92	100	108	96	87	92	99
460-267585-6	RI-SED-18_20221014	103	95	96	103	95	92	92	102
460-267585-7	RI-SED-19_20221014	102	97	100	108	100	94	94	106
460-267585-8	RI-SED-20_20221014	105	96	99	112	103	96	94	107
460-267585-9	RI-SED-X_20221014	100	91	102	105	96	91	93	104
LB 200-185059/1-B	Method Blank	101	94	99	101	95	91	95	101

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-1	RI-SED-13_20221014	109	107	99	91	96	129	125	108
460-267585-2	RI-SED-14_20221014	104	114	104	90	87	125	128	110
460-267585-3	RI-SED-15_20221014	107	121	107	94	96	127	134	111
460-267585-4	RI-SED-16_20221014	112	106	102	95	64	129	134	124

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-267585-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Solid **Prep Type: SPLP East**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-5	RI-SED-17_20221014	113	113	109	95	83	133	137	115
460-267585-5 MS	RI-SED-17_20221014	107	112	109	91	91	126	125	113
460-267585-5 MSD	RI-SED-17_20221014	108	109	101	86	84	125	125	108
460-267585-6	RI-SED-18_20221014	108	113	102	90	77	126	125	110
460-267585-7	RI-SED-19_20221014	110	118	102	95	76	131	132	115
460-267585-8	RI-SED-20_20221014	116	117	107	91	73	131	128	116
460-267585-9	RI-SED-X_20221014	100	109	98	87	97	125	127	111
LB 200-185059/1-B	Method Blank	104	107	104	89	96	124	122	110

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M282FTS	C3PFBS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)
460-267585-1	RI-SED-13_20221014	104	99
460-267585-2	RI-SED-14_20221014	108	102
460-267585-3	RI-SED-15_20221014	108	104
460-267585-4	RI-SED-16_20221014	118	105
460-267585-5	RI-SED-17_20221014	114	109
460-267585-5 MS	RI-SED-17_20221014	110	105
460-267585-5 MSD	RI-SED-17_20221014	106	103
460-267585-6	RI-SED-18_20221014	111	99
460-267585-7	RI-SED-19_20221014	110	100
460-267585-8	RI-SED-20_20221014	115	103
460-267585-9	RI-SED-X_20221014	109	98
LB 200-185059/1-B	Method Blank	102	99

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-10	RI-SW-13_20221014	109	98	102	109	99	96	102	103

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-267585-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-10	RI-SW-13_20221014				111				
460-267585-11	RI-SW-14_20221014	103	96	94	110	94	93	95	99
460-267585-12	RI-SW-15_20221014	103	97	102	110	98	97	95	101
460-267585-13	RI-SW-16_20221014	108	100	99	106	97	95	97	100
460-267585-14	RI-SW-17_20221014	112	98	104	122	107	85	94	114
460-267585-14 MS	RI-SW-17_20221014	110	94	92	111	100	78	92	104
460-267585-14 MSD	RI-SW-17_20221014	110	96	97	108	100	81	96	102
460-267585-15	RI-SW-18_20221014	110	99	97	108	99	98	98	100
460-267585-16	RI-SW-19_20221014	115	108	101	105	97	98	101	99
460-267585-17	RI-SW-20_20221014	107	98	95	102	91	74	89	89
460-267585-18	RI-SW-X_20221014	104	97	96	106	97	94	96	98
460-267585-19	RI-CW-01_20221014	105	96	98	107	97	93	94	104
460-267585-20	RI-CW-02_20221014	106	99	101	108	101	103	100	102
460-267585-21	RI-CW-03_20221014	106	96	98	106	96	98	97	97
460-267585-22	RI-CW-04_20221014	108	92	98	114	98	79	97	102
460-267585-23	FB-01_20221014	112	99	102	108	91	96	105	101
LCS 200-185150/2-A	Lab Control Sample	107	95	97	103	97	91	97	98
MB 200-185150/1-A	Method Blank	99	96	98	93	82	90	94	91

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267585-10	RI-SW-13_20221014	109	114	106	95	106	118	131	111
460-267585-10	RI-SW-13_20221014								
460-267585-11	RI-SW-14_20221014	112	110	104	89	106	121	120	103
460-267585-12	RI-SW-15_20221014	111	105	104	92	97	123	128	107
460-267585-13	RI-SW-16_20221014	99	99	92	90	84	111	113	110
460-267585-14	RI-SW-17_20221014	128	124	113	96	93	131	147	114
460-267585-14 MS	RI-SW-17_20221014	116	108	104	92	87	122	131	111
460-267585-14 MSD	RI-SW-17_20221014	115	110	103	95	88	129	130	116
460-267585-15	RI-SW-18_20221014	108	118	104	91	109	122	131	111
460-267585-16	RI-SW-19_20221014	109	103	96	97	77	116	122	116
460-267585-17	RI-SW-20_20221014	96	103	95	90	96	116	118	113
460-267585-18	RI-SW-X_20221014	105	105	99	92	105	122	129	105
460-267585-19	RI-CW-01_20221014	111	115	107	92	113	118	129	111
460-267585-20	RI-CW-02_20221014	112	107	110	92	105	123	125	114
460-267585-21	RI-CW-03_20221014	114	124	106	95	110	126	138	115
460-267585-22	RI-CW-04_20221014	120	119	110	93	116	126	133	114
460-267585-23	FB-01_20221014	106	112	100	93	106	127	121	118
LCS 200-185150/2-A	Lab Control Sample	100	88	82	86	89	110	105	104
MB 200-185150/1-A	Method Blank	92	89	80	87	96	100	106	100

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	C3PFBS						
Lab Sample ID	Client Sample ID	(50-150)	(50-150)						
460-267585-10	RI-SW-13_20221014	107	106						
460-267585-10	RI-SW-13_20221014								
460-267585-11	RI-SW-14_20221014	105	103						
460-267585-12	RI-SW-15_20221014	112	103						
460-267585-13	RI-SW-16_20221014	103	101						
460-267585-14	RI-SW-17_20221014	114	110						

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-267585-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)						
460-267585-14 MS	RI-SW-17_20221014	111	106						
460-267585-14 MSD	RI-SW-17_20221014	108	106						
460-267585-15	RI-SW-18_20221014	105	104						
460-267585-16	RI-SW-19_20221014	104	109						
460-267585-17	RI-SW-20_20221014	101	98						
460-267585-18	RI-SW-X_20221014	102	102						
460-267585-19	RI-CW-01_20221014	115	99						
460-267585-20	RI-CW-02_20221014	108	106						
460-267585-21	RI-CW-03_20221014	113	105						
460-267585-22	RI-CW-04_20221014	116	104						
460-267585-23	FB-01_20221014	107	102						
LCS 200-185150/2-A	Lab Control Sample	103	102						
MB 200-185150/1-A	Method Blank	94	97						

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-185134/1-A
Matrix: Solid
Analysis Batch: 185269

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185134

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluoropentanoic acid (PFPeA)	0.20	U	0.20	0.055	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.046	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.039	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.058	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.034	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.028	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.027	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.025	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.026	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.041	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorooctanesulfonic acid (PFOS)	0.20	U	0.20	0.11	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.11	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.083	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.00	U	2.00	0.057	ug/Kg		10/27/22 09:00	10/31/22 17:26	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.037	ug/Kg		10/27/22 09:00	10/31/22 17:26	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*96*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C4 PFHpA	*89*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C4 PFOA	*91*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C4 PFOS	*101*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C5 PFNA	*90*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C4 PFBA	*78*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C2 PFHxA	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C2 PFDA	*92*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C2 PFUnA	*95*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C2 PFDoA	*87*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C8 FOSA	*98*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C5 PFPeA	*81*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C2 PFTeDA	*77*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
d3-NMeFOSAA	*119*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
d5-NEtFOSAA	*113*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
M2-6:2 FTS	*100*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
M2-8:2 FTS	*99*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*
13C3 PFBS	*92*		*50 - 150*	*10/27/22 09:00*	*10/31/22 17:26*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185134/2-A
Matrix: Solid
Analysis Batch: 185269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185134

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	2.00	1.942		ug/Kg		97	60 - 140
Perfluoropentanoic acid (PFPeA)	2.00	1.898		ug/Kg		95	60 - 140
Perfluorohexanoic acid (PFHxA)	2.00	1.828		ug/Kg		91	60 - 140
Perfluoroheptanoic acid (PFHpA)	2.00	1.880		ug/Kg		94	60 - 140
Perfluorooctanoic acid (PFOA)	2.00	1.786		ug/Kg		89	60 - 140
Perfluorononanoic acid (PFNA)	2.00	1.883		ug/Kg		94	60 - 140
Perfluorodecanoic acid (PFDA)	2.00	1.949		ug/Kg		97	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.00	1.903		ug/Kg		95	60 - 140
Perfluorododecanoic acid (PFDoA)	2.00	1.996		ug/Kg		100	60 - 140
Perfluorotridecanoic acid (PFTriA)	2.00	1.852		ug/Kg		93	60 - 140
Perfluorotetradecanoic acid (PFTeA)	2.00	1.736		ug/Kg		87	60 - 140
Perfluorobutanesulfonic acid (PFBS)	1.77	1.746		ug/Kg		99	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.741		ug/Kg		96	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	1.90	1.841		ug/Kg		97	60 - 140
Perfluorooctanesulfonic acid (PFOS)	1.86	1.719		ug/Kg		93	60 - 140
Perfluorodecanesulfonic acid (PFDS)	1.93	1.691		ug/Kg		88	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.00	1.965		ug/Kg		98	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.883	J	ug/Kg		94	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	1.887	J	ug/Kg		94	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.90	2.231		ug/Kg		118	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.92	2.193		ug/Kg		114	60 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*96*		*50 - 150*
13C4 PFHpA	*87*		*50 - 150*
13C4 PFOA	*90*		*50 - 150*
13C4 PFOS	*100*		*50 - 150*
13C5 PFNA	*91*		*50 - 150*
13C4 PFBA	*75*		*50 - 150*
13C2 PFHxA	*88*		*50 - 150*
13C2 PFDA	*93*		*50 - 150*
13C2 PFUnA	*95*		*50 - 150*
13C2 PFDoA	*88*		*50 - 150*
13C8 FOSA	*100*		*50 - 150*
13C5 PFPeA	*83*		*50 - 150*
13C2 PFTeDA	*82*		*50 - 150*
d3-NMeFOSAA	*119*		*50 - 150*
d5-NEtFOSAA	*115*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185134/2-A
Matrix: Solid
Analysis Batch: 185269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185134

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	97		50 - 150
M2-8:2 FTS	97		50 - 150
13C3 PFBS	88		50 - 150

Lab Sample ID: 460-267585-5 MS
Matrix: Solid
Analysis Batch: 185269

Client Sample ID: RI-SED-17_20221014
Prep Type: Total/NA
Prep Batch: 185134

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	1.75	U	6.87	6.675		ug/Kg	☼	97	60 - 140
Perfluoropentanoic acid (PFPeA)	1.04		6.87	7.524		ug/Kg	☼	94	60 - 140
Perfluorohexanoic acid (PFHxA)	0.47	J	6.87	6.725		ug/Kg	☼	91	60 - 140
Perfluoroheptanoic acid (PFHpA)	0.32	J	6.87	6.764		ug/Kg	☼	94	60 - 140
Perfluorooctanoic acid (PFOA)	1.84		6.87	8.346		ug/Kg	☼	95	60 - 140
Perfluorononanoic acid (PFNA)	0.86		6.87	7.069		ug/Kg	☼	90	60 - 140
Perfluorodecanoic acid (PFDA)	0.84		6.87	7.926		ug/Kg	☼	103	60 - 140
Perfluoroundecanoic acid (PFUnA)	1.29		6.87	7.522		ug/Kg	☼	91	60 - 140
Perfluorododecanoic acid (PFDoA)	0.60	J	6.87	7.519		ug/Kg	☼	101	60 - 140
Perfluorotridecanoic acid (PFTriA)	0.36	J	6.87	6.921		ug/Kg	☼	95	60 - 140
Perfluorotetradecanoic acid (PFTeA)	0.23	J	6.87	6.625		ug/Kg	☼	93	60 - 140
Perfluorobutanesulfonic acid (PFBS)	0.70	U	6.08	5.697		ug/Kg	☼	94	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	0.72		6.25	6.712		ug/Kg	☼	96	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	0.70	U	6.54	6.513		ug/Kg	☼	100	60 - 140
Perfluorooctanesulfonic acid (PFOS)	4.45		6.38	10.37		ug/Kg	☼	93	60 - 140
Perfluorodecanesulfonic acid (PFDS)	0.086	J	6.63	5.968		ug/Kg	☼	89	60 - 140
Perfluorooctanesulfonamide (PFOSA)	0.70	U	6.87	6.998		ug/Kg	☼	102	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.99	U	6.87	6.677	J	ug/Kg	☼	97	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.99	U	6.87	6.345	J	ug/Kg	☼	92	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	6.99	U	6.52	7.363		ug/Kg	☼	113	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.99	U	6.58	8.196		ug/Kg	☼	124	60 - 140

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
18O2 PFHxS	86		50 - 150
13C4 PFHpA	79		50 - 150
13C4 PFOA	79		50 - 150
13C4 PFOS	85		50 - 150
13C5 PFNA	83		50 - 150
13C4 PFBA	78		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267585-5 MS
Matrix: Solid
Analysis Batch: 185269

Client Sample ID: RI-SED-17_20221014
Prep Type: Total/NA
Prep Batch: 185134

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2 PFHxA	80		50 - 150
13C2 PFDA	83		50 - 150
13C2 PFUnA	88		50 - 150
13C2 PFDoA	81		50 - 150
13C8 FOSA	57		50 - 150
13C5 PFPeA	77		50 - 150
13C2 PFTeDA	73		50 - 150
d3-NMeFOSAA	93		50 - 150
d5-NEtFOSAA	99		50 - 150
M2-6:2 FTS	99		50 - 150
M2-8:2 FTS	105		50 - 150
13C3 PFBS	83		50 - 150

Lab Sample ID: 460-267585-5 MSD
Matrix: Solid
Analysis Batch: 185269

Client Sample ID: RI-SED-17_20221014
Prep Type: Total/NA
Prep Batch: 185134

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	1.75	U	6.81	6.742		ug/Kg	☼	99	60 - 140	1	30
Perfluoropentanoic acid (PFPeA)	1.04		6.81	7.472		ug/Kg	☼	95	60 - 140	1	30
Perfluorohexanoic acid (PFHxA)	0.47	J	6.81	7.020		ug/Kg	☼	96	60 - 140	4	30
Perfluoroheptanoic acid (PFHpA)	0.32	J	6.81	6.852		ug/Kg	☼	96	60 - 140	1	30
Perfluorooctanoic acid (PFOA)	1.84		6.81	8.421		ug/Kg	☼	97	60 - 140	1	30
Perfluorononanoic acid (PFNA)	0.86		6.81	7.880		ug/Kg	☼	103	60 - 140	11	30
Perfluorodecanoic acid (PFDA)	0.84		6.81	8.018		ug/Kg	☼	105	60 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	1.29		6.81	7.354		ug/Kg	☼	89	60 - 140	2	30
Perfluorododecanoic acid (PFDoA)	0.60	J	6.81	7.036		ug/Kg	☼	95	60 - 140	7	30
Perfluorotridecanoic acid (PFTriA)	0.36	J	6.81	6.850		ug/Kg	☼	95	60 - 140	1	30
Perfluorotetradecanoic acid (PFTeA)	0.23	J	6.81	6.603		ug/Kg	☼	94	60 - 140	0	30
Perfluorobutanesulfonic acid (PFBS)	0.70	U	6.02	6.032		ug/Kg	☼	100	60 - 140	6	30
Perfluorohexanesulfonic acid (PFHxS)	0.72		6.19	6.581		ug/Kg	☼	95	60 - 140	2	30
Perfluoroheptanesulfonic acid (PFHpS)	0.70	U	6.48	6.575		ug/Kg	☼	101	60 - 140	1	30
Perfluorooctanesulfonic acid (PFOS)	4.45		6.32	10.41		ug/Kg	☼	94	60 - 140	0	30
Perfluorodecanesulfonic acid (PFDS)	0.086	J	6.56	6.396		ug/Kg	☼	96	60 - 140	7	30
Perfluorooctanesulfonamide (PFOSA)	0.70	U	6.81	7.116		ug/Kg	☼	105	60 - 140	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.99	U	6.81	6.721	J	ug/Kg	☼	99	60 - 140	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.99	U	6.81	6.632	J	ug/Kg	☼	97	60 - 140	4	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	6.99	U	6.45	7.368		ug/Kg	☼	114	50 - 150	0	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267585-5 MSD
Matrix: Solid
Analysis Batch: 185269

Client Sample ID: RI-SED-17_20221014
Prep Type: Total/NA
Prep Batch: 185134

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.99	U	6.52	7.903		ug/Kg	☼	121	60 - 140	4	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*85*		*50 - 150*
13C4 PFHpA	*81*		*50 - 150*
13C4 PFOA	*79*		*50 - 150*
13C4 PFOS	*86*		*50 - 150*
13C5 PFNA	*81*		*50 - 150*
13C4 PFBA	*79*		*50 - 150*
13C2 PFHxA	*76*		*50 - 150*
13C2 PFDA	*86*		*50 - 150*
13C2 PFUnA	*95*		*50 - 150*
13C2 PFDoA	*97*		*50 - 150*
13C8 FOSA	*76*		*50 - 150*
13C5 PFPeA	*79*		*50 - 150*
13C2 PFTeDA	*86*		*50 - 150*
d3-NMeFOSAA	*103*		*50 - 150*
d5-NEtFOSAA	*109*		*50 - 150*
M2-6:2 FTS	*100*		*50 - 150*
M2-8:2 FTS	*112*		*50 - 150*
13C3 PFBS	*82*		*50 - 150*

Lab Sample ID: MB 200-185150/1-A
Matrix: Water
Analysis Batch: 185176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		10/27/22 10:15	10/27/22 17:48	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		10/27/22 10:15	10/27/22 17:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		10/27/22 10:15	10/27/22 17:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		10/27/22 10:15	10/27/22 17:48	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-185150/1-A
Matrix: Water
Analysis Batch: 185176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		10/27/22 10:15	10/27/22 17:48	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		10/27/22 10:15	10/27/22 17:48	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*99*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C4 PFHpA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C4 PFOA	*98*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C4 PFOS	*93*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C5 PFNA	*82*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C4 PFBA	*90*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C2 PFHxA	*94*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C2 PFDA	*91*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C2 PFUnA	*92*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C2 PFDoA	*89*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C8 FOSA	*80*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C5 PFPeA	*87*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C2 PFTeDA	*96*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
d3-NMeFOSAA	*100*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
d5-NEtFOSAA	*106*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
M2-6:2 FTS	*100*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
M2-8:2 FTS	*94*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*
13C3 PFBS	*97*		*50 - 150*	*10/27/22 10:15*	*10/27/22 17:48*	*1*

Lab Sample ID: LCS 200-185150/2-A
Matrix: Water
Analysis Batch: 185176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	83.82		ng/L		105	70 - 130
Perfluoropentanoic acid (PFPeA)	80.0	87.16		ng/L		109	70 - 130
Perfluorohexanoic acid (PFHxA)	80.0	82.18		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	80.0	85.60		ng/L		107	70 - 130
Perfluorooctanoic acid (PFOA)	80.0	80.11		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	80.0	83.49		ng/L		104	70 - 130
Perfluorodecanoic acid (PFDA)	80.0	87.04		ng/L		109	70 - 130
Perfluoroundecanoic acid (PFUnA)	80.0	81.26		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	80.0	87.45		ng/L		109	70 - 130
Perfluorotridecanoic acid (PFTriA)	80.0	83.55		ng/L		104	70 - 130
Perfluorotetradecanoic acid (PFTeA)	80.0	79.32		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	70.7	73.01		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	72.8	75.71		ng/L		104	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	76.2	85.49		ng/L		112	70 - 130

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185150/2-A
Matrix: Water
Analysis Batch: 185176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185150

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorooctanesulfonic acid (PFOS)			74.2	77.04		ng/L		104	70 - 130		
Perfluorodecanesulfonic acid (PFDS)			77.1	76.39		ng/L		99	70 - 130		
Perfluorooctanesulfonamide (PFOSA)			80.0	82.37		ng/L		103	70 - 130		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			80.0	83.42		ng/L		104	70 - 130		
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			80.0	84.51		ng/L		106	70 - 130		
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			75.8	92.63		ng/L		122	60 - 140		
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			76.6	99.10		ng/L		129	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*107*		*50 - 150*
13C4 PFHpA	*95*		*50 - 150*
13C4 PFOA	*97*		*50 - 150*
13C4 PFOS	*103*		*50 - 150*
13C5 PFNA	*97*		*50 - 150*
13C4 PFBA	*91*		*50 - 150*
13C2 PFHxA	*97*		*50 - 150*
13C2 PFDA	*98*		*50 - 150*
13C2 PFUnA	*100*		*50 - 150*
13C2 PFDoA	*88*		*50 - 150*
13C8 FOSA	*82*		*50 - 150*
13C5 PFPeA	*86*		*50 - 150*
13C2 PFTeDA	*89*		*50 - 150*
d3-NMeFOSAA	*110*		*50 - 150*
d5-NEtFOSAA	*105*		*50 - 150*
M2-6:2 FTS	*104*		*50 - 150*
M2-8:2 FTS	*103*		*50 - 150*
13C3 PFBS	*102*		*50 - 150*

Lab Sample ID: 460-267585-14 MS
Matrix: Water
Analysis Batch: 185176

Client Sample ID: RI-SW-17_20221014
Prep Type: Total/NA
Prep Batch: 185150

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)	24.3		68.1	92.46		ng/L		100	60 - 140		
Perfluoropentanoic acid (PFPeA)	49.4		68.1	120.7		ng/L		105	60 - 140		
Perfluorohexanoic acid (PFHxA)	32.7		68.1	101.9		ng/L		102	60 - 140		
Perfluoroheptanoic acid (PFHpA)	16.7		68.1	89.39		ng/L		107	60 - 140		
Perfluorooctanoic acid (PFOA)	30.1		68.1	105.5		ng/L		111	60 - 140		
Perfluorononanoic acid (PFNA)	8.70	U	68.1	74.76		ng/L		110	60 - 140		
Perfluorodecanoic acid (PFDA)	8.70	U	68.1	75.73		ng/L		111	60 - 140		
Perfluoroundecanoic acid (PFUnA)	8.70	U	68.1	66.11		ng/L		97	60 - 140		
Perfluorododecanoic acid (PFDoA)	8.70	U	68.1	73.57		ng/L		108	60 - 140		

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267585-14 MS
Matrix: Water
Analysis Batch: 185176

Client Sample ID: RI-SW-17_20221014
Prep Type: Total/NA
Prep Batch: 185150

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotridecanoic acid (PFTriA)	8.70	U	68.1	63.04		ng/L		93	60 - 140
Perfluorotetradecanoic acid (PFTeA)	8.70	U	68.1	71.30		ng/L		105	60 - 140
Perfluorobutanesulfonic acid (PFBS)	10.2		60.2	74.14		ng/L		106	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	15.1		62.0	77.87		ng/L		101	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	8.70	U	64.9	70.94		ng/L		109	60 - 140
Perfluorooctanesulfonic acid (PFOS)	7.87	J	63.2	76.63		ng/L		109	60 - 140
Perfluorodecanesulfonic acid (PFDS)	8.70	U	65.7	69.69		ng/L		106	60 - 140
Perfluorooctanesulfonamide (PFOSA)	8.70	U	68.1	70.40		ng/L		103	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	21.7	U	68.1	72.34		ng/L		106	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	21.7	U	68.1	69.30		ng/L		102	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	21.7	U	64.6	78.39		ng/L		121	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.70	U	65.3	80.42		ng/L		123	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*110*		*50 - 150*
13C4 PFHpA	*94*		*50 - 150*
13C4 PFOA	*92*		*50 - 150*
13C4 PFOS	*111*		*50 - 150*
13C5 PFNA	*100*		*50 - 150*
13C4 PFBA	*78*		*50 - 150*
13C2 PFHxA	*92*		*50 - 150*
13C2 PFDA	*104*		*50 - 150*
13C2 PFUnA	*116*		*50 - 150*
13C2 PFDoA	*108*		*50 - 150*
13C8 FOSA	*104*		*50 - 150*
13C5 PFPeA	*92*		*50 - 150*
13C2 PFTeDA	*87*		*50 - 150*
d3-NMeFOSAA	*122*		*50 - 150*
d5-NEtFOSAA	*131*		*50 - 150*
M2-6:2 FTS	*111*		*50 - 150*
M2-8:2 FTS	*111*		*50 - 150*
13C3 PFBS	*106*		*50 - 150*

Lab Sample ID: 460-267585-14 MSD
Matrix: Water
Analysis Batch: 185176

Client Sample ID: RI-SW-17_20221014
Prep Type: Total/NA
Prep Batch: 185150

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	24.3		67.0	89.13		ng/L		97	60 - 140	4	30
Perfluoropentanoic acid (PFPeA)	49.4		67.0	115.7		ng/L		99	60 - 140	4	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267585-14 MSD
Matrix: Water
Analysis Batch: 185176

Client Sample ID: RI-SW-17_20221014
Prep Type: Total/NA
Prep Batch: 185150

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	32.7		67.0	100.3		ng/L		101	60 - 140	2	30
Perfluoroheptanoic acid (PFHpA)	16.7		67.0	91.25		ng/L		111	60 - 140	2	30
Perfluorooctanoic acid (PFOA)	30.1		67.0	98.09		ng/L		101	60 - 140	7	30
Perfluorononanoic acid (PFNA)	8.70	U	67.0	71.06		ng/L		106	60 - 140	5	30
Perfluorodecanoic acid (PFDA)	8.70	U	67.0	73.35		ng/L		109	60 - 140	3	30
Perfluoroundecanoic acid (PFUnA)	8.70	U	67.0	69.57		ng/L		104	60 - 140	5	30
Perfluorododecanoic acid (PFDoA)	8.70	U	67.0	70.06		ng/L		105	60 - 140	5	30
Perfluorotridecanoic acid (PFTriA)	8.70	U	67.0	64.35		ng/L		96	60 - 140	2	30
Perfluorotetradecanoic acid (PFTeA)	8.70	U	67.0	71.31		ng/L		106	60 - 140	0	30
Perfluorobutanesulfonic acid (PFBS)	10.2		59.2	75.06		ng/L		110	60 - 140	1	30
Perfluorohexanesulfonic acid (PFHxS)	15.1		61.0	82.97		ng/L		111	60 - 140	6	30
Perfluoroheptanesulfonic acid (PFHpS)	8.70	U	63.8	74.50		ng/L		117	60 - 140	5	30
Perfluorooctanesulfonic acid (PFOS)	7.87	J	62.2	75.68		ng/L		109	60 - 140	1	30
Perfluorodecanesulfonic acid (PFDS)	8.70	U	64.6	71.86		ng/L		111	60 - 140	3	30
Perfluorooctanesulfonamide (PFOSA)	8.70	U	67.0	69.21		ng/L		103	60 - 140	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	21.7	U	67.0	69.13		ng/L		103	60 - 140	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	21.7	U	67.0	72.12		ng/L		108	60 - 140	4	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	21.7	U	63.5	74.14		ng/L		117	50 - 150	6	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.70	U	64.2	86.09		ng/L		134	60 - 140	7	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*110*		*50 - 150*
13C4 PFHpA	*96*		*50 - 150*
13C4 PFOA	*97*		*50 - 150*
13C4 PFOS	*108*		*50 - 150*
13C5 PFNA	*100*		*50 - 150*
13C4 PFBA	*81*		*50 - 150*
13C2 PFHxA	*96*		*50 - 150*
13C2 PFDA	*102*		*50 - 150*
13C2 PFUnA	*115*		*50 - 150*
13C2 PFDoA	*110*		*50 - 150*
13C8 FOSA	*103*		*50 - 150*
13C5 PFPeA	*95*		*50 - 150*
13C2 PFTeDA	*88*		*50 - 150*
d3-NMeFOSAA	*129*		*50 - 150*
d5-NEtFOSAA	*130*		*50 - 150*
M2-6:2 FTS	*116*		*50 - 150*
M2-8:2 FTS	*108*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267585-14 MSD
Matrix: Water
Analysis Batch: 185176

Client Sample ID: RI-SW-17_20221014
Prep Type: Total/NA
Prep Batch: 185150

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 PFBS	106		50 - 150

Lab Sample ID: MB 200-185200/1-A
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		10/28/22 09:54	10/28/22 19:57	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		10/28/22 09:54	10/28/22 19:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		10/28/22 09:54	10/28/22 19:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		10/28/22 09:54	10/28/22 19:57	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		10/28/22 09:54	10/28/22 19:57	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		10/28/22 09:54	10/28/22 19:57	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	110		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C4 PFHpA	102		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C4 PFOA	103		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C4 PFOS	111		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C5 PFNA	102		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C4 PFBA	97		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C2 PFHxA	100		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C2 PFDA	107		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C2 PFUnA	104		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C2 PFDoA	97		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C8 FOSA	88		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C5 PFPeA	96		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C2 PFTeDA	95		50 - 150	10/28/22 09:54	10/28/22 19:57	1
d3-NMeFOSAA	131		50 - 150	10/28/22 09:54	10/28/22 19:57	1
d5-NEtFOSAA	117		50 - 150	10/28/22 09:54	10/28/22 19:57	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-185200/1-A
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185200

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-6:2 FTS	115		50 - 150	10/28/22 09:54	10/28/22 19:57	1
M2-8:2 FTS	114		50 - 150	10/28/22 09:54	10/28/22 19:57	1
13C3 PFBS	105		50 - 150	10/28/22 09:54	10/28/22 19:57	1

Lab Sample ID: LCS 200-185200/2-A
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	36.23		ng/L		91	60 - 140
Perfluoropentanoic acid (PFPeA)	40.0	38.38		ng/L		96	60 - 140
Perfluorohexanoic acid (PFHxA)	40.0	35.52		ng/L		89	60 - 140
Perfluoroheptanoic acid (PFHpA)	40.0	36.92		ng/L		92	60 - 140
Perfluorooctanoic acid (PFOA)	40.0	35.40		ng/L		89	60 - 140
Perfluorononanoic acid (PFNA)	40.0	35.76		ng/L		89	60 - 140
Perfluorodecanoic acid (PFDA)	40.0	36.50		ng/L		91	60 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	38.12		ng/L		95	60 - 140
Perfluorododecanoic acid (PFDoA)	40.0	36.65		ng/L		92	60 - 140
Perfluorotridecanoic acid (PFTriA)	40.0	35.77		ng/L		89	60 - 140
Perfluorotetradecanoic acid (PFTeA)	40.0	34.03		ng/L		85	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.4	33.16		ng/L		94	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.22		ng/L		91	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	38.1	35.98		ng/L		94	60 - 140
Perfluorooctanesulfonic acid (PFOS)	37.1	35.05		ng/L		94	60 - 140
Perfluorodecanesulfonic acid (PFDS)	38.6	36.91		ng/L		96	60 - 140
Perfluorooctanesulfonamide (PFOSA)	40.0	33.79		ng/L		84	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.50		ng/L		96	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	37.77		ng/L		94	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	40.38		ng/L		106	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	45.39		ng/L		118	60 - 140

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	109		50 - 150
13C4 PFHpA	100		50 - 150
13C4 PFOA	106		50 - 150
13C4 PFOS	111		50 - 150
13C5 PFNA	107		50 - 150
13C4 PFBA	93		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185200/2-A
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185200

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C2 PFHxA	102		50 - 150
13C2 PFDA	105		50 - 150
13C2 PFUnA	116		50 - 150
13C2 PFDoA	111		50 - 150
13C8 FOSA	92		50 - 150
13C5 PFPeA	92		50 - 150
13C2 PFTeDA	103		50 - 150
d3-NMeFOSAA	135		50 - 150
d5-NEtFOSAA	130		50 - 150
M2-6:2 FTS	116		50 - 150
M2-8:2 FTS	111		50 - 150
13C3 PFBS	101		50 - 150

Lab Sample ID: LB 200-185059/1-B
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 185200

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.34	U	4.34	1.04	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluoropentanoic acid (PFPeA)	1.74	U	1.74	0.59	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorohexanoic acid (PFHxA)	1.74	U	1.74	0.56	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluoroheptanoic acid (PFHpA)	1.74	U	1.74	0.47	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorooctanoic acid (PFOA)	1.74	U	1.74	0.66	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorononanoic acid (PFNA)	1.74	U	1.74	0.43	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorodecanoic acid (PFDA)	1.74	U	1.74	0.40	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluoroundecanoic acid (PFUnA)	1.74	U	1.74	0.48	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorododecanoic acid (PFDoA)	1.74	U	1.74	0.43	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorotridecanoic acid (PFTriA)	1.74	U	1.74	0.42	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorotetradecanoic acid (PFTeA)	1.74	U	1.74	0.56	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorobutanesulfonic acid (PFBS)	1.74	U	1.74	0.54	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorohexanesulfonic acid (PFHxS)	1.74	U	1.74	0.48	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluoroheptanesulfonic acid (PFHpS)	1.74	U	1.74	0.36	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorooctanesulfonic acid (PFOS)	1.74	U	1.74	0.74	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorodecanesulfonic acid (PFDS)	1.74	U	1.74	0.35	ng/L		10/28/22 09:54	10/28/22 20:14	1
Perfluorooctanesulfonamide (PFOSA)	1.74	U	1.74	0.80	ng/L		10/28/22 09:54	10/28/22 20:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.34	U	4.34	1.65	ng/L		10/28/22 09:54	10/28/22 20:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.34	U	4.34	1.39	ng/L		10/28/22 09:54	10/28/22 20:14	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.34	U	4.34	1.13	ng/L		10/28/22 09:54	10/28/22 20:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.74	U	1.74	0.67	ng/L		10/28/22 09:54	10/28/22 20:14	1

Isotope Dilution	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	101		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C4 PFHpA	94		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C4 PFOA	99		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C4 PFOS	101		50 - 150	10/28/22 09:54	10/28/22 20:14	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LB 200-185059/1-B
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: Method Blank
Prep Type: SPLP East
Prep Batch: 185200

Isotope Dilution	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFNA	95		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C4 PFBA	91		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C2 PFHxA	95		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C2 PFDA	101		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C2 PFUnA	104		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C2 PFDoA	107		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C8 FOSA	104		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C5 PFPeA	89		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C2 PFTeDA	96		50 - 150	10/28/22 09:54	10/28/22 20:14	1
d3-NMeFOSAA	124		50 - 150	10/28/22 09:54	10/28/22 20:14	1
d5-NEtFOSAA	122		50 - 150	10/28/22 09:54	10/28/22 20:14	1
M2-6:2 FTS	110		50 - 150	10/28/22 09:54	10/28/22 20:14	1
M2-8:2 FTS	102		50 - 150	10/28/22 09:54	10/28/22 20:14	1
13C3 PFBS	99		50 - 150	10/28/22 09:54	10/28/22 20:14	1

Lab Sample ID: 460-267585-5 MS
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: RI-SED-17_20221014
Prep Type: SPLP East
Prep Batch: 185200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	7.23		39.7	38.48		ng/L		79	60 - 140
Perfluoropentanoic acid (PFPeA)	12.1		39.7	40.37		ng/L		71	60 - 140
Perfluorohexanoic acid (PFHxA)	4.90		39.7	38.81		ng/L		85	60 - 140
Perfluoroheptanoic acid (PFHpA)	4.02		39.7	39.71		ng/L		90	60 - 140
Perfluorooctanoic acid (PFOA)	15.6		39.7	47.37		ng/L		80	60 - 140
Perfluorononanoic acid (PFNA)	3.35		39.7	40.86		ng/L		94	60 - 140
Perfluorodecanoic acid (PFDA)	0.70	J	39.7	40.65		ng/L		101	60 - 140
Perfluoroundecanoic acid (PFUnA)	1.83	U	39.7	38.30		ng/L		96	60 - 140
Perfluorododecanoic acid (PFDoA)	1.83	U	39.7	35.88		ng/L		90	60 - 140
Perfluorotridecanoic acid (PFTriA)	1.83	U	39.7	35.63		ng/L		90	60 - 140
Perfluorotetradecanoic acid (PFTeA)	1.83	U	39.7	38.42		ng/L		97	60 - 140
Perfluorobutanesulfonic acid (PFBS)	0.77	J	35.1	34.49		ng/L		96	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	4.84		36.1	37.40		ng/L		90	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	1.83	U	37.8	38.44		ng/L		102	60 - 140
Perfluorooctanesulfonic acid (PFOS)	7.04		36.9	40.29		ng/L		90	60 - 140
Perfluorodecanesulfonic acid (PFDS)	1.83	U	38.3	35.57		ng/L		93	60 - 140
Perfluorooctanesulfonamide (PFOSA)	1.83	U	39.7	39.72		ng/L		100	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.57	U	39.7	39.23		ng/L		99	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.57	U	39.7	37.73		ng/L		95	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267585-5 MS
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: RI-SED-17_20221014
Prep Type: SPLP East
Prep Batch: 185200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.57	U	37.6	43.15		ng/L		115	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.83	U	38.0	44.52		ng/L		117	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*103*		*50 - 150*
13C4 PFHpA	*96*		*50 - 150*
13C4 PFOA	*101*		*50 - 150*
13C4 PFOS	*108*		*50 - 150*
13C5 PFNA	*96*		*50 - 150*
13C4 PFBA	*95*		*50 - 150*
13C2 PFHxA	*94*		*50 - 150*
13C2 PFDA	*100*		*50 - 150*
13C2 PFUnA	*107*		*50 - 150*
13C2 PFDoA	*112*		*50 - 150*
13C8 FOSA	*109*		*50 - 150*
13C5 PFPeA	*91*		*50 - 150*
13C2 PFTeDA	*91*		*50 - 150*
d3-NMeFOSAA	*126*		*50 - 150*
d5-NEtFOSAA	*125*		*50 - 150*
M2-6:2 FTS	*113*		*50 - 150*
M2-8:2 FTS	*110*		*50 - 150*
13C3 PFBS	*105*		*50 - 150*

Lab Sample ID: 460-267585-5 MSD
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: RI-SED-17_20221014
Prep Type: SPLP East
Prep Batch: 185200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	7.23		37.7	37.44		ng/L		80	60 - 140	3	30
Perfluoropentanoic acid (PFPeA)	12.1		37.7	40.85		ng/L		76	60 - 140	1	30
Perfluorohexanoic acid (PFHxA)	4.90		37.7	41.28		ng/L		96	60 - 140	6	30
Perfluoroheptanoic acid (PFHpA)	4.02		37.7	39.56		ng/L		94	60 - 140	0	30
Perfluorooctanoic acid (PFOA)	15.6		37.7	50.87		ng/L		93	60 - 140	7	30
Perfluorononanoic acid (PFNA)	3.35		37.7	40.54		ng/L		99	60 - 140	1	30
Perfluorodecanoic acid (PFDA)	0.70	J	37.7	38.20		ng/L		99	60 - 140	6	30
Perfluoroundecanoic acid (PFUnA)	1.83	U	37.7	34.66		ng/L		92	60 - 140	10	30
Perfluorododecanoic acid (PFDoA)	1.83	U	37.7	36.79		ng/L		97	60 - 140	3	30
Perfluorotridecanoic acid (PFTriA)	1.83	U	37.7	33.99		ng/L		90	60 - 140	5	30
Perfluorotetradecanoic acid (PFTeA)	1.83	U	37.7	36.66		ng/L		97	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	0.77	J	33.4	32.61		ng/L		95	60 - 140	6	30
Perfluorohexanesulfonic acid (PFHxS)	4.84		34.3	38.64		ng/L		98	60 - 140	3	30
Perfluoroheptanesulfonic acid (PFHpS)	1.83	U	35.9	35.07		ng/L		98	60 - 140	9	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267585-5 MSD
Matrix: Solid
Analysis Batch: 185219

Client Sample ID: RI-SED-17_20221014
Prep Type: SPLP East
Prep Batch: 185200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	7.04		35.0	42.65		ng/L		102	60 - 140	6	30
Perfluorodecanesulfonic acid (PFDS)	1.83	U	36.4	35.56		ng/L		98	60 - 140	0	30
Perfluorooctanesulfonamide (PFOSA)	1.83	U	37.7	38.72		ng/L		103	60 - 140	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.57	U	37.7	38.03		ng/L		101	60 - 140	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.57	U	37.7	36.55		ng/L		97	60 - 140	3	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.57	U	35.8	41.79		ng/L		117	50 - 150	3	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.83	U	36.2	43.85		ng/L		121	60 - 140	2	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*103*		*50 - 150*
13C4 PFHpA	*92*		*50 - 150*
13C4 PFOA	*100*		*50 - 150*
13C4 PFOS	*108*		*50 - 150*
13C5 PFNA	*96*		*50 - 150*
13C4 PFBA	*87*		*50 - 150*
13C2 PFHxA	*92*		*50 - 150*
13C2 PFDA	*99*		*50 - 150*
13C2 PFUnA	*108*		*50 - 150*
13C2 PFDoA	*109*		*50 - 150*
13C8 FOSA	*101*		*50 - 150*
13C5 PFPeA	*86*		*50 - 150*
13C2 PFTeDA	*84*		*50 - 150*
d3-NMeFOSAA	*125*		*50 - 150*
d5-NEtFOSAA	*125*		*50 - 150*
M2-6:2 FTS	*108*		*50 - 150*
M2-8:2 FTS	*106*		*50 - 150*
13C3 PFBS	*103*		*50 - 150*

Definitions/Glossary

Client: AKRF Inc
Job ID: 460-267585-1
Project/Site: WPFD

Qualifiers

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

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

LCMS

Leach Batch: 185059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-1	RI-SED-13_20221014	SPLP East	Solid	1312	
460-267585-2	RI-SED-14_20221014	SPLP East	Solid	1312	
460-267585-3	RI-SED-15_20221014	SPLP East	Solid	1312	
460-267585-4	RI-SED-16_20221014	SPLP East	Solid	1312	
460-267585-5	RI-SED-17_20221014	SPLP East	Solid	1312	
460-267585-6	RI-SED-18_20221014	SPLP East	Solid	1312	
460-267585-7	RI-SED-19_20221014	SPLP East	Solid	1312	
460-267585-8	RI-SED-20_20221014	SPLP East	Solid	1312	
460-267585-9	RI-SED-X_20221014	SPLP East	Solid	1312	
LB 200-185059/1-B	Method Blank	SPLP East	Solid	1312	
460-267585-5 MS	RI-SED-17_20221014	SPLP East	Solid	1312	
460-267585-5 MSD	RI-SED-17_20221014	SPLP East	Solid	1312	

Prep Batch: 185134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-1	RI-SED-13_20221014	Total/NA	Solid	SHAKE	
460-267585-2	RI-SED-14_20221014	Total/NA	Solid	SHAKE	
460-267585-3	RI-SED-15_20221014	Total/NA	Solid	SHAKE	
460-267585-4	RI-SED-16_20221014	Total/NA	Solid	SHAKE	
460-267585-5	RI-SED-17_20221014	Total/NA	Solid	SHAKE	
460-267585-6	RI-SED-18_20221014	Total/NA	Solid	SHAKE	
460-267585-7	RI-SED-19_20221014	Total/NA	Solid	SHAKE	
460-267585-8	RI-SED-20_20221014	Total/NA	Solid	SHAKE	
460-267585-9 - DL	RI-SED-X_20221014	Total/NA	Solid	SHAKE	
460-267585-9	RI-SED-X_20221014	Total/NA	Solid	SHAKE	
MB 200-185134/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 200-185134/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
460-267585-5 MS	RI-SED-17_20221014	Total/NA	Solid	SHAKE	
460-267585-5 MSD	RI-SED-17_20221014	Total/NA	Solid	SHAKE	

Prep Batch: 185150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-10	RI-SW-13_20221014	Total/NA	Water	3535	
460-267585-11	RI-SW-14_20221014	Total/NA	Water	3535	
460-267585-12	RI-SW-15_20221014	Total/NA	Water	3535	
460-267585-13	RI-SW-16_20221014	Total/NA	Water	3535	
460-267585-14	RI-SW-17_20221014	Total/NA	Water	3535	
460-267585-15	RI-SW-18_20221014	Total/NA	Water	3535	
460-267585-16	RI-SW-19_20221014	Total/NA	Water	3535	
460-267585-17	RI-SW-20_20221014	Total/NA	Water	3535	
460-267585-18	RI-SW-X_20221014	Total/NA	Water	3535	
460-267585-19	RI-CW-01_20221014	Total/NA	Water	3535	
460-267585-20	RI-CW-02_20221014	Total/NA	Water	3535	
460-267585-21	RI-CW-03_20221014	Total/NA	Water	3535	
460-267585-22	RI-CW-04_20221014	Total/NA	Water	3535	
460-267585-23	FB-01_20221014	Total/NA	Water	3535	
MB 200-185150/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-185150/2-A	Lab Control Sample	Total/NA	Water	3535	
460-267585-14 MS	RI-SW-17_20221014	Total/NA	Water	3535	
460-267585-14 MSD	RI-SW-17_20221014	Total/NA	Water	3535	

LCMS

Analysis Batch: 185176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-10	RI-SW-13_20221014	Total/NA	Water	537 (modified)	185150
460-267585-11	RI-SW-14_20221014	Total/NA	Water	537 (modified)	185150
460-267585-12	RI-SW-15_20221014	Total/NA	Water	537 (modified)	185150
460-267585-13	RI-SW-16_20221014	Total/NA	Water	537 (modified)	185150
460-267585-14	RI-SW-17_20221014	Total/NA	Water	537 (modified)	185150
460-267585-15	RI-SW-18_20221014	Total/NA	Water	537 (modified)	185150
460-267585-16	RI-SW-19_20221014	Total/NA	Water	537 (modified)	185150
460-267585-17	RI-SW-20_20221014	Total/NA	Water	537 (modified)	185150
460-267585-18	RI-SW-X_20221014	Total/NA	Water	537 (modified)	185150
460-267585-19	RI-CW-01_20221014	Total/NA	Water	537 (modified)	185150
460-267585-20	RI-CW-02_20221014	Total/NA	Water	537 (modified)	185150
460-267585-21	RI-CW-03_20221014	Total/NA	Water	537 (modified)	185150
460-267585-22	RI-CW-04_20221014	Total/NA	Water	537 (modified)	185150
460-267585-23	FB-01_20221014	Total/NA	Water	537 (modified)	185150
MB 200-185150/1-A	Method Blank	Total/NA	Water	537 (modified)	185150
LCS 200-185150/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	185150
460-267585-14 MS	RI-SW-17_20221014	Total/NA	Water	537 (modified)	185150
460-267585-14 MSD	RI-SW-17_20221014	Total/NA	Water	537 (modified)	185150

Prep Batch: 185200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-1	RI-SED-13_20221014	SPLP East	Solid	3535	185059
460-267585-2	RI-SED-14_20221014	SPLP East	Solid	3535	185059
460-267585-3	RI-SED-15_20221014	SPLP East	Solid	3535	185059
460-267585-4	RI-SED-16_20221014	SPLP East	Solid	3535	185059
460-267585-5	RI-SED-17_20221014	SPLP East	Solid	3535	185059
460-267585-6	RI-SED-18_20221014	SPLP East	Solid	3535	185059
460-267585-7	RI-SED-19_20221014	SPLP East	Solid	3535	185059
460-267585-8	RI-SED-20_20221014	SPLP East	Solid	3535	185059
460-267585-9	RI-SED-X_20221014	SPLP East	Solid	3535	185059
LB 200-185059/1-B	Method Blank	SPLP East	Solid	3535	185059
MB 200-185200/1-A	Method Blank	Total/NA	Solid	3535	
LCS 200-185200/2-A	Lab Control Sample	Total/NA	Solid	3535	
460-267585-5 MS	RI-SED-17_20221014	SPLP East	Solid	3535	185059
460-267585-5 MSD	RI-SED-17_20221014	SPLP East	Solid	3535	185059

Analysis Batch: 185214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-10	RI-SW-13_20221014	Total/NA	Water	537 (modified)	185150

Analysis Batch: 185219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-1	RI-SED-13_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-2	RI-SED-14_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-3	RI-SED-15_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-4	RI-SED-16_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-5	RI-SED-17_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-6	RI-SED-18_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-7	RI-SED-19_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-8	RI-SED-20_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-9	RI-SED-X_20221014	SPLP East	Solid	537 (modified)	185200

LCMS (Continued)

Analysis Batch: 185219 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 200-185059/1-B	Method Blank	SPLP East	Solid	537 (modified)	185200
MB 200-185200/1-A	Method Blank	Total/NA	Solid	537 (modified)	185200
LCS 200-185200/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	185200
460-267585-5 MS	RI-SED-17_20221014	SPLP East	Solid	537 (modified)	185200
460-267585-5 MSD	RI-SED-17_20221014	SPLP East	Solid	537 (modified)	185200

Analysis Batch: 185269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-1	RI-SED-13_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-2	RI-SED-14_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-3	RI-SED-15_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-4	RI-SED-16_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-5	RI-SED-17_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-6	RI-SED-18_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-7	RI-SED-19_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-8	RI-SED-20_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-9	RI-SED-X_20221014	Total/NA	Solid	537 (modified)	185134
MB 200-185134/1-A	Method Blank	Total/NA	Solid	537 (modified)	185134
LCS 200-185134/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	185134
460-267585-5 MS	RI-SED-17_20221014	Total/NA	Solid	537 (modified)	185134
460-267585-5 MSD	RI-SED-17_20221014	Total/NA	Solid	537 (modified)	185134

Analysis Batch: 185360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-9 - DL	RI-SED-X_20221014	Total/NA	Solid	537 (modified)	185134

General Chemistry

Analysis Batch: 185147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267585-1	RI-SED-13_20221014	Total/NA	Solid	Moisture	
460-267585-2	RI-SED-14_20221014	Total/NA	Solid	Moisture	
460-267585-3	RI-SED-15_20221014	Total/NA	Solid	Moisture	
460-267585-4	RI-SED-16_20221014	Total/NA	Solid	Moisture	
460-267585-5	RI-SED-17_20221014	Total/NA	Solid	Moisture	
460-267585-6	RI-SED-18_20221014	Total/NA	Solid	Moisture	
460-267585-7	RI-SED-19_20221014	Total/NA	Solid	Moisture	
460-267585-8	RI-SED-20_20221014	Total/NA	Solid	Moisture	
460-267585-9	RI-SED-X_20221014	Total/NA	Solid	Moisture	
460-267198-A-2 DU	Duplicate	Total/NA	Solid	Moisture	

Client Sample ID: RI-SED-13_20221014
Date Collected: 10/14/22 09:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 20:22
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Client Sample ID: RI-SED-13_20221014
Date Collected: 10/14/22 09:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-1
Matrix: Solid
Percent Solids: 30.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 17:42

Client Sample ID: RI-SED-14_20221014
Date Collected: 10/14/22 08:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 20:30
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Client Sample ID: RI-SED-14_20221014
Date Collected: 10/14/22 08:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-2
Matrix: Solid
Percent Solids: 12.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 17:50

Client Sample ID: RI-SED-15_20221014
Date Collected: 10/14/22 08:00
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 20:38
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Lab Chronicle

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Client Sample ID: RI-SED-15_20221014
Lab Sample ID: 460-267585-3
Date Collected: 10/14/22 08:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 23.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 17:59

Client Sample ID: RI-SED-16_20221014
Lab Sample ID: 460-267585-4
Date Collected: 10/14/22 13:00
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 20:46
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Client Sample ID: RI-SED-16_20221014
Lab Sample ID: 460-267585-4
Date Collected: 10/14/22 13:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 31.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 18:07

Client Sample ID: RI-SED-17_20221014
Lab Sample ID: 460-267585-5
Date Collected: 10/14/22 12:00
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 20:55
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Client Sample ID: RI-SED-17_20221014
Lab Sample ID: 460-267585-5
Date Collected: 10/14/22 12:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 27.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 18:15

Client Sample ID: RI-SED-18_20221014
Date Collected: 10/14/22 11:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 21:19
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Client Sample ID: RI-SED-18_20221014
Date Collected: 10/14/22 11:15
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-6
Matrix: Solid
Percent Solids: 14.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 18:40

Client Sample ID: RI-SED-19_20221014
Date Collected: 10/14/22 10:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 21:27
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Client Sample ID: RI-SED-19_20221014
Date Collected: 10/14/22 10:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-7
Matrix: Solid
Percent Solids: 15.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 18:48

Client Sample ID: RI-SED-20_20221014
Date Collected: 10/14/22 09:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267585-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 21:36
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Lab Chronicle

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Client Sample ID: RI-SED-20_20221014
Lab Sample ID: 460-267585-8
Date Collected: 10/14/22 09:45
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 36.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 18:56

Client Sample ID: RI-SED-X_20221014
Lab Sample ID: 460-267585-9
Date Collected: 10/14/22 09:30
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
SPLP East	Leach	1312			185059	KFW	EET BUR	10/25/22 12:08 - 10/27/22 12:30 [1]
SPLP East	Prep	3535			185200	KFW	EET BUR	10/28/22 09:54
SPLP East	Analysis	537 (modified)		1	185219	BWC	EET BUR	10/28/22 21:44
Total/NA	Analysis	Moisture		1	185147	DBP	EET BUR	10/27/22 09:52

Client Sample ID: RI-SED-X_20221014
Lab Sample ID: 460-267585-9
Date Collected: 10/14/22 09:30
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 33.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)		1	185269	BWC	EET BUR	10/31/22 19:04
Total/NA	Prep	SHAKE	DL		185134	KFW	EET BUR	10/27/22 09:00
Total/NA	Analysis	537 (modified)	DL	2	185360	BWC	EET BUR	11/02/22 16:43

Client Sample ID: RI-SW-13_20221014
Lab Sample ID: 460-267585-10
Date Collected: 10/14/22 09:15
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 21:20
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185214	BWC	EET BUR	10/28/22 16:00

Client Sample ID: RI-SW-14_20221014
Lab Sample ID: 460-267585-11
Date Collected: 10/14/22 08:45
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 18:37

Client Sample ID: RI-SW-15_20221014
Lab Sample ID: 460-267585-12
Date Collected: 10/14/22 08:00
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 18:45

Client Sample ID: RI-SW-16_20221014
Lab Sample ID: 460-267585-13
Date Collected: 10/14/22 13:00
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 18:53

Client Sample ID: RI-SW-17_20221014
Lab Sample ID: 460-267585-14
Date Collected: 10/14/22 12:00
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		5	185176	ND	EET BUR	10/27/22 19:01

Client Sample ID: RI-SW-18_20221014
Lab Sample ID: 460-267585-15
Date Collected: 10/14/22 11:15
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 19:26

Client Sample ID: RI-SW-19_20221014
Lab Sample ID: 460-267585-16
Date Collected: 10/14/22 10:30
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 19:34

Client Sample ID: RI-SW-20_20221014
Lab Sample ID: 460-267585-17
Date Collected: 10/14/22 09:45
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 19:42

Client Sample ID: RI-SW-X_20221014
Lab Sample ID: 460-267585-18
Date Collected: 10/14/22 09:30
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 19:50

Client Sample ID: RI-CW-01_20221014
Lab Sample ID: 460-267585-19
Date Collected: 10/14/22 13:30
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 20:07

Client Sample ID: RI-CW-02_20221014
Lab Sample ID: 460-267585-20
Date Collected: 10/14/22 13:45
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 20:15

Client Sample ID: RI-CW-03_20221014
Lab Sample ID: 460-267585-21
Date Collected: 10/14/22 14:00
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 20:23

Client Sample ID: RI-CW-04_20221014
Lab Sample ID: 460-267585-22
Date Collected: 10/14/22 14:15
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 20:31

Client Sample ID: FB-01_20221014
Lab Sample ID: 460-267585-23
Date Collected: 10/14/22 13:20
Matrix: Water
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185150	ND	EET BUR	10/27/22 10:15
Total/NA	Analysis	537 (modified)		1	185176	ND	EET BUR	10/27/22 20:39

[1] Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267585-1

Laboratory: Eurofins Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Solid	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Solid	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Solid	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Solid	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Solid	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Solid	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Solid	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 (modified)	3535	Solid	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Solid	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Solid	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Solid	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Solid	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Solid	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Solid	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Solid	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Solid	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Solid	Perfluoroundecanoic acid (PFUnA)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)

Laboratory: Eurofins Burlington (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)
537 (modified)	SHAKE	Solid	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	SHAKE	Solid	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	SHAKE	Solid	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	SHAKE	Solid	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	SHAKE	Solid	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	SHAKE	Solid	Perfluorobutanoic acid (PFBA)
537 (modified)	SHAKE	Solid	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	SHAKE	Solid	Perfluorodecanoic acid (PFDA)
537 (modified)	SHAKE	Solid	Perfluorododecanoic acid (PFDoA)
537 (modified)	SHAKE	Solid	Perfluoroheptanesulfonic acid (PFHpS)
537 (modified)	SHAKE	Solid	Perfluoroheptanoic acid (PFHpA)
537 (modified)	SHAKE	Solid	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	SHAKE	Solid	Perfluorohexanoic acid (PFHxA)
537 (modified)	SHAKE	Solid	Perfluorononanoic acid (PFNA)
537 (modified)	SHAKE	Solid	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	SHAKE	Solid	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	SHAKE	Solid	Perfluorooctanoic acid (PFOA)
537 (modified)	SHAKE	Solid	Perfluoropentanoic acid (PFPeA)
537 (modified)	SHAKE	Solid	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	SHAKE	Solid	Perfluorotridecanoic acid (PFTriA)
537 (modified)	SHAKE	Solid	Perfluoroundecanoic acid (PFUnA)
Moisture		Solid	Percent Solids

Method PFC IDA

Fluorinated Hydrocarbons by Method PFAS IDA

Subcontract Data

Shipping and Receiving Documents

ELMSFORD

Chain of Custody Record

636807

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zaroff	Site Contact: Steve Schuh	Date: 10/14/2022	COC No: 1 of 2 COCs
Company Name: AKRF, Inc	Tel/Email: BZaroff@akrf.com	Lab Contact: Melissa Moss	Carrier:	Sampler:
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
Phone: 802-922-2382	TAT if different from Below AKRF Standard			Lab Sampling:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Job / SDG No.: 167585
Project Name: WIPD Mill School				
Site: 1402 Orchard Street Lake Placid NY				
P O # 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAS	SPLP PFAS	Sample Specific Notes:
RI-SED-13_20221014	10/14/22	915	G	S	2			X	X	1
RI-SED-14_20221014		845						X	X	2
RI-SED-15_20221014		800						X	X	3
RI-SED-16_20221014		1300						X	X	4
RI-SED-17_20221014		1200					Y	X	X	5
RI-SED-18_20221014		1115						X	X	6
RI-SED-19_20221014		1030						X	X	7
RI-SED-20_20221014		945						X	X	8
RI-SED-X_20221014		930						X	X	9
RI-SW-13_20221014		915		W	2			X		10
RI-SW-14_20221014		845						X		11
RI-SW-15_20221014		800						X		12

460-267585 Chain of Custody

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD on SED-17, EQuIS, CAT B, close SDG

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

	Company	Date/Time		Company	Date/Time
Relinquished by:	AKRF	10/14/22	Received by:		10/14/22 1430
Relinquished by:			Received by:		
Relinquished by:			Received in Laboratory by: Angela Casalla	ETNY	10/14/22 1800

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2 of 2 ea 2 ea

LMSEQ
272

Address: _____

Chain of Custody Record

636806

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zierhoff	Site Contact: Steve Schmidt	Date: 10/14/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: BZierhoff@akrf.com	Lab Contact: Melissa Hass	Carrier:	2 of 2 COCs
Address: 440 Park Ave S, 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF standard			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: WAPD Dock school				Job / SDG No.: 267585
Site: 1402 Castleton Street Work Pkg NY				
P O # 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PCB	Sample Specific Notes:
RI-SW-16_20221014	10/14/22	1300	G	W	2			X	13
RI-SW-17_20221014		1200					Y	X	14
RI-SW-18_20221014		1115						X	15
RI-SW-19_20221014		1030						X	16
RI-SW-20_20221014		945						X	17
RI-SW-X_20221014		930						X	18
RI-CW-01_20221014		1330						X	19
RI-CW-02_20221014		1345						X	20
RI-CW-03_20221014		1400						X	21
RI-CW-04_20221014		1415						X	22
FB-01_20221014		1320						X	23

SUB WORK

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD on SW-17, EQuIS, CAT B, Case SDG

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:_____ Corr'd:_____	Therm ID No.:_____

	Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
1		AKRF	10/14/22		FA	10/14/22 1230
2					FA	10/14/22 1700
3		FA	10/14/22 1800	Angela Casaltas	ETAEd	10/14/22 1800

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11/04/2022

28 >Pg 28 cPd

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 267585

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	28 °C	28 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: Land **Date:** 10 17 22

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-267585 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	COC No: 460-66587 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Page: Page 1 of 2
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022		Job #: 460-267585-1
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email	WO #:		
Project Name: WPFD	Project #: 46034945		
Site	SSOW#:		

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SED-13_20221014 (460-267585-1)	10/14/22	09 15 Eastern		Solid			X	X	X	2	
RI-SED-14_20221014 (460-267585-2)	10/14/22	08:45 Eastern		Solid			X	X	X	2	
RI-SED-15_20221014 (460-267585-3)	10/14/22	08:00 Eastern		Solid			X	X	X	2	
RI-SED-16_20221014 (460-267585-4)	10/14/22	13.00 Eastern		Solid			X	X	X	2	
RI-SED-17_20221014 (460-267585-5)	10/14/22	12 00 Eastern		Solid			X	X	X	2	
RI-SED-17_20221014 (460-267585-5MS)	10/14/22	12.00 Eastern	MS	Solid			X	X		2	
RI-SED-17_20221014 (460-267585-5MSD)	10/14/22	12:00 Eastern	MSD	Solid			X	X		2	
RI-SED-18_20221014 (460-267585-6)	10/14/22	11 15 Eastern		Solid			X	X	X	2	
RI-SED-19_20221014 (460-267585-7)	10/14/22	10:30 Eastern		Solid			X	X	X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		10/18/22 1600	ETNE		10/19/2022 1030	ETA Burl
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

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10/21/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa	Carrier Tracking No(s):	COC No: 460-66587 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267585-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture									Total Number of containers	Special Instructions/Note:
			Preservation Code:																
RI-SED-20_20221014 (460-267585-8)	10/14/22	09:45 Eastern		Solid			X	X	X									2	
RI-SED-X_20221014 (460-267585-9)	10/14/22	09:30 Eastern		Solid			X	X	X									2	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 1	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/18/22 1600	ETNE		10/19/2022 1030	ETA Burl
2						
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No :	Cooler Temperature(s) °C and Other Remarks:

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11/10/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone. 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66588 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267585-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Tnzma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-SW-13_20221014 (460-267585-10)	10/14/22	09:15 Eastern		Water			X	2	
RI-SW-14_20221014 (460-267585-11)	10/14/22	08 45 Eastern		Water			X	2	
RI-SW-15_20221014 (460-267585-12)	10/14/22	08.00 Eastern		Water			X	2	
RI-SW-16_20221014 (460-267585-13)	10/14/22	13:00 Eastern		Water			X	2	
RI-SW-17_20221014 (460-267585-14)	10/14/22	12:00 Eastern		Water			X	2	
RI-SW-17_20221014 (460-267585-14MS)	10/14/22	12 00 Eastern	MS	Water			X	2	
RI-SW-17_20221014 (460-267585-14MSD)	10/14/22	12 00 Eastern	MSD	Water			X	2	
RI-SW-18_20221014 (460-267585-15)	10/14/22	11 15 Eastern		Water			X	2	
RI-SW-19_20221014 (460-267585-16)	10/14/22	10 30 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
		10/18/22 1600	ETNE		10/19/2022 1030	ETA Burl
	Relinquished by:	Date/Time	Company	Received by:	Date/Time.	Company
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No .	Cooler Temperature(s) °C and Other Remarks

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone. 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66588 2
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267585-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-SW-20_20221014 (460-267585-17)	10/14/22	09 45 Eastern		Water			X	2	
RI-SW-X_20221014 (460-267585-18)	10/14/22	09 30 Eastern		Water			X	2	
RI-CW-01_20221014 (460-267585-19)	10/14/22	13:30 Eastern		Water			X	2	
RI-CW-02_20221014 (460-267585-20)	10/14/22	13:45 Eastern		Water			X	2	
RI-CW-03_20221014 (460-267585-21)	10/14/22	14:00 Eastern		Water			X	2	
RI-CW-04_20221014 (460-267585-22)	10/14/22	14 15 Eastern		Water			X	2	
FB-01_20221014 (460-267585-23)	10/14/22	13 20 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

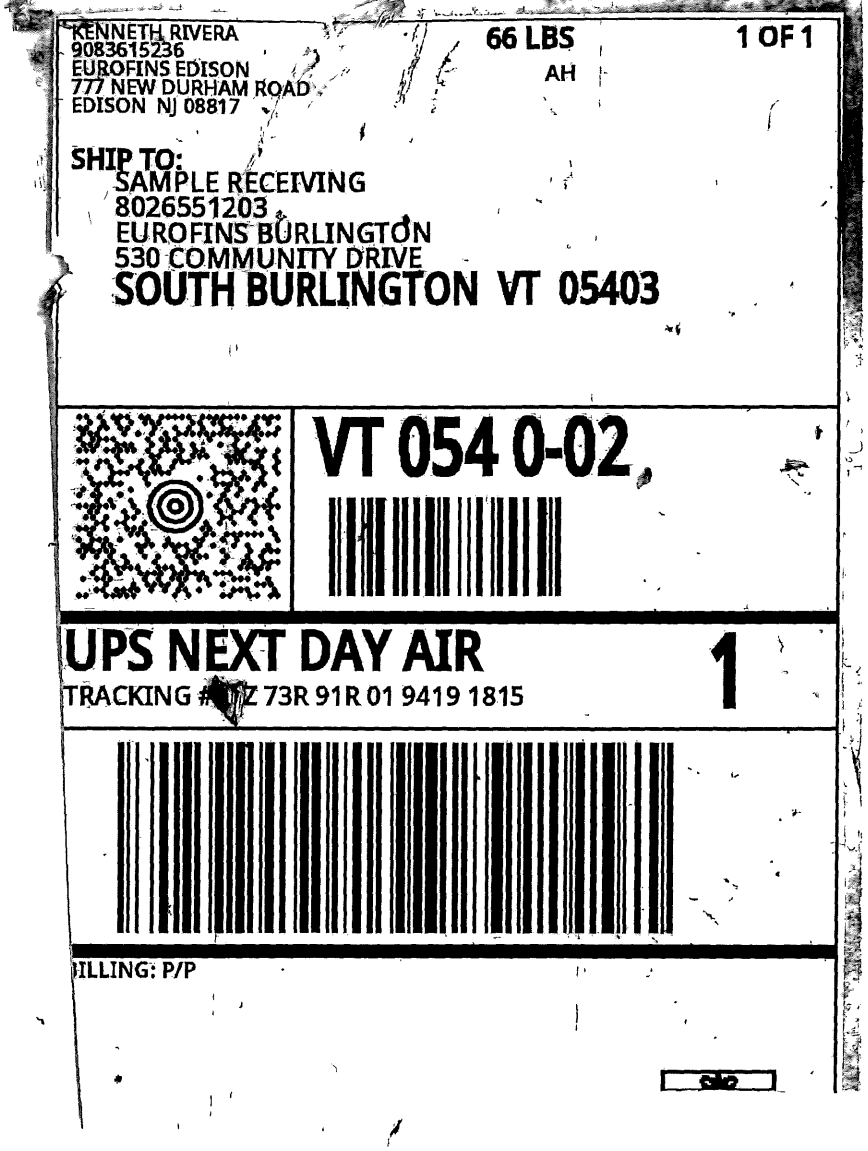
Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 1	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		10/18/22 1600	EET NE		10/19/2022 1030	ETA Burl
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No .	Cooler Temperature(s) °C and Other Remarks

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10/20/2022


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
66 LBS
AH
1 OF 1
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-02
UPS NEXT DAY AIR
1
TRACKING #
Z 73R 91R 01 9419 1815
ILLING: P/P

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267585-1

Login Number: 267585
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267585-1

Login Number: 267585
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/19/22 03:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861177
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

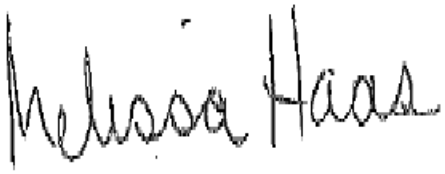
ANALYTICAL REPORT

Job Number: 460-267587-1

Job Description: WPFD

For:
AKRF Inc
34 South Broadway
Suite 314
White Plains, NY 10601

Attention: Mr. Bryan Zieroff



Approved for release.
Melissa Haas
Senior Project Manager
10/21/2022 7:55 AM

Melissa Haas, Senior Project Manager
777 New Durham Road, Edison, NJ, 08817
(203)308-0880
Melissa.Haas@et.eurofinsus.com
10/21/2022

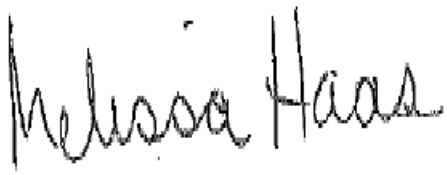
The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Edison and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Edison Project Manager or designee who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Number: 460-267587-1

Job Description: WPFD

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Melissa Haas
Senior Project Manager
10/21/2022 7:55 AM

Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-267587-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 10/14/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

LLOYD KAHN METHOD (TOTAL ORGANIC CARBON)
Samples RI-SED-13_20221014 (460-267587-1), RI-SED-14_20221014 (460-267587-2), RI-SED-15_20221014 (460-267587-3), RI-SED-16_20221014 (460-267587-4), RI-SED-17_20221014 (460-267587-5), RI-SED-18_20221014 (460-267587-6), RI-SED-19_20221014 (460-267587-7), RI-SED-20_20221014 (460-267587-8) and RI-SED-X_20221014 (460-267587-9) were analyzed for Lloyd Kahn Method (total organic carbon) in accordance with Lloyd Kahn Method. The samples were analyzed on 10/20/2022.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE
Samples RI-SED-13_20221014 (460-267587-1), RI-SED-14_20221014 (460-267587-2), RI-SED-15_20221014 (460-267587-3), RI-SED-16_20221014 (460-267587-4), RI-SED-17_20221014 (460-267587-5), RI-SED-18_20221014 (460-267587-6), RI-SED-19_20221014 (460-267587-7), RI-SED-20_20221014 (460-267587-8) and RI-SED-X_20221014 (460-267587-9) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 10/19/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Sample Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267587-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-267587-1	RI-SED-13_20221014	Solid	10/14/22 09:15	10/14/22 18:00
460-267587-2	RI-SED-14_20221014	Solid	10/14/22 08:45	10/14/22 18:00
460-267587-3	RI-SED-15_20221014	Solid	10/14/22 08:00	10/14/22 18:00
460-267587-4	RI-SED-16_20221014	Solid	10/14/22 13:00	10/14/22 18:00
460-267587-5	RI-SED-17_20221014	Solid	10/14/22 12:00	10/14/22 18:00
460-267587-6	RI-SED-18_20221014	Solid	10/14/22 11:15	10/14/22 18:00
460-267587-7	RI-SED-19_20221014	Solid	10/14/22 10:30	10/14/22 18:00
460-267587-8	RI-SED-20_20221014	Solid	10/14/22 09:45	10/14/22 18:00
460-267587-9	RI-SED-X_20221014	Solid	10/14/22 09:30	10/14/22 18:00

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267587-1

Client Sample ID: RI-SED-13_20221014 — Lab Sample ID: 460-267587-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	49200		240	195	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-14_20221014 — Lab Sample ID: 460-267587-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	114000		367	298	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-15_20221014 — Lab Sample ID: 460-267587-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	85900		309	251	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-16_20221014 — Lab Sample ID: 460-267587-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	67300		203	165	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-17_20221014 — Lab Sample ID: 460-267587-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	120000		422	343	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-18_20221014 — Lab Sample ID: 460-267587-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	219000		681	554	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-19_20221014 — Lab Sample ID: 460-267587-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	82200		377	307	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-20_20221014 — Lab Sample ID: 460-267587-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	59300		322	262	mg/Kg	1	☼	Lloyd Kahn	Total/NA

Client Sample ID: RI-SED-X_20221014 — Lab Sample ID: 460-267587-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TOC Result 1	51800		239	194	mg/Kg	1	☼	Lloyd Kahn	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267587-1

Method	Method Description	Protocol	Laboratory
Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	EET EDI
Moisture	Percent Moisture	EPA	EET EDI

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Client Sample ID: RI-SED-13_20221014

Lab Sample ID: 460-267587-1
Date Collected: 10/14/22 09:15
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 41.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	49200		240	195	mg/Kg	☼		10/20/22 13:38	1

Client Sample ID: RI-SED-14_20221014

Lab Sample ID: 460-267587-2
Date Collected: 10/14/22 08:45
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 27.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	114000		367	298	mg/Kg	☼		10/20/22 13:44	1

Client Sample ID: RI-SED-15_20221014

Lab Sample ID: 460-267587-3
Date Collected: 10/14/22 08:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 32.4

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	85900		309	251	mg/Kg	☼		10/20/22 13:51	1

Client Sample ID: RI-SED-16_20221014

Lab Sample ID: 460-267587-4
Date Collected: 10/14/22 13:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 49.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	67300		203	165	mg/Kg	☼		10/20/22 13:58	1

Client Sample ID: RI-SED-17_20221014

Lab Sample ID: 460-267587-5
Date Collected: 10/14/22 12:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 23.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	120000		422	343	mg/Kg	☼		10/20/22 14:06	1

Client Sample ID: RI-SED-18_20221014

Lab Sample ID: 460-267587-6
Date Collected: 10/14/22 11:15
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 14.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	219000		681	554	mg/Kg	☼		10/20/22 14:39	1

Client Sample ID: RI-SED-19_20221014

Lab Sample ID: 460-267587-7
Date Collected: 10/14/22 10:30
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 26.5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	82200		377	307	mg/Kg	☼		10/20/22 14:45	1

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267587-1

Client Sample ID: RI-SED-20_20221014

Lab Sample ID: 460-267587-8

Date Collected: 10/14/22 09:45
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 31.0

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	59300		322	262	mg/Kg	☼		10/20/22 15:24	1

Client Sample ID: RI-SED-X_20221014

Lab Sample ID: 460-267587-9

Date Collected: 10/14/22 09:30
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 41.8

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (EPA Lloyd Kahn)	51800		239	194	mg/Kg	☼		10/20/22 15:31	1

Method: Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 460-873143/3
Matrix: Solid
Analysis Batch: 873143

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	100	U	100	81.3	mg/Kg			10/20/22 11:44	1

Lab Sample ID: LCSSRM 460-873143/4
Matrix: Solid
Analysis Batch: 873143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits		
TOC Result 1			12900	10600		mg/Kg		82.2	41.3 - 186.0		

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates analyzed for but not detected.

Glossary

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

General Chemistry

Analysis Batch: 872821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267587-1	RI-SED-13_20221014	Total/NA	Solid	Moisture	
460-267587-2	RI-SED-14_20221014	Total/NA	Solid	Moisture	
460-267587-3	RI-SED-15_20221014	Total/NA	Solid	Moisture	
460-267587-4	RI-SED-16_20221014	Total/NA	Solid	Moisture	
460-267587-5	RI-SED-17_20221014	Total/NA	Solid	Moisture	
460-267587-6	RI-SED-18_20221014	Total/NA	Solid	Moisture	
460-267587-7	RI-SED-19_20221014	Total/NA	Solid	Moisture	
460-267587-8	RI-SED-20_20221014	Total/NA	Solid	Moisture	
460-267587-9	RI-SED-X_20221014	Total/NA	Solid	Moisture	
460-267587-5 MS	RI-SED-17_20221014	Total/NA	Solid	Moisture	
460-267587-5 MSD	RI-SED-17_20221014	Total/NA	Solid	Moisture	
460-267587-9 DU	RI-SED-X_20221014	Total/NA	Solid	Moisture	

Analysis Batch: 873143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267587-1	RI-SED-13_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-2	RI-SED-14_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-3	RI-SED-15_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-4	RI-SED-16_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-5	RI-SED-17_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-6	RI-SED-18_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-7	RI-SED-19_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-8	RI-SED-20_20221014	Total/NA	Solid	Lloyd Kahn	
460-267587-9	RI-SED-X_20221014	Total/NA	Solid	Lloyd Kahn	
MB 460-873143/3	Method Blank	Total/NA	Solid	Lloyd Kahn	
LCSSRM 460-873143/4	Lab Control Sample	Total/NA	Solid	Lloyd Kahn	

Client Sample ID: RI-SED-13_20221014
Lab Sample ID: 460-267587-1
Date Collected: 10/14/22 09:15
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-13_20221014
Lab Sample ID: 460-267587-1
Date Collected: 10/14/22 09:15
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 41.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 13:38

Client Sample ID: RI-SED-14_20221014
Lab Sample ID: 460-267587-2
Date Collected: 10/14/22 08:45
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-14_20221014
Lab Sample ID: 460-267587-2
Date Collected: 10/14/22 08:45
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 27.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 13:44

Client Sample ID: RI-SED-15_20221014
Lab Sample ID: 460-267587-3
Date Collected: 10/14/22 08:00
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-15_20221014
Lab Sample ID: 460-267587-3
Date Collected: 10/14/22 08:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 32.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 13:51

Client Sample ID: RI-SED-16_20221014
Lab Sample ID: 460-267587-4
Date Collected: 10/14/22 13:00
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-16_20221014
Lab Sample ID: 460-267587-4
Date Collected: 10/14/22 13:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 49.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 13:58

Client Sample ID: RI-SED-17_20221014
Lab Sample ID: 460-267587-5
Date Collected: 10/14/22 12:00
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-17_20221014
Lab Sample ID: 460-267587-5
Date Collected: 10/14/22 12:00
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 23.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 14:06

Client Sample ID: RI-SED-18_20221014
Lab Sample ID: 460-267587-6
Date Collected: 10/14/22 11:15
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-18_20221014
Lab Sample ID: 460-267587-6
Date Collected: 10/14/22 11:15
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 14.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 14:39

Client Sample ID: RI-SED-19_20221014
Lab Sample ID: 460-267587-7
Date Collected: 10/14/22 10:30
Matrix: Solid
Date Received: 10/14/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-19_20221014
Lab Sample ID: 460-267587-7
Date Collected: 10/14/22 10:30
Matrix: Solid
Date Received: 10/14/22 18:00
Percent Solids: 26.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 14:45

Lab Chronicle

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267587-1

Client Sample ID: RI-SED-20_20221014
Date Collected: 10/14/22 09:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267587-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-20_20221014
Date Collected: 10/14/22 09:45
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267587-8
Matrix: Solid
Percent Solids: 31.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 15:24

Client Sample ID: RI-SED-X_20221014
Date Collected: 10/14/22 09:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267587-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	872821	RLL	EET EDI	10/19/22 09:37

Client Sample ID: RI-SED-X_20221014
Date Collected: 10/14/22 09:30
Date Received: 10/14/22 18:00

Lab Sample ID: 460-267587-9
Matrix: Solid
Percent Solids: 41.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Lloyd Kahn		1	873143	MMC	EET EDI	10/20/22 15:31

Laboratory References:
EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267587-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

GENERAL CHEMISTRY

Shipping and Receiving Documents

Address: _____

Chain of Custody Record

MSFORD 272

636812

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Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zieroff	Site Contact: Steve School	Date: 10/14/2022	COC No:
Company Name: AICRF, Inc	Tel/Email: BZieroff@aicrf.com	Lab Contact: Melissa Hoy	Carrier:	1 of 1 COCs
Address: 640 Plum Tree S. 7th Rd	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10010	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 862-922-2382	TAT if different from Below AICRF standard			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: WPPD Drill School				Job / SDG No.: 267587
Site: 1402 Orchard Street White Plains NY				
P O # 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	10% Lung Total Organ Carbon
RI-SED-13_20221014	10/14/22	915	G	S	1			X
RI-SED-14_20221014		845						X
RI-SED-15_20221014		800						X
RI-SED-16_20221014		1300						X
RI-SED-17_20221014		1200					Y	X
RI-SED-18_20221014		1115						X
RI-SED-19_20221014		1030						X
RI-SED-20_20221014		945						X
RI-SED-X_20221014		930						X

460-267587 Chain of Custody

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD in SED-17 EQuIS, CAT B, close SDG

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:_____ Corr'd:_____	Therm ID No.:_____

	Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
1		AICRF	10/14/22 @			10/14/22 1430
2	Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
						10/15/22 1200
3	Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			10/15/22 1800	Angela Casalbo	ETA EC	10/14/22 1800

26CR9 26ZReg

10/21/2022

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 167587

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	26 °C	26 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ **Date:** 10/4/22

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267587-1

Login Number: 267587
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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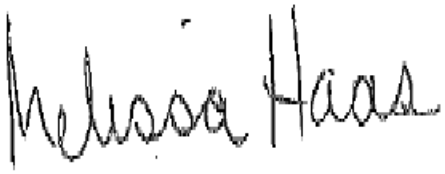
ANALYTICAL REPORT

Job Number: 460-267702-1

Job Description: WPFD

For:
AKRF Inc
34 South Broadway
Suite 314
White Plains, NY 10601

Attention: Mr. Bryan Zieroff



Approved for release.
Melissa Haas
Senior Project Manager
11/8/2022 5:05 PM

Melissa Haas, Senior Project Manager
777 New Durham Road, Edison, NJ, 08817
(203)308-0880
Melissa.Haas@et.eurofinsus.com
11/08/2022

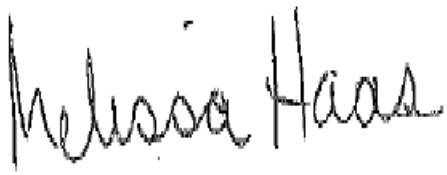
The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing Northeast, LLC Edison and its client. All questions regarding this report should be directed to the Eurofins Environment Testing Northeast, LLC Edison Project Manager or designee who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Number: 460-267702-1

Job Description: WPFD

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Melissa Haas
Senior Project Manager
11/8/2022 5:05 PM

Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-267702-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/17/2022 6:00 PM, 10/18/2022 6:00 PM, 10/19/2022 7:00 PM, 10/20/2022 6:30 PM and 10/25/2022 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.7º C, 2.0º C, 2.1º C, 2.2º C and 2.8º C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Received 6 containers for sample #1 not 2 as recorded on the COC. Received 2 containers for sample #2 not 6 as recorded on the COC.

MS/MSD requested on sample #2 but received extra volume for sample #1.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-MW-01_20221017 (460-267702-1), RI-DP-02_20221018 (460-267732-1), RI-MW-05_20221019 (460-267827-1), RI-MW-07_20221020 (460-267901-1), RI-MW-10_20221024 (460-268208-1), RI-MW-04_20221017 (460-267702-2), RI-DP-05_20221018 (460-267732-2), RI-MW-06_20221019 (460-267827-2), RI-MW-08_20221020 (460-267901-2), RI-MW-09_20221024 (460-268208-2), RI-MW-X_20221017 (460-267702-3), RI-DP-08_20221018 (460-267732-3), RI-DP-10_20221019 (460-267827-3), RI-MW-02_20221020 (460-267901-3), FB-01_20221024 (460-268208-3), FB-01_20221017 (460-267702-4), FB-01_20221018 (460-267732-4), FB-01_20221019 (460-267827-4), RI-MW-03_20221020 (460-267901-4) and FB-01_20221020 (460-267901-5) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/28/2022, 11/01/2022, 11/02/2022, 11/03/2022 and 11/04/2022 and analyzed on 10/28/2022, 11/01/2022, 11/02/2022, 11/03/2022, 11/04/2022 and 11/07/2022.

Method 3535: Dilutions were performed for the following samples: RI-MW-01_20221017 (460-267702-1), RI-MW-01_20221017 (460-267702-1[MS]), RI-MW-01_20221017 (460-267702-1[MSD]), RI-MW-04_20221017 (460-267702-2) and RI-MW-X_20221017 (460-267702-3). These dilutions were prepared as follows: Roughly 50g of sample was poured out into a HDPE container then diluted with DI water up to 250 mLs. This was performed due to the suspended solids and cloudy matrix of the sample. Extraction proceeded as normal per SOP.

Method 3535: Dilutions were performed for the following samples: RI-DP-02_20221018 (460-267732-1), RI-DP-05_20221018 (460-267732-2) and RI-DP-08_20221018 (460-267732-3). These dilutions were prepared as follows: Roughly 50g of sample was poured out into a HDPE container then diluted with DI water up to 250 mLs. This was performed due to the suspended solids and cloudy matrix of the sample. Extraction proceeded as normal per SOP.

Method 3535: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to the high level of suspended particulates, the following sample was diluted 5-fold prior to extraction: RI-DP-08_20221018 (460-267732-3).

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-185354. Precision will be assessed from a laboratory control sample duplicate (LCSD).

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-185337.

Method 3535: Dilutions were performed for the following samples: RI-MW-07_20221020 (460-267901-1). These dilutions were prepared as follows: Roughly 50g of sample was poured out into a HDPE container then diluted with DI water up to 250 mLs. This was performed due to the suspended solids and cloudy matrix of the sample. Extraction proceeded as normal per SOP.

Method 3535: Dilutions were performed for the following samples: RI-MW-09_20221024 (460-268208-2). These dilutions were prepared as follows: A Dilution was performed due to the suspected high analyte levels determined in screen batch 185327.

Method 3535: Re-prep and -analysis of the following sample was performed outside of the extraction holding time due to failure of quality control parameters in the initial analysis. RI-DP-08_20221018 (460-267732-3). Both sets of data were reported.

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-185438.

Method 3535: Re-extraction and -analysis of the following sample was performed outside of holding time due to an off-scale detection of perfluorooctanesulfonic acid (PFOS) in the maximum possible dilution of the original extract (200x): RI-MW-02_20221020 (460-267901-3). Since diluting the extract further would decrease internal standard (ISTD) and isotope dilution analyte (IDA) signals below acceptable levels, the sample was re-extracted out of holding time at a lower volume (25 mL) and both sets of PFOS results were reported.

Method 3535: Dilutions were performed for the following samples: RI-MW-02_20221020 (460-267901-3). These dilutions were prepared as follows: Sample was diluted due to the high recovery found in batch 185337

Method 537 (modified): Results for samples RI-MW-01_20221017 (460-267702-1), RI-MW-01_20221017 (460-267702-1[MS]), RI-MW-01_20221017 (460-267702-1[MSD]), RI-MW-04_20221017 (460-267702-2) and RI-MW-X_20221017 (460-267702-3) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The laboratory control sample (LCS) for preparation batch 200-185277 and analytical batch 200-185307 recovered outside control limits for the following analytes: 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2). The associated sample was re-prepared outside holding time. Both sets of data have been reported.

Method 537 (modified): The matrix spike (MS) recoveries of 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) for preparation batch 200-185277 and analytical batch 200-185307 were outside control limits. The Matrix Spiking Solution appears to have concentrated prior to addition based on the mean average recovery of the LCS, which is ~125%.

Method 537 (modified): The matrix spike duplicate (MSD) recoveries of 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2), 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2), Perfluoroheptanesulfonic acid (PFHpS), Perfluorooctanesulfonic acid (PFOS), Perfluorononanoic acid (PFNA) and Perfluorotridecanoic acid (PFTriA) for preparation batch 200-185277 and analytical batch 200-185307 were outside control limits. The Matrix Spiking Solution appears to have concentrated prior to addition based on the mean average recovery of the LCS, which is ~125%.

Method 537 (modified): The matrix spike duplicate (MSD) recovery of Perfluoroheptanesulfonic acid (PFHpS) for preparation batch 200-185199 and analytical batch 200-185285 was outside MSD control limits of 60-140%, however the recovery is within the LMSD limits of 50-150%; unfortunately, these LMS and LMSD limits have not yet been updated in TALS.

Method 537 (modified): Due to the high concentration of Perfluorobutanoic acid (PFBA), Perfluorooctanoic acid (PFOA), Perfluorohexanesulfonic acid (PFHxS) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2), and Perfluoroheptanoic acid (PFHpA), the matrix spike (MS) for preparation batch 200-185199 and analytical batch 200-185285 could not be evaluated for accuracy. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): Due to the high concentration of Perfluorobutanoic acid (PFBA), Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA), Perfluoroheptanesulfonic acid (PFHpS), Perfluoroheptanoic acid (PFHpA), and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2), the matrix spike duplicate (MSD) for preparation batch 200-185199 and analytical batch 200-185285 could not be evaluated for accuracy. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): d5-NEtFOSAA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: RI-MW-08_20221020 (460-267901-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C4 PFOS and 13C5 PFNA Isotope Dilution Analyte (IDA) recoveries associated with the following sample are below the method recommended limit: RI-MW-02_20221020 (460-267901-3). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS

Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-MW-02_20221020 (460-267901-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-MW-03_20221020 (460-267901-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185360 was outside acceptance criteria: (CCB 200-185360/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 537 (modified): Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. RI-DP-08_20221018 (460-267732-3) The LCS recoveries of 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) exceeded control limits, likely because the spiking solution concentrated prior to addition to the LCS. 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) was detected in the original analysis (25.3 ng/L) and the result has confirmed in the re-extract (22.0 ng/L) with an RPD of 14%.

Method 537 (modified): Results for samples RI-MW-08_20221020 (460-267901-2), RI-MW-02_20221020 (460-267901-3) and RI-MW-03_20221020 (460-267901-4) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185408 was outside acceptance criteria: (CCB 200-185408/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185450 was outside acceptance criteria: (CCB 200-185450/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 537 (modified): Results for samples RI-MW-03_20221020 (460-267901-4) and RI-MW-09_20221024 (460-268208-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): Results for sample RI-MW-02_20221020 (460-267901-3) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): The concentration of Perfluorooctanesulfonic acid (PFOS) associated with the following sample exceeded the instrument calibration range: RI-MW-02_20221020 (460-267901-3). This analyte has been qualified; however, the peak did not saturate the instrument detector. PFOS was just above calibration range in a 200-fold dilution of the extract, which is the maximum dilution possible to retain enough sensitivity to reliably detect internal standard (ISTD) and isotope dilution analytes (IDAs). The sample was therefore re-extracted at a smaller volume, prior to addition of ISTD, to provide a more accurate quantitation of PFOS. Since this re-extraction was done outside of holding time, both sets of data were reported.

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

Sample Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-267702-1	RI-MW-01_20221017	Water	10/17/22 12:35	10/17/22 18:00
460-267702-2	RI-MW-04_20221017	Water	10/17/22 14:05	10/17/22 18:00
460-267702-3	RI-MW-X_20221017	Water	10/17/22 13:00	10/17/22 18:00
460-267702-4	FB-01_20221017	Water	10/17/22 11:00	10/17/22 18:00
460-267732-1	RI-DP-02_20221018	Water	10/18/22 08:55	10/18/22 18:00
460-267732-2	RI-DP-05_20221018	Water	10/18/22 10:50	10/18/22 18:00
460-267732-3	RI-DP-08_20221018	Water	10/18/22 13:15	10/18/22 18:00
460-267732-4	FB-01_20221018	Water	10/18/22 14:00	10/18/22 18:00
460-267827-1	RI-MW-05_20221019	Water	10/19/22 12:50	10/19/22 19:00
460-267827-2	RI-MW-06_20221019	Water	10/19/22 09:35	10/19/22 19:00
460-267827-3	RI-DP-10_20221019	Water	10/19/22 11:00	10/19/22 19:00
460-267827-4	FB-01_20221019	Water	10/19/22 13:45	10/19/22 19:00
460-267901-1	RI-MW-07_20221020	Water	10/20/22 08:25	10/20/22 18:30
460-267901-2	RI-MW-08_20221020	Water	10/20/22 10:05	10/20/22 18:30
460-267901-3	RI-MW-02_20221020	Water	10/20/22 11:45	10/20/22 18:30
460-267901-4	RI-MW-03_20221020	Water	10/20/22 13:55	10/20/22 18:30
460-267901-5	FB-01_20221020	Water	10/20/22 14:00	10/20/22 18:30
460-268208-1	RI-MW-10_20221024	Water	10/24/22 11:50	10/25/22 18:00
460-268208-2	RI-MW-09_20221024	Water	10/24/22 13:55	10/25/22 18:00
460-268208-3	FB-01_20221024	Water	10/24/22 15:00	10/25/22 18:00

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Client Sample ID: RI-MW-01_20221017 — Lab Sample ID: 460-267702-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1120		24.8	5.95	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1820		9.92	2.68	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	649		9.92	3.77	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	83.6		9.92	2.43	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	23.1		9.92	2.28	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	41.4		9.92	3.08	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	598		9.92	2.73	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	60.3		9.92	2.03	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	375		9.92	3.82	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	5790		49.6	16.9	ng/L	5		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	3170		49.6	16.1	ng/L	5		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	2570		49.6	21.1	ng/L	5		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	4220		124	32.2	ng/L	5		537 (modified)	Total/NA

Client Sample ID: RI-MW-04_20221017 — Lab Sample ID: 460-267702-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	714		24.6	5.91	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1950		9.84	3.20	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1380		9.84	2.66	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	923		9.84	3.74	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	83.8		9.84	2.41	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	54.1		9.84	2.26	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	7.18	J	9.84	2.71	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	158		9.84	3.05	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	282		9.84	2.02	ng/L	1		537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	2.34	J	9.84	1.97	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	7.94	J	9.84	4.53	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	129		9.84	3.79	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	3790		98.4	33.5	ng/L	10		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	3100		98.4	27.1	ng/L	10		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	11600		98.4	41.8	ng/L	10		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	1990		246	64.0	ng/L	10		537 (modified)	Total/NA

Client Sample ID: RI-MW-X_20221017 — Lab Sample ID: 460-267702-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1140		24.8	5.95	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1780		9.92	2.68	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	683		9.92	3.77	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	85.7		9.92	2.43	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	24.6		9.92	2.28	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	43.0		9.92	3.08	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	600		9.92	2.73	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-MW-X_20221017 (Continued) — Lab Sample ID: 460-267702-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanesulfonic acid (PFHpS)	62.5		9.92	2.03	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	411		9.92	3.82	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	6010		49.6	16.9	ng/L	5		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	3000		49.6	16.1	ng/L	5		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	2610		49.6	21.1	ng/L	5		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	4310		124	32.2	ng/L	5		537 (modified)	Total/NA

Client Sample ID: FB-01_20221017 — Lab Sample ID: 460-267702-4

No Detections.

Client Sample ID: RI-DP-02_20221018 — Lab Sample ID: 460-267732-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	10.2	J	24.2	5.81	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	31.1		9.69	3.29	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	20.7		9.69	3.15	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	10.5		9.69	2.62	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.00	J	9.69	3.68	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.67	J	9.69	2.37	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.56	J	9.69	2.66	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	48.1		9.69	4.12	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	23.3	J *	24.2	6.30	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-DP-05_20221018 — Lab Sample ID: 460-267732-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	10.2	J	24.5	5.88	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	31.5		9.80	3.33	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	20.7		9.80	3.19	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	11.5		9.80	2.65	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	8.32	J	9.80	3.73	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	3.47	J	9.80	2.40	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.46	J	9.80	2.25	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.69	J	9.80	2.70	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	51.9		9.80	4.17	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17.9	J *	24.5	6.37	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-DP-08_20221018 — Lab Sample ID: 460-267732-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	9.63	J	25.0	5.99	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	30.6		9.98	3.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	20.7		9.98	3.24	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	11.1		9.98	2.69	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	7.86	J	9.98	3.79	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.72	J	9.98	2.74	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	36.7		9.98	4.24	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-DP-08_20221018 (Continued) — Lab Sample ID: 460-267732-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	25.3	*	25.0	6.49	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - RE	8.75	J H	24.9	5.96	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - RE	31.2	H	9.94	3.38	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - RE	19.8	H	9.94	3.23	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - RE	11.0	H	9.94	2.68	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - RE	7.53	J H	9.94	3.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA) - RE	2.49	J H	9.94	2.44	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - RE	8.88	J H	9.94	2.73	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	34.9	H	9.94	4.22	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - RE	22.0	J H	24.9	6.46	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-01_20221018 — Lab Sample ID: 460-267732-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.59	J *	4.45	1.16	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-MW-05_20221019 — Lab Sample ID: 460-267827-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.96		4.41	1.06	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	23.9		1.76	0.60	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	14.5		1.76	0.57	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.99		1.76	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.42		1.76	0.67	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.90		1.76	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.63	J	1.76	0.41	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.82		1.76	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	12.1		1.76	0.49	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.57	J	1.76	0.36	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	50.1		1.76	0.75	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	1.16	J	1.76	0.81	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.94	J *	4.41	1.15	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-MW-06_20221019 — Lab Sample ID: 460-267827-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	8.65		4.69	1.12	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	28.5		1.87	0.64	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	14.1		1.87	0.61	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.63		1.87	0.51	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	6.03		1.87	0.71	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	1.32	J	1.87	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.79	J	1.87	0.58	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	11.1		1.87	0.52	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.56	J	1.87	0.38	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	45.5		1.87	0.80	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Client Sample ID: RI-DP-10_20221019 — Lab Sample ID: 460-267827-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	7.55		4.62	1.11	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	21.4		1.85	0.63	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	13.8		1.85	0.60	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	8.49		1.85	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	5.42		1.85	0.70	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.72		1.85	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.50	J	1.85	0.42	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.51	J	1.85	0.57	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	9.22		1.85	0.51	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.48	J	1.85	0.38	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	39.2		1.85	0.78	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.11	J *	4.62	1.20	ng/L	1		537 (modified)	Total/NA

Client Sample ID: FB-01_20221019 — Lab Sample ID: 460-267827-4

No Detections.

Client Sample ID: RI-MW-07_20221020 — Lab Sample ID: 460-267901-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	305		25.0	5.99	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1400		9.98	3.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	728		9.98	3.24	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	593		9.98	2.69	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	162		9.98	3.79	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	18.9		9.98	2.45	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	34.6		9.98	3.09	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	586		9.98	2.74	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	45.5		9.98	2.05	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	1300		9.98	4.24	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	749		25.0	6.49	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	24.0		9.98	3.84	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-MW-08_20221020 — Lab Sample ID: 460-267901-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	441		5.57	1.34	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	254		2.23	0.85	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	66.5		2.23	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	45.1		2.23	0.51	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.86	J	2.23	0.61	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.61	J	2.23	0.55	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	30.9		2.23	0.69	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	24.7		2.23	0.46	ng/L	1		537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.81	J	2.23	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	1.75	J	2.23	1.02	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	263		2.23	0.86	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-MW-08_20221020 (Continued) — Lab Sample ID: 460-267901-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA) - DL	1960		22.3	7.58	ng/L	10		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	1000		22.3	7.24	ng/L	10		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	789		22.3	6.02	ng/L	10		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	491		22.3	6.13	ng/L	10		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	1980		22.3	9.47	ng/L	10		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	599		55.7	14.5	ng/L	10		537 (modified)	Total/NA

Client Sample ID: RI-MW-02_20221020 — Lab Sample ID: 460-267901-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	37.7		1.94	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	6.82		1.94	0.45	ng/L	1		537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	2.54		1.94	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	2.68		1.94	0.89	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	35.9		1.94	0.75	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	636		97.0	23.3	ng/L	20		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	2540		38.8	13.2	ng/L	20		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	1830		38.8	12.6	ng/L	20		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	1430		38.8	10.5	ng/L	20		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	1570		38.8	14.7	ng/L	20		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS) - DL	430		38.8	12.0	ng/L	20		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	2950		38.8	7.95	ng/L	20		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	1520		97.0	25.2	ng/L	20		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL2	13400		388	107	ng/L	200		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL2	82800	E	388	165	ng/L	200		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - REDL	86000	H	992	422	ng/L	50		537 (modified)	Total/NA

Client Sample ID: RI-MW-03_20221020 — Lab Sample ID: 460-267901-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorononanoic acid (PFNA)	87.2		1.95	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	42.6		1.95	0.45	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.89	J	1.95	0.54	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.61	J	1.95	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	252		1.95	0.60	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonamide (PFOSA)	1.07	J	1.95	0.90	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	264		1.95	0.75	ng/L	1		537 (modified)	Total/NA
Perfluorobutanoic acid (PFBA) - DL	522		97.4	23.4	ng/L	20		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	2420		39.0	13.3	ng/L	20		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	1440		39.0	12.7	ng/L	20		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA) - DL	1040		39.0	10.5	ng/L	20		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	1080		39.0	14.8	ng/L	20		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS) - DL	1050		39.0	7.99	ng/L	20		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RI-MW-03_20221020 (Continued) — Lab Sample ID: 460-267901-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS) - DL	34800		390	166	ng/L	200		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	2320		97.4	25.3	ng/L	20		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL2	7520		390	107	ng/L	200		537 (modified)	Total/NA

Client Sample ID: FB-01_20221020 — Lab Sample ID: 460-267901-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	1.65	J	2.38	1.01	ng/L	1		537 (modified)	Total/NA

Client Sample ID: RI-MW-10_20221024 — Lab Sample ID: 460-268208-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	116		3.96	0.95	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	208		1.58	0.51	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	191		1.58	0.43	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	77.9		1.58	0.60	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	21.6		1.58	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	13.5		1.58	0.36	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.81	J	1.58	0.44	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	9.22		1.58	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	107		1.58	0.44	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	2.83		1.58	0.32	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	186		1.58	0.67	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	68.3		3.96	1.03	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.3		1.58	0.61	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA) - DL	462		3.17	1.08	ng/L	2		537 (modified)	Total/NA

Client Sample ID: RI-MW-09_20221024 — Lab Sample ID: 460-268208-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	231		24.9	5.96	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	940		9.94	3.38	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	565		9.94	3.23	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	413		9.94	2.68	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	301		9.94	3.78	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	24.0		9.94	2.44	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	11.5		9.94	2.29	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	133		9.94	3.08	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	458		9.94	2.04	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	484		24.9	6.46	ng/L	1		537 (modified)	Total/NA
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	41.6		9.94	3.83	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS) - DL	2730		199	54.7	ng/L	20		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	18800		199	84.5	ng/L	20		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Client Sample ID: FB-01_20221024

Lab Sample ID: 460-268208-3

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET BUR
3535	Solid-Phase Extraction (SPE)	SW846	EET BUR

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Client Sample ID: RI-MW-01_20221017

Date Collected: 10/17/22 12:35
Date Received: 10/17/22 18:00

Lab Sample ID: 460-267702-1

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1120**		24.8	5.95	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluoroheptanoic acid (PFHpA)	**1820**		9.92	2.68	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorooctanoic acid (PFOA)	**649**		9.92	3.77	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorononanoic acid (PFNA)	**83.6**		9.92	2.43	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorodecanoic acid (PFDA)	**23.1**		9.92	2.28	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluoroundecanoic acid (PFUnA)	9.92	U	9.92	2.73	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorododecanoic acid (PFDoA)	9.92	U	9.92	2.43	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorotridecanoic acid (PFTriA)	9.92	U	9.92	2.38	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorotetradecanoic acid (PFTeA)	9.92	U	9.92	3.17	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorobutanesulfonic acid (PFBS)	**41.4**		9.92	3.08	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorohexanesulfonic acid (PFHxS)	**598**		9.92	2.73	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluoroheptanesulfonic acid (PFHpS)	**60.3**		9.92	2.03	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorodecanesulfonic acid (PFDS)	9.92	U	9.92	1.98	ng/L		10/28/22 09:35	11/01/22 14:33	1
Perfluorooctanesulfonamide (PFOSA)	9.92	U	9.92	4.56	ng/L		10/28/22 09:35	11/01/22 14:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	24.8	9.42	ng/L		10/28/22 09:35	11/01/22 14:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	24.8	7.94	ng/L		10/28/22 09:35	11/01/22 14:33	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**375**		9.92	3.82	ng/L		10/28/22 09:35	11/01/22 14:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*102*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C4 PFHpA	*97*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C4 PFOA	*102*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C4 PFOS	*107*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C5 PFNA	*103*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C4 PFBA	*72*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C2 PFDA	*112*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C2 PFUnA	*109*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C2 PFDoA	*118*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C8 FOSA	*100*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C2 PFTeDA	*106*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
d3-NMeFOSAA	*132*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
d5-NEtFOSAA	*134*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
M2-8:2 FTS	*130*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*
13C3 PFBS	*97*		*50 - 150*	*10/28/22 09:35*	*11/01/22 14:33*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**5790**		49.6	16.9	ng/L		10/28/22 09:35	10/28/22 18:52	5
Perfluorohexanoic acid (PFHxA)	**3170**		49.6	16.1	ng/L		10/28/22 09:35	10/28/22 18:52	5
Perfluorooctanesulfonic acid (PFOS)	**2570**		49.6	21.1	ng/L		10/28/22 09:35	10/28/22 18:52	5
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**4220**		124	32.2	ng/L		10/28/22 09:35	10/28/22 18:52	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*105*		*50 - 150*	*10/28/22 09:35*	*10/28/22 18:52*	*5*
13C2 PFHxA	*89*		*50 - 150*	*10/28/22 09:35*	*10/28/22 18:52*	*5*

Client Sample ID: RI-MW-01_20221017

Lab Sample ID: 460-267702-1

Date Collected: 10/17/22 12:35
Matrix: Water
Date Received: 10/17/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	*92*		*50 - 150*	*10/28/22 09:35*	*10/28/22 18:52*	*5*
M2-6:2 FTS	*125*		*50 - 150*	*10/28/22 09:35*	*10/28/22 18:52*	*5*

Client Sample ID: RI-MW-04_20221017

Lab Sample ID: 460-267702-2

Date Collected: 10/17/22 14:05
Matrix: Water
Date Received: 10/17/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**714**		24.6	5.91	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorohexanoic acid (PFHxA)	**1950**		9.84	3.20	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluoroheptanoic acid (PFHpA)	**1380**		9.84	2.66	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorooctanoic acid (PFOA)	**923**		9.84	3.74	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorononanoic acid (PFNA)	**83.8**		9.84	2.41	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorodecanoic acid (PFDA)	**54.1**		9.84	2.26	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluoroundecanoic acid (PFUnA)	**7.18**	**J**	9.84	2.71	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorododecanoic acid (PFDoA)	9.84	U	9.84	2.41	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorotridecanoic acid (PFTriA)	9.84	U	9.84	2.36	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorotetradecanoic acid (PFTeA)	9.84	U	9.84	3.15	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorobutanesulfonic acid (PFBS)	**158**		9.84	3.05	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluoroheptanesulfonic acid (PFHpS)	**282**		9.84	2.02	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorodecanesulfonic acid (PFDS)	**2.34**	**J**	9.84	1.97	ng/L		10/28/22 09:35	11/01/22 15:14	1
Perfluorooctanesulfonamide (PFOSA)	**7.94**	**J**	9.84	4.53	ng/L		10/28/22 09:35	11/01/22 15:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.6	U	24.6	9.35	ng/L		10/28/22 09:35	11/01/22 15:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.6	U	24.6	7.87	ng/L		10/28/22 09:35	11/01/22 15:14	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**129**		9.84	3.79	ng/L		10/28/22 09:35	11/01/22 15:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	*92*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C4 PFOA	*99*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C4 PFOS	*92*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C5 PFNA	*83*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C4 PFBA	*92*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C2 PFHxA	*96*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C2 PFDA	*105*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C2 PFUnA	*108*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C2 PFDoA	*104*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C8 FOSA	*99*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C2 PFTeDA	*108*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
d3-NMeFOSAA	*114*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
d5-NEtFOSAA	*115*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
M2-8:2 FTS	*103*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*
13C3 PFBS	*103*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:14*	*1*

Client Sample ID: RI-MW-04_20221017

Lab Sample ID: 460-267702-2

Date Collected: 10/17/22 14:05
Matrix: Water
Date Received: 10/17/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**3790**		98.4	33.5	ng/L		10/28/22 09:35	10/28/22 19:16	10
Perfluorohexanesulfonic acid (PFHxS)	**3100**		98.4	27.1	ng/L		10/28/22 09:35	10/28/22 19:16	10
Perfluorooctanesulfonic acid (PFOS)	**11600**		98.4	41.8	ng/L		10/28/22 09:35	10/28/22 19:16	10
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**1990**		246	64.0	ng/L		10/28/22 09:35	10/28/22 19:16	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*98*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:16*	*10*
13C4 PFOS	*96*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:16*	*10*
13C5 PFPeA	*89*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:16*	*10*
M2-6:2 FTS	*105*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:16*	*10*

Client Sample ID: RI-MW-X_20221017

Lab Sample ID: 460-267702-3

Date Collected: 10/17/22 13:00
Matrix: Water
Date Received: 10/17/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**1140**		24.8	5.95	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluoroheptanoic acid (PFHpA)	**1780**		9.92	2.68	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorooctanoic acid (PFOA)	**683**		9.92	3.77	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorononanoic acid (PFNA)	**85.7**		9.92	2.43	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorodecanoic acid (PFDA)	**24.6**		9.92	2.28	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluoroundecanoic acid (PFUnA)	9.92	U	9.92	2.73	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorododecanoic acid (PFDoA)	9.92	U	9.92	2.43	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorotridecanoic acid (PFTriA)	9.92	U	9.92	2.38	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorotetradecanoic acid (PFTeA)	9.92	U	9.92	3.17	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorobutanesulfonic acid (PFBS)	**43.0**		9.92	3.08	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorohexanesulfonic acid (PFHxS)	**600**		9.92	2.73	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluoroheptanesulfonic acid (PFHpS)	**62.5**		9.92	2.03	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorodecanesulfonic acid (PFDS)	9.92	U	9.92	1.98	ng/L		10/28/22 09:35	11/01/22 15:38	1
Perfluorooctanesulfonamide (PFOSA)	9.92	U	9.92	4.56	ng/L		10/28/22 09:35	11/01/22 15:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	24.8	9.42	ng/L		10/28/22 09:35	11/01/22 15:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	24.8	7.94	ng/L		10/28/22 09:35	11/01/22 15:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**411**		9.92	3.82	ng/L		10/28/22 09:35	11/01/22 15:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*105*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C4 PFHpA	*96*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C4 PFOA	*96*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C4 PFOS	*105*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C5 PFNA	*103*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C4 PFBA	*72*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C2 PFDA	*106*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C2 PFUnA	*117*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C2 PFDoA	*125*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*

Client Sample ID: RI-MW-X_20221017

Lab Sample ID: 460-267702-3

Date Collected: 10/17/22 13:00
Matrix: Water
Date Received: 10/17/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 FOSA	*102*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C2 PFTeDA	*114*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
d3-NMeFOSAA	*136*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
d5-NEtFOSAA	*140*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
M2-8:2 FTS	*123*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*
13C3 PFBS	*94*		*50 - 150*	*10/28/22 09:35*	*11/01/22 15:38*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**6010**		49.6	16.9	ng/L		10/28/22 09:35	10/28/22 19:25	5
Perfluorohexanoic acid (PFHxA)	**3000**		49.6	16.1	ng/L		10/28/22 09:35	10/28/22 19:25	5
Perfluorooctanesulfonic acid (PFOS)	**2610**		49.6	21.1	ng/L		10/28/22 09:35	10/28/22 19:25	5
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**4310**		124	32.2	ng/L		10/28/22 09:35	10/28/22 19:25	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*107*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:25*	*5*
13C2 PFHxA	*93*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:25*	*5*
13C5 PFPeA	*89*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:25*	*5*
M2-6:2 FTS	*124*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:25*	*5*

Client Sample ID: FB-01_20221017

Lab Sample ID: 460-267702-4

Date Collected: 10/17/22 11:00
Matrix: Water
Date Received: 10/17/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.61	U	4.61	1.11	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluoropentanoic acid (PFPeA)	1.84	U	1.84	0.63	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorohexanoic acid (PFHxA)	1.84	U	1.84	0.60	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluoroheptanoic acid (PFHpA)	1.84	U	1.84	0.50	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorooctanoic acid (PFOA)	1.84	U	1.84	0.70	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorononanoic acid (PFNA)	1.84	U	1.84	0.45	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorodecanoic acid (PFDA)	1.84	U	1.84	0.42	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluoroundecanoic acid (PFUnA)	1.84	U	1.84	0.51	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorododecanoic acid (PFDoA)	1.84	U	1.84	0.45	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorotridecanoic acid (PFTriA)	1.84	U	1.84	0.44	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorotetradecanoic acid (PFTeA)	1.84	U	1.84	0.59	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorobutanesulfonic acid (PFBS)	1.84	U	1.84	0.57	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorohexanesulfonic acid (PFHxS)	1.84	U	1.84	0.51	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluoroheptanesulfonic acid (PFHpS)	1.84	U	1.84	0.38	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorooctanesulfonic acid (PFOS)	1.84	U	1.84	0.78	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorodecanesulfonic acid (PFDS)	1.84	U	1.84	0.37	ng/L		10/28/22 09:35	10/28/22 19:33	1
Perfluorooctanesulfonamide (PFOSA)	1.84	U	1.84	0.85	ng/L		10/28/22 09:35	10/28/22 19:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.61	U	4.61	1.75	ng/L		10/28/22 09:35	10/28/22 19:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.61	U	4.61	1.47	ng/L		10/28/22 09:35	10/28/22 19:33	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.61	U	4.61	1.20	ng/L		10/28/22 09:35	10/28/22 19:33	1

Client Sample ID: FB-01_20221017

Lab Sample ID: 460-267702-4

Date Collected: 10/17/22 11:00

Matrix: Water

Date Received: 10/17/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.84	U	1.84	0.71	ng/L		10/28/22 09:35	10/28/22 19:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*99*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C4 PFHpA	*91*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C4 PFOA	*93*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C4 PFOS	*101*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C5 PFNA	*92*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C4 PFBA	*88*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C2 PFHxA	*90*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C2 PFDA	*92*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C2 PFUnA	*99*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C2 PFDoA	*101*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C8 FOSA	*92*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C5 PFPeA	*86*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C2 PFTeDA	*92*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
d3-NMeFOSAA	*116*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
d5-NEtFOSAA	*116*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
M2-6:2 FTS	*111*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
M2-8:2 FTS	*105*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*
13C3 PFBS	*96*		*50 - 150*	*10/28/22 09:35*	*10/28/22 19:33*	*1*

Client Sample ID: RI-DP-02_20221018

Lab Sample ID: 460-267732-1

Date Collected: 10/18/22 08:55

Matrix: Water

Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**10.2**	**J**	24.2	5.81	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluoropentanoic acid (PFPeA)	**31.1**		9.69	3.29	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorohexanoic acid (PFHxA)	**20.7**		9.69	3.15	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluoroheptanoic acid (PFHpA)	**10.5**		9.69	2.62	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorooctanoic acid (PFOA)	**8.00**	**J**	9.69	3.68	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorononanoic acid (PFNA)	**2.67**	**J**	9.69	2.37	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorodecanoic acid (PFDA)	9.69	U	9.69	2.23	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluoroundecanoic acid (PFUnA)	9.69	U	9.69	2.66	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorododecanoic acid (PFDoA)	9.69	U	9.69	2.37	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorotridecanoic acid (PFTriA)	9.69	U	9.69	2.33	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorotetradecanoic acid (PFTeA)	9.69	U	9.69	3.10	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorobutanesulfonic acid (PFBS)	9.69	U	9.69	3.00	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorohexanesulfonic acid (PFHxS)	**9.56**	**J**	9.69	2.66	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluoroheptanesulfonic acid (PFHpS)	9.69	U	9.69	1.99	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorooctanesulfonic acid (PFOS)	**48.1**		9.69	4.12	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorodecanesulfonic acid (PFDS)	9.69	U	9.69	1.94	ng/L		11/01/22 08:56	11/01/22 23:17	1
Perfluorooctanesulfonamide (PFOSA)	9.69	U	9.69	4.46	ng/L		11/01/22 08:56	11/01/22 23:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.2	U	24.2	9.21	ng/L		11/01/22 08:56	11/01/22 23:17	1

Client Sample ID: RI-DP-02_20221018

Lab Sample ID: 460-267732-1

Date Collected: 10/18/22 08:55
Matrix: Water
Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.2	U	24.2	7.75	ng/L		11/01/22 08:56	11/01/22 23:17	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**23.3**	**J ***	24.2	6.30	ng/L		11/01/22 08:56	11/01/22 23:17	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.69	U *	9.69	3.73	ng/L		11/01/22 08:56	11/01/22 23:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*102*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C4 PFHpA	*99*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C4 PFOA	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C4 PFOS	*101*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C5 PFNA	*95*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C4 PFBA	*95*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C2 PFHxA	*97*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C2 PFDA	*99*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C2 PFUnA	*106*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C2 PFDoA	*93*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C8 FOSA	*95*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C5 PFPeA	*90*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C2 PFTeDA	*99*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
d3-NMeFOSAA	*115*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
d5-NEtFOSAA	*115*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
M2-6:2 FTS	*117*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
M2-8:2 FTS	*103*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*
13C3 PFBS	*99*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:17*	*1*

Client Sample ID: RI-DP-05_20221018

Lab Sample ID: 460-267732-2

Date Collected: 10/18/22 10:50
Matrix: Water
Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**10.2**	**J**	24.5	5.88	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluoropentanoic acid (PFPeA)	**31.5**		9.80	3.33	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorohexanoic acid (PFHxA)	**20.7**		9.80	3.19	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluoroheptanoic acid (PFHpA)	**11.5**		9.80	2.65	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorooctanoic acid (PFOA)	**8.32**	**J**	9.80	3.73	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorononanoic acid (PFNA)	**3.47**	**J**	9.80	2.40	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorodecanoic acid (PFDA)	**2.46**	**J**	9.80	2.25	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluoroundecanoic acid (PFUnA)	9.80	U	9.80	2.70	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorododecanoic acid (PFDoA)	9.80	U	9.80	2.40	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorotridecanoic acid (PFTriA)	9.80	U	9.80	2.35	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorotetradecanoic acid (PFTeA)	9.80	U	9.80	3.14	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorobutanesulfonic acid (PFBS)	9.80	U	9.80	3.04	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorohexanesulfonic acid (PFHxS)	**9.69**	**J**	9.80	2.70	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluoroheptanesulfonic acid (PFHpS)	9.80	U	9.80	2.01	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorooctanesulfonic acid (PFOS)	**51.9**		9.80	4.17	ng/L		11/01/22 08:56	11/01/22 23:25	1
Perfluorodecanesulfonic acid (PFDS)	9.80	U	9.80	1.96	ng/L		11/01/22 08:56	11/01/22 23:25	1

Client Sample ID: RI-DP-05_20221018

Lab Sample ID: 460-267732-2

Date Collected: 10/18/22 10:50
Matrix: Water
Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonamide (PFOSA)	9.80	U	9.80	4.51	ng/L		11/01/22 08:56	11/01/22 23:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.5	U	24.5	9.31	ng/L		11/01/22 08:56	11/01/22 23:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.5	U	24.5	7.84	ng/L		11/01/22 08:56	11/01/22 23:25	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**17.9**	**J ***	24.5	6.37	ng/L		11/01/22 08:56	11/01/22 23:25	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.80	U *	9.80	3.77	ng/L		11/01/22 08:56	11/01/22 23:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*103*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C4 PFHpA	*96*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C4 PFOA	*100*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C4 PFOS	*99*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C5 PFNA	*91*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C4 PFBA	*94*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C2 PFHxA	*93*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C2 PFDA	*96*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C2 PFUnA	*94*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C2 PFDoA	*91*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C8 FOSA	*93*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C5 PFPeA	*91*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C2 PFTeDA	*101*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
d3-NMeFOSAA	*112*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
d5-NEtFOSAA	*113*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
M2-6:2 FTS	*110*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
M2-8:2 FTS	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*
13C3 PFBS	*95*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:25*	*1*

Client Sample ID: RI-DP-08_20221018

Lab Sample ID: 460-267732-3

Date Collected: 10/18/22 13:15
Matrix: Water
Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**9.63**	**J**	25.0	5.99	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluoropentanoic acid (PFPeA)	**30.6**		9.98	3.39	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorohexanoic acid (PFHxA)	**20.7**		9.98	3.24	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluoroheptanoic acid (PFHpA)	**11.1**		9.98	2.69	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorooctanoic acid (PFOA)	**7.86**	**J**	9.98	3.79	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorononanoic acid (PFNA)	9.98	U	9.98	2.45	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorodecanoic acid (PFDA)	9.98	U	9.98	2.30	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluoroundecanoic acid (PFUnA)	9.98	U	9.98	2.74	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorododecanoic acid (PFDoA)	9.98	U	9.98	2.45	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorotridecanoic acid (PFTriA)	9.98	U	9.98	2.40	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorotetradecanoic acid (PFTeA)	9.98	U	9.98	3.19	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorobutanesulfonic acid (PFBS)	9.98	U	9.98	3.09	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorohexanesulfonic acid (PFHxS)	**8.72**	**J**	9.98	2.74	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluoroheptanesulfonic acid (PFHpS)	9.98	U	9.98	2.05	ng/L		11/01/22 08:56	11/01/22 23:33	1

Client Sample ID: RI-DP-08_20221018

Date Collected: 10/18/22 13:15
Date Received: 10/18/22 18:00

Lab Sample ID: 460-267732-3

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**36.7**		9.98	4.24	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorodecanesulfonic acid (PFDS)	9.98	U	9.98	2.00	ng/L		11/01/22 08:56	11/01/22 23:33	1
Perfluorooctanesulfonamide (PFOSA)	9.98	U	9.98	4.59	ng/L		11/01/22 08:56	11/01/22 23:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	U	25.0	9.48	ng/L		11/01/22 08:56	11/01/22 23:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	U	25.0	7.98	ng/L		11/01/22 08:56	11/01/22 23:33	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**25.3**	*	25.0	6.49	ng/L		11/01/22 08:56	11/01/22 23:33	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.98	U *	9.98	3.84	ng/L		11/01/22 08:56	11/01/22 23:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*106*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C4 PFHpA	*97*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C4 PFOA	*100*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C4 PFOS	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C5 PFNA	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C4 PFBA	*97*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C2 PFHxA	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C2 PFDA	*96*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C2 PFUnA	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C2 PFDoA	*97*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C8 FOSA	*91*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C5 PFPeA	*94*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C2 PFTeDA	*100*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
d3-NMeFOSAA	*110*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
d5-NEtFOSAA	*114*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
M2-6:2 FTS	*109*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*
13C3 PFBS	*100*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:33*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**8.75**	**J H**	24.9	5.96	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluoropentanoic acid (PFPeA)	**31.2**	**H**	9.94	3.38	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorohexanoic acid (PFHxA)	**19.8**	**H**	9.94	3.23	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluoroheptanoic acid (PFHpA)	**11.0**	**H**	9.94	2.68	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorooctanoic acid (PFOA)	**7.53**	**J H**	9.94	3.78	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorononanoic acid (PFNA)	**2.49**	**J H**	9.94	2.44	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorodecanoic acid (PFDA)	9.94	U H	9.94	2.29	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluoroundecanoic acid (PFUnA)	9.94	U H	9.94	2.73	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorododecanoic acid (PFDoA)	9.94	U H	9.94	2.44	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorotridecanoic acid (PFTriA)	9.94	U H	9.94	2.39	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorotetradecanoic acid (PFTeA)	9.94	U H	9.94	3.18	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorobutanesulfonic acid (PFBS)	9.94	U H	9.94	3.08	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorohexanesulfonic acid (PFHxS)	**8.88**	**J H**	9.94	2.73	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluoroheptanesulfonic acid (PFHpS)	9.94	U H	9.94	2.04	ng/L		11/02/22 13:29	11/03/22 19:50	1

Client Sample ID: RI-DP-08_20221018

Lab Sample ID: 460-267732-3

Date Collected: 10/18/22 13:15
Matrix: Water
Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**34.9**	**H**	9.94	4.22	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorodecanesulfonic acid (PFDS)	9.94	U H	9.94	1.99	ng/L		11/02/22 13:29	11/03/22 19:50	1
Perfluorooctanesulfonamide (PFOSA)	9.94	U H	9.94	4.57	ng/L		11/02/22 13:29	11/03/22 19:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	U H	24.9	9.44	ng/L		11/02/22 13:29	11/03/22 19:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	U H	24.9	7.95	ng/L		11/02/22 13:29	11/03/22 19:50	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**22.0**	**J H**	24.9	6.46	ng/L		11/02/22 13:29	11/03/22 19:50	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.94	U H	9.94	3.83	ng/L		11/02/22 13:29	11/03/22 19:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*100*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C4 PFHpA	*98*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C4 PFOA	*99*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C4 PFOS	*104*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C5 PFNA	*100*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C4 PFBA	*90*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C2 PFHxA	*96*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C2 PFDA	*110*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C2 PFUnA	*109*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C2 PFDoA	*110*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C8 FOSA	*94*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C5 PFPeA	*87*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C2 PFTeDA	*109*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
d3-NMeFOSAA	*124*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
d5-NEtFOSAA	*127*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
M2-6:2 FTS	*109*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
M2-8:2 FTS	*105*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*
13C3 PFBS	*94*		*50 - 150*	*11/02/22 13:29*	*11/03/22 19:50*	*1*

Client Sample ID: FB-01_20221018

Lab Sample ID: 460-267732-4

Date Collected: 10/18/22 14:00
Matrix: Water
Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.45	U	4.45	1.07	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluoropentanoic acid (PFPeA)	1.78	U	1.78	0.60	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorohexanoic acid (PFHxA)	1.78	U	1.78	0.58	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluoroheptanoic acid (PFHpA)	1.78	U	1.78	0.48	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorooctanoic acid (PFOA)	1.78	U	1.78	0.68	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorononanoic acid (PFNA)	1.78	U	1.78	0.44	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorodecanoic acid (PFDA)	1.78	U	1.78	0.41	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluoroundecanoic acid (PFUnA)	1.78	U	1.78	0.49	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorododecanoic acid (PFDoA)	1.78	U	1.78	0.44	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorotridecanoic acid (PFTriA)	1.78	U	1.78	0.43	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorotetradecanoic acid (PFTeA)	1.78	U	1.78	0.57	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorobutanesulfonic acid (PFBS)	1.78	U	1.78	0.55	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorohexanesulfonic acid (PFHxS)	1.78	U	1.78	0.49	ng/L		11/01/22 08:56	11/01/22 23:41	1

Client Sample ID: FB-01_20221018

Lab Sample ID: 460-267732-4

Date Collected: 10/18/22 14:00
Matrix: Water
Date Received: 10/18/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	1.78	U	1.78	0.36	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorooctanesulfonic acid (PFOS)	1.78	U	1.78	0.76	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorodecanesulfonic acid (PFDS)	1.78	U	1.78	0.36	ng/L		11/01/22 08:56	11/01/22 23:41	1
Perfluorooctanesulfonamide (PFOSA)	1.78	U	1.78	0.82	ng/L		11/01/22 08:56	11/01/22 23:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.45	U	4.45	1.69	ng/L		11/01/22 08:56	11/01/22 23:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.45	U	4.45	1.42	ng/L		11/01/22 08:56	11/01/22 23:41	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**2.59**	**J ***	4.45	1.16	ng/L		11/01/22 08:56	11/01/22 23:41	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.78	U *	1.78	0.68	ng/L		11/01/22 08:56	11/01/22 23:41	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*104*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C4 PFHpA	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C4 PFOA	*100*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C4 PFOS	*102*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C5 PFNA	*95*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C4 PFBA	*95*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C2 PFHxA	*97*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C2 PFDA	*96*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C2 PFUnA	*105*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C2 PFDoA	*98*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C8 FOSA	*92*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C5 PFPeA	*92*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C2 PFTeDA	*99*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
d3-NMeFOSAA	*123*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
d5-NEtFOSAA	*121*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
M2-6:2 FTS	*112*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*
13C3 PFBS	*100*		*50 - 150*	*11/01/22 08:56*	*11/01/22 23:41*	*1*

Client Sample ID: RI-MW-05_20221019

Lab Sample ID: 460-267827-1

Date Collected: 10/19/22 12:50
Matrix: Water
Date Received: 10/19/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**8.96**		4.41	1.06	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluoropentanoic acid (PFPeA)	**23.9**		1.76	0.60	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorohexanoic acid (PFHxA)	**14.5**		1.76	0.57	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluoroheptanoic acid (PFHpA)	**8.99**		1.76	0.48	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorooctanoic acid (PFOA)	**5.42**		1.76	0.67	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorononanoic acid (PFNA)	**2.90**		1.76	0.43	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorodecanoic acid (PFDA)	**0.63**	**J**	1.76	0.41	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluoroundecanoic acid (PFUnA)	1.76	U	1.76	0.49	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorododecanoic acid (PFDoA)	1.76	U	1.76	0.43	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorotridecanoic acid (PFTriA)	1.76	U	1.76	0.42	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorotetradecanoic acid (PFTeA)	1.76	U	1.76	0.56	ng/L		11/01/22 08:56	11/02/22 01:11	1

Client Sample ID: RI-MW-05_20221019

Lab Sample ID: 460-267827-1

Date Collected: 10/19/22 12:50
Matrix: Water
Date Received: 10/19/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	**1.82**		1.76	0.55	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorohexanesulfonic acid (PFHxS)	**12.1**		1.76	0.49	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.57**	**J**	1.76	0.36	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorooctanesulfonic acid (PFOS)	**50.1**		1.76	0.75	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorodecanesulfonic acid (PFDS)	1.76	U	1.76	0.35	ng/L		11/01/22 08:56	11/02/22 01:11	1
Perfluorooctanesulfonamide (PFOSA)	**1.16**	**J**	1.76	0.81	ng/L		11/01/22 08:56	11/02/22 01:11	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.41	U	4.41	1.68	ng/L		11/01/22 08:56	11/02/22 01:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.41	U	4.41	1.41	ng/L		11/01/22 08:56	11/02/22 01:11	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**2.94**	**J ***	4.41	1.15	ng/L		11/01/22 08:56	11/02/22 01:11	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.76	U *	1.76	0.68	ng/L		11/01/22 08:56	11/02/22 01:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*98*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C4 PFHpA	*88*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C4 PFOA	*94*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C4 PFOS	*94*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C5 PFNA	*90*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C4 PFBA	*79*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C2 PFHxA	*87*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C2 PFDA	*98*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C2 PFUnA	*97*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C2 PFDoA	*97*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C8 FOSA	*90*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C5 PFPeA	*84*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C2 PFTeDA	*98*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
d3-NMeFOSAA	*116*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
d5-NEtFOSAA	*120*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
M2-6:2 FTS	*103*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
M2-8:2 FTS	*98*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*
13C3 PFBS	*93*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:11*	*1*

Client Sample ID: RI-MW-06_20221019

Lab Sample ID: 460-267827-2

Date Collected: 10/19/22 09:35
Matrix: Water
Date Received: 10/19/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**8.65**		4.69	1.12	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluoropentanoic acid (PFPeA)	**28.5**		1.87	0.64	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorohexanoic acid (PFHxA)	**14.1**		1.87	0.61	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluoroheptanoic acid (PFHpA)	**8.63**		1.87	0.51	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorooctanoic acid (PFOA)	**6.03**		1.87	0.71	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorononanoic acid (PFNA)	**1.32**	**J**	1.87	0.46	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorodecanoic acid (PFDA)	1.87	U	1.87	0.43	ng/L		11/01/22 08:56	11/02/22 01:20	1

Client Sample ID: RI-MW-06_20221019

Lab Sample ID: 460-267827-2

Date Collected: 10/19/22 09:35
Matrix: Water
Date Received: 10/19/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	1.87	U	1.87	0.52	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorododecanoic acid (PFDoA)	1.87	U	1.87	0.46	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorotridecanoic acid (PFTriA)	1.87	U	1.87	0.45	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorotetradecanoic acid (PFTeA)	1.87	U	1.87	0.60	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorobutanesulfonic acid (PFBS)	**1.79**	**J**	1.87	0.58	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorohexanesulfonic acid (PFHxS)	**11.1**		1.87	0.52	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.56**	**J**	1.87	0.38	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorooctanesulfonic acid (PFOS)	**45.5**		1.87	0.80	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorodecanesulfonic acid (PFDS)	1.87	U	1.87	0.37	ng/L		11/01/22 08:56	11/02/22 01:20	1
Perfluorooctanesulfonamide (PFOSA)	1.87	U	1.87	0.86	ng/L		11/01/22 08:56	11/02/22 01:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.69	U	4.69	1.78	ng/L		11/01/22 08:56	11/02/22 01:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.69	U	4.69	1.50	ng/L		11/01/22 08:56	11/02/22 01:20	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.69	U *	4.69	1.22	ng/L		11/01/22 08:56	11/02/22 01:20	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.87	U *	1.87	0.72	ng/L		11/01/22 08:56	11/02/22 01:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*103*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C4 PFHpA	*96*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C4 PFOA	*101*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C4 PFOS	*98*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C5 PFNA	*101*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C4 PFBA	*90*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C2 PFHxA	*94*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C2 PFDA	*102*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C2 PFUnA	*106*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C2 PFDoA	*109*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C8 FOSA	*94*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C5 PFPeA	*89*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C2 PFTeDA	*105*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
d3-NMeFOSAA	*121*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
d5-NEtFOSAA	*128*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
M2-6:2 FTS	*113*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
M2-8:2 FTS	*104*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*
13C3 PFBS	*99*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:20*	*1*

Client Sample ID: RI-DP-10_20221019

Lab Sample ID: 460-267827-3

Date Collected: 10/19/22 11:00
Matrix: Water
Date Received: 10/19/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**7.55**		4.62	1.11	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluoropentanoic acid (PFPeA)	**21.4**		1.85	0.63	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorohexanoic acid (PFHxA)	**13.8**		1.85	0.60	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluoroheptanoic acid (PFHpA)	**8.49**		1.85	0.50	ng/L		11/01/22 08:56	11/02/22 01:28	1

Client Sample ID: RI-DP-10_20221019

Lab Sample ID: 460-267827-3

Date Collected: 10/19/22 11:00
Matrix: Water
Date Received: 10/19/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**5.42**		1.85	0.70	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorononanoic acid (PFNA)	**2.72**		1.85	0.45	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorodecanoic acid (PFDA)	**0.50**	**J**	1.85	0.42	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluoroundecanoic acid (PFUnA)	1.85	U	1.85	0.51	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorododecanoic acid (PFDoA)	1.85	U	1.85	0.45	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorotridecanoic acid (PFTriA)	1.85	U	1.85	0.44	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorotetradecanoic acid (PFTeA)	1.85	U	1.85	0.59	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorobutanesulfonic acid (PFBS)	**1.51**	**J**	1.85	0.57	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorohexanesulfonic acid (PFHxS)	**9.22**		1.85	0.51	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.48**	**J**	1.85	0.38	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorooctanesulfonic acid (PFOS)	**39.2**		1.85	0.78	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorodecanesulfonic acid (PFDS)	1.85	U	1.85	0.37	ng/L		11/01/22 08:56	11/02/22 01:28	1
Perfluorooctanesulfonamide (PFOSA)	1.85	U	1.85	0.85	ng/L		11/01/22 08:56	11/02/22 01:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.62	U	4.62	1.75	ng/L		11/01/22 08:56	11/02/22 01:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.62	U	4.62	1.48	ng/L		11/01/22 08:56	11/02/22 01:28	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**4.11**	**J ***	4.62	1.20	ng/L		11/01/22 08:56	11/02/22 01:28	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.85	U *	1.85	0.71	ng/L		11/01/22 08:56	11/02/22 01:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*98*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C4 PFHpA	*96*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C4 PFOA	*97*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C4 PFOS	*97*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C5 PFNA	*93*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C4 PFBA	*78*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C2 PFHxA	*88*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C2 PFDA	*99*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C2 PFUnA	*99*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C2 PFDoA	*108*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C8 FOSA	*87*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C5 PFPeA	*89*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C2 PFTeDA	*106*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
d3-NMeFOSAA	*115*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
d5-NEtFOSAA	*118*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
M2-6:2 FTS	*117*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
M2-8:2 FTS	*111*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*
13C3 PFBS	*91*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:28*	*1*

Client Sample ID: FB-01_20221019

Lab Sample ID: 460-267827-4

Date Collected: 10/19/22 13:45
Matrix: Water
Date Received: 10/19/22 19:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.83	U	4.83	1.16	ng/L		11/01/22 08:56	11/02/22 01:36	1

Client Sample ID: FB-01_20221019

Date Collected: 10/19/22 13:45
Date Received: 10/19/22 19:00

Lab Sample ID: 460-267827-4

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	1.93	U	1.93	0.66	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorohexanoic acid (PFHxA)	1.93	U	1.93	0.63	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluoroheptanoic acid (PFHpA)	1.93	U	1.93	0.52	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorooctanoic acid (PFOA)	1.93	U	1.93	0.73	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorononanoic acid (PFNA)	1.93	U	1.93	0.47	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorodecanoic acid (PFDA)	1.93	U	1.93	0.44	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluoroundecanoic acid (PFUnA)	1.93	U	1.93	0.53	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorododecanoic acid (PFDoA)	1.93	U	1.93	0.47	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorotridecanoic acid (PFTriA)	1.93	U	1.93	0.46	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorotetradecanoic acid (PFTeA)	1.93	U	1.93	0.62	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorobutanesulfonic acid (PFBS)	1.93	U	1.93	0.60	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorohexanesulfonic acid (PFHxS)	1.93	U	1.93	0.53	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluoroheptanesulfonic acid (PFHpS)	1.93	U	1.93	0.40	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorooctanesulfonic acid (PFOS)	1.93	U	1.93	0.82	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorodecanesulfonic acid (PFDS)	1.93	U	1.93	0.39	ng/L		11/01/22 08:56	11/02/22 01:36	1
Perfluorooctanesulfonamide (PFOSA)	1.93	U	1.93	0.89	ng/L		11/01/22 08:56	11/02/22 01:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.83	U	4.83	1.83	ng/L		11/01/22 08:56	11/02/22 01:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.83	U	4.83	1.54	ng/L		11/01/22 08:56	11/02/22 01:36	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.83	U *	4.83	1.25	ng/L		11/01/22 08:56	11/02/22 01:36	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.93	U *	1.93	0.74	ng/L		11/01/22 08:56	11/02/22 01:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*96*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C4 PFHpA	*92*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C4 PFOA	*99*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C4 PFOS	*90*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C5 PFNA	*88*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C4 PFBA	*89*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C2 PFHxA	*94*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C2 PFDA	*95*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C2 PFUnA	*96*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C2 PFDoA	*88*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C8 FOSA	*86*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C5 PFPeA	*87*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C2 PFTeDA	*99*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
d3-NMeFOSAA	*108*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
d5-NEtFOSAA	*109*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
M2-6:2 FTS	*108*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
M2-8:2 FTS	*94*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*
13C3 PFBS	*94*		*50 - 150*	*11/01/22 08:56*	*11/02/22 01:36*	*1*

Client Sample ID: RI-MW-07_20221020

Date Collected: 10/20/22 08:25
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-1

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**305**		25.0	5.99	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluoropentanoic acid (PFPeA)	**1400**		9.98	3.39	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorohexanoic acid (PFHxA)	**728**		9.98	3.24	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluoroheptanoic acid (PFHpA)	**593**		9.98	2.69	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorooctanoic acid (PFOA)	**162**		9.98	3.79	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorononanoic acid (PFNA)	**18.9**		9.98	2.45	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorodecanoic acid (PFDA)	9.98	U	9.98	2.30	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluoroundecanoic acid (PFUnA)	9.98	U	9.98	2.74	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorododecanoic acid (PFDoA)	9.98	U	9.98	2.45	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorotridecanoic acid (PFTriA)	9.98	U	9.98	2.40	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorotetradecanoic acid (PFTeA)	9.98	U	9.98	3.19	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorobutanesulfonic acid (PFBS)	**34.6**		9.98	3.09	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorohexanesulfonic acid (PFHxS)	**586**		9.98	2.74	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluoroheptanesulfonic acid (PFHpS)	**45.5**		9.98	2.05	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorooctanesulfonic acid (PFOS)	**1300**		9.98	4.24	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorodecanesulfonic acid (PFDS)	9.98	U	9.98	2.00	ng/L		11/02/22 09:24	11/02/22 18:54	1
Perfluorooctanesulfonamide (PFOSA)	9.98	U	9.98	4.59	ng/L		11/02/22 09:24	11/02/22 18:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	U	25.0	9.48	ng/L		11/02/22 09:24	11/02/22 18:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	U	25.0	7.98	ng/L		11/02/22 09:24	11/02/22 18:54	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**749**		25.0	6.49	ng/L		11/02/22 09:24	11/02/22 18:54	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**24.0**		9.98	3.84	ng/L		11/02/22 09:24	11/02/22 18:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*98*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C4 PFHpA	*94*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C4 PFOA	*98*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C4 PFOS	*101*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C5 PFNA	*95*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C4 PFBA	*74*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C2 PFHxA	*89*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C2 PFDA	*102*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C2 PFUnA	*116*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C2 PFDoA	*116*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C8 FOSA	*99*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C5 PFPeA	*88*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C2 PFTeDA	*109*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
d3-NMeFOSAA	*124*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
d5-NEtFOSAA	*135*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
M2-6:2 FTS	*114*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
M2-8:2 FTS	*109*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*
13C3 PFBS	*91*		*50 - 150*	*11/02/22 09:24*	*11/02/22 18:54*	*1*

Client Sample ID: RI-MW-08_20221020

Date Collected: 10/20/22 10:05
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-2

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**441**		5.57	1.34	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorooctanoic acid (PFOA)	**254**		2.23	0.85	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorononanoic acid (PFNA)	**66.5**		2.23	0.55	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorodecanoic acid (PFDA)	**45.1**		2.23	0.51	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluoroundecanoic acid (PFUnA)	**1.86**	**J**	2.23	0.61	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorododecanoic acid (PFDoA)	**0.61**	**J**	2.23	0.55	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorotridecanoic acid (PFTriA)	2.23	U	2.23	0.53	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorotetradecanoic acid (PFTeA)	2.23	U	2.23	0.71	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorobutanesulfonic acid (PFBS)	**30.9**		2.23	0.69	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluoroheptanesulfonic acid (PFHpS)	**24.7**		2.23	0.46	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorodecanesulfonic acid (PFDS)	**0.81**	**J**	2.23	0.45	ng/L		11/02/22 09:24	11/02/22 19:02	1
Perfluorooctanesulfonamide (PFOSA)	**1.75**	**J**	2.23	1.02	ng/L		11/02/22 09:24	11/02/22 19:02	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.57	U	5.57	2.12	ng/L		11/02/22 09:24	11/02/22 19:02	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.57	U	5.57	1.78	ng/L		11/02/22 09:24	11/02/22 19:02	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**263**		2.23	0.86	ng/L		11/02/22 09:24	11/02/22 19:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*97*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C4 PFOS	*95*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C5 PFNA	*92*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C4 PFBA	*55*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C2 PFDA	*109*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C2 PFUnA	*124*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C2 PFDoA	*122*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C8 FOSA	*100*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C2 PFTeDA	*121*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
d3-NMeFOSAA	*147*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
d5-NEtFOSAA	*156*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
M2-8:2 FTS	*136*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*
13C3 PFBS	*88*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:02*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**1960**		22.3	7.58	ng/L		11/02/22 09:24	11/03/22 15:53	10
Perfluorohexanoic acid (PFHxA)	**1000**		22.3	7.24	ng/L		11/02/22 09:24	11/03/22 15:53	10
Perfluoroheptanoic acid (PFHpA)	**789**		22.3	6.02	ng/L		11/02/22 09:24	11/03/22 15:53	10
Perfluorohexanesulfonic acid (PFHxS)	**491**		22.3	6.13	ng/L		11/02/22 09:24	11/03/22 15:53	10
Perfluorooctanesulfonic acid (PFOS)	**1980**		22.3	9.47	ng/L		11/02/22 09:24	11/03/22 15:53	10
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**599**		55.7	14.5	ng/L		11/02/22 09:24	11/03/22 15:53	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*101*		*50 - 150*	*11/02/22 09:24*	*11/03/22 15:53*	*10*

Client Sample ID: RI-MW-08_20221020

Lab Sample ID: 460-267901-2

Date Collected: 10/20/22 10:05
Matrix: Water
Date Received: 10/20/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFHpA	*92*		*50 - 150*	*11/02/22 09:24*	*11/03/22 15:53*	*10*
13C4 PFOS	*101*		*50 - 150*	*11/02/22 09:24*	*11/03/22 15:53*	*10*
13C2 PFHxA	*86*		*50 - 150*	*11/02/22 09:24*	*11/03/22 15:53*	*10*
13C5 PFPeA	*89*		*50 - 150*	*11/02/22 09:24*	*11/03/22 15:53*	*10*
M2-6:2 FTS	*119*		*50 - 150*	*11/02/22 09:24*	*11/03/22 15:53*	*10*

Client Sample ID: RI-MW-02_20221020

Lab Sample ID: 460-267901-3

Date Collected: 10/20/22 11:45
Matrix: Water
Date Received: 10/20/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	**37.7**		1.94	0.48	ng/L		11/02/22 09:24	11/02/22 19:10	1
Perfluorodecanoic acid (PFDA)	**6.82**		1.94	0.45	ng/L		11/02/22 09:24	11/02/22 19:10	1
Perfluoroundecanoic acid (PFUnA)	1.94	U	1.94	0.53	ng/L		11/02/22 09:24	11/02/22 19:10	1
Perfluorododecanoic acid (PFDoA)	1.94	U	1.94	0.48	ng/L		11/02/22 09:24	11/02/22 19:10	1
Perfluorotridecanoic acid (PFTriA)	1.94	U	1.94	0.47	ng/L		11/02/22 09:24	11/02/22 19:10	1
Perfluorotetradecanoic acid (PFTeA)	1.94	U	1.94	0.62	ng/L		11/02/22 09:24	11/02/22 19:10	1
Perfluorodecanesulfonic acid (PFDS)	**2.54**		1.94	0.39	ng/L		11/02/22 09:24	11/02/22 19:10	1
Perfluorooctanesulfonamide (PFOSA)	**2.68**		1.94	0.89	ng/L		11/02/22 09:24	11/02/22 19:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.85	U	4.85	1.84	ng/L		11/02/22 09:24	11/02/22 19:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.85	U	4.85	1.55	ng/L		11/02/22 09:24	11/02/22 19:10	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**35.9**		1.94	0.75	ng/L		11/02/22 09:24	11/02/22 19:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*40*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
13C5 PFNA	*49*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
13C2 PFDA	*161*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
13C2 PFUnA	*179*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
13C2 PFDoA	*187*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
13C8 FOSA	*128*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
13C2 PFTeDA	*177*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
d3-NMeFOSAA	*213*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
d5-NEtFOSAA	*239*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*
M2-8:2 FTS	*222*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:10*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**636**		97.0	23.3	ng/L		11/02/22 09:24	11/03/22 17:14	20
Perfluoropentanoic acid (PFPeA)	**2540**		38.8	13.2	ng/L		11/02/22 09:24	11/03/22 17:14	20
Perfluorohexanoic acid (PFHxA)	**1830**		38.8	12.6	ng/L		11/02/22 09:24	11/03/22 17:14	20
Perfluoroheptanoic acid (PFHpA)	**1430**		38.8	10.5	ng/L		11/02/22 09:24	11/03/22 17:14	20
Perfluorooctanoic acid (PFOA)	**1570**		38.8	14.7	ng/L		11/02/22 09:24	11/03/22 17:14	20
Perfluorobutanesulfonic acid (PFBS)	**430**		38.8	12.0	ng/L		11/02/22 09:24	11/03/22 17:14	20
Perfluoroheptanesulfonic acid (PFHpS)	**2950**		38.8	7.95	ng/L		11/02/22 09:24	11/03/22 17:14	20

Client Sample ID: RI-MW-02_20221020

Lab Sample ID: 460-267901-3

Date Collected: 10/20/22 11:45
Matrix: Water
Date Received: 10/20/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1520		97.0	25.2	ng/L		11/02/22 09:24	11/03/22 17:14	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFHpA	*84*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*
13C4 PFOA	*93*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*
13C4 PFOS	*86*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*
13C4 PFBA	*88*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*
13C2 PFHxA	*89*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*
13C5 PFPeA	*88*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*
M2-6:2 FTS	*129*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*
13C3 PFBS	*94*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:14*	*20*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	13400		388	107	ng/L		11/02/22 09:24	11/03/22 16:01	200
Perfluorooctanesulfonic acid (PFOS)	82800	E	388	165	ng/L		11/02/22 09:24	11/03/22 16:01	200

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*114*		*50 - 150*	*11/02/22 09:24*	*11/03/22 16:01*	*200*
13C4 PFOS	*104*		*50 - 150*	*11/02/22 09:24*	*11/03/22 16:01*	*200*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - REDL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	86000	H	992	422	ng/L		11/04/22 08:55	11/07/22 16:45	50

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*98*		*50 - 150*	*11/04/22 08:55*	*11/07/22 16:45*	*50*

Client Sample ID: RI-MW-03_20221020

Lab Sample ID: 460-267901-4

Date Collected: 10/20/22 13:55
Matrix: Water
Date Received: 10/20/22 18:30

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	87.2		1.95	0.48	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluorodecanoic acid (PFDA)	42.6		1.95	0.45	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluoroundecanoic acid (PFUnA)	0.89	J	1.95	0.54	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluorododecanoic acid (PFDoA)	0.61	J	1.95	0.48	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluorotridecanoic acid (PFTriA)	1.95	U	1.95	0.47	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluorotetradecanoic acid (PFTeA)	1.95	U	1.95	0.62	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluorobutanesulfonic acid (PFBS)	252		1.95	0.60	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluorodecanesulfonic acid (PFDS)	1.95	U	1.95	0.39	ng/L		11/02/22 09:24	11/02/22 19:27	1
Perfluorooctanesulfonamide (PFOSA)	1.07	J	1.95	0.90	ng/L		11/02/22 09:24	11/02/22 19:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.87	U	4.87	1.85	ng/L		11/02/22 09:24	11/02/22 19:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.87	U	4.87	1.56	ng/L		11/02/22 09:24	11/02/22 19:27	1

Client Sample ID: RI-MW-03_20221020

Date Collected: 10/20/22 13:55
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-4

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	264		1.95	0.75	ng/L		11/02/22 09:24	11/02/22 19:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*51*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
13C5 PFNA	*53*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
13C2 PFDA	*142*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
13C2 PFUnA	*166*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
13C2 PFDoA	*159*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
13C8 FOSA	*126*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
13C2 PFTeDA	*153*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
d3-NMeFOSAA	*183*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
d5-NEtFOSAA	*192*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
M2-8:2 FTS	*179*	*	*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*
13C3 PFBS	*109*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:27*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	522		97.4	23.4	ng/L		11/02/22 09:24	11/03/22 17:39	20
Perfluoropentanoic acid (PFPeA)	2420		39.0	13.3	ng/L		11/02/22 09:24	11/03/22 17:39	20
Perfluorohexanoic acid (PFHxA)	1440		39.0	12.7	ng/L		11/02/22 09:24	11/03/22 17:39	20
Perfluoroheptanoic acid (PFHpA)	1040		39.0	10.5	ng/L		11/02/22 09:24	11/03/22 17:39	20
Perfluorooctanoic acid (PFOA)	1080		39.0	14.8	ng/L		11/02/22 09:24	11/03/22 17:39	20
Perfluoroheptanesulfonic acid (PFHpS)	1050		39.0	7.99	ng/L		11/02/22 09:24	11/03/22 17:39	20
Perfluorooctanesulfonic acid (PFOS)	34800		390	166	ng/L		11/02/22 09:24	11/04/22 12:47	200
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2320		97.4	25.3	ng/L		11/02/22 09:24	11/03/22 17:39	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFHpA	*86*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:39*	*20*
13C4 PFOA	*89*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:39*	*20*
13C4 PFOS	*94*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:39*	*20*
13C4 PFOS	*97*		*50 - 150*	*11/02/22 09:24*	*11/04/22 12:47*	*200*
13C4 PFBA	*89*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:39*	*20*
13C2 PFHxA	*89*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:39*	*20*
13C5 PFPeA	*85*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:39*	*20*
M2-6:2 FTS	*113*		*50 - 150*	*11/02/22 09:24*	*11/03/22 17:39*	*20*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	7520		390	107	ng/L		11/02/22 09:24	11/03/22 16:09	200

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*99*		*50 - 150*	*11/02/22 09:24*	*11/03/22 16:09*	*200*

Client Sample ID: FB-01_20221020

Date Collected: 10/20/22 14:00
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-5

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.94	U	5.94	1.43	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluoropentanoic acid (PFPeA)	2.38	U	2.38	0.81	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorohexanoic acid (PFHxA)	2.38	U	2.38	0.77	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluoroheptanoic acid (PFHpA)	2.38	U	2.38	0.64	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorooctanoic acid (PFOA)	2.38	U	2.38	0.90	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorononanoic acid (PFNA)	2.38	U	2.38	0.58	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorodecanoic acid (PFDA)	2.38	U	2.38	0.55	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluoroundecanoic acid (PFUnA)	2.38	U	2.38	0.65	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorododecanoic acid (PFDoA)	2.38	U	2.38	0.58	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorotridecanoic acid (PFTriA)	2.38	U	2.38	0.57	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorotetradecanoic acid (PFTeA)	2.38	U	2.38	0.76	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorobutanesulfonic acid (PFBS)	2.38	U	2.38	0.74	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorohexanesulfonic acid (PFHxS)	2.38	U	2.38	0.65	ng/L		11/02/22 09:24	11/03/22 16:17	1
Perfluoroheptanesulfonic acid (PFHpS)	2.38	U	2.38	0.49	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorooctanesulfonic acid (PFOS)	**1.65**	**J**	2.38	1.01	ng/L		11/02/22 09:24	11/03/22 16:17	1
Perfluorodecanesulfonic acid (PFDS)	2.38	U	2.38	0.48	ng/L		11/02/22 09:24	11/02/22 19:35	1
Perfluorooctanesulfonamide (PFOSA)	2.38	U	2.38	1.09	ng/L		11/02/22 09:24	11/02/22 19:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.94	U	5.94	2.26	ng/L		11/02/22 09:24	11/02/22 19:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.94	U	5.94	1.90	ng/L		11/02/22 09:24	11/02/22 19:35	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.94	U	5.94	1.55	ng/L		11/02/22 09:24	11/02/22 19:35	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.38	U	2.38	0.92	ng/L		11/02/22 09:24	11/02/22 19:35	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*98*		*50 - 150*	*11/02/22 09:24*	*11/03/22 16:17*	*1*
13C4 PFHpA	*90*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C4 PFOA	*95*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C4 PFOS	*100*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C4 PFOS	*103*		*50 - 150*	*11/02/22 09:24*	*11/03/22 16:17*	*1*
13C5 PFNA	*89*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C4 PFBA	*88*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C2 PFHxA	*88*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C2 PFDA	*98*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C2 PFUnA	*97*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C2 PFDoA	*98*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C8 FOSA	*93*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C5 PFPeA	*85*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C2 PFTeDA	*95*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
d3-NMeFOSAA	*121*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
d5-NEtFOSAA	*120*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
M2-6:2 FTS	*112*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
M2-8:2 FTS	*107*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*
13C3 PFBS	*92*		*50 - 150*	*11/02/22 09:24*	*11/02/22 19:35*	*1*

Client Sample ID: RI-MW-10_20221024

Date Collected: 10/24/22 11:50
Date Received: 10/25/22 18:00

Lab Sample ID: 460-268208-1

Matrix: Water

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**116**		3.96	0.95	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorohexanoic acid (PFHxA)	**208**		1.58	0.51	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluoroheptanoic acid (PFHpA)	**191**		1.58	0.43	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorooctanoic acid (PFOA)	**77.9**		1.58	0.60	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorononanoic acid (PFNA)	**21.6**		1.58	0.39	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorodecanoic acid (PFDA)	**13.5**		1.58	0.36	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluoroundecanoic acid (PFUnA)	**0.81**	**J**	1.58	0.44	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorododecanoic acid (PFDoA)	1.58	U	1.58	0.39	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorotridecanoic acid (PFTriA)	1.58	U	1.58	0.38	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorotetradecanoic acid (PFTeA)	1.58	U	1.58	0.51	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorobutanesulfonic acid (PFBS)	**9.22**		1.58	0.49	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorohexanesulfonic acid (PFHxS)	**107**		1.58	0.44	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluoroheptanesulfonic acid (PFHpS)	**2.83**		1.58	0.32	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorooctanesulfonic acid (PFOS)	**186**		1.58	0.67	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorodecanesulfonic acid (PFDS)	1.58	U	1.58	0.32	ng/L		11/03/22 12:35	11/04/22 16:44	1
Perfluorooctanesulfonamide (PFOSA)	1.58	U	1.58	0.73	ng/L		11/03/22 12:35	11/04/22 16:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.96	U	3.96	1.50	ng/L		11/03/22 12:35	11/04/22 16:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.96	U	3.96	1.27	ng/L		11/03/22 12:35	11/04/22 16:44	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**68.3**		3.96	1.03	ng/L		11/03/22 12:35	11/04/22 16:44	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**19.3**		1.58	0.61	ng/L		11/03/22 12:35	11/04/22 16:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*97*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C4 PFHpA	*93*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C4 PFOA	*101*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C4 PFOS	*99*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C5 PFNA	*102*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C4 PFBA	*75*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C2 PFHxA	*93*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C2 PFDA	*105*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C2 PFUnA	*114*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C2 PFDoA	*114*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C8 FOSA	*98*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C2 PFTeDA	*114*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
d3-NMeFOSAA	*124*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
d5-NEtFOSAA	*137*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
M2-6:2 FTS	*116*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
M2-8:2 FTS	*109*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*
13C3 PFBS	*89*		*50 - 150*	*11/03/22 12:35*	*11/04/22 16:44*	*1*

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	**462**		3.17	1.08	ng/L		11/03/22 12:35	11/04/22 13:52	2

Client Sample ID: RI-MW-10_20221024

Lab Sample ID: 460-268208-1

Date Collected: 10/24/22 11:50

Matrix: Water

Date Received: 10/25/22 18:00

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFPeA	84		50 - 150	11/03/22 12:35	11/04/22 13:52	2

Client Sample ID: RI-MW-09_20221024

Lab Sample ID: 460-268208-2

Date Collected: 10/24/22 13:55

Matrix: Water

Date Received: 10/25/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**231**		24.9	5.96	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluoropentanoic acid (PFPeA)	**940**		9.94	3.38	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorohexanoic acid (PFHxA)	**565**		9.94	3.23	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluoroheptanoic acid (PFHpA)	**413**		9.94	2.68	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorooctanoic acid (PFOA)	**301**		9.94	3.78	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorononanoic acid (PFNA)	**24.0**		9.94	2.44	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorodecanoic acid (PFDA)	**11.5**		9.94	2.29	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluoroundecanoic acid (PFUnA)	9.94	U	9.94	2.73	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorododecanoic acid (PFDoA)	9.94	U	9.94	2.44	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorotridecanoic acid (PFTriA)	9.94	U	9.94	2.39	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorotetradecanoic acid (PFTeA)	9.94	U	9.94	3.18	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorobutanesulfonic acid (PFBS)	**133**		9.94	3.08	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluoroheptanesulfonic acid (PFHpS)	**458**		9.94	2.04	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorodecanesulfonic acid (PFDS)	9.94	U	9.94	1.99	ng/L		11/03/22 12:35	11/04/22 17:00	1
Perfluorooctanesulfonamide (PFOSA)	9.94	U	9.94	4.57	ng/L		11/03/22 12:35	11/04/22 17:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	U	24.9	9.44	ng/L		11/03/22 12:35	11/04/22 17:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	U	24.9	7.95	ng/L		11/03/22 12:35	11/04/22 17:00	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	**484**		24.9	6.46	ng/L		11/03/22 12:35	11/04/22 17:00	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	**41.6**		9.94	3.83	ng/L		11/03/22 12:35	11/04/22 17:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	90		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C4 PFOA	96		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C4 PFOS	82		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C5 PFNA	73		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C4 PFBA	90		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C2 PFHxA	92		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C2 PFDA	102		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C2 PFUnA	106		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C2 PFDoA	106		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C8 FOSA	98		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C5 PFPeA	88		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C2 PFTeDA	103		50 - 150	11/03/22 12:35	11/04/22 17:00	1
d3-NMeFOSAA	117		50 - 150	11/03/22 12:35	11/04/22 17:00	1
d5-NEtFOSAA	121		50 - 150	11/03/22 12:35	11/04/22 17:00	1
M2-6:2 FTS	105		50 - 150	11/03/22 12:35	11/04/22 17:00	1
M2-8:2 FTS	103		50 - 150	11/03/22 12:35	11/04/22 17:00	1
13C3 PFBS	96		50 - 150	11/03/22 12:35	11/04/22 17:00	1

Client Sample ID: RI-MW-09_20221024

Lab Sample ID: 460-268208-2

Date Collected: 10/24/22 13:55
Matrix: Water
Date Received: 10/25/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	2730		199	54.7	ng/L		11/03/22 12:35	11/04/22 14:00	20
Perfluorooctanesulfonic acid (PFOS)	18800		199	84.5	ng/L		11/03/22 12:35	11/04/22 14:00	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*103*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:00*	*20*
13C4 PFOS	*107*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:00*	*20*

Client Sample ID: FB-01_20221024

Lab Sample ID: 460-268208-3

Date Collected: 10/24/22 15:00
Matrix: Water
Date Received: 10/25/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	4.16	U	4.16	1.0	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluoropentanoic acid (PFPeA)	1.66	U	1.66	0.57	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorohexanoic acid (PFHxA)	1.66	U	1.66	0.54	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluoroheptanoic acid (PFHpA)	1.66	U	1.66	0.45	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorooctanoic acid (PFOA)	1.66	U	1.66	0.63	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorononanoic acid (PFNA)	1.66	U	1.66	0.41	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorodecanoic acid (PFDA)	1.66	U	1.66	0.38	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluoroundecanoic acid (PFUnA)	1.66	U	1.66	0.46	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorododecanoic acid (PFDoA)	1.66	U	1.66	0.41	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorotridecanoic acid (PFTriA)	1.66	U	1.66	0.40	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorotetradecanoic acid (PFTeA)	1.66	U	1.66	0.53	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorobutanesulfonic acid (PFBS)	1.66	U	1.66	0.52	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorohexanesulfonic acid (PFHxS)	1.66	U	1.66	0.46	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluoroheptanesulfonic acid (PFHpS)	1.66	U	1.66	0.34	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorooctanesulfonic acid (PFOS)	1.66	U	1.66	0.71	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorodecanesulfonic acid (PFDS)	1.66	U	1.66	0.33	ng/L		11/03/22 12:35	11/04/22 14:08	1
Perfluorooctanesulfonamide (PFOSA)	1.66	U	1.66	0.77	ng/L		11/03/22 12:35	11/04/22 14:08	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.16	U	4.16	1.58	ng/L		11/03/22 12:35	11/04/22 14:08	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.16	U	4.16	1.33	ng/L		11/03/22 12:35	11/04/22 14:08	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.16	U	4.16	1.08	ng/L		11/03/22 12:35	11/04/22 14:08	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.66	U	1.66	0.64	ng/L		11/03/22 12:35	11/04/22 14:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*92*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C4 PFHpA	*91*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C4 PFOA	*92*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C4 PFOS	*93*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C5 PFNA	*89*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C4 PFBA	*84*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C2 PFHxA	*88*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C2 PFDA	*96*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C2 PFUnA	*102*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*
13C2 PFDoA	*98*		*50 - 150*	*11/03/22 12:35*	*11/04/22 14:08*	*1*

Client Sample ID: FB-01_20221024
Lab Sample ID: 460-268208-3

Date Collected: 10/24/22 15:00
Matrix: Water

Date Received: 10/25/22 18:00

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 FOSA	91		50 - 150	11/03/22 12:35	11/04/22 14:08	1
13C5 PFPeA	81		50 - 150	11/03/22 12:35	11/04/22 14:08	1
13C2 PFTeDA	98		50 - 150	11/03/22 12:35	11/04/22 14:08	1
d3-NMeFOSAA	108		50 - 150	11/03/22 12:35	11/04/22 14:08	1
d5-NEtFOSAA	113		50 - 150	11/03/22 12:35	11/04/22 14:08	1
M2-6:2 FTS	97		50 - 150	11/03/22 12:35	11/04/22 14:08	1
M2-8:2 FTS	95		50 - 150	11/03/22 12:35	11/04/22 14:08	1
13C3 PFBS	90		50 - 150	11/03/22 12:35	11/04/22 14:08	1

Isotope Dilution Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFOS (50-150)	PFHxA (50-150)	PFPeA (50-150)	M262FTS (50-150)				
460-267702-1 - DL	RI-MW-01_20221017	105	89	92	125				
460-267702-1 MS - DL	RI-MW-01_20221017	104	90	88	106				
460-267702-1 MSD - DL	RI-MW-01_20221017	107	94	88	117				
460-267702-3 - DL	RI-MW-X_20221017	107	93	89	124				
460-267901-3 - REDL	RI-MW-02_20221020	98							
460-267901-4 - DL	RI-MW-03_20221020	97							
460-268208-1 - DL	RI-MW-10_20221024			84					

Surrogate Legend

PFOS = 13C4 PFOS
PFHxA = 13C2 PFHxA
PFPeA = 13C5 PFPeA
M262FTS = M2-6:2 FTS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFHxS (50-150)	C4PFHA (50-150)	PFOA (50-150)	PFOS (50-150)	PFNA (50-150)	PFBA (50-150)	PFHxA (50-150)	PFDA (50-150)
460-267702-1	RI-MW-01_20221017	102	97	102	107	103	72		112
460-267702-1 MS	RI-MW-01_20221017	97	95	99	102	101	69		105
460-267702-1 MSD	RI-MW-01_20221017	98	98	97	100	95	70		107
460-267702-2 - DL	RI-MW-04_20221017	98			96				
460-267702-2	RI-MW-04_20221017		92	99	92	83	92	96	105
460-267702-3	RI-MW-X_20221017	105	96	96	105	103	72		106
460-267702-4	FB-01_20221017	99	91	93	101	92	88	90	92
460-267732-1	RI-DP-02_20221018	102	99	98	101	95	95	97	99
460-267732-2	RI-DP-05_20221018	103	96	100	99	91	94	93	96
460-267732-3	RI-DP-08_20221018	106	97	100	98	98	97	98	96
460-267732-3 - RE	RI-DP-08_20221018	100	98	99	104	100	90	96	110
460-267732-4	FB-01_20221018	104	98	100	102	95	95	97	96
460-267824-A-1-A MSD	Matrix Spike Duplicate	102	94	98	97	94	86	95	97
460-267824-B-1-B MS	Matrix Spike	101	94	96	102	97	85	95	102
460-267827-1	RI-MW-05_20221019	98	88	94	94	90	79	87	98
460-267827-2	RI-MW-06_20221019	103	96	101	98	101	90	94	102
460-267827-3	RI-DP-10_20221019	98	96	97	97	93	78	88	99
460-267827-4	FB-01_20221019	96	92	99	90	88	89	94	95
460-267901-1	RI-MW-07_20221020	98	94	98	101	95	74	89	102
460-267901-2	RI-MW-08_20221020			97	95	92	55		109
460-267901-2 - DL	RI-MW-08_20221020	101	92		101			86	
460-267901-3	RI-MW-02_20221020				40 *	49 *			161 *
460-267901-3 - DL	RI-MW-02_20221020		84	93	86		88	89	
460-267901-4	RI-MW-03_20221020				51	53			142
460-267901-4 - DL	RI-MW-03_20221020		86	89	94		89	89	
460-267901-5	FB-01_20221020		90	95	100	89	88	88	98
460-268208-1	RI-MW-10_20221024	97	93	101	99	102	75	93	105
460-268208-2	RI-MW-09_20221024		90	96	82	73	90	92	102
460-268208-3	FB-01_20221024	92	91	92	93	89	84	88	96
460-268239-A-2-B MS	Matrix Spike	102	95	97	98	95	84	92	106

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-267702-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	C4PFHA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-268239-A-2-C MSD	Matrix Spike Duplicate	96	91	96	94	93	84	91	102
LCS 200-185337/2-A	Lab Control Sample	101	95	99	102	96	87	91	102
LCS 200-185354/2-A	Lab Control Sample	94	90	96	96	95	84	91	100
LCS 200-185391/2-A	Lab Control Sample	103	98	99	106	96	94	95	103
LCS 200-185438/2-A	Lab Control Sample	99	98	102	98	95	92	95	101
LCSD 200-185337/3-A	Lab Control Sample Dup	101	95	94	104	98	91	98	108
LCSD 200-185354/3-A	Lab Control Sample Dup	101	99	98	99	101	91	96	102
LCSD 200-185438/3-A	Lab Control Sample Dup	96	90	98	97	96	87	93	107
LLCS 200-185199/2-A	Lab Control Sample	106	97	99	106	102	91	100	100
LLCS 200-185277/2-A	Lab Control Sample	103	95	98	106	95	94	97	104
MB 200-185199/1-A	Method Blank	108	98	102	109	100	90	97	97
MB 200-185277/1-A	Method Blank	100	97	103	104	96	94	102	102
MB 200-185337/1-A	Method Blank	100	96	93	95	91	88	92	95
MB 200-185354/1-A	Method Blank	94	93	97	98	95	85	88	103
MB 200-185391/1-A	Method Blank	99	99	104	99	99	96	98	102
MB 200-185438/1-A	Method Blank	102	97	98	98	97	95	98	102

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
460-267702-1	RI-MW-01_20221017	109	118	100		106	132	134	
460-267702-1 MS	RI-MW-01_20221017	110	110	97		107	125	128	
460-267702-1 MSD	RI-MW-01_20221017	110	115	100		116	123	125	
460-267702-2 - DL	RI-MW-04_20221017				89				105
460-267702-2	RI-MW-04_20221017	108	104	99		108	114	115	
460-267702-3	RI-MW-X_20221017	117	125	102		114	136	140	
460-267702-4	FB-01_20221017	99	101	92	86	92	116	116	111
460-267732-1	RI-DP-02_20221018	106	93	95	90	99	115	115	117
460-267732-2	RI-DP-05_20221018	94	91	93	91	101	112	113	110
460-267732-3	RI-DP-08_20221018	98	97	91	94	100	110	114	109
460-267732-3 - RE	RI-DP-08_20221018	109	110	94	87	109	124	127	109
460-267732-4	FB-01_20221018	105	98	92	92	99	123	121	112
460-267824-A-1-A MSD	Matrix Spike Duplicate	102	102	94	95	134	115	122	118
460-267824-B-1-B MS	Matrix Spike	118	116	95	91	132	126	137	111
460-267827-1	RI-MW-05_20221019	97	97	90	84	98	116	120	103
460-267827-2	RI-MW-06_20221019	106	109	94	89	105	121	128	113
460-267827-3	RI-DP-10_20221019	99	108	87	89	106	115	118	117
460-267827-4	FB-01_20221019	96	88	86	87	99	108	109	108
460-267901-1	RI-MW-07_20221020	116	116	99	88	109	124	135	114
460-267901-2	RI-MW-08_20221020	124	122	100		121	147	156 *	
460-267901-2 - DL	RI-MW-08_20221020				89				119
460-267901-3	RI-MW-02_20221020	179 *	187 *	128		177 *	213 *	239 *	
460-267901-3 - DL	RI-MW-02_20221020				88				129
460-267901-4	RI-MW-03_20221020	166 *	159 *	126		153 *	183 *	192 *	
460-267901-4 - DL	RI-MW-03_20221020				85				113
460-267901-5	FB-01_20221020	97	98	93	85	95	121	120	112
460-268208-1	RI-MW-10_20221024	114	114	98		114	124	137	116
460-268208-2	RI-MW-09_20221024	106	106	98	88	103	117	121	105
460-268208-3	FB-01_20221024	102	98	91	81	98	108	113	97
460-268239-A-2-B MS	Matrix Spike	103	97	89	87	100	121	116	109
460-268239-A-2-C MSD	Matrix Spike Duplicate	99	103	88	89	107	115	114	100

Isotope Dilution Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	d3NMFOS	d5NEFOS	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)
LCS 200-185337/2-A	Lab Control Sample	112	98	83	87	93	125	123	99
LCS 200-185354/2-A	Lab Control Sample	111	107	87	82	105	123	123	100
LCS 200-185391/2-A	Lab Control Sample	110	107	100	88	102	122	122	110
LCS 200-185438/2-A	Lab Control Sample	101	93	95	84	99	114	114	102
LCSD 200-185337/3-A	Lab Control Sample Dup	115	112	100	87	108	132	134	108
LCSD 200-185354/3-A	Lab Control Sample Dup	97	93	81	89	95	113	110	104
LCSD 200-185438/3-A	Lab Control Sample Dup	110	105	94	83	107	117	116	100
LLCS 200-185199/2-A	Lab Control Sample	108	104	91	90	101	123	121	110
LLCS 200-185277/2-A	Lab Control Sample	106	102	87	92	100	120	122	114
MB 200-185199/1-A	Method Blank	98	90	86	87	87	121	112	110
MB 200-185277/1-A	Method Blank	102	93	82	92	103	116	118	109
MB 200-185337/1-A	Method Blank	94	86	78	85	90	115	118	105
MB 200-185354/1-A	Method Blank	104	106	81	83	106	118	123	102
MB 200-185391/1-A	Method Blank	100	96	95	89	102	115	113	109
MB 200-185438/1-A	Method Blank	100	100	96	90	97	112	114	109

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M282FTS	C3PFBS						
Lab Sample ID	Client Sample ID	(50-150)	(50-150)						
460-267702-1	RI-MW-01_20221017	130	97						
460-267702-1 MS	RI-MW-01_20221017	116	91						
460-267702-1 MSD	RI-MW-01_20221017	118	91						
460-267702-2 - DL	RI-MW-04_20221017								
460-267702-2	RI-MW-04_20221017	103	103						
460-267702-3	RI-MW-X_20221017	123	94						
460-267702-4	FB-01_20221017	105	96						
460-267732-1	RI-DP-02_20221018	103	99						
460-267732-2	RI-DP-05_20221018	98	95						
460-267732-3	RI-DP-08_20221018	104	100						
460-267732-3 - RE	RI-DP-08_20221018	105	94						
460-267732-4	FB-01_20221018	108	100						
460-267824-A-1-A MSD	Matrix Spike Duplicate	104	98						
460-267824-B-1-B MS	Matrix Spike	108	94						
460-267827-1	RI-MW-05_20221019	98	93						
460-267827-2	RI-MW-06_20221019	104	99						
460-267827-3	RI-DP-10_20221019	111	91						
460-267827-4	FB-01_20221019	94	94						
460-267901-1	RI-MW-07_20221020	109	91						
460-267901-2	RI-MW-08_20221020	136	88						
460-267901-2 - DL	RI-MW-08_20221020								
460-267901-3	RI-MW-02_20221020	222 *							
460-267901-3 - DL	RI-MW-02_20221020		94						
460-267901-4	RI-MW-03_20221020	179 *	109						
460-267901-4 - DL	RI-MW-03_20221020								
460-267901-5	FB-01_20221020	107	92						
460-268208-1	RI-MW-10_20221024	109	89						
460-268208-2	RI-MW-09_20221024	103	96						
460-268208-3	FB-01_20221024	95	90						
460-268239-A-2-B MS	Matrix Spike	103	96						
460-268239-A-2-C MSD	Matrix Spike Duplicate	94	94						
LCS 200-185337/2-A	Lab Control Sample	106	97						

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	M282FTS (50-150)	C3PFBS (50-150)
LCS 200-185354/2-A	Lab Control Sample	101	90
LCS 200-185391/2-A	Lab Control Sample	102	97
LCS 200-185438/2-A	Lab Control Sample	100	90
LCSD 200-185337/3-A	Lab Control Sample Dup	111	101
LCSD 200-185354/3-A	Lab Control Sample Dup	101	95
LCSD 200-185438/3-A	Lab Control Sample Dup	103	92
LLCS 200-185199/2-A	Lab Control Sample	109	100
LLCS 200-185277/2-A	Lab Control Sample	108	100
MB 200-185199/1-A	Method Blank	108	102
MB 200-185277/1-A	Method Blank	106	97
MB 200-185337/1-A	Method Blank	99	92
MB 200-185354/1-A	Method Blank	104	93
MB 200-185391/1-A	Method Blank	99	95
MB 200-185438/1-A	Method Blank	106	98

Surrogate Legend

PFHxS = 18O2 PFHxS
C4PFHA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
C3PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	PFHxS (50-150)	PFOS (50-150)
460-267901-3 - DL2	RI-MW-02_20221020	114	104
460-267901-5	FB-01_20221020	98	103
460-268208-2 - DL	RI-MW-09_20221024	103	107

Surrogate Legend

PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-267702-1
Project/Site: WPFD

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Water
Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)								
Lab Sample ID	**Client Sample ID**	**PFHxS (50-150)**								
460-267901-4 - DL2	RI-MW-03_20221020	99								

Surrogate Legend

PFHxS = 18O2 PFHxS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-185199/1-A
Matrix: Water
Analysis Batch: 185214

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185199

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		10/28/22 09:35	10/28/22 16:17	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		10/28/22 09:35	10/28/22 16:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		10/28/22 09:35	10/28/22 16:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		10/28/22 09:35	10/28/22 16:17	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		10/28/22 09:35	10/28/22 16:17	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		10/28/22 09:35	10/28/22 16:17	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*108*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C4 PFHpA	*98*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C4 PFOA	*102*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C4 PFOS	*109*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C5 PFNA	*100*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C4 PFBA	*90*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C2 PFHxA	*97*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C2 PFDA	*97*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C2 PFUnA	*98*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C2 PFDoA	*90*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C8 FOSA	*86*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C5 PFPeA	*87*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C2 PFTeDA	*87*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
d3-NMeFOSAA	*121*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
d5-NEtFOSAA	*112*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
M2-6:2 FTS	*110*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
M2-8:2 FTS	*108*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*
13C3 PFBS	*102*		*50 - 150*	*10/28/22 09:35*	*10/28/22 16:17*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 200-185199/2-A
Matrix: Water
Analysis Batch: 185214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185199

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	11.97		ng/L		120	50 - 150
Perfluoropentanoic acid (PFPeA)	4.00	4.565		ng/L		114	50 - 150
Perfluorohexanoic acid (PFHxA)	4.00	4.559		ng/L		114	50 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	4.595		ng/L		115	50 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.710		ng/L		118	50 - 150
Perfluorononanoic acid (PFNA)	4.00	4.715		ng/L		118	50 - 150
Perfluorodecanoic acid (PFDA)	4.00	5.053		ng/L		126	50 - 150
Perfluoroundecanoic acid (PFUnA)	4.00	4.547		ng/L		114	50 - 150
Perfluorododecanoic acid (PFDoA)	4.00	4.243		ng/L		106	50 - 150
Perfluorotridecanoic acid (PFTriA)	4.00	4.049		ng/L		101	50 - 150
Perfluorotetradecanoic acid (PFTeA)	4.00	4.341		ng/L		109	50 - 150
Perfluorobutanesulfonic acid (PFBS)	3.54	4.100		ng/L		116	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.64	4.208		ng/L		116	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	3.81	4.606		ng/L		121	50 - 150
Perfluorooctanesulfonic acid (PFOS)	3.71	4.367		ng/L		118	50 - 150
Perfluorodecanesulfonic acid (PFDS)	3.86	4.428		ng/L		115	50 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.509		ng/L		88	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	10.0	11.84		ng/L		118	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	10.0	10.90		ng/L		109	50 - 150
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	9.48	13.17		ng/L		139	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.83	5.331		ng/L		139	50 - 150

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
18O2 PFHxS	*106*		*50 - 150*
13C4 PFHpA	*97*		*50 - 150*
13C4 PFOA	*99*		*50 - 150*
13C4 PFOS	*106*		*50 - 150*
13C5 PFNA	*102*		*50 - 150*
13C4 PFBA	*91*		*50 - 150*
13C2 PFHxA	*100*		*50 - 150*
13C2 PFDA	*100*		*50 - 150*
13C2 PFUnA	*108*		*50 - 150*
13C2 PFDoA	*104*		*50 - 150*
13C8 FOSA	*91*		*50 - 150*
13C5 PFPeA	*90*		*50 - 150*
13C2 PFTeDA	*101*		*50 - 150*
d3-NMeFOSAA	*123*		*50 - 150*
d5-NEtFOSAA	*121*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 200-185199/2-A
Matrix: Water
Analysis Batch: 185214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185199

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
M2-6:2 FTS	110		50 - 150
M2-8:2 FTS	109		50 - 150
13C3 PFBS	100		50 - 150

Lab Sample ID: 460-267702-1 MS
Matrix: Water
Analysis Batch: 185285

Client Sample ID: RI-MW-01_20221017
Prep Type: Total/NA
Prep Batch: 185199

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	1120		50.0	1235	*	ng/L		240	60 - 140
Perfluoroheptanoic acid (PFHpA)	1820		20.0	1823	*	ng/L		10	60 - 140
Perfluorooctanoic acid (PFOA)	649		20.0	660.3	*	ng/L		59	60 - 140
Perfluorononanoic acid (PFNA)	83.6		20.0	106.6		ng/L		115	60 - 140
Perfluorodecanoic acid (PFDA)	23.1		20.0	45.67		ng/L		113	60 - 140
Perfluoroundecanoic acid (PFUnA)	9.92	U	20.0	20.71		ng/L		104	60 - 140
Perfluorododecanoic acid (PFDoA)	9.92	U	20.0	23.26		ng/L		116	60 - 140
Perfluorotridecanoic acid (PFTriA)	9.92	U	20.0	23.46		ng/L		117	60 - 140
Perfluorotetradecanoic acid (PFTeA)	9.92	U	20.0	19.70		ng/L		99	60 - 140
Perfluorobutanesulfonic acid (PFBS)	41.4		17.7	64.38		ng/L		130	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	598		18.2	628.0	*	ng/L		166	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	60.3		19.0	84.37		ng/L		126	60 - 140
Perfluorodecanesulfonic acid (PFDS)	9.92	U	19.3	19.44		ng/L		101	60 - 140
Perfluorooctanesulfonamide (PFOSA)	9.92	U	20.0	22.82		ng/L		114	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	50.0	55.18		ng/L		110	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	50.0	53.03		ng/L		106	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	375		19.2	444.4	*	ng/L		362	60 - 140

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
18O2 PFHxS	97		50 - 150
13C4 PFHpA	95		50 - 150
13C4 PFOA	99		50 - 150
13C4 PFOS	102		50 - 150
13C5 PFNA	101		50 - 150
13C4 PFBA	69		50 - 150
13C2 PFDA	105		50 - 150
13C2 PFUnA	110		50 - 150
13C2 PFDoA	110		50 - 150
13C8 FOSA	97		50 - 150
13C2 PFTeDA	107		50 - 150
d3-NMeFOSAA	125		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267702-1 MS
Matrix: Water
Analysis Batch: 185285

Client Sample ID: RI-MW-01_20221017
Prep Type: Total/NA
Prep Batch: 185199

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
d5-NEtFOSAA	128		50 - 150
M2-8:2 FTS	116		50 - 150
13C3 PFBS	91		50 - 150

Lab Sample ID: 460-267702-1 MSD
Matrix: Water
Analysis Batch: 185285

Client Sample ID: RI-MW-01_20221017
Prep Type: Total/NA
Prep Batch: 185199

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	1120		49.3	1209	*	ng/L		190	60 - 140	2	30
Perfluoroheptanoic acid (PFHpA)	1820		19.7	1762	*	ng/L		-300	60 - 140	3	30
Perfluorooctanoic acid (PFOA)	649		19.7	701.6	*	ng/L		269	60 - 140	6	30
Perfluorononanoic acid (PFNA)	83.6		19.7	116.3	*	ng/L		166	60 - 140	9	30
Perfluorodecanoic acid (PFDA)	23.1		19.7	45.23		ng/L		112	60 - 140	1	30
Perfluoroundecanoic acid (PFUnA)	9.92	U	19.7	22.20		ng/L		113	60 - 140	7	30
Perfluorododecanoic acid (PFDoA)	9.92	U	19.7	21.13		ng/L		107	60 - 140	10	30
Perfluorotridecanoic acid (PFTriA)	9.92	U	19.7	21.39		ng/L		108	60 - 140	9	30
Perfluorotetradecanoic acid (PFTeA)	9.92	U	19.7	17.66		ng/L		90	60 - 140	11	30
Perfluorobutanesulfonic acid (PFBS)	41.4		17.4	63.04		ng/L		124	60 - 140	2	30
Perfluorohexanesulfonic acid (PFHxS)	598		17.9	619.4		ng/L		121	60 - 140	1	30
Perfluoroheptanesulfonic acid (PFHpS)	60.3		18.8	88.29	*	ng/L		149	60 - 140	5	30
Perfluorodecanesulfonic acid (PFDS)	9.92	U	19.0	20.99		ng/L		110	60 - 140	8	30
Perfluorooctanesulfonamide (PFOSA)	9.92	U	19.7	23.06		ng/L		117	60 - 140	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	49.3	60.26		ng/L		122	60 - 140	9	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	49.3	55.94		ng/L		113	60 - 140	5	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	375		18.9	439.3	*	ng/L		340	60 - 140	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
18O2 PFHxS	98		50 - 150
13C4 PFHpA	98		50 - 150
13C4 PFOA	97		50 - 150
13C4 PFOS	100		50 - 150
13C5 PFNA	95		50 - 150
13C4 PFBA	70		50 - 150
13C2 PFDA	107		50 - 150
13C2 PFUnA	110		50 - 150
13C2 PFDoA	115		50 - 150
13C8 FOSA	100		50 - 150
13C2 PFTeDA	116		50 - 150
d3-NMeFOSAA	123		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267702-1 MSD
Matrix: Water
Analysis Batch: 185285

Client Sample ID: RI-MW-01_20221017
Prep Type: Total/NA
Prep Batch: 185199

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	125		50 - 150
M2-8:2 FTS	118		50 - 150
13C3 PFBS	91		50 - 150

Lab Sample ID: MB 200-185277/1-A
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		11/01/22 08:56	11/01/22 23:00	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		11/01/22 08:56	11/01/22 23:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		11/01/22 08:56	11/01/22 23:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		11/01/22 08:56	11/01/22 23:00	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		11/01/22 08:56	11/01/22 23:00	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		11/01/22 08:56	11/01/22 23:00	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	100		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C4 PFHpA	97		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C4 PFOA	103		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C4 PFOS	104		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C5 PFNA	96		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C4 PFBA	94		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C2 PFHxA	102		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C2 PFDA	102		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C2 PFUnA	102		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C2 PFDoA	93		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C8 FOSA	82		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C5 PFPeA	92		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C2 PFTeDA	103		50 - 150	11/01/22 08:56	11/01/22 23:00	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-185277/1-A
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185277

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	116		50 - 150	11/01/22 08:56	11/01/22 23:00	1
d5-NEtFOSAA	118		50 - 150	11/01/22 08:56	11/01/22 23:00	1
M2-6:2 FTS	109		50 - 150	11/01/22 08:56	11/01/22 23:00	1
M2-8:2 FTS	106		50 - 150	11/01/22 08:56	11/01/22 23:00	1
13C3 PFBS	97		50 - 150	11/01/22 08:56	11/01/22 23:00	1

Lab Sample ID: LLCS 200-185277/2-A
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185277

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	10.0	13.34		ng/L		133	50 - 150
Perfluoropentanoic acid (PFPeA)	4.00	5.637		ng/L		141	50 - 150
Perfluorohexanoic acid (PFHxA)	4.00	5.355		ng/L		134	50 - 150
Perfluoroheptanoic acid (PFHpA)	4.00	5.250		ng/L		131	50 - 150
Perfluorooctanoic acid (PFOA)	4.00	5.172		ng/L		129	50 - 150
Perfluorononanoic acid (PFNA)	4.00	5.410		ng/L		135	50 - 150
Perfluorodecanoic acid (PFDA)	4.00	5.347		ng/L		134	50 - 150
Perfluoroundecanoic acid (PFUnA)	4.00	5.400		ng/L		135	50 - 150
Perfluorododecanoic acid (PFDoA)	4.00	5.151		ng/L		129	50 - 150
Perfluorotridecanoic acid (PFTriA)	4.00	5.236		ng/L		131	50 - 150
Perfluorotetradecanoic acid (PFTeA)	4.00	4.809		ng/L		120	50 - 150
Perfluorobutanesulfonic acid (PFBS)	3.54	4.554		ng/L		129	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	3.64	4.799		ng/L		132	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	3.81	5.113		ng/L		134	50 - 150
Perfluorooctanesulfonic acid (PFOS)	3.71	4.971		ng/L		134	50 - 150
Perfluorodecanesulfonic acid (PFDS)	3.86	4.889		ng/L		127	50 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	4.773		ng/L		119	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	10.0	13.28		ng/L		133	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	10.0	12.42		ng/L		124	50 - 150
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	9.48	14.44	*	ng/L		152	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.83	6.195	*	ng/L		162	50 - 150

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
18O2 PFHxS	103		50 - 150
13C4 PFHpA	95		50 - 150
13C4 PFOA	98		50 - 150
13C4 PFOS	106		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LLCS 200-185277/2-A
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185277

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C5 PFNA	95		50 - 150
13C4 PFBA	94		50 - 150
13C2 PFHxA	97		50 - 150
13C2 PFDA	104		50 - 150
13C2 PFUnA	106		50 - 150
13C2 PFDoA	102		50 - 150
13C8 FOSA	87		50 - 150
13C5 PFPeA	92		50 - 150
13C2 PFTeDA	100		50 - 150
d3-NMeFOSAA	120		50 - 150
d5-NEtFOSAA	122		50 - 150
M2-6:2 FTS	114		50 - 150
M2-8:2 FTS	108		50 - 150
13C3 PFBS	100		50 - 150

Lab Sample ID: 460-267824-A-1-A MSD
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 185277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	20.8		9.84	32.93		ng/L		123	60 - 140	2	30
Perfluoropentanoic acid (PFPeA)	42.0		3.94	47.82	*	ng/L		148	60 - 140	6	30
Perfluorohexanoic acid (PFHxA)	33.0		3.94	39.79	*	ng/L		171	60 - 140	6	30
Perfluoroheptanoic acid (PFHpA)	51.8		3.94	61.69	*	ng/L		252	60 - 140	7	30
Perfluorooctanoic acid (PFOA)	89.5		3.94	94.50		ng/L		127	60 - 140	0	30
Perfluorononanoic acid (PFNA)	5.23		3.94	11.35	*	ng/L		155	60 - 140	13	30
Perfluorodecanoic acid (PFDA)	0.52	J	3.94	5.542		ng/L		128	60 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	2.07	U	3.94	5.027		ng/L		128	60 - 140	0	30
Perfluorododecanoic acid (PFDoA)	2.07	U	3.94	4.851		ng/L		123	60 - 140	3	30
Perfluorotridecanoic acid (PFTriA)	2.07	U	3.94	5.679	*	ng/L		144	60 - 140	1	30
Perfluorotetradecanoic acid (PFTeA)	2.07	U	3.94	4.383		ng/L		111	60 - 140	20	30
Perfluorobutanesulfonic acid (PFBS)	2.57		3.48	6.938		ng/L		126	60 - 140	4	30
Perfluorohexanesulfonic acid (PFHxS)	2.28		3.58	6.957		ng/L		130	60 - 140	3	30
Perfluoroheptanesulfonic acid (PFHpS)	2.07	U	3.75	5.865	*	ng/L		156	60 - 140	9	30
Perfluorooctanesulfonic acid (PFOS)	13.0		3.65	18.44	*	ng/L		150	60 - 140	8	30
Perfluorodecanesulfonic acid (PFDS)	2.07	U	3.80	4.457		ng/L		117	60 - 140	6	30
Perfluorooctanesulfonamide (PFOSA)	2.07	U	3.94	4.824		ng/L		123	60 - 140	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.18	U	9.84	12.02		ng/L		122	60 - 140	10	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.18	U	9.84	11.46		ng/L		116	60 - 140	8	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267824-A-1-A MSD
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 185277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.18	U *	9.33	14.73	*	ng/L		158	50 - 150	9	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.07	U *	3.77	5.654	*	ng/L		150	60 - 140	8	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*102*		*50 - 150*
13C4 PFHpA	*94*		*50 - 150*
13C4 PFOA	*98*		*50 - 150*
13C4 PFOS	*97*		*50 - 150*
13C5 PFNA	*94*		*50 - 150*
13C4 PFBA	*86*		*50 - 150*
13C2 PFHxA	*95*		*50 - 150*
13C2 PFDA	*97*		*50 - 150*
13C2 PFUnA	*102*		*50 - 150*
13C2 PFDoA	*102*		*50 - 150*
13C8 FOSA	*94*		*50 - 150*
13C5 PFPeA	*95*		*50 - 150*
13C2 PFTeDA	*134*		*50 - 150*
d3-NMeFOSAA	*115*		*50 - 150*
d5-NEtFOSAA	*122*		*50 - 150*
M2-6:2 FTS	*118*		*50 - 150*
M2-8:2 FTS	*104*		*50 - 150*
13C3 PFBS	*98*		*50 - 150*

Lab Sample ID: 460-267824-B-1-B MS
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 185277

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	20.8		10.2	32.35		ng/L		113	60 - 140
Perfluoropentanoic acid (PFPeA)	42.0		4.09	44.96		ng/L		73	60 - 140
Perfluorohexanoic acid (PFHxA)	33.0		4.09	37.33		ng/L		105	60 - 140
Perfluoroheptanoic acid (PFHpA)	51.8		4.09	57.45		ng/L		139	60 - 140
Perfluorooctanoic acid (PFOA)	89.5		4.09	94.69		ng/L		127	60 - 140
Perfluorononanoic acid (PFNA)	5.23		4.09	9.920		ng/L		115	60 - 140
Perfluorodecanoic acid (PFDA)	0.52	J	4.09	5.669		ng/L		126	60 - 140
Perfluoroundecanoic acid (PFUnA)	2.07	U	4.09	5.040		ng/L		123	60 - 140
Perfluorododecanoic acid (PFDoA)	2.07	U	4.09	5.023		ng/L		123	60 - 140
Perfluorotridecanoic acid (PFTriA)	2.07	U	4.09	5.630		ng/L		138	60 - 140
Perfluorotetradecanoic acid (PFTeA)	2.07	U	4.09	5.372		ng/L		131	60 - 140
Perfluorobutanesulfonic acid (PFBS)	2.57		3.61	7.217		ng/L		129	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	2.28		3.72	7.143		ng/L		131	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	2.07	U	3.89	5.350		ng/L		137	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-267824-B-1-B MS
Matrix: Water
Analysis Batch: 185307

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 185277

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	13.0		3.79	16.97		ng/L		106	60 - 140
Perfluorodecanesulfonic acid (PFDS)	2.07	U	3.94	4.734		ng/L		120	60 - 140
Perfluorooctanesulfonamide (PFOSA)	2.07	U	4.09	4.816		ng/L		118	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.18	U	10.2	13.25		ng/L		130	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.18	U	10.2	12.46		ng/L		122	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.18	U *	9.69	16.10	*	ng/L		166	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.07	U *	3.92	6.118	*	ng/L		156	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*101*		*50 - 150*
13C4 PFHpA	*94*		*50 - 150*
13C4 PFOA	*96*		*50 - 150*
13C4 PFOS	*102*		*50 - 150*
13C5 PFNA	*97*		*50 - 150*
13C4 PFBA	*85*		*50 - 150*
13C2 PFHxA	*95*		*50 - 150*
13C2 PFDA	*102*		*50 - 150*
13C2 PFUnA	*118*		*50 - 150*
13C2 PFDoA	*116*		*50 - 150*
13C8 FOSA	*95*		*50 - 150*
13C5 PFPeA	*91*		*50 - 150*
13C2 PFTeDA	*132*		*50 - 150*
d3-NMeFOSAA	*126*		*50 - 150*
d5-NEtFOSAA	*137*		*50 - 150*
M2-6:2 FTS	*111*		*50 - 150*
M2-8:2 FTS	*108*		*50 - 150*
13C3 PFBS	*94*		*50 - 150*

Lab Sample ID: MB 200-185337/1-A
Matrix: Water
Analysis Batch: 185360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		11/02/22 09:24	11/02/22 17:32	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-185337/1-A
Matrix: Water
Analysis Batch: 185360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		11/02/22 09:24	11/02/22 17:32	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		11/02/22 09:24	11/02/22 17:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		11/02/22 09:24	11/02/22 17:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		11/02/22 09:24	11/02/22 17:32	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		11/02/22 09:24	11/02/22 17:32	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		11/02/22 09:24	11/02/22 17:32	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*100*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C4 PFHpA	*96*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C4 PFOA	*93*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C4 PFOS	*95*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C5 PFNA	*91*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C4 PFBA	*88*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C2 PFHxA	*92*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C2 PFDA	*95*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C2 PFUnA	*94*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C2 PFDoA	*86*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C8 FOSA	*78*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C5 PFPeA	*85*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C2 PFTeDA	*90*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
d3-NMeFOSAA	*115*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
d5-NEtFOSAA	*118*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
M2-6:2 FTS	*105*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
M2-8:2 FTS	*99*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*
13C3 PFBS	*92*		*50 - 150*	*11/02/22 09:24*	*11/02/22 17:32*	*1*

Lab Sample ID: LCS 200-185337/2-A
Matrix: Water
Analysis Batch: 185360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	36.48		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	37.60		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	37.63		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	36.53		ng/L		91	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	35.34		ng/L		88	70 - 130
Perfluorononanoic acid (PFNA)	40.0	36.08		ng/L		90	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	38.37		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	34.45		ng/L		86	70 - 130

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185337/2-A
Matrix: Water
Analysis Batch: 185360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanoic acid (PFDoA)	40.0	34.94		ng/L		87	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	32.17		ng/L		80	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	30.95		ng/L		77	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	32.40		ng/L		92	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.63		ng/L		92	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	38.1	37.19		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	34.70		ng/L		93	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	34.16		ng/L		89	70 - 130
Perfluorooctanesulfonamide (PFOSA)	40.0	35.91		ng/L		90	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	38.35		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	37.05		ng/L		93	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	43.72		ng/L		115	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	46.74		ng/L		122	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*101*		*50 - 150*
13C4 PFHpA	*95*		*50 - 150*
13C4 PFOA	*99*		*50 - 150*
13C4 PFOS	*102*		*50 - 150*
13C5 PFNA	*96*		*50 - 150*
13C4 PFBA	*87*		*50 - 150*
13C2 PFHxA	*91*		*50 - 150*
13C2 PFDA	*102*		*50 - 150*
13C2 PFUnA	*112*		*50 - 150*
13C2 PFDoA	*98*		*50 - 150*
13C8 FOSA	*83*		*50 - 150*
13C5 PFPeA	*87*		*50 - 150*
13C2 PFTeDA	*93*		*50 - 150*
d3-NMeFOSAA	*125*		*50 - 150*
d5-NEtFOSAA	*123*		*50 - 150*
M2-6:2 FTS	*99*		*50 - 150*
M2-8:2 FTS	*106*		*50 - 150*
13C3 PFBS	*97*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 200-185337/3-A
Matrix: Water
Analysis Batch: 185360

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 185337

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	37.57		ng/L		94	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)			40.0	40.05		ng/L		100	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)			40.0	36.45		ng/L		91	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)			40.0	38.12		ng/L		95	70 - 130	4	30
Perfluorooctanoic acid (PFOA)			40.0	39.04		ng/L		98	70 - 130	10	30
Perfluorononanoic acid (PFNA)			40.0	37.31		ng/L		93	70 - 130	3	30
Perfluorodecanoic acid (PFDA)			40.0	38.64		ng/L		97	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)			40.0	37.34		ng/L		93	70 - 130	8	30
Perfluorododecanoic acid (PFDoA)			40.0	37.93		ng/L		95	70 - 130	8	30
Perfluorotridecanoic acid (PFTriA)			40.0	36.85		ng/L		92	70 - 130	14	30
Perfluorotetradecanoic acid (PFTeA)			40.0	35.08		ng/L		88	70 - 130	13	30
Perfluorobutanesulfonic acid (PFBS)			35.4	32.96		ng/L		93	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	35.13		ng/L		97	70 - 130	4	30
Perfluoroheptanesulfonic acid (PFHpS)			38.1	38.10		ng/L		100	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)			37.1	35.14		ng/L		95	70 - 130	1	30
Perfluorodecanesulfonic acid (PFDS)			38.6	38.57		ng/L		100	70 - 130	12	30
Perfluorooctanesulfonamide (PFOSA)			40.0	37.55		ng/L		94	70 - 130	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	38.86		ng/L		97	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	38.64		ng/L		97	70 - 130	4	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			37.9	41.77		ng/L		110	60 - 140	5	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			38.3	45.00		ng/L		117	70 - 130	4	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
18O2 PFHxS	*101*		*50 - 150*
13C4 PFHpA	*95*		*50 - 150*
13C4 PFOA	*94*		*50 - 150*
13C4 PFOS	*104*		*50 - 150*
13C5 PFNA	*98*		*50 - 150*
13C4 PFBA	*91*		*50 - 150*
13C2 PFHxA	*98*		*50 - 150*
13C2 PFDA	*108*		*50 - 150*
13C2 PFUnA	*115*		*50 - 150*
13C2 PFDoA	*112*		*50 - 150*
13C8 FOSA	*100*		*50 - 150*
13C5 PFPeA	*87*		*50 - 150*
13C2 PFTeDA	*108*		*50 - 150*
d3-NMeFOSAA	*132*		*50 - 150*
d5-NEtFOSAA	*134*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 200-185337/3-A
Matrix: Water
Analysis Batch: 185360

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 185337

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
M2-6:2 FTS	108		50 - 150
M2-8:2 FTS	111		50 - 150
13C3 PFBS	101		50 - 150

Lab Sample ID: MB 200-185354/1-A
Matrix: Water
Analysis Batch: 185409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		11/02/22 13:29	11/03/22 18:44	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		11/02/22 13:29	11/03/22 18:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		11/02/22 13:29	11/03/22 18:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		11/02/22 13:29	11/03/22 18:44	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		11/02/22 13:29	11/03/22 18:44	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		11/02/22 13:29	11/03/22 18:44	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	94		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C4 PFHpA	93		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C4 PFOA	97		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C4 PFOS	98		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C5 PFNA	95		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C4 PFBA	85		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C2 PFHxA	88		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C2 PFDA	103		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C2 PFUnA	104		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C2 PFDoA	106		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C8 FOSA	81		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C5 PFPeA	83		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C2 PFTeDA	106		50 - 150	11/02/22 13:29	11/03/22 18:44	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-185354/1-A
Matrix: Water
Analysis Batch: 185409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185354

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
d3-NMeFOSAA	118		50 - 150	11/02/22 13:29	11/03/22 18:44	1
d5-NEtFOSAA	123		50 - 150	11/02/22 13:29	11/03/22 18:44	1
M2-6:2 FTS	102		50 - 150	11/02/22 13:29	11/03/22 18:44	1
M2-8:2 FTS	104		50 - 150	11/02/22 13:29	11/03/22 18:44	1
13C3 PFBS	93		50 - 150	11/02/22 13:29	11/03/22 18:44	1

Lab Sample ID: LCS 200-185354/2-A
Matrix: Water
Analysis Batch: 185409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185354

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	75.11		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	80.0	79.36		ng/L		99	70 - 130
Perfluorohexanoic acid (PFHxA)	80.0	74.74		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	80.0	73.87		ng/L		92	70 - 130
Perfluorooctanoic acid (PFOA)	80.0	73.27		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	80.0	76.98		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	80.0	73.04		ng/L		91	70 - 130
Perfluoroundecanoic acid (PFUnA)	80.0	74.85		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	80.0	74.01		ng/L		93	70 - 130
Perfluorotridecanoic acid (PFTriA)	80.0	80.62		ng/L		101	70 - 130
Perfluorotetradecanoic acid (PFTeA)	80.0	66.10		ng/L		83	70 - 130
Perfluorobutanesulfonic acid (PFBS)	70.7	65.82		ng/L		93	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	72.8	67.89		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	76.2	75.79		ng/L		100	70 - 130
Perfluorooctanesulfonic acid (PFOS)	74.2	70.47		ng/L		95	70 - 130
Perfluorodecanesulfonic acid (PFDS)	77.1	79.93		ng/L		104	70 - 130
Perfluorooctanesulfonamide (PFOSA)	80.0	73.83		ng/L		92	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	80.0	74.15		ng/L		93	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	80.0	72.63		ng/L		91	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	75.8	84.94		ng/L		112	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	76.6	94.03		ng/L		123	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
18O2 PFHxS	94		50 - 150
13C4 PFHpA	90		50 - 150
13C4 PFOA	96		50 - 150
13C4 PFOS	96		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185354/2-A
Matrix: Water
Analysis Batch: 185409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185354

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C5 PFNA	95		50 - 150
13C4 PFBA	84		50 - 150
13C2 PFHxA	91		50 - 150
13C2 PFDA	100		50 - 150
13C2 PFUnA	111		50 - 150
13C2 PFDoA	107		50 - 150
13C8 FOSA	87		50 - 150
13C5 PFPeA	82		50 - 150
13C2 PFTeDA	105		50 - 150
d3-NMeFOSAA	123		50 - 150
d5-NEtFOSAA	123		50 - 150
M2-6:2 FTS	100		50 - 150
M2-8:2 FTS	101		50 - 150
13C3 PFBS	90		50 - 150

Lab Sample ID: LCSD 200-185354/3-A
Matrix: Water
Analysis Batch: 185409

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 185354

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	75.46		ng/L		94	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)			80.0	77.80		ng/L		97	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)			80.0	75.26		ng/L		94	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)			80.0	73.42		ng/L		92	70 - 130	1	30
Perfluorooctanoic acid (PFOA)			80.0	75.87		ng/L		95	70 - 130	3	30
Perfluorononanoic acid (PFNA)			80.0	75.57		ng/L		94	70 - 130	2	30
Perfluorodecanoic acid (PFDA)			80.0	76.92		ng/L		96	70 - 130	5	30
Perfluoroundecanoic acid (PFUnA)			80.0	73.26		ng/L		92	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)			80.0	70.07		ng/L		88	70 - 130	5	30
Perfluorotridecanoic acid (PFTriA)			80.0	72.18		ng/L		90	70 - 130	11	30
Perfluorotetradecanoic acid (PFTeA)			80.0	65.69		ng/L		82	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)			70.7	68.78		ng/L		97	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)			72.8	69.31		ng/L		95	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)			76.2	78.22		ng/L		103	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)			74.2	69.95		ng/L		94	70 - 130	1	30
Perfluorodecanesulfonic acid (PFDS)			77.1	62.54		ng/L		81	70 - 130	24	30
Perfluorooctanesulfonamide (PFOSA)			80.0	62.98		ng/L		79	70 - 130	16	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			80.0	78.93		ng/L		99	70 - 130	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			80.0	72.10		ng/L		90	70 - 130	1	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 200-185354/3-A
Matrix: Water
Analysis Batch: 185409

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 185354

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			75.8	87.47		ng/L		115	60 - 140	3	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			76.6	94.01		ng/L		123	70 - 130	0	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
18O2 PFHxS	*101*		*50 - 150*
13C4 PFHpA	*99*		*50 - 150*
13C4 PFOA	*98*		*50 - 150*
13C4 PFOS	*99*		*50 - 150*
13C5 PFNA	*101*		*50 - 150*
13C4 PFBA	*91*		*50 - 150*
13C2 PFHxA	*96*		*50 - 150*
13C2 PFDA	*102*		*50 - 150*
13C2 PFUnA	*97*		*50 - 150*
13C2 PFDoA	*93*		*50 - 150*
13C8 FOSA	*81*		*50 - 150*
13C5 PFPeA	*89*		*50 - 150*
13C2 PFTeDA	*95*		*50 - 150*
d3-NMeFOSAA	*113*		*50 - 150*
d5-NEtFOSAA	*110*		*50 - 150*
M2-6:2 FTS	*104*		*50 - 150*
M2-8:2 FTS	*101*		*50 - 150*
13C3 PFBS	*95*		*50 - 150*

Lab Sample ID: MB 200-185391/1-A
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185391

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		11/03/22 12:35	11/04/22 13:36	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		11/03/22 12:35	11/04/22 13:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		11/03/22 12:35	11/04/22 13:36	1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-185391/1-A
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185391

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		11/03/22 12:35	11/04/22 13:36	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		11/03/22 12:35	11/04/22 13:36	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		11/03/22 12:35	11/04/22 13:36	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*99*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C4 PFHpA	*99*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C4 PFOA	*104*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C4 PFOS	*99*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C5 PFNA	*99*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C4 PFBA	*96*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C2 PFHxA	*98*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C2 PFDA	*102*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C2 PFUnA	*100*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C2 PFDoA	*96*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C8 FOSA	*95*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C5 PFPeA	*89*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C2 PFTeDA	*102*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
d3-NMeFOSAA	*115*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
d5-NEtFOSAA	*113*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
M2-6:2 FTS	*109*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
M2-8:2 FTS	*99*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*
13C3 PFBS	*95*		*50 - 150*	*11/03/22 12:35*	*11/04/22 13:36*	*1*

Lab Sample ID: LCS 200-185391/2-A
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185391

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	36.31		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	38.57		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	37.73		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	36.67		ng/L		92	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	37.60		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	40.0	36.92		ng/L		92	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	38.55		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	34.11		ng/L		85	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	35.61		ng/L		89	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	36.62		ng/L		92	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	34.09		ng/L		85	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	33.39		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	32.41		ng/L		89	70 - 130

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185391/2-A
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185391

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	38.1	36.47		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	33.46		ng/L		90	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	34.94		ng/L		91	70 - 130
Perfluorooctanesulfonamide (PFOSA)	40.0	37.27		ng/L		93	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	36.14		ng/L		90	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.44		ng/L		91	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	40.05		ng/L		106	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	45.29		ng/L		118	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*103*		*50 - 150*
13C4 PFHpA	*98*		*50 - 150*
13C4 PFOA	*99*		*50 - 150*
13C4 PFOS	*106*		*50 - 150*
13C5 PFNA	*96*		*50 - 150*
13C4 PFBA	*94*		*50 - 150*
13C2 PFHxA	*95*		*50 - 150*
13C2 PFDA	*103*		*50 - 150*
13C2 PFUnA	*110*		*50 - 150*
13C2 PFDoA	*107*		*50 - 150*
13C8 FOSA	*100*		*50 - 150*
13C5 PFPeA	*88*		*50 - 150*
13C2 PFTeDA	*102*		*50 - 150*
d3-NMeFOSAA	*122*		*50 - 150*
d5-NEtFOSAA	*122*		*50 - 150*
M2-6:2 FTS	*110*		*50 - 150*
M2-8:2 FTS	*102*		*50 - 150*
13C3 PFBS	*97*		*50 - 150*

Lab Sample ID: 460-268239-A-2-B MS
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 185391

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	14.0	J	197	199.1		ng/L		94	60 - 140
Perfluoropentanoic acid (PFPeA)	15.7		197	217.8		ng/L		102	60 - 140
Perfluorohexanoic acid (PFHxA)	35.4		197	220.0		ng/L		94	60 - 140
Perfluoroheptanoic acid (PFHpA)	12.1		197	197.6		ng/L		94	60 - 140
Perfluorooctanoic acid (PFOA)	38.9		197	235.6		ng/L		100	60 - 140
Perfluorononanoic acid (PFNA)	39.5		197	237.0		ng/L		100	60 - 140
Perfluorodecanoic acid (PFDA)	2.70	J	197	186.7		ng/L		93	60 - 140
Perfluoroundecanoic acid (PFUnA)	4.68	J	197	175.4		ng/L		87	60 - 140

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-268239-A-2-B MS
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 185391

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorododecanoic acid (PFDoA)	9.92	U	197	187.1		ng/L		95	60 - 140
Perfluorotridecanoic acid (PFTriA)	9.92	U	197	175.7		ng/L		89	60 - 140
Perfluorotetradecanoic acid (PFTeA)	9.92	U	197	157.4		ng/L		80	60 - 140
Perfluorobutanesulfonic acid (PFBS)	21.8		174	185.6		ng/L		94	60 - 140
Perfluorohexanesulfonic acid (PFHxS)	155		179	323.4		ng/L		94	60 - 140
Perfluoroheptanesulfonic acid (PFHpS)	20.9		188	219.8		ng/L		106	60 - 140
Perfluorodecanesulfonic acid (PFDS)	9.92	U	190	157.8		ng/L		83	60 - 140
Perfluorooctanesulfonamide (PFOSA)	9.92	U	197	173.3		ng/L		88	60 - 140
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	197	168.9		ng/L		86	60 - 140
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	197	173.8		ng/L		88	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.8	U	187	220.3		ng/L		118	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.92	U	189	213.2		ng/L		113	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
18O2 PFHxS	*102*		*50 - 150*
13C4 PFHpA	*95*		*50 - 150*
13C4 PFOA	*97*		*50 - 150*
13C4 PFOS	*98*		*50 - 150*
13C5 PFNA	*95*		*50 - 150*
13C4 PFBA	*84*		*50 - 150*
13C2 PFHxA	*92*		*50 - 150*
13C2 PFDA	*106*		*50 - 150*
13C2 PFUnA	*103*		*50 - 150*
13C2 PFDoA	*97*		*50 - 150*
13C8 FOSA	*89*		*50 - 150*
13C5 PFPeA	*87*		*50 - 150*
13C2 PFTeDA	*100*		*50 - 150*
d3-NMeFOSAA	*121*		*50 - 150*
d5-NEtFOSAA	*116*		*50 - 150*
M2-6:2 FTS	*109*		*50 - 150*
M2-8:2 FTS	*103*		*50 - 150*
13C3 PFBS	*96*		*50 - 150*

Lab Sample ID: 460-268239-A-2-C MSD
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 185391

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	14.0	J	199	201.6		ng/L		94	60 - 140	1	30
Perfluoropentanoic acid (PFPeA)	15.7		199	210.0		ng/L		98	60 - 140	4	30

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 460-268239-A-2-C MSD
Matrix: Water
Analysis Batch: 185450

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 185391

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanoic acid (PFHxA)	35.4		199	223.7		ng/L		95	60 - 140	2	30
Perfluoroheptanoic acid (PFHpA)	12.1		199	202.6		ng/L		96	60 - 140	2	30
Perfluorooctanoic acid (PFOA)	38.9		199	241.8		ng/L		102	60 - 140	3	30
Perfluorononanoic acid (PFNA)	39.5		199	228.4		ng/L		95	60 - 140	4	30
Perfluorodecanoic acid (PFDA)	2.70	J	199	183.7		ng/L		91	60 - 140	2	30
Perfluoroundecanoic acid (PFUnA)	4.68	J	199	176.1		ng/L		86	60 - 140	0	30
Perfluorododecanoic acid (PFDoA)	9.92	U	199	171.8		ng/L		86	60 - 140	9	30
Perfluorotridecanoic acid (PFTriA)	9.92	U	199	179.9		ng/L		91	60 - 140	2	30
Perfluorotetradecanoic acid (PFTeA)	9.92	U	199	165.1		ng/L		83	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)	21.8		176	192.3		ng/L		97	60 - 140	4	30
Perfluorohexanesulfonic acid (PFHxS)	155		181	332.2		ng/L		98	60 - 140	3	30
Perfluoroheptanesulfonic acid (PFHpS)	20.9		189	223.8		ng/L		107	60 - 140	2	30
Perfluorodecanesulfonic acid (PFDS)	9.92	U	192	173.2		ng/L		90	60 - 140	9	30
Perfluorooctanesulfonamide (PFOSA)	9.92	U	199	172.7		ng/L		87	60 - 140	0	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	199	184.2		ng/L		93	60 - 140	9	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	199	185.5		ng/L		93	60 - 140	6	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.8	U	188	225.9		ng/L		120	50 - 150	3	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.92	U	190	221.6		ng/L		116	60 - 140	4	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*96*		*50 - 150*
13C4 PFHpA	*91*		*50 - 150*
13C4 PFOA	*96*		*50 - 150*
13C4 PFOS	*94*		*50 - 150*
13C5 PFNA	*93*		*50 - 150*
13C4 PFBA	*84*		*50 - 150*
13C2 PFHxA	*91*		*50 - 150*
13C2 PFDA	*102*		*50 - 150*
13C2 PFUnA	*99*		*50 - 150*
13C2 PFDoA	*103*		*50 - 150*
13C8 FOSA	*88*		*50 - 150*
13C5 PFPeA	*89*		*50 - 150*
13C2 PFTeDA	*107*		*50 - 150*
d3-NMeFOSAA	*115*		*50 - 150*
d5-NEtFOSAA	*114*		*50 - 150*
M2-6:2 FTS	*100*		*50 - 150*
M2-8:2 FTS	*94*		*50 - 150*
13C3 PFBS	*94*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 200-185438/1-A
Matrix: Water
Analysis Batch: 185464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 185438

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	5.00	U	5.00	1.20	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluoropentanoic acid (PFPeA)	2.00	U	2.00	0.68	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.65	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.54	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.76	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.49	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.46	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.55	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.49	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorotridecanoic acid (PFTriA)	2.00	U	2.00	0.48	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorotetradecanoic acid (PFTeA)	2.00	U	2.00	0.64	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.62	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.55	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.41	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.85	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.40	ng/L		11/04/22 08:55	11/04/22 17:49	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.92	ng/L		11/04/22 08:55	11/04/22 17:49	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.00	U	5.00	1.90	ng/L		11/04/22 08:55	11/04/22 17:49	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.00	U	5.00	1.60	ng/L		11/04/22 08:55	11/04/22 17:49	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.00	U	5.00	1.30	ng/L		11/04/22 08:55	11/04/22 17:49	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.00	U	2.00	0.77	ng/L		11/04/22 08:55	11/04/22 17:49	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*102*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C4 PFHpA	*97*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C4 PFOA	*98*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C4 PFOS	*98*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C5 PFNA	*97*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C4 PFBA	*95*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C2 PFHxA	*98*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C2 PFDA	*102*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C2 PFUnA	*100*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C2 PFDoA	*100*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C8 FOSA	*96*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C5 PFPeA	*90*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C2 PFTeDA	*97*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
d3-NMeFOSAA	*112*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
d5-NEtFOSAA	*114*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
M2-6:2 FTS	*109*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
M2-8:2 FTS	*106*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*
13C3 PFBS	*98*		*50 - 150*	*11/04/22 08:55*	*11/04/22 17:49*	*1*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185438/2-A
Matrix: Water
Analysis Batch: 185464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185438

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	40.0	36.47		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	40.0	40.26		ng/L		101	70 - 130
Perfluorohexanoic acid (PFHxA)	40.0	37.37		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	36.13		ng/L		90	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	37.37		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	40.0	39.45		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	37.96		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	35.85		ng/L		90	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	38.63		ng/L		97	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	40.03		ng/L		100	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	35.18		ng/L		88	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	34.06		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	33.24		ng/L		91	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	38.1	37.34		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	37.1	33.39		ng/L		90	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	33.93		ng/L		88	70 - 130
Perfluorooctanesulfonamide (PFOSA)	40.0	38.82		ng/L		97	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	37.71		ng/L		94	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	36.83		ng/L		92	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	42.47		ng/L		112	60 - 140
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	45.14		ng/L		118	70 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*99*		*50 - 150*
13C4 PFHpA	*98*		*50 - 150*
13C4 PFOA	*102*		*50 - 150*
13C4 PFOS	*98*		*50 - 150*
13C5 PFNA	*95*		*50 - 150*
13C4 PFBA	*92*		*50 - 150*
13C2 PFHxA	*95*		*50 - 150*
13C2 PFDA	*101*		*50 - 150*
13C2 PFUnA	*101*		*50 - 150*
13C2 PFDoA	*93*		*50 - 150*
13C8 FOSA	*95*		*50 - 150*
13C5 PFPeA	*84*		*50 - 150*
13C2 PFTeDA	*99*		*50 - 150*
d3-NMeFOSAA	*114*		*50 - 150*
d5-NEtFOSAA	*114*		*50 - 150*

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 200-185438/2-A
Matrix: Water
Analysis Batch: 185464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185438

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	102		50 - 150
M2-8:2 FTS	100		50 - 150
13C3 PFBS	90		50 - 150

Lab Sample ID: LCSD 200-185438/3-A
Matrix: Water
Analysis Batch: 185464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 185438

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			40.0	38.01		ng/L		95	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)			40.0	39.84		ng/L		100	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)			40.0	39.05		ng/L		98	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	38.61		ng/L		97	70 - 130	7	30
Perfluorooctanoic acid (PFOA)			40.0	38.12		ng/L		95	70 - 130	2	30
Perfluorononanoic acid (PFNA)			40.0	38.90		ng/L		97	70 - 130	1	30
Perfluorodecanoic acid (PFDA)			40.0	37.92		ng/L		95	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)			40.0	35.22		ng/L		88	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)			40.0	38.88		ng/L		97	70 - 130	1	30
Perfluorotridecanoic acid (PFTriA)			40.0	39.15		ng/L		98	70 - 130	2	30
Perfluorotetradecanoic acid (PFTeA)			40.0	35.55		ng/L		89	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)			35.4	33.27		ng/L		94	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)			36.4	35.37		ng/L		97	70 - 130	6	30
Perfluoroheptanesulfonic acid (PFHpS)			38.1	37.15		ng/L		98	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)			37.1	35.14		ng/L		95	70 - 130	5	30
Perfluorodecanesulfonic acid (PFDS)			38.6	37.05		ng/L		96	70 - 130	9	30
Perfluorooctanesulfonamide (PFOSA)			40.0	40.24		ng/L		101	70 - 130	4	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)			40.0	39.66		ng/L		99	70 - 130	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)			40.0	40.36		ng/L		101	70 - 130	9	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)			37.9	44.45		ng/L		117	60 - 140	5	30
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)			38.3	47.24		ng/L		123	70 - 130	5	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
18O2 PFHxS	96		50 - 150
13C4 PFHpA	90		50 - 150
13C4 PFOA	98		50 - 150
13C4 PFOS	97		50 - 150
13C5 PFNA	96		50 - 150
13C4 PFBA	87		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 200-185438/3-A
Matrix: Water
Analysis Batch: 185464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 185438

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C2 PFHxA	93		50 - 150
13C2 PFDA	107		50 - 150
13C2 PFUnA	110		50 - 150
13C2 PFDoA	105		50 - 150
13C8 FOSA	94		50 - 150
13C5 PFPeA	83		50 - 150
13C2 PFTeDA	107		50 - 150
d3-NMeFOSAA	117		50 - 150
d5-NEtFOSAA	116		50 - 150
M2-6:2 FTS	100		50 - 150
M2-8:2 FTS	103		50 - 150
13C3 PFBS	92		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Lab Sample ID: 460-267702-1 MS
Matrix: Water
Analysis Batch: 185214

Client Sample ID: RI-MW-01_20221017
Prep Type: Total/NA
Prep Batch: 185199

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA) - DL	5790		20.0	5818		ng/L		116	60 - 140
Perfluorohexanoic acid (PFHxA) - DL	3170		20.0	3035	*	ng/L		-690	60 - 140
Perfluorooctanesulfonic acid (PFOS) - DL	2570		18.6	2604	*	ng/L		183	60 - 140
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	4220		47.4	4872	*	ng/L		1374	50 - 150

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C4 PFOS - DL	104		50 - 150
13C2 PFHxA - DL	90		50 - 150
13C5 PFPeA - DL	88		50 - 150
M2-6:2 FTS - DL	106		50 - 150

Lab Sample ID: 460-267702-1 MSD
Matrix: Water
Analysis Batch: 185214

Client Sample ID: RI-MW-01_20221017
Prep Type: Total/NA
Prep Batch: 185199

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoropentanoic acid (PFPeA) - DL	5790		19.7	5950	*	ng/L		789	60 - 140	2	30
Perfluorohexanoic acid (PFHxA) - DL	3170		19.7	3049	*	ng/L		-626	60 - 140	0	30
Perfluorooctanesulfonic acid (PFOS) - DL	2570		18.3	2613	*	ng/L		235	60 - 140	0	30
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) - DL	4220		46.7	4603	*	ng/L		818	50 - 150	6	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFOS - DL	107		50 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Lab Sample ID: 460-267702-1 MSD
Matrix: Water
Analysis Batch: 185214

Client Sample ID: RI-MW-01_20221017
Prep Type: Total/NA
Prep Batch: 185199

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C2 PFHxA - DL	94		50 - 150
13C5 PFPeA - DL	88		50 - 150
M2-6:2 FTS - DL	117		50 - 150

Qualifiers

LCMS

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.
*	Isotope Dilution analyte is outside acceptance limits.
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
H	Sample was prepped or analyzed beyond the specified holding time
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

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

LCMS

Prep Batch: 185199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267702-1	RI-MW-01_20221017	Total/NA	Water	3535	
460-267702-1 - DL	RI-MW-01_20221017	Total/NA	Water	3535	
460-267702-2	RI-MW-04_20221017	Total/NA	Water	3535	
460-267702-2 - DL	RI-MW-04_20221017	Total/NA	Water	3535	
460-267702-3 - DL	RI-MW-X_20221017	Total/NA	Water	3535	
460-267702-3	RI-MW-X_20221017	Total/NA	Water	3535	
460-267702-4	FB-01_20221017	Total/NA	Water	3535	
MB 200-185199/1-A	Method Blank	Total/NA	Water	3535	
LLCS 200-185199/2-A	Lab Control Sample	Total/NA	Water	3535	
460-267702-1 MS - DL	RI-MW-01_20221017	Total/NA	Water	3535	
460-267702-1 MS	RI-MW-01_20221017	Total/NA	Water	3535	
460-267702-1 MSD	RI-MW-01_20221017	Total/NA	Water	3535	
460-267702-1 MSD - DL	RI-MW-01_20221017	Total/NA	Water	3535	

Analysis Batch: 185214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267702-1 - DL	RI-MW-01_20221017	Total/NA	Water	537 (modified)	185199
460-267702-2 - DL	RI-MW-04_20221017	Total/NA	Water	537 (modified)	185199
460-267702-3 - DL	RI-MW-X_20221017	Total/NA	Water	537 (modified)	185199
460-267702-4	FB-01_20221017	Total/NA	Water	537 (modified)	185199
MB 200-185199/1-A	Method Blank	Total/NA	Water	537 (modified)	185199
LLCS 200-185199/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	185199
460-267702-1 MS - DL	RI-MW-01_20221017	Total/NA	Water	537 (modified)	185199
460-267702-1 MSD - DL	RI-MW-01_20221017	Total/NA	Water	537 (modified)	185199

Prep Batch: 185277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267732-1	RI-DP-02_20221018	Total/NA	Water	3535	
460-267732-2	RI-DP-05_20221018	Total/NA	Water	3535	
460-267732-3	RI-DP-08_20221018	Total/NA	Water	3535	
460-267732-4	FB-01_20221018	Total/NA	Water	3535	
460-267827-1	RI-MW-05_20221019	Total/NA	Water	3535	
460-267827-2	RI-MW-06_20221019	Total/NA	Water	3535	
460-267827-3	RI-DP-10_20221019	Total/NA	Water	3535	
460-267827-4	FB-01_20221019	Total/NA	Water	3535	
MB 200-185277/1-A	Method Blank	Total/NA	Water	3535	
LLCS 200-185277/2-A	Lab Control Sample	Total/NA	Water	3535	
460-267824-A-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	3535	
460-267824-B-1-B MS	Matrix Spike	Total/NA	Water	3535	

Analysis Batch: 185285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267702-1	RI-MW-01_20221017	Total/NA	Water	537 (modified)	185199
460-267702-2	RI-MW-04_20221017	Total/NA	Water	537 (modified)	185199
460-267702-3	RI-MW-X_20221017	Total/NA	Water	537 (modified)	185199
460-267702-1 MS	RI-MW-01_20221017	Total/NA	Water	537 (modified)	185199
460-267702-1 MSD	RI-MW-01_20221017	Total/NA	Water	537 (modified)	185199

Analysis Batch: 185307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267732-1	RI-DP-02_20221018	Total/NA	Water	537 (modified)	185277

LCMS (Continued)

Analysis Batch: 185307 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267732-2	RI-DP-05_20221018	Total/NA	Water	537 (modified)	185277
460-267732-3	RI-DP-08_20221018	Total/NA	Water	537 (modified)	185277
460-267732-4	FB-01_20221018	Total/NA	Water	537 (modified)	185277
460-267827-1	RI-MW-05_20221019	Total/NA	Water	537 (modified)	185277
460-267827-2	RI-MW-06_20221019	Total/NA	Water	537 (modified)	185277
460-267827-3	RI-DP-10_20221019	Total/NA	Water	537 (modified)	185277
460-267827-4	FB-01_20221019	Total/NA	Water	537 (modified)	185277
MB 200-185277/1-A	Method Blank	Total/NA	Water	537 (modified)	185277
LLCS 200-185277/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	185277
460-267824-A-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537 (modified)	185277
460-267824-B-1-B MS	Matrix Spike	Total/NA	Water	537 (modified)	185277

Prep Batch: 185337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267901-1	RI-MW-07_20221020	Total/NA	Water	3535	
460-267901-2	RI-MW-08_20221020	Total/NA	Water	3535	
460-267901-2 - DL	RI-MW-08_20221020	Total/NA	Water	3535	
460-267901-3 - DL	RI-MW-02_20221020	Total/NA	Water	3535	
460-267901-3 - DL2	RI-MW-02_20221020	Total/NA	Water	3535	
460-267901-3	RI-MW-02_20221020	Total/NA	Water	3535	
460-267901-4	RI-MW-03_20221020	Total/NA	Water	3535	
460-267901-4 - DL	RI-MW-03_20221020	Total/NA	Water	3535	
460-267901-4 - DL2	RI-MW-03_20221020	Total/NA	Water	3535	
460-267901-5	FB-01_20221020	Total/NA	Water	3535	
MB 200-185337/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-185337/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-185337/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Prep Batch: 185354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267732-3 - RE	RI-DP-08_20221018	Total/NA	Water	3535	
MB 200-185354/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-185354/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-185354/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 185360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267901-1	RI-MW-07_20221020	Total/NA	Water	537 (modified)	185337
460-267901-2	RI-MW-08_20221020	Total/NA	Water	537 (modified)	185337
460-267901-3	RI-MW-02_20221020	Total/NA	Water	537 (modified)	185337
460-267901-4	RI-MW-03_20221020	Total/NA	Water	537 (modified)	185337
460-267901-5	FB-01_20221020	Total/NA	Water	537 (modified)	185337
MB 200-185337/1-A	Method Blank	Total/NA	Water	537 (modified)	185337
LCS 200-185337/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	185337
LCSD 200-185337/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	185337

Prep Batch: 185391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-268208-1 - DL	RI-MW-10_20221024	Total/NA	Water	3535	
460-268208-1	RI-MW-10_20221024	Total/NA	Water	3535	
460-268208-2	RI-MW-09_20221024	Total/NA	Water	3535	

LCMS (Continued)

Prep Batch: 185391 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-268208-2 - DL	RI-MW-09_20221024	Total/NA	Water	3535	
460-268208-3	FB-01_20221024	Total/NA	Water	3535	
MB 200-185391/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-185391/2-A	Lab Control Sample	Total/NA	Water	3535	
460-268239-A-2-B MS	Matrix Spike	Total/NA	Water	3535	
460-268239-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	3535	

Analysis Batch: 185408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267901-2 - DL	RI-MW-08_20221020	Total/NA	Water	537 (modified)	185337
460-267901-3 - DL2	RI-MW-02_20221020	Total/NA	Water	537 (modified)	185337
460-267901-3 - DL	RI-MW-02_20221020	Total/NA	Water	537 (modified)	185337
460-267901-4 - DL2	RI-MW-03_20221020	Total/NA	Water	537 (modified)	185337
460-267901-4 - DL	RI-MW-03_20221020	Total/NA	Water	537 (modified)	185337
460-267901-5	FB-01_20221020	Total/NA	Water	537 (modified)	185337

Analysis Batch: 185409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267732-3 - RE	RI-DP-08_20221018	Total/NA	Water	537 (modified)	185354
MB 200-185354/1-A	Method Blank	Total/NA	Water	537 (modified)	185354
LCS 200-185354/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	185354
LCSD 200-185354/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	185354

Prep Batch: 185438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267901-3 - REDL	RI-MW-02_20221020	Total/NA	Water	3535	
MB 200-185438/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-185438/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 200-185438/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 185450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267901-4 - DL	RI-MW-03_20221020	Total/NA	Water	537 (modified)	185337
460-268208-1 - DL	RI-MW-10_20221024	Total/NA	Water	537 (modified)	185391
460-268208-1	RI-MW-10_20221024	Total/NA	Water	537 (modified)	185391
460-268208-2 - DL	RI-MW-09_20221024	Total/NA	Water	537 (modified)	185391
460-268208-2	RI-MW-09_20221024	Total/NA	Water	537 (modified)	185391
460-268208-3	FB-01_20221024	Total/NA	Water	537 (modified)	185391
MB 200-185391/1-A	Method Blank	Total/NA	Water	537 (modified)	185391
LCS 200-185391/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	185391
460-268239-A-2-B MS	Matrix Spike	Total/NA	Water	537 (modified)	185391
460-268239-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	537 (modified)	185391

Analysis Batch: 185464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 200-185438/1-A	Method Blank	Total/NA	Water	537 (modified)	185438
LCS 200-185438/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	185438
LCSD 200-185438/3-A	Lab Control Sample Dup	Total/NA	Water	537 (modified)	185438

QC Association Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

LCMS

Analysis Batch: 185522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-267901-3 - REDL	RI-MW-02_20221020	Total/NA	Water	537 (modified)	185438

Client Sample ID: RI-MW-01_20221017
Lab Sample ID: 460-267702-1

Date Collected: 10/17/22 12:35
Matrix: Water
Date Received: 10/17/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535	DL		185199	KFW	EET BUR	10/28/22 09:35
Total/NA	Analysis	537 (modified)	DL	5	185214	BWC	EET BUR	10/28/22 18:52
Total/NA	Prep	3535			185199	KFW	EET BUR	10/28/22 09:35
Total/NA	Analysis	537 (modified)		1	185285	BWC	EET BUR	11/01/22 14:33

Client Sample ID: RI-MW-04_20221017
Lab Sample ID: 460-267702-2

Date Collected: 10/17/22 14:05
Matrix: Water
Date Received: 10/17/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535	DL		185199	KFW	EET BUR	10/28/22 09:35
Total/NA	Analysis	537 (modified)	DL	10	185214	BWC	EET BUR	10/28/22 19:16
Total/NA	Prep	3535			185199	KFW	EET BUR	10/28/22 09:35
Total/NA	Analysis	537 (modified)		1	185285	BWC	EET BUR	11/01/22 15:14

Client Sample ID: RI-MW-X_20221017
Lab Sample ID: 460-267702-3

Date Collected: 10/17/22 13:00
Matrix: Water
Date Received: 10/17/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535	DL		185199	KFW	EET BUR	10/28/22 09:35
Total/NA	Analysis	537 (modified)	DL	5	185214	BWC	EET BUR	10/28/22 19:25
Total/NA	Prep	3535			185199	KFW	EET BUR	10/28/22 09:35
Total/NA	Analysis	537 (modified)		1	185285	BWC	EET BUR	11/01/22 15:38

Client Sample ID: FB-01_20221017
Lab Sample ID: 460-267702-4

Date Collected: 10/17/22 11:00
Matrix: Water
Date Received: 10/17/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185199	KFW	EET BUR	10/28/22 09:35
Total/NA	Analysis	537 (modified)		1	185214	BWC	EET BUR	10/28/22 19:33

Client Sample ID: RI-DP-02_20221018
Lab Sample ID: 460-267732-1

Date Collected: 10/18/22 08:55
Matrix: Water
Date Received: 10/18/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/01/22 23:17

Client Sample ID: RI-DP-05_20221018
Lab Sample ID: 460-267732-2
Date Collected: 10/18/22 10:50
Matrix: Water
Date Received: 10/18/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/01/22 23:25

Client Sample ID: RI-DP-08_20221018
Lab Sample ID: 460-267732-3
Date Collected: 10/18/22 13:15
Matrix: Water
Date Received: 10/18/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/01/22 23:33
Total/NA	Prep	3535	RE		185354	ND	EET BUR	11/02/22 13:29
Total/NA	Analysis	537 (modified)	RE	1	185409	BWC	EET BUR	11/03/22 19:50

Client Sample ID: FB-01_20221018
Lab Sample ID: 460-267732-4
Date Collected: 10/18/22 14:00
Matrix: Water
Date Received: 10/18/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/01/22 23:41

Client Sample ID: RI-MW-05_20221019
Lab Sample ID: 460-267827-1
Date Collected: 10/19/22 12:50
Matrix: Water
Date Received: 10/19/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/02/22 01:11

Client Sample ID: RI-MW-06_20221019
Lab Sample ID: 460-267827-2
Date Collected: 10/19/22 09:35
Matrix: Water
Date Received: 10/19/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/02/22 01:20

Client Sample ID: RI-DP-10_20221019
Lab Sample ID: 460-267827-3
Date Collected: 10/19/22 11:00
Matrix: Water
Date Received: 10/19/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/02/22 01:28

Client Sample ID: FB-01_20221019
Date Collected: 10/19/22 13:45
Date Received: 10/19/22 19:00

Lab Sample ID: 460-267827-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185277	ND	EET BUR	11/01/22 08:56
Total/NA	Analysis	537 (modified)		1	185307	BWC	EET BUR	11/02/22 01:36

Client Sample ID: RI-MW-07_20221020
Date Collected: 10/20/22 08:25
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)		1	185360	BWC	EET BUR	11/02/22 18:54

Client Sample ID: RI-MW-08_20221020
Date Collected: 10/20/22 10:05
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)		1	185360	BWC	EET BUR	11/02/22 19:02
Total/NA	Prep	3535	DL		185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)	DL	10	185408	BWC	EET BUR	11/03/22 15:53

Client Sample ID: RI-MW-02_20221020
Date Collected: 10/20/22 11:45
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)		1	185360	BWC	EET BUR	11/02/22 19:10
Total/NA	Prep	3535	DL2		185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)	DL2	200	185408	BWC	EET BUR	11/03/22 16:01
Total/NA	Prep	3535	DL		185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)	DL	20	185408	BWC	EET BUR	11/03/22 17:14
Total/NA	Prep	3535	REDL		185438	KFW	EET BUR	11/04/22 08:55
Total/NA	Analysis	537 (modified)	REDL	50	185522	ND	EET BUR	11/07/22 16:45

Client Sample ID: RI-MW-03_20221020
Date Collected: 10/20/22 13:55
Date Received: 10/20/22 18:30

Lab Sample ID: 460-267901-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)		1	185360	BWC	EET BUR	11/02/22 19:27
Total/NA	Prep	3535	DL2		185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)	DL2	200	185408	BWC	EET BUR	11/03/22 16:09
Total/NA	Prep	3535	DL		185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)	DL	20	185408	BWC	EET BUR	11/03/22 17:39

Lab Chronicle

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Client Sample ID: RI-MW-03_20221020
Lab Sample ID: 460-267901-4
Date Collected: 10/20/22 13:55
Matrix: Water
Date Received: 10/20/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535	DL		185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)	DL	200	185450	BWC	EET BUR	11/04/22 12:47

Client Sample ID: FB-01_20221020
Lab Sample ID: 460-267901-5
Date Collected: 10/20/22 14:00
Matrix: Water
Date Received: 10/20/22 18:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)		1	185360	BWC	EET BUR	11/02/22 19:35
Total/NA	Prep	3535			185337	KFW	EET BUR	11/02/22 09:24
Total/NA	Analysis	537 (modified)		1	185408	BWC	EET BUR	11/03/22 16:17

Client Sample ID: RI-MW-10_20221024
Lab Sample ID: 460-268208-1
Date Collected: 10/24/22 11:50
Matrix: Water
Date Received: 10/25/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535	DL		185391	KFW	EET BUR	11/03/22 12:35
Total/NA	Analysis	537 (modified)	DL	2	185450	BWC	EET BUR	11/04/22 13:52
Total/NA	Prep	3535			185391	KFW	EET BUR	11/03/22 12:35
Total/NA	Analysis	537 (modified)		1	185450	BWC	EET BUR	11/04/22 16:44

Client Sample ID: RI-MW-09_20221024
Lab Sample ID: 460-268208-2
Date Collected: 10/24/22 13:55
Matrix: Water
Date Received: 10/25/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535	DL		185391	KFW	EET BUR	11/03/22 12:35
Total/NA	Analysis	537 (modified)	DL	20	185450	BWC	EET BUR	11/04/22 14:00
Total/NA	Prep	3535			185391	KFW	EET BUR	11/03/22 12:35
Total/NA	Analysis	537 (modified)		1	185450	BWC	EET BUR	11/04/22 17:00

Client Sample ID: FB-01_20221024
Lab Sample ID: 460-268208-3
Date Collected: 10/24/22 15:00
Matrix: Water
Date Received: 10/25/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3535			185391	KFW	EET BUR	11/03/22 12:35
Total/NA	Analysis	537 (modified)		1	185450	BWC	EET BUR	11/04/22 14:08

Laboratory References:
EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-267702-1

Laboratory: Eurofins Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	04-01-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)
537 (modified)	3535	Water	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)
537 (modified)	3535	Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537 (modified)	3535	Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537 (modified)	3535	Water	Perfluorobutanesulfonic acid (PFBS)
537 (modified)	3535	Water	Perfluorobutanoic acid (PFBA)
537 (modified)	3535	Water	Perfluorodecanesulfonic acid (PFDS)
537 (modified)	3535	Water	Perfluorodecanoic acid (PFDA)
537 (modified)	3535	Water	Perfluorododecanoic acid (PFDoA)
537 (modified)	3535	Water	Perfluoroheptanesulfonic acid (PFHpS)
537 (modified)	3535	Water	Perfluoroheptanoic acid (PFHpA)
537 (modified)	3535	Water	Perfluorohexanesulfonic acid (PFHxS)
537 (modified)	3535	Water	Perfluorohexanoic acid (PFHxA)
537 (modified)	3535	Water	Perfluorononanoic acid (PFNA)
537 (modified)	3535	Water	Perfluorooctanesulfonamide (PFOSA)
537 (modified)	3535	Water	Perfluorooctanesulfonic acid (PFOS)
537 (modified)	3535	Water	Perfluorooctanoic acid (PFOA)
537 (modified)	3535	Water	Perfluoropentanoic acid (PFPeA)
537 (modified)	3535	Water	Perfluorotetradecanoic acid (PFTeA)
537 (modified)	3535	Water	Perfluorotridecanoic acid (PFTriA)
537 (modified)	3535	Water	Perfluoroundecanoic acid (PFUnA)

Method PFC IDA

Fluorinated Hydrocarbons by Method PFAS IDA

Subcontract Data

Shipping and Receiving Documents

Chain of Custody Record

636804

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zivoff	Site Contact:	Date:	COC No:
Company Name: AKRF, Inc.	Tel/Email: bzivoff@akrf.com	Lab Contact:	Carrier:	1 of 1 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPFD Drill School	☐ 1 week			Job / SDG No: 267702
Site: 1402 Orchard Street White Plains NY	☐ 2 days			
P O # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAS	Sample Specific Notes:
RI-MW-01_2022 1017	10/17/22	1235	G	W	2			X	-1
RI-MW-04_2022 1017	↓	1405	↓	↓	6		Y	X	-2
RI-MW-X_2022 1017	↓	1300	↓	↓	2			X	-3
FB-01_2022 1017	↓	1100	↓	↓	2			X	-4

460-267702 Chain of Custody

SUB WORK

ELMSFORD 272

Page 3631 of 3660

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments: CAT B, Equis, MS/MSD on MW-01, Key SDG #

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	AKRF	10/17/22		ETA	10-17-22 1500
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ETA	10-17-22 1600			10/17/22 17 CDT
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
		10/17/22 1800			10/17/22 1800

17 CDT

11/08/2022

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 267702

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	17 °C	17 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: _____ **Date:** 10 17 22

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

fins | Environment Testing America

460-267702 Chain of Custody

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa		Page 1 of 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	New York	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267702-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/1/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IWWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-01_20221017 (460-267702-1)	10/17/22	12:35 Eastern		Water			X	2	
RI-MW-01_20221017 (460-267702-1MS)	10/17/22	12:35 Eastern	MS	Water			X	2	
RI-MW-01_20221017 (460-267702-1MSD)	10/17/22	12:35 Eastern	MSD	Water			X	2	
RI-MW-04_20221017 (460-267702-2)	10/17/22	14:05 Eastern		Water			X	2	
RI-MW-X_20221017 (460-267702-3)	10/17/22	13.00 Eastern		Water			X	2	
FB-01_20221017 (460-267702-4)	10/17/22	11.00 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		10/19/22 1600	EEN	2	10/20/22 10:35	TAL SAC
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Page 36 of 36

11/8/2022


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON, NJ 08817
44 LBS
1 OF 1
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
30 COMMUNITY DRIVE
SOUTH BURLINGTON, VT 05403
VT 054 0-02
UPS NEXT DAY AIR
1
TRACKING #: 1Z 73R 91R 01 9737 7477
BILLING: P/P
XOL 22.10.12 NV45 43.0A 10/2022*

Chain of Custody Record

636805

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zieroff	Site Contact: Steve Simid	Date: 10/18/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: BZieroff@akrf.com	Lab Contact: Melissa Hug	Carrier:	1 of 1 COCs
Address: 440 Park Ave S 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF standard			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: WPFD Dairi School				Job / SDG No.: 267732
Site: 1402 Orchard Street Wnit Plains NY				
PO # 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-DP-02_20221018	10/18/22	855	G	W	2			X	
RI-DP-05_20221018	↓	1010	↓	↓	↓			X	
RI-DP-08_20221018		1315						X	
FB-01_20221018		1400						X	

SUB WORK

ELMSFORD

460-267732 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:
CAT B, EQuIS, add to prior SDG + Keep open

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	AKRF	10/18/22		ETA	10-18-22 15:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ETA	10-18-22 1600			10/18/22 1700
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
		10/18/22 1800			10/19/22 1800

11/08/2022

Page 3635 of 3660

267732 28 289

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 267702

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	28 °C	28 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

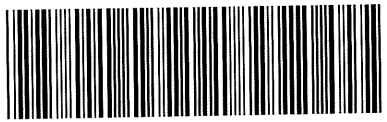
The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* *Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 10/8/22

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record



460-267732 Chain of Custody

rofins | Environment Testing America

600 1

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa		
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa.Haas@et.eurofinsus.com	New York	Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267732-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/1/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-DP-02_20221018 (460-267732-1)	10/18/22	08:55 Eastern		Water			X	2	
RI-DP-05_20221018 (460-267732-2)	10/18/22	10:50 Eastern		Water			X	2	
RI-DP-08_20221018 (460-267732-3)	10/18/22	13:15 Eastern		Water			X	2	
FB-01_20221018 (460-267732-4)	10/18/22	14:00 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

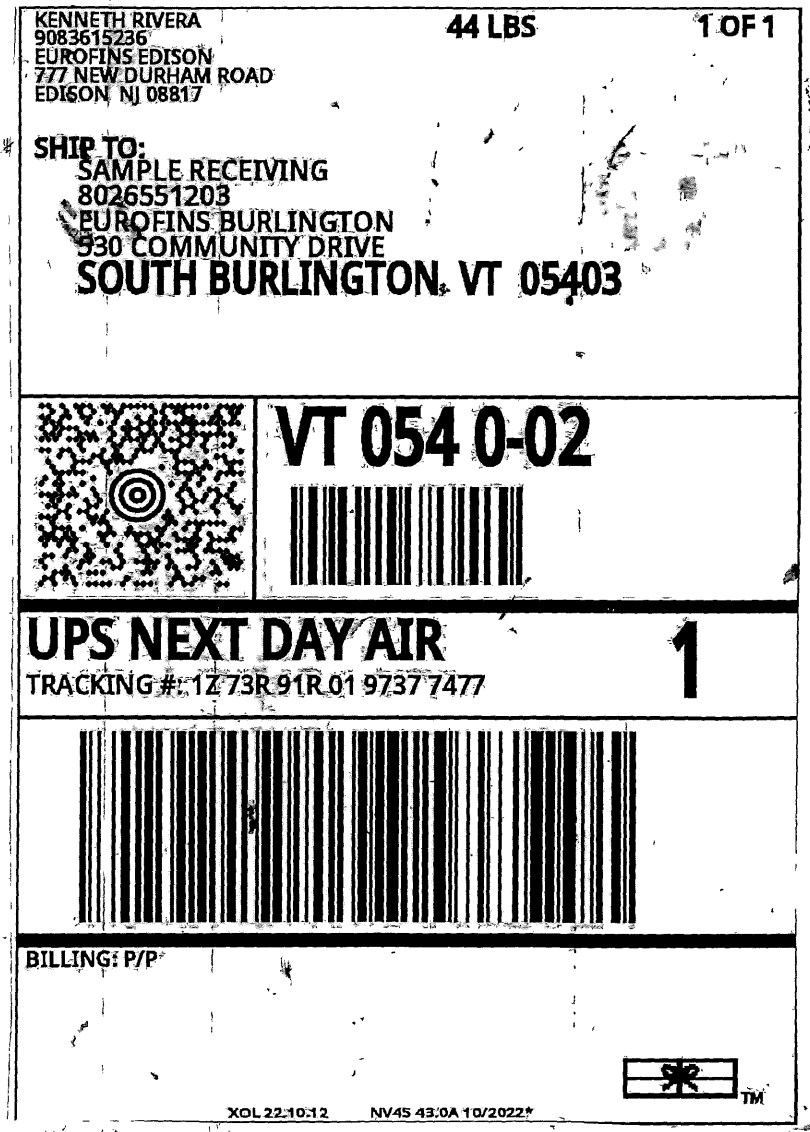
Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/18/22 1600	EET NE		10/20/22 10:35	TAKK
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Page 36 of 36
11/4/2022


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON, NJ 08817
44 LBS
1 OF 1
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON, VT 05403
VT 054 0-02
UPS NEXT DAY AIR
1
TRACKING #: 1Z 73R 91R 01 9737 7477
BILLING: P/P
XOL 22.10.12 NV45 43.0A 10/2022*

Chain of Custody Record

636811

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

267827

TAL-8210

Client Contact	Project Manager: Bryan Zierdt	Site Contact: Steve Ehret	Date: 10/19/2022	COC No:
Company Name: AKRF Inc.	Tel/Email: BZierdt@akrf.com	Lab Contact: Melissa Hay	Carrier:	1 of 1 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPFD Drill School	☐ 1 week			
Site: 1402 Orchard St. Wake Forest NY	☐ 2 days			Job / SDG No.:
P O # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAS	Sample Specific Notes:
RI-MW-05_20221019	10/19/22	1250	G	W	2			X	1
RI-MW-06_20221019	↓	935	↓	↓	↓			X	2
RI-DP-10_20221019	↓	1100	↓	↓	↓			X	3
FB-01_20221019	↓	1345	↓	↓	↓			X	4

SUB WORK

ELAP 272

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample I tained longer than 1 month)

☐ Retu e for _____ Months

460-267827 Chain of Custody

Special Instructions/QC Requirements & Comments:
CAT B, EQuIS, add to prior SDG + keep open

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by:	AKRF	10/19/22	Received by:	ETA	10-19-22 1500
Relinquished by:	ETA	10-19-22 1600	Received by:		10/19/22 1700
Relinquished by:		10/19/22 1900	Received in Laboratory by:		10/19/22 1900

21°C 21°C

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 207827

Number of Coolers: 1 **IR Gun #** 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.1 °C	2.1 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: Kamal **Date:** 10/19/22

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-267827 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa	COC No: 460-66614.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York / Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 460-267827-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email	WO #:		
Project Name: WPFD	Project #: 46034945		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Tnzma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-05_20221019 (460-267827-1)	10/19/22	12:50 Eastern		Water			X	2	
RI-MW-06_20221019 (460-267827-2)	10/19/22	09:35 Eastern		Water			X	2	
RI-DP-10_20221019 (460-267827-3)	10/19/22	11:00 Eastern		Water			X	2	
FB-01_20221019 (460-267827-4)	10/19/22	13:45 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

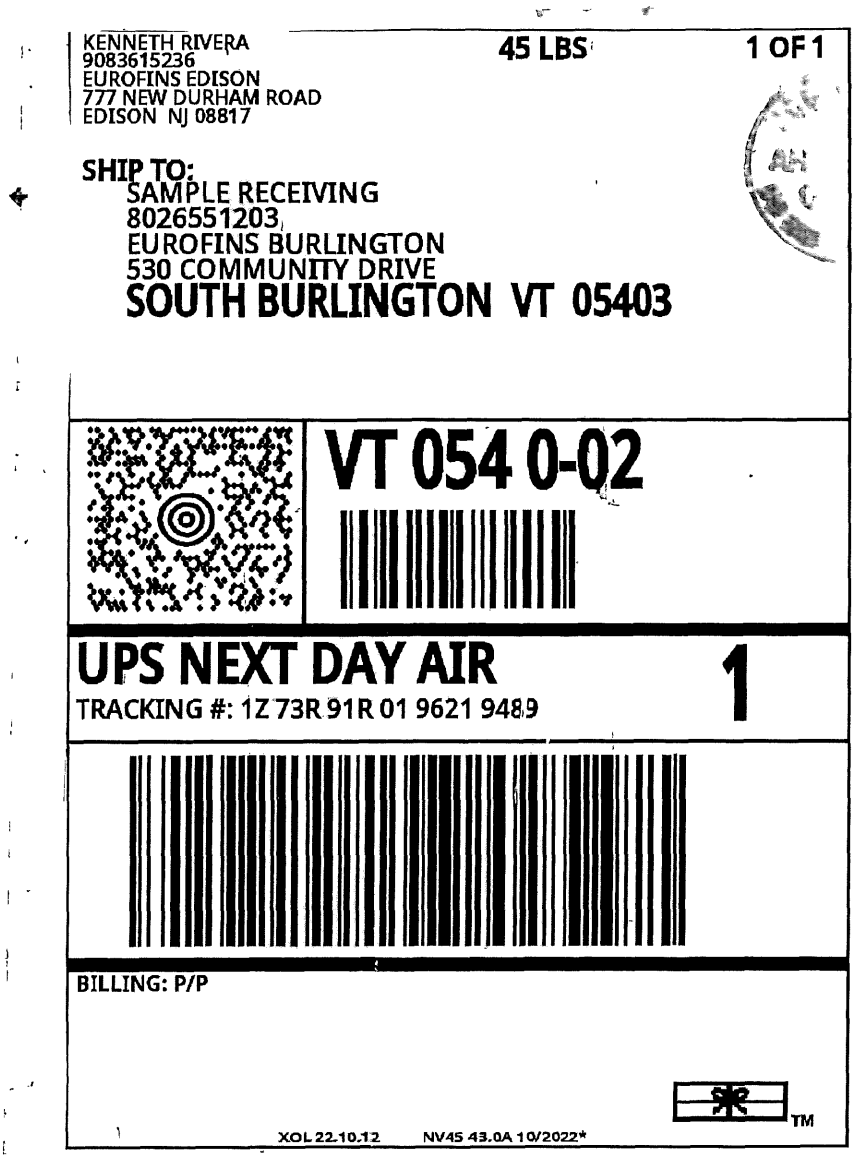
Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10/20/22 1600	Company: FEDEX	Received by:	Date/Time: 10/21/22 1035	Company: ETA Bur-1
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time.	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

11/08/2022


KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
45 LBS
1 OF 1
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-02
UPS NEXT DAY AIR
1
TRACKING #: 1Z 73R 91R 01 9621 9489
BILLING: P/P
XOL 22.10.12
NV45 43.0A 10/2022*
TM

Chain of Custody Record 471164

eurofins | Environment Testing TestAmerica

Address: _____

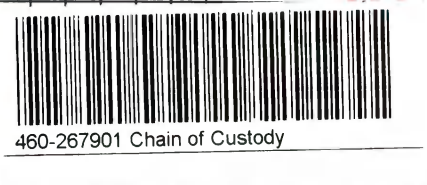
Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zierhoff	Site Contact: Steve Schmidt	Date: 10/20/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: BZierhoff@akrfam	Lab Contact: Melissa Haar	Carrier:	1 of 1 COCs
Address: 440 Park Ave S, 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below AKRF standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPFD Dall School	☐ 1 week			Job / SDG No.: 267901
Site: 1402 Orchard St, White Plains NY	☐ 2 days			
P O # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-MW-01_20221020	10/20/22	825	G	W	2			X	1
RI-MW-08_20221020	↓	1005	↓	↓	↓			X	2
RI-MW-02_20221020		1145						X	3
RI-MW-03_20221020		1355						X	4
FB-01_20221020	↓	1400	↓	↓	↓			X	5

SUB WORK



LMSFORD 272

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:
CAT B, Equis, add to prior SDG - keep open

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company: AKRF	Date/Time: 10/20/22	Received by:	Company: ETA	Date/Time: 10-20-22 1500
Relinquished by:	Company: ETA	Date/Time: 10-20-22 1600	Received by:	Company:	Date/Time: 10/21/22 700
Relinquished by:	Company:	Date/Time: 10/20/22	Received in Laboratory by:	Company: ETA	Date/Time: 10/20/22 1830

20 CPT 20 CPT

Page 3643 of 3660

11/08/2022

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 267901

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	20 °C	20 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: [signature] **Date:** 10 2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-267901 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	COC No: 460-66648.1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 460-267702-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/4/2022		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email	WO #:		
Project Name: WPFD	Project #: 46034945		
Site	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-07_20221020 (460-267901-1)	10/20/22	08:25 Eastern		Water			X	2	
RI-MW-08_20221020 (460-267901-2)	10/20/22	10:05 Eastern		Water			X	2	
RI-MW-02_20221020 (460-267901-3)	10/20/22	11:45 Eastern		Water			X	2	
RI-MW-03_20221020 (460-267901-4)	10/20/22	13.55 Eastern		Water			X	2	
FB-01_20221020 (460-267901-5)	10/20/22	14:00 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

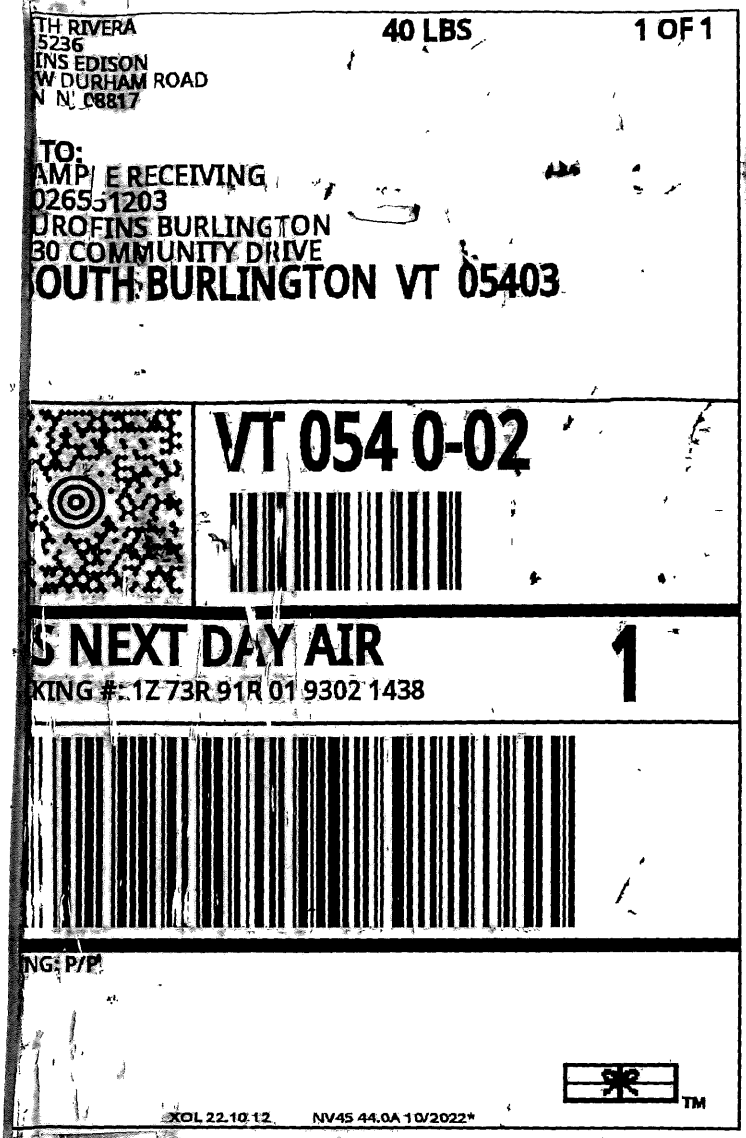
Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/24/22 1600	ECO Eft Nol.		10/25/2022 1030	ETA Buel
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Page 39 of 39
Job #: 460-267901-1
10/25/2022


TH RIVERA
5236
INS EDISON
W DURHAM ROAD
N NJ 08817

40 LBS

1 OF 1

TO:
AMP/ E RECEIVING
026551203
UROFINS BURLINGTON
30 COMMUNITY DRIVE
OUTH BURLINGTON VT 05403

VT 054 0-02

S NEXT DAY AIR

KING #: 1Z 73R 91R 01 9302 1438

1

NG: P/P

XOL 22.10.12 NV45 44.0A 10/2022*

Chain of Custody Record 471165

eurofins | Environment Testing TestAmerica

Address: _____

266206

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zierpf	Site Contact: Steve Shaw	Date: 10/24/22	COC No: 1 of 1 COCs
Company Name: AKRF, Inc.	Tel/Email: BZierpf@akrf.com	Lab Contact: Melissa Hoy	Carrier:	Sampler:
Address: 440 Park Ave S. 7th FL	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
Phone: 802-922-2362	TAT if different from Below AKRF standard			Lab Sampling:
Fax:	☐ 2 weeks			
Project Name: WPFD Doll School	☐ 1 week			Job / SDG No.:
Site: 1402 Orchard St. White Plains NY	☐ 2 days			
P O # 20217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N) PFAS	Sample Specific Notes:
RI-MW-[illegible]_20221024	10/24/22	1150	G	W	2		X	1
RI-MW-04_20221024	↓	1355	↓	↓	↓		X	2
FB-01_20221024	↓	1500	↓	↓	↓		X	3

SUB WORK

460-268208 Chain of Custody

ELMSFORD 272

Page 3647 of 3660

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: CAT B, EQuIS, Add to prior SDG then close

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time		Company	Date/Time
Relinquished by:	AKRF	10/24/2022	Received by:	ETA	10-24-22 1600
Relinquished by:	ETA	10-25-22 1600	Received by:		10/25/22 1700
Relinquished by:		10/25/22 1800	Received in Laboratory by:		10/25/22

22 Cfed 2 Cfed

11/08/2022

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 268 306

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.2 ℃	2.2 ℃	Cooler #4:	℃	℃	Cooler #7:	℃	℃
Cooler #2:	℃	℃	Cooler #5:	℃	℃	Cooler #8:	℃	℃
Cooler #3:	℃	℃	Cooler #6:	℃	℃	Cooler #9:	℃	℃

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* *Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ **Date:** 10 25 22

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-268208 Chain of Custody

Eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa		90 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-268208-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/4/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-10_20221024 (460-268208-1)	10/24/22	11.50 Eastern		Water			X	2	
RI-MW-09_20221024 (460-268208-2)	10/24/22	13:55 Eastern		Water			X	2	
FB-01_20221024 (460-268208-3)	10/24/22	15:00 Eastern		Water			X	2	

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Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank. 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time: 10/27/22 1600	Company: EFGMdi	Received by:	Date/Time: 10/31/22 7:50	Company:
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks

11/08/2022


NNETH RIVERA
83615236
IROFINS EDISON
7 NEW DURHAM ROAD
ISON NJ 08817
48 LBS
1 OF 3
HIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-02
JPS NEXT DAY AIR
RACKING #: 1Z 73R 91R 44 9392 8487
1S
BILLING: P/P
KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
44 LBS
2 OF 3
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
VT 054 0-02
UPS NEXT DAY AIR
TRACKING #: 1Z 73R 91R 44 9238 0696
1S
BILLING: P/P
XOL 22.10.36
NV45 44.0A 10/2022*
TM
BILLING: P/P
XOL 22.10.36
NV45 44.0A 10/2022*
TM
UPS NEXT DAY AIR
TRACKING #: 1Z 73R 91R 44 9128 0500
1S
VT 054 0-02
SHIP TO:
SAMPLE RECEIVING
8026551203
EUROFINS BURLINGTON
530 COMMUNITY DRIVE
SOUTH BURLINGTON VT 05403
KENNETH RIVERA
9083615236
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON NJ 08817
22 LBS
3 OF 3

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267702
List Number: 1
Creator: Lysy, Susan

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267702
List Number: 2
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington
List Creation: 10/20/22 02:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861192
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267732
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267732
List Number: 2
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington
List Creation: 10/20/22 02:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861192
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267827
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267827
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/21/22 12:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861203
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267901
List Number: 1
Creator: Thundathorn, Sukanan 1

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267901
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/26/22 09:29 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861218
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 268208
List Number: 1
Creator: Meyers, Gary

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 268208
List Number: 2
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington
List Creation: 10/31/22 09:50 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861259, 258, 260
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6ºC,16.1ºC, 1.0ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Bryan Zieroff
AKRF Inc
34 South Broadway
Suite 314
White Plains NY 10601

Generated 11/15/2024 4:28 PM

JOB DESCRIPTION

WPFD

JOB NUMBER

460-315062-1

Eurofins Edison
777 New Durham Road
Edison NJ 08817

See page two for job notes and contact information.

my EOL

Eurofins Edison

Job Notes

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Compliance Statement

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Authorization



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Authorized for release by
Elizabeth J Flannery, Project Manager I
Elizabeth.Flannery@et.eurofinsus.com
732 549-3900

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CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-315062-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/8/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) BY LC/MS/MS

Samples MW-11_20241107 (460-315062-1), MW-12_20241107 (460-315062-2), MW-0X_20241107 (460-315062-3) and FB-01_20241107 (460-315062-4) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS in accordance with PFAS_DI. The samples were prepared and analyzed on 11/13/2024.

The laboratory control sample (LCS) for preparation batch 240-635046 and analytical batch 240-635136 recovered outside control limits for the flagged analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 240-635046 and analytical batch 240-635136 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE) failed the recovery criteria high for LCS 240-635046/3-A.

3-Perfluoropropylpropanoic acid (3:3 FTCA) and N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE) failed the recovery criteria high for the MS of sample MW-11_20241107MS (460-315062-1) in batch 240-635136.

Several analytes failed the recovery criteria high for the MSD of sample MW-11_20241107MSD (460-315062-1) in batch 240-635136.

Refer to the QC report for details.

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

Sample Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-315062-1	MW-11_20241107	Water	11/07/24 14:05	11/08/24 19:00
460-315062-2	MW-12_20241107	Water	11/07/24 15:30	11/08/24 19:00
460-315062-3	MW-0X_20241107	Water	11/07/24 12:00	11/08/24 19:00
460-315062-4	FB-01_20241107	Water	11/07/24 12:00	11/08/24 19:00

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Client Sample ID: MW-11_20241107 — Lab Sample ID: 460-315062-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	66.3		7.01	1.87	ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	250		3.50	0.88	ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	130		1.75	0.44	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	115		1.75	0.44	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	46.7		1.75	0.44	ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	6.90		1.75	0.44	ng/L	1		1633	Total/NA
Perfluorodecanoic acid (PFDA)	1.06	J	1.75	0.44	ng/L	1		1633	Total/NA
Perfluorobutanesulfonic acid (PFBS)	8.18		1.75	0.44	ng/L	1		1633	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	10.9		1.75	0.44	ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	126		1.75	0.45	ng/L	1		1633	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	8.89		1.75	0.44	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	356		1.75	0.44	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	65.8		7.01	1.75	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	3.53	J	7.01	1.75	ng/L	1		1633	Total/NA

Client Sample ID: MW-12_20241107 — Lab Sample ID: 460-315062-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.07	J	6.73	1.79	ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	11.0		3.36	0.84	ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	6.14		1.68	0.42	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	4.13		1.68	0.42	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	5.55		1.68	0.42	ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	1.95		1.68	0.42	ng/L	1		1633	Total/NA
Perfluorobutanesulfonic acid (PFBS)	1.52	J	1.68	0.42	ng/L	1		1633	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	0.94	J	1.68	0.42	ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.76		1.68	0.43	ng/L	1		1633	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	0.45	J	1.68	0.42	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	34.4		1.68	0.42	ng/L	1		1633	Total/NA

Client Sample ID: MW-0X_20241107 — Lab Sample ID: 460-315062-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	63.7		6.94	1.85	ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	241		3.47	0.87	ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	132		1.74	0.43	ng/L	1		1633	Total/NA
Perfluoroheptanoic acid (PFHpA)	111		1.74	0.43	ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	43.2		1.74	0.43	ng/L	1		1633	Total/NA
Perfluorononanoic acid (PFNA)	6.45		1.74	0.43	ng/L	1		1633	Total/NA
Perfluorodecanoic acid (PFDA)	0.97	J	1.74	0.43	ng/L	1		1633	Total/NA
Perfluorobutanesulfonic acid (PFBS)	7.83		1.74	0.43	ng/L	1		1633	Total/NA
Perfluoropentanesulfonic acid (PFPeS)	10.5		1.74	0.43	ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	118		1.74	0.45	ng/L	1		1633	Total/NA
Perfluoroheptanesulfonic acid (PFHpS)	8.55		1.74	0.43	ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	341		1.74	0.43	ng/L	1		1633	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Client Sample ID: MW-0X_20241107 (Continued)

Lab Sample ID: 460-315062-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	62.8		6.94	1.74	ng/L	1		1633	Total/NA
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	3.26	J	6.94	1.74	ng/L	1		1633	Total/NA

Client Sample ID: FB-01_20241107

Lab Sample ID: 460-315062-4

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET CLE
1633	Solid-Phase Extraction (SPE)	EPA	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Client Sample ID: MW-11_20241107

Date Collected: 11/07/24 14:05
Date Received: 11/08/24 19:00

Lab Sample ID: 460-315062-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**66.3**		7.01	1.87	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluoropentanoic acid (PFPeA)	**250**		3.50	0.88	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorohexanoic acid (PFHxA)	**130**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluoroheptanoic acid (PFHpA)	**115**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorooctanoic acid (PFOA)	**46.7**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorononanoic acid (PFNA)	**6.90**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorodecanoic acid (PFDA)	**1.06**	**J**	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluoroundecanoic acid (PFUnA)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorododecanoic acid (PFDoA)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorotridecanoic acid (PFTrDA)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorotetradecanoic acid (PFTeDA)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorobutanesulfonic acid (PFBS)	**8.18**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluoropentanesulfonic acid (PFPeS)	**10.9**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorohexanesulfonic acid (PFHxS)	**126**		1.75	0.45	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluoroheptanesulfonic acid (PFHpS)	**8.89**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorooctanesulfonic acid (PFOS)	**356**		1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorononanesulfonic acid (PFNS)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorododecanesulfonic acid (PFDoS)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.01	U	7.01	1.75	ng/L		11/13/24 08:49	11/13/24 16:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**65.8**		7.01	1.75	ng/L		11/13/24 08:49	11/13/24 16:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**3.53**	**J**	7.01	1.75	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorooctanesulfonamide (PFOSA)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.75	U	1.75	0.54	ng/L		11/13/24 08:49	11/13/24 16:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.75	U	1.75	0.46	ng/L		11/13/24 08:49	11/13/24 16:23	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	17.5	U	17.5	4.38	ng/L		11/13/24 08:49	11/13/24 16:23	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	17.5	U *	17.5	4.38	ng/L		11/13/24 08:49	11/13/24 16:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	7.01	U	7.01	1.75	ng/L		11/13/24 08:49	11/13/24 16:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.01	U	7.01	1.75	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.50	U	3.50	0.88	ng/L		11/13/24 08:49	11/13/24 16:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.50	U	3.50	1.07	ng/L		11/13/24 08:49	11/13/24 16:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.01	U	7.01	1.75	ng/L		11/13/24 08:49	11/13/24 16:23	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.01	U	7.01	1.75	ng/L		11/13/24 08:49	11/13/24 16:23	1

Client Sample ID: MW-11_20241107

Lab Sample ID: 460-315062-1

Date Collected: 11/07/24 14:05

Matrix: Water

Date Received: 11/08/24 19:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.50	U	3.50	0.88	ng/L		11/13/24 08:49	11/13/24 16:23	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.76	U	8.76	2.19	ng/L		11/13/24 08:49	11/13/24 16:23	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	43.8	U	43.8	10.9	ng/L		11/13/24 08:49	11/13/24 16:23	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	43.8	U	43.8	13.1	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluorodecanesulfonic acid (PFDS)	1.75	U	1.75	0.44	ng/L		11/13/24 08:49	11/13/24 16:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.50	U	3.50	0.88	ng/L		11/13/24 08:49	11/13/24 16:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86.2*		*10 - 130*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C5 PFPeA	*83.8*		*35 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C5 PFHxA	*87.6*		*55 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C4 PFHpA	*86.9*		*55 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C8 PFOA	*94.0*		*60 - 140*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C9 PFNA	*93.0*		*55 - 140*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C6 PFDA	*90.5*		*50 - 140*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C7 PFUnA	*93.0*		*30 - 140*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C2 PFTeDA	*80.8*		*10 - 130*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C3 PFBS	*104*		*55 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C3 PFHxS	*93.3*		*55 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C8 PFOS	*79.1*		*45 - 140*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C8 FOSA	*84.0*		*30 - 130*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
d3-NMeFOSAA	*79.6*		*45 - 200*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
d5-NEtFOSAA	*84.0*		*10 - 200*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
M2-4:2 FTS	*132*		*60 - 200*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
M2-6:2 FTS	*129*		*60 - 200*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
M2-8:2 FTS	*124*		*50 - 200*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C3 HFPO-DA	*82.1*		*25 - 160*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
d7-N-MeFOSE-M	*80.3*		*10 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
d9-N-EtFOSE-M	*81.0*		*10 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
d5-NEtPFOSA	*77.8*		*10 - 130*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
d3-NMePFOSA	*87.7*		*15 - 130*	*11/13/24 08:49*	*11/13/24 16:23*	*1*
13C2-PFDoDA	*84.8*		*10 - 150*	*11/13/24 08:49*	*11/13/24 16:23*	*1*

Client Sample ID: MW-12_20241107

Lab Sample ID: 460-315062-2

Date Collected: 11/07/24 15:30

Matrix: Water

Date Received: 11/08/24 19:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.07**	**J**	6.73	1.79	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluoropentanoic acid (PFPeA)	**11.0**		3.36	0.84	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorohexanoic acid (PFHxA)	**6.14**		1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluoroheptanoic acid (PFHpA)	**4.13**		1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorooctanoic acid (PFOA)	**5.55**		1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorononanoic acid (PFNA)	**1.95**		1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorodecanoic acid (PFDA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluoroundecanoic acid (PFUnA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1

Client Sample ID: MW-12_20241107

Date Collected: 11/07/24 15:30
Date Received: 11/08/24 19:00

Lab Sample ID: 460-315062-2

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorotridecanoic acid (PFTrDA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorotetradecanoic acid (PFTeDA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorobutanesulfonic acid (PFBS)	**1.52**	**J**	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluoropentanesulfonic acid (PFPeS)	**0.94**	**J**	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorohexanesulfonic acid (PFHxS)	**7.76**		1.68	0.43	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluoroheptanesulfonic acid (PFHpS)	**0.45**	**J**	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorooctanesulfonic acid (PFOS)	**34.4**		1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorononanesulfonic acid (PFNS)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorododecanesulfonic acid (PFDoS)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6.73	U	6.73	1.68	ng/L		11/13/24 08:49	11/13/24 17:13	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6.73	U	6.73	1.68	ng/L		11/13/24 08:49	11/13/24 17:13	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.73	U	6.73	1.68	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorooctanesulfonamide (PFOSA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.68	U	1.68	0.52	ng/L		11/13/24 08:49	11/13/24 17:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.68	U	1.68	0.44	ng/L		11/13/24 08:49	11/13/24 17:13	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	16.8	U	16.8	4.21	ng/L		11/13/24 08:49	11/13/24 17:13	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	16.8	U *	16.8	4.21	ng/L		11/13/24 08:49	11/13/24 17:13	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6.73	U	6.73	1.68	ng/L		11/13/24 08:49	11/13/24 17:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.73	U	6.73	1.68	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.36	U	3.36	0.84	ng/L		11/13/24 08:49	11/13/24 17:13	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.36	U	3.36	1.03	ng/L		11/13/24 08:49	11/13/24 17:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	6.73	U	6.73	1.68	ng/L		11/13/24 08:49	11/13/24 17:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	6.73	U	6.73	1.68	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.36	U	3.36	0.84	ng/L		11/13/24 08:49	11/13/24 17:13	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.41	U	8.41	2.10	ng/L		11/13/24 08:49	11/13/24 17:13	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	42.1	U	42.1	10.5	ng/L		11/13/24 08:49	11/13/24 17:13	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	42.1	U	42.1	12.5	ng/L		11/13/24 08:49	11/13/24 17:13	1
Perfluorodecanesulfonic acid (PFDS)	1.68	U	1.68	0.42	ng/L		11/13/24 08:49	11/13/24 17:13	1

Client Sample ID: MW-12_20241107

Lab Sample ID: 460-315062-2

Date Collected: 11/07/24 15:30

Matrix: Water

Date Received: 11/08/24 19:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.36	U	3.36	0.84	ng/L		11/13/24 08:49	11/13/24 17:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*87.6*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C5 PFPeA	*86.2*		*35 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C5 PFHxA	*91.1*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C4 PFHpA	*89.0*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C8 PFOA	*97.9*		*60 - 140*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C9 PFNA	*93.5*		*55 - 140*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C6 PFDA	*86.2*		*50 - 140*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C7 PFUnA	*85.7*		*30 - 140*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C2 PFTeDA	*73.7*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C3 PFBS	*101*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C3 PFHxS	*94.2*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C8 PFOS	*79.1*		*45 - 140*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C8 FOSA	*85.7*		*30 - 130*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
d3-NMeFOSAA	*79.6*		*45 - 200*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
d5-NEtFOSAA	*91.7*		*10 - 200*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
M2-4:2 FTS	*117*		*60 - 200*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
M2-6:2 FTS	*124*		*60 - 200*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
M2-8:2 FTS	*115*		*50 - 200*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C3 HFPO-DA	*84.5*		*25 - 160*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
d7-N-MeFOSE-M	*80.8*		*10 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
d9-N-EtFOSE-M	*69.1*		*10 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
d5-NEtPFOSA	*70.7*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
d3-NMePFOSA	*72.9*		*15 - 130*	*11/13/24 08:49*	*11/13/24 17:13*	*1*
13C2-PFDoDA	*81.9*		*10 - 150*	*11/13/24 08:49*	*11/13/24 17:13*	*1*

Client Sample ID: MW-0X_20241107

Lab Sample ID: 460-315062-3

Date Collected: 11/07/24 12:00

Matrix: Water

Date Received: 11/08/24 19:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**63.7**		6.94	1.85	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluoropentanoic acid (PFPeA)	**241**		3.47	0.87	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorohexanoic acid (PFHxA)	**132**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluoroheptanoic acid (PFHpA)	**111**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorooctanoic acid (PFOA)	**43.2**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorononanoic acid (PFNA)	**6.45**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorodecanoic acid (PFDA)	**0.97**	**J**	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluoroundecanoic acid (PFUnA)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorododecanoic acid (PFDoA)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorotridecanoic acid (PFTrDA)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorotetradecanoic acid (PFTeDA)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorobutanesulfonic acid (PFBS)	**7.83**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluoropentanesulfonic acid (PFPeS)	**10.5**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorohexanesulfonic acid (PFHxS)	**118**		1.74	0.45	ng/L		11/13/24 08:49	11/13/24 17:29	1

Client Sample ID: MW-0X_20241107

Date Collected: 11/07/24 12:00
Date Received: 11/08/24 19:00

Lab Sample ID: 460-315062-3

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	**8.55**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorooctanesulfonic acid (PFOS)	**341**		1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorononanesulfonic acid (PFNS)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorododecanesulfonic acid (PFDoS)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6.94	U	6.94	1.74	ng/L		11/13/24 08:49	11/13/24 17:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	**62.8**		6.94	1.74	ng/L		11/13/24 08:49	11/13/24 17:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	**3.26**	**J**	6.94	1.74	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorooctanesulfonamide (PFOSA)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.74	U	1.74	0.54	ng/L		11/13/24 08:49	11/13/24 17:29	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.74	U	1.74	0.45	ng/L		11/13/24 08:49	11/13/24 17:29	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	17.4	U	17.4	4.34	ng/L		11/13/24 08:49	11/13/24 17:29	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	17.4	U *	17.4	4.34	ng/L		11/13/24 08:49	11/13/24 17:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6.94	U	6.94	1.74	ng/L		11/13/24 08:49	11/13/24 17:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.94	U	6.94	1.74	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.47	U	3.47	0.87	ng/L		11/13/24 08:49	11/13/24 17:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.47	U	3.47	1.06	ng/L		11/13/24 08:49	11/13/24 17:29	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	6.94	U	6.94	1.74	ng/L		11/13/24 08:49	11/13/24 17:29	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	6.94	U	6.94	1.74	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.47	U	3.47	0.87	ng/L		11/13/24 08:49	11/13/24 17:29	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.68	U	8.68	2.17	ng/L		11/13/24 08:49	11/13/24 17:29	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	43.4	U	43.4	10.9	ng/L		11/13/24 08:49	11/13/24 17:29	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	43.4	U	43.4	12.9	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluorodecanesulfonic acid (PFDS)	1.74	U	1.74	0.43	ng/L		11/13/24 08:49	11/13/24 17:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.47	U	3.47	0.87	ng/L		11/13/24 08:49	11/13/24 17:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*86.4*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C5 PFPeA	*82.1*		*35 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C5 PFHxA	*84.1*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C4 PFHpA	*86.0*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C8 PFOA	*94.3*		*60 - 140*	*11/13/24 08:49*	*11/13/24 17:29*	*1*

Client Sample ID: MW-0X_20241107

Lab Sample ID: 460-315062-3

Date Collected: 11/07/24 12:00

Matrix: Water

Date Received: 11/08/24 19:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C9 PFNA	*92.4*		*55 - 140*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C6 PFDA	*87.1*		*50 - 140*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C7 PFUnA	*88.7*		*30 - 140*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C2 PFTeDA	*73.7*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C3 PFBS	*98.3*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C3 PFHxS	*90.7*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C8 PFOS	*80.8*		*45 - 140*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C8 FOSA	*89.2*		*30 - 130*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
d3-NMeFOSAA	*85.0*		*45 - 200*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
d5-NEtFOSAA	*91.3*		*10 - 200*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
M2-4:2 FTS	*133*		*60 - 200*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
M2-6:2 FTS	*127*		*60 - 200*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
M2-8:2 FTS	*125*		*50 - 200*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C3 HFPO-DA	*82.2*		*25 - 160*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
d7-N-MeFOSE-M	*89.7*		*10 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
d9-N-EtFOSE-M	*83.5*		*10 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
d5-NEtPFOSA	*80.5*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
d3-NMePFOSA	*90.4*		*15 - 130*	*11/13/24 08:49*	*11/13/24 17:29*	*1*
13C2-PFDoDA	*81.9*		*10 - 150*	*11/13/24 08:49*	*11/13/24 17:29*	*1*

Client Sample ID: FB-01_20241107

Lab Sample ID: 460-315062-4

Date Collected: 11/07/24 12:00

Matrix: Water

Date Received: 11/08/24 19:00

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	6.68	U	6.68	1.78	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoropentanoic acid (PFPeA)	3.34	U	3.34	0.84	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorohexanoic acid (PFHxA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoroheptanoic acid (PFHpA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorooctanoic acid (PFOA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorononanoic acid (PFNA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorodecanoic acid (PFDA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoroundecanoic acid (PFUnA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorododecanoic acid (PFDoA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorotridecanoic acid (PFTrDA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorotetradecanoic acid (PFTeDA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorobutanesulfonic acid (PFBS)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoropentanesulfonic acid (PFPeS)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorohexanesulfonic acid (PFHxS)	1.67	U	1.67	0.43	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoroheptanesulfonic acid (PFHpS)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorooctanesulfonic acid (PFOS)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorononanesulfonic acid (PFNS)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorododecanesulfonic acid (PFDoS)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6.68	U	6.68	1.67	ng/L		11/13/24 08:49	11/13/24 17:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6.68	U	6.68	1.67	ng/L		11/13/24 08:49	11/13/24 17:46	1

Client Sample ID: FB-01_20241107

Date Collected: 11/07/24 12:00
Date Received: 11/08/24 19:00

Lab Sample ID: 460-315062-4

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.68	U	6.68	1.67	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorooctanesulfonamide (PFOSA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.67	U	1.67	0.52	ng/L		11/13/24 08:49	11/13/24 17:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.67	U	1.67	0.44	ng/L		11/13/24 08:49	11/13/24 17:46	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	16.7	U	16.7	4.18	ng/L		11/13/24 08:49	11/13/24 17:46	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	16.7	U *	16.7	4.18	ng/L		11/13/24 08:49	11/13/24 17:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6.68	U	6.68	1.67	ng/L		11/13/24 08:49	11/13/24 17:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.68	U	6.68	1.67	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.34	U	3.34	0.84	ng/L		11/13/24 08:49	11/13/24 17:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.34	U	3.34	1.02	ng/L		11/13/24 08:49	11/13/24 17:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	6.68	U	6.68	1.67	ng/L		11/13/24 08:49	11/13/24 17:46	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	6.68	U	6.68	1.67	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.34	U	3.34	0.84	ng/L		11/13/24 08:49	11/13/24 17:46	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.36	U	8.36	2.09	ng/L		11/13/24 08:49	11/13/24 17:46	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	41.8	U	41.8	10.4	ng/L		11/13/24 08:49	11/13/24 17:46	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	41.8	U	41.8	12.4	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluorodecanesulfonic acid (PFDS)	1.67	U	1.67	0.42	ng/L		11/13/24 08:49	11/13/24 17:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.34	U	3.34	0.84	ng/L		11/13/24 08:49	11/13/24 17:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*88.7*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C5 PFPeA	*85.6*		*35 - 150*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C5 PFHxA	*91.6*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C4 PFHpA	*90.4*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C8 PFOA	*98.3*		*60 - 140*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C9 PFNA	*91.4*		*55 - 140*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C6 PFDA	*94.2*		*50 - 140*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C7 PFUnA	*98.9*		*30 - 140*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C2 PFTeDA	*72.3*		*10 - 130*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C3 PFBS	*101*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C3 PFHxS	*95.4*		*55 - 150*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C8 PFOS	*84.2*		*45 - 140*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
13C8 FOSA	*86.0*		*30 - 130*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
d3-NMeFOSAA	*85.4*		*45 - 200*	*11/13/24 08:49*	*11/13/24 17:46*	*1*
d5-NEtFOSAA	*92.9*		*10 - 200*	*11/13/24 08:49*	*11/13/24 17:46*	*1*

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Client Sample ID: FB-01_20241107
Date Collected: 11/07/24 12:00
Date Received: 11/08/24 19:00

Lab Sample ID: 460-315062-4
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	122		60 - 200	11/13/24 08:49	11/13/24 17:46	1
M2-6:2 FTS	122		60 - 200	11/13/24 08:49	11/13/24 17:46	1
M2-8:2 FTS	121		50 - 200	11/13/24 08:49	11/13/24 17:46	1
13C3 HFPO-DA	87.0		25 - 160	11/13/24 08:49	11/13/24 17:46	1
d7-N-MeFOSE-M	78.8		10 - 150	11/13/24 08:49	11/13/24 17:46	1
d9-N-EtFOSE-M	75.9		10 - 150	11/13/24 08:49	11/13/24 17:46	1
d5-NEtPFOSA	68.5		10 - 130	11/13/24 08:49	11/13/24 17:46	1
d3-NMePFOSA	71.1		15 - 130	11/13/24 08:49	11/13/24 17:46	1
13C2-PFDoDA	88.2		10 - 150	11/13/24 08:49	11/13/24 17:46	1

Isotope Dilution Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(35-150)	(55-150)	(55-150)	(60-140)	(55-140)	(50-140)	(30-140)
460-315062-1	MW-11_20241107	86.2	83.8	87.6	86.9	94.0	93.0	90.5	93.0
460-315062-1 MS	MW-11_20241107	85.7	82.8	90.8	86.0	89.5	92.6	84.3	82.2
460-315062-1 MSD	MW-11_20241107	86.8	81.4	86.5	84.0	96.4	92.9	88.1	93.2
460-315062-2	MW-12_20241107	87.6	86.2	91.1	89.0	97.9	93.5	86.2	85.7
460-315062-3	MW-0X_20241107	86.4	82.1	84.1	86.0	94.3	92.4	87.1	88.7
460-315062-4	FB-01_20241107	88.7	85.6	91.6	90.4	98.3	91.4	94.2	98.9
MB 240-635046/1-A	Method Blank	80.6	79.4	86.9	83.5	92.5	86.2	86.6	92.8

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(55-150)	(55-150)	(45-140)	(30-130)	(45-200)	(10-200)	(60-200)
460-315062-1	MW-11_20241107	80.8	104	93.3	79.1	84.0	79.6	84.0	132
460-315062-1 MS	MW-11_20241107	70.6	97.5	90.3	76.3	84.3	75.3	85.0	125
460-315062-1 MSD	MW-11_20241107	78.6	99.1	92.4	78.2	83.5	79.0	91.7	119
460-315062-2	MW-12_20241107	73.7	101	94.2	79.1	85.7	79.6	91.7	117
460-315062-3	MW-0X_20241107	73.7	98.3	90.7	80.8	89.2	85.0	91.3	133
460-315062-4	FB-01_20241107	72.3	101	95.4	84.2	86.0	85.4	92.9	122
MB 240-635046/1-A	Method Blank	77.0	91.5	85.9	76.0	75.8	77.9	88.5	111

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(60-200)	(50-200)	(25-160)	(10-150)	(10-150)	(10-130)	(15-130)	(10-150)
460-315062-1	MW-11_20241107	129	124	82.1	80.3	81.0	77.8	87.7	84.8
460-315062-1 MS	MW-11_20241107	125	119	83.3	80.5	79.0	76.1	84.8	76.5
460-315062-1 MSD	MW-11_20241107	122	122	81.3	80.2	77.4	75.0	84.6	88.1
460-315062-2	MW-12_20241107	124	115	84.5	80.8	69.1	70.7	72.9	81.9
460-315062-3	MW-0X_20241107	127	125	82.2	89.7	83.5	80.5	90.4	81.9
460-315062-4	FB-01_20241107	122	121	87.0	78.8	75.9	68.5	71.1	88.2
MB 240-635046/1-A	Method Blank	112	107	80.6	73.9	64.5	62.4	62.5	79.2

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M

Isotope Dilution Summary

Client: AKRF Inc
Job ID: 460-315062-1
Project/Site: WPFD

NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	C6PFDA	13C7PUA
Lab Sample ID	Client Sample ID	(10-130)	(40-150)	(40-150)	(40-150)	(30-140)	(30-140)	(20-140)	(20-140)
LCS 240-635046/3-A	Lab Control Sample	86.0	82.9	90.1	89.1	94.0	90.3	91.1	94.1
LLCS 240-635046/2-A	Lab Control Sample	87.2	84.5	90.9	88.0	93.1	88.9	87.1	85.8

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFTDA	C3PFBS	C3PFHS	C8PFOS	PFOSA	d3NMFOS	d5NEFOS	M242FTS
Lab Sample ID	Client Sample ID	(10-130)	(25-150)	(25-150)	(20-140)	(10-130)	(10-200)	(10-200)	(25-200)
LCS 240-635046/3-A	Lab Control Sample	69.1	97.2	89.7	78.1	81.8	79.3	86.5	115
LLCS 240-635046/2-A	Lab Control Sample	64.2	96.5	90.6	79.6	81.8	76.6	96.2	123

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		M262FTS	M282FTS	HFPODA	NMFM	NEFM	d5NPFSA	d3NMFSA	PFDoDA
Lab Sample ID	Client Sample ID	(25-200)	(25-200)	(25-160)	(10-150)	(10-150)	(10-130)	(10-130)	(10-150)
LCS 240-635046/3-A	Lab Control Sample	117	112	85.8	71.9	67.8	62.8	63.5	82.8
LLCS 240-635046/2-A	Lab Control Sample	121	115	86.1	74.4	69.5	63.5	63.8	79.8

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFTDA = 13C2 PFTeDA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA
PFDoDA = 13C2-PFDoDA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 240-635046/1-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 635046

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	8.00	U	8.00	2.13	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluoropentanoic acid (PFPeA)	4.00	U	4.00	1.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorohexanoic acid (PFHxA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluoroheptanoic acid (PFHpA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorooctanoic acid (PFOA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorononanoic acid (PFNA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorodecanoic acid (PFDA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluoroundecanoic acid (PFUnA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorododecanoic acid (PFDoA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorotridecanoic acid (PFTrDA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorotetradecanoic acid (PFTeDA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorobutanesulfonic acid (PFBS)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluoropentanesulfonic acid (PFPeS)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorohexanesulfonic acid (PFHxS)	2.00	U	2.00	0.52	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluoroheptanesulfonic acid (PFHpS)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorooctanesulfonic acid (PFOS)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorononanesulfonic acid (PFNS)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorododecanesulfonic acid (PFDoS)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	8.00	U	8.00	2.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	8.00	U	8.00	2.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	8.00	U	8.00	2.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorooctanesulfonamide (PFOSA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.62	ng/L		11/13/24 08:49	11/13/24 15:33	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.52	ng/L		11/13/24 08:49	11/13/24 15:33	1
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	U	20.0	5.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	U	20.0	5.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	U	8.00	2.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	8.00	U	8.00	2.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	U	4.00	1.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	U	4.00	1.22	ng/L		11/13/24 08:49	11/13/24 15:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	8.00	U	8.00	2.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	8.00	U	8.00	2.00	ng/L		11/13/24 08:49	11/13/24 15:33	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 240-635046/1-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 635046

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	4.00	U	4.00	1.00	ng/L		11/13/24 08:49	11/13/24 15:33	1
3-Perfluoropropylpropanoic acid (3:3 FTCA)	10.0	U	10.0	2.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
3-Perfluoropentylpropanoic acid (5:3 FTCA)	50.0	U	50.0	12.5	ng/L		11/13/24 08:49	11/13/24 15:33	1
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	50.0	U	50.0	14.9	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluorodecanesulfonic acid (PFDS)	2.00	U	2.00	0.50	ng/L		11/13/24 08:49	11/13/24 15:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.00	U	4.00	1.00	ng/L		11/13/24 08:49	11/13/24 15:33	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*80.6*		*10 - 130*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C5 PFPeA	*79.4*		*35 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C5 PFHxA	*86.9*		*55 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C4 PFHpA	*83.5*		*55 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C8 PFOA	*92.5*		*60 - 140*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C9 PFNA	*86.2*		*55 - 140*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C6 PFDA	*86.6*		*50 - 140*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C7 PFUnA	*92.8*		*30 - 140*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C2 PFTeDA	*77.0*		*10 - 130*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C3 PFBS	*91.5*		*55 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C3 PFHxS	*85.9*		*55 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C8 PFOS	*76.0*		*45 - 140*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C8 FOSA	*75.8*		*30 - 130*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
d3-NMeFOSAA	*77.9*		*45 - 200*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
d5-NEtFOSAA	*88.5*		*10 - 200*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
M2-4:2 FTS	*111*		*60 - 200*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
M2-6:2 FTS	*112*		*60 - 200*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
M2-8:2 FTS	*107*		*50 - 200*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C3 HFPO-DA	*80.6*		*25 - 160*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
d7-N-MeFOSE-M	*73.9*		*10 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
d9-N-EtFOSE-M	*64.5*		*10 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
d5-NEtPFOSA	*62.4*		*10 - 130*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
d3-NMePFOSA	*62.5*		*15 - 130*	*11/13/24 08:49*	*11/13/24 15:33*	*1*
13C2-PFDoDA	*79.2*		*10 - 150*	*11/13/24 08:49*	*11/13/24 15:33*	*1*

Lab Sample ID: LCS 240-635046/3-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	100	132.4		ng/L		132	58 - 148
Perfluoropentanoic acid (PFPeA)	50.0	64.75		ng/L		129	54 - 152
Perfluorohexanoic acid (PFHxA)	25.0	30.42		ng/L		122	55 - 152
Perfluoroheptanoic acid (PFHpA)	25.0	29.18		ng/L		117	54 - 154
Perfluorooctanoic acid (PFOA)	25.0	29.77		ng/L		119	52 - 161
Perfluorononanoic acid (PFNA)	25.0	29.56		ng/L		118	59 - 149
Perfluorodecanoic acid (PFDA)	25.0	33.11		ng/L		132	52 - 147

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-635046/3-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	25.0	29.66		ng/L		119	48 - 159
Perfluorododecanoic acid (PFDoA)	25.0	31.69		ng/L		127	64 - 142
Perfluorotridecanoic acid (PFTrDA)	25.0	30.79		ng/L		123	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	25.0	30.48		ng/L		122	47 - 161
Perfluorobutanesulfonic acid (PFBS)	22.1	27.59		ng/L		125	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	23.5	29.73		ng/L		127	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	22.8	29.94		ng/L		132	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	23.8	30.94		ng/L		130	55 - 152
Perfluorooctanesulfonic acid (PFOS)	23.2	30.41		ng/L		131	58 - 149
Perfluorononanesulfonic acid (PFNS)	24.0	32.15		ng/L		134	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	24.2	21.05		ng/L		87	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	93.4	110.5		ng/L		118	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	94.8	109.0		ng/L		115	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	95.8	112.4		ng/L		117	63 - 152
Perfluorooctanesulfonamide (PFOSA)	25.0	30.91		ng/L		124	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	25.0	35.86		ng/L		143	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	25.0	33.23		ng/L		133	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	31.30		ng/L		125	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	30.50		ng/L		122	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	250	323.1		ng/L		129	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	250	350.6	*	ng/L		140	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	100	125.3		ng/L		125	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	94.2	116.7		ng/L		124	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	50.0	65.99		ng/L		132	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	50.0	58.43		ng/L		117	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	93.2	112.5		ng/L		121	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	94.2	97.70		ng/L		104	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	44.5	52.46		ng/L		118	56 - 151

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 240-635046/3-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoropropylpropanoic acid (3:3 FTCA)	125	161.0		ng/L		129	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	625	736.1		ng/L		118	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	625	679.4		ng/L		109	50 - 138
Perfluorodecanesulfonic acid (PFDS)	24.1	28.22		ng/L		117	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	50.0	67.30		ng/L		135	51 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*86.0*		*10 - 130*
13C5 PFPeA	*82.9*		*40 - 150*
13C5 PFHxA	*90.1*		*40 - 150*
13C4 PFHpA	*89.1*		*40 - 150*
13C8 PFOA	*94.0*		*30 - 140*
13C9 PFNA	*90.3*		*30 - 140*
13C6 PFDA	*91.1*		*20 - 140*
13C7 PFUnA	*94.1*		*20 - 140*
13C2 PFTeDA	*69.1*		*10 - 130*
13C3 PFBS	*97.2*		*25 - 150*
13C3 PFHxS	*89.7*		*25 - 150*
13C8 PFOS	*78.1*		*20 - 140*
13C8 FOSA	*81.8*		*10 - 130*
d3-NMeFOSAA	*79.3*		*10 - 200*
d5-NEtFOSAA	*86.5*		*10 - 200*
M2-4:2 FTS	*115*		*25 - 200*
M2-6:2 FTS	*117*		*25 - 200*
M2-8:2 FTS	*112*		*25 - 200*
13C3 HFPO-DA	*85.8*		*25 - 160*
d7-N-MeFOSE-M	*71.9*		*10 - 150*
d9-N-EtFOSE-M	*67.8*		*10 - 150*
d5-NEtPFOSA	*62.8*		*10 - 130*
d3-NMePFOSA	*63.5*		*10 - 130*
13C2-PFDoDA	*82.8*		*10 - 150*

Lab Sample ID: LLCS 240-635046/2-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	10.24		ng/L		128	44 - 157
Perfluoropentanoic acid (PFPeA)	4.00	5.231		ng/L		131	57 - 148
Perfluorohexanoic acid (PFHxA)	2.00	2.429		ng/L		121	62 - 149
Perfluoroheptanoic acid (PFHpA)	2.00	2.331		ng/L		117	56 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.387		ng/L		119	57 - 161
Perfluorononanoic acid (PFNA)	2.00	2.330		ng/L		117	53 - 157
Perfluorodecanoic acid (PFDA)	2.00	2.564		ng/L		128	43 - 158

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-635046/2-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.00	2.412		ng/L		121	50 - 155
Perfluorododecanoic acid (PFDoA)	2.00	2.404		ng/L		120	60 - 141
Perfluorotridecanoic acid (PFTrDA)	2.00	2.410		ng/L		120	52 - 140
Perfluorotetradecanoic acid (PFTeDA)	2.00	2.457		ng/L		123	52 - 156
Perfluorobutanesulfonic acid (PFBS)	1.77	2.191		ng/L		124	63 - 145
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.274		ng/L		121	58 - 144
Perfluorohexanesulfonic acid (PFHxS)	1.82	2.414		ng/L		133	44 - 158
Perfluoroheptanesulfonic acid (PFHpS)	1.90	2.406		ng/L		126	51 - 150
Perfluorooctanesulfonic acid (PFOS)	1.86	2.495		ng/L		134	43 - 162
Perfluorononanesulfonic acid (PFNS)	1.92	2.425		ng/L		126	46 - 151
Perfluorododecanesulfonic acid (PFDoS)	1.94	1.625	J	ng/L		84	30 - 138
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.47	8.070		ng/L		108	52 - 158
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	7.58	8.191		ng/L		108	48 - 158
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.66	8.720		ng/L		114	46 - 165
Perfluorooctanesulfonamide (PFOSA)	2.00	2.437		ng/L		122	47 - 163
N-methylperfluorooctane sulfonamide (NMeFOSA)	2.00	2.689		ng/L		134	54 - 155
N-ethylperfluorooctane sulfonamide (NEtFOSA)	2.00	2.606		ng/L		130	49 - 156
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.509		ng/L		125	32 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.366		ng/L		118	51 - 154
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	20.0	25.92		ng/L		130	56 - 151
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	20.0	26.32		ng/L		132	60 - 147
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	8.00	10.07		ng/L		126	58 - 154
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.54	8.974		ng/L		119	61 - 148
Perfluoro-4-methoxybutanoic acid (PFMBA)	4.00	4.878		ng/L		122	49 - 154
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	4.00	4.406		ng/L		110	47 - 160
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.46	8.464		ng/L		114	44 - 167
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.54	7.346	J	ng/L		97	36 - 158
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.56	4.032		ng/L		113	56 - 144

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 240-635046/2-A
Matrix: Water
Analysis Batch: 635136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 635046

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
3-Perfluoropropylpropanoic acid (3:3 FTCA)			10.0	12.48		ng/L		125	32 - 161		
3-Perfluoropentylpropanoic acid (5:3 FTCA)			50.0	55.87		ng/L		112	39 - 156		
3-Perfluoroheptylpropanoic acid (7:3 FTCA)			50.0	49.54	J	ng/L		99	36 - 149		
Perfluorodecanesulfonic acid (PFDS)			1.93	2.138		ng/L		111	50 - 144		
Perfluoro-3-methoxypropanoic acid (PFMPA)			4.00	5.188		ng/L		130	48 - 150		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*87.2*		*10 - 130*
13C5 PFPeA	*84.5*		*40 - 150*
13C5 PFHxA	*90.9*		*40 - 150*
13C4 PFHpA	*88.0*		*40 - 150*
13C8 PFOA	*93.1*		*30 - 140*
13C9 PFNA	*88.9*		*30 - 140*
13C6 PFDA	*87.1*		*20 - 140*
13C7 PFUnA	*85.8*		*20 - 140*
13C2 PFTeDA	*64.2*		*10 - 130*
13C3 PFBS	*96.5*		*25 - 150*
13C3 PFHxS	*90.6*		*25 - 150*
13C8 PFOS	*79.6*		*20 - 140*
13C8 FOSA	*81.8*		*10 - 130*
d3-NMeFOSAA	*76.6*		*10 - 200*
d5-NEtFOSAA	*96.2*		*10 - 200*
M2-4:2 FTS	*123*		*25 - 200*
M2-6:2 FTS	*121*		*25 - 200*
M2-8:2 FTS	*115*		*25 - 200*
13C3 HFPO-DA	*86.1*		*25 - 160*
d7-N-MeFOSE-M	*74.4*		*10 - 150*
d9-N-EtFOSE-M	*69.5*		*10 - 150*
d5-NEtPFOSA	*63.5*		*10 - 130*
d3-NMePFOSA	*63.8*		*10 - 130*
13C2-PFDoDA	*79.8*		*10 - 150*

Lab Sample ID: 460-315062-1 MS
Matrix: Water
Analysis Batch: 635136

Client Sample ID: MW-11_20241107
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorobutanoic acid (PFBA)	66.3		85.2	177.8		ng/L		131	58 - 148		
Perfluoropentanoic acid (PFPeA)	250		42.6	300.9		ng/L		120	54 - 152		
Perfluorohexanoic acid (PFHxA)	130		21.3	156.8		ng/L		126	55 - 152		
Perfluoroheptanoic acid (PFHpA)	115		21.3	141.8		ng/L		127	54 - 154		
Perfluorooctanoic acid (PFOA)	46.7		21.3	71.08		ng/L		115	52 - 161		
Perfluorononanoic acid (PFNA)	6.90		21.3	32.25		ng/L		119	59 - 149		
Perfluorodecanoic acid (PFDA)	1.06	J	21.3	29.48		ng/L		133	52 - 147		

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 460-315062-1 MS
Matrix: Water
Analysis Batch: 635136

Client Sample ID: MW-11_20241107
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	1.75	U	21.3	26.68		ng/L		125	48 - 159
Perfluorododecanoic acid (PFDoA)	1.75	U	21.3	26.43		ng/L		124	64 - 142
Perfluorotridecanoic acid (PFTrDA)	1.75	U	21.3	27.56		ng/L		129	49 - 148
Perfluorotetradecanoic acid (PFTeDA)	1.75	U	21.3	27.24		ng/L		128	47 - 161
Perfluorobutanesulfonic acid (PFBS)	8.18		18.8	31.59		ng/L		124	62 - 144
Perfluoropentanesulfonic acid (PFPeS)	10.9		20.0	36.34		ng/L		127	59 - 151
Perfluorohexanesulfonic acid (PFHxS)	126		19.4	143.9		ng/L		92	57 - 146
Perfluoroheptanesulfonic acid (PFHpS)	8.89		20.3	36.86		ng/L		138	55 - 152
Perfluorooctanesulfonic acid (PFOS)	356		19.8	368.2		ng/L		63	58 - 149
Perfluorononanesulfonic acid (PFNS)	1.75	U	20.4	26.21		ng/L		128	52 - 148
Perfluorododecanesulfonic acid (PFDoS)	1.75	U	20.6	20.00		ng/L		97	36 - 145
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.01	U	79.6	97.28		ng/L		122	67 - 146
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	65.8		80.8	153.9		ng/L		109	61 - 151
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	3.53	J	81.6	99.90		ng/L		118	63 - 152
Perfluorooctanesulfonamide (PFOSA)	1.75	U	21.3	26.12		ng/L		123	61 - 148
N-methylperfluorooctane sulfonamide (NMeFOSA)	1.75	U	21.3	29.39		ng/L		138	63 - 145
N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.75	U	21.3	27.90		ng/L		131	65 - 139
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.75	U	21.3	28.20		ng/L		132	58 - 144
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.75	U	21.3	26.69		ng/L		125	59 - 146
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	17.5	U	213	280.5		ng/L		132	71 - 136
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	17.5	U *	213	306.8	*	ng/L		144	69 - 137
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	7.01	U	85.2	110.6		ng/L		130	63 - 144
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.01	U	80.3	97.96		ng/L		122	68 - 146
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.50	U	42.6	60.14		ng/L		141	55 - 148
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.50	U	42.6	48.24		ng/L		113	48 - 161
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.01	U	79.4	88.37		ng/L		111	56 - 156
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.01	U	80.3	75.63		ng/L		94	46 - 156
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.50	U	37.9	42.55		ng/L		112	56 - 151

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 460-315062-1 MS
Matrix: Water
Analysis Batch: 635136

Client Sample ID: MW-11_20241107
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.76	U	107	157.6	*	ng/L		148	62 - 129
3-Perfluoropentylpropanoic acid (5:3 FTCA)	43.8	U	533	615.9		ng/L		116	63 - 134
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	43.8	U	533	547.3		ng/L		103	50 - 138
Perfluorodecanesulfonic acid (PFDS)	1.75	U	20.5	23.93		ng/L		117	51 - 147
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.50	U	42.6	61.08		ng/L		143	51 - 145

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*85.7*		*10 - 130*
13C5 PFPeA	*82.8*		*35 - 150*
13C5 PFHxA	*90.8*		*55 - 150*
13C4 PFHpA	*86.0*		*55 - 150*
13C8 PFOA	*89.5*		*60 - 140*
13C9 PFNA	*92.6*		*55 - 140*
13C6 PFDA	*84.3*		*50 - 140*
13C7 PFUnA	*82.2*		*30 - 140*
13C2 PFTeDA	*70.6*		*10 - 130*
13C3 PFBS	*97.5*		*55 - 150*
13C3 PFHxS	*90.3*		*55 - 150*
13C8 PFOS	*76.3*		*45 - 140*
13C8 FOSA	*84.3*		*30 - 130*
d3-NMeFOSAA	*75.3*		*45 - 200*
d5-NEtFOSAA	*85.0*		*10 - 200*
M2-4:2 FTS	*125*		*60 - 200*
M2-6:2 FTS	*125*		*60 - 200*
M2-8:2 FTS	*119*		*50 - 200*
13C3 HFPO-DA	*83.3*		*25 - 160*
d7-N-MeFOSE-M	*80.5*		*10 - 150*
d9-N-EtFOSE-M	*79.0*		*10 - 150*
d5-NEtPFOSA	*76.1*		*10 - 130*
d3-NMePFOSA	*84.8*		*15 - 130*
13C2-PFDoDA	*76.5*		*10 - 150*

Lab Sample ID: 460-315062-1 MSD
Matrix: Water
Analysis Batch: 635136

Client Sample ID: MW-11_20241107
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	66.3		85.4	180.7		ng/L		134	58 - 148	2	30
Perfluoropentanoic acid (PFPeA)	250		42.7	314.9	*	ng/L		153	54 - 152	5	30
Perfluorohexanoic acid (PFHxA)	130		21.4	166.2	*	ng/L		169	55 - 152	6	30
Perfluoroheptanoic acid (PFHpA)	115		21.4	148.3	*	ng/L		157	54 - 154	4	30
Perfluorooctanoic acid (PFOA)	46.7		21.4	71.13		ng/L		114	52 - 161	0	30
Perfluorononanoic acid (PFNA)	6.90		21.4	33.27		ng/L		123	59 - 149	3	30
Perfluorodecanoic acid (PFDA)	1.06	J	21.4	30.31		ng/L		137	52 - 147	3	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 460-315062-1 MSD
Matrix: Water
Analysis Batch: 635136

Client Sample ID: MW-11_20241107
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoroundecanoic acid (PFUnA)	1.75	U	21.4	26.03		ng/L		122	48 - 159	2	30
Perfluorododecanoic acid (PFDoA)	1.75	U	21.4	26.00		ng/L		122	64 - 142	2	30
Perfluorotridecanoic acid (PFTrDA)	1.75	U	21.4	28.04		ng/L		131	49 - 148	2	30
Perfluorotetradecanoic acid (PFTeDA)	1.75	U	21.4	27.61		ng/L		129	47 - 161	1	30
Perfluorobutanesulfonic acid (PFBS)	8.18		18.9	31.12		ng/L		121	62 - 144	2	30
Perfluoropentanesulfonic acid (PFPeS)	10.9		20.0	37.10		ng/L		131	59 - 151	2	30
Perfluorohexanesulfonic acid (PFHxS)	126		19.4	149.1		ng/L		119	57 - 146	4	30
Perfluoroheptanesulfonic acid (PFHpS)	8.89		20.3	37.18		ng/L		139	55 - 152	1	30
Perfluorooctanesulfonic acid (PFOS)	356		19.8	377.9		ng/L		112	58 - 149	3	30
Perfluorononanesulfonic acid (PFNS)	1.75	U	20.5	26.98		ng/L		132	52 - 148	3	30
Perfluorododecanesulfonic acid (PFDoS)	1.75	U	20.7	21.62		ng/L		105	36 - 145	8	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.01	U	79.8	103.0		ng/L		129	67 - 146	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	65.8		81.0	158.7		ng/L		115	61 - 151	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	3.53	J	81.9	101.8		ng/L		120	63 - 152	2	30
Perfluorooctanesulfonamide (PFOSA)	1.75	U	21.4	26.54		ng/L		124	61 - 148	2	30
N-methylperfluorooctane sulfonamide (NMeFOSA)	1.75	U	21.4	28.98		ng/L		136	63 - 145	1	30
N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.75	U	21.4	27.74		ng/L		130	65 - 139	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.75	U	21.4	27.55		ng/L		129	58 - 144	2	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.75	U	21.4	26.16		ng/L		122	59 - 146	2	30
N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	17.5	U	214	265.9		ng/L		124	71 - 136	5	30
N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	17.5	U *	214	299.2	*	ng/L		140	69 - 137	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	7.01	U	85.4	112.9		ng/L		132	63 - 144	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.01	U	80.5	98.27		ng/L		122	68 - 146	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.50	U	42.7	61.44		ng/L		144	55 - 148	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.50	U	42.7	52.37		ng/L		123	48 - 161	8	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.01	U	79.6	95.02		ng/L		119	56 - 156	7	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.01	U	80.5	83.67		ng/L		104	46 - 156	10	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.50	U	38.0	45.64		ng/L		120	56 - 151	7	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: 460-315062-1 MSD
Matrix: Water
Analysis Batch: 635136

Client Sample ID: MW-11_20241107
Prep Type: Total/NA
Prep Batch: 635046

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.76	U	107	157.3	*	ng/L		147	62 - 129	0	30
3-Perfluoropentylpropanoic acid (5:3 FTCA)	43.8	U	534	642.6		ng/L		120	63 - 134	4	30
3-Perfluoroheptylpropanoic acid (7:3 FTCA)	43.8	U	534	581.9		ng/L		109	50 - 138	6	30
Perfluorodecanesulfonic acid (PFDS)	1.75	U	20.6	24.71		ng/L		120	51 - 147	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.50	U	42.7	60.70		ng/L		142	51 - 145	1	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFBA	*86.8*		*10 - 130*
13C5 PFPeA	*81.4*		*35 - 150*
13C5 PFHxA	*86.5*		*55 - 150*
13C4 PFHpA	*84.0*		*55 - 150*
13C8 PFOA	*96.4*		*60 - 140*
13C9 PFNA	*92.9*		*55 - 140*
13C6 PFDA	*88.1*		*50 - 140*
13C7 PFUnA	*93.2*		*30 - 140*
13C2 PFTeDA	*78.6*		*10 - 130*
13C3 PFBS	*99.1*		*55 - 150*
13C3 PFHxS	*92.4*		*55 - 150*
13C8 PFOS	*78.2*		*45 - 140*
13C8 FOSA	*83.5*		*30 - 130*
d3-NMeFOSAA	*79.0*		*45 - 200*
d5-NEtFOSAA	*91.7*		*10 - 200*
M2-4:2 FTS	*119*		*60 - 200*
M2-6:2 FTS	*122*		*60 - 200*
M2-8:2 FTS	*122*		*50 - 200*
13C3 HFPO-DA	*81.3*		*25 - 160*
d7-N-MeFOSE-M	*80.2*		*10 - 150*
d9-N-EtFOSE-M	*77.4*		*10 - 150*
d5-NEtPFOSA	*75.0*		*10 - 130*
d3-NMePFOSA	*84.6*		*15 - 130*
13C2-PFDoDA	*88.1*		*10 - 150*

Definitions/Glossary

Client: AKRF Inc
Job ID: 460-315062-1
Project/Site: WPFD

Qualifiers

LCMS

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	MS or MSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

Glossary

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

QC Association Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

LCMS

Prep Batch: 635046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-315062-1	MW-11_20241107	Total/NA	Water	1633	
460-315062-2	MW-12_20241107	Total/NA	Water	1633	
460-315062-3	MW-0X_20241107	Total/NA	Water	1633	
460-315062-4	FB-01_20241107	Total/NA	Water	1633	
MB 240-635046/1-A	Method Blank	Total/NA	Water	1633	
LCS 240-635046/3-A	Lab Control Sample	Total/NA	Water	1633	
LLCS 240-635046/2-A	Lab Control Sample	Total/NA	Water	1633	
460-315062-1 MS	MW-11_20241107	Total/NA	Water	1633	
460-315062-1 MSD	MW-11_20241107	Total/NA	Water	1633	

Analysis Batch: 635136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-315062-1	MW-11_20241107	Total/NA	Water	1633	635046
460-315062-2	MW-12_20241107	Total/NA	Water	1633	635046
460-315062-3	MW-0X_20241107	Total/NA	Water	1633	635046
460-315062-4	FB-01_20241107	Total/NA	Water	1633	635046
MB 240-635046/1-A	Method Blank	Total/NA	Water	1633	635046
LCS 240-635046/3-A	Lab Control Sample	Total/NA	Water	1633	635046
LLCS 240-635046/2-A	Lab Control Sample	Total/NA	Water	1633	635046
460-315062-1 MS	MW-11_20241107	Total/NA	Water	1633	635046
460-315062-1 MSD	MW-11_20241107	Total/NA	Water	1633	635046

Lab Chronicle

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Client Sample ID: MW-11_20241107
Lab Sample ID: 460-315062-1
Date Collected: 11/07/24 14:05
Matrix: Water
Date Received: 11/08/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			635046	KML	EET CLE	11/13/24 08:49
Total/NA	Analysis	1633		1	635136	LD	EET CLE	11/13/24 16:23

Client Sample ID: MW-12_20241107
Lab Sample ID: 460-315062-2
Date Collected: 11/07/24 15:30
Matrix: Water
Date Received: 11/08/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			635046	KML	EET CLE	11/13/24 08:49
Total/NA	Analysis	1633		1	635136	LD	EET CLE	11/13/24 17:13

Client Sample ID: MW-0X_20241107
Lab Sample ID: 460-315062-3
Date Collected: 11/07/24 12:00
Matrix: Water
Date Received: 11/08/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			635046	KML	EET CLE	11/13/24 08:49
Total/NA	Analysis	1633		1	635136	LD	EET CLE	11/13/24 17:29

Client Sample ID: FB-01_20241107
Lab Sample ID: 460-315062-4
Date Collected: 11/07/24 12:00
Matrix: Water
Date Received: 11/08/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1633			635046	KML	EET CLE	11/13/24 08:49
Total/NA	Analysis	1633		1	635136	LD	EET CLE	11/13/24 17:46

Laboratory References:
EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: AKRF Inc
Project/Site: WPFD

Job ID: 460-315062-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Subcontract Data

Shipping and Receiving Documents

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: M.Iadice	Lab PM: Flannery, Elizabeth J	Carrier Tracking No(s):	COC No: 460-187824-122987.1
Client Contact: Mr. Stephen Schmid	Phone: 908 500 3227	E-Mail: Elizabeth.Flannery@et.eurofinsus.com	State of Origin	Page: Page 1 of 1
Company: AKRF Inc	PWSID:	Analysis Requested		Job #: 315062
Address: 34 South Broadway Suite 314	Due Date Requested:			Preservation Codes: N - None
City: White Plains	TAT Requested (days):			
State, Zip: NY, 10601	Compliance Project: Δ Yes Δ No			
Phone: 914-922-2382(Tel)	PO #: 200217			
Email: sschmid@akrf.com	WO #:			Other:
Project Name: WPFD	Project #: 46034945			
Site: WPFD Reservoir	SSOW#:			

240 Orchard St., White Plains

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 - 1633 Standard List of 40	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-11_20241107	11/7/24	14:05	G	Water	N	Y	X	9	
MW-12_20241107		15:30		Water	N	N	X	3	
MW-OX_20241107		1200		Water	N	N	X	3	
FB-01_20241107		1200		Water	N	N	X	3	18 total containers
				Water					
				Water					

460-315062 Chain of Custody

Elmsford 272

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Cat B EQuIS deliverables

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11/7/24 1630	AKRF		11-07-24 1630	ETA
2		11-08-24 10:00	ETA		11-8-24 14:30	EET
3		11-8-24 1918	EET		11/8 1900	ETA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: no/cs IR 4.12/14

Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 315062

Number of Coolers: 1 IR Gun # 9

Cooler Temperatures

	RAW	CORRECTED
Cooler #1:	11.2 °C	11.7 °C
Cooler #2:	°C	°C
Cooler #3:	°C	°C
Cooler #4:	°C	°C
Cooler #5:	°C	°C
Cooler #6:	°C	°C
Cooler #7:	°C	°C
Cooler #8:	°C	°C
Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 11-8-24

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Flannery Elizabeth J	Carrier Tracking No(s): N/A	COC No: 460-72609.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Elizabeth.Flannery@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 460-315062-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 11/15/2024			Preservation Codes.
City: Barberton	TAT Requested (days): N/A			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: WPFD	Project #: 46034945			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List of 40	1633_DRAFT_TSS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW-11_20241107 (460-315062-1)	11/7/24	14:05 Eastern	G	Water			X	X	3	
MW-11_20241107 (460-315062-1MS)	11/7/24	14.05 Eastern	G	Water			X		3	
MW-11_20241107 (460-315062-1MSD)	11/7/24	14:05 Eastern	G	Water			X		3	
MW-12_20241107 (460-315062-2)	11/7/24	15:30 Eastern	G	Water			X	X	3	
MW-0X_20241107 (460-315062-3)	11/7/24	12:00 Eastern	G	Water			X	X	3	
FB-01_20241107 (460-315062-4)	11/7/24	12:00 Eastern	G	Water			X		3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	11/11/24 1900	FedEx	Seallins	11/12/24 910	EUS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Shipping/Receiving Site Name

Cooler unpacked by: JC

Cooler Received on 11/12/24 Opened on 11/12/24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

Eurofins Cooler # 2 Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF +0.1 °C) Observed Cooler Temp. 2.8 °C Corrected Cooler Temp 2.9 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC448976
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

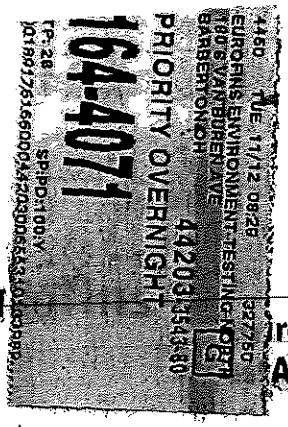
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved: Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.



Part # 159469-R24 MTW EXP 09/24

eu ironment Testing America

ORIGIN ID:LDJA (732) 549-3900
KENNETH RIVERA
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 11NOV24
ACTWGT: 47.70 LB
CAD: 0618092/CAFE3855

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING NORTH
180 S. VAN BUREN AVENUE

BARBERTON OH 44203
(330) 497-9396 REF: 8460-188346
PO: YES

FedEx Express

TUE - 12 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 6553 1013 3989

NX CAKA

44203
OH-US CLE

777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Franklin, Jannel O	Carrier Tracking No(s): N/A	Page: Page 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Jannel.Franklin@et.eurofinsus.com	State of Origin: New Jersey	
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New Jersey		Job #: 460-315016-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 11/20/2024			Preservation Codes.
City: Barberton	TAT Requested (days): N/A			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Parkway Iron Clifton NJ	Project #: 46039715			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE List of 40 (EPA 1633 Draft Method)	1633_DRAFT_TSS/ Percent Suspend Solids for Analysis PFAS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW10D_110624_LF (460-315016-2)	11/6/24	11 50 Eastern	G	Water			X	X	3	
MW28D_110624_LF (460-315016-3)	11/6/24	13:45 Eastern	G	Water			X	X	3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I II, III, IV Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 11/11/24 1900	Company: Fedex	Received by: Scollins	Date/Time: 11/12/24 910	Company: EAV
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Shipping/Receiving Site Name _____ Cooler unpacked by: JC

Cooler Received on 11/12/24 Opened on 11/12/24

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 2 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF 0.1 °C) Observed Cooler Temp. 2.8 °C Corrected Cooler Temp. 2.9 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC448976
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

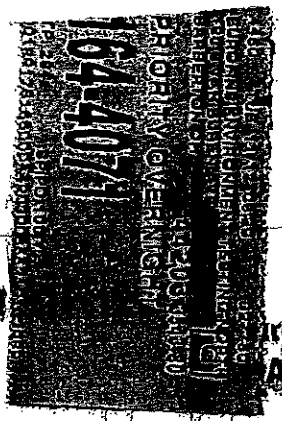
Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved: _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____



Part # 158668-XXX MMM EXP 08/24

eu ironment Testing
America

ORIGIN ID:EDXA (732) 549-3900
KENNETH RIVERA
EUROFINS EDISON
777 NEW DURHAM ROAD
EDISON, NJ 08817
UNITED STATES US

SHIP DATE: 11NOV24
ACTWGT: 47.70 LB
CAD: 0618092/CAFE3855

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING NORTH
180 S. VAN BUREN AVENUE

BARBERTON OH 44203
(330) 497-9396
PO:

REF: 8460-188346

FedEx Express

TUE - 12 NOV 10:30A
PRIORITY OVERNIGHT

TRK# (0201) 6553 1013 3989

NX CAKA

44203
OH-US CLE

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-315062-1

Login Number: 315062
List Number: 1
Creator: Rivera, Kenneth

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-315062-1

Login Number: 315062
List Number: 2
Creator: Loar, Malissa

List Source: Eurofins Cleveland
List Creation: 11/12/24 11:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

L.A.B. Validation Corp, 14 West Point Drive, East Northport, NY 11731

DATA USABILITY SUMMARY REPORT – DUSR
DATA VALIDATION SUMMARY

ORGANIC/INORGANIC ANALYSES

ISOTOPE DILUTION ORGANIC ANALYSIS
PERFLUORINATED ALKYL SUBSTANCES - PFAS (21 ANALYTES)
BY LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY (LC/MS/MS)
BY MODIFIED EPA METHOD 537.1 (TOTAL AND SPLP)
AND
TOTAL ORGANIC CARBON (TOC) BY LLOYD KAHN METHOD (1988)

For Soil, Sediment, Surface, and Groundwater Samples
Collected October 03, 2022, October 04, 2022, October 14, 2022,
October 17, 2022, October 18, 2022, October 19, 2022, October 20, 2022,
October 24, 2022

From WPFD
1402 Orchard Street, White Plains, New York
Project#: 200217
AKRF, Inc.

BY EUROFINS EDISON - NJ (ELAP #11452)
EUROFINS BURLINGTON-VT (ELAP #10391)
SDGs: 460-366738-1, 460-267585-1,
460-267587-1, 460-267702-1

SUBMITTED TO:

Mr. Stephen Schmid
AKRF, Inc.
440 Park Avenue South, 7th Floor
New York, NY 10016

January 01, 2024

Lori A. Beyer

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

(516) 523-7891; email LABValidation@aol.com

WPFD, 1402 Orchard Street, White Plains, New York
Data Usability Summary Report (Data Validation):
October 2022 – Soil/Sediment/Surface and Groundwater Sampling
PFAS (Total and SPLP) and Total Organic Carbon

Table of Contents:

Introduction
Data Qualifier Definitions
Sample Receipt

1.0 Perfluorinated Alkyl Substances (PFAS) by LC/MS/MS EPA Modified Method 537.1 (Toal and SPLP)
- 1.1 Holding Time/Preservation
- 1.2 Surrogate Recovery
- 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD)
- 1.4 Laboratory Control Sample (LCS)
- 1.5 Blank Contamination
- 1.6 Initial and Continuing Calibrations
- 1.7 Internal Standards
- 1.8 Field Duplicates
- 1.9 Target Compound List Identification
- 1.10 Compound Quantification and Reported Detection Limits
- 1.11 Overall System Performance

2.0 Total Organic Carbon (TOC) by Lloyd Kahn Method
- 2.1 Holding Times
- 2.2 Calibration (Initial and Continuing Calibration Verifications)
- 2.3 Blanks
- 2.4 Sample Replicate
- 2.5 Laboratory/Field Duplicates
- 2.6 Laboratory Control Sample/Laboratory Control Duplicate
- 2.7 Sample Results Verification
- 2.8 Overall Assessment of Data

APPENDICES:
A. Chain of Custody Documents and Sample Receipt Checklists
B. Case Narratives
C. Data Summary Form Is with Qualifications

Introduction:

A validation was performed on soil, sediment, surface and groundwater samples and the associated quality control (MS/MSD's/Field Duplicates/Field Blanks) for organic/inorganic analysis for samples collected under chain of custody documentation by AKRF, Inc. and submitted to Eurofins Edison for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. The table lists all required parameters for each sample location. The samples were analyzed by Eurofins utilizing EPA Methods and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodologies employed. PFAS analysis was conducted by Eurofins Burlington, VT. Samples were shipped to Burlington via Federal Express overnight delivery.

The analytical testing and data review consisted of PFAS (21 Analytes) and TOC. The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic and Inorganic Data Review and per NYSDEC Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids (April 2023) and in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

This validation report includes the samples listed below:

Sample ID	Lab ID	Analysis	Date Collected/Received
RI-SB-28_0.2-1_20221003	460-266738-1	Total PFAS EPA Method 537	10/03/2022
RI-SB-28_1-2_20221003 [Plus, MS/MSD]	460-266738-2	Total PFAS EPA Method 537	10/03/2022
RI-SB-28_10-11_20221003	460-266738-3	Total PFAS EPA Method 537	10/03/2022
RI-SB-33_0.2-1_20221003	460-266738-4	Total and SPLP EPA Methods 1312/537	10/03/2022
RI-SB-33_1-2_20221003	460-266738-5	Total and SPLP EPA Methods 1312/537	10/03/2022
RI-SB-33_13-14_20221003	460-266738-6	Total and SPLP EPA Methods 1312/537	10/03/2022
RI-SB-X_20221003 [Field Duplicate of RI-SB-28_0.2-1_20221003]	460-266738-7	Total PFAS EPA Method 537	10/03/2022
RI-SB-34_0.2-1_20221003	460-266738-8	Total PFAS EPA Method 537	10/03/2022
RI-SB-34_1-2_20221003	460-266738-9	Total PFAS EPA Method 537	10/03/2022
RI-SB-34_10-11_20221003	460-266738-10	Total PFAS EPA Method 537	10/03/2022
RI-SB-26_0.2-1_20221003	460-266738-11	Total PFAS EPA Method 537	10/03/2022
RI-SB-26_1-2_20221003	460-266738-12	Total PFAS EPA Method 537	10/03/2022
RI-SB-26_10-11_20221003	460-266738-13	Total PFAS EPA Method 537	10/03/2022
RI-SB-25_0.2-1_20221003	460-266738-14	Total PFAS EPA Method 537	10/03/2022
RI-SB-25_1-2_20221003	460-266738-15	Total PFAS EPA Method 537	10/03/2022
RI-SB-25_15-16_20221003	460-266738-16	Total PFAS EPA Method 537	10/03/2022
FB-01_20221003	460-266738-17	Total PFAS EPA Method 537	10/03/2022
RI-SB-27_0.2-1_20221004	460-266816-1	Total PFAS EPA Method 537	10/04/2022
RI-SB-27_1-2_20221004 [Plus, MS/MSD]	460-266816-2	Total PFAS EPA Method 537	10/04/2022
RI-SB-X01_20221004 [Field Duplicate of RI-SB-27_0.2-1_20221004]	460-266816-3	Total PFAS EPA Method 537	10/04/2022
RI-SB-21_0-0.2_20221004	460-266816-4	Total and SPLP EPA Methods 1312/537	10/04/2022
RI-SB-21_0.2-1_20221004	460-266816-5	Total and SPLP EPA Methods 1312/537	10/04/2022
RI-SB-21_1-2_20221004	460-266816-6	Total and SPLP EPA Methods 1312/537	10/04/2022
RI-SB-22_0-0.2_20221004	460-266816-7	Total PFAS EPA Method 537	10/04/2022
RI-SB-22_0.2-1_20221004	460-266816-8	Total PFAS EPA Method 537	10/04/2022
RI-SB-22_1-2_20221004	460-266816-9	Total PFAS EPA Method 537	10/04/2022
RI-SB-32_0-0.2_20221004	460-266816-10	Total PFAS EPA Method 537	10/04/2022
RI-SB-32_0.2-1_20221004	460-266816-11	Total PFAS EPA Method 537	10/04/2022
RI-SB-32_1-2_20221004	460-266816-12	Total PFAS EPA Method 537	10/04/2022
RI-SB-31_0-0.2_20221004	460-266816-13	Total PFAS EPA Method 537	10/04/2022
RI-SB-31_0.2-1_20221004	460-266816-14	Total PFAS EPA Method 537	10/04/2022
RI-SB-31_1-2_20221004	460-266816-15	Total PFAS EPA Method 537	10/04/2022
RI-SB-30_0-0.2_20221004	460-266816-16	Total and SPLP EPA Methods 1312/537	10/04/2022
RI-SB-30_0.2-1_20221004	460-266816-17	Total and SPLP EPA Methods 1312/537	10/04/2022

RI-SB-30_1-2_20221004	460-266816-18	Total and SPLP EPA Methods 1312/537	10/04/2022
RI-SB-29_0-0.2_20221004	460-266816-19	Total PFAS EPA Method 537	10/04/2022
RI-SB-29_0.2-1_20221004	460-266816-20	Total PFAS EPA Method 537	10/04/2022
RI-SB-29_1-2_20221004 [Plus, MS/MSD]	460-266816-21	Total PFAS EPA Method 537	10/04/2022
RI-SB-X02_20221004 [Field Duplicate of RI-SB-29_0-0.2_20221004]	460-266816-22	Total PFAS EPA Method 537	10/04/2022
RI-SB-24_0-0.2_20221004	460-266816-23	Total PFAS EPA Method 537	10/04/2022
RI-SB-24_0.2-1_20221004	460-266816-24	Total PFAS EPA Method 537	10/04/2022
RI-SB-24_1-2_20221004	460-266816-25	Total PFAS EPA Method 537	10/04/2022
RI-SB-23_0-0.2_20221004	460-266816-26	Total PFAS EPA Method 537	10/04/2022
RI-SB-23_0.2-1_20221004	460-266816-27	Total PFAS EPA Method 537	10/04/2022
RI-SB-23_1-2_20221004	460-266816-28	Total PFAS EPA Method 537	10/04/2022
RI-SED-13_20221014	460-267585-1 460-267587-1	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-14_20221014	460-267585-2 460-267587-2	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-15_20221014	460-267585-3 460-267587-3	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-16_20221014	460-267585-4 460-267587-4	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-17_20221014 [Plus, MS/MSD]	460-267585-5 460-267587-5	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-18_20221014	460-267585-6 460-267587-6	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-19_20221014	460-267585-7 460-267587-7	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-20_20221014	460-267585-8 460-267587-8	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SED-X_20221014 [Field Duplicate of RI-SED-13_20221014]	460-267585-9 460-267587-9	Total and SPLP EPA Methods 1312/537, Total Organic Carbon (TOC)	10/14/2022
RI-SW-13_20221014	460-267585-10	Total PFAS EPA Method 537	10/14/2022
RI-SW-14_20221014	460-267585-11	Total PFAS EPA Method 537	10/14/2022
RI-SW-15_20221014	460-267585-12	Total PFAS EPA Method 537	10/14/2022
RI-SW-16_20221014	460-267585-13	Total PFAS EPA Method 537	10/14/2022
RI-SW-17_20221014 [Plus, MS/MSD]	460-267585-14	Total PFAS EPA Method 537	10/14/2022
RI-SW-18_20221014	460-267585-15	Total PFAS EPA Method 537	10/14/2022
RI-SW-19_20221014	460-267585-16	Total PFAS EPA Method 537	10/14/2022
RI-SW-20_20221014	460-267585-17	Total PFAS EPA Method 537	10/14/2022
RI-SW-X_20221014 [Field Duplicate of RI-SW-13_20221014]	460-267585-18	Total PFAS EPA Method 537	10/14/2022
RI-CW-01_20221014	460-267585-19	Total PFAS EPA Method 537	10/14/2022
RI-CW-02_20221014	460-267585-20	Total PFAS EPA Method 537	10/14/2022
RI-CW-03_20221014	460-267585-21	Total PFAS EPA Method 537	10/14/2022
RI-CW-04_20221014	460-267585-22	Total PFAS EPA Method 537	10/14/2022
FB-01_20221014	460-267585-23	Total PFAS EPA Method 537	10/14/2022
RI-MW-01_20221016 [Plus, MS/MSD]	460-267702-1	Total PFAS EPA Method 537	10/17/2022
RI-MW-04_20221017	460-267702-2	Total PFAS EPA Method 537	10/17/2022
RI-MW-X_202210107 [Field Duplicate of RI-MW-01_20221017]	460-267702-3	Total PFAS EPA Method 537	10/17/2022
FB-01_20221017	460-267702-4	Total PFAS EPA Method 537	10/18/2022
RI-DP-02_20221018	460-267732-1	Total PFAS EPA Method 537	10/18/2022
RI-DP-05_20221018	460-267732-2	Total PFAS EPA Method 537	10/18/2022
RI-DP-08_20221018	460-267732-3	Total PFAS EPA Method 537	10/18/2022
FB-01_20221018	460-267732-4	Total PFAS EPA Method 537	10/18/2022
RI-MW-05_20221019	460-267827-1	Total PFAS EPA Method 537	10/19/2022
RI-MW-06_20221019	460-267827-2	Total PFAS EPA Method 537	10/19/2022

RI-DP-10_20221019	460-267827-3	Total PFAS EPA Method 537	10/19/2022
FB-01_20221019	460-267827-4	Total PFAS EPA Method 537	10/19/2022
RI-MW-07_20221020	460-267901-1	Total PFAS EPA Method 537	10/20/2022
RI-MW-08_20221020	460-267901-2	Total PFAS EPA Method 537	10/20/2022
RI-MW-02_20221020	460-267901-3	Total PFAS EPA Method 537	10/20/2022
RI-MW-03_20221020	460-267901-4	Total PFAS EPA Method 537	10/20/2022
FB-01_20221020	460-267901-5	Total PFAS EPA Method 537	10/20/2022
RI-MW-10_20221024	460-268208-1	Total PFAS EPA Method 537	10/24/2022
RI-MW-09_20221024	460-268208-2	Total PFAS EPA Method 537	10/24/2022
FB-01_20221024	460-268208-3	Total PFAS EPA Method 537	10/24/2022

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

J+ - The result is an estimated quantity, but the result may be biased high. (Equis qualified, JK)

J- - The result is an estimated quantity, but the result may be biased low. (Equis qualified, JL)

D - Analyte concentration is from diluted analysis.

Sample Receipt:
The Chain of Custody documents indicates that the samples were received at Eurofins Edison via laboratory courier upon completion of the sampling events. Sample login notes were generated. The cooler temperature for sample receipts was recorded upon receipt at Eurofins and determined to be acceptable (< 6 degrees C). The actual temperatures are documented on the chain of custody documents and in the case narratives provided in Appendix A and B of this report.

FB-01_20221003 was received at the laboratory, however, not listed on the chain of custody document. Analysis was required and performed for PFAS.

No unresolved problems and/or discrepancies were noted, consequently, the integrity of the samples has been assumed to be good.

The data summary Form I's included in Appendix C and Equis deliverable includes all usable (qualified) and unusable (rejected) results for the samples identified above. The Form I's summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's and onto the excel spreadsheet for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

1.0 Perfluorinated Alkyl Substances (PFAS) by LC/MS/MS EPA Modified Method 537.1 (Total and SPLP)

The following method criteria were reviewed: Holding times, Surrogates, MS, MSD, LCS/Laboratory Spiked Blanks, Field Duplicates, Method Blanks, Calibrations, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The PFAS results are valid and useable as noted within the following text:

1.1 Holding Time/Preservation

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J." The non-detects (sample quantitation limits) are required to be flagged as estimated, "J," or unusable, "R," if the holding times are grossly exceeded.

Samples were extracted and performed within the method required holding times of 28 days from collection to extraction and 40 days from extraction to analysis for Soils/Sediments and 28 days from extraction to total PFAS analysis for the Surface/Groundwater and Field Blanks.

RI-DP-08_20221018 was reextracted outside 14 days of collection (per the NYSDEC Guidance at the time; 2022). Both sets of data were provided in the lab report. Target concentrations were comparable. The initial data set should be utilized with qualifications.

Samples that required SPLP PFAS were leached within fourteen (14) days of collection.

No data validation qualifiers were required based upon holding time.

1.2 System Monitoring Compound (Surrogate) Recovery

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Surrogate recoveries (%R) for Isotope Dilution analysis are qualified based on the following criteria:

Recovery <50% or >150%	**Apply "J" Qualifier**
Recovery <25% or >150% for poor responding analytes	**Apply "J" Qualifier**
Isotope Dilution Analyte (IDA) recovery <10%	**Reject Results, "R"**

Note: Problematic analytes (PFBA, PFPeA, Fluorotelomer sulfonates) can have wider recoveries without qualification.

Samples were spiked with surrogate standards 12C4 PFBA, 13C5 PFPeA, 13C3 PFBS, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFHpA, M2-6:2 FTS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, M2-8:2 FTS, 13C2 PFDA, 13C8 FOSA, d3-NMeFOSAA, d5-NEtFOSAA, 13C2 PFUnA, 13C2 PFDoA and 13C2 PFTeDA. Recovery values were acceptable for all analysis with exceptions discussed below:

RI-SB-28_0.2-1_20221003 – d3-NMeFOSAA (169%), d5-NEtFOSAA (184%), and M2-8:2 FTS (211%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. NEtFOSAA and NMeFOSAA were not detected in this sample. No qualifiers were applied.

RI-SB-28_1-2_20221003 – d5-NEtFOSAA (159%), and M2-8:2 FTS (154%) recovered above limits. NEtFOSAA and 8:2 FTS detections are less than the reporting limits and qualified, "J" by the laboratory. No qualifiers were applied.

RI-SB-33_0.2-1_20221003 - d3-NMeFOSAA (162%), d5-NEtFOSAA (172%), and M2-8:2 FTS (203%) recovered above limits. Associated target analytes were not detected. No qualifiers were applied.

RI-SB-33_1-2_20221003 - d5-NEtFOSAA (164%), and M2-8:2 FTS (196%) recovered above limits. NEtFOSAA was not detected in this sample. The 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. No qualifiers were applied.

SPLP on RI-SB-33_1-2_20221003 – d3-NMeFOSAA (189%), d5-NEtFOSAA (193%), and M2-8:2 FTS (185%) recovered above limits. NEtFOSAA and NEtFOSAA were not detected in this sample. The 8:2 FTS detection (9.95 ng/L) has been qualified, "J." No additional qualifiers were applied.

RI-SB-X_20221003 – d3-NMeFOSAA (165%), d5-NEtFOSAA (180%), and M2-8:2 FTS (207%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. NEtFOSAA and NMeFOSAA were not detected in this sample. No qualifiers were applied.

RI-SB-26_0.2-1_20221003 – d3-NMeFOSAA (177%), d5-NEtFOSAA (185%), M2-6:2 FTS (151%) and M2-8:2 FTS (240%) recovered above limits. 6:2 FTS and 8:2 FTS detections are less than the reporting limit and qualified, "J" by the laboratory. NEtFOSAA and NMeFOSAA were not detected in this sample. No qualifiers were applied.

RI-SB-25_0.2-1_20221003 – d3-NMeFOSAA (170%), d5-NEtFOSAA (180%), M2-6:2 FTS (160%) and M2-8:2 FTS (235%) recovered above limits. 6:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. NEtFOSAA and NMeFOSAA were not detected in this sample. The detected concentration of 8:2 FTS (2.39 ug/kg) has been qualified, "J." No additional qualifiers were applied.

RI-SB-25_1-2_20221003 - d5-NEtFOSAA (158%) recovered above limits. NEtFOSAA was not detected in this sample. No qualifiers were applied.

RI-SB-27_0.2-1_20221004 - d5-NEtFOSAA (167%), and M2-8:2 FTS (190%) recovered above limits. NEtFOSAA was not detected in this sample. The 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. No qualifiers were applied.

RI-SB-27_1-2_20221004 – d3-NMeFOSAA (180%), d5-NEtFOSAA (199%), and M2-8:2 FTS (164%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. NEtFOSAA and NMeFOSAA were not detected in this sample. No additional qualifiers were applied.

RI-SB-X01_20221004 – d3-NMeFOSAA (173%), d5-NEtFOSAA (186%), and M2-8:2 FTS (225%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. NEtFOSAA and NMeFOSAA were not detected in this sample. No qualifiers were applied.

RI-SB-22_0-0.2_20221004 – M2-8:2 FTS (158%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. No qualifiers were applied.

RI-SB-32_0-0.2_20221004 – M2-8:2 FTS (159%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. No qualifiers were applied.

RI-SB-30_0-0.2_20221004 – M2-8:2 FTS (187%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. No qualifiers were applied.

RI-SB-30_0.2-1_20221004 – 13C2 PFTeDA (48%) recovered below limits. Non-detects for PFTeA have been qualified, "UJ." No additional qualifiers were applied.

RI-SB-24_0-0.2_20221004 – d3-NMeFOSAA (163%), d5-NEtFOSAA (187%), M2-6:2 FTS (156%) and M2-8:2 FTS (256%) recovered above limits. 6:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. NEtFOSAA and NMeFOSAA were not detected in this sample. The detected concentration of 8:2 FTS (3.94 ug/kg) has been qualified, "J." No additional qualifiers were applied.

RI-SB-24_0.2-1_20221004 – M2-8:2 FTS (151%) recovered above limits. 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. No qualifiers were applied.

RI-SB-24_1-2_20221004 – d5-NEtFOSAA (188%), and M2-8:2 FTS (157%) recovered above limits. 8:2 FTS detection (2.26 ug/kg) has been qualified, "J." NEtFOSAA was not detected in this sample. No additional qualifiers were applied.

RI-SB-23_0-0.2_20221004 - d5-NEtFOSAA (182%), and M2-8:2 FTS (189%) recovered above limits. NEtFOSAA was not detected in this sample. The 8:2 FTS detection is less than the reporting limit and qualified, "J" by the laboratory. No qualifiers were applied.

RI-SED-14_20221014 – 13C2 PFTeA (41%) recovered below limits. Results for PFTeA (30.9 ug/kg) has been qualified, "J."

RI-SED-16_20221014 - d5-NEtFOSAA (156%), M2-6:2 FTS (161%), and M2-8:2 FTS (213%) recovered above limits. These target compounds were not detected in this sample. No qualifiers were applied.

RI-MW-08_20221020 - d5-NEtFOSAA (156%) recovered above limits. This target compound was not detected in this sample. No qualifiers were applied.

RI-MW-02_20221020 – PFNA, PFDA, PFDS, and 8:2 FTS have been qualified, "J" due to elevated recovery. Sample results exhibit complicated matrix. No qualifiers were applied to elevated isotope recovery and the analyte was not detected in the sample.

RI-MW-03_20221020 – 8:2 FTS had been qualified; "J" due to elevated recovery. Sample results exhibit complicated matrix.

Note: Data was not qualified where Isotope Dilution recovery was above limits, and the associated target analyte was not detected in the corresponding sample.

1.3 Matrix Spikes (MS)/Matrix Spike Duplicates (MSD)

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

Recovery <70% or >130% *(Laboratory derived criteria may also be used per NYSDEC April 2023 guidance*	Apply "J" qualifier to detects and 'UJ" qualifier to non-detects of parent sample only
RPD >30%	Apply "J" qualifier to detects and 'UJ" qualifier to non-detects of parent sample only

MS/MSD analysis was conducted on samples discussed below:

RI-SB-28_1-2_20221003 – PFOSA recovered above laboratory limits in the MS (143%) and MSD (166%). The detected concentration in the parent sample (2.92 ug/kg) has been qualified, "J." PFOS recovered above limits in the MS and MSD due to high parent concentration relative to spike amount. Recovery was based on the diluted analysis of this sample. Data was not qualified based on this reported outlier. RPD was acceptable for all spiked compounds. No additional qualifiers were applied.

RI-SB-27_1-2_20221004 – PFOS recovered above limits in the MS and MSD due to high parent concentration relative to spike amount. Recovery was based on the diluted analysis of this sample. Data was not qualified based on this reported outlier. RPD was acceptable for all spiked compounds. No qualifiers were applied.

RI-SB-29_1-2_20221004 – PFOS recovered above limits in the MS (141%). MSD recovery (113%) was within laboratory limits. The detected concentration in the parent sample (3.81 ug/kg) has been qualified, "J." RPD was acceptable for all spiked compounds. No additional qualifiers were applied.

RI-SW-17_20221014 – Recovery and RPD were within laboratory limits for all spiked compounds.

RI-SED-17_20221014 - Recovery and RPD were within laboratory limits for all spiked compounds.

RI-MW-01_20221017 – RPD was acceptable for all spiked compounds. Recovery outliers were obtained for PFBA, PFHpA, PFOA, PFHxS, PFHpS, 8:2 FTS, PFPeA, PFHxA, PFOS, and 6:2 FTS due to high parent concentration relative to spike amount. Since acceptable LCS was obtained indicating the method is in control, based on professional judgment, the data was not qualified based on this MS analysis. Sample matrix was complicated.

******It should be noted that laboratory limits (60-140%) are wider than validation criteria.***

Batch MS/MSD was also provided in the lab reports. Data was not qualified based on samples collected from a different site.

1.4 Laboratory Control Sample (LCS)

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

In cases where outliers are obtained the following qualifiers are required:

Recovery <70% or >130% *(Laboratory derived criteria may also be used per NYSDEC April 2023 guidance)*	**Apply "J" qualifier to detects and "UJ" qualifier to non-detects**

Acceptable LCS (including low level LCS) were analyzed with each extraction batch. Low-level LCS associated with RI-DP-02_20221018, RI-DP-05_20221018, RI-DB-08_20221018, FB-01_20221018, RI-MW-05_20221019, RI-MW-06_20221019, RI-DP-10_20221019, and FB-01_20221019 yielded 6:2 FTS (152%), and 8:2 FTS (162%) above limits. Results have been qualified, "J/UJ" as required.

No additional qualifiers were applied based on LCS data.

1.5 Blank Contamination

Quality assurance (QA) blanks, i.e., method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

Blank Result	Sample Result	Qualification
Any detection	<Reporting Limit	Qualify as ND as reporting limit
Any detection	>Reporting Limit and >10x the blank result	No Qualification
>Reporting Limit	>Reporting limit and <10x the blank result	J+ Biased High

Below is a summary of the compounds in the blanks and the associated qualifications that have been applied:

A) Method Blank Contamination:

No target analytes were detected in the method blanks.

B) Field Blank Contamination:

No target analytes were detected in FB-01_20221003, FB-01_20221014, RI-FB-01_20221017, FB-01_20221019 or FB-01_20221024. 6:2 FTS (2.59 ng/L) was detected in FB-01_20221018. PFOS (1.65 ng/L) was detected in FB-01_20221020. Sample results are >10x the blank level. Reported results are not impacted.

***ICB/CCBs yielded "J" qualified target detections. Data was not qualified. Analytical run logs were reviewed, and it has been determined that no carryover occurred. Samples were not analyzed immediately following eh ICBs/CCBs.**

1.6 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can produce acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance. Initial and continuing calibration and verifications were acceptable and met the requirements summarized below:

Initial Calibrations:

%RSD >20% (5-6 calibration levels)	J flag detects and UJ non-detects
R2 >0.990 (5-6 calibration levels)	J flag detects and UJ non-detects
Low-level calibration check <50% or >150%	J flag detects and UJ non-detects
Mid-level calibration check <70% or >130%	U flag detects and UJ non-detects

Initial Calibration Verification:

ICV recovery <70% or >130%	J flag detects and non-detects.

Continuing Calibration Verification:

CCV recovery <70% or >130%	J flag results

Acceptable calibrations associated with field samples were analyzed.

1.7 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/-30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all the positive results for compounds are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction. For LC/MS/MS, the following criteria is utilized:

Samples were spiked with internal standard 13C2 PFOA. The area responses (-50-+150%) and retention times (+/-0.5 minutes) of this internal standard is reported by the laboratory as compared to associated continuing calibrations. Internal standard responses below limits can be attributed to extract dilution. No qualifiers were applied.

1.8 Field Duplicates

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Acceptable RPD is 30% where sample concentrations are greater than 2x the reporting limit.

Field Duplicates were collected and designated on samples discussed below:

RI-SB-28_0.2-1_20221003 = RI-SB-X_20221003: Precision is acceptable for detected analytes.

RI-SB-27_0.2-1_20221004 = RI-SB-X01_20221004: PFHxS (2.22 ug/kg vs. 0.96 ug/kg) and PFOS (28.3 ug/kg vs. 10.7 ug/kg) have been qualified, "J." It is recommended that the end user make decisions based on the higher parent concentrations.

RI-SB-29_0-0.2_20221004 = RI-SB-X02_20221004: Precision is acceptable for detected analytes.

RI-SED-13_20221014 = RI-SED-X_20221014: PFDA (2.88 ug/kg vs. 1.46 ug/kg), PFDoA (2.77 ug/kg vs 1.34 ug/kg), PFTeA (1.62 ug/kg vs 0.94 ug/kg), and PFHxS (2.88 ug/kg vs 4.44 ug/kg) have been qualified, "J." It is recommended that the end user make decisions based on the higher concentrations.

RI-SW-13_20221014 = RI-SW-X_20221014: Precision is acceptable for detected analytes.

RI-MW-01_20221017 = RI-MW-X_20221017: RI-MW-02_20221020 – PFNA, PFDA, PFDS, and 8:2 FTS have been qualified, "J" due to elevated recovery. Sample results exhibit complicated matrix.

1.9 Target Compound List Identification

TCL compounds are identified on the LC/MS/MS by using the analyte's relative retention time (RRT) obtained from known standards.

LC/MS/MS raw data met the qualitative criteria for identification. All retention times were within required specifications.

1.10 Compound Quantification and Reported Detection Limits

LC/MS/MS quantitative analysis is acceptable. Samples were extracted by solid phase extraction techniques via Method 3535. Correct internal standards per EPA Method 537.1 and response factors were used to calculate final concentrations. SPLP/Surface and Groundwater and Field Blank results are reported in ng/L (where 1 ng/L = 0.001 ug/L) for all detections.

As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).

RI-SB-28_1-2_20221003, RI-SB-28_10-11_20221003, RI-S-33_0.2-1_20221003, RI-SB-33_102_20221003, SPLP on RI-SB-33_1-2_20221003, SPLP on RI-SB-33_13-14_20221003, RI-SB-26_0.2-1_20221003, RI-SB-26_1-2_20221003, RI-SB-26_10-11_20221003, RI-SB-25_1-2_20221003, RI-SB-27_0.2-1_20221004, RI-SB-27_1-2_20221004, RI-SB-31_0.2-1-20221004, RI-SB-31_1-2_20221004, RI-SB-30_0.2-1_20221004, SPLP on RI-SB-30_0.2-1_20221004, SPLP on RI-SB-30_1-2_20221004, RI-SB-24_0-0.2_20221004, RI-SB-24_0.2-1_20221004, RI-SED-X_20221014, RI-MW-01_20221017, RI-MW-04_20221017, RI-MW-X_20221017, RI-MW-087_20221020, RI-MW-02_20221020, RI-MW-03_20221020, RI-MW-10_20221024, and RI-MW-09_20221024 were initially analyzed undiluted. Diluted reanalysis was required to quantitate analytes within the instruments' linear calibration range. The detected concentrations have been qualified, "D."

Surface water samples RI-SW-13_20221014, RI-SW-14_20221014, RI-SW-16_20221014, RI-SW-18_20221014RI-SW-19_20221014, and RI-SW-X_20221014 were documented to be turbid. Extraction was performed using reduced volumes. Reporting limits have been adjusted accordingly to account for the inherent dilutions. RI-SW-17_20221014 was initially analyzed at a 1:5 dilution.

RI-MW-0220221020 required high dilution due to PFOS concentration. The reported concentration (82800 ng/L) should be considered estimated, "J" biased low since the quantitated value at 1:200 dilution is over the instrument's calibration range.

RI-MW-03_20221020 also required elevated dilutions.

RI-MW_01_20221017, RI-MW-04_20221017, RI-MW-X_20221017, RI-DP-02_20221018, RI-DP-05_20221018, RI-DP-08_20221018, RI-MW-07_20221020, and RI-MW-09_20221024 also were extracted using reduced volume.

1.11 Overall System Performance

Good resolution and chromatographic performance were observed. Target analyte peaks were properly integrated and consistently when compared to reference standards.

Soil and Sediment results are reported in ug/kg. Groundwater, Surface Water and SPLP results are reported in ng/L (where 1 ng/L = 0.001 ug/L).

2.0 Total Organic Carbon (TOC) by Lloyd Kahn Method

Sediment samples were analyzed by Lloyd Kahn Method (equivalent technology to SW846 Method 9060A). TOC results are valid and usable as notated in the following text:

2.1 Holding Times

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J." The non-detects (sample quantitation limits) are required to be flagged as estimated, "J," or unusable, "R," if the holding times are grossly exceeded.

Analysis was performed within the method holding time of 14 days from collection for TOC.

2.2 Calibration (Initial and Continuing Calibration Verifications)
Acceptable ICVs and CCVs were analyzed yielding recovery values between 90-110% for TOC. No qualifications were applied based upon calibration data.

2.3 Blanks
Quality assurance (QA) blanks, i.e., method, field or preparation blanks are prepared to identify any contamination, which may have been introduced into the samples during sample preparation or field activity. Preparation blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

Acceptable method blanks, ICBs and CCBs were analyzed.

2.4 Sample Replicate
The data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

RI-SED-17_20221014 was analyzed as a replicate sample (4 separate analyses). Acceptable precision was obtained (2.96%).

2.5 Laboratory/Field Duplicates
The laboratory uses duplicate sample determinations to demonstrate acceptable method precision at the time of analysis. Duplicate analyses are also performed to generate data to determine the long-term precision of the analytical method on various matrices.

Field Duplicate on RI-SED-13_20221014 (49200 mg/kg) as RI-SED-X_20221014 (59300 mg/kg) yielded acceptable precision.

2.6 Laboratory Control Sample/Laboratory Control Duplicate
The laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Solid Laboratory Control samples shall be analyzed for each analyte utilizing the same sample preparation, analytical methods and QA/QC procedures as employed for the samples.

Acceptable LCS was analyzed. Recovery values were determined to be acceptable.

2.7 Sample Results Verification
Analyte quantitation was generated in accordance with protocols. The instrument logs were verified and found within the linear ranges of the instrument used for quantitation.

2.8 Overall Assessment of Data
The data was of acceptable quality.

Reviewer's Signature Lori A. Bly **Date** 1/01/2024

Appendix A
Chain of Custody Documents
And Sample Receipt Checklists

Chain of Custody Record

583998 eurofins | Environment Testing TestAmerica

264738

Address: _____

Regulatory Program: DW NPDES RCRA Other

TAL-8210

Client Contact	Project Manager: Bryan Zwirble	Site Contact: Steve Link	Date: 10/3/2022	COC No: 1 of 2 COCs
Company Name: AKRF Inc.	Tel/Email: BZwirble@akrf.com	Lab Contact: Melissa Hurr	Carrier:	Sampler:
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time: ☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
City/State/Zip: NY NY 10016	TAT if different from Below: AKRF Standard			Walk-in Client:
Phone: 802-922-2382	☐ 2 weeks			Lab Sampling:
Fax:	☐ 1 week			Job / SDG No.:
Project Name: WPFD Annual	☐ 2 days			
Site: West Plains NY 1402 Brae St.	☐ 1 day			
PO#: 200217				

460-266738 Chain of Custody

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Strip PFAS	Sample Specific Notes
1	RI-SB-28_0.2-1_20221003	10/3/22	1000	G	S	1			X		
2	RI-SB-28_1-2_20221003		1010			3		MS/MSD	X		
3	RI-SB-28_10-11_20221003		1020			1			X		
4	RI-SB-33_0.2-1_20221003		1120			2			X	X	
5	RI-SB-33_1-2_20221003		1130			2			X	X	
6	RI-SB-33_13-14_20221003		1130			2			X	X	
7	RI-SB-X_20221003		1140			1			X		
8	RI-SB-34_0.2-1_20221003		1310			1			X		
9	RI-SB-34_1-2_20221003		1300			1			X		
10	RI-SB-34_10-11_20221003		1250			1			X		
11	RI-SB-26_0.2-1_20221003		1340			1			X		
12	RI-SB-26_1-2_20221003		1350			1			X		

SUB WORK

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Cat B, EQuIS, keep SDG open, MS/MSD @ SB-28_1-2

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.:

	Relinquished by	Company	Date/Time	Received by	Company	Date/Time
1	[signature]	AKRF	10/3/22	[signature]	[signature]	10/3/22 1850
2	Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: [signature]	Date/Time: 10/3/22 1700
3	Relinquished by: [signature]	Company: [signature]	Date/Time: 13 12, 22	Received in Laboratory by: [signature]	Company: [signature]	Date/Time: 10/3/22 1644

10/24/2022

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30 ZRG 30 ZRG

Chain of Custody Record

583999 eurofins | Environment Testing TestAmerica

Address:

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Z. Wolff	Site Contact: Steve Schmit	Date: 10/3/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: BZwolff@akrf.com	Lab Contact: McKenzie Hall	Carrier:	2 of 2 COCs
Address: 440 Park Ave S. 7th FL	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below: AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: WP1-0 Dan School				Job / SDG No:
Site: 1402 Ocean St, White Plains NY				
PO # 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes
RI-SB-26_10-11_20221003	10/3/22	1400	G	S	1			X	
RI-SB-25_0-2-1_20221003	↓	1420	↓	↓	1			X	
RI-SB-25_1-2_20221003	↓	1430	↓	↓	1			X	
RI-SB-25_15-16_20221003	↓	1440	↓	↓	1			X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Cat B, Equis, Temp SDG upon

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No:	Cooler Temp. (°C): Obs'd: ____ Corr'd: ____	Therm ID No: ____
Relinquished by:	Company: AKRF	Date/Time: 10/3/22	Received by:	Company:	Date/Time: 10/3/22 15:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 10/3/22 17:00
Relinquished by:	Company:	Date/Time: 10/3/22 19:00	Received in Laboratory by:	Company:	Date/Time: 10/3/22 19:00

30 CRG 30 CRG

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10/24/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-266738 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	COC No: 460-66476 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 460-266738-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/18/2022		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403	PO #		
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	WO #		
Email	Project #: 46034945		
Project Name: WPFD	SSOW#		
Site:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
RI-SB-28_0 2-1_20221003 (460-266738-1)	10/3/22	10:00 Eastern		Solid			X	X				
RI-SB-28_1-2_20221003 (460-266738-2)	10/3/22	10:10 Eastern		Solid			X	X				
RI-SB-28_1-2_20221003 (460-266738-2MS)	10/3/22	10:10 Eastern	MS	Solid			X					
RI-SB-28_1-2_20221003 (460-266738-2MSD)	10/3/22	10.10 Eastern	MSD	Solid			X					
RI-SB-28_10-11_20221003 (460-266738-3)	10/3/22	10:20 Eastern		Solid			X	X				
RI-SB-33_0 2-1_20221003 (460-266738-4)	10/3/22	11:20 Eastern		Solid			X	X	X			
RI-SB-33_1-2_20221003 (460-266738-5)	10/3/22	11.10 Eastern		Solid			X	X	X			
RI-SB-33_13-14_20221003 (460-266738-6)	10/3/22	11:30 Eastern		Solid			X	X	X			
RI-SB-X_20221003 (460-266738-7)	10/3/22	11:00 Eastern		Solid			X	X				

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/5/22 1600	EUN		10/6/22 10:35	TAL
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks.

10/21/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476.2
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266738-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/18/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
RI-SB-34_0.2-1_20221003 (460-266738-8)	10/3/22	13:10 Eastern		Solid			X	X				
RI-SB-34_1-2_20221003 (460-266738-9)	10/3/22	13.00 Eastern		Solid			X	X				
RI-SB-34_10-11_20221003 (460-266738-10)	10/3/22	12:50 Eastern		Solid			X	X				
RI-SB-26_0.2-1_20221003 (460-266738-11)	10/3/22	13:40 Eastern		Solid			X	X				
RI-SB-26_1-2_20221003 (460-266738-12)	10/3/22	13:50 Eastern		Solid			X	X				
RI-SB-26_10-11_20221003 (460-266738-13)	10/3/22	14:00 Eastern		Solid			X	X				
RI-SB-25_0.2-1_20221003 (460-266738-14)	10/3/22	14:20 Eastern		Solid			X	X				
RI-SB-25_1-2_20221003 (460-266738-15)	10/3/22	14:30 Eastern		Solid			X	X				
RI-SB-25_15-16_20221003 (460-266738-16)	10/3/22	14:40 Eastern		Solid			X	X				

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Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
10/4/2022	[signature]	10/5/22 1600	ETNE	[signature]	10/6/22 10:35	DABER
	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476.3
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 3 of 3
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266738-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/18/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_140 PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
FB_01_20221003 (460-266738-17)	10/3/22	12:15 Eastern		Water						X	2	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/5/22 1600	EET NE		10/6/22 10:35	TAL Burl
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Page 3 of 3

10/24/2022

Chain of Custody Record

636808 eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Bryan Zwirko	Site Contact: Steve Schunk	Date: 10/4/2022	COC No
Company Name: AKRF, Inc	Tel/Email: Bzwirko@akrf.com	Lab Contact: Melissa Hug	Carrier:	of 3 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 862-922-2382	TAT if different from Below: AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPED Dunn School	☐ 1 week			Job / SDG No: 266816
Site: 1402 Orchard St, White Plains NY	☐ 2 days			
PO # 200217	☐ 1 day			

460-266816 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	SPLP PFAS	Sample Specific Notes:
RI-SB-27_0.2-1_20221004	10/4/22	820	G	S	1			X		1
RI-SB-27_1-2_20221004		830			3		Y	X		2
RI-SB-X01_20221004		845			1			X		3
RI-SB-21_0-0.2_20221004		920			2			X	X	4
RI-SB-21_0.2-1_20221004		925			2			X	X	5
RI-SB-21_1-2_20221004		935			2			X	X	6
RI-SB-22_0-0.2_20221004		940			1			X		7
RI-SB-22_0.2-1_20221004		950			1			X		8
RI-SB-22_1-2_20221004		955			1			X		9
RI-SB-32_0-0.2_20221004		1010			1			X		10
RI-SB-32_0.2-1_20221004		1020			1			X		11
RI-SB-32_1-2_20221004		1030			1			X		12

SUB WORK

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD on SB-27_1-2, CAT B, EQuIS, add to prior SDG then close

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No:	Cooler Temp (°C): Obs'd: _____ Corr'd: _____	Therm ID No: _____

Relinquished by:	Company: AKRF	Date/Time: 10/4/22 20	Received by:	Company: T.A.	Date/Time: 10/4/22 14:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 0422 1120
Relinquished by:	Company:	Date/Time: 10/5/22 1030	Received in Laboratory by:	Company:	Date/Time: 10/5/22 1030

15 ZRQ 15 ZRQ

10/24/2022

Page 5768 of 5784

Chain of Custody Record

636809 eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-8210

Client Contact	Project Manager: Bryan Zwirlein	Site Contact: Steve Schmid	Date: 10/4/2022	COC No
Company Name: AKRF, Inc.	Tel/Email: BZwirlein@akrf.com	Lab Contact: Melissa Haw	Carrier:	2 of 3 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below: AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: WPCD Dan School				Job / SDG No: 266816
Site: 1402 Orchard St. Wantagh Plants NY				
PO # 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	SPLP PFAS	Sample Specific Notes
RI-SB-31_0-0.2_20221004	10/4/22	1040	G	S	1			X		13
RI-SB-31_0.2-1_20221004		1045			1			X		14
RI-SB-31_1-2_20221004		1050			1			X		15
RI-SB-30_0-0.2_20221004		1110			2			X	X	16
RI-SB-30_0.2-1_20221004		1120			2			X	X	17
RI-SB-30_1-2_20221004		1130			2			X	X	18
RI-SB-29_0-0.2_20221004		1155			1			X		19 KR 10/5/22
RI-SB-29_0.2-1_20221004		1200			1			X		20
RI-SB-29_1-2_20221004		1210			3		Y	X		21
RI-SB-X02_20221004		1405			1			X		22
RI-SB-24_0-0.2_20221004		1245			1					23
RI-SB-24_0.2-1_20221004		1250			1					24

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD on SB-29_1-2 CAT B, Equis, add to entry SDG this date

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	AKRF	10/4/22			10/4/22 14:30
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
					10/5/22 1703
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time
		10/4/22 18:30			10/4/22 18:30

Chain of Custody Record

636810

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-5210

Client Contact	Project Manager: Bryan Zeroff	Site Contact: Steve Schuh	Date: 10/4/2022	COC No
Company Name: AKRF, Inc.	Tel/Email: BZeroff@akrf.com	Lab Contact: Melissa Hay	Carrier:	3 of 3 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2352	TAT if different from Below AKRF Standard			Walk-in Client
Fax	☐ 2 weeks			Lab Sampling
Project Name: WPPD dnt school	☐ 1 week			Job / SDG No. 166816
Site: 1402 Dreiser Street White Plains NY	☐ 2 days			
P O # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N) PFAS	Sample Specific Notes
RI-SB-24_1-2_2022 1004	10/4/22	1215	G	S	1		X	25
RI-SB-23_0-0.2_2022 1004	↓	1325	↓	↓	1		X	26
RI-SB-23_0.2-1_2022 1004	↓	1330	↓	↓	1		X	27
RI-SB-23_1-2_2022 1004	↓	1340	↓	↓	1		X	28

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: CAT B, Equis, add to prior SDG then Close

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temp. (°C): Obs'd _____ Corr'd _____	Therm ID No. _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	AKRF	10/4/22	[signature]	T.H.	10/4/22 1400
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
			[signature]	TA	10/5/22 1700
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time
[signature]	TA	10/5/22 1830	[signature]		10/6/22 0820

10/24/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-266816 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa		COC No: 460-66476 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266816-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB_0.2-1_20221004 (460-266816-1)	10/4/22	08:20 Eastern		Solid			X	X		1	
RI-SB-27_1-2_20221004 (460-266816-2)	10/4/22	08:30 Eastern		Solid			X	X		1	
RI-SB-27_1-2_20221004 (460-266816-2MS)	10/4/22	08:30 Eastern	MS	Solid			X	X		1	
RI-SB-27_1-2_20221004 (460-266816-2MSD)	10/4/22	08:30 Eastern	MSD	Solid			X	X		1	
RI-SB-X01_20221004 (460-266816-3)	10/4/22	08:45 Eastern		Solid			X	X		1	
RI-SB-21_0-0 2_20221004 (460-266816-4)	10/4/22	09:20 Eastern		Solid			X	X	X	2	
RI-SB-21_0 2-1_20221004 (460-266816-5)	10/4/22	09:25 Eastern		Solid			X	X	X	2	
RI-SB-21_1-2_20221004 (460-266816-6)	10/4/22	09:35 Eastern		Solid			X	X	X	2	
RI-SB-22_0-0 2_20221004 (460-266816-7)	10/4/22	09:40 Eastern		Solid			X	X		1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time	Method of Shipment:			
Relinquished by:	Date/Time: 10/5/22 1600	Company: TESTAMERICA	Received by:	Date/Time: 10/6/22 10:35	Company: TAESTAMERICA	
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company	
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks:

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10/21/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476.2
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 2 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266816-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB-22_0 2-1_20221004 (460-266816-8)	10/4/22	09.50 Eastern		Solid			X	X		1	
RI-SB-22_1-2_20221004 (460-266816-9)	10/4/22	09:55 Eastern		Solid			X	X		1	
RI-SB-32_0-0.2_20221004 (460-266816-10)	10/4/22	10 10 Eastern		Solid			X	X		1	
RI-SB-32_0 2-1_20221004 (460-266816-11)	10/4/22	10.20 Eastern		Solid			X	X		1	
RI-SB-32_1-2_20221004 (460-266816-12)	10/4/22	10:30 Eastern		Solid			X	X		1	
RI-SB-31_0-2_20221004 (460-266816-13)	10/4/22	10 40 Eastern		Solid			X	X		1	
RI-SB-31_0.2-1_20221004 (460-266816-14)	10/4/22	10:45 Eastern		Solid			X	X		1	
RI-SB-31_1-2_20221004 (460-266816-15)	10/4/22	10:50 Eastern		Solid			X	X		1	
RI-SB-30_0-0.2_20221004 (460-266816-16)	10/4/22	11:10 Eastern		Solid			X	X	X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank 1	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/5/22 1600	EEN		10/6/22 10:35	DA
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476 3
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 3 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266816-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB-30_0 2-1_20221004 (460-266816-17)	10/4/22	11:20 Eastern		Solid			X	X	X	2	
RI-SB-30_1-2_20221004 (460-266816-18)	10/4/22	11:30 Eastern		Solid			X	X	X	2	
RI-SB-29_0-0 2_20221004 (460-266816-19)	10/4/22	11:55 Eastern		Solid			X	X		1	
RI-SB-29_0 2-1_20221004 (460-266816-20)	10/4/22	12:00 Eastern		Solid			X	X		1	
RI-SB-29_1-2_20221004 (460-266816-21)	10/4/22	12:10 Eastern		Solid			X	X		1	
RI-SB-29_1-2_20221004 (460-266816-21MS)	10/4/22	12:10 Eastern	MS	Solid			X	X		1	
RI-SB-29_1-2_20221004 (460-266816-21MSD)	10/4/22	12:10 Eastern	MSD	Solid			X	X		1	
RI-SB-X02_20221004 (460-266816-22)	10/4/22	14:05 Eastern		Solid			X	X		1	
RI-SB-24_0-0 2_20221004 (460-266816-23)	10/4/22	12:45 Eastern		Solid			X	X		1	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date:	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/5/22 1600	EETNE		10/6/22 0935	TAL-P
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

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10/26/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66476 4
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 4 of 4
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-266816-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/14/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #			
Email	WO #			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SB-24_0 2-1_20221004 (460-266816-24)	10/4/22	12:50 Eastern		Solid			X	X		1	
RI-SB-24_1-2_20221004 (460-266816-25)	10/4/22	12:55 Eastern		Solid			X	X		1	
RI-SB-23_0-0 2_20221004 (460-266816-26)	10/4/22	13.25 Eastern		Solid			X	X		1	
RI-SB-23_0.2-1_20221004 (460-266816-27)	10/4/22	13:30 Eastern		Solid			X	X		1	
RI-SB-23_1-2_20221004 (460-266816-28)	10/4/22	13.40 Eastern		Solid			X	X		1	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/5/22 1600	FEDEX	[signature]	10/6/22 10:35	DAB
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No :	Cooler Temperature(s) °C and Other Remarks:

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10/21/2022

Address: _____

Chain of Custody Record

636812

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zirkoff	Site Contact: Steve Schmidt	Date: 10/14/2022	COC No:
Company Name: AKRF Inc.	Tel/Email: BZirkoff@akrf.com	Lab Contact: Melissa Hart	Carrier:	1 of 1 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY, NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 862-926-2582	TAT if different from Below: AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPPD Drill School	☐ 1 week			Job / SDG No: 267587
Site: 1402 Orange Street White Plains NY	☐ 2 days			
PO#: 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y / N)	1yl bag Total Cyanide	Sample Specific Notes:
RI-SED-B_20221014	10/14/22	915	G	S	1			X	
RI-SED-14_20221014		845						X	
RI-SED-15_20221014		800						X	
RI-SED-16_20221014		1300						X	
RI-SED-17_20221014		1200					Y	X	
RI-SED-18_20221014		1115						X	
RI-SED-19_20221014		1030						X	
RI-SED-20_20221014		945						X	
RI-SED-X_20221014	↓	930	↓	↓	↓			X	

460-267587 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD in SED-17 Equis, CAT B, close SDG

Custody Seals intact: ☐ Yes ☐ No	Custody Seal No:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No: _____

	Relinquished by	Company	Date/Time	Received by	Company	Date/Time
1		AKRF	10/14/22		ET	10/14/22 1430
2		Company:	Date/Time:	Received by:	Company:	Date/Time: 10/15/22 1200
3		Company:	Date/Time: 10/15/22 1200	Received in Laboratory by: Angela Casalbo	Company: ETA Ecl	Date/Time: 10/14/22 1800

10/21/2022

26CR9 26 2Reg

ELMSFO

Chain of Custody Record

636807

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☒ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zmuff	Site Contact: Steve Schatt	Date: 10/14/2022	COC No:
Company Name: AKRF, Inc.	Tel/Email: Bzmuff@akrf.com	Lab Contact: Melissa Moss	Carrier:	1 of 2 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2582	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WIPD Pall Sound	☐ 1 week			Job / SDG No.: 167585
Site: 1492 Orchard Street Mamaroneck NY	☐ 2 days			
PO#: 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PFAS	SPLP PFAS	Sample Specific Notes
RI-SED-13_20221014	10/14/22	915	G	S	2			X	X	1
RI-SED-14_20221014		845						X	X	2
RI-SED-15_20221014		800						X	X	3
RI-SED-16_20221014		1300						X	X	4
RI-SED-17_20221014		1200					Y	X	X	5
RI-SED-18_20221014		1115						X	X	6
RI-SED-19_20221014		1030						X	X	7
RI-SED-20_20221014		945						X	X	8
RI-SED-X_20221014		930		↓	↓			X	X	9
RI-SW-13_20221014		915		W	2			X		10
RI-SW-14_20221014		845						X		11
RI-SW-15_20221014	↓	800	↓	↓	↓			X		12

460-267585 Chain of Custody

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD on SED-17, Equis, CAT B, close SDG

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temp. (°C): Obs'd _____ Corr'd _____	Therm ID No. _____
Relinquished by:	Company: AKRF	Date/Time: 10/14/22	Received by:	Company: T.A	Date/Time: 10/14/22 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 10/15/22 0800
Relinquished by: Kennell	Company: TA	Date/Time: 10/15/22 1800	Received in Laboratory by: Angela Casalla	Company: Eur Ed	Date/Time: 10/14/22 1800

2 of 2 Opel 28 Zpa

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11/04/2022

Address:

Chain of Custody Record

636806

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zerbe	Site Contact: Steve Schmidt	Date: 10/14/2022	COC No
Company Name: AKRF Inc	Tel/Email: BZerbe@akrf.com	Lab Contact: Melissa Hunter	Carrier:	2 of 2 COCs
Address: 440 Park Ave S, 7th Fl	Analysis Turnaround Time			Sampler
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-7382	TAT if different from Below: AKRF Standard			Walk-in Client:
Fax	☐ 2 weeks			Lab Sampling:
Project Name: WPD Dorl School	☐ 1 week			Job / SDG No.: 187585
Site: 1402 Cortlandt Street Water Pkwy	☐ 2 days			
PO # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	PCB	Sample Specific Notes:
RI-SW-16_20221014	10/14/22	1300	G	W	2			X	13
RI-SW-17_20221014		1200					Y	X	14
RI-SW-18_20221014		1115						X	15
RI-SW-19_20221014		1030						X	16
RI-SW-20_20221014		945						X	17
RI-SW-X_20221014		930						X	18
RI-CW-01_20221014		1320						X	19
RI-CW-02_20221014		1345						X	20
RI-CW-03_20221014		1400						X	21
RI-CW-04_20221014		1415						X	22
FB-01_20221014		1320						X	23

SUB WORK

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:
MS/MSD on SW-17, EQuIS, CAT B, CLP SOW

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: ____ Corr'd: ____	Therm ID No.: ____
Relinquished by:	Company: AKRF	Date/Time: 10/14/22 1730	Received by:	Company: EA	Date/Time: 10/14/22 1730
Relinquished by:	Company:	Date/Time:	Received by:	Company: EA	Date/Time: 10/14/22 1700
Relinquished by:	Company: EA	Date/Time: 10/14/22 1800	Received in Laboratory by: Angela Casalkes	Company: ETA ED	Date/Time: 10/14/22 1800

11/04/2022

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28 -> Rel 28 Rcd

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-267585 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa		COC No: 460-66587 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267585-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	Total Number of containers	Special Instructions/Note:
Preservation Code:											
RI-SED-13_20221014 (460-267585-1)	10/14/22	09 15 Eastern		Solid			X	X	X	2	
RI-SED-14_20221014 (460-267585-2)	10/14/22	08:45 Eastern		Solid			X	X	X	2	
RI-SED-15_20221014 (460-267585-3)	10/14/22	08:00 Eastern		Solid			X	X	X	2	
RI-SED-16_20221014 (460-267585-4)	10/14/22	13.00 Eastern		Solid			X	X	X	2	
RI-SED-17_20221014 (460-267585-5)	10/14/22	12 00 Eastern		Solid			X	X	X	2	
RI-SED-17_20221014 (460-267585-5MS)	10/14/22	12.00 Eastern	MS	Solid			X	X		2	
RI-SED-17_20221014 (460-267585-5MSD)	10/14/22	12:00 Eastern	MSD	Solid			X	X		2	
RI-SED-18_20221014 (460-267585-6)	10/14/22	11 15 Eastern		Solid			X	X	X	2	
RI-SED-19_20221014 (460-267585-7)	10/14/22	10:30 Eastern		Solid			X	X	X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/18/22 1600	EETNE		10/19/2022 1030	ETA Burl
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

10/20/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66587 2
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267585-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/Shake_Bath_14D PFAS, Standard List (21 analytes)	PFC_IDA/1312_E SPLP PFAS, Standard List (21 analytes)	Moisture/ Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
RI-SED-20_20221014 (460-267585-8)	10/14/22	09:45 Eastern		Solid			X	X	X	2	
RI-SED-X_20221014 (460-267585-9)	10/14/22	09:30 Eastern		Solid			X	X	X	2	

Note. Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 1	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/18/22 1600	EETNE		10/19/2022 1030	ETA Burl
2		Date/Time:	Company	Received by:	Date/Time	Company
3		Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone. 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66588 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267585-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #			
Email	WO #			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Tnzma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3536_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-SW-13_20221014 (460-267585-10)	10/14/22	09:15 Eastern		Water			X	2	
RI-SW-14_20221014 (460-267585-11)	10/14/22	08 45 Eastern		Water			X	2	
RI-SW-15_20221014 (460-267585-12)	10/14/22	08.00 Eastern		Water			X	2	
RI-SW-16_20221014 (460-267585-13)	10/14/22	13:00 Eastern		Water			X	2	
RI-SW-17_20221014 (460-267585-14)	10/14/22	12:00 Eastern		Water			X	2	
RI-SW-17_20221014 (460-267585-14MS)	10/14/22	12 00 Eastern	MS	Water			X	2	
RI-SW-17_20221014 (460-267585-14MSD)	10/14/22	12 00 Eastern	MSD	Water			X	2	
RI-SW-18_20221014 (460-267585-15)	10/14/22	11 15 Eastern		Water			X	2	
RI-SW-19_20221014 (460-267585-16)	10/14/22	10 30 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/18/22 1600	ETNH		10/19/2022 1030	ETA Burl
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks

10/20/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone. 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	Carrier Tracking No(s)	COC No: 460-66588 2
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa Haas@et.eurofinsus com	State of Origin: New York	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267585-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3636_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-SW-20_20221014 (460-267585-17)	10/14/22	09 45 Eastern		Water			X	2	
RI-SW-X_20221014 (460-267585-18)	10/14/22	09 30 Eastern		Water			X	2	
RI-CW-01_20221014 (460-267585-19)	10/14/22	13:30 Eastern		Water			X	2	
RI-CW-02_20221014 (460-267585-20)	10/14/22	13:45 Eastern		Water			X	2	
RI-CW-03_20221014 (460-267585-21)	10/14/22	14:00 Eastern		Water			X	2	
RI-CW-04_20221014 (460-267585-22)	10/14/22	14 15 Eastern		Water			X	2	
FB-01_20221014 (460-267585-23)	10/14/22	13 20 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 1	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/18/22 1600	EET NEL		10/19/2022 1030	ETA Burl
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks

Chain of Custody Record

636804

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Bryan Zivoff	Site Contact:	Date:	COC No:
Company Name: AKRF, Inc.	Tel/Email: bzivoff@akrf.com	Lab Contact:	Carrier:	___ of ___ COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 802-922-2382	TAT if different from Below: AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			Lab Sampling:
Project Name: WPPD Drill School				Job / SDG No.: 267702
Site: 1402 Urban Street White Plains NY				
PO#: 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes
RI-MW-01_2022 1017	10/17/22	1135	G	W	2			X	-1
RI-MW-04_2022 1017		1405			8		Y	X	-2
RI-MW-X_2022 1017		1300			2			X	-3
FB-01_2022 1017		1100			2			X	-4

460-267702 Chain of Custody

SUB WORK

ELMSFORD 272

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: CAT B, Equis, MS/MSD on MW-01, Key STD-Apm

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd _____ Corr'd _____ Therm ID No.: _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	AKRF	10/17/22		ETA	10-17-22 1500
	ETA	10-17-22 1600			10/17/22 17:00
		10/17/22 18:00			10/17/22 1800

17 Cpa1

11/08/2022

Chain of Custody Record

636805 eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Bryan Z. Graff	Site Contact: Steve Samid	Date: 10/18/2022	COC No: 1 of 1 COCs
Company Name: AKRF, Inc.	Tel/Email: BZGraff@akrf.com	Lab Contact: Melissa Hug	Carrier:	Sampler:
Address: 440 Park Ave S 7th Fl	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip: NY NY 10016	☑ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
Phone: 802-922-2382	TAT if different from Below: AKRF standard			Lab Sampling:
Fax:	☐ 2 weeks			Job / SDG No: 267732
Project Name: WPFD Dutch Kills	☐ 1 week			
Site: 1402 Orchard Street Wantagh NY	☐ 2 days			
PO # 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-DP-02_20221018	10/18/22	855	G	W	2			X	
RI-DP-05_20221018	↓	1010	↓	↓	↓			X	
RI-DP-08_20221018		1315						X	
FB-01_20221018		1400						X	

SUB WORK

ELMSFORD

460-267732 Chain of Custody

Page 3635 of 3660

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
CAT B, Equis, add to prior SDG + Keep open

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	AKRF	10/18/22		ETA	10-18-22 15:50
Relinquished by	ETA	10-18-22 1600			10/18/22 1700
Relinquished by		10/18/22 1800	Received in Laboratory by		10/19/22 1840

11/08/2022

18284 28 pg

Chain of Custody Record

636811

eurofins | Environment Testing America

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

261827

TAL-8210

Client Contact	Project Manager: Bryan Zierott	Site Contact: Steve Elmendorf	Date: 10/19/2022	COC No: 1 of 1 COCs
Company Name: AECOM Inc.	Tel/Email: Bzierott@aecom.com	Lab Contact: Melissa Hay	Carrier:	Sampler:
Address: 4140 Park Ave S. 7th Fl	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
Phone: 802-922-2382	TAT if different from Below: AECOM Standard			Lab Sampling:
Fax:	☐ 2 weeks			
Project Name: WPPO Drill School	☐ 1 week			Job / SDG No.:
Site: 140 Orchard St. White Plains NY	☐ 2 days			
PO# 200217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-MW-05_20221019	10/19/22	1250	G	W	2			X	1
RI-MW-06_20221019	↓	935	↓	↓	↓			X	2
RI-DP-10_20221019		1100						X	3
FB-01_20221019	↓	1345	↓	↓	↓			X	4

SUB WORK

RECEIVED 272

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample I... tained longer than 1 month)

☐ Retu... a for _____ Months

460-267827 Chain of Custody

Special Instructions/QC Requirements & Comments:

CAT B, EQuIS, add to prior SDG keep open

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.:

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	AECOM	10/19/22	[signature]	ETA	10-19-22 1500
[signature]	ETA	10-19-22 1600	[signature]	NA	10/19/22 1700
[signature]	NA	10/19/22 1900	[signature]	FL	10/19/22 1900

2 Coolers 2 Coolers

11/08/2022

Chain of Custody Record 471164

eurofins | Environment Testing TestAmerica

Address

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Bryan Zirkoff	Site Contact: Grace Schmidt	Date: 10/20/2022	COC No: 1 of 1 COCs
Company Name: AKRF, Inc.	Tel/Email: BZirkoff@akrfamail	Lab Contact: Melissa Hall	Carrier:	Sampler
Address: 440 Park Ave. S. 7th fl	Analysis Turnaround Time: ☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only: Walk-in Client: Lab Sampling:
City/State/Zip: NY NY 10016	TAT if different from Below: AKRF standard			Job / SDG No.: 267901
Phone: 802-922-2382	☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			
Fax:				
Project Name: WPFD Drill School				
Site: 1402 Orchard St, White Plains NY				
PO # 200217				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-MW-01_20221020	10/20/22	825	G	W	2			X	1
RI-MW-08_20221020	↓	1005	↓	↓	↓			X	2
RI-MW-02_20221020		1145						X	3
RI-MW-03_20221020		1355						X	4
FB-01_20221020		1400						X	5

SUB WORK

460-267901 Chain of Custody

LMSFORD 272

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
CAT B, Equis, add to prior SDG - Keep open

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company	Date/Time	Received by:	Company	Date/Time
Relinquished by:	AKRF	10/20/22		ETA	10-20-22 1500
Relinquished by:	ETA	10-20-22 1600			
Relinquished by:			Received in Laboratory by:		10/20/22 1830

20 EDDs to Lori

Chain of Custody Record 471165

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

266216

TAL-8210

Client Contact	Project Manager: Brian Zieroff	Site Contact: Steve Clark	Date: 10/24/22	COC No:
Company Name: AKRF, Inc	Tel/Email: BZieroff@akrf.com	Lab Contact: Melissa Hix	Carrier:	1 of 1 COCs
Address: 440 Park Ave S. 7th Fl	Analysis Turnaround Time			Sampler
City/State/Zip: NY NY 10016	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 862-902-2362	TAT if different from Below AKRF Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: WPFD Drill Survey	☐ 1 week			
Site: 1402 Orchard St. White Plains NY	☐ 2 days			Job / SDG No.:
PO # 20217	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PFAS	Sample Specific Notes:
RI-MW-08_20221024	10/24/22	1130	G	W	2			X	1
RI-MW-09_20221024	↓	1255	↓	↓	↓			X	2
FB-01_20221024	↓	1503	↓	↓	↓			X	3

SUB WORK

460-268208 Chain of Custody

ELMSFORD 272

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11/08/2022

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: CAT B, Equs, Add to prior SDG then close

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: / | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	AKRF	10/24/2022		ETN	10-24-22 1600
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	~~AKRF~~ ETN	10-25-22 1630			10/25/22 1730
Relinquished by	Company	Date/Time	Received in laboratory by	Company	Date/Time
		10/25/22 1800			10/25/22

22 Cfed 22 Cfed

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

fins | Environment Testing America

460-267702 Chain of Custody

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa		
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa.Haas@et.eurofinsus.com	New York	Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267702-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/1/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-01_20221017 (460-267702-1)	10/17/22	12:35 Eastern		Water			X	2	
RI-MW-01_20221017 (460-267702-1MS)	10/17/22	12:35 Eastern	MS	Water			X	2	
RI-MW-01_20221017 (460-267702-1MSD)	10/17/22	12:35 Eastern	MSD	Water			X	2	
RI-MW-04_20221017 (460-267702-2)	10/17/22	14:05 Eastern		Water			X	2	
RI-MW-X_20221017 (460-267702-3)	10/17/22	13.00 Eastern		Water			X	2	
FB-01_20221017 (460-267702-4)	10/17/22	11.00 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		10/19/22 1600	EEN		10/20/22 10:35	TAB
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record



460-267732 Chain of Custody

rofins | Environment Testing America

600 1

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Haas, Melissa		Page 1 of 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa.Haas@et.eurofinsus.com	New York	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267732-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/1/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email:	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3536_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-DP-02_20221018 (460-267732-1)	10/18/22	08:55 Eastern		Water			X	2	
RI-DP-05_20221018 (460-267732-2)	10/18/22	10:50 Eastern		Water			X	2	
RI-DP-08_20221018 (460-267732-3)	10/18/22	13:15 Eastern		Water			X	2	
FB-01_20221018 (460-267732-4)	10/18/22	14:00 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) — Primary Deliverable Rank: 1	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1		10/19/22 1600	EET NH		10/20/22 10:35	TAL
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-267827 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa		COC No: 460-66614.1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-267827-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 10/31/2022	Analysis Requested		Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-05_20221019 (460-267827-1)	10/19/22	12:50 Eastern		Water			X	2	
RI-MW-06_20221019 (460-267827-2)	10/19/22	09:35 Eastern		Water			X	2	
RI-DP-10_20221019 (460-267827-3)	10/19/22	11:00 Eastern		Water			X	2	
FB-01_20221019 (460-267827-4)	10/19/22	13:45 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10/20/22 1600	Company: ETNE	Received by:	Date/Time: 10/21/22 1035	Company: ETA Burl
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time.	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

11/08/2022

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-267901 Chain of Custody

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa	COC No: 460-66648.1
Client Contact: Shipping/Receiving	Phone	E-Mail: Melissa.Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York	Job #: 460-267702-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/4/2022		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email	WO #:		
Project Name: WPFD	Project #: 46034945		
Site	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of Containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-07_20221020 (460-267901-1)	10/20/22	08:25 Eastern		Water			X	2	
RI-MW-08_20221020 (460-267901-2)	10/20/22	10:05 Eastern		Water			X	2	
RI-MW-02_20221020 (460-267901-3)	10/20/22	11:45 Eastern		Water			X	2	
RI-MW-03_20221020 (460-267901-4)	10/20/22	13.55 Eastern		Water			X	2	
FB-01_20221020 (460-267901-5)	10/20/22	14:00 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/24/22 1600	ETA		10/25/2022 1030	ETA Buel
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

460-268208 Chain of Custody

Eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Haas, Melissa		90 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Melissa Haas@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 460-268208-1
Address: 530 Community Drive, Suite 11,	Due Date Requested: 11/4/2022			
City: South Burlington	TAT Requested (days):			
State, Zip: VT, 05403				
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:			
Email	WO #:			
Project Name: WPFD	Project #: 46034945			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA/3535_IVWT PFAS, Standard List (21 analytes)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
RI-MW-10_20221024 (460-268208-1)	10/24/22	11.50 Eastern		Water			X	2	
RI-MW-09_20221024 (460-268208-2)	10/24/22	13:55 Eastern		Water			X	2	
FB-01_20221024 (460-268208-3)	10/24/22	15:00 Eastern		Water			X	2	

Note Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	[signature]	10/27/22 1600	EFNEdi	[signature]	10/31/22 7:5	[illegible]
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No..	Cooler Temperature(s) °C and Other Remarks

Page 2 of 3 11/8/2022

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267585-1

Login Number: 267585
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267585-1

Login Number: 267585
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/19/22 03:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861177
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267587-1

Login Number: 267587
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266738
List Number: 1
Creator: Narinkhum, Nudjarin 1

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266738
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/06/22 04:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861087, 1861088, 1861089
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C, 1.3°C, 1.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266816
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-266738-1

Login Number: 266816
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/06/22 05:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861087, 1861088, 1861089
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6°C, 1.3°C, 1.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267702
List Number: 1
Creator: Lysy, Susan

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267702
List Number: 2
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington
List Creation: 10/20/22 02:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861192
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267732
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267732
List Number: 2
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington
List Creation: 10/20/22 02:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861192
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267827
List Number: 1
Creator: Khlungprakhon, Sukanya

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267827
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/21/22 12:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861203
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267901
List Number: 1
Creator: Thundathorn, Sukanan 1

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 267901
List Number: 2
Creator: Reynolds, Jamie K

List Source: Eurofins Burlington
List Creation: 10/26/22 09:29 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861218
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 268208
List Number: 1
Creator: Meyers, Gary

List Source: Eurofins Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-267702-1

Login Number: 268208
List Number: 2
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington
List Creation: 10/31/22 09:50 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1861259, 258, 260
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6°C,16.1°C, 1.0°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix B
Case Narratives

CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-267585-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/14/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-SED-13_20221014 (460-267585-1), RI-SED-14_20221014 (460-267585-2), RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4), RI-SED-17_20221014 (460-267585-5), RI-SED-18_20221014 (460-267585-6), RI-SED-19_20221014 (460-267585-7), RI-SED-20_20221014 (460-267585-8) and RI-SED-X_20221014 (460-267585-9) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/27/2022 and analyzed on 10/31/2022 and 11/02/2022.

Samples RI-SW-13_20221014 (460-267585-10), RI-SW-14_20221014 (460-267585-11), RI-SW-15_20221014 (460-267585-12), RI-SW-16_20221014 (460-267585-13), RI-SW-17_20221014 (460-267585-14), RI-SW-18_20221014 (460-267585-15), RI-SW-19_20221014 (460-267585-16), RI-SW-20_20221014 (460-267585-17), RI-SW-X_20221014 (460-267585-18), RI-CW-01_20221014 (460-267585-19), RI-CW-02_20221014 (460-267585-20), RI-CW-03_20221014 (460-267585-21), RI-CW-04_20221014 (460-267585-22) and FB-01_20221014 (460-267585-23) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/27/2022 and analyzed on 10/27/2022 and 10/28/2022.

Samples RI-SED-13_20221014 (460-267585-1), RI-SED-14_20221014 (460-267585-2), RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4), RI-SED-17_20221014 (460-267585-5), RI-SED-18_20221014 (460-267585-6), RI-SED-19_20221014 (460-267585-7), RI-SED-20_20221014 (460-267585-8) and RI-SED-X_20221014 (460-267585-9) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were leached on 10/25/2022, and prepared and analyzed on 10/28/2022.

Method 3535: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to sample matrix concerns (dark in color and turbid), the following samples were diluted prior to extraction: RI-SW-13_20221014 (460-267585-10), RI-SW-14_20221014 (460-267585-11), RI-SW-15_20221014 (460-267585-12), RI-SW-16_20221014 (460-267585-13), RI-SW-18_20221014 (460-267585-15), RI-SW-19_20221014 (460-267585-16) and RI-SW-X_20221014 (460-267585-18).

Method 537 (modified): Results for samples RI-SW-17_20221014 (460-267585-14), RI-SW-17_20221014 (460-267585-14[MS]) and RI-SW-17_20221014 (460-267585-14[MSD]) were reported from the analysis of a diluted extract due to matrix concerns the undiluted extract. The extract was dark in color and turbid, suggesting the presence suspended particulates, which could pose a threat to the instrument. Thus, a more concentrated analysis was not possible. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with samples RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4) and RI-SED-17_20221014 (460-267585-5) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Method 537 (modified): 13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: RI-SED-14_20221014 (460-267585-2). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SED-16_20221014 (460-267585-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185360 was outside acceptance criteria: (CCB 200-185360/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples RI-SED-13_20221014 (460-267585-1), RI-SED-14_20221014 (460-267585-2), RI-SED-15_20221014 (460-267585-3), RI-SED-16_20221014 (460-267585-4), RI-SED-17_20221014 (460-267585-5), RI-SED-18_20221014 (460-267585-6), RI-SED-19_20221014 (460-267585-7), RI-SED-20_20221014 (460-267585-8) and RI-SED-X_20221014 (460-267585-9) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 10/27/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-267587-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/14/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

LLOYD KAHN METHOD (TOTAL ORGANIC CARBON)

Samples RI-SED-13_20221014 (460-267587-1), RI-SED-14_20221014 (460-267587-2), RI-SED-15_20221014 (460-267587-3), RI-SED-16_20221014 (460-267587-4), RI-SED-17_20221014 (460-267587-5), RI-SED-18_20221014 (460-267587-6), RI-SED-19_20221014 (460-267587-7), RI-SED-20_20221014 (460-267587-8) and RI-SED-X_20221014 (460-267587-9) were analyzed for Lloyd Kahn Method (total organic carbon) in accordance with Lloyd Kahn Method. The samples were analyzed on 10/20/2022.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples RI-SED-13_20221014 (460-267587-1), RI-SED-14_20221014 (460-267587-2), RI-SED-15_20221014 (460-267587-3), RI-SED-16_20221014 (460-267587-4), RI-SED-17_20221014 (460-267587-5), RI-SED-18_20221014 (460-267587-6), RI-SED-19_20221014 (460-267587-7), RI-SED-20_20221014 (460-267587-8) and RI-SED-X_20221014 (460-267587-9) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 10/19/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-266738-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/3/2022 7:00 PM and 10/4/2022 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.5° C and 3.0° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): FB_01_20221003 (460-266738-17). The client confirmed that this sample should be analyzed.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-SB-28_0.2-1_20221003 (460-266738-1), RI-SB-27_0.2-1_20221004 (460-266816-1), RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-28_10-11_20221003 (460-266738-3), RI-SB-X01_20221004 (460-266816-3), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-21_0-0.2_20221004 (460-266816-4), RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-21_0.2-1_20221004 (460-266816-5), RI-SB-33_13-14_20221003 (460-266738-6), RI-SB-21_1-2_20221004 (460-266816-6), RI-SB-X_20221003 (460-266738-7), RI-SB-22_0-0.2_20221004 (460-266816-7), RI-SB-34_0.2-1_20221003 (460-266738-8), RI-SB-22_0.2-1_20221004 (460-266816-8), RI-SB-34_1-2_20221003 (460-266738-9), RI-SB-22_1-2_20221004 (460-266816-9), RI-SB-34_10-11_20221003 (460-266738-10), RI-SB-32_0-0.2_20221004 (460-266816-10), RI-SB-26_0.2-1_20221003 (460-266738-11), RI-SB-32_0.2-1_20221004 (460-266816-11), RI-SB-26_1-2_20221003 (460-266738-12), RI-SB-32_1-2_20221004 (460-266816-12), RI-SB-26_10-11_20221003 (460-266738-13), RI-SB-31_0-0.2_20221004 (460-266816-13), RI-SB-25_0.2-1_20221003 (460-266738-14), RI-SB-31_0.2-1_20221004 (460-266816-14), RI-SB-25_1-2_20221003 (460-266738-15), RI-SB-31_1-2_20221004 (460-266816-15), RI-SB-25_15-16_20221003 (460-266738-16), RI-SB-30_0-0.2_20221004 (460-266816-16), RI-SB-30_0.2-1_20221004 (460-266816-17), RI-SB-30_1-2_20221004 (460-266816-18), RI-SB-29_0-0.2_20221004 (460-266816-19), RI-SB-29_0.2-1_20221004 (460-266816-20), RI-SB-29_1-2_20221004 (460-266816-21), RI-SB-X02_20221004 (460-266816-22), RI-SB-24_0-0.2_20221004 (460-266816-23), RI-SB-24_0.2-1_20221004 (460-266816-24), RI-SB-24_1-2_20221004 (460-266816-25), RI-SB-23_0-0.2_20221004 (460-266816-26), RI-SB-23_0.2-1_20221004 (460-266816-27) and RI-SB-23_1-2_20221004 (460-266816-28) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/10/2022, 10/12/2022 and 10/17/2022 and analyzed on 10/11/2022, 10/12/2022, 10/13/2022 and 10/17/2022.

Sample FB_01_20221003 (460-266738-17) was analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared and analyzed on 10/07/2022.

Method 537 (modified): Results for samples RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-28_1-2_20221003 (460-266738-2[MS]), RI-SB-28_1-2_20221003 (460-266738-2[MSD]), RI-SB-28_10-11_20221003 (460-266738-3), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-26_0.2-1_20221003 (460-266738-11), RI-SB-26_1-2_20221003 (460-266738-12), RI-SB-26_10-11_20221003 (460-266738-13) and RI-SB-25_1-2_20221003 (460-266738-15) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): The matrix spike and matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-184460 and

analytical batch 200-184532 were outside control limits for Perfluorooctanesulfonic acid (PFOS). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): The matrix spike and matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-184459 and analytical batch 200-184546 were outside control limits for Perfluorooctanesulfonic acid (PFOS). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): Results for samples RI-SB-27_0.2-1_20221004 (460-266816-1), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-27_1-2_20221004 (460-266816-2[MS]) and RI-SB-27_1-2_20221004 (460-266816-2[MSD]) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-25_0.2-1_20221003 (460-266738-14). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: RI-SB-28_0.2-1_20221003 (460-266738-1), RI-SB-X_20221003 (460-266738-7) and RI-SB-X01_20221004 (460-266816-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): M2-8:2 FTS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: RI-SB-22_0-0.2_20221004 (460-266816-7). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with sample RI-SB-X01_20221004 (460-266816-3) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Method 537 (modified): Results for sample RI-SB-33_1-2_20221003 (460-266738-5) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-26_0.2-1_20221003 (460-266738-11). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d5-NEtFOSAA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: RI-SB-25_1-2_20221003 (460-266738-15). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-33_1-2_20221003 (460-266738-5) and RI-SB-27_0.2-1_20221004 (460-266816-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: RI-SB-28_1-2_20221003 (460-266738-2[MS]), RI-SB-28_1-2_20221003 (460-266738-2[MSD]), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-27_1-2_20221004 (460-266816-2[MS]) and RI-SB-27_1-2_20221004 (460-266816-2[MSD]). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The matrix spike and matrix spike duplicate (MS/MSD) recoveries for preparation batch 200-184460 and analytical batch 200-184599 were outside control limits for Perfluorooctanesulfonamide (PFOSA). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): M2-8:2 FTS Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following samples: RI-SB-32_0-0.2_20221004 (460-266816-10), RI-SB-30_0-0.2_20221004 (460-266816-16) and RI-SB-24_0.2-1_20221004 (460-266816-24). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C2 PFTeDA Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: RI-SB-30_0.2-1_20221004 (460-266816-17). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-24_0-0.2_20221004 (460-266816-23). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended

limit for the following samples: RI-SB-24_1-2_20221004 (460-266816-25) and RI-SB-23_0-0.2_20221004 (460-266816-26). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): The matrix spike (MS) recovery for preparation batch 200-184585 and analytical batch 200-184626 were outside control limits for Perfluorooctanesulfonic acid (PFOS) Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 537 (modified): Results for samples RI-SB-31_0.2-1_20221004 (460-266816-14), RI-SB-31_1-2_20221004 (460-266816-15), RI-SB-30_0.2-1_20221004 (460-266816-17) and RI-SB-24_0-0.2_20221004 (460-266816-23) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): Method 537 (modified): The "I" qualifier associated with samples RI-SB-23_0.2-1_20221004 (460-266816-27) and RI-SB-23_1-2_20221004 (460-266816-28) is applied because the transition mass ratio for the indicated analyte(s) was outside of the established ratio limits. The qualitative identification has some degree of uncertainty, however analyst judgment was used to positively identify the analyte(s).

Method 537 (modified): d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-SB-33_1-2_20221003 (460-266738-5). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Results for samples RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-30_0.2-1_20221004 (460-266816-17) and RI-SB-30_1-2_20221004 (460-266816-18) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method SHAKE: While loading the sample onto the SPE cartridge, the extraction process was stopped after roughly 90 of the 125 mLS of sample made it through the cartridge. This was done to ensure the SPE cartridge would not fully clog and allow the rest of extraction process to able to be performed. The sample had a high level of suspended solids that did not spin down during the centrifugation step. The sample extraction did continue normally per the SOP.

RI-SB-21_0-0.2_20221004 (460-266816-4)

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

SPLP PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-21_0-0.2_20221004 (460-266816-4), RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-21_0.2-1_20221004 (460-266816-5), RI-SB-33_13-14_20221003 (460-266738-6), RI-SB-21_1-2_20221004 (460-266816-6), RI-SB-30_0-0.2_20221004 (460-266816-16), RI-SB-30_0.2-1_20221004 (460-266816-17) and RI-SB-30_1-2_20221004 (460-266816-18) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified)/1312. The samples were leached on 10/17/2022, prepared on 10/18/2022 and analyzed on 10/19/2022 and 10/20/2022.

Samples RI-SB-33_1-2_20221003 (460-266738-5)[10X], RI-SB-30_0.2-1_20221004 (460-266738-17)[5X] and RI-SB-30_1-2_20221004 (460-266738-18)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the PFAS analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples RI-SB-28_0.2-1_20221003 (460-266738-1), RI-SB-27_0.2-1_20221004 (460-266816-1), RI-SB-28_1-2_20221003 (460-266738-2), RI-SB-27_1-2_20221004 (460-266816-2), RI-SB-28_10-11_20221003 (460-266738-3), RI-SB-X01_20221004 (460-266816-3), RI-SB-33_0.2-1_20221003 (460-266738-4), RI-SB-21_0-0.2_20221004 (460-266816-4), RI-SB-33_1-2_20221003 (460-266738-5), RI-SB-21_0.2-1_20221004 (460-266816-5), RI-SB-33_13-14_20221003 (460-266738-6), RI-SB-21_1-2_20221004 (460-266816-6), RI-SB-X_20221003 (460-266738-7), RI-SB-22_0-0.2_20221004 (460-266816-7), RI-SB-34_0.2-1_20221003 (460-266738-8), RI-SB-22_0.2-1_20221004 (460-266816-8), RI-SB-34_1-2_20221003 (460-266738-9), RI-SB-22_1-2_20221004 (460-266816-9), RI-SB-34_10-11_20221003 (460-266738-10), RI-SB-32_0-0.2_20221004 (460-266816-10), RI-SB-26_0.2-1_20221003 (460-266738-11), RI-SB-32_0.2-1_20221004 (460-266816-11), RI-SB-26_1-2_20221003 (460-266738-12), RI-SB-32_1-2_20221004 (460-266816-12), RI-SB-26_10-11_20221003 (460-266738-13), RI-SB-31_0-0.2_20221004 (460-266816-13), RI-SB-25_0.2-1_20221003 (460-266738-14), RI-SB-31_0.2-1_20221004 (460-266816-14), RI-SB-25_1-2_20221003 (460-266738-15), RI-SB-31_1-2_20221004 (460-266816-15), RI-SB-25_15-16_20221003 (460-266738-16), RI-SB-30_0-0.2_20221004 (460-266816-16), RI-SB-30_0.2-1_20221004 (460-266816-17), RI-SB-30_1-2_20221004 (460-266816-18), RI-SB-29_0-0.2_20221004 (460-266816-19), RI-SB-29_0.2-1_20221004 (460-266816-20), RI-SB-29_1-2_20221004 (460-266816-21), RI-SB-X02_20221004 (460-266816-22), RI-SB-24_0-0.2_20221004

(460-266816-23), RI-SB-24_0.2-1_20221004 (460-266816-24), RI-SB-24_1-2_20221004 (460-266816-25), RI-SB-23_0-0.2_20221004 (460-266816-26), RI-SB-23_0.2-1_20221004 (460-266816-27) and RI-SB-23_1-2_20221004 (460-266816-28) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 10/07/2022.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-267702-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/17/2022 6:00 PM, 10/18/2022 6:00 PM, 10/19/2022 7:00 PM, 10/20/2022 6:30 PM and 10/25/2022 6:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.7° C, 2.0° C, 2.1° C, 2.2° C and 2.8° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Received 6 containers for sample #1 not 2 as recorded on the COC. Received 2 containers for sample #2 not 6 as recorded on the COC.

MS/MSD requested on sample #2 but received extra volume for sample #1.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Samples RI-MW-01_20221017 (460-267702-1), RI-DP-02_20221018 (460-267732-1), RI-MW-05_20221019 (460-267827-1), RI-MW-07_20221020 (460-267901-1), RI-MW-10_20221024 (460-268208-1), RI-MW-04_20221017 (460-267702-2), RI-DP-05_20221018 (460-267732-2), RI-MW-06_20221019 (460-267827-2), RI-MW-08_20221020 (460-267901-2), RI-MW-09_20221024 (460-268208-2), RI-MW-X_20221017 (460-267702-3), RI-DP-08_20221018 (460-267732-3), RI-DP-10_20221019 (460-267827-3), RI-MW-02_20221020 (460-267901-3), FB-01_20221024 (460-268208-3), FB-01_20221017 (460-267702-4), FB-01_20221018 (460-267732-4), FB-01_20221019 (460-267827-4), RI-MW-03_20221020 (460-267901-4) and FB-01_20221020 (460-267901-5) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) in accordance with PFC-IDA - 537 (modified). The samples were prepared on 10/28/2022, 11/01/2022, 11/02/2022, 11/03/2022 and 11/04/2022 and analyzed on 10/28/2022, 11/01/2022, 11/02/2022, 11/03/2022, 11/04/2022 and 11/07/2022.

Method 3535: Dilutions were performed for the following samples: RI-MW-01_20221017 (460-267702-1), RI-MW-01_20221017 (460-267702-1[MS]), RI-MW-01_20221017 (460-267702-1[MSD]), RI-MW-04_20221017 (460-267702-2) and RI-MW-X_20221017 (460-267702-3). These dilutions were prepared as follows: Roughly 50g of sample was poured out into a HDPE container then diluted with DI water up to 250 mLs. This was performed due to the suspended solids and cloudy matrix of the sample. Extraction proceeded as normal per SOP.

Method 3535: Dilutions were performed for the following samples: RI-DP-02_20221018 (460-267732-1), RI-DP-05_20221018 (460-267732-2) and RI-DP-08_20221018 (460-267732-3). These dilutions were prepared as follows: Roughly 50g of sample was poured out into a HDPE container then diluted with DI water up to 250 mLs. This was performed due to the suspended solids and cloudy matrix of the sample. Extraction proceeded as normal per SOP.

Method 3535: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: Due to the high level of suspended particulates, the following sample was diluted 5-fold prior to extraction: RI-DP-08_20221018 (460-267732-3).

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-185354. Precision will be assessed from a laboratory control sample duplicate (LCSD).

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-185337.

Method 3535: Dilutions were performed for the following samples: RI-MW-07_20221020 (460-267901-1). These dilutions were prepared as follows: Roughly 50g of sample was poured out into a HDPE container then diluted with DI water up to 250 mLs. This was performed due to the suspended solids and cloudy matrix of the sample. Extraction proceeded as normal per SOP.

Method 3535: Dilutions were performed for the following samples: RI-MW-09_20221024 (460-268208-2). These dilutions were prepared as follows: A Dilution was performed due to the suspected high analyte levels determined in screen batch 185327.

Method 3535: Re-prep and -analysis of the following sample was performed outside of the extraction holding time due to failure of quality control parameters in the initial analysis. RI-DP-08_20221018 (460-267732-3). Both sets of data were reported.

Method 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 200-185438.

Method 3535: Re-extraction and -analysis of the following sample was performed outside of holding time due to an off-scale detection of perfluorooctanesulfonic acid (PFOS) in the maximum possible dilution of the original extract (200x): RI-MW-02_20221020 (460-267901-3). Since diluting the extract further would decrease internal standard (ISTD) and isotope dilution analyte (IDA) signals below acceptable levels, the sample was re-extracted out of holding time at a lower volume (25 mL) and both sets of PFOS results were reported.

Method 3535: Dilutions were performed for the following samples: RI-MW-02_20221020 (460-267901-3). These dilutions were prepared as follows: Sample was diluted due to the high recovery found in batch 185337

Method 537 (modified): Results for samples RI-MW-01_20221017 (460-267702-1), RI-MW-01_20221017 (460-267702-1[MS]), RI-MW-01_20221017 (460-267702-1[MSD]), RI-MW-04_20221017 (460-267702-2) and RI-MW-X_20221017 (460-267702-3) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The laboratory control sample (LCS) for preparation batch 200-185277 and analytical batch 200-185307 recovered outside control limits for the following analytes: 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2). The associated sample was re-prepared outside holding time. Both sets of data have been reported.

Method 537 (modified): The matrix spike (MS) recoveries of 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) for preparation batch 200-185277 and analytical batch 200-185307 were outside control limits. The Matrix Spiking Solution appears to have concentrated prior to addition based on the mean average recovery of the LCS, which is ~125%.

Method 537 (modified): The matrix spike duplicate (MSD) recoveries of 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2), 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2), Perfluoroheptanesulfonic acid (PFHpS), Perfluorooctanesulfonic acid (PFOS), Perfluorononanoic acid (PFNA) and Perfluorotridecanoic acid (PFTriA) for preparation batch 200-185277 and analytical batch 200-185307 were outside control limits. The Matrix Spiking Solution appears to have concentrated prior to addition based on the mean average recovery of the LCS, which is ~125%.

Method 537 (modified): The matrix spike duplicate (MSD) recovery of Perfluoroheptanesulfonic acid (PFHpS) for preparation batch 200-185199 and analytical batch 200-185285 was outside MSD control limits of 60-140%, however the recovery is within the LMSD limits of 50-150%; unfortunately, these LMS and LMSD limits have not yet been updated in TALS.

Method 537 (modified): Due to the high concentration of Perfluorobutanoic acid (PFBA), Perfluorooctanoic acid (PFOA), Perfluorohexanesulfonic acid (PFHxS) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2), and Perfluoroheptanoic acid (PFHpA), the matrix spike (MS) for preparation batch 200-185199 and analytical batch 200-185285 could not be evaluated for accuracy. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): Due to the high concentration of Perfluorobutanoic acid (PFBA), Perfluorooctanoic acid (PFOA), Perfluorononanoic acid (PFNA), Perfluoroheptanesulfonic acid (PFHpS), Perfluoroheptanoic acid (PFHpA), and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2), the matrix spike duplicate (MSD) for preparation batch 200-185199 and analytical batch 200-185285 could not be evaluated for accuracy. The associated laboratory control sample (LCS) met acceptance criteria.

Method 537 (modified): d5-NEtFOSAA Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: RI-MW-08_20221020 (460-267901-2). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C4 PFOS and 13C5 PFNA Isotope Dilution Analyte (IDA) recoveries associated with the following sample are below the method recommended limit: RI-MW-02_20221020 (460-267901-3). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

Method 537 (modified): 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS

Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-MW-02_20221020 (460-267901-3). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): 13C2 PFUnA, 13C2 PFDoA, 13C2 PFTeDA, d3-NMeFOSAA, d5-NEtFOSAA and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: RI-MW-03_20221020 (460-267901-4). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185360 was outside acceptance criteria: (CCB 200-185360/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 537 (modified): Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. RI-DP-08_20221018 (460-267732-3) The LCS recoveries of 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) and 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2) exceeded control limits, likely because the spiking solution concentrated prior to addition to the LCS. 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2) was detected in the original analysis (25.3 ng/L) and the result has confirmed in the re-extract (22.0 ng/L) with an RPD of 14%.

Method 537 (modified): Results for samples RI-MW-08_20221020 (460-267901-2), RI-MW-02_20221020 (460-267901-3) and RI-MW-03_20221020 (460-267901-4) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185408 was outside acceptance criteria: (CCB 200-185408/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 537 (modified): Internal standard (ISTD) response for 13C2 PFOA for the following sample in analytical batch 200-185450 was outside acceptance criteria: (CCB 200-185450/4). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 537 (modified): Results for samples RI-MW-03_20221020 (460-267901-4) and RI-MW-09_20221024 (460-268208-2) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): Results for sample RI-MW-02_20221020 (460-267901-3) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

Method 537 (modified): The concentration of Perfluorooctanesulfonic acid (PFOS) associated with the following sample exceeded the instrument calibration range: RI-MW-02_20221020 (460-267901-3). This analyte has been qualified; however, the peak did not saturate the instrument detector. PFOS was just above calibration range in a 200-fold dilution of the extract, which is the maximum dilution possible to retain enough sensitivity to reliably detect internal standard (ISTD) and isotope dilution analytes (IDAs). The sample was therefore re-extracted at a smaller volume, prior to addition of ISTD, to provide a more accurate quantitation of PFOS. Since this re-extraction was done outside of holding time, both sets of data were reported.

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

Appendix C
Data Summary Form I's
With Qualifications
PFAS/SPLP PFAS/TOC

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-28_0.2-1_20221003 | Lab Sample ID: 460-266738-1

Matrix: Solid | Lab File ID: PA221012A24.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 10:00

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.00(g) | Date Analyzed: 10/12/2022 14:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 1.6 % Solids: 98.4 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.43		0.20	0.056
307-24-4	Perfluorohexanoic acid (PFHxA)	0.30		0.20	0.047
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.63		0.20	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.33		0.20	0.059
375-95-1	Perfluorononanoic acid (PFNA)	0.35		0.20	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.49		0.20	0.028
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.19	J	0.20	0.027
307-55-1	Perfluorododecanoic acid (PFDoA)	0.41		0.20	0.025
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.084	J	0.20	0.025
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.18	J	0.20	0.026
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.36		0.20	0.042
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.049	J	0.20	0.023
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	6.25		0.20	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.03	U	2.03	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.03	U	2.03	0.084
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.31	J	2.03	0.058
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.27	J	2.03	0.038

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-28_1-2_20221003 | Lab Sample ID: 460-266738-2

Matrix: Solid | Lab File ID: PA221012B13.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 10:10

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.11(g) | Date Analyzed: 10/12/2022 17:39

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.3 % Solids: 92.7 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.38		0.21	0.058
307-24-4	Perfluorohexanoic acid (PFHxA)	0.57		0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.33		0.21	0.041
335-67-1	Perfluorooctanoic acid (PFOA)	0.33		0.21	0.061
375-95-1	Perfluorononanoic acid (PFNA)	0.12	J	0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.15	J	0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.068	J	0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.15	J	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.17	J	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	4.49		0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.84		0.21	0.024
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.56		0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.92	J	0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	0.18	J	2.11	0.088
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.0	J	2.11	0.060
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.48	J	2.11	0.039

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-28_1-2_20221003 DL | Lab Sample ID: 460-266738-2 DL

Matrix: Solid | Lab File ID: PA221011A23.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 10:10

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.11(g) | Date Analyzed: 10/11/2022 14:41

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.3 % Solids: 92.7 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184532 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	129	D	2.11	1.16

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	85		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-28_10-11_20221003 Lab Sample ID: 460-266738-3

Matrix: Solid Lab File ID: PA221012B16.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 10:20

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.16(g) Date Analyzed: 10/12/2022 18:03

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 10.1 % Solids: 89.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.36
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.26		0.22	0.059
307-24-4	Perfluorohexanoic acid (PFHxA)	0.26		0.22	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.17	J	0.22	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.18	J	0.22	0.063
375-95-1	Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	0.22	U	0.22	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.22	U	0.22	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.22	U	0.22	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.22	U	0.22	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.062	J	0.22	0.036
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.75		0.22	0.044
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.50		0.22	0.025
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.22	U	0.22	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.089
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.37	J	2.16	0.061
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.052	J	2.16	0.040

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-28_10-11_20221003 DL | Lab Sample ID: 460-266738-3 DL

Matrix: Solid | Lab File ID: PA221011A26.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 10:20

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.16(g) | Date Analyzed: 10/11/2022 15:06

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 10.1 % Solids: 89.9 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184532 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	47.7	D	2.16	1.19

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	81		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_0.2-1_20221003 Lab Sample ID: 460-266738-4

Matrix: Solid Lab File ID: PA221012B17.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 11:20

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.15(g) Date Analyzed: 10/12/2022 18:12

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 1.1 % Solids: 98.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.49	U	0.49	0.32
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.17	J	0.20	0.054
307-24-4	Perfluorohexanoic acid (PFHxA)	0.18	J	0.20	0.045
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.19	J	0.20	0.038
335-67-1	Perfluorooctanoic acid (PFOA)	0.074	J	0.20	0.057
375-95-1	Perfluorononanoic acid (PFNA)	0.059	J	0.20	0.033
335-76-2	Perfluorodecanoic acid (PFDA)	0.12	J	0.20	0.027
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.051	J	0.20	0.027
307-55-1	Perfluorododecanoic acid (PFDoA)	0.073	J	0.20	0.025
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.045	J	0.20	0.026
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.032
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.19		0.20	0.040
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.077	J	0.20	0.023
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.033
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.96	U	1.96	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.96	U	1.96	0.081
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.090	J	1.96	0.056
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.96	U	1.96	0.036

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_0.2-1_20221003 DL | Lab Sample ID: 460-266738-4 DL

Matrix: Solid | Lab File ID: PA221011A27.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 11:20

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.15(g) | Date Analyzed: 10/11/2022 15:14

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 1.1 % Solids: 98.9 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184532 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	23.3	D	1.96	1.08

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	100		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_0.2-1_20221003 | Lab Sample ID: 460-266738-4

Matrix: Solid (SPLP East) | Lab File ID: PA221019A22.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 11:20

Extraction Method: 3535 | Date Extracted: 10/18/2022 14:09

Sample wt/vol: 25.4(mL) | Date Analyzed: 10/19/2022 16:43

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	49.2	U	49.2	11.8
2706-90-3	Perfluoropentanoic acid (PFPeA)	19.7	U	19.7	6.69
307-24-4	Perfluorohexanoic acid (PFHxA)	19.7	U	19.7	6.40
375-85-9	Perfluoroheptanoic acid (PFHpA)	5.39	J	19.7	5.31
335-67-1	Perfluorooctanoic acid (PFOA)	19.7	U	19.7	7.48
375-95-1	Perfluorononanoic acid (PFNA)	19.7	U	19.7	4.82
335-76-2	Perfluorodecanoic acid (PFDA)	19.7	U	19.7	4.53
2058-94-8	Perfluoroundecanoic acid (PFUnA)	19.7	U	19.7	5.41
307-55-1	Perfluorododecanoic acid (PFDoA)	19.7	U	19.7	4.82
72629-94-8	Perfluorotridecanoic acid (PFTriA)	19.7	U	19.7	4.72
376-06-7	Perfluorotetradecanoic acid (PFTeA)	19.7	U	19.7	6.30
375-73-5	Perfluorobutanesulfonic acid (PFBS)	19.7	U	19.7	6.10
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	12.1	J	19.7	5.41
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	19.7	U	19.7	4.04
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	204		19.7	8.37
335-77-3	Perfluorodecanesulfonic acid (PFDS)	19.7	U	19.7	3.94
754-91-6	Perfluorooctanesulfonamide (PFOSA)	19.7	U	19.7	9.06
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	49.2	U	49.2	18.7
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	49.2	U	49.2	15.7
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	49.2	U	49.2	12.8
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.7	U	19.7	7.58

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_1-2_20221003 Lab Sample ID: 460-266738-5

Matrix: Solid Lab File ID: PA221012B18.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 11:10

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.12(g) Date Analyzed: 10/12/2022 18:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.6 % Solids: 92.4 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.35		0.21	0.058
307-24-4	Perfluorohexanoic acid (PFHxA)	0.87		0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.18	J	0.21	0.041
335-67-1	Perfluorooctanoic acid (PFOA)	0.44		0.21	0.061
375-95-1	Perfluorononanoic acid (PFNA)	0.042	J	0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.13	J	0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.073	J	0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.20	J	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.040	J	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.11	J	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.80		0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	14.9		0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.75		0.21	0.024
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.26		0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	4.58		0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.11	0.088
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.37	J	2.11	0.060
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.72	J	2.11	0.039

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_1-2_20221003 DL | Lab Sample ID: 460-266738-5 DL

Matrix: Solid | Lab File ID: PA221012B02.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 11:10

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.12(g) | Date Analyzed: 10/12/2022 16:09

Con. Extract Vol.: 10(mL) | Dilution Factor: 20

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.6 % Solids: 92.4 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	261	D	4.23	2.33

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	95		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_1-2_20221003 Lab Sample ID: 460-266738-5

Matrix: Solid (SPLP East) Lab File ID: PA221019A23.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 11:10

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 248.5(mL) Date Analyzed: 10/19/2022 16:51

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.46	J	5.03	1.21
2706-90-3	Perfluoropentanoic acid (PFPeA)	6.97		2.01	0.68
307-24-4	Perfluorohexanoic acid (PFHxA)	20.9		2.01	0.65
375-85-9	Perfluoroheptanoic acid (PFHpA)	3.23		2.01	0.54
335-67-1	Perfluorooctanoic acid (PFOA)	4.16		2.01	0.76
375-95-1	Perfluorononanoic acid (PFNA)	0.66	J	2.01	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	2.04		2.01	0.46
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.78	J	2.01	0.55
307-55-1	Perfluorododecanoic acid (PFDoA)	1.30	J	2.01	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.01	U	2.01	0.48
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.01	U	2.01	0.64
375-73-5	Perfluorobutanesulfonic acid (PFBS)	7.68		2.01	0.62
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	72.8		2.01	0.55
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	11.2		2.01	0.41
335-77-3	Perfluorodecanesulfonic acid (PFDS)	11.4		2.01	0.40
754-91-6	Perfluorooctanesulfonamide (PFOSA)	94.1		2.01	0.93
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.03	U	5.03	1.91
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.03	U	5.03	1.61
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.8		5.03	1.31
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.95	J	2.01	0.77

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_1-2_20221003 DL Lab Sample ID: 460-266738-5 DL

Matrix: Solid (SPLP East) Lab File ID: PA221020A07.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 11:10

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 248.5(mL) Date Analyzed: 10/20/2022 14:59

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184906 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2290	D	20.1	8.55

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	97		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_13-14_20221003 Lab Sample ID: 460-266738-6

Matrix: Solid Lab File ID: PA221012A25.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 11:30

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.08(g) Date Analyzed: 10/12/2022 14:55

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 12.6 % Solids: 87.4 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.56	U	0.56	0.37
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.10	J	0.23	0.062
307-24-4	Perfluorohexanoic acid (PFHxA)	0.077	J	0.23	0.052
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.055	J	0.23	0.044
335-67-1	Perfluorooctanoic acid (PFOA)	0.23	U	0.23	0.065
375-95-1	Perfluorononanoic acid (PFNA)	0.23	U	0.23	0.038
335-76-2	Perfluorodecanoic acid (PFDA)	0.23	U	0.23	0.032
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.23	U	0.23	0.030
307-55-1	Perfluorododecanoic acid (PFDoA)	0.23	U	0.23	0.028
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.23	U	0.23	0.028
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.23	U	0.23	0.029
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.037
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.54		0.23	0.046
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.094	J	0.23	0.026
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	8.40		0.23	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.23	U	0.23	0.021
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.038
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.25	U	2.25	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.25	U	2.25	0.093
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.25	U	2.25	0.064
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.25	U	2.25	0.042

for 12/20/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_13-14_20221003 Lab Sample ID: 460-266738-6

Matrix: Solid (SPLP East) Lab File ID: PA221019A24.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 11:30

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 254(mL) Date Analyzed: 10/19/2022 16:59

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.92	U	4.92	1.18
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.42		1.97	0.67
307-24-4	Perfluorohexanoic acid (PFHxA)	3.25		1.97	0.64
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.97		1.97	0.53
335-67-1	Perfluorooctanoic acid (PFOA)	1.66	J	1.97	0.75
375-95-1	Perfluorononanoic acid (PFNA)	1.97	U	1.97	0.48
335-76-2	Perfluorodecanoic acid (PFDA)	1.97	U	1.97	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.97	U	1.97	0.54
307-55-1	Perfluorododecanoic acid (PFDoA)	1.97	U	1.97	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.97	U	1.97	0.47
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.97	U	1.97	0.63
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.96	J	1.97	0.61
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	22.5		1.97	0.54
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	3.92		1.97	0.40
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.97	U	1.97	0.39
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.97	U	1.97	0.91
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.92	U	4.92	1.87
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.92	U	4.92	1.57
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.77	J	4.92	1.28
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.97	U	1.97	0.76

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-33_13-14_20221003 | Lab Sample ID: 460-266738-6

Matrix: Solid (SPLP East) | Lab File ID: PA221020A08.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 11:30

Extraction Method: 3535 | Date Extracted: 10/18/2022 14:09

Sample wt/vol: 254(mL) | Date Analyzed: 10/20/2022 15:08

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184906 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	332		1.97	0.84

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	104		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-X_20221003 Lab Sample ID: 460-266738-7

Matrix: Solid RI-SB-28_0.2-1_20221003 Lab File ID: PA221012A26.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 11:00

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.03(g) Date Analyzed: 10/12/2022 15:03

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 2.4 % Solids: 97.6 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.39		0.20	0.056
307-24-4	Perfluorohexanoic acid (PFHxA)	0.27		0.20	0.047
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.53		0.20	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.31		0.20	0.059
375-95-1	Perfluorononanoic acid (PFNA)	0.34		0.20	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.44		0.20	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.15	J	0.20	0.027
307-55-1	Perfluorododecanoic acid (PFDoA)	0.35		0.20	0.025
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.066	J	0.20	0.025
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.16	J	0.20	0.026
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.39		0.20	0.042
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.042	J	0.20	0.023
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	5.51		0.20	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.035	J	0.20	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.04	U	2.04	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.04	U	2.04	0.085
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.30	J	2.04	0.058
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.24	J	2.04	0.038

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-34_0.2-1_20221003 Lab Sample ID: 460-266738-8

Matrix: Solid Lab File ID: PA221012A27.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 13:10

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.01(g) Date Analyzed: 10/12/2022 15:12

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 12.7 % Solids: 87.3 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.57	U	0.57	0.38
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.34		0.23	0.063
307-24-4	Perfluorohexanoic acid (PFHxA)	0.17	J	0.23	0.053
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.22	J	0.23	0.045
335-67-1	Perfluorooctanoic acid (PFOA)	0.11	J	0.23	0.066
375-95-1	Perfluorononanoic acid (PFNA)	0.15	J	0.23	0.039
335-76-2	Perfluorodecanoic acid (PFDA)	0.056	J	0.23	0.032
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.23	U	0.23	0.031
307-55-1	Perfluorododecanoic acid (PFDoA)	0.23	U	0.23	0.029
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.23	U	0.23	0.029
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.23	U	0.23	0.030
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.038
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.23	0.047
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.23	U	0.23	0.026
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	12.7		0.23	0.13
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.23	U	0.23	0.022
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.039
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.29	U	2.29	0.13
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.29	U	2.29	0.095
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.092	J	2.29	0.065
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.28	J	2.29	0.042

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-34_1-2_20221003 | Lab Sample ID: 460-266738-9

Matrix: Solid | Lab File ID: PA221012A28.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 13:00

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.10(g) | Date Analyzed: 10/12/2022 15:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 13.5 % Solids: 86.5 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.57	U	0.57	0.37
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.16	J	0.23	0.062
307-24-4	Perfluorohexanoic acid (PFHxA)	0.086	J	0.23	0.052
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.15	J	0.23	0.044
335-67-1	Perfluorooctanoic acid (PFOA)	0.076	J	0.23	0.066
375-95-1	Perfluorononanoic acid (PFNA)	0.083	J	0.23	0.039
335-76-2	Perfluorodecanoic acid (PFDA)	0.23	U	0.23	0.032
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.23	U	0.23	0.031
307-55-1	Perfluorododecanoic acid (PFDoA)	0.23	U	0.23	0.028
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.23	U	0.23	0.028
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.23	U	0.23	0.029
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.23	U	0.23	0.037
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.11	J	0.23	0.046
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.23	U	0.23	0.026
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	10.1		0.23	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.23	U	0.23	0.022
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.23	U	0.23	0.039
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.27	U	2.27	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.27	U	2.27	0.094
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.27	U	2.27	0.065
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.27	U	2.27	0.042

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-34_10-11_20221003 Lab Sample ID: 460-266738-10

Matrix: Solid Lab File ID: PA221012A29.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 12:50

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.12(g) Date Analyzed: 10/12/2022 15:28

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.8 % Solids: 92.2 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.10	J	0.21	0.058
307-24-4	Perfluorohexanoic acid (PFHxA)	0.081	J	0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.061	J	0.21	0.041
335-67-1	Perfluorooctanoic acid (PFOA)	0.073	J	0.21	0.061
375-95-1	Perfluorononanoic acid (PFNA)	0.21	U	0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.21	U	0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.69		0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.14	J	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	11.2		0.21	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.12	U	2.12	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.12	U	2.12	0.088
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.097	J	2.12	0.060
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.12	U	2.12	0.039

FORM I 537 (modified)

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-26_0.2-1_20221003 | Lab Sample ID: 460-266738-11

Matrix: Solid | Lab File ID: PA221012B04.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 13:40

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.29(g) | Date Analyzed: 10/12/2022 16:25

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 4.9 % Solids: 95.1 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.31		0.20	0.055
307-24-4	Perfluorohexanoic acid (PFHxA)	0.33		0.20	0.046
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.17	J	0.20	0.039
335-67-1	Perfluorooctanoic acid (PFOA)	0.21		0.20	0.058
375-95-1	Perfluorononanoic acid (PFNA)	0.15	J	0.20	0.034
335-76-2	Perfluorodecanoic acid (PFDA)	0.14	J	0.20	0.028
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.076	J	0.20	0.027
307-55-1	Perfluorododecanoic acid (PFDoA)	0.27		0.20	0.025
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.10	J	0.20	0.025
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.17	J	0.20	0.026
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.085	J	0.20	0.033
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.43		0.20	0.041
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.15	J	0.20	0.023
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.27		0.20	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.33		0.20	0.034
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.99	U	1.99	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.99	U	1.99	0.082
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.27	J	1.99	0.057
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.21	J	1.99	0.037

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-26_0.2-1_20221003 DL | Lab Sample ID: 460-266738-11 DL

Matrix: Solid | Lab File ID: PA221011A35.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 13:40

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.29(g) | Date Analyzed: 10/11/2022 16:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 4.9 % Solids: 95.1 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184532 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	21.2	D	1.99	1.09

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	96		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-26_1-2_20221003 | Lab Sample ID: 460-266738-12

Matrix: Solid | Lab File ID: PA221012B03.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 13:50

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.20(g) | Date Analyzed: 10/12/2022 16:17

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 10.4 % Solids: 89.6 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.19	J	0.21	0.059
307-24-4	Perfluorohexanoic acid (PFHxA)	0.18	J	0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.14	J	0.21	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.071	J	0.21	0.062
375-95-1	Perfluorononanoic acid (PFNA)	0.069	J	0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.098	J	0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.071	J	0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.11	J	0.21	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.037	J	0.21	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.064	J	0.21	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.79		0.21	0.044
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.11	J	0.21	0.025
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.36		0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.29		0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.15	U	2.15	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.15	U	2.15	0.089
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.23	J	2.15	0.061
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.16	J	2.15	0.040

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-26_1-2_20221003 DL Lab Sample ID: 460-266738-12 DL

Matrix: Solid Lab File ID: PA221011A36.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 13:50

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.20(g) Date Analyzed: 10/11/2022 16:28

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 10.4 % Solids: 89.6 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184532 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	22.3	D	2.15	1.18

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	74		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-26_10-11_20221003 | Lab Sample ID: 460-266738-13

Matrix: Solid | Lab File ID: PA221012B19.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 14:00

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.03(g) | Date Analyzed: 10/12/2022 18:28

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 17.3 % Solids: 82.7 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.60	U	0.60	0.40
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.087	J	0.24	0.066
307-24-4	Perfluorohexanoic acid (PFHxA)	0.070	J	0.24	0.055
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.24	U	0.24	0.047
335-67-1	Perfluorooctanoic acid (PFOA)	0.24	U	0.24	0.070
375-95-1	Perfluorononanoic acid (PFNA)	0.058	J	0.24	0.041
335-76-2	Perfluorodecanoic acid (PFDA)	0.21	J	0.24	0.034
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.24	U	0.24	0.032
307-55-1	Perfluorododecanoic acid (PFDoA)	0.24	U	0.24	0.030
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.24	U	0.24	0.030
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.24	U	0.24	0.031
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.24	U	0.24	0.040
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.35		0.24	0.049
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.11	J	0.24	0.028
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.24	U	0.24	0.023
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.24	U	0.24	0.041
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.40	U	2.40	0.13
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.40	U	2.40	0.10
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.37	J	2.40	0.068
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.94	J	2.40	0.044

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-26_10-11_20221003 DL | Lab Sample ID: 460-266738-13 DL

Matrix: Solid | Lab File ID: PA221011A37.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 14:00

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.03(g) | Date Analyzed: 10/11/2022 16:36

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 17.3 % Solids: 82.7 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184532 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	31.8	D	2.40	1.32

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	87		50-150

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-25_0.2-1_20221003 Lab Sample ID: 460-266738-14

Matrix: Solid Lab File ID: PA221012A30.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 14:20

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.21(g) Date Analyzed: 10/12/2022 15:36

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 3.8 % Solids: 96.2 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.47	J	0.50	0.33
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.32		0.20	0.055
307-24-4	Perfluorohexanoic acid (PFHxA)	1.80		0.20	0.046
375-85-9	Perfluoroheptanoic acid (PFHpA)	3.17		0.20	0.039
335-67-1	Perfluorooctanoic acid (PFOA)	2.53		0.20	0.058
375-95-1	Perfluorononanoic acid (PFNA)	2.54		0.20	0.034
335-76-2	Perfluorodecanoic acid (PFDA)	2.15		0.20	0.028
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.54		0.20	0.027
307-55-1	Perfluorododecanoic acid (PFDoA)	1.03		0.20	0.025
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.15	J	0.20	0.025
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.44		0.20	0.026
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.35		0.20	0.041
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.41		0.20	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	U	2.00	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	U	2.00	0.083
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.17	J	2.00	0.057
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.39	J	2.00	0.037

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-25_1-2_20221003 Lab Sample ID: 460-266738-15

Matrix: Solid Lab File ID: PA221012B05.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 14:30

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.01(g) Date Analyzed: 10/12/2022 16:33

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 3.8 % Solids: 96.2 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.38	J	0.52	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.57		0.21	0.057
307-24-4	Perfluorohexanoic acid (PFHxA)	0.74		0.21	0.048
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.36		0.21	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	1.53		0.21	0.060
375-95-1	Perfluorononanoic acid (PFNA)	0.57		0.21	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.25		0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.080	J	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.065	J	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.034	J	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.030	J	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.91		0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.097	J	0.21	0.024
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.038	J	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.07	U	2.07	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.07	U	2.07	0.086
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.65	J	2.07	0.059
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.44	J	2.07	0.038

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-25_1-2_20221003 DL | Lab Sample ID: 460-266738-15 DL

Matrix: Solid | Lab File ID: PA221011A39.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 14:30

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.01(g) | Date Analyzed: 10/11/2022 16:52

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 3.8 % Solids: 96.2 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184532 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	23.0	D	2.07	1.14

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	80		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-25_15-16_20221003 | Lab Sample ID: 460-266738-16

Matrix: Solid | Lab File ID: PA221012A31.d

Analysis Method: 537 (modified) | Date Collected: 10/03/2022 14:40

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:33

Sample wt/vol: 5.13(g) | Date Analyzed: 10/12/2022 15:44

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 61.6 % Solids: 38.4 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.27	U	1.27	0.84
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.15		0.51	0.14
307-24-4	Perfluorohexanoic acid (PFHxA)	0.80		0.51	0.12
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.52		0.51	0.099
335-67-1	Perfluorooctanoic acid (PFOA)	0.33	J	0.51	0.15
375-95-1	Perfluorononanoic acid (PFNA)	0.51	U	0.51	0.086
335-76-2	Perfluorodecanoic acid (PFDA)	0.51	U	0.51	0.071
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.51	U	0.51	0.068
307-55-1	Perfluorododecanoic acid (PFDoA)	0.51	U	0.51	0.063
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.51	U	0.51	0.063
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.51	U	0.51	0.066
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.18	J	0.51	0.084
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.88		0.51	0.10
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.51	U	0.51	0.058
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.51	U	0.51	0.28
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.51	U	0.51	0.048
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.51	U	0.51	0.086
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.07	U	5.07	0.28
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.07	U	5.07	0.21
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.10	J	5.07	0.14
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	5.07	U	5.07	0.094

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: FB_01_20221003 Lab Sample ID: 460-266738-17

Matrix: Water Lab File ID: PA221007A29.d

Analysis Method: 537 (modified) Date Collected: 10/03/2022 12:15

Extraction Method: 3535 Date Extracted: 10/07/2022 09:42

Sample wt/vol: 306.9(mL) Date Analyzed: 10/07/2022 17:54

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184431 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.07	U	4.07	0.98
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.63	U	1.63	0.55
307-24-4	Perfluorohexanoic acid (PFHxA)	1.63	U	1.63	0.53
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.63	U	1.63	0.44
335-67-1	Perfluorooctanoic acid (PFOA)	1.63	U	1.63	0.62
375-95-1	Perfluorononanoic acid (PFNA)	1.63	U	1.63	0.40
335-76-2	Perfluorodecanoic acid (PFDA)	1.63	U	1.63	0.37
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.63	U	1.63	0.45
307-55-1	Perfluorododecanoic acid (PFDoA)	1.63	U	1.63	0.40
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.63	U	1.63	0.39
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.63	U	1.63	0.52
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.63	U	1.63	0.51
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.63	U	1.63	0.45
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.63	U	1.63	0.33
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.63	U	1.63	0.69
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.63	U	1.63	0.33
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.63	U	1.63	0.75
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.07	U	4.07	1.55
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.07	U	4.07	1.30
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.07	U	4.07	1.06
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.63	U	1.63	0.63

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-27_0.2-1_20221004 Lab Sample ID: 460-266816-1

Matrix: Solid Lab File ID: PA221012B06.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 08:20

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.22(g) Date Analyzed: 10/12/2022 16:41

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.0 % Solids: 93.0 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.48		0.21	0.057
307-24-4	Perfluorohexanoic acid (PFHxA)	0.37		0.21	0.047
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.15	J	0.21	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.12	J	0.21	0.060
375-95-1	Perfluorononanoic acid (PFNA)	0.061	J	0.21	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.22		0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.10	J	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.28		0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.076	J	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.17	J	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.13	J	0.21	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.22	J	0.21	0.042
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.25		0.21	0.024
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.13	J	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.36		0.21	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.06	U	2.06	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.06	U	2.06	0.085
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.98	J	2.06	0.059
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.42	J	2.06	0.038

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-27_0.2-1_20221004 DL Lab Sample ID: 460-266816-1 DL

Matrix: Solid Lab File ID: PA221011B13.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 08:20

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.22(g) Date Analyzed: 10/11/2022 18:55

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.0 % Solids: 93.0 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184546 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	28.3	JD	2.06	1.13

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	91		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-27_1-2_20221004 Lab Sample ID: 460-266816-2

Matrix: Solid Lab File ID: PA221012B07.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 08:30

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.28(g) Date Analyzed: 10/12/2022 16:50

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 10.3 % Solids: 89.7 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184599 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.53	U	0.53	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.42		0.21	0.058
307-24-4	Perfluorohexanoic acid (PFHxA)	0.33		0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.13	J	0.21	0.041
335-67-1	Perfluorooctanoic acid (PFOA)	0.15	J	0.21	0.061
375-95-1	Perfluorononanoic acid (PFNA)	0.078	J	0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.59		0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.052	J	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.057	J	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.038	J	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.091	J	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	4.13		0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.62		0.21	0.024
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.15	J	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.38		0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.11	0.088
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.52	J	2.11	0.060
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.31	J	2.11	0.039

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-27_1-2_20221004 DL Lab Sample ID: 460-266816-2 DL

Matrix: Solid Lab File ID: PA221011B14.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 08:30

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.28(g) Date Analyzed: 10/11/2022 19:03

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 10.3 % Solids: 89.7 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184546 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	113	D	2.11	1.16

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	78		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-X01_20221004 | Lab Sample ID: 460-266816-3

Matrix: Solid RI-SB-27_0.2-1_20221004 | Lab File ID: PA221012A16.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 08:45

Extraction Method: SHAKE | Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.04(g) | Date Analyzed: 10/12/2022 13:42

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 3.3 % Solids: 96.7 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.63		0.21	0.056
307-24-4	Perfluorohexanoic acid (PFHxA)	0.48		0.21	0.047
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.20	J	0.21	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.10	J	0.21	0.059
375-95-1	Perfluorononanoic acid (PFNA)	0.045	J	0.21	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.095	J	0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.041	J	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.11	J	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.032	J	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.076	J	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.21	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.96	J	0.21	0.042
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.093	J	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	10.7	J	0.21	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.052	J	0.21	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.10	J	0.21	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.05	U	2.05	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.05	U	2.05	0.085
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.72	J	2.05	0.058
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.18	J	2.05	0.038

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-21_0-0.2_20221004 Lab Sample ID: 460-266816-4

Matrix: Solid Lab File ID: PA221012A17.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:20

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.08(g) Date Analyzed: 10/12/2022 13:50

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 42.2 % Solids: 57.8 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.84		0.85	0.56
2706-90-3	Perfluoropentanoic acid (PFPeA)	4.94		0.34	0.094
307-24-4	Perfluorohexanoic acid (PFHxA)	1.96		0.34	0.078
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.55		0.34	0.066
335-67-1	Perfluorooctanoic acid (PFOA)	1.99		0.34	0.099
375-95-1	Perfluorononanoic acid (PFNA)	1.45		0.34	0.058
335-76-2	Perfluorodecanoic acid (PFDA)	3.32		0.34	0.048
2058-94-8	Perfluoroundecanoic acid (PFUnA)	3.47		0.34	0.046
307-55-1	Perfluorododecanoic acid (PFDoA)	4.10		0.34	0.043
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.17		0.34	0.043
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.66		0.34	0.044
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.057	J	0.34	0.056
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.05		0.34	0.070
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.057	J	0.34	0.039
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	8.65		0.34	0.19
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.47		0.34	0.032
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.069	J	0.34	0.058
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.41	U	3.41	0.19
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.41	U	3.41	0.14
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.55	J	3.41	0.097
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.77	J	3.41	0.063

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-21_0-0.2_20221004 Lab Sample ID: 460-266816-4

Matrix: Solid (SPLP East) Lab File ID: PA221019A26.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:20

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 241.1(mL) Date Analyzed: 10/19/2022 17:15

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	21.7		5.18	1.24
2706-90-3	Perfluoropentanoic acid (PFPeA)	46.8		2.07	0.71
307-24-4	Perfluorohexanoic acid (PFHxA)	25.8		2.07	0.67
375-85-9	Perfluoroheptanoic acid (PFHpA)	23.4		2.07	0.56
335-67-1	Perfluorooctanoic acid (PFOA)	19.6		2.07	0.79
375-95-1	Perfluorononanoic acid (PFNA)	9.50		2.07	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	4.29		2.07	0.48
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.07	U	2.07	0.57
307-55-1	Perfluorododecanoic acid (PFDoA)	2.07	U	2.07	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.07	U	2.07	0.50
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.07	U	2.07	0.66
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.07	U	2.07	0.64
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	11.8		2.07	0.57
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.07	U	2.07	0.43
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	17.1		2.07	0.88
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.07	U	2.07	0.41
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.07	U	2.07	0.95
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.18	U	5.18	1.97
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.18	U	5.18	1.66
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.65	J	5.18	1.35
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.07	U	2.07	0.80

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-21_0.2-1_20221004 Lab Sample ID: 460-266816-5

Matrix: Solid Lab File ID: PA221012A18.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:25

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.00(g) Date Analyzed: 10/12/2022 13:58

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 8.4 % Solids: 91.6 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.36
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.17	J	0.22	0.060
307-24-4	Perfluorohexanoic acid (PFHxA)	0.050	J	0.22	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.047	J	0.22	0.043
335-67-1	Perfluorooctanoic acid (PFOA)	0.22	U	0.22	0.063
375-95-1	Perfluorononanoic acid (PFNA)	0.22	U	0.22	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	0.053	J	0.22	0.031
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.043	J	0.22	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.040	J	0.22	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.22	U	0.22	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.060	J	0.22	0.045
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.22	U	0.22	0.025
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.50		0.22	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.22	U	0.22	0.021
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.091
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.087	J	2.18	0.062
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.11	J	2.18	0.040

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-21_0.2-1_20221004 Lab Sample ID: 460-266816-5

Matrix: Solid (SPLP East) Lab File ID: PA221019A27.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:25

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 25.6(mL) Date Analyzed: 10/19/2022 17:24

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	48.8	U	48.8	11.7
2706-90-3	Perfluoropentanoic acid (PFPeA)	19.5	U	19.5	6.64
307-24-4	Perfluorohexanoic acid (PFHxA)	19.5	U	19.5	6.35
375-85-9	Perfluoroheptanoic acid (PFHpA)	19.5	U	19.5	5.27
335-67-1	Perfluorooctanoic acid (PFOA)	19.5	U	19.5	7.42
375-95-1	Perfluorononanoic acid (PFNA)	19.5	U	19.5	4.79
335-76-2	Perfluorodecanoic acid (PFDA)	19.5	U	19.5	4.49
2058-94-8	Perfluoroundecanoic acid (PFUnA)	19.5	U	19.5	5.37
307-55-1	Perfluorododecanoic acid (PFDoA)	19.5	U	19.5	4.79
72629-94-8	Perfluorotridecanoic acid (PFTriA)	19.5	U	19.5	4.69
376-06-7	Perfluorotetradecanoic acid (PFTeA)	19.5	U	19.5	6.25
375-73-5	Perfluorobutanesulfonic acid (PFBS)	19.5	U	19.5	6.05
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	19.5	U	19.5	5.37
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	19.5	U	19.5	4.00
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	19.5	U	19.5	8.30
335-77-3	Perfluorodecanesulfonic acid (PFDS)	19.5	U	19.5	3.91
754-91-6	Perfluorooctanesulfonamide (PFOSA)	19.5	U	19.5	8.98
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	48.8	U	48.8	18.6
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	48.8	U	48.8	15.6
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	48.8	U	48.8	12.7
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.5	U	19.5	7.52

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-21_1-2_20221004 Lab Sample ID: 460-266816-6

Matrix: Solid Lab File ID: PA221012A19.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:35

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.24(g) Date Analyzed: 10/12/2022 14:06

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 6.1 % Solids: 93.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.081	J	0.20	0.056
307-24-4	Perfluorohexanoic acid (PFHxA)	0.20	U	0.20	0.047
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.20	U	0.20	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.20	U	0.20	0.059
375-95-1	Perfluorononanoic acid (PFNA)	0.20	U	0.20	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.043	J	0.20	0.028
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.046	J	0.20	0.027
307-55-1	Perfluorododecanoic acid (PFDoA)	0.19	J	0.20	0.025
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.043	J	0.20	0.025
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.069	J	0.20	0.026
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.20	U	0.20	0.042
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.20		0.20	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.03	U	2.03	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.03	U	2.03	0.084
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.08	J	2.03	0.058
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.85	J	2.03	0.038

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-21_1-2_20221004 Lab Sample ID: 460-266816-6

Matrix: Solid (SPLP East) Lab File ID: PA221019A28.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:35

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 264.1(mL) Date Analyzed: 10/19/2022 17:32

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.73	U	4.73	1.14
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.94		1.89	0.64
307-24-4	Perfluorohexanoic acid (PFHxA)	1.10	J	1.89	0.62
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.28	J	1.89	0.51
335-67-1	Perfluorooctanoic acid (PFOA)	0.88	J	1.89	0.72
375-95-1	Perfluorononanoic acid (PFNA)	0.56	J	1.89	0.46
335-76-2	Perfluorodecanoic acid (PFDA)	1.26	J	1.89	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.99	J	1.89	0.52
307-55-1	Perfluorododecanoic acid (PFDoA)	2.59		1.89	0.46
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.54	J	1.89	0.45
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.89	U	1.89	0.61
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.89	U	1.89	0.59
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.92	J	1.89	0.52
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.89	U	1.89	0.39
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	6.24		1.89	0.80
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.89	U	1.89	0.38
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.95	J	1.89	0.87
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.73	U	4.73	1.80
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.73	U	4.73	1.51
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.55	J	4.73	1.23
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.39		1.89	0.73

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-22_0-0.2_20221004 Lab Sample ID: 460-266816-7

Matrix: Solid Lab File ID: PA221012A20.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:40

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.20(g) Date Analyzed: 10/12/2022 14:14

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 48.0 % Solids: 52.0 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.58		0.92	0.61
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.57		0.37	0.10
307-24-4	Perfluorohexanoic acid (PFHxA)	1.28		0.37	0.085
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.93		0.37	0.072
335-67-1	Perfluorooctanoic acid (PFOA)	0.88		0.37	0.11
375-95-1	Perfluorononanoic acid (PFNA)	0.83		0.37	0.063
335-76-2	Perfluorodecanoic acid (PFDA)	1.71		0.37	0.052
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.51		0.37	0.050
307-55-1	Perfluorododecanoic acid (PFDoA)	1.06		0.37	0.046
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.45		0.37	0.046
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.52		0.37	0.048
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.064	J	0.37	0.061
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.39		0.37	0.076
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.37	U	0.37	0.043
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	5.15		0.37	0.20
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.073	J	0.37	0.035
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.37	U	0.37	0.063
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.70	U	3.70	0.20
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.70	U	3.70	0.15
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.20	J	3.70	0.11
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.11	J	3.70	0.068

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-22_0.2-1_20221004 Lab Sample ID: 460-266816-8

Matrix: Solid Lab File ID: PA221012A21.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:50

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.12(g) Date Analyzed: 10/12/2022 14:22

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 8.3 % Solids: 91.7 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.35	J	0.53	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.63		0.21	0.059
307-24-4	Perfluorohexanoic acid (PFHxA)	0.22		0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.16	J	0.21	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.099	J	0.21	0.062
375-95-1	Perfluorononanoic acid (PFNA)	0.095	J	0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.21	U	0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.21	U	0.21	0.044
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.84		0.21	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.13	U	2.13	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.13	U	2.13	0.088
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.13	U	2.13	0.061
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.13	U	2.13	0.039

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-22_1-2_20221004 Lab Sample ID: 460-266816-9

Matrix: Solid Lab File ID: PA221012A22.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 09:55

Extraction Method: SHAKE Date Extracted: 10/10/2022 08:28

Sample wt/vol: 5.16(g) Date Analyzed: 10/12/2022 14:31

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.5 % Solids: 92.5 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184598 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.52	U	0.52	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.39		0.21	0.058
307-24-4	Perfluorohexanoic acid (PFHxA)	0.13	J	0.21	0.048
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.12	J	0.21	0.041
335-67-1	Perfluorooctanoic acid (PFOA)	0.094	J	0.21	0.061
375-95-1	Perfluorononanoic acid (PFNA)	0.077	J	0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.065	J	0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.048	J	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.046	J	0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.46		0.21	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.09	U	2.09	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.09	U	2.09	0.087
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.09	U	2.09	0.060
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.043	J	2.09	0.039

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-32_0-0.2_20221004 Lab Sample ID: 460-266816-10

Matrix: Solid Lab File ID: PA221012D04.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 10:10

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.10(g) Date Analyzed: 10/12/2022 23:06

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 29.1 % Solids: 70.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	2.13		0.69	0.46
2706-90-3	Perfluoropentanoic acid (PFPeA)	5.49		0.28	0.076
307-24-4	Perfluorohexanoic acid (PFHxA)	1.73		0.28	0.064
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.64		0.28	0.054
335-67-1	Perfluorooctanoic acid (PFOA)	1.84		0.28	0.080
375-95-1	Perfluorononanoic acid (PFNA)	1.36		0.28	0.047
335-76-2	Perfluorodecanoic acid (PFDA)	2.14		0.28	0.039
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.10		0.28	0.037
307-55-1	Perfluorododecanoic acid (PFDoA)	1.68		0.28	0.035
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.57		0.28	0.035
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.68		0.28	0.036
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.060	J	0.28	0.046
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.82		0.28	0.057
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.28	U	0.28	0.032
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	10.5		0.28	0.15
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.18	J	0.28	0.026
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.28	U	0.28	0.047
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.77	U	2.77	0.15
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.77	U	2.77	0.11
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.89	J	2.77	0.079
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.82	J	2.77	0.051

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-32_0.2-1_20221004 Lab Sample ID: 460-266816-11

Matrix: Solid Lab File ID: PA221012D05.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 10:20

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.00(g) Date Analyzed: 10/12/2022 23:14

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 8.1 % Solids: 91.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.12		0.54	0.36
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.10		0.22	0.060
307-24-4	Perfluorohexanoic acid (PFHxA)	1.06		0.22	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.85		0.22	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.72		0.22	0.063
375-95-1	Perfluorononanoic acid (PFNA)	0.63		0.22	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	1.08		0.22	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.41		0.22	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.23		0.22	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.11	J	0.22	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.099	J	0.22	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.055	J	0.22	0.036
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.64		0.22	0.045
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.047	J	0.22	0.025
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	8.98		0.22	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.053	J	0.22	0.021
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.090
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.58	J	2.18	0.062
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.13	J	2.18	0.040

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-32_1-2_20221004 | Lab Sample ID: 460-266816-12

Matrix: Solid | Lab File ID: PA221012D06.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 10:30

Extraction Method: SHAKE | Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.02(g) | Date Analyzed: 10/12/2022 23:23

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 4.1 % Solids: 95.9 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.52	U	0.52	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.35		0.21	0.057
307-24-4	Perfluorohexanoic acid (PFHxA)	0.16	J	0.21	0.048
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.098	J	0.21	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.061	J	0.21	0.060
375-95-1	Perfluorononanoic acid (PFNA)	0.066	J	0.21	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.13	J	0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.095	J	0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.32		0.21	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.08	U	2.08	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.08	U	2.08	0.086
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.19	J	2.08	0.059
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.25	J	2.08	0.038

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-31_0-0.2_20221004 Lab Sample ID: 460-266816-13

Matrix: Solid Lab File ID: PA221012D07.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 10:40

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.19(g) Date Analyzed: 10/12/2022 23:31

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 8.9 % Solids: 91.1 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.72		0.53	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.21		0.21	0.058
307-24-4	Perfluorohexanoic acid (PFHxA)	0.66		0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.67		0.21	0.041
335-67-1	Perfluorooctanoic acid (PFOA)	0.87		0.21	0.061
375-95-1	Perfluorononanoic acid (PFNA)	0.77		0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	2.86		0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.82		0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.51		0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.16	J	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.17	J	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.65		0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.046	J	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	5.69		0.21	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.14	J	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.11	J	0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.11	U	2.11	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.11	U	2.11	0.088
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.01	J	2.11	0.060
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.19		2.11	0.039

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-31_0.2-1_20221004 | Lab Sample ID: 460-266816-14

Matrix: Solid | Lab File ID: PA221012D08.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 10:45

Extraction Method: SHAKE | Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.06(g) | Date Analyzed: 10/12/2022 23:39

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 16.3 % Solids: 83.7 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.20		0.59	0.39
2706-90-3	Perfluoropentanoic acid (PFPeA)	4.82		0.24	0.065
307-24-4	Perfluorohexanoic acid (PFHxA)	1.42		0.24	0.054
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.24		0.24	0.046
335-67-1	Perfluorooctanoic acid (PFOA)	1.85		0.24	0.069
375-95-1	Perfluorononanoic acid (PFNA)	1.50		0.24	0.040
335-76-2	Perfluorodecanoic acid (PFDA)	3.26		0.24	0.033
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.54		0.24	0.032
307-55-1	Perfluorododecanoic acid (PFDoA)	0.037	J	0.24	0.030
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.24	U	0.24	0.030
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.24	U	0.24	0.031
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.075	J	0.24	0.039
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.71		0.24	0.048
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.21	J	0.24	0.027
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.24	U	0.24	0.022
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.17	J	0.24	0.040
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.36	U	2.36	0.13
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.36	U	2.36	0.098
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.68		2.36	0.067
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.71	J	2.36	0.044

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-31_0.2-1_20221004 DL Lab Sample ID: 460-266816-14 DL

Matrix: Solid Lab File ID: PA221013A06.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 10:45

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.06(g) Date Analyzed: 10/13/2022 13:01

Con. Extract Vol.: 10(mL) Dilution Factor: 5

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 16.3 % Solids: 83.7 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184669 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	68.3	D	1.18	0.65

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	84		50-150

for 11/10/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-31_1-2_20221004 | Lab Sample ID: 460-266816-15

Matrix: Solid | Lab File ID: PA221012D09.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 10:50

Extraction Method: SHAKE | Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.07(g) | Date Analyzed: 10/12/2022 23:47

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 9.6 % Solids: 90.4 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.55	U	0.55	0.36
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.31		0.22	0.060
307-24-4	Perfluorohexanoic acid (PFHxA)	0.79		0.22	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.52		0.22	0.043
335-67-1	Perfluorooctanoic acid (PFOA)	0.85		0.22	0.063
375-95-1	Perfluorononanoic acid (PFNA)	0.81		0.22	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	0.064	J	0.22	0.031
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.22	U	0.22	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.22	U	0.22	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.22	U	0.22	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.22	U	0.22	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.076	J	0.22	0.036
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.13		0.22	0.045
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.27		0.22	0.025
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.22	U	0.22	0.021
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.091
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.15		2.18	0.062
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.074	J	2.18	0.040

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-31_1-2_20221004 DL Lab Sample ID: 460-266816-15 DL

Matrix: Solid Lab File ID: PA221013A07.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 10:50

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.07(g) Date Analyzed: 10/13/2022 13:10

Con. Extract Vol.: 10(mL) Dilution Factor: 10

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 9.6 % Solids: 90.4 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184669 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	163	D	2.18	1.20

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	78		50-150

FORM I 537 (modified)

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_0-0.2_20221004 Lab Sample ID: 460-266816-16

Matrix: Solid Lab File ID: PA221012D10.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:10

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.04(g) Date Analyzed: 10/12/2022 23:55

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 25.1 % Solids: 74.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.41		0.66	0.44
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.27		0.27	0.073
307-24-4	Perfluorohexanoic acid (PFHxA)	0.50		0.27	0.061
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.43		0.27	0.052
335-67-1	Perfluorooctanoic acid (PFOA)	0.53		0.27	0.077
375-95-1	Perfluorononanoic acid (PFNA)	0.65		0.27	0.045
335-76-2	Perfluorodecanoic acid (PFDA)	0.23	J	0.27	0.037
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.48		0.27	0.036
307-55-1	Perfluorododecanoic acid (PFDoA)	0.25	J	0.27	0.033
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.16	J	0.27	0.033
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.13	J	0.27	0.034
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.046	J	0.27	0.044
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.63		0.27	0.054
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.058	J	0.27	0.030
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.16	J	0.27	0.025
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.27	U	0.27	0.045
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.65	U	2.65	0.15
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.65	U	2.65	0.11
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.11	J	2.65	0.076
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.15	J	2.65	0.049

for 12/20/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_0-0.2_20221004 Lab Sample ID: 460-266816-16

Matrix: Solid Lab File ID: PA221013A08.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:10

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.04(g) Date Analyzed: 10/13/2022 13:18

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 25.1 % Solids: 74.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184669 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	12.4		0.27	0.15

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	84		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_0-0.2_20221004 Lab Sample ID: 460-266816-16

Matrix: Solid (SPLP East) Lab File ID: PA221019A29.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:10

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 248.7(mL) Date Analyzed: 10/19/2022 17:40

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	13.8		5.03	1.21
2706-90-3	Perfluoropentanoic acid (PFPeA)	20.2		2.01	0.68
307-24-4	Perfluorohexanoic acid (PFHxA)	6.79		2.01	0.65
375-85-9	Perfluoroheptanoic acid (PFHpA)	7.72		2.01	0.54
335-67-1	Perfluorooctanoic acid (PFOA)	8.63		2.01	0.76
375-95-1	Perfluorononanoic acid (PFNA)	8.62		2.01	0.49
335-76-2	Perfluorodecanoic acid (PFDA)	1.14	J	2.01	0.46
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.01	U	2.01	0.55
307-55-1	Perfluorododecanoic acid (PFDoA)	2.01	U	2.01	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.01	U	2.01	0.48
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.01	U	2.01	0.64
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.77	J	2.01	0.62
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.64		2.01	0.55
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.01	U	2.01	0.41
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	68.5		2.01	0.85
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.01	U	2.01	0.40
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.01	U	2.01	0.92
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.03	U	5.03	1.91
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.03	U	5.03	1.61
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.03	U	5.03	1.31
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.01	U	2.01	0.77

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_0.2-1_20221004 Lab Sample ID: 460-266816-17

Matrix: Solid Lab File ID: PA221012D11.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:20

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.04(g) Date Analyzed: 10/13/2022 00:04

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.6 % Solids: 92.4 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.86		0.54	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.42		0.21	0.059
307-24-4	Perfluorohexanoic acid (PFHxA)	0.42		0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.51		0.21	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.53		0.21	0.062
375-95-1	Perfluorononanoic acid (PFNA)	0.63		0.21	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	0.063	J	0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.036	J	0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	~~U~~ JJ	0.21	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.29		0.21	0.044
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.059	J	0.21	0.025
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.15	U	2.15	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.15	U	2.15	0.089
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.15	U	2.15	0.061
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.15	U	2.15	0.040

for 12/20/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_0.2-1_20221004 DL Lab Sample ID: 460-266816-17 DL

Matrix: Solid Lab File ID: PA221013A09.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:20

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.04(g) Date Analyzed: 10/13/2022 13:26

Con. Extract Vol.: 10(mL) Dilution Factor: 5

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.6 % Solids: 92.4 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184669 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	40.3	D	1.07	0.59

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	89		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_0.2-1_20221004 Lab Sample ID: 460-266816-17

Matrix: Solid (SPLP East) Lab File ID: PA221019A30.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:20

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 261.6(mL) Date Analyzed: 10/19/2022 17:48

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	48.8		4.78	1.15
2706-90-3	Perfluoropentanoic acid (PFPeA)	76.6		1.91	0.65
307-24-4	Perfluorohexanoic acid (PFHxA)	19.2		1.91	0.62
375-85-9	Perfluoroheptanoic acid (PFHpA)	21.5		1.91	0.52
335-67-1	Perfluorooctanoic acid (PFOA)	21.5		1.91	0.73
375-95-1	Perfluorononanoic acid (PFNA)	20.5		1.91	0.47
335-76-2	Perfluorodecanoic acid (PFDA)	1.33	J	1.91	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.91	U	1.91	0.53
307-55-1	Perfluorododecanoic acid (PFDoA)	1.91	U	1.91	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.91	U	1.91	0.46
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.91	U	1.91	0.61
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.70	J	1.91	0.59
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	9.34		1.91	0.53
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.41		1.91	0.39
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.91	U	1.91	0.38
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.91	U	1.91	0.88
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.78	U	4.78	1.82
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.78	U	4.78	1.53
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.78	U	4.78	1.24
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.91	U	1.91	0.74

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_0.2-1_20221004 DL Lab Sample ID: 460-266816-17 DL

Matrix: Solid (SPLP East) Lab File ID: PA221020A09.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:20

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 261.6(mL) Date Analyzed: 10/20/2022 15:16

Con. Extract Vol.: 10(mL) Dilution Factor: 5

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184906 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1380	D	9.56	4.06

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	102		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_1-2_20221004 Lab Sample ID: 460-266816-18

Matrix: Solid Lab File ID: PA221012D12.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:30

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.05(g) Date Analyzed: 10/13/2022 00:12

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 3.7 % Solids: 96.3 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.51	U	0.51	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.43		0.21	0.057
307-24-4	Perfluorohexanoic acid (PFHxA)	0.23		0.21	0.047
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.27		0.21	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.16	J	0.21	0.060
375-95-1	Perfluorononanoic acid (PFNA)	0.074	J	0.21	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.21	U	0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.51		0.21	0.042
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.029	J	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	9.45		0.21	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.06	U	2.06	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.06	U	2.06	0.085
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.099	J	2.06	0.059
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.06	U	2.06	0.038

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_1-2_20221004 Lab Sample ID: 460-266816-18

Matrix: Solid (SPLP East) Lab File ID: PA221019A31.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:30

Extraction Method: 3535 Date Extracted: 10/18/2022 14:09

Sample wt/vol: 257.5(mL) Date Analyzed: 10/19/2022 17:56

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184847 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	29.8		4.85	1.17
2706-90-3	Perfluoropentanoic acid (PFPeA)	45.0		1.94	0.66
307-24-4	Perfluorohexanoic acid (PFHxA)	20.2		1.94	0.63
375-85-9	Perfluoroheptanoic acid (PFHpA)	21.2		1.94	0.52
335-67-1	Perfluorooctanoic acid (PFOA)	16.0		1.94	0.74
375-95-1	Perfluorononanoic acid (PFNA)	5.24		1.94	0.48
335-76-2	Perfluorodecanoic acid (PFDA)	0.46	J	1.94	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.94	U	1.94	0.53
307-55-1	Perfluorododecanoic acid (PFDoA)	1.94	U	1.94	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.94	U	1.94	0.47
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.94	U	1.94	0.62
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.06	J	1.94	0.60
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	14.2		1.94	0.53
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.31	J	1.94	0.40
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.94	U	1.94	0.39
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.94	U	1.94	0.89
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.85	U	4.85	1.84
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.85	U	4.85	1.55
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.10	J	4.85	1.26
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.94	U	1.94	0.75

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Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-30_1-2_20221004 DL | Lab Sample ID: 460-266816-18 DL

Matrix: Solid (SPLP East) | Lab File ID: PA221020A10.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 11:30

Extraction Method: 3535 | Date Extracted: 10/18/2022 14:09

Sample wt/vol: 257.5(mL) | Date Analyzed: 10/20/2022 15:24

Con. Extract Vol.: 10(mL) | Dilution Factor: 5

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184906 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	606	D	9.71	4.13

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	90		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-29_0-0.2_20221004 Lab Sample ID: 460-266816-19

Matrix: Solid Lab File ID: PA221012D13.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 11:55

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.22(g) Date Analyzed: 10/13/2022 00:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 26.0 % Solids: 74.0 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.25		0.65	0.43
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.82		0.26	0.071
307-24-4	Perfluorohexanoic acid (PFHxA)	0.39		0.26	0.060
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.26		0.26	0.050
335-67-1	Perfluorooctanoic acid (PFOA)	0.29		0.26	0.075
375-95-1	Perfluorononanoic acid (PFNA)	0.27		0.26	0.044
335-76-2	Perfluorodecanoic acid (PFDA)	0.19	J	0.26	0.036
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.34		0.26	0.035
307-55-1	Perfluorododecanoic acid (PFDoA)	0.17	J	0.26	0.032
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.12	J	0.26	0.032
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.065	J	0.26	0.034
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.26	U	0.26	0.043
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.14	J	0.26	0.053
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.26	U	0.26	0.030
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.93		0.26	0.14
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.035	J	0.26	0.025
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.26	U	0.26	0.044
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.59	U	2.59	0.14
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.59	U	2.59	0.11
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.59	U	2.59	0.074
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.059	J	2.59	0.048

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-29_0.2-1_20221004 Lab Sample ID: 460-266816-20

Matrix: Solid Lab File ID: PA221012D17.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 12:00

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.20(g) Date Analyzed: 10/13/2022 00:53

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 3.3 % Solids: 96.7 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.50	U	0.50	0.33
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.26		0.20	0.055
307-24-4	Perfluorohexanoic acid (PFHxA)	0.14	J	0.20	0.046
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.082	J	0.20	0.039
335-67-1	Perfluorooctanoic acid (PFOA)	0.083	J	0.20	0.058
375-95-1	Perfluorononanoic acid (PFNA)	0.040	J	0.20	0.034
335-76-2	Perfluorodecanoic acid (PFDA)	0.20	U	0.20	0.028
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.20	U	0.20	0.027
307-55-1	Perfluorododecanoic acid (PFDoA)	0.20	U	0.20	0.025
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.20	U	0.20	0.025
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.20	U	0.20	0.026
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.20	U	0.20	0.033
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.060	J	0.20	0.041
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.20	U	0.20	0.023
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.60		0.20	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.20	U	0.20	0.019
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.20	U	0.20	0.034
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.99	U	1.99	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.99	U	1.99	0.083
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.99	U	1.99	0.057
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.99	U	1.99	0.037

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Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-29_1-2_20221004 | Lab Sample ID: 460-266816-21

Matrix: Solid | Lab File ID: PA221012D18.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 12:10

Extraction Method: SHAKE | Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.18(g) | Date Analyzed: 10/13/2022 01:01

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 6.9 % Solids: 93.1 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.52	U	0.52	0.34
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.29		0.21	0.057
307-24-4	Perfluorohexanoic acid (PFHxA)	0.14	J	0.21	0.048
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.10	J	0.21	0.040
335-67-1	Perfluorooctanoic acid (PFOA)	0.21	U	0.21	0.060
375-95-1	Perfluorononanoic acid (PFNA)	0.042	J	0.21	0.035
335-76-2	Perfluorodecanoic acid (PFDA)	0.045	J	0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.21	U	0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.21	U	0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.21	U	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.21	U	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.034
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.27		0.21	0.042
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.032	J	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.81	J	0.21	0.11
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.21	U	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.035
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.07	U	2.07	0.11
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.07	U	2.07	0.086
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.081	J	2.07	0.059
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.059	J	2.07	0.038

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-X02_20221004 Lab Sample ID: 460-266816-22

Matrix: Solid RI-SB-29_0-0.2_20221004 Lab File ID: PA221012D21.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 14:05

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.21(g) Date Analyzed: 10/13/2022 01:25

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 24.7 % Solids: 75.3 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.10		0.64	0.42
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.61		0.26	0.070
307-24-4	Perfluorohexanoic acid (PFHxA)	0.37		0.26	0.059
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.28		0.26	0.050
335-67-1	Perfluorooctanoic acid (PFOA)	0.26		0.26	0.074
375-95-1	Perfluorononanoic acid (PFNA)	0.28		0.26	0.043
335-76-2	Perfluorodecanoic acid (PFDA)	0.19	J	0.26	0.036
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.34		0.26	0.034
307-55-1	Perfluorododecanoic acid (PFDoA)	0.19	J	0.26	0.032
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.13	J	0.26	0.032
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.079	J	0.26	0.033
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.046	J	0.26	0.042
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.13	J	0.26	0.052
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.26	U	0.26	0.029
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.04		0.26	0.14
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.038	J	0.26	0.024
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.26	U	0.26	0.043
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.55	U	2.55	0.14
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.55	U	2.55	0.11
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.55	U	2.55	0.073
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.057	J	2.55	0.047

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-24_0-0.2_20221004 Lab Sample ID: 460-266816-23

Matrix: Solid Lab File ID: PA221012D22.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 12:45

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.14(g) Date Analyzed: 10/13/2022 01:34

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 9.2 % Solids: 90.8 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.58		0.54	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.40		0.21	0.059
307-24-4	Perfluorohexanoic acid (PFHxA)	0.71		0.21	0.049
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.64		0.21	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.61		0.21	0.062
375-95-1	Perfluorononanoic acid (PFNA)	0.59		0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	2.32		0.21	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.69		0.21	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	1.53		0.21	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.30		0.21	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.43		0.21	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.95		0.21	0.044
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.19	J	0.21	0.025
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.27		0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.099	J	0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.14	U	2.14	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.14	U	2.14	0.089
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.72	J	2.14	0.061
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.94	J	2.14	0.040

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-24_0-0.2_20221004 DL | Lab Sample ID: 460-266816-23 DL

Matrix: Solid | Lab File ID: PA221013A12.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 12:45

Extraction Method: SHAKE | Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.14(g) | Date Analyzed: 10/13/2022 13:51

Con. Extract Vol.: 10(mL) | Dilution Factor: 5

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 9.2 % Solids: 90.8 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184669 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	47.1	D	1.07	0.59

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	95		50-150

12/20/2022

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-24_0.2-1_20221004 Lab Sample ID: 460-266816-24

Matrix: Solid Lab File ID: PA221012D23.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 12:50

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.03(g) Date Analyzed: 10/13/2022 01:42

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.9 % Solids: 92.1 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.36
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.83		0.22	0.059
307-24-4	Perfluorohexanoic acid (PFHxA)	0.39		0.22	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.34		0.22	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.30		0.22	0.063
375-95-1	Perfluorononanoic acid (PFNA)	0.28		0.22	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	0.99		0.22	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.14		0.22	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.63		0.22	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.12	J	0.22	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.16	J	0.22	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.92		0.22	0.044
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.093	J	0.22	0.025
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.11	J	0.22	0.021
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.16	U	2.16	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.16	U	2.16	0.090
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.82	J	2.16	0.062
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.61	J	2.16	0.040

for 12/20/2023

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-24_0.2-1_20221004 DL Lab Sample ID: 460-266816-24 DL

Matrix: Solid Lab File ID: PA221013A13.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 12:50

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.03(g) Date Analyzed: 10/13/2022 13:59

Con. Extract Vol.: 10(mL) Dilution Factor: 2

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.9 % Solids: 92.1 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184669 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	22.4	D	0.43	0.24

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	67		50-150

for 12/20/2022

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-24_1-2_20221004 Lab Sample ID: 460-266816-25

Matrix: Solid Lab File ID: PA221012D24.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 12:55

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.00(g) Date Analyzed: 10/13/2022 01:50

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 7.1 % Solids: 92.9 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.54	U	0.54	0.36
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.56		0.22	0.059
307-24-4	Perfluorohexanoic acid (PFHxA)	0.27		0.22	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.24		0.22	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.21	J	0.22	0.062
375-95-1	Perfluorononanoic acid (PFNA)	0.19	J	0.22	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	0.69		0.22	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.85		0.22	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.64		0.22	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.12	J	0.22	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.15	J	0.22	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.62		0.22	0.044
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.052	J	0.22	0.025
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	11.9		0.22	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.098	J	0.22	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.040	J	0.22	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.15	U	2.15	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.15	U	2.15	0.089
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.02	J	2.15	0.061
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.26	J	2.15	0.040

for 12/20/2023

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Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-23_0-0.2_20221004 Lab Sample ID: 460-266816-26

Matrix: Solid Lab File ID: PA221012D25.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 13:25

Extraction Method: SHAKE Date Extracted: 10/12/2022 07:36

Sample wt/vol: 5.07(g) Date Analyzed: 10/13/2022 01:58

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 17.2 % Solids: 82.8 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184626 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.10		0.60	0.39
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.76		0.24	0.066
307-24-4	Perfluorohexanoic acid (PFHxA)	1.31		0.24	0.055
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.96		0.24	0.046
335-67-1	Perfluorooctanoic acid (PFOA)	0.79		0.24	0.069
375-95-1	Perfluorononanoic acid (PFNA)	1.09		0.24	0.041
335-76-2	Perfluorodecanoic acid (PFDA)	1.97		0.24	0.033
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.22		0.24	0.032
307-55-1	Perfluorododecanoic acid (PFDoA)	1.23		0.24	0.030
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.41		0.24	0.030
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.42		0.24	0.031
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.24	U	0.24	0.039
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.26		0.24	0.049
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.039	J	0.24	0.027
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.05		0.24	0.13
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.10	J	0.24	0.023
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.24	U	0.24	0.041
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.38	U	2.38	0.13
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.38	U	2.38	0.099
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.37	J	2.38	0.068
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.50	J	2.38	0.044

for 12/20/2023

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-23_0.2-1_20221004 Lab Sample ID: 460-266816-27

Matrix: Solid Lab File ID: PA221017B18.d

Analysis Method: 537 (modified) Date Collected: 10/04/2022 13:30

Extraction Method: SHAKE Date Extracted: 10/17/2022 10:30

Sample wt/vol: 5.20(g) Date Analyzed: 10/17/2022 21:12

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 11.6 % Solids: 88.4 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184778 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.62		0.54	0.36
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.46		0.22	0.060
307-24-4	Perfluorohexanoic acid (PFHxA)	0.59		0.22	0.050
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.44		0.22	0.042
335-67-1	Perfluorooctanoic acid (PFOA)	0.37		0.22	0.063
375-95-1	Perfluorononanoic acid (PFNA)	0.60		0.22	0.037
335-76-2	Perfluorodecanoic acid (PFDA)	0.76		0.22	0.030
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.72		0.22	0.029
307-55-1	Perfluorododecanoic acid (PFDoA)	0.43		0.22	0.027
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.14	J	0.22	0.027
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.13	J	0.22	0.028
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.22	U	0.22	0.036
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.16	J	0.22	0.045
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.22	U	0.22	0.025
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.36		0.22	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.067	J	0.22	0.021
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.22	U	0.22	0.037
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.18	U	2.18	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.18	U	2.18	0.090
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.091	J	2.18	0.062
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.13	J	2.18	0.040

12/20/2023

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-266738-1

SDG No.:

Client Sample ID: RI-SB-23_1-2_20221004 | Lab Sample ID: 460-266816-28

Matrix: Solid | Lab File ID: PA221017B19.d

Analysis Method: 537 (modified) | Date Collected: 10/04/2022 13:40

Extraction Method: SHAKE | Date Extracted: 10/17/2022 10:30

Sample wt/vol: 5.20(g) | Date Analyzed: 10/17/2022 21:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 8.4 % Solids: 91.6 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 184778 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	0.50	J	0.52	0.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.30		0.21	0.058
307-24-4	Perfluorohexanoic acid (PFHxA)	0.49		0.21	0.048
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.35		0.21	0.041
335-67-1	Perfluorooctanoic acid (PFOA)	0.33		0.21	0.061
375-95-1	Perfluorononanoic acid (PFNA)	0.52		0.21	0.036
335-76-2	Perfluorodecanoic acid (PFDA)	0.61		0.21	0.029
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.50		0.21	0.028
307-55-1	Perfluorododecanoic acid (PFDoA)	0.29		0.21	0.026
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.11	J	0.21	0.026
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.096	J	0.21	0.027
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.21	U	0.21	0.035
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.20	J	0.21	0.043
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.21	U	0.21	0.024
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.73		0.21	0.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.093	J	0.21	0.020
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.21	U	0.21	0.036
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.10	U	2.10	0.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.10	U	2.10	0.087
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	0.091	J	2.10	0.060
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.11	J	2.10	0.039

for 11/10/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-13_20221014 Lab Sample ID: 460-267585-1

Matrix: Solid Lab File ID: PA221031A11.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 09:15

Extraction Method: SHAKE Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.04(g) Date Analyzed: 10/31/2022 17:42

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 69.3 % Solids: 30.7 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	2.28		1.61	1.07
2706-90-3	Perfluoropentanoic acid (PFPeA)	9.38		0.65	0.18
307-24-4	Perfluorohexanoic acid (PFHxA)	5.73		0.65	0.15
375-85-9	Perfluoroheptanoic acid (PFHpA)	3.32		0.65	0.13
335-67-1	Perfluorooctanoic acid (PFOA)	5.55		0.65	0.19
375-95-1	Perfluorononanoic acid (PFNA)	1.05		0.65	0.11
335-76-2	Perfluorodecanoic acid (PFDA)	2.88	J	0.65	0.090
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.20		0.65	0.087
307-55-1	Perfluorododecanoic acid (PFDoA)	2.77	J	0.65	0.081
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.70		0.65	0.081
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.62	J	0.65	0.084
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.65	U	0.65	0.11
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.88	J	0.65	0.13
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.34	J	0.65	0.074
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	41.9		0.65	0.36
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.65	U	0.65	0.061
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.65	U	0.65	0.11
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.46	U	6.46	0.36
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.46	U	6.46	0.27
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.18	J	6.46	0.18
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.51		6.46	0.12

12/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-13_20221014 Lab Sample ID: 460-267585-1

Matrix: Solid (SPLP East) Lab File ID: PA221028B05.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 09:15

Extraction Method: 3535 Date Extracted: 10/28/2022 09:54

Sample wt/vol: 50.1(mL) Date Analyzed: 10/28/2022 20:22

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	22.3	J	25.0	5.99
2706-90-3	Perfluoropentanoic acid (PFPeA)	90.3		9.98	3.39
307-24-4	Perfluorohexanoic acid (PFHxA)	58.5		9.98	3.24
375-85-9	Perfluoroheptanoic acid (PFHpA)	35.2		9.98	2.69
335-67-1	Perfluorooctanoic acid (PFOA)	47.7		9.98	3.79
375-95-1	Perfluorononanoic acid (PFNA)	6.70	J	9.98	2.45
335-76-2	Perfluorodecanoic acid (PFDA)	9.36	J	9.98	2.30
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.98	U	9.98	2.74
307-55-1	Perfluorododecanoic acid (PFDoA)	9.98	U	9.98	2.45
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.98	U	9.98	2.40
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.98	U	9.98	3.19
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.98	U	9.98	3.09
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	20.5		9.98	2.74
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.98	U	9.98	2.05
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	164		9.98	4.24
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.98	U	9.98	2.00
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.98	U	9.98	4.59
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	U	25.0	9.48
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	U	25.0	7.98
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	13.4	J	25.0	6.49
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	4.60	J	9.98	3.84

10/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-14_20221014 | Lab Sample ID: 460-267585-2

Matrix: Solid | Lab File ID: PA221031A12.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 08:45

Extraction Method: SHAKE | Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.11(g) | Date Analyzed: 10/31/2022 17:50

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 87.4 % Solids: 12.6 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	16.2		3.88	2.56
2706-90-3	Perfluoropentanoic acid (PFPeA)	57.7		1.55	0.43
307-24-4	Perfluorohexanoic acid (PFHxA)	32.9		1.55	0.36
375-85-9	Perfluoroheptanoic acid (PFHpA)	21.3		1.55	0.30
335-67-1	Perfluorooctanoic acid (PFOA)	27.8		1.55	0.45
375-95-1	Perfluorononanoic acid (PFNA)	7.96		1.55	0.26
335-76-2	Perfluorodecanoic acid (PFDA)	32.2		1.55	0.22
2058-94-8	Perfluoroundecanoic acid (PFUnA)	14.3		1.55	0.21
307-55-1	Perfluorododecanoic acid (PFDoA)	39.5		1.55	0.19
72629-94-8	Perfluorotridecanoic acid (PFTriA)	8.35		1.55	0.19
376-06-7	Perfluorotetradecanoic acid (PFTeA)	30.9	J	1.55	0.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.55	U	1.55	0.26
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.31	J	1.55	0.32
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.55	U	1.55	0.18
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	6.48		1.55	0.85
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.55	U	1.55	0.15
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.55	U	1.55	0.26
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	15.5	U	15.5	0.85
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	15.5	U	15.5	0.64
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	23.1		15.5	0.44
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	83.6		15.5	0.29

FORM I 537 (modified)

for 11/2 07/1023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-14_20221014 Lab Sample ID: 460-267585-2

Matrix: Solid (SPLP East) Lab File ID: PA221028B06.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 08:45

Extraction Method: 3535 Date Extracted: 10/28/2022 09:54

Sample wt/vol: 258.5(mL) Date Analyzed: 10/28/2022 20:30

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	55.0		4.84	1.16
2706-90-3	Perfluoropentanoic acid (PFPeA)	207		1.93	0.66
307-24-4	Perfluorohexanoic acid (PFHxA)	133		1.93	0.63
375-85-9	Perfluoroheptanoic acid (PFHpA)	81.5		1.93	0.52
335-67-1	Perfluorooctanoic acid (PFOA)	113		1.93	0.74
375-95-1	Perfluorononanoic acid (PFNA)	21.7		1.93	0.47
335-76-2	Perfluorodecanoic acid (PFDA)	31.0		1.93	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.91	J	1.93	0.53
307-55-1	Perfluorododecanoic acid (PFDoA)	1.93	U	1.93	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.93	U	1.93	0.46
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.93	U	1.93	0.62
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.93	U	1.93	0.60
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.89		1.93	0.53
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.93	U	1.93	0.40
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	10.4		1.93	0.82
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.93	U	1.93	0.39
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.93	U	1.93	0.89
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.84	U	4.84	1.84
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.84	U	4.84	1.55
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	22.8		4.84	1.26
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.08		1.93	0.74

for 12/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-15_20221014 Lab Sample ID: 460-267585-3

Matrix: Solid Lab File ID: PA221031A13.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 08:00

Extraction Method: SHAKE Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.03(g) Date Analyzed: 10/31/2022 17:59

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 76.2 % Solids: 23.8 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	2.09	U	2.09	1.38
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.25	J	0.84	0.23
307-24-4	Perfluorohexanoic acid (PFHxA)	0.35	J	0.84	0.19
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.18	J	0.84	0.16
335-67-1	Perfluorooctanoic acid (PFOA)	0.62	J	0.84	0.24
375-95-1	Perfluorononanoic acid (PFNA)	0.84	U	0.84	0.14
335-76-2	Perfluorodecanoic acid (PFDA)	0.30	J	0.84	0.12
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.36	J	0.84	0.11
307-55-1	Perfluorododecanoic acid (PFDoA)	0.32	J	0.84	0.10
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.27	J	0.84	0.10
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.27	J	0.84	0.11
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.84	U	0.84	0.14
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.61	J	0.84	0.17
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.84	U	0.84	0.096
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.74		0.84	0.46
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.84	U	0.84	0.079
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.84	U	0.84	0.14
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	8.36	U	8.36	0.46
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	8.36	U	8.36	0.35
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	8.36	U	8.36	0.24
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.36	U	8.36	0.15

12/12/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-15_20221014 Lab Sample ID: 460-267585-3

Matrix: Solid (SPLP East) Lab File ID: PA221028B07.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 08:00

Extraction Method: 3535 Date Extracted: 10/28/2022 09:54

Sample wt/vol: 253.2(mL) Date Analyzed: 10/28/2022 20:38

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.94	U	4.94	1.18
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.97	U	1.97	0.67
307-24-4	Perfluorohexanoic acid (PFHxA)	1.01	J	1.97	0.64
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.28	J	1.97	0.53
335-67-1	Perfluorooctanoic acid (PFOA)	4.02		1.97	0.75
375-95-1	Perfluorononanoic acid (PFNA)	1.97	U	1.97	0.48
335-76-2	Perfluorodecanoic acid (PFDA)	1.97	U	1.97	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.97	U	1.97	0.54
307-55-1	Perfluorododecanoic acid (PFDoA)	1.97	U	1.97	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.97	U	1.97	0.47
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.97	U	1.97	0.63
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.97	U	1.97	0.61
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.30		1.97	0.54
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.97	U	1.97	0.40
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.68		1.97	0.84
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.97	U	1.97	0.39
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.97	U	1.97	0.91
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.94	U	4.94	1.88
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.94	U	4.94	1.58
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.94	U	4.94	1.28
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.97	U	1.97	0.76

12/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-16_20221014 | Lab Sample ID: 460-267585-4

Matrix: Solid | Lab File ID: PA221031A14.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 13:00

Extraction Method: SHAKE | Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.09(g) | Date Analyzed: 10/31/2022 18:07

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 68.8 % Solids: 31.2 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.57	U	1.57	1.04
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.33	J	0.63	0.17
307-24-4	Perfluorohexanoic acid (PFHxA)	0.42	J	0.63	0.14
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.16	J	0.63	0.12
335-67-1	Perfluorooctanoic acid (PFOA)	0.64		0.63	0.18
375-95-1	Perfluorononanoic acid (PFNA)	0.12	J	0.63	0.11
335-76-2	Perfluorodecanoic acid (PFDA)	0.34	J	0.63	0.088
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.37	J	0.63	0.085
307-55-1	Perfluorododecanoic acid (PFDoA)	0.36	J	0.63	0.079
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.23	J	0.63	0.079
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.28	J	0.63	0.082
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.63	U	0.63	0.10
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.19	J	0.63	0.13
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.63	U	0.63	0.072
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.52		0.63	0.35
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.63	U	0.63	0.060
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.63	U	0.63	0.11
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.30	U	6.30	0.35
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.30	U	6.30	0.26
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	6.30	U	6.30	0.18
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.30	U	6.30	0.12

for 11/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-16_20221014 Lab Sample ID: 460-267585-4

Matrix: Solid (SPLP East) Lab File ID: PA221028B08.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 13:00

Extraction Method: 3535 Date Extracted: 10/28/2022 09:54

Sample wt/vol: 274.3(mL) Date Analyzed: 10/28/2022 20:46

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.56	U	4.56	1.09
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.62		1.82	0.62
307-24-4	Perfluorohexanoic acid (PFHxA)	2.13		1.82	0.59
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.65	J	1.82	0.49
335-67-1	Perfluorooctanoic acid (PFOA)	1.64	J	1.82	0.69
375-95-1	Perfluorononanoic acid (PFNA)	1.09	J	1.82	0.45
335-76-2	Perfluorodecanoic acid (PFDA)	1.08	J	1.82	0.42
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.82	U	1.82	0.50
307-55-1	Perfluorododecanoic acid (PFDoA)	1.82	U	1.82	0.45
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.82	U	1.82	0.44
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.82	U	1.82	0.58
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.82	U	1.82	0.57
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.69	J	1.82	0.50
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.82	U	1.82	0.37
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	15.7		1.82	0.77
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.82	U	1.82	0.36
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.82	U	1.82	0.84
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.56	U	4.56	1.73
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.56	U	4.56	1.46
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.57	J	4.56	1.18
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.82	U	1.82	0.70

FORM I 537 (modified)

for 11/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-17_20221014 Lab Sample ID: 460-267585-5

Matrix: Solid Lab File ID: PA221031A15.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 12:00

Extraction Method: SHAKE Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.15(g) Date Analyzed: 10/31/2022 18:15

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 72.2 % Solids: 27.8 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.75	U	1.75	1.15
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.04		0.70	0.19
307-24-4	Perfluorohexanoic acid (PFHxA)	0.47	J	0.70	0.16
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.32	J	0.70	0.14
335-67-1	Perfluorooctanoic acid (PFOA)	1.84		0.70	0.20
375-95-1	Perfluorononanoic acid (PFNA)	0.86		0.70	0.12
335-76-2	Perfluorodecanoic acid (PFDA)	0.84		0.70	0.098
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.29		0.70	0.094
307-55-1	Perfluorododecanoic acid (PFDoA)	0.60	J	0.70	0.087
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.36	J	0.70	0.087
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.23	J	0.70	0.091
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.70	U	0.70	0.12
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.72		0.70	0.14
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.70	U	0.70	0.080
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.45		0.70	0.38
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.086	J	0.70	0.066
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.70	U	0.70	0.12
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	6.99	U	6.99	0.38
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	6.99	U	6.99	0.29
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	6.99	U	6.99	0.20
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	6.99	U	6.99	0.13

for 12/28/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-17_20221014 | Lab Sample ID: 460-267585-5

Matrix: Solid (SPLP East) | Lab File ID: PA221028B09.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 12:00

Extraction Method: 3535 | Date Extracted: 10/28/2022 09:54

Sample wt/vol: 273.7(mL) | Date Analyzed: 10/28/2022 20:55

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	7.23		4.57	1.10
2706-90-3	Perfluoropentanoic acid (PFPeA)	12.1		1.83	0.62
307-24-4	Perfluorohexanoic acid (PFHxA)	4.90		1.83	0.59
375-85-9	Perfluoroheptanoic acid (PFHpA)	4.02		1.83	0.49
335-67-1	Perfluorooctanoic acid (PFOA)	15.6		1.83	0.69
375-95-1	Perfluorononanoic acid (PFNA)	3.35		1.83	0.45
335-76-2	Perfluorodecanoic acid (PFDA)	0.70	J	1.83	0.42
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.83	U	1.83	0.50
307-55-1	Perfluorododecanoic acid (PFDoA)	1.83	U	1.83	0.45
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.83	U	1.83	0.44
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.83	U	1.83	0.58
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.77	J	1.83	0.57
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	4.84		1.83	0.50
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.83	U	1.83	0.37
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	7.04		1.83	0.78
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.83	U	1.83	0.37
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.83	U	1.83	0.84
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.57	U	4.57	1.74
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.57	U	4.57	1.46
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.57	U	4.57	1.19
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.83	U	1.83	0.70

12/7/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-18_20221014 | Lab Sample ID: 460-267585-6

Matrix: Solid | Lab File ID: PA221031A18.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 11:15

Extraction Method: SHAKE | Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.11(g) | Date Analyzed: 10/31/2022 18:40

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 85.8 % Solids: 14.2 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	3.45	U	3.45	2.28
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.47	J	1.38	0.38
307-24-4	Perfluorohexanoic acid (PFHxA)	0.66	J	1.38	0.32
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.38	U	1.38	0.27
335-67-1	Perfluorooctanoic acid (PFOA)	0.83	J	1.38	0.40
375-95-1	Perfluorononanoic acid (PFNA)	1.38	U	1.38	0.23
335-76-2	Perfluorodecanoic acid (PFDA)	0.35	J	1.38	0.19
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.88	J	1.38	0.19
307-55-1	Perfluorododecanoic acid (PFDoA)	2.00		1.38	0.17
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.02	J	1.38	0.17
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.96	J	1.38	0.18
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.38	U	1.38	0.23
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.36	J	1.38	0.28
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.38	U	1.38	0.16
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.20		1.38	0.76
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.16	J	1.38	0.13
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.38	U	1.38	0.23
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	13.8	U	13.8	0.76
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	13.8	U	13.8	0.57
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	13.8	U	13.8	0.39
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	13.8	U	13.8	0.26

for 11/28/2022

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-18_20221014 | Lab Sample ID: 460-267585-6

Matrix: Solid (SPLP East) | Lab File ID: PA221028B12.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 11:15

Extraction Method: 3535 | Date Extracted: 10/28/2022 09:54

Sample wt/vol: 241.6(mL) | Date Analyzed: 10/28/2022 21:19

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.17	U	5.17	1.24
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.85	J	2.07	0.70
307-24-4	Perfluorohexanoic acid (PFHxA)	1.90	J	2.07	0.67
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.10	J	2.07	0.56
335-67-1	Perfluorooctanoic acid (PFOA)	3.85		2.07	0.79
375-95-1	Perfluorononanoic acid (PFNA)	2.07	U	2.07	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	2.07	U	2.07	0.48
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.07	U	2.07	0.57
307-55-1	Perfluorododecanoic acid (PFDoA)	2.07	U	2.07	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.07	U	2.07	0.50
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.07	U	2.07	0.66
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.07	U	2.07	0.64
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.94	J	2.07	0.57
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.07	U	2.07	0.42
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.49		2.07	0.88
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.07	U	2.07	0.41
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.07	U	2.07	0.95
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.17	U	5.17	1.97
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.17	U	5.17	1.66
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.17	U	5.17	1.35
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.07	U	2.07	0.80

for 12/28/2022

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-19_20221014 | Lab Sample ID: 460-267585-7

Matrix: Solid | Lab File ID: PA221031A19.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 10:30

Extraction Method: SHAKE | Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.20(g) | Date Analyzed: 10/31/2022 18:48

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 84.6 % Solids: 15.4 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	3.12	U	3.12	2.06
2706-90-3	Perfluoropentanoic acid (PFPeA)	0.43	J	1.25	0.34
307-24-4	Perfluorohexanoic acid (PFHxA)	1.25	U	1.25	0.29
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.25	U	1.25	0.24
335-67-1	Perfluorooctanoic acid (PFOA)	0.62	J	1.25	0.36
375-95-1	Perfluorononanoic acid (PFNA)	0.36	J	1.25	0.21
335-76-2	Perfluorodecanoic acid (PFDA)	1.15	J	1.25	0.17
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.98	J	1.25	0.17
307-55-1	Perfluorododecanoic acid (PFDoA)	1.04	J	1.25	0.16
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.61	J	1.25	0.16
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.56	J	1.25	0.16
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.25	U	1.25	0.21
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.62	J	1.25	0.26
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.25	U	1.25	0.14
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	10.8		1.25	0.69
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.60	J	1.25	0.12
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.25	U	1.25	0.21
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	12.5	U	12.5	0.69
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	12.5	U	12.5	0.52
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	12.5	U	12.5	0.36
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	12.5	U	12.5	0.23

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-19_20221014 | Lab Sample ID: 460-267585-7

Matrix: Solid (SPLP East) | Lab File ID: PA221028B13.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 10:30

Extraction Method: 3535 | Date Extracted: 10/28/2022 09:54

Sample wt/vol: 221.9(mL) | Date Analyzed: 10/28/2022 21:27

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.63	U	5.63	1.35
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.49	J	2.25	0.77
307-24-4	Perfluorohexanoic acid (PFHxA)	1.57	J	2.25	0.73
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.81	J	2.25	0.61
335-67-1	Perfluorooctanoic acid (PFOA)	2.34		2.25	0.86
375-95-1	Perfluorononanoic acid (PFNA)	0.85	J	2.25	0.55
335-76-2	Perfluorodecanoic acid (PFDA)	2.25	U	2.25	0.52
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.25	U	2.25	0.62
307-55-1	Perfluorododecanoic acid (PFDoA)	2.25	U	2.25	0.55
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.25	U	2.25	0.54
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.25	U	2.25	0.72
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.25	U	2.25	0.70
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.76		2.25	0.62
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.25	U	2.25	0.46
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	11.2		2.25	0.96
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.25	U	2.25	0.45
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.25	U	2.25	1.04
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.63	U	5.63	2.14
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.63	U	5.63	1.80
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.63	U	5.63	1.46
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.25	U	2.25	0.87

for 12/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-20_20221014 Lab Sample ID: 460-267585-8

Matrix: Solid Lab File ID: PA221031A20.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 09:45

Extraction Method: SHAKE Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.15(g) Date Analyzed: 10/31/2022 18:56

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 63.4 % Solids: 36.6 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1.33	U	1.33	0.88
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.18		0.53	0.15
307-24-4	Perfluorohexanoic acid (PFHxA)	0.87		0.53	0.12
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.78		0.53	0.10
335-67-1	Perfluorooctanoic acid (PFOA)	1.58		0.53	0.15
375-95-1	Perfluorononanoic acid (PFNA)	1.09		0.53	0.090
335-76-2	Perfluorodecanoic acid (PFDA)	0.75		0.53	0.074
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.81		0.53	0.072
307-55-1	Perfluorododecanoic acid (PFDoA)	0.40	J	0.53	0.066
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.36	J	0.53	0.066
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.26	J	0.53	0.069
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.53	U	0.53	0.088
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	0.59		0.53	0.11
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.53	U	0.53	0.061
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	5.06		0.53	0.29
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.087	J	0.53	0.050
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.53	U	0.53	0.090
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.31	U	5.31	0.29
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.31	U	5.31	0.22
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.31	U	5.31	0.15
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	5.31	U	5.31	0.098

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-20_20221014 Lab Sample ID: 460-267585-8

Matrix: Solid (SPLP East) Lab File ID: PA221028B14.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 09:45

Extraction Method: 3535 Date Extracted: 10/28/2022 09:54

Sample wt/vol: 239.7(mL) Date Analyzed: 10/28/2022 21:36

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.45		5.21	1.25
2706-90-3	Perfluoropentanoic acid (PFPeA)	5.99		2.09	0.71
307-24-4	Perfluorohexanoic acid (PFHxA)	4.69		2.09	0.68
375-85-9	Perfluoroheptanoic acid (PFHpA)	3.77		2.09	0.56
335-67-1	Perfluorooctanoic acid (PFOA)	3.82		2.09	0.79
375-95-1	Perfluorononanoic acid (PFNA)	0.91	J	2.09	0.51
335-76-2	Perfluorodecanoic acid (PFDA)	2.09	U	2.09	0.48
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.09	U	2.09	0.57
307-55-1	Perfluorododecanoic acid (PFDoA)	2.09	U	2.09	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.09	U	2.09	0.50
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.09	U	2.09	0.67
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.69	J	2.09	0.65
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.97		2.09	0.57
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.09	U	2.09	0.43
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	4.09		2.09	0.89
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.09	U	2.09	0.42
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.09	U	2.09	0.96
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.21	U	5.21	1.98
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.21	U	5.21	1.67
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.21	U	5.21	1.36
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.09	U	2.09	0.80

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-X_20221014 | Lab Sample ID: 460-267585-9

Matrix: Solid RI-SED-13_20221014 | Lab File ID: PA221031A21.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 09:30

Extraction Method: SHAKE | Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.03(g) | Date Analyzed: 10/31/2022 19:04

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: 66.5 % Solids: 33.5 | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185269 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	2.34		1.49	0.98
2706-90-3	Perfluoropentanoic acid (PFPeA)	9.82		0.59	0.16
307-24-4	Perfluorohexanoic acid (PFHxA)	5.65		0.59	0.14
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.79		0.59	0.12
335-67-1	Perfluorooctanoic acid (PFOA)	3.54		0.59	0.17
375-95-1	Perfluorononanoic acid (PFNA)	0.68		0.59	0.10
335-76-2	Perfluorodecanoic acid (PFDA)	1.46	J	0.59	0.083
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.47	J	0.59	0.080
307-55-1	Perfluorododecanoic acid (PFDoA)	1.34	J	0.59	0.074
72629-94-8	Perfluorotridecanoic acid (PFTriA)	0.43	J	0.59	0.074
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.94	J	0.59	0.077
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.13	J	0.59	0.098
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	4.44	J	0.59	0.12
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.45	J	0.59	0.068
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.59	U	0.59	0.056
754-91-6	Perfluorooctanesulfonamide (PFOSA)	0.59	U	0.59	0.10
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.94	U	5.94	0.33
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.94	U	5.94	0.25
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1.34	J	5.94	0.17
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.51	J	5.94	0.11

for 12/28/2022

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-X_20221014 DL Lab Sample ID: 460-267585-9 DL

Matrix: Solid RI-SED-13_20221014 Lab File ID: PA221102A06.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 09:30

Extraction Method: SHAKE Date Extracted: 10/27/2022 09:00

Sample wt/vol: 5.03(g) Date Analyzed: 11/02/2022 16:43

Con. Extract Vol.: 10(mL) Dilution Factor: 2

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: 66.5 % Solids: 33.5 GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185360 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	58.8	D	1.19	0.65

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	90		50-150

for 12/28/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SED-X 20221014 RI-SED-13-20221014 | Lab Sample ID: 460-267585-9

Matrix: Solid (SPLP East) | Lab File ID: PA221028B15.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 09:30

Extraction Method: 3535 | Date Extracted: 10/28/2022 09:54

Sample wt/vol: 50.4(mL) | Date Analyzed: 10/28/2022 21:44

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185219 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	22.2	J	24.8	5.95
2706-90-3	Perfluoropentanoic acid (PFPeA)	94.3		9.92	3.37
307-24-4	Perfluorohexanoic acid (PFHxA)	65.6		9.92	3.22
375-85-9	Perfluoroheptanoic acid (PFHpA)	33.1		9.92	2.68
335-67-1	Perfluorooctanoic acid (PFOA)	33.9		9.92	3.77
375-95-1	Perfluorononanoic acid (PFNA)	4.72	J	9.92	2.43
335-76-2	Perfluorodecanoic acid (PFDA)	5.97	J	9.92	2.28
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.92	U	9.92	2.73
307-55-1	Perfluorododecanoic acid (PFDoA)	9.92	U	9.92	2.43
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.92	U	9.92	2.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.92	U	9.92	3.17
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.92	U	9.92	3.08
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	36.4		9.92	2.73
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.64	J	9.92	2.03
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	293		9.92	4.22
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.92	U	9.92	1.98
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.92	U	9.92	4.56
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	24.8	9.42
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	24.8	7.94
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.8	U	24.8	6.45
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.92	U	9.92	3.82

for 11/08/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-13_20221014 Lab Sample ID: 460-267585-10

Matrix: Water Lab File ID: PA221027A36.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 09:15

Extraction Method: 3535 Date Extracted: 10/27/2022 10:15

Sample wt/vol: 50.3(mL) Date Analyzed: 10/27/2022 21:20

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	265		24.9	5.96
2706-90-3	Perfluoropentanoic acid (PFPeA)	1150		9.94	3.38
307-24-4	Perfluorohexanoic acid (PFHxA)	580		9.94	3.23
375-85-9	Perfluoroheptanoic acid (PFHpA)	253		9.94	2.68
335-67-1	Perfluorooctanoic acid (PFOA)	144		9.94	3.78
375-95-1	Perfluorononanoic acid (PFNA)	20.6		9.94	2.44
335-76-2	Perfluorodecanoic acid (PFDA)	14.7		9.94	2.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.94	U	9.94	2.73
307-55-1	Perfluorododecanoic acid (PFDoA)	9.94	U	9.94	2.44
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.94	U	9.94	2.39
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.94	U	9.94	3.18
375-73-5	Perfluorobutanesulfonic acid (PFBS)	4.46	J	9.94	3.08
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	40.6		9.94	2.73
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.94	U	9.94	2.04
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.94	U	9.94	1.99
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.94	U	9.94	4.57
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	U	24.9	9.44
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	U	24.9	7.95
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	108		24.9	6.46
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.36	J	9.94	3.83

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-13_20221014 | Lab Sample ID: 460-267585-10

Matrix: Water | Lab File ID: PA221028A07.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 09:15

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 50.3(mL) | Date Analyzed: 10/28/2022 16:00

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185214 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	105		9.94	4.22

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	111		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-14_20221014 | Lab Sample ID: 460-267585-11

Matrix: Water | Lab File ID: PA221027A16.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 08:45

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 50.2(mL) | Date Analyzed: 10/27/2022 18:37

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	82.1		24.9	5.98
2706-90-3	Perfluoropentanoic acid (PFPeA)	221		9.96	3.39
307-24-4	Perfluorohexanoic acid (PFHxA)	117		9.96	3.24
375-85-9	Perfluoroheptanoic acid (PFHpA)	59.0		9.96	2.69
335-67-1	Perfluorooctanoic acid (PFOA)	59.2		9.96	3.78
375-95-1	Perfluorononanoic acid (PFNA)	6.54	J	9.96	2.44
335-76-2	Perfluorodecanoic acid (PFDA)	3.20	J	9.96	2.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.96	U	9.96	2.74
307-55-1	Perfluorododecanoic acid (PFDoA)	9.96	U	9.96	2.44
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.96	U	9.96	2.39
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.96	U	9.96	3.19
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.96	U	9.96	3.09
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	9.23	J	9.96	2.74
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.96	U	9.96	2.04
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	9.39	J	9.96	4.23
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.96	U	9.96	1.99
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.96	U	9.96	4.58
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	U	24.9	9.46
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	U	24.9	7.97
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	24.9	U	24.9	6.47
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.96	U	9.96	3.83

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-15_20221014 | Lab Sample ID: 460-267585-12

Matrix: Water | Lab File ID: PA221027A17.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 08:00

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 26.1(mL) | Date Analyzed: 10/27/2022 18:45

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	16.8	J	47.9	11.5
2706-90-3	Perfluoropentanoic acid (PFPeA)	13.6	J	19.2	6.51
307-24-4	Perfluorohexanoic acid (PFHxA)	10.9	J	19.2	6.23
375-85-9	Perfluoroheptanoic acid (PFHpA)	6.10	J	19.2	5.17
335-67-1	Perfluorooctanoic acid (PFOA)	8.71	J	19.2	7.28
375-95-1	Perfluorononanoic acid (PFNA)	19.2	U	19.2	4.69
335-76-2	Perfluorodecanoic acid (PFDA)	19.2	U	19.2	4.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	19.2	U	19.2	5.27
307-55-1	Perfluorododecanoic acid (PFDoA)	19.2	U	19.2	4.69
72629-94-8	Perfluorotridecanoic acid (PFTriA)	19.2	U	19.2	4.60
376-06-7	Perfluorotetradecanoic acid (PFTeA)	19.2	U	19.2	6.13
375-73-5	Perfluorobutanesulfonic acid (PFBS)	19.2	U	19.2	5.94
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	8.97	J	19.2	5.27
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	19.2	U	19.2	3.93
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	19.2	U	19.2	8.14
335-77-3	Perfluorodecanesulfonic acid (PFDS)	19.2	U	19.2	3.83
754-91-6	Perfluorooctanesulfonamide (PFOSA)	19.2	U	19.2	8.81
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	47.9	U	47.9	18.2
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	47.9	U	47.9	15.3
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47.9	U	47.9	12.5
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.2	U	19.2	7.38

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-16_20221014 | Lab Sample ID: 460-267585-13

Matrix: Water | Lab File ID: PA221027A18.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 13:00

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 26.4(mL) | Date Analyzed: 10/27/2022 18:53

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	16.0	J	47.3	11.4
2706-90-3	Perfluoropentanoic acid (PFPeA)	41.0		18.9	6.44
307-24-4	Perfluorohexanoic acid (PFHxA)	28.8		18.9	6.16
375-85-9	Perfluoroheptanoic acid (PFHpA)	15.5	J	18.9	5.11
335-67-1	Perfluorooctanoic acid (PFOA)	8.05	J	18.9	7.20
375-95-1	Perfluorononanoic acid (PFNA)	18.9	U	18.9	4.64
335-76-2	Perfluorodecanoic acid (PFDA)	18.9	U	18.9	4.36
2058-94-8	Perfluoroundecanoic acid (PFUnA)	18.9	U	18.9	5.21
307-55-1	Perfluorododecanoic acid (PFDoA)	18.9	U	18.9	4.64
72629-94-8	Perfluorotridecanoic acid (PFTriA)	18.9	U	18.9	4.55
376-06-7	Perfluorotetradecanoic acid (PFTeA)	18.9	U	18.9	6.06
375-73-5	Perfluorobutanesulfonic acid (PFBS)	18.9	U	18.9	5.87
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	10.9	J	18.9	5.21
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	18.9	U	18.9	3.88
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	45.1		18.9	8.05
335-77-3	Perfluorodecanesulfonic acid (PFDS)	18.9	U	18.9	3.79
754-91-6	Perfluorooctanesulfonamide (PFOSA)	18.9	U	18.9	8.71
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	47.3	U	47.3	18.0
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	47.3	U	47.3	15.2
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	47.3	U	47.3	12.3
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	18.9	U	18.9	7.29

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-17_20221014 Lab Sample ID: 460-267585-14

Matrix: Water Lab File ID: PA221027A19.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 12:00

Extraction Method: 3535 Date Extracted: 10/27/2022 10:15

Sample wt/vol: 287.4(mL) Date Analyzed: 10/27/2022 19:01

Con. Extract Vol.: 10(mL) Dilution Factor: 5

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	24.3		21.7	5.22
2706-90-3	Perfluoropentanoic acid (PFPeA)	49.4		8.70	2.96
307-24-4	Perfluorohexanoic acid (PFHxA)	32.7		8.70	2.83
375-85-9	Perfluoroheptanoic acid (PFHpA)	16.7		8.70	2.35
335-67-1	Perfluorooctanoic acid (PFOA)	30.1		8.70	3.31
375-95-1	Perfluorononanoic acid (PFNA)	8.70	U	8.70	2.13
335-76-2	Perfluorodecanoic acid (PFDA)	8.70	U	8.70	2.00
2058-94-8	Perfluoroundecanoic acid (PFUnA)	8.70	U	8.70	2.39
307-55-1	Perfluorododecanoic acid (PFDoA)	8.70	U	8.70	2.13
72629-94-8	Perfluorotridecanoic acid (PFTriA)	8.70	U	8.70	2.09
376-06-7	Perfluorotetradecanoic acid (PFTeA)	8.70	U	8.70	2.78
375-73-5	Perfluorobutanesulfonic acid (PFBS)	10.2		8.70	2.70
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	15.1		8.70	2.39
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	8.70	U	8.70	1.78
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	7.87	J	8.70	3.70
335-77-3	Perfluorodecanesulfonic acid (PFDS)	8.70	U	8.70	1.74
754-91-6	Perfluorooctanesulfonamide (PFOSA)	8.70	U	8.70	4.00
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	21.7	U	21.7	8.26
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	21.7	U	21.7	6.96
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	21.7	U	21.7	5.65
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	8.70	U	8.70	3.35

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-18_20221014 | Lab Sample ID: 460-267585-15

Matrix: Water | Lab File ID: PA221027A22.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 11:15

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 25.7(mL) | Date Analyzed: 10/27/2022 19:26

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	15.8	J	48.6	11.7
2706-90-3	Perfluoropentanoic acid (PFPeA)	31.1		19.5	6.61
307-24-4	Perfluorohexanoic acid (PFHxA)	18.4	J	19.5	6.32
375-85-9	Perfluoroheptanoic acid (PFHpA)	7.54	J	19.5	5.25
335-67-1	Perfluorooctanoic acid (PFOA)	21.6		19.5	7.39
375-95-1	Perfluorononanoic acid (PFNA)	19.5	U	19.5	4.77
335-76-2	Perfluorodecanoic acid (PFDA)	19.5	U	19.5	4.47
2058-94-8	Perfluoroundecanoic acid (PFUnA)	19.5	U	19.5	5.35
307-55-1	Perfluorododecanoic acid (PFDoA)	19.5	U	19.5	4.77
72629-94-8	Perfluorotridecanoic acid (PFTriA)	19.5	U	19.5	4.67
376-06-7	Perfluorotetradecanoic acid (PFTeA)	19.5	U	19.5	6.23
375-73-5	Perfluorobutanesulfonic acid (PFBS)	6.59	J	19.5	6.03
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	5.45	J	19.5	5.35
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	19.5	U	19.5	3.99
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	9.69	J	19.5	8.27
335-77-3	Perfluorodecanesulfonic acid (PFDS)	19.5	U	19.5	3.89
754-91-6	Perfluorooctanesulfonamide (PFOSA)	19.5	U	19.5	8.95
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	48.6	U	48.6	18.5
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	48.6	U	48.6	15.6
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	48.6	U	48.6	12.6
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.5	U	19.5	7.49

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-19_20221014 | Lab Sample ID: 460-267585-16

Matrix: Water | Lab File ID: PA221027A23.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 10:30

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 25.8(mL) | Date Analyzed: 10/27/2022 19:34

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	13.0	J	48.4	11.6
2706-90-3	Perfluoropentanoic acid (PFPeA)	14.1	J	19.4	6.59
307-24-4	Perfluorohexanoic acid (PFHxA)	13.5	J	19.4	6.30
375-85-9	Perfluoroheptanoic acid (PFHpA)	19.4	U	19.4	5.23
335-67-1	Perfluorooctanoic acid (PFOA)	8.65	J	19.4	7.36
375-95-1	Perfluorononanoic acid (PFNA)	19.4	U	19.4	4.75
335-76-2	Perfluorodecanoic acid (PFDA)	19.4	U	19.4	4.46
2058-94-8	Perfluoroundecanoic acid (PFUnA)	20.0		19.4	5.33
307-55-1	Perfluorododecanoic acid (PFDoA)	34.0		19.4	4.75
72629-94-8	Perfluorotridecanoic acid (PFTriA)	17.3	J	19.4	4.65
376-06-7	Perfluorotetradecanoic acid (PFTeA)	12.8	J	19.4	6.20
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.77	J	19.4	6.01
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	13.6	J	19.4	5.33
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	19.4	U	19.4	3.97
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	20.8		19.4	8.24
335-77-3	Perfluorodecanesulfonic acid (PFDS)	38.8		19.4	3.88
754-91-6	Perfluorooctanesulfonamide (PFOSA)	19.4	U	19.4	8.91
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	48.4	U	48.4	18.4
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	22.7	J	48.4	15.5
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	48.4	U	48.4	12.6
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.4	U	19.4	7.46

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-20_20221014 | Lab Sample ID: 460-267585-17

Matrix: Water | Lab File ID: PA221027A24.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 09:45

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 295.2(mL) | Date Analyzed: 10/27/2022 19:42

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	12.0		4.23	1.02
2706-90-3	Perfluoropentanoic acid (PFPeA)	44.2		1.69	0.58
307-24-4	Perfluorohexanoic acid (PFHxA)	27.4		1.69	0.55
375-85-9	Perfluoroheptanoic acid (PFHpA)	18.5		1.69	0.46
335-67-1	Perfluorooctanoic acid (PFOA)	10.1		1.69	0.64
375-95-1	Perfluorononanoic acid (PFNA)	3.84		1.69	0.41
335-76-2	Perfluorodecanoic acid (PFDA)	1.55	J	1.69	0.39
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.69	U	1.69	0.47
307-55-1	Perfluorododecanoic acid (PFDoA)	1.69	U	1.69	0.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.69	U	1.69	0.41
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.69	U	1.69	0.54
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.15		1.69	0.53
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	12.4		1.69	0.47
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.69	U	1.69	0.35
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	53.6		1.69	0.72
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.69	U	1.69	0.34
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.69	U	1.69	0.78
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.23	U	4.23	1.61
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.23	U	4.23	1.36
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.76	J	4.23	1.10
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.69	U	1.69	0.65

for 12/28/2023

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-SW-X_20221014 Lab Sample ID: 460-267585-18

Matrix: Water RI-SW-13_20221014 Lab File ID: PA221027A25.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 09:30

Extraction Method: 3535 Date Extracted: 10/27/2022 10:15

Sample wt/vol: 50.8(mL) Date Analyzed: 10/27/2022 19:50

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	265		24.6	5.91
2706-90-3	Perfluoropentanoic acid (PFPeA)	1210		9.84	3.35
307-24-4	Perfluorohexanoic acid (PFHxA)	604		9.84	3.20
375-85-9	Perfluoroheptanoic acid (PFHpA)	252		9.84	2.66
335-67-1	Perfluorooctanoic acid (PFOA)	149		9.84	3.74
375-95-1	Perfluorononanoic acid (PFNA)	22.5		9.84	2.41
335-76-2	Perfluorodecanoic acid (PFDA)	24.2		9.84	2.26
2058-94-8	Perfluoroundecanoic acid (PFUnA)	4.96	J	9.84	2.71
307-55-1	Perfluorododecanoic acid (PFDoA)	3.30	J	9.84	2.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.84	U	9.84	2.36
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.84	U	9.84	3.15
375-73-5	Perfluorobutanesulfonic acid (PFBS)	4.59	J	9.84	3.05
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	39.3		9.84	2.71
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.84	U	9.84	2.02
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	147		9.84	4.18
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.84	U	9.84	1.97
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.84	U	9.84	4.53
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.6	U	24.6	9.35
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.6	U	24.6	7.87
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	133		24.6	6.40
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	15.7		9.84	3.79

FORM I 537 (modified)

11/04/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-CW-01_20221014 | Lab Sample ID: 460-267585-19

Matrix: Water | Lab File ID: PA221027A27.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 13:30

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 284.4(mL) | Date Analyzed: 10/27/2022 20:07

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	24.9		4.40	1.05
2706-90-3	Perfluoropentanoic acid (PFPeA)	75.0		1.76	0.60
307-24-4	Perfluorohexanoic acid (PFHxA)	40.5		1.76	0.57
375-85-9	Perfluoroheptanoic acid (PFHpA)	22.4		1.76	0.47
335-67-1	Perfluorooctanoic acid (PFOA)	13.5		1.76	0.67
375-95-1	Perfluorononanoic acid (PFNA)	5.42		1.76	0.43
335-76-2	Perfluorodecanoic acid (PFDA)	1.45	J	1.76	0.40
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.76	U	1.76	0.48
307-55-1	Perfluorododecanoic acid (PFDoA)	1.76	U	1.76	0.43
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.76	U	1.76	0.42
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.76	U	1.76	0.56
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.46		1.76	0.55
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	21.2		1.76	0.48
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.04	J	1.76	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	88.0		1.76	0.75
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.76	U	1.76	0.35
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.76	U	1.76	0.81
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.40	U	4.40	1.67
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.40	U	4.40	1.41
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.89		4.40	1.14
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.06	J	1.76	0.68

12/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-CW-02_20221014 Lab Sample ID: 460-267585-20

Matrix: Water Lab File ID: PA221027A28.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 13:45

Extraction Method: 3535 Date Extracted: 10/27/2022 10:15

Sample wt/vol: 276.5(mL) Date Analyzed: 10/27/2022 20:15

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	23.1		4.52	1.08
2706-90-3	Perfluoropentanoic acid (PFPeA)	64.3		1.81	0.61
307-24-4	Perfluorohexanoic acid (PFHxA)	33.9		1.81	0.59
375-85-9	Perfluoroheptanoic acid (PFHpA)	20.1		1.81	0.49
335-67-1	Perfluorooctanoic acid (PFOA)	12.3		1.81	0.69
375-95-1	Perfluorononanoic acid (PFNA)	4.45		1.81	0.44
335-76-2	Perfluorodecanoic acid (PFDA)	1.56	J	1.81	0.42
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.81	U	1.81	0.50
307-55-1	Perfluorododecanoic acid (PFDoA)	1.81	U	1.81	0.44
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.81	U	1.81	0.43
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.81	U	1.81	0.58
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.15		1.81	0.56
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	20.1		1.81	0.50
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.03	J	1.81	0.37
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	80.8		1.81	0.77
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.81	U	1.81	0.36
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.81	U	1.81	0.83
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.52	U	4.52	1.72
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.52	U	4.52	1.45
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	13.0		4.52	1.18
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.85		1.81	0.70

for 12/28/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-CW-03_20221014 Lab Sample ID: 460-267585-21

Matrix: Water Lab File ID: PA221027A29.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 14:00

Extraction Method: 3535 Date Extracted: 10/27/2022 10:15

Sample wt/vol: 279.9(mL) Date Analyzed: 10/27/2022 20:23

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	21.7		4.47	1.07
2706-90-3	Perfluoropentanoic acid (PFPeA)	57.7		1.79	0.61
307-24-4	Perfluorohexanoic acid (PFHxA)	32.6		1.79	0.58
375-85-9	Perfluoroheptanoic acid (PFHpA)	17.9		1.79	0.48
335-67-1	Perfluorooctanoic acid (PFOA)	12.4		1.79	0.68
375-95-1	Perfluorononanoic acid (PFNA)	4.45		1.79	0.44
335-76-2	Perfluorodecanoic acid (PFDA)	1.44	J	1.79	0.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.79	U	1.79	0.49
307-55-1	Perfluorododecanoic acid (PFDoA)	1.79	U	1.79	0.44
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.79	U	1.79	0.43
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.79	U	1.79	0.57
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.21		1.79	0.55
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	18.7		1.79	0.49
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.05	J	1.79	0.37
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	76.2		1.79	0.76
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.79	U	1.79	0.36
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.79	U	1.79	0.82
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.47	U	4.47	1.70
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.47	U	4.47	1.43
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	12.5		4.47	1.16
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	3.77		1.79	0.69

11/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267585-1

SDG No.:

Client Sample ID: RI-CW-04_20221014 Lab Sample ID: 460-267585-22

Matrix: Water Lab File ID: PA221027A30.d

Analysis Method: 537 (modified) Date Collected: 10/14/2022 14:15

Extraction Method: 3535 Date Extracted: 10/27/2022 10:15

Sample wt/vol: 286.7(mL) Date Analyzed: 10/27/2022 20:31

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	18.1		4.36	1.05
2706-90-3	Perfluoropentanoic acid (PFPeA)	52.4		1.74	0.59
307-24-4	Perfluorohexanoic acid (PFHxA)	28.4		1.74	0.57
375-85-9	Perfluoroheptanoic acid (PFHpA)	20.7		1.74	0.47
335-67-1	Perfluorooctanoic acid (PFOA)	15.6		1.74	0.66
375-95-1	Perfluorononanoic acid (PFNA)	3.97		1.74	0.43
335-76-2	Perfluorodecanoic acid (PFDA)	0.98	J	1.74	0.40
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.74	U	1.74	0.48
307-55-1	Perfluorododecanoic acid (PFDoA)	1.74	U	1.74	0.43
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.74	U	1.74	0.42
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.74	U	1.74	0.56
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.42		1.74	0.54
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	21.9		1.74	0.48
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.18	J	1.74	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	71.3		1.74	0.74
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.74	U	1.74	0.35
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.74	U	1.74	0.80
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.36	U	4.36	1.66
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.36	U	4.36	1.40
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	3.98	J	4.36	1.13
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.10	J	1.74	0.67

12/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267585-1

SDG No.:

Client Sample ID: FB-01_20221014 | Lab Sample ID: 460-267585-23

Matrix: Water | Lab File ID: PA221027A31.d

Analysis Method: 537 (modified) | Date Collected: 10/14/2022 13:20

Extraction Method: 3535 | Date Extracted: 10/27/2022 10:15

Sample wt/vol: 285.6(mL) | Date Analyzed: 10/27/2022 20:39

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185176 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.38	U	4.38	1.05
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.75	U	1.75	0.60
307-24-4	Perfluorohexanoic acid (PFHxA)	1.75	U	1.75	0.57
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.75	U	1.75	0.47
335-67-1	Perfluorooctanoic acid (PFOA)	1.75	U	1.75	0.67
375-95-1	Perfluorononanoic acid (PFNA)	1.75	U	1.75	0.43
335-76-2	Perfluorodecanoic acid (PFDA)	1.75	U	1.75	0.40
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.75	U	1.75	0.48
307-55-1	Perfluorododecanoic acid (PFDoA)	1.75	U	1.75	0.43
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.75	U	1.75	0.42
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.75	U	1.75	0.56
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.75	U	1.75	0.54
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.75	U	1.75	0.48
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.75	U	1.75	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.75	U	1.75	0.74
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.75	U	1.75	0.35
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.75	U	1.75	0.81
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.38	U	4.38	1.66
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.38	U	4.38	1.40
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.38	U	4.38	1.14
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.75	U	1.75	0.67

12/28/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-01_20221017 Lab Sample ID: 460-267702-1

Matrix: Water Lab File ID: PA221101A09.d

Analysis Method: 537 (modified) Date Collected: 10/17/2022 12:35

Extraction Method: 3535 Date Extracted: 10/28/2022 09:35

Sample wt/vol: 50.4(mL) Date Analyzed: 11/01/2022 14:33

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185285 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1120		24.8	5.95
375-85-9	Perfluoroheptanoic acid (PFHpA)	1820		9.92	2.68
335-67-1	Perfluorooctanoic acid (PFOA)	649		9.92	3.77
375-95-1	Perfluorononanoic acid (PFNA)	83.6		9.92	2.43
335-76-2	Perfluorodecanoic acid (PFDA)	23.1		9.92	2.28
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.92	U	9.92	2.73
307-55-1	Perfluorododecanoic acid (PFDoA)	9.92	U	9.92	2.43
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.92	U	9.92	2.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.92	U	9.92	3.17
375-73-5	Perfluorobutanesulfonic acid (PFBS)	41.4		9.92	3.08
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	598		9.92	2.73
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	60.3		9.92	2.03
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.92	U	9.92	1.98
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.92	U	9.92	4.56
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	24.8	9.42
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	24.8	7.94
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	375		9.92	3.82

12/31/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-01_20221017 DL | Lab Sample ID: 460-267702-1 DL

Matrix: Water | Lab File ID: PA221028A28.d

Analysis Method: 537 (modified) | Date Collected: 10/17/2022 12:35

Extraction Method: 3535 | Date Extracted: 10/28/2022 09:35

Sample wt/vol: 50.4(mL) | Date Analyzed: 10/28/2022 18:52

Con. Extract Vol.: 10(mL) | Dilution Factor: 5

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185214 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2706-90-3	Perfluoropentanoic acid (PFPeA)	5790	D	49.6	16.9
307-24-4	Perfluorohexanoic acid (PFHxA)	3170	D	49.6	16.1
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2570	D	49.6	21.1
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4220	D	124	32.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	105		50-150
STL00993	13C2 PFHxA	89		50-150
STL01893	13C5 PFPeA	92		50-150
STL02279	M2-6:2 FTS	125		50-150

FOR 12/31/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-04_20221017 | Lab Sample ID: 460-267702-2

Matrix: Water | Lab File ID: PA221101A14.d

Analysis Method: 537 (modified) | Date Collected: 10/17/2022 14:05

Extraction Method: 3535 | Date Extracted: 10/28/2022 09:35

Sample wt/vol: 50.8(mL) | Date Analyzed: 11/01/2022 15:14

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185285 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	714		24.6	5.91
307-24-4	Perfluorohexanoic acid (PFHxA)	1950		9.84	3.20
375-85-9	Perfluoroheptanoic acid (PFHpA)	1380		9.84	2.66
335-67-1	Perfluorooctanoic acid (PFOA)	923		9.84	3.74
375-95-1	Perfluorononanoic acid (PFNA)	83.8		9.84	2.41
335-76-2	Perfluorodecanoic acid (PFDA)	54.1		9.84	2.26
2058-94-8	Perfluoroundecanoic acid (PFUnA)	7.18	J	9.84	2.71
307-55-1	Perfluorododecanoic acid (PFDoA)	9.84	U	9.84	2.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.84	U	9.84	2.36
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.84	U	9.84	3.15
375-73-5	Perfluorobutanesulfonic acid (PFBS)	158		9.84	3.05
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	282		9.84	2.02
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.34	J	9.84	1.97
754-91-6	Perfluorooctanesulfonamide (PFOSA)	7.94	J	9.84	4.53
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.6	U	24.6	9.35
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.6	U	24.6	7.87
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	129		9.84	3.79

for 12/31/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-04_20221017 DL | Lab Sample ID: 460-267702-2 DL

Matrix: Water | Lab File ID: PA221028A31.d

Analysis Method: 537 (modified) | Date Collected: 10/17/2022 14:05

Extraction Method: 3535 | Date Extracted: 10/28/2022 09:35

Sample wt/vol: 50.8(mL) | Date Analyzed: 10/28/2022 19:16

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185214 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2706-90-3	Perfluoropentanoic acid (PFPeA)	3790	D	98.4	33.5
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3100	D	98.4	27.1
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	11600	D	98.4	41.8
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1990	D	246	64.0

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	98		50-150
STL00991	13C4 PFOS	96		50-150
STL01893	13C5 PFPeA	89		50-150
STL02279	M2-6:2 FTS	105		50-150

for 11/3/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-X_20221017 Lab Sample ID: 460-267702-3

Matrix: Water RI-MW-01_20221017 Lab File ID: PA221101A17.d

Analysis Method: 537 (modified) Date Collected: 10/17/2022 13:00

Extraction Method: 3535 Date Extracted: 10/28/2022 09:35

Sample wt/vol: 50.4(mL) Date Analyzed: 11/01/2022 15:38

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185285 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	1140		24.8	5.95
375-85-9	Perfluoroheptanoic acid (PFHpA)	1780		9.92	2.68
335-67-1	Perfluorooctanoic acid (PFOA)	683		9.92	3.77
375-95-1	Perfluorononanoic acid (PFNA)	85.7		9.92	2.43
335-76-2	Perfluorodecanoic acid (PFDA)	24.6		9.92	2.28
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.92	U	9.92	2.73
307-55-1	Perfluorododecanoic acid (PFDoA)	9.92	U	9.92	2.43
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.92	U	9.92	2.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.92	U	9.92	3.17
375-73-5	Perfluorobutanesulfonic acid (PFBS)	43.0		9.92	3.08
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	600		9.92	2.73
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	62.5		9.92	2.03
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.92	U	9.92	1.98
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.92	U	9.92	4.56
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.8	U	24.8	9.42
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.8	U	24.8	7.94
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	411		9.92	3.82

JDR 12/13/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-X_20221017 DL Lab Sample ID: 460-267702-3 DL

Matrix: Water RI-MW-01-20221017 Lab File ID: PA221028A32.d

Analysis Method: 537 (modified) Date Collected: 10/17/2022 13:00

Extraction Method: 3535 Date Extracted: 10/28/2022 09:35

Sample wt/vol: 50.4(mL) Date Analyzed: 10/28/2022 19:25

Con. Extract Vol.: 10(mL) Dilution Factor: 5

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185214 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2706-90-3	Perfluoropentanoic acid (PFPeA)	6010	D	49.6	16.9
307-24-4	Perfluorohexanoic acid (PFHxA)	3000	D	49.6	16.1
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2610	D	49.6	21.1
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4310	D	124	32.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	107		50-150
STL00993	13C2 PFHxA	93		50-150
STL01893	13C5 PFPeA	89		50-150
STL02279	M2-6:2 FTS	124		50-150

FORM I 537 (modified)

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: FB-01_20221017 Lab Sample ID: 460-267702-4

Matrix: Water Lab File ID: PA221028A33.d

Analysis Method: 537 (modified) Date Collected: 10/17/2022 11:00

Extraction Method: 3535 Date Extracted: 10/28/2022 09:35

Sample wt/vol: 271.3(mL) Date Analyzed: 10/28/2022 19:33

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185214 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.61	U	4.61	1.11
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.84	U	1.84	0.63
307-24-4	Perfluorohexanoic acid (PFHxA)	1.84	U	1.84	0.60
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.84	U	1.84	0.50
335-67-1	Perfluorooctanoic acid (PFOA)	1.84	U	1.84	0.70
375-95-1	Perfluorononanoic acid (PFNA)	1.84	U	1.84	0.45
335-76-2	Perfluorodecanoic acid (PFDA)	1.84	U	1.84	0.42
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.84	U	1.84	0.51
307-55-1	Perfluorododecanoic acid (PFDoA)	1.84	U	1.84	0.45
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.84	U	1.84	0.44
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.84	U	1.84	0.59
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.84	U	1.84	0.57
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.84	U	1.84	0.51
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.84	U	1.84	0.38
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.84	U	1.84	0.78
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.84	U	1.84	0.37
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.84	U	1.84	0.85
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.61	U	4.61	1.75
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.61	U	4.61	1.47
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.61	U	4.61	1.20
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.84	U	1.84	0.71

for 12/13/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-DP-02_20221018 Lab Sample ID: 460-267732-1

Matrix: Water Lab File ID: PA221101D04.d

Analysis Method: 537 (modified) Date Collected: 10/18/2022 08:55

Extraction Method: 3535 Date Extracted: 11/01/2022 08:56

Sample wt/vol: 51.6(mL) Date Analyzed: 11/01/2022 23:17

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	10.2	J	24.2	5.81
2706-90-3	Perfluoropentanoic acid (PFPeA)	31.1		9.69	3.29
307-24-4	Perfluorohexanoic acid (PFHxA)	20.7		9.69	3.15
375-85-9	Perfluoroheptanoic acid (PFHpA)	10.5		9.69	2.62
335-67-1	Perfluorooctanoic acid (PFOA)	8.00	J	9.69	3.68
375-95-1	Perfluorononanoic acid (PFNA)	2.67	J	9.69	2.37
335-76-2	Perfluorodecanoic acid (PFDA)	9.69	U	9.69	2.23
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.69	U	9.69	2.66
307-55-1	Perfluorododecanoic acid (PFDoA)	9.69	U	9.69	2.37
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.69	U	9.69	2.33
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.69	U	9.69	3.10
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.69	U	9.69	3.00
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	9.56	J	9.69	2.66
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.69	U	9.69	1.99
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	48.1		9.69	4.12
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.69	U	9.69	1.94
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.69	U	9.69	4.46
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.2	U	24.2	9.21
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.2	U	24.2	7.75
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	23.3	~~J~~ J	24.2	6.30
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.69	~~U~~ UJ	9.69	3.73

for 12/31/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-DP-05_20221018 Lab Sample ID: 460-267732-2

Matrix: Water Lab File ID: PA221101D05.d

Analysis Method: 537 (modified) Date Collected: 10/18/2022 10:50

Extraction Method: 3535 Date Extracted: 11/01/2022 08:56

Sample wt/vol: 51(mL) Date Analyzed: 11/01/2022 23:25

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	10.2	J	24.5	5.88
2706-90-3	Perfluoropentanoic acid (PFPeA)	31.5		9.80	3.33
307-24-4	Perfluorohexanoic acid (PFHxA)	20.7		9.80	3.19
375-85-9	Perfluoroheptanoic acid (PFHpA)	11.5		9.80	2.65
335-67-1	Perfluorooctanoic acid (PFOA)	8.32	J	9.80	3.73
375-95-1	Perfluorononanoic acid (PFNA)	3.47	J	9.80	2.40
335-76-2	Perfluorodecanoic acid (PFDA)	2.46	J	9.80	2.25
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.80	U	9.80	2.70
307-55-1	Perfluorododecanoic acid (PFDoA)	9.80	U	9.80	2.40
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.80	U	9.80	2.35
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.80	U	9.80	3.14
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.80	U	9.80	3.04
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	9.69	J	9.80	2.70
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.80	U	9.80	2.01
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	51.9		9.80	4.17
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.80	U	9.80	1.96
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.80	U	9.80	4.51
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.5	U	24.5	9.31
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.5	U	24.5	7.84
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	17.9	~~J~~ J	24.5	6.37
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.80	U ~~*~~ UJ	9.80	3.77

FORM I 537 (modified)

JAR 12/31/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-DP-08_20221018 Lab Sample ID: 460-267732-3

Matrix: Water Lab File ID: PA221101D06.d

Analysis Method: 537 (modified) Date Collected: 10/18/2022 13:15

Extraction Method: 3535 Date Extracted: 11/01/2022 08:56

Sample wt/vol: 50.1(mL) Date Analyzed: 11/01/2022 23:33

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	9.63	J	25.0	5.99
2706-90-3	Perfluoropentanoic acid (PFPeA)	30.6		9.98	3.39
307-24-4	Perfluorohexanoic acid (PFHxA)	20.7		9.98	3.24
375-85-9	Perfluoroheptanoic acid (PFHpA)	11.1		9.98	2.69
335-67-1	Perfluorooctanoic acid (PFOA)	7.86	J	9.98	3.79
375-95-1	Perfluorononanoic acid (PFNA)	9.98	U	9.98	2.45
335-76-2	Perfluorodecanoic acid (PFDA)	9.98	U	9.98	2.30
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.98	U	9.98	2.74
307-55-1	Perfluorododecanoic acid (PFDoA)	9.98	U	9.98	2.45
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.98	U	9.98	2.40
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.98	U	9.98	3.19
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.98	U	9.98	3.09
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	8.72	J	9.98	2.74
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.98	U	9.98	2.05
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	36.7		9.98	4.24
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.98	U	9.98	2.00
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.98	U	9.98	4.59
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	U	25.0	9.48
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	U	25.0	7.98
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	25.3	~~J~~ J	25.0	6.49
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.98	~~U~~ UJ	9.98	3.84

for 12/3/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-DP-08_20221018 RE Lab Sample ID: 460-267732-3 RE

Matrix: Water Lab File ID: PA221103B10.d

Analysis Method: 537 (modified) Date Collected: 10/18/2022 13:15

Extraction Method: 3535 Date Extracted: 11/02/2022 13:29

Sample wt/vol: 50.3(mL) Date Analyzed: 11/03/2022 19:50

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185409 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	8.75	~~J H~~ R	24.9	5.96
2706-90-3	Perfluoropentanoic acid (PFPeA)	31.2	~~H~~ R	9.94	3.38
307-24-4	Perfluorohexanoic acid (PFHxA)	19.8	~~H~~ R	9.94	3.23
375-85-9	Perfluoroheptanoic acid (PFHpA)	11.0	~~H~~ R	9.94	2.68
335-67-1	Perfluorooctanoic acid (PFOA)	7.53	~~J H~~ R	9.94	3.78
375-95-1	Perfluorononanoic acid (PFNA)	2.49	~~J H~~ R	9.94	2.44
335-76-2	Perfluorodecanoic acid (PFDA)	9.94	~~U H~~ R	9.94	2.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.94	~~U H~~ R	9.94	2.73
307-55-1	Perfluorododecanoic acid (PFDoA)	9.94	~~U H~~ R	9.94	2.44
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.94	~~U H~~ R	9.94	2.39
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.94	~~U H~~ R	9.94	3.18
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.94	~~U H~~ R	9.94	3.08
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	8.88	~~J H~~ R	9.94	2.73
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	9.94	~~U H~~ R	9.94	2.04
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	34.9	~~H~~ R	9.94	4.22
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.94	U H R	9.94	1.99
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.94	~~U H~~ R	9.94	4.57
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	~~U H~~ R	24.9	9.44
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	~~U H~~ R	24.9	7.95
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	22.0	~~J H~~ R	24.9	6.46
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	9.94	U H R	9.94	3.83

for 12/13/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: FB-01_20221018 Lab Sample ID: 460-267732-4

Matrix: Water Lab File ID: PA221101D07.d

Analysis Method: 537 (modified) Date Collected: 10/18/2022 14:00

Extraction Method: 3535 Date Extracted: 11/01/2022 08:56

Sample wt/vol: 281.1(mL) Date Analyzed: 11/01/2022 23:41

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.45	U	4.45	1.07
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.78	U	1.78	0.60
307-24-4	Perfluorohexanoic acid (PFHxA)	1.78	U	1.78	0.58
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.78	U	1.78	0.48
335-67-1	Perfluorooctanoic acid (PFOA)	1.78	U	1.78	0.68
375-95-1	Perfluorononanoic acid (PFNA)	1.78	U	1.78	0.44
335-76-2	Perfluorodecanoic acid (PFDA)	1.78	U	1.78	0.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.78	U	1.78	0.49
307-55-1	Perfluorododecanoic acid (PFDoA)	1.78	U	1.78	0.44
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.78	U	1.78	0.43
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.78	U	1.78	0.57
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.78	U	1.78	0.55
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.78	U	1.78	0.49
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.78	U	1.78	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.78	U	1.78	0.76
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.78	U	1.78	0.36
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.78	U	1.78	0.82
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.45	U	4.45	1.69
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.45	U	4.45	1.42
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.59	~~J~~ J	4.45	1.16
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.78	~~U~~ UJ	1.78	0.68

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-05_20221019 | Lab Sample ID: 460-267827-1

Matrix: Water | Lab File ID: PA221101D18.d

Analysis Method: 537 (modified) | Date Collected: 10/19/2022 12:50

Extraction Method: 3535 | Date Extracted: 11/01/2022 08:56

Sample wt/vol: 283.5(mL) | Date Analyzed: 11/02/2022 01:11

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	8.96		4.41	1.06
2706-90-3	Perfluoropentanoic acid (PFPeA)	23.9		1.76	0.60
307-24-4	Perfluorohexanoic acid (PFHxA)	14.5		1.76	0.57
375-85-9	Perfluoroheptanoic acid (PFHpA)	8.99		1.76	0.48
335-67-1	Perfluorooctanoic acid (PFOA)	5.42		1.76	0.67
375-95-1	Perfluorononanoic acid (PFNA)	2.90		1.76	0.43
335-76-2	Perfluorodecanoic acid (PFDA)	0.63	J	1.76	0.41
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.76	U	1.76	0.49
307-55-1	Perfluorododecanoic acid (PFDoA)	1.76	U	1.76	0.43
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.76	U	1.76	0.42
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.76	U	1.76	0.56
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.82		1.76	0.55
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	12.1		1.76	0.49
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.57	J	1.76	0.36
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	50.1		1.76	0.75
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.76	U	1.76	0.35
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.16	J	1.76	0.81
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.41	U	4.41	1.68
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.41	U	4.41	1.41
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2.94	~~J~~ J	4.41	1.15
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.76	~~U~~ UJ	1.76	0.68

for 12/3/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-06_20221019 | Lab Sample ID: 460-267827-2

Matrix: Water | Lab File ID: PA221101D19.d

Analysis Method: 537 (modified) | Date Collected: 10/19/2022 09:35

Extraction Method: 3535 | Date Extracted: 11/01/2022 08:56

Sample wt/vol: 266.8(mL) | Date Analyzed: 11/02/2022 01:20

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	8.65		4.69	1.12
2706-90-3	Perfluoropentanoic acid (PFPeA)	28.5		1.87	0.64
307-24-4	Perfluorohexanoic acid (PFHxA)	14.1		1.87	0.61
375-85-9	Perfluoroheptanoic acid (PFHpA)	8.63		1.87	0.51
335-67-1	Perfluorooctanoic acid (PFOA)	6.03		1.87	0.71
375-95-1	Perfluorononanoic acid (PFNA)	1.32	J	1.87	0.46
335-76-2	Perfluorodecanoic acid (PFDA)	1.87	U	1.87	0.43
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.87	U	1.87	0.52
307-55-1	Perfluorododecanoic acid (PFDoA)	1.87	U	1.87	0.46
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.87	U	1.87	0.45
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.87	U	1.87	0.60
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.79	J	1.87	0.58
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	11.1		1.87	0.52
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.56	J	1.87	0.38
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	45.5		1.87	0.80
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.87	U	1.87	0.37
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.87	U	1.87	0.86
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.69	U	4.69	1.78
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.69	U	4.69	1.50
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.69	~~U~~ UJ	4.69	1.22
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.87	U ~~*~~ UJ	1.87	0.72

for 12/13/2023

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-DP-10_20221019 Lab Sample ID: 460-267827-3

Matrix: Water Lab File ID: PA221101D20.d

Analysis Method: 537 (modified) Date Collected: 10/19/2022 11:00

Extraction Method: 3535 Date Extracted: 11/01/2022 08:56

Sample wt/vol: 270.8(mL) Date Analyzed: 11/02/2022 01:28

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	7.55		4.62	1.11
2706-90-3	Perfluoropentanoic acid (PFPeA)	21.4		1.85	0.63
307-24-4	Perfluorohexanoic acid (PFHxA)	13.8		1.85	0.60
375-85-9	Perfluoroheptanoic acid (PFHpA)	8.49		1.85	0.50
335-67-1	Perfluorooctanoic acid (PFOA)	5.42		1.85	0.70
375-95-1	Perfluorononanoic acid (PFNA)	2.72		1.85	0.45
335-76-2	Perfluorodecanoic acid (PFDA)	0.50	J	1.85	0.42
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.85	U	1.85	0.51
307-55-1	Perfluorododecanoic acid (PFDoA)	1.85	U	1.85	0.45
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.85	U	1.85	0.44
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.85	U	1.85	0.59
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.51	J	1.85	0.57
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	9.22		1.85	0.51
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.48	J	1.85	0.38
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	39.2		1.85	0.78
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.85	U	1.85	0.37
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.85	U	1.85	0.85
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.62	U	4.62	1.75
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.62	U	4.62	1.48
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.11	~~J~~ J	4.62	1.20
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.85	~~U~~ UJ	1.85	0.71

for 12/13/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: FB-01_20221019 Lab Sample ID: 460-267827-4

Matrix: Water Lab File ID: PA221101D21.d

Analysis Method: 537 (modified) Date Collected: 10/19/2022 13:45

Extraction Method: 3535 Date Extracted: 11/01/2022 08:56

Sample wt/vol: 259(mL) Date Analyzed: 11/02/2022 01:36

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185307 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.83	U	4.83	1.16
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.93	U	1.93	0.66
307-24-4	Perfluorohexanoic acid (PFHxA)	1.93	U	1.93	0.63
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.93	U	1.93	0.52
335-67-1	Perfluorooctanoic acid (PFOA)	1.93	U	1.93	0.73
375-95-1	Perfluorononanoic acid (PFNA)	1.93	U	1.93	0.47
335-76-2	Perfluorodecanoic acid (PFDA)	1.93	U	1.93	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.93	U	1.93	0.53
307-55-1	Perfluorododecanoic acid (PFDoA)	1.93	U	1.93	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.93	U	1.93	0.46
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.93	U	1.93	0.62
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.93	U	1.93	0.60
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.93	U	1.93	0.53
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.93	U	1.93	0.40
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.93	U	1.93	0.82
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.93	U	1.93	0.39
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.93	U	1.93	0.89
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.83	U	4.83	1.83
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.83	U	4.83	1.54
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.83	~~U~~ UJ	4.83	1.25
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.93	~~U~~ UJ	1.93	0.74

for 12/3/2022

FORM I 537 (modified)

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-07_20221020 Lab Sample ID: 460-267901-1

Matrix: Water Lab File ID: PA221102A22.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 08:25

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 50.1(mL) Date Analyzed: 11/02/2022 18:54

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185360 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	305		25.0	5.99
2706-90-3	Perfluoropentanoic acid (PFPeA)	1400		9.98	3.39
307-24-4	Perfluorohexanoic acid (PFHxA)	728		9.98	3.24
375-85-9	Perfluoroheptanoic acid (PFHpA)	593		9.98	2.69
335-67-1	Perfluorooctanoic acid (PFOA)	162		9.98	3.79
375-95-1	Perfluorononanoic acid (PFNA)	18.9		9.98	2.45
335-76-2	Perfluorodecanoic acid (PFDA)	9.98	U	9.98	2.30
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.98	U	9.98	2.74
307-55-1	Perfluorododecanoic acid (PFDoA)	9.98	U	9.98	2.45
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.98	U	9.98	2.40
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.98	U	9.98	3.19
375-73-5	Perfluorobutanesulfonic acid (PFBS)	34.6		9.98	3.09
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	586		9.98	2.74
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	45.5		9.98	2.05
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1300		9.98	4.24
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.98	U	9.98	2.00
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.98	U	9.98	4.59
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	U	25.0	9.48
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	U	25.0	7.98
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	749		25.0	6.49
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	24.0		9.98	3.84

for 12/13/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-08_20221020 Lab Sample ID: 460-267901-2

Matrix: Water Lab File ID: PA221102A23.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 10:05

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 224.4(mL) Date Analyzed: 11/02/2022 19:02

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185360 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	441		5.57	1.34
335-67-1	Perfluorooctanoic acid (PFOA)	254		2.23	0.85
375-95-1	Perfluorononanoic acid (PFNA)	66.5		2.23	0.55
335-76-2	Perfluorodecanoic acid (PFDA)	45.1		2.23	0.51
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.86	J	2.23	0.61
307-55-1	Perfluorododecanoic acid (PFDoA)	0.61	J	2.23	0.55
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.23	U	2.23	0.53
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.23	U	2.23	0.71
375-73-5	Perfluorobutanesulfonic acid (PFBS)	30.9		2.23	0.69
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	24.7		2.23	0.46
335-77-3	Perfluorodecanesulfonic acid (PFDS)	0.81	J	2.23	0.45
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.75	J	2.23	1.02
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.57	U	5.57	2.12
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.57	U	5.57	1.78
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	263		2.23	0.86

JDR 12/13/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-08_20221020 DL | Lab Sample ID: 460-267901-2 DL

Matrix: Water | Lab File ID: PA221103A06.d

Analysis Method: 537 (modified) | Date Collected: 10/20/2022 10:05

Extraction Method: 3535 | Date Extracted: 11/02/2022 09:24

Sample wt/vol: 224.4(mL) | Date Analyzed: 11/03/2022 15:53

Con. Extract Vol.: 10(mL) | Dilution Factor: 10

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185408 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2706-90-3	Perfluoropentanoic acid (PFPeA)	1960	D	22.3	7.58
307-24-4	Perfluorohexanoic acid (PFHxA)	1000	D	22.3	7.24
375-85-9	Perfluoroheptanoic acid (PFHpA)	789	D	22.3	6.02
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	491	D	22.3	6.13
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1980	D	22.3	9.47
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	599	D	55.7	14.5

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	101		50-150
STL01892	13C4 PFHpA	92		50-150
STL00991	13C4 PFOS	101		50-150
STL00993	13C2 PFHxA	86		50-150
STL01893	13C5 PFPeA	89		50-150
STL02279	M2-6:2 FTS	119		50-150

12/3/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-02_20221020 Lab Sample ID: 460-267901-3

Matrix: Water Lab File ID: PA221102A24.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 11:45

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 257.8(mL) Date Analyzed: 11/02/2022 19:10

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185360 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-95-1	Perfluorononanoic acid (PFNA)	37.7	J	1.94	0.48
335-76-2	Perfluorodecanoic acid (PFDA)	6.82	J	1.94	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.94	U	1.94	0.53
307-55-1	Perfluorododecanoic acid (PFDoA)	1.94	U	1.94	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.94	U	1.94	0.47
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.94	U	1.94	0.62
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.54	J	1.94	0.39
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.68		1.94	0.89
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.85	U	4.85	1.84
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.85	U	4.85	1.55
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	35.9	J	1.94	0.75

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	40	*	50-150
STL00995	13C5 PFNA	49	*	50-150
STL00996	13C2 PFDA	161	*	50-150
STL00997	13C2 PFUnA	179	*	50-150
STL00998	13C2 PFDoA	187	*	50-150
STL01056	13C8 FOSA	128		50-150
STL02116	13C2 PFTeDA	177	*	50-150
STL02118	d3-NMeFOSAA	213	*	50-150
STL02117	d5-NEtFOSAA	239	*	50-150
STL02280	M2-8:2 FTS	222	*	50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-02_20221020 DL Lab Sample ID: 460-267901-3 DL

Matrix: Water Lab File ID: PA221103A16.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 11:45

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 257.8(mL) Date Analyzed: 11/03/2022 17:14

Con. Extract Vol.: 10(mL) Dilution Factor: 20

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185408 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	636	D	97.0	23.3
2706-90-3	Perfluoropentanoic acid (PFPeA)	2540	D	38.8	13.2
307-24-4	Perfluorohexanoic acid (PFHxA)	1830	D	38.8	12.6
375-85-9	Perfluoroheptanoic acid (PFHpA)	1430	D	38.8	10.5
335-67-1	Perfluorooctanoic acid (PFOA)	1570	D	38.8	14.7
375-73-5	Perfluorobutanesulfonic acid (PFBS)	430	D	38.8	12.0
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2950	D	38.8	7.95
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	1520	D	97.0	25.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	84		50-150
STL00990	13C4 PFOA	93		50-150
STL00991	13C4 PFOS	86		50-150
STL00992	13C4 PFBA	88		50-150
STL00993	13C2 PFHxA	89		50-150
STL01893	13C5 PFPeA	88		50-150
STL02279	M2-6:2 FTS	129		50-150
STL02337	13C3 PFBS	94		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-02_20221020 REDL Lab Sample ID: 460-267901-3 REDL

Matrix: Water Lab File ID: PA221107A15.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 11:45

Extraction Method: 3535 Date Extracted: 11/04/2022 08:55

Sample wt/vol: 25.2(mL) Date Analyzed: 11/07/2022 16:45

Con. Extract Vol.: 10(mL) Dilution Factor: 50

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185522 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	*Perfluorooctanesulfonic acid (PFOS)*	*86000*	~~H~~ L	*992*	*422*

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	98		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-02_20221020 DL2 Lab Sample ID: 460-267901-3 DL2

Matrix: Water Lab File ID: PA221103A07.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 11:45

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 257.8(mL) Date Analyzed: 11/03/2022 16:01

Con. Extract Vol.: 10(mL) Dilution Factor: 200

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185408 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	13400		388	107
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	82800	~~E~~ J - D	388	165

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	114		50-150
STL00991	13C4 PFOS	104		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-03_20221020 Lab Sample ID: 460-267901-4

Matrix: Water Lab File ID: PA221102A26.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 13:55

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 256.6(mL) Date Analyzed: 11/02/2022 19:27

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185360 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-95-1	Perfluorononanoic acid (PFNA)	87.2		1.95	0.48
335-76-2	Perfluorodecanoic acid (PFDA)	42.6		1.95	0.45
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.89	J	1.95	0.54
307-55-1	Perfluorododecanoic acid (PFDoA)	0.61	J	1.95	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.95	U	1.95	0.47
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.95	U	1.95	0.62
375-73-5	Perfluorobutanesulfonic acid (PFBS)	252		1.95	0.60
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.95	U	1.95	0.39
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.07	J	1.95	0.90
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.87	U	4.87	1.85
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.87	U	4.87	1.56
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	264	J	1.95	0.75

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	51		50-150
STL00995	13C5 PFNA	53		50-150
STL00996	13C2 PFDA	142		50-150
STL00997	13C2 PFUnA	166	*	50-150
STL00998	13C2 PFDoA	159	*	50-150
STL01056	13C8 FOSA	126		50-150
STL02116	13C2 PFTeDA	153	*	50-150
STL02118	d3-NMeFOSAA	183	*	50-150
STL02117	d5-NEtFOSAA	192	*	50-150
STL02280	M2-8:2 FTS	179	*	50-150
STL02337	13C3 PFBS	109		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-03_20221020 DL Lab Sample ID: 460-267901-4 DL

Matrix: Water Lab File ID: PA221103A19.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 13:55

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 256.6(mL) Date Analyzed: 11/03/2022 17:39

Con. Extract Vol.: 10(mL) Dilution Factor: 20

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185408 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	522	D	97.4	23.4
2706-90-3	Perfluoropentanoic acid (PFPeA)	2420	D	39.0	13.3
307-24-4	Perfluorohexanoic acid (PFHxA)	1440	D	39.0	12.7
375-85-9	Perfluoroheptanoic acid (PFHpA)	1040	D	39.0	10.5
335-67-1	Perfluorooctanoic acid (PFOA)	1080	D	39.0	14.8
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1050	D	39.0	7.99
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	2320	D	97.4	25.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01892	13C4 PFHpA	86		50-150
STL00990	13C4 PFOA	89		50-150
STL00991	13C4 PFOS	94		50-150
STL00992	13C4 PFBA	89		50-150
STL00993	13C2 PFHxA	89		50-150
STL01893	13C5 PFPeA	85		50-150
STL02279	M2-6:2 FTS	113		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-03_20221020 DL2 Lab Sample ID: 460-267901-4 DL2

Matrix: Water Lab File ID: PA221103A08.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 13:55

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 256.6(mL) Date Analyzed: 11/03/2022 16:09

Con. Extract Vol.: 10(mL) Dilution Factor: 200

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185408 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	7520	D	390	107

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	1802 PFHxS	99		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-03_20221020 DL Lab Sample ID: 460-267901-4 DL

Matrix: Water Lab File ID: PA221104A06.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 13:55

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 256.6(mL) Date Analyzed: 11/04/2022 12:47

Con. Extract Vol.: 10(mL) Dilution Factor: 200

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185450 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	34800	D	390	166

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	97		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: FB-01_20221020 | Lab Sample ID: 460-267901-5

Matrix: Water | Lab File ID: PA221102A27.d

Analysis Method: 537 (modified) | Date Collected: 10/20/2022 14:00

Extraction Method: 3535 | Date Extracted: 11/02/2022 09:24

Sample wt/vol: 210.3(mL) | Date Analyzed: 11/02/2022 19:35

Con. Extract Vol.: 10(mL) | Dilution Factor: 1

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185360 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.94	U	5.94	1.43
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.38	U	2.38	0.81
307-24-4	Perfluorohexanoic acid (PFHxA)	2.38	U	2.38	0.77
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.38	U	2.38	0.64
335-67-1	Perfluorooctanoic acid (PFOA)	2.38	U	2.38	0.90
375-95-1	Perfluorononanoic acid (PFNA)	2.38	U	2.38	0.58
335-76-2	Perfluorodecanoic acid (PFDA)	2.38	U	2.38	0.55
2058-94-8	Perfluoroundecanoic acid (PFUnA)	2.38	U	2.38	0.65
307-55-1	Perfluorododecanoic acid (PFDoA)	2.38	U	2.38	0.58
72629-94-8	Perfluorotridecanoic acid (PFTriA)	2.38	U	2.38	0.57
376-06-7	Perfluorotetradecanoic acid (PFTeA)	2.38	U	2.38	0.76
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.38	U	2.38	0.74
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.38	U	2.38	0.49
335-77-3	Perfluorodecanesulfonic acid (PFDS)	2.38	U	2.38	0.48
754-91-6	Perfluorooctanesulfonamide (PFOSA)	2.38	U	2.38	1.09
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	5.94	U	5.94	2.26
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	5.94	U	5.94	1.90
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	5.94	U	5.94	1.55
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	2.38	U	2.38	0.92

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: FB-01_20221020 Lab Sample ID: 460-267901-5

Matrix: Water Lab File ID: PA221103A09.d

Analysis Method: 537 (modified) Date Collected: 10/20/2022 14:00

Extraction Method: 3535 Date Extracted: 11/02/2022 09:24

Sample wt/vol: 210.3(mL) Date Analyzed: 11/03/2022 16:17

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185408 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2.38	U	2.38	0.65
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.65	J	2.38	1.01

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	98		50-150
STL00991	13C4 PFOS	103		50-150

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PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-10_20221024 Lab Sample ID: 460-268208-1

Matrix: Water Lab File ID: PA221104A35.d

Analysis Method: 537 (modified) Date Collected: 10/24/2022 11:50

Extraction Method: 3535 Date Extracted: 11/03/2022 12:35

Sample wt/vol: 315.8(mL) Date Analyzed: 11/04/2022 16:44

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185450 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	116		3.96	0.95
307-24-4	Perfluorohexanoic acid (PFHxA)	208		1.58	0.51
375-85-9	Perfluoroheptanoic acid (PFHpA)	191		1.58	0.43
335-67-1	Perfluorooctanoic acid (PFOA)	77.9		1.58	0.60
375-95-1	Perfluorononanoic acid (PFNA)	21.6		1.58	0.39
335-76-2	Perfluorodecanoic acid (PFDA)	13.5		1.58	0.36
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.81	J	1.58	0.44
307-55-1	Perfluorododecanoic acid (PFDoA)	1.58	U	1.58	0.39
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.58	U	1.58	0.38
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.58	U	1.58	0.51
375-73-5	Perfluorobutanesulfonic acid (PFBS)	9.22		1.58	0.49
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	107		1.58	0.44
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	2.83		1.58	0.32
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	186		1.58	0.67
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.58	U	1.58	0.32
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.58	U	1.58	0.73
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	3.96	U	3.96	1.50
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	3.96	U	3.96	1.27
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	68.3		3.96	1.03
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	19.3		1.58	0.61

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-10_20221024 DL Lab Sample ID: 460-268208-1 DL

Matrix: Water Lab File ID: PA221104A14.d

Analysis Method: 537 (modified) Date Collected: 10/24/2022 11:50

Extraction Method: 3535 Date Extracted: 11/03/2022 12:35

Sample wt/vol: 315.8(mL) Date Analyzed: 11/04/2022 13:52

Con. Extract Vol.: 10(mL) Dilution Factor: 2

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185450 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2706-90-3	Perfluoropentanoic acid (PFPeA)	462	D	3.17	1.08

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL01893	13C5 PFPeA	84		50-150

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FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-09_20221024 Lab Sample ID: 460-268208-2

Matrix: Water Lab File ID: PA221104A37.d

Analysis Method: 537 (modified) Date Collected: 10/24/2022 13:55

Extraction Method: 3535 Date Extracted: 11/03/2022 12:35

Sample wt/vol: 50.3(mL) Date Analyzed: 11/04/2022 17:00

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185450 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	231		24.9	5.96
2706-90-3	Perfluoropentanoic acid (PFPeA)	940		9.94	3.38
307-24-4	Perfluorohexanoic acid (PFHxA)	565		9.94	3.23
375-85-9	Perfluoroheptanoic acid (PFHpA)	413		9.94	2.68
335-67-1	Perfluorooctanoic acid (PFOA)	301		9.94	3.78
375-95-1	Perfluorononanoic acid (PFNA)	24.0		9.94	2.44
335-76-2	Perfluorodecanoic acid (PFDA)	11.5		9.94	2.29
2058-94-8	Perfluoroundecanoic acid (PFUnA)	9.94	U	9.94	2.73
307-55-1	Perfluorododecanoic acid (PFDoA)	9.94	U	9.94	2.44
72629-94-8	Perfluorotridecanoic acid (PFTriA)	9.94	U	9.94	2.39
376-06-7	Perfluorotetradecanoic acid (PFTeA)	9.94	U	9.94	3.18
375-73-5	Perfluorobutanesulfonic acid (PFBS)	133		9.94	3.08
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	458		9.94	2.04
335-77-3	Perfluorodecanesulfonic acid (PFDS)	9.94	U	9.94	1.99
754-91-6	Perfluorooctanesulfonamide (PFOSA)	9.94	U	9.94	4.57
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	24.9	U	24.9	9.44
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	24.9	U	24.9	7.95
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	484		24.9	6.46
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	41.6		9.94	3.83

12/31/2013

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 460-267702-1

SDG No.:

Client Sample ID: RI-MW-09_20221024 DL | Lab Sample ID: 460-268208-2 DL

Matrix: Water | Lab File ID: PA221104A15.d

Analysis Method: 537 (modified) | Date Collected: 10/24/2022 13:55

Extraction Method: 3535 | Date Extracted: 11/03/2022 12:35

Sample wt/vol: 50.3(mL) | Date Analyzed: 11/04/2022 14:00

Con. Extract Vol.: 10(mL) | Dilution Factor: 20

Injection Volume: 20(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185450 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	2730	B	199	54.7
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	18800	B	199	84.5

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	103		50-150
STL00991	13C4 PFOS	107		50-150

for 12/13/2022

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 460-267702-1

SDG No.:

Client Sample ID: FB-01_20221024 Lab Sample ID: 460-268208-3

Matrix: Water Lab File ID: PA221104A16.d

Analysis Method: 537 (modified) Date Collected: 10/24/2022 15:00

Extraction Method: 3535 Date Extracted: 11/03/2022 12:35

Sample wt/vol: 300.6(mL) Date Analyzed: 11/04/2022 14:08

Con. Extract Vol.: 10(mL) Dilution Factor: 1

Injection Volume: 20(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: % Solids: GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 185450 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.16	U	4.16	1.0
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.66	U	1.66	0.57
307-24-4	Perfluorohexanoic acid (PFHxA)	1.66	U	1.66	0.54
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.66	U	1.66	0.45
335-67-1	Perfluorooctanoic acid (PFOA)	1.66	U	1.66	0.63
375-95-1	Perfluorononanoic acid (PFNA)	1.66	U	1.66	0.41
335-76-2	Perfluorodecanoic acid (PFDA)	1.66	U	1.66	0.38
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.66	U	1.66	0.46
307-55-1	Perfluorododecanoic acid (PFDoA)	1.66	U	1.66	0.41
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.66	U	1.66	0.40
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.66	U	1.66	0.53
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.66	U	1.66	0.52
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.66	U	1.66	0.46
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.66	U	1.66	0.34
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.66	U	1.66	0.71
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.66	U	1.66	0.33
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.66	U	1.66	0.77
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	4.16	U	4.16	1.58
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	4.16	U	4.16	1.33
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	4.16	U	4.16	1.08
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	1.66	U	1.66	0.64

12/3/2022

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-13_20221014
Lab Sample ID: 460-267587-1
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 09:15
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 41.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	49200	240	195	mg/Kg			1	Lloyd Kahn

11/1/2024

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-14_20221014
Lab Sample ID: 460-267587-2
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 08:45
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 27.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	114000	367	298	mg/Kg			1	Lloyd Kahn

JAT 11/1/2024

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-15_20221014
Lab Sample ID: 460-267587-3
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 08:00
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 32.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	85900	309	251	mg/Kg			1	Lloyd Kahn

1/11/2024

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-16_20221014
Lab Sample ID: 460-267587-4
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 13:00
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 49.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	67300	203	165	mg/Kg			1	Lloyd Kahn

for 11/1/2024

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-17_20221014
Lab Sample ID: 460-267587-5
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 12:00
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 23.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	120000	422	343	mg/Kg			1	Lloyd Kahn

JAT 11/1/2024

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-18_20221014
Lab Sample ID: 460-267587-6
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 11:15
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 14.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	219000	681	554	mg/Kg			1	Lloyd Kahn

for 11/1/2024

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-19_20221014
Lab Sample ID: 460-267587-7
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 10:30
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 26.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	82200	377	307	mg/Kg			1	Lloyd Kahn

for 11/1/2024

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-20_20221014
Lab Sample ID: 460-267587-8
Lab Name: Eurofins Edison
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 09:45
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 31.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	59300	322	262	mg/Kg			1	Lloyd Kahn

for 11/1/2022

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: RI-SED-X_20221014
Lab Sample ID: 460-267587-9
Lab Name: Eurofins Edison RI-SED-13-20221014
Job No.: 460-267587-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/14/2022 09:30
Reporting Basis: DRY
Date Received: 10/14/2022 18:00
% Solids: 41.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	TOC Result 1	51800	239	194	mg/Kg			1	Lloyd Kahn

JDF 11/1/2024

L.A.B. Validation Corp, 14 West Point Drive, East Northport, NY 11731

DATA USABILITY SUMMARY REPORT – DUSR
DATA VALIDATION SUMMARY

ORGANIC ANALYSIS

PER- AND POLYFLUOROALKYL SUBSTANCES - PFAS (40 ANALYTES)
BY LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY (LC/MS/MS)
BY DRAFT EPA METHOD 1633

For Groundwater Samples Collected
November 07, 2024
From 240 Orchard Street, White Plains, New York
WPFD
Project : 200217
for AKRF, Inc.

EUROFINS CLEVELAND-OH [ELAP #10975]

SDG: 460-315062-1

SUBMITTED TO:

Stephen Schmid/AKRF, Inc
440 Park Avenue South, 7th Floor
New York, NY 10016

January 01, 2025

PREPARED BY:

Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731

Lori A. Beyer

(516) 523-7891; email LABValidation@aol.com

WPFD - 240 Orchid Street, White Plains, NY
Data Usability Summary Report (Data Validation):
November 2024 - Groundwater Sampling
PFAS

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- 1.3 Matrix Spikes (MS), Matrix Spike Duplicate (MSD)
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- 1.7 Internal Standards
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- 1.11 Overall System Performance

APPENDICES:
A. Chain of Custody Documents
B. Case Narrative
C. Data Summary Form Is with Qualifications

Introduction:

A validation was performed on groundwater samples and the associated quality control (MS/MSD/Field Duplicate/Field Blank for organic analysis for samples collected under chain of custody documentation by AKRF, Inc. and submitted to Eurofins Edison for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. The samples were analyzed by Eurofins utilizing EPA Methods and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodologies employed. PFAS analysis was conducted by Eurofins Cleveland, OH. Samples were shipped to Cleveland via Federal Express overnight delivery.

The analytical testing and data review consisted of the forty (40) analytes in EPA Draft Method 1633 for PFAS. The data was evaluated in accordance with NYSDEC Appendix H – Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids (April 2023) in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

This validation report pertains to the samples listed below:

Sample ID	Lab ID	Analysis	Date Collected/Received
MW-11_20241107 [Plus, MS/MSD]	460-315062-1	PFAS Draft Method 1633	11/07/2024, 11/08/2024
MW-12_20241107	460-315062-2	PFAS Draft Method 1633	11/07/2024, 11/08/2024
MW-0X_20241107 [Field Duplicate of MW-11_20241107]	460-315062-3	PFAS Draft Method 1633	11/07/2024, 11/08/2024
FB-01_20241107	460-315062-4	PFAS Draft Method 1633	11/07/2024, 11/08/2024

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R - The data is unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.

J+ - The result is an estimated quantity, but the result may be biased high. (Equis qualified, JK)

J- - The result is an estimated quantity, but the result may be biased low. (Equis qualified, JL)

D - Analyte concentration is from diluted analysis.

Sample Receipt:
The Chain of Custody document indicates that the samples were received at Eurofins Edison via laboratory courier upon completion of the sampling event. Sample login notes were generated. The cooler temperature for sample receipt was recorded upon receipt at Eurofins and determined to be acceptable (< 6 degrees C). The actual temperature (1.4 degrees C) is in the case narrative provided in Appendix B of this report.

No problems and/or discrepancies were noted that impact data quality, consequently, the integrity of the samples has been assumed to be good.

The data summary Form I's included in Appendix C and Equis deliverable includes all usable (qualified) and unusable (rejected) results for the samples identified above. The Form I's summarize the detailed narrative section of the report. Data validation qualifiers have been reported on Form I's and onto the excel spreadsheet for ease of review and verification.

NOTE:
L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

1.0 Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS EPA Draft Method 1633
The following method criteria were reviewed: Holding times, Extracted Internal Standards, MS, MSD, LCS/Laboratory Spiked Blanks, Field Duplicates, Method Blanks, Calibrations, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The PFAS results are valid and usable as noted within the following text:

1.1 Holding Time/Preservation
The amount of analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J." The non-detects (sample quantitation limits) are required to be flagged as estimated, "J," or unusable, "R," if the holding times are grossly exceeded.

Samples were extracted and performed within the method required holding times of 28 days from collection to extraction and 28 days from extraction to analysis for groundwater samples, and field blank. No data validation qualifiers were required based upon holding time. Samples were received properly preserved within temperature requirements of 6 degrees Celsius.

1.2 Extracted Internal Standards (Isotope Dilution Analytes)
All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

Extracted Internal Standard recoveries (%R) for Isotope Dilution analysis were found to be within acceptable limits. Data is qualified based on the following criteria:

Recovery <50% or >150%	**Apply "J" Qualifier**
Recovery <25% or >150% for poor responding analytes	**Apply "J" Qualifier**
Isotope Dilution Analyte (IDA) recovery <10%	**Reject Results, "R"**

**Note: Problematic analytes (PFBA, PFPeA, Fluorotelomer sulfonates) can have wider recoveries without qualification.*

Samples were spiked with internal standards 13C4 PFBA, 13C5 PFPeA, M2-4:2 FTS, 13C5 PFHxA, 13C3 PFBS, 13C3 HFPO-DA, 13C4 PFHpA, M2-6:2 FTS, 13C8 PFOA, 13C3 PFHxS, 13C9 PFNA M2-8:2 FTS, d3-NMefOSAA, 13C6 PFDA, d5-NEtFOSAA, 13C8 PFOS, 13C7 PFUnA, 13C2-PFDoDA, 13C8 FOSA, 13C2 PFTeDA, d7-N-NMePFOSA, d9-N-EtFOSE-M, and d5-NEfPFOSA. Acceptable recovery values were obtained for sample analysis.

****It should be noted that laboratory limits are wider than the validation criteria of 50-150%.***

1.3 Matrix Spikes (MS)/Matrix Spike Duplicate (MSD

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

Recovery <70% or >130% *(Laboratory derived criteria may also be used per NYSDEC April 2023 guidance*	Apply "J" qualifier to detects and 'UJ" qualifier to non-detects of parent sample only
RPD >30%	Apply "J" qualifier to detects and 'UJ" qualifier to non-detects of parent sample only

MS/MSD analysis was designated and conducted on MW-11_20241107. RPD was within laboratory limits for all spiked compounds. MS/MSD yielded NEtFOSA (144%/140%), and 3:3 FTCA (148%/147%) above limits. Non-detects have been qualified, "UJ" for these analytes in the parent and field duplicate [MW-0X_20241107] from this location. Additionally, the MSD yielded PFPeA (153%), PFHxA (169%), and PFHpA (157%) above laboratory limits. The detected concentrations have been qualified, "J." in the parent and field duplicate [MW-0X_20241107] from this location.

****It should be noted that laboratory limits are wider than the validation criteria of 70-130%.***

1.4 Laboratory Control Sample (LCS)

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

Acceptable LCS and Low-Level LCS were analyzed with the extraction batch. Recovery values were acceptable for the Low-Level LCS for all compounds. The LCS yielded NEtFOSE (140%) above laboratory limits. Non-detects in all samples have been qualified, "UJ" based on the criteria below.

Recovery <70% or >130% *(Laboratory derived criteria may also be used per NYSDEC April 2023 guidance)*	**Apply "J" qualifier to detects and "UJ" qualifier to non-detects**

****It should be noted that laboratory limits are wider than the validation criteria of 70-130%.***

1.5 Blank Contamination

Quality assurance (QA) blanks, i.e., method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and Equipment blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value of all the associated blanks is required to be utilized:

Blank Result	Sample Result	Qualification
Any detection	<Reporting Limit	Qualify as ND as reporting limit
Any detection	>Reporting Limit and >10x the blank result	No Qualification
>Reporting Limit	>Reporting limit and <10x the blank result	J+ Biased High

A) Method Blank Contamination:

No target compounds were detected in the method blank.

B) Field Blank Contamination:

No target compounds were detected in FB-01_20241107.

The ICB and CCV yielded low concentration (J qualified by the laboratory) detections for PFHxA, PFHpA, PFOA, PFNA, PFDoA, PFTrDA, PFTeDA, PFHxS, PFHpS, PFOS, PFDoS, PFEESA, PFDS, and 9-Chlorohexadecafluoro-2-oxanonane-1-sulfonic acid. Review of the run logs support that no instrument carryover was present since the method blank analyzed after the CCBs did not contain any detections. The reported results are not impacted by low concentration of target compounds in the ICB and CCBs.

1.6 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can produce acceptable performance at the beginning of an experimental sequence. The continuing calibration checks support that the instrument is giving satisfactory daily performance. Initial and continuing calibration and verifications were acceptable and met the requirements summarized below:

Initial Calibrations:

%RSD >20% (5-6 calibration levels)	J flag detects and UJ non-detects
R2 >0.990 (5-6 calibration levels)	J flag detects and UJ non-detects
Low-level calibration check <50% or >150%	J flag detects and UJ non-detects
Mid-level calibration check <70% or >130%	U flag detects and UJ non-detects

Initial Calibration Verification:

ICV recovery <70% or >130%	J flag detects and "UJ" non-detects.

Continuing Calibration Verification:

CCV recovery <70% or >130%	J flag results

Acceptable calibrations were analyzed. Acceptable recovery was obtained for the ICAL, ICV and CCVs. No qualifiers were applied.

1.7 Internal Standards

Internal Standards (IS) performance criteria ensure that the LC/MS/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than -50% to +150%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/-0.2 minutes from the associated continuing calibration standard. If the area count is outside the (-50% to +150%) range of the associated standard, all the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity. If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

Samples were spiked with internal standards 13C3-PFBA, 13C2 PFHxA, 13C4 PFOA, 18O2 PFHxS, 13C5 PFNA, 13C2 PFDA, and 13C4 PFOS. The area responses (-30-+200%) and retention times (+/-0.2 minutes) of these internal standards met QC criteria as compared to associated calibrations.

1.8 Field Duplicates

Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Acceptable RPD is 30% where sample concentrations are greater than 2x the reporting limit. In cases where RPD is >30%, the end user should utilize the higher concentration.

Field Duplicate was collected on MW-11_20241107 as MW-0X_20241107. Precision is acceptable for detected analytes as summarized below.

Results in ng/L:

Analyte	MW-11_20241107	MW-0X_20241107
PFBA	66.3	63.7
PFPeA	250	241
PFHxA	130	132
PFHpA	115	111
PFOA	46.7	43.2
PFNA	6.90	6.45
PFDA	1.06	0.97
PFBS	8.18	7.83
PFPeS	10.9	10.5
PFHxS	126	118
PFHpS	8.89	8.55
PFOS	356	341
6:2 FTS	65.8	62.8
8:2 FTS	3.53	3.26

1.9 Target Compound List Identification

TCL compounds are identified on the LC/MS/MS by using the analyte's relative retention time (RRT) obtained from known standards.

LC/MS/MS raw data met the qualitative criteria for identification. Retention times were within required specifications. In cases where the ratio of quantifier ion response to qualifier ion response falls outside the laboratory criteria, results are considered estimated, "J." No qualifiers were applied based on the above criteria.

1.10 Compound Quantification and Reported Detection Limits

LC/MS/MS quantitative analysis is acceptable. Correct internal standards per EPA Draft Method 1633, and response factors were used to calculate final concentrations.

As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices. Groundwater extracts were performed utilizing initial volumes reported on the reporting forms in Appendix C as confirmed with laboratory prep sheets. Extracts were concentrated to 5 mls and the laboratory has injected 10ul for samples. Groundwater and Field Blank results are reported in ng/L where (1 ng/L = 0.001 ug/L). Samples were analyzed undiluted.

1.11 Overall System Performance

Good resolution and chromatographic performance were observed. Target analyte peaks were properly integrated and consistent when compared to reference standards.

Reviewer's Signature Paul A. Bes **Date** 11/01/2025

Appendix A
Chain of Custody Documents

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: M. Iadice	Lab PM: Flannery, Elizabeth J	Carrier Tracking No(s):	COC No: 460-187824-122987.1
Client Contact: Mr. Stephen Schmid	Phone: 908 500 8227	E-Mail: Elizabeth.Flannery@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: AKRF Inc	PWSID:			Job #: 315062
Address: 34 South Broadway Suite 314	Due Date Requested:			
City: White Plains	TAT Requested (days):			
State, Zip: NY, 10601	Compliance Project: Δ Yes Δ No			
Phone: 914-922-2382(Tel)	PO #: 200217			
Email: sschmid@akrf.com	WO #:			
Project Name: WPFD	Project #: 46034945			
Site: WPFD Reservoir	SSOW#:			

Analysis Requested

Preservation Codes: N - None

Other:

240 Orchard St., White Plains

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633 - 1633 Standard List of 40	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-11_20241107	11/7/24	14:05	G	Water	N	Y	X	3	
MW-12_20241107		15:30		Water	N	N	X	3	
MW-OX_20241107		1200		Water	N	N	X	3	
FB-01_20241107		1200		Water	N	N	X	3	18 total containers
				Water					
				Water					

460-315062 Chain of Custody

Elmsford 272

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Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Cat B EQuIS deliverables

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11/7/24 1630	AKRF		11-07-24 1630	ETA
2		11-08-24 10:00	ETA		11-8-24 14:30	TEET
3		11-8-24 1918	TEET		11/8 1900	ETA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: no/cs ER#4 12/14

Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Flannery Elizabeth J	Carrier Tracking No(s): N/A	COC No: 460-72609.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Elizabeth.Flannery@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): NELAP New York		Job #: 460-315062-1
Address: 180 S. Van Buren Avenue,	Due Date Requested: 11/15/2024			
City: Barberton	TAT Requested (days): N/A			
State, Zip: OH, 44203				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: WPFD	Project #: 46034945			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes.

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1633/1633_SPE 1633 Standard List of 40	1633_DRAFT_TBS	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
MW-11_20241107 (460-315062-1)	11/7/24	14:05 Eastern	G	Water			X	X	3	
MW-11_20241107 (460-315062-1MS)	11/7/24	14:05 Eastern	G	Water			X		3	
MW-11_20241107 (460-315062-1MSD)	11/7/24	14:05 Eastern	G	Water			X		3	
MW-12_20241107 (460-315062-2)	11/7/24	15:30 Eastern	G	Water			X	X	3	
MW-0X_20241107 (460-315062-3)	11/7/24	12:00 Eastern	G	Water			X	X	3	
FB-01_20241107 (460-315062-4)	11/7/24	12:00 Eastern	G	Water			X		3	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11/11/24 1900		Scollins	11/12/24 910	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Appendix B
Case Narrative

CASE NARRATIVE

Client: AKRF Inc

Project: WPFD

Report Number: 460-315062-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/8/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) BY LC/MS/MS

Samples MW-11_20241107 (460-315062-1), MW-12_20241107 (460-315062-2), MW-0X_20241107 (460-315062-3) and FB-01_20241107 (460-315062-4) were analyzed for Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS in accordance with PFAS_DI. The samples were prepared and analyzed on 11/13/2024.

The laboratory control sample (LCS) for preparation batch 240-635046 and analytical batch 240-635136 recovered outside control limits for the flagged analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 240-635046 and analytical batch 240-635136 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE) failed the recovery criteria high for LCS 240-635046/3-A.

3-Perfluoropropylpropanoic acid (3:3 FTCA) and N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE) failed the recovery criteria high for the MS of sample MW-11_20241107MS (460-315062-1) in batch 240-635136.

Several analytes failed the recovery criteria high for the MSD of sample MW-11_20241107MSD (460-315062-1) in batch 240-635136.

Refer to the QC report for details.

No other difficulties were encountered during the PFAS analysis.

All other quality control parameters were within the acceptance limits.

Appendix C
Data Summary Form I's
With Qualifications

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: MW-11_20241107 | Lab Sample ID: 460-315062-1

Matrix: Water | Lab File ID: 2024_11_13waterinj09.d

Analysis Method: 1633 | Date Collected: 11/07/2024 14:05

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 142.7(mL) | Date Analyzed: 11/13/2024 16:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	66.3		7.01	1.87
2706-90-3	Perfluoropentanoic acid (PFPeA)	250	J	3.50	0.88
307-24-4	Perfluorohexanoic acid (PFHxA)	130	J	1.75	0.44
375-85-9	Perfluoroheptanoic acid (PFHpA)	115	J	1.75	0.44
335-67-1	Perfluorooctanoic acid (PFOA)	46.7		1.75	0.44
375-95-1	Perfluorononanoic acid (PFNA)	6.90		1.75	0.44
335-76-2	Perfluorodecanoic acid (PFDA)	1.06	J	1.75	0.44
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.75	U	1.75	0.44
307-55-1	Perfluorododecanoic acid (PFDoA)	1.75	U	1.75	0.44
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1.75	U	1.75	0.44
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	1.75	U	1.75	0.44
375-73-5	Perfluorobutanesulfonic acid (PFBS)	8.18		1.75	0.44
2706-91-4	Perfluoropentanesulfonic acid (PFPeS)	10.9		1.75	0.44
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	126		1.75	0.45
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	8.89		1.75	0.44
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	356		1.75	0.44
68259-12-1	Perfluorononanesulfonic acid (PFNS)	1.75	U	1.75	0.44
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1.75	U	1.75	0.44
757124-72-4	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	7.01	U	7.01	1.75
27619-97-2	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	65.8		7.01	1.75
39108-34-4	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	3.53	J	7.01	1.75
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.75	U	1.75	0.44
31506-32-8	N-methylperfluorooctane sulfonamide (NMeFOSA)	1.75	U	1.75	0.44
4151-50-2	N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.75	UJ	1.75	0.44
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.75	U	1.75	0.54

11/12/2024

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: MW-11_20241107 | Lab Sample ID: 460-315062-1

Matrix: Water | Lab File ID: 2024_11_13waterinj09.d

Analysis Method: 1633 | Date Collected: 11/07/2024 14:05

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 142.7(mL) | Date Analyzed: 11/13/2024 16:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.75	U	1.75	0.46
24448-09-7	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	17.5	U	17.5	4.38
1691-99-2	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	17.5	~~U~~ UJ	17.5	4.38
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	7.01	U	7.01	1.75
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	7.01	U	7.01	1.75
863090-89-5	Perfluoro-4-methoxybutanoic acid (PFMBA)	3.50	U	3.50	0.88
151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.50	U	3.50	1.07
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	7.01	U	7.01	1.75
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	7.01	U	7.01	1.75
113507-82-7	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.50	U	3.50	0.88
356-02-5	3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.76	~~U~~ UJ	8.76	2.19
914637-49-3	3-Perfluoropentylpropanoic acid (5:3 FTCA)	43.8	U	43.8	10.9
812-70-4	3-Perfluoroheptylpropanoic acid (7:3 FTCA)	43.8	U	43.8	13.1
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.75	U	1.75	0.44
377-73-1	Perfluoro-3-methoxypropanoic acid (PFMPA)	3.50	U	3.50	0.88

11/11/2025

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: MW-12_20241107 | Lab Sample ID: 460-315062-2

Matrix: Water | Lab File ID: 2024_11_13waterinj12.d

Analysis Method: 1633 | Date Collected: 11/07/2024 15:30

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 148.6(mL) | Date Analyzed: 11/13/2024 17:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.07	J	6.73	1.79
2706-90-3	Perfluoropentanoic acid (PFPeA)	11.0		3.36	0.84
307-24-4	Perfluorohexanoic acid (PFHxA)	6.14		1.68	0.42
375-85-9	Perfluoroheptanoic acid (PFHpA)	4.13		1.68	0.42
335-67-1	Perfluorooctanoic acid (PFOA)	5.55		1.68	0.42
375-95-1	Perfluorononanoic acid (PFNA)	1.95		1.68	0.42
335-76-2	Perfluorodecanoic acid (PFDA)	1.68	U	1.68	0.42
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.68	U	1.68	0.42
307-55-1	Perfluorododecanoic acid (PFDoA)	1.68	U	1.68	0.42
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1.68	U	1.68	0.42
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	1.68	U	1.68	0.42
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.52	J	1.68	0.42
2706-91-4	Perfluoropentanesulfonic acid (PFPeS)	0.94	J	1.68	0.42
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	7.76		1.68	0.43
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	0.45	J	1.68	0.42
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	34.4		1.68	0.42
68259-12-1	Perfluorononanesulfonic acid (PFNS)	1.68	U	1.68	0.42
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1.68	U	1.68	0.42
757124-72-4	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6.73	U	6.73	1.68
27619-97-2	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6.73	U	6.73	1.68
39108-34-4	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.73	U	6.73	1.68
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.68	U	1.68	0.42
31506-32-8	N-methylperfluorooctane sulfonamide (NMeFOSA)	1.68	U	1.68	0.42
4151-50-2	N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.68	U	1.68	0.42
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.68	U	1.68	0.52

11/20/24

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: MW-12_20241107 | Lab Sample ID: 460-315062-2

Matrix: Water | Lab File ID: 2024_11_13waterinj12.d

Analysis Method: 1633 | Date Collected: 11/07/2024 15:30

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 148.6(mL) | Date Analyzed: 11/13/2024 17:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.68	U	1.68	0.44
24448-09-7	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	16.8	U	16.8	4.21
1691-99-2	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	16.8	U ~~UJ~~	16.8	4.21
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6.73	U	6.73	1.68
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.73	U	6.73	1.68
863090-89-5	Perfluoro-4-methoxybutanoic acid (PFMBA)	3.36	U	3.36	0.84
151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.36	U	3.36	1.03
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	6.73	U	6.73	1.68
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	6.73	U	6.73	1.68
113507-82-7	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.36	U	3.36	0.84
356-02-5	3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.41	U	8.41	2.10
914637-49-3	3-Perfluoropentylpropanoic acid (5:3 FTCA)	42.1	U	42.1	10.5
812-70-4	3-Perfluoroheptylpropanoic acid (7:3 FTCA)	42.1	U	42.1	12.5
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.68	U	1.68	0.42
377-73-1	Perfluoro-3-methoxypropanoic acid (PFMPA)	3.36	U	3.36	0.84

FORM I 1633

11/12/2024

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: MW-0X_20241107 | Lab Sample ID: 460-315062-3

Matrix: Water MW-1C_20241107 | Lab File ID: 2024_11_13waterinj13.d

Analysis Method: 1633 | Date Collected: 11/07/2024 12:00

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 144(mL) | Date Analyzed: 11/13/2024 17:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	63.7		6.94	1.85
2706-90-3	Perfluoropentanoic acid (PFPeA)	241	J	3.47	0.87
307-24-4	Perfluorohexanoic acid (PFHxA)	132	J	1.74	0.43
375-85-9	Perfluoroheptanoic acid (PFHpA)	111	J	1.74	0.43
335-67-1	Perfluorooctanoic acid (PFOA)	43.2		1.74	0.43
375-95-1	Perfluorononanoic acid (PFNA)	6.45		1.74	0.43
335-76-2	Perfluorodecanoic acid (PFDA)	0.97	J	1.74	0.43
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.74	U	1.74	0.43
307-55-1	Perfluorododecanoic acid (PFDoA)	1.74	U	1.74	0.43
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1.74	U	1.74	0.43
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	1.74	U	1.74	0.43
375-73-5	Perfluorobutanesulfonic acid (PFBS)	7.83		1.74	0.43
2706-91-4	Perfluoropentanesulfonic acid (PFPeS)	10.5		1.74	0.43
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	118		1.74	0.45
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	8.55		1.74	0.43
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	341		1.74	0.43
68259-12-1	Perfluorononanesulfonic acid (PFNS)	1.74	U	1.74	0.43
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1.74	U	1.74	0.43
757124-72-4	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6.94	U	6.94	1.74
27619-97-2	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	62.8		6.94	1.74
39108-34-4	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	3.26	J	6.94	1.74
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.74	U	1.74	0.43
31506-32-8	N-methylperfluorooctane sulfonamide (NMeFOSA)	1.74	U	1.74	0.43
4151-50-2	N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.74	#UJ	1.74	0.43
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.74	U	1.74	0.54

FORM I 1633

FOR BS 11/11/2024

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: MW-0X_20241107 | Lab Sample ID: 460-315062-3

Matrix: Water MW-11_20241102 | Lab File ID: 2024_11_13waterinj13.d

Analysis Method: 1633 | Date Collected: 11/07/2024 12:00

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 144(mL) | Date Analyzed: 11/13/2024 17:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.74	U	1.74	0.45
24448-09-7	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	17.4	U	17.4	4.34
1691-99-2	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	17.4	~~U~~ * UJ	17.4	4.34
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6.94	U	6.94	1.74
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.94	U	6.94	1.74
863090-89-5	Perfluoro-4-methoxybutanoic acid (PFMBA)	3.47	U	3.47	0.87
151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.47	U	3.47	1.06
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	6.94	U	6.94	1.74
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	6.94	U	6.94	1.74
113507-82-7	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.47	U	3.47	0.87
356-02-5	3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.68	~~U~~ UJ	8.68	2.17
914637-49-3	3-Perfluoropentylpropanoic acid (5:3 FTCA)	43.4	U	43.4	10.9
812-70-4	3-Perfluoroheptylpropanoic acid (7:3 FTCA)	43.4	U	43.4	12.9
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.74	U	1.74	0.43
377-73-1	Perfluoro-3-methoxypropanoic acid (PFMPA)	3.47	U	3.47	0.87

11/12/2024

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: FB-01_20241107 | Lab Sample ID: 460-315062-4

Matrix: Water | Lab File ID: 2024_11_13waterinj14.d

Analysis Method: 1633 | Date Collected: 11/07/2024 12:00

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 149.6(mL) | Date Analyzed: 11/13/2024 17:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	6.68	U	6.68	1.78
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.34	U	3.34	0.84
307-24-4	Perfluorohexanoic acid (PFHxA)	1.67	U	1.67	0.42
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.67	U	1.67	0.42
335-67-1	Perfluorooctanoic acid (PFOA)	1.67	U	1.67	0.42
375-95-1	Perfluorononanoic acid (PFNA)	1.67	U	1.67	0.42
335-76-2	Perfluorodecanoic acid (PFDA)	1.67	U	1.67	0.42
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.67	U	1.67	0.42
307-55-1	Perfluorododecanoic acid (PFDoA)	1.67	U	1.67	0.42
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1.67	U	1.67	0.42
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	1.67	U	1.67	0.42
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.67	U	1.67	0.42
2706-91-4	Perfluoropentanesulfonic acid (PFPeS)	1.67	U	1.67	0.42
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1.67	U	1.67	0.43
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	1.67	U	1.67	0.42
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1.67	U	1.67	0.42
68259-12-1	Perfluorononanesulfonic acid (PFNS)	1.67	U	1.67	0.42
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1.67	U	1.67	0.42
757124-72-4	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	6.68	U	6.68	1.67
27619-97-2	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	6.68	U	6.68	1.67
39108-34-4	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.68	U	6.68	1.67
754-91-6	Perfluorooctanesulfonamide (PFOSA)	1.67	U	1.67	0.42
31506-32-8	N-methylperfluorooctane sulfonamide (NMeFOSA)	1.67	U	1.67	0.42
4151-50-2	N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.67	U	1.67	0.42
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.67	U	1.67	0.52

11/20/24

FORM I
PFAS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 460-315062-1

SDG No.:

Client Sample ID: FB-01_20241107 | Lab Sample ID: 460-315062-4

Matrix: Water | Lab File ID: 2024_11_13waterinj14.d

Analysis Method: 1633 | Date Collected: 11/07/2024 12:00

Extraction Method: 1633 | Date Extracted: 11/13/2024 08:49

Sample wt/vol: 149.6(mL) | Date Analyzed: 11/13/2024 17:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: ID:

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 635136 | Units: ng/L

Preparation Batch No.: 635046 | Instrument ID: LCMS04

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.67	U	1.67	0.44
24448-09-7	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	16.7	U	16.7	4.18
1691-99-2	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	16.7	U JJ	16.7	4.18
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	6.68	U	6.68	1.67
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.68	U	6.68	1.67
863090-89-5	Perfluoro-4-methoxybutanoic acid (PFMBA)	3.34	U	3.34	0.84
151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.34	U	3.34	1.02
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	6.68	U	6.68	1.67
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	6.68	U	6.68	1.67
113507-82-7	Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	3.34	U	3.34	0.84
356-02-5	3-Perfluoropropylpropanoic acid (3:3 FTCA)	8.36	U	8.36	2.09
914637-49-3	3-Perfluoropentylpropanoic acid (5:3 FTCA)	41.8	U	41.8	10.4
812-70-4	3-Perfluoroheptylpropanoic acid (7:3 FTCA)	41.8	U	41.8	12.4
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.67	U	1.67	0.42
377-73-1	Perfluoro-3-methoxypropanoic acid (PFMPA)	3.34	U	3.34	0.84

11/12/2025

APPENDIX D
COMMUNITY AIR MONITORING DATA

Mon, 3rd of Oct 2022, 5:25:00 – 16:25:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³ AVG 15m
mg/m³
DustTrak-8530
RS232(C)

MIN	AVG	MAX
0.0033	0.0042	0.0053

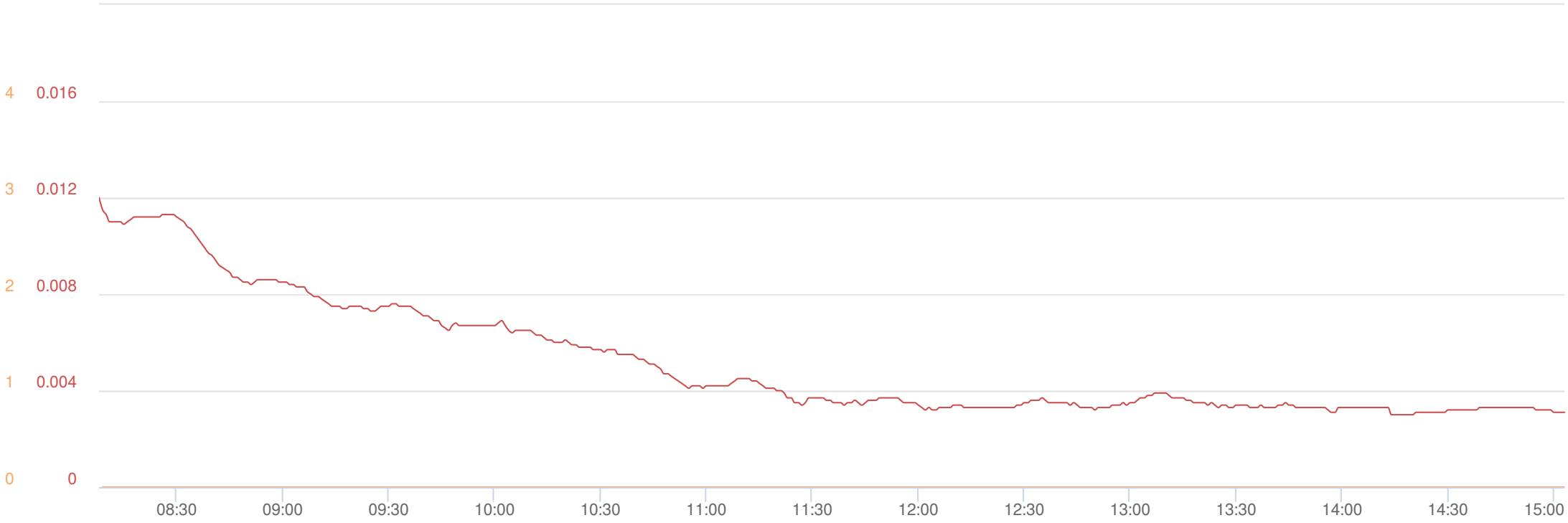
VOC ppm AVG 15m ppm
MultiRAE
RS232(B)

MIN	AVG	MAX
0	0	0

Name	WPFD
S/N	0B278067
Description	FA04657
Location	363V+J6 White Plains, NY, USA

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Thu, 6th of Oct 2022, 5:25:00 – 16:25:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³ AVG 15m
mg/m³
DustTrak-8530
RS232(C)

MIN	AVG	MAX
0.003	0.0052	0.012

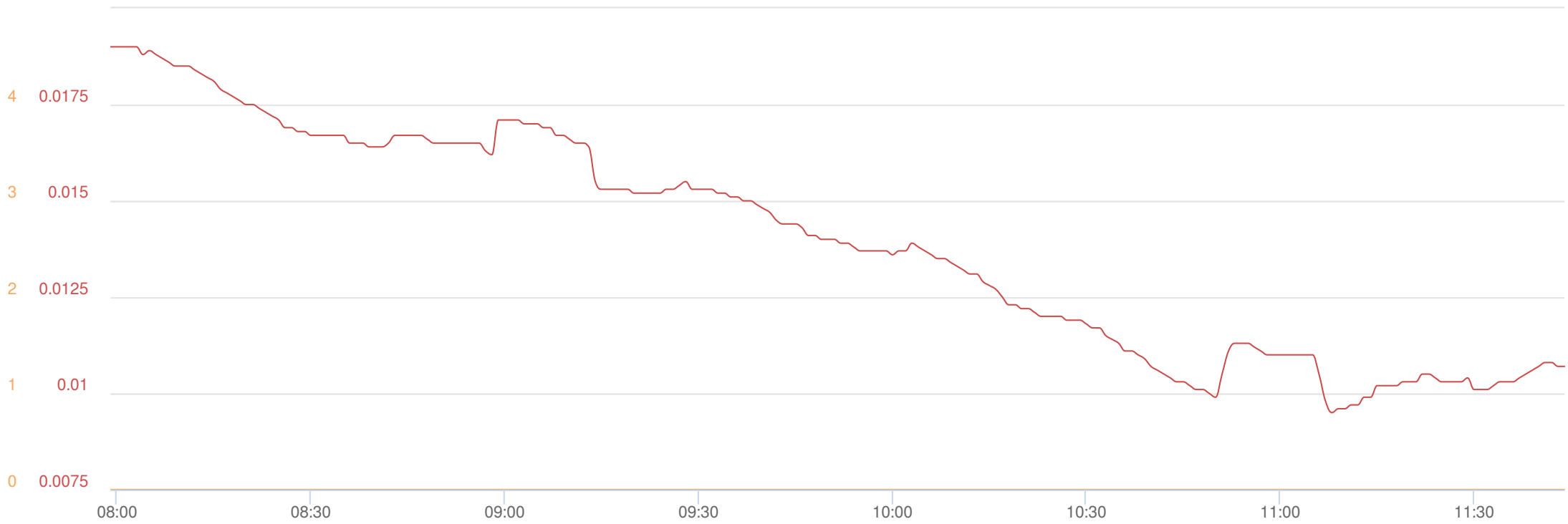
VOC ppm AVG 15m ppm
MultiRAE
RS232(B)

MIN	AVG	MAX
0	0	0

Name	WPFD
S/N	0B278067
Description	FA04657
Location	363V+J6 White Plains, NY, USA

© Netronix 2022

Fri, 7th of Oct 2022, 5:25:00 – 16:25:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³ AVG 15m
mg/m³
DustTrak-8530
RS232(C)

MIN	AVG	MAX
0.0095	0.0139	0.019

VOC ppm AVG 15m ppm
MultiRAE
RS232(B)

MIN	AVG	MAX
0	0	0

Name	WPFD
S/N	0B278067
Description	FA04657
Location	363V+J6 White Plains, NY, USA

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Mon, 10th of Oct 2022, 5:25:00 – 16:25:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³ AVG 15m
mg/m³
DustTrak-8530
RS232(C)

MIN	AVG	MAX
0.0071	0.0103	0.0139

VOC ppm AVG 15m ppm
MultiRAE
RS232(B)

MIN	AVG	MAX
0	0	0

Name	WPFD
S/N	0B278067
Description	FA04657
Location	363V+J6 White Plains, NY, USA

© Netronix 2022

Tue, 11th of Oct 2022, 5:25:00 – 16:25:00
(GMT-05:00) Eastern Time (US & Canada)



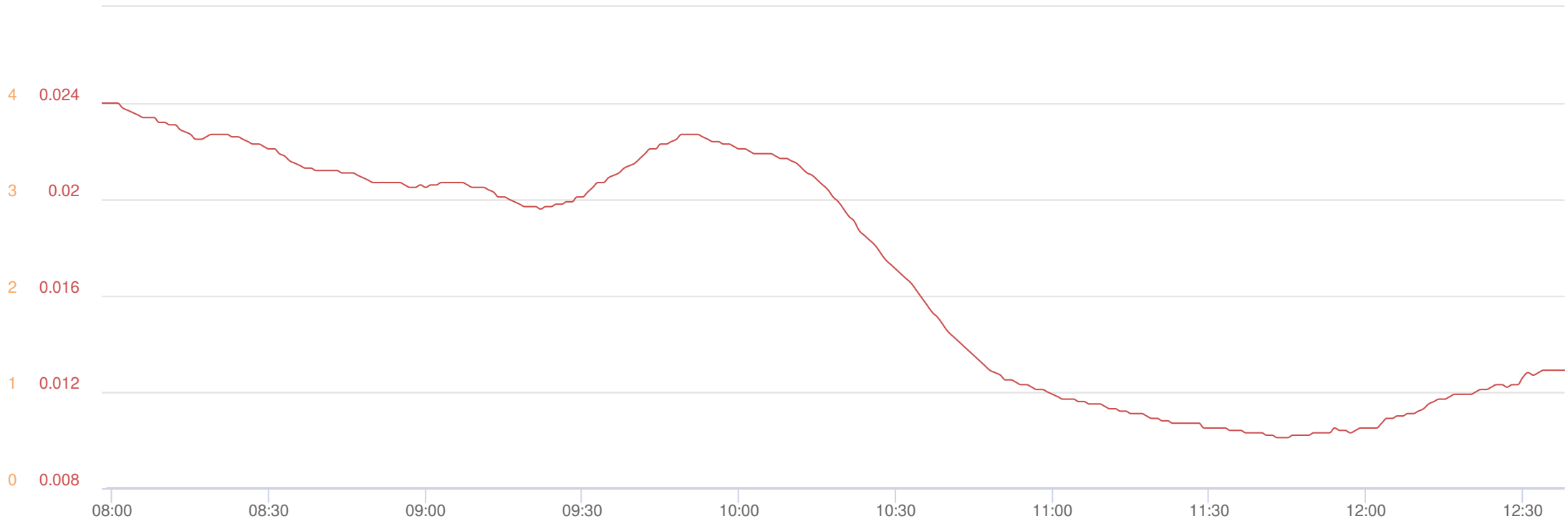
Mass Conc. Total mg/m³ AVG 15m
mg/m³
DustTrak-8530
RS232(C)

MIN	AVG	MAX
0.0054	**0.0107**	**0.0163**

Name	WPFD
S/N	0B278067
Description	FA04657
Location	363V+J6 White Plains, NY, USA

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Wed, 12th of Oct 2022, 5:25:00 – 16:25:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total mg/m³ AVG 15m
mg/m³
DustTrak-8530
RS232(C)

MIN	AVG	MAX
0.0101	0.017	0.024

VOC ppm AVG 15m ppm
MultiRAE
RS232(B)

MIN	AVG	MAX
0	0	0

Name	WPFD
S/N	0B278067
Description	FA04657
Location	363V+J6 White Plains, NY, USA

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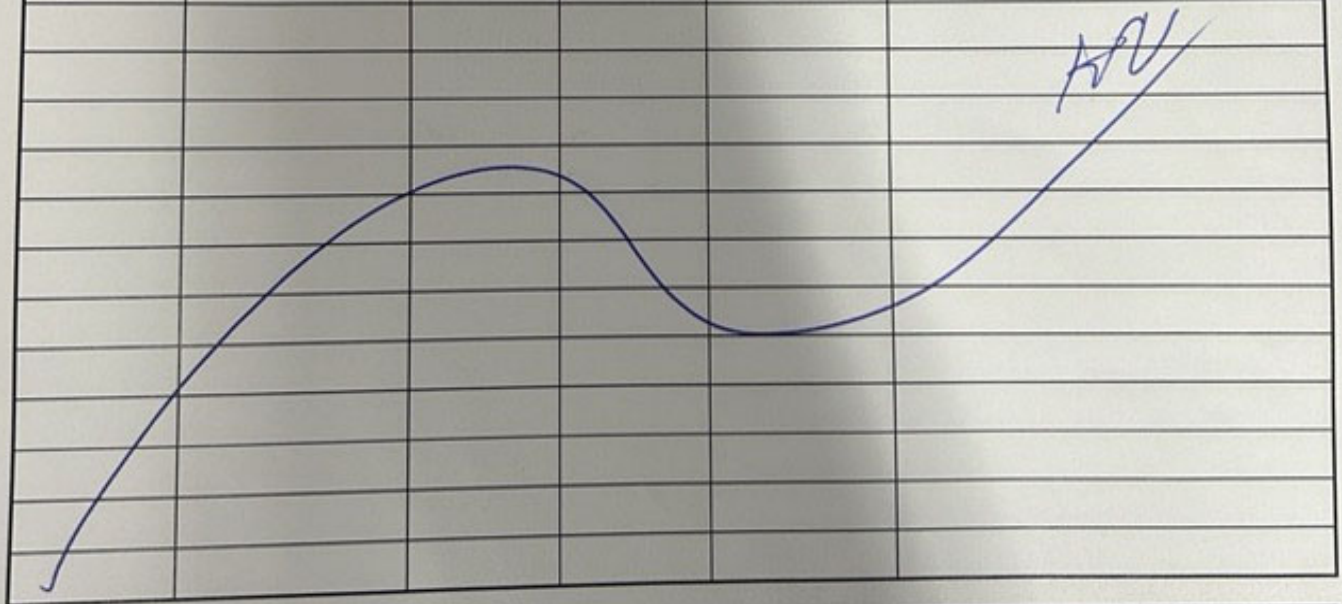
AKRF, Inc. **Air Monitoring Log**

Project: White plains FD Drill School | Client: | Date: 10/21/24

Work Activity: BR drilling | Logged By: KV | Job No: 200217

Weather: Clear, 59°F | Wind Direction: 6mph, E | Wind Speed:

TIME	LOCATION	PID (ppm)	DUST (mg/m³)	ODORS	COMMENTS (activity; work zone, upwind or downwind)
9:37	Training facility/MW-11	0.0	0.015	NONE	BACKGROUND
10:10	Training facility/MW-11	0.2	0.011	NONE	Work zone, drilling overburden
11:08	"	0.1	0.007	NONE	Work zone, not actively drilling
11:30	"	0.1	0.009	NONE	" " "
12:10	"	0.6	0.016	NONE	work zone, removing drill bits
12:30	"	0.3	0.023	NONE	work zone, mixing cement
13:30	MW-12	0.1	0.018	NONE	work zone, drilling overburden
14:00	MW-12	0.0	0.010	NONE	" "
14:42	MW-12	0.0	0.020	NONE	" , mixing cement
15:10	Offsite				



Work Zone Action Levels	
PID	DUST
<5 ppm: Level D	<0.150 mg/m³ above background in breathing zone: level D
Between 5 ppm and 50 ppm: level C	
>50 ppm: STOP	>0.150 mg/m³ above background in breathing zone: Dust suppression

Community (Perimeter) Action Levels	
PID	DUST
>5 ppm above background: vapor suppression	>0.1 mg/m³ above background: dust suppression
>25 ppm above background: STOP	**>0.15 mg/m³ above background: STOP**

AKRF, Inc.

Air Monitoring Log

Project: WP FD

Client:

Work Activity: BR Coring

Date: 10/22/24

Logged By: KV

Weather: 59°F, clear

Job No:

Wind Direction: NW

Wind Speed: 6mph

TIME	LOCATION	PID (ppm)	DUST (mg/m³)	ODORS	COMMENTS (activity; work zone, upwind or downwind)
7:45	MW-12	0.0	0.025	NONE	BACKGROUND
12:30	MW-12	0.1	0.011	NONE	Resume Coring, Work Zone
13:00	MW-12	0.0	0.015	NONE	Coring, Work Zone
13:45	MW-12	0.0	0.014	NONE	Stop coring, Work Zone

KV

Work Zone Action Levels	
PID	DUST
<5 ppm: Level D	<0.150 mg/m³ above background in breathing zone: level D
Between 5 ppm and 50 ppm: level C	
>50 ppm: STOP	>0.150 mg/m³ above background in breathing zone: Dust suppression

Community (Perimeter) Action Levels	
PID	DUST
>5 ppm above background: vapor suppression	>0.1 mg/m³ above background: dust suppression
>25 ppm above background: STOP	>0.15 mg/m³ above background: STOP

AKRF, Inc.

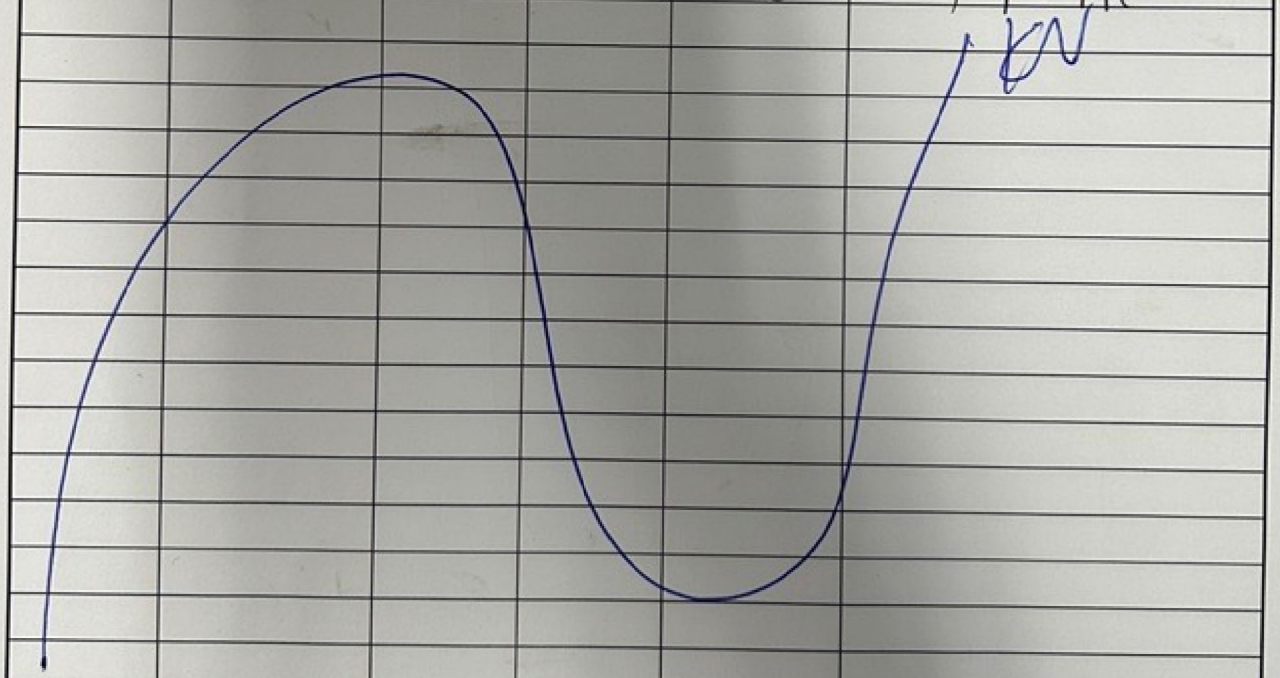
Air Monitoring Log

Project: White Plains PD | Client: | Date: 10/23/24

Work Activity: Coring | Logged By:

Weather: Clear, 53°F | Wind Direction: NE | Job No: | Wind Speed: 2mph

TIME	LOCATION	PID (ppm)	DUST (mg/m³)	ODORS	COMMENTS (activity; work zone, upwind or downwind)
8:08	MW-11	0.0	0.038	NONE	BACKGROUND
8:38	MW-11	0	.042	none	work zone, coring
9:08	MW-11	0	.041	none	work zone, coring
9:38	MW-11	0	.057	none	no work being performed
10:10	MW-11	0	.034	none	coring
10:40	MW-11	0	.034	none	coring
11:10	MW-11	0.0	0.023	None	No Work Being Performed
11:40	MW-11	0.1	.013	none	setting pvc pipe



Work Zone Action Levels	
PID	DUST
<5 ppm: Level D	<0.150 mg/m³ above background in breathing zone: level D
Between 5 ppm and 50 ppm: level C	
>50 ppm: STOP	>0.150 mg/m³ above background in breathing zone: Dust suppression

Community (Perimeter) Action Levels	
PID	DUST
>5 ppm above background: vapor suppression	>0.1 mg/m³ above background: dust suppression
>25 ppm above background: STOP	>0.15 mg/m³ above background: STOP

APPENDIX E
FISH AND WILDLIFE IMPACT ASSESSMENT REPORT

FISH AND WILDLIFE IMPACT ANALYSIS

WHITE PLAINS FIRE DEPARTMENT DRILL SCHOOL
CITY OF WHITE PLAINS
WESTCHESTER COUNTY, NEW YORK 10604

Submitted to:

New York State Department of Environmental Conservation Division of Environmental Remediation

625 Broadway, 12th Floor

Albany, New York 12233

Prepared by AKRF, Inc.

December 2023

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INTRODUCTION

This report presents the Fish and Wildlife Impact Analysis (FWIA) performed on behalf of the City of White Plains (herein referred to as "White Plains"), owner of the White Plains Fire Department Drill School (FDDS), located in White Plains, New York (see **Figures 1** and **2**). This FWIA was conducted according to the 1994 New York State Department of Environmental Conservation (NYSDEC) guidance document entitled Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (1994 NYSDEC FWIA). The focus of this FWIA is on the 4-acre FDDS and a surrounding 87.2-acre area which includes the White Plains Reservoir No. 2, East Pond, Orchard Street Pump Station, and nearby forested uplands and wetlands (herein referred to as the "Project Study Area") (see **Figure 2**). This FWIA was prepared in tandem with a Remedial Investigation Report (RIR) (dated December 2023), which summarizes Remedial Investigation (RI) work performed in the Project Study Area between October 2022 and October 2023. Both reports have been prepared for NYSDEC's review and approval.

BACKGROUND

As described above, the primary focus of this FWIA is the FDDS and the surrounding area. The FDDS has been in operation since approximately 1960, and has been used for fire department training, including live fire fighter training scenarios through to the present. In the past, various aqueous film-forming foams (AFFFs) were used to extinguish fires within the FDDS area as part of these trainings. As discussed in the RIR, AFFFs were identified as the potential source of per- and polyfluoroalkyl substances (PFAS) contamination within the vicinity of the FDDS and evidence of chemical runoff associated with the use of AFFFs has been documented in waterbodies associated with the Project Study Area. For these reasons, a number of studies were conducted to further document contamination within the vicinity of the FDDS, as described below.

In 2021, a Site Characterization Investigation (SCI) was conducted to document the environmental conditions of the Project Study Area. The goal of the SCI was to further define the nature and extent of PFAS identified in the Project Study Area. Following the SCI, a Site Characterization Report (SCR) was prepared documenting the findings. In April 2022, NYSDEC approved the SCR and requested that a Remedial Investigation Work Plan (RIWP) be prepared to describe the means and methods for continuing the investigation work within the Project Study Area. In June 2022, a draft RIWP was submitted to NYSDEC for review and approval. The RIWP included a scope of work to further define the nature and extent of the PFAS source area and plume, fill data gaps identified by previous investigations, complete an ecological study, and complete a Qualitative Human Health Exposure Assessment (QHHEA). NYSDEC approved the RIWP in September 2022, which included an additional requirement to prepare documentation to support Step 1 of the FWIA process following the 1994 NYSDEC FWIA guidance.

FWIA – STEP 1

This report provides the documentation to support Step 1 of the FWIA. The objectives of Step 1 are to describe the fish and wildlife resources and habitats that may exist in the vicinity of the Project Study Area and to assess the overall value of those resources to humans and wildlife. Step 1 of this FWIA provides the following:

- Existing conditions including topography, wetlands, surface waters, terrestrial ecological communities, wildlife resources, soils, and drainage according to the radii (described below) as specified in the 1994 NYSDEC FWIA guidance;
- Documentation of any stressors to the natural resources described above;
- An assessment of the value of these resources to humans and wildlife; and
- Applicable regulations.

ANALYSIS METHODOLOGY & SITE MAPS

This section describes the study areas used to document the natural resources in the vicinity of the Project Study Area and the maps developed for the FWIA. Three distinct study areas are referenced in this FWIA, in accordance with the 1994 NYSDEC FWIA guidance document, and are described below. This section also provides a high-level summary of the desktop and fieldwork methodologies used for the FWIA.

2-MILE FWIA STUDY AREA

The 2-Mile FWIA Study Area for NYSDEC-mapped and U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI)-mapped resources includes the area within a 2- mile radius from the Project Study Area (described below). NYSDEC-mapped resources of the 2-Mile FWIA Study Area include NYSDEC freshwater wetlands, surface waters, Significant Natural Communities, Critical Environmental Areas (CEA), and threatened and endangered species. The NWI wetlands map was also reviewed for the 2-Mile FWIA Study Area. No field investigations were conducted beyond the Project Study Area for this FWIA. The results of this mapping are provided under the 2-Mile FWIA Study Area subheadings where applicable.

½-MILE FWIA STUDY AREA

The ½-Mile FWIA Study Area for ecological communities and wildlife resource value includes the area within a one half mile radius from the Project Study Area (described below). The ecological communities mapping includes a combination of a review of land use identified within Westchester County Geographic Information Systems (GIS) data and aerial imagery for the half mile radius. No field investigations beyond the Project Study Area were conducted for this FWIA. The results of this mapping are provided under the ½-Mile FWIA Study Area subheadings where applicable.

PROJECT STUDY AREA

The Project Study Area is in the center of the 2-Mile and ½-Mile FWIA Study Areas and is the primary focus of this FWIA. It consists of 87.2-acres of land, comprising primarily of undeveloped upland forests and wetlands, approximately half of White Plains Reservoir No. 2, East Pond south of Old Orchard Street, and the Orchard Street Pump Station. The Project Study Area contains structures, including residential homes, the Orchard Street Pump Station, and the FDDS (see **Figure 2**). Field investigations were conducted in the Project Study Area to verify mapping and document natural resources.

Fire Department Drill School

The FDDS is located within a 4-acre clearing in the Project Study Area approximately 500 feet southeast of White Plains Reservoir No. 2. The FDDS consists of an asphalt urban lot and includes uninhabited buildings, vehicles, and debris utilized for fire fighter training.

DESKTOP ANALYSIS & FIGURES

As described above, the maps for the abovementioned study areas follow the requirements of the 1994 NYSDEC FWIA guidance. The figures illustrating fish and wildlife resources of the three study areas described above include the following:

- **Figure 1** – USGS Topographic Map (2-Mile FWIA Study Area)
- **Figure 2** – Project Study Area (illustrates site features and topographic contours)
- **Figure 3** – NWI Wetlands (2-Mile FWIA Study Area)
- **Figure 4** – NYSDEC Wetlands and Surface Waters (2-Mile FWIA Study Area)
- **Figures 5a** and **5b** – Ecological Communities and Land Use (Project Study Area and ½-Mile FWIA Study Area)
- **Figure 6** – CEAs (2-Mile FWIA Study Area)
- **Figure 7** – NRCS Soils (Project Study Area)
- **Figure 8** – Drainage (Project Study Area)
- **Figure 9** – Photograph Locations (Project Study Area)
- **Figure 10** – Photographs (Project Study Area)

Available federal, state, and peer-reviewed literature and databases were consulted as part of the desktop review for the FWIA, as identified below. Using the maps listed above, a wildlife biologist conducted a habitat and wildlife investigation within the Project Study Area on October 9, 2023. On October 18, 2023, a team of two wetland and plant ecologists conducted a site investigation to document and map terrestrial and wetland/surface water communities and dominant plant species of the Project Study Area. All wetlands, surface waters, and terrestrial ecological communities are described in the context of the *Ecological Communities of New York State* (Edinger et al. 2014). During the field investigations, field staff looked for signs of stress from potential contaminants to the ground, water, vegetation, and wildlife. Specific methodologies, as applicable, are listed under each resource area described in the following sections.

DESCRIPTION OF FISH & WILDLIFE RESOURCES

This section characterizes fish and wildlife resources (e.g., wetlands, surface waters, ecological communities, etc.) within the 2-mile, half-mile and Project study areas.

WETLANDS

Figures 3 and **4** identify the NYSDEC-mapped and NWI mapped wetlands resources within the 2-Mile FWIA Study Area and Project Study Area. Mapped wetlands within the Project Study Area were verified during the October 18, 2023 site investigation. The results of the desktop mapping for the 2-Mile FWIA Study Area and wetlands field verification within the Project Study Area are presented below.

2-Mile FWIA Study Area

Many NYSDEC- and NWI-mapped wetlands are present within the 2-Mile FWIA Study Area (see **Figures 3** and **4**). Eight NYSDEC-regulated freshwater wetlands are mapped within the 2-Mile FWIA Study Area (see **Figure 4**). **Table 1** provides a summary of the NYSDEC-mapped wetlands present within the 2-Mile FWIA Study Area, including their acreages, NYSDEC classes,[1] and their NWI associations. As shown in **Table 1**, six of the eight NYSDEC-mapped wetlands (i.e., Wetlands G-6, W-2, W-7, W-9, W-11, and W-12) are Class I wetlands, ranging in size from 0.6 acres to 29.1 acres. Wetland G-8, covering 24.5 acres, and Wetland W-6, covering 11.9 acres, are Class II wetlands.

Seven of the eight NYSDEC-mapped wetlands are associated with a NWI-designated palustrine forested, scrub-shrub, or emergent wetlands and ponds; Wetland W-12 is associated with a riverine system (see **Figure 3**).

[1] New York State currently regulates freshwater wetlands that are typically 12.4 acres or larger in extent. These wetlands are classified from Class I (which provide the most environmental benefits) to Class IV (which provide the least environmental benefits).

Table 1
Summary of State-Regulated Freshwater Wetlands within the 2-Mile FWIA Study Area

NYSDEC Wetland ID	Wetland Acreage*	NYSDEC Wetland Class	NWI Description
G-6	23.0	I	Palustrine; Forested; Broad-leaved deciduous; Seasonally flooded/saturated (PFO1E) Palustrine; Scrub-shrub; Broad-leaved deciduous; Seasonally flooded/saturated (PSS1E)
G-8	24.5	II	Palustrine; Forested; Broad-leaved deciduous; Seasonally flooded/saturated (PFO1E) Palustrine; Unconsolidated bottom; Permanently flooded; Diked/impounded (PUBHh)
W-2	29.1	I	Palustrine; Forested; Broad-leaved deciduous; Seasonally flooded/saturated (PFO1E) Palustrine; Emergent; Persistent; Semipermanently Flooded (PEM1F) Palustrine; Unconsolidated bottom; Permanently flooded; Diked/impounded (PUBH)
W-6	11.9	II	Palustrine; Forested; Broad-leaved deciduous; Seasonally flooded/saturated (PFO1E) Palustrine; Forested; Broad-leaved deciduous; Seasonally flooded (PFO1C)
W-7	21.5	I	Palustrine; Forested; Broad-leaved deciduous / Scrubshrub; Broad-leaved deciduous; Seasonally flooded/saturated (PFO1/SS1E) Palustrine; Unconsolidated bottom; Permanently flooded; Excavated (PUBHx) Palustrine; Emergent; Persistent; Seasonally flooded/Saturated (PEM1E)
W-9	**14.4**	**I**	**Palustrine; Emergent; Persistent; *Phragmites australis*; Seasonally flooded/Saturated (PEM1/5E)**
W-11	1.4	I	Palustrine; Unconsolidated bottom; Permanently flooded; Diked/impounded
W-12	0.6	I	Riverine; Upper perennial, Unconsolidated Bottom, Permanently Flooded

Notes: NYSDEC assigns numerical classifications to state-regulated freshwater wetlands according to the natural benefits each wetland provides to biotic and abiotic ecological systems. A full list of criteria for each classification level is available under Parts 664.4 and 664.5 of Title 6, Chapter X, Subchapter A, Article 1 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.

*Wetland Acreages are based on the NYSDEC mapped acreages provided within the NYSDEC Environmental Resources Mapper.

Bold text denotes that the wetland is in the Project Study Area.

Sources: (1) NYSDEC ERM. Available from: gisservices.dec.ny.gov/gis/erm/ (accessed on December 6, 2023).

(2) USFWS NWI Mapper. Available from: fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ (accessed on December 6, 2023).

(3) 6 CRR-NY X A 1 664.4 – 664.5.

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Project Study Area

Of the NYSDEC-mapped freshwater wetlands within the 2-Mile FWIA Study Area, Wetland W-9 is the only wetland mapped in the Project Study Area, as shown in **Figure 4**. As shown above in **Table 1** and below in **Table 2**, Wetland W-9 is an approximately 14-acre freshwater Class I wetland, with approximately 11.5 acres of mapped area occurring within the Project Study Area. Wetland W-9 is mapped by NWI as PEM1/5E, as shown in **Table 1** and **Figure 3**. This wetland was observed to be dominated by common reed (*Phragmites australis*) during the October 18, 2023 site investigation and is best characterized as a common reed marsh. Edinger et al. (2014) define a common reed marsh as "a marsh that has been disturbed by draining, filling, road salts, etc. in which European common reed (*Phragmites australis*) has become dominant." As shown in **Figures 5a** and **5b**, the common reed marsh is located on the western side of the Project Study Area. While common reed was observed to be the dominant species, narrowleaf cattail (*Typha angustifolia*) was also observed along the eastern edge of this community. However, due to the density of common reed within the marsh, no other plant species were observed within this community.

A NWI-mapped temporary flooded freshwater forested/shrub wetland with broad-leaved deciduous forest vegetation (PFO1A) is located in the Project Study Area south of East Pond (see **Figure 3**). However, because this mapped PFO1A wetland was observed to be a north-flowing intermittent stream during the October 18, 2023 site investigation, it is described in further detail under the Surface Waters & Surface Water Quality subsection, below. There are no mapped or observed wetlands in proximity to the FDDS.

SURFACE WATERS & SURFACE WATER QUALITY

The NYSDEC and NWI surface water maps were reviewed as part of the desktop mapping (see **Figures 3** and **4**) for the 2-Mile FWIA Study Area and prior to conducting any fieldwork in the Project Study Area, as described above. During the October 18, 2023 site investigation, AKRF's wetland ecologists verified mapped surface waters and mapped the general locations of any unmapped surface waters observed in the Project Study Area. The results of the desktop mapping and surface waters field verification within the Project Study Area are outlined below. In addition, available water quality information for the White Plains Reservoir No. 2 (and other nearby reservoirs) was reviewed and is summarized below.

2-Mile FWIA Study Area

According to the NYSDEC and NWI surface waters mapping, the 2-Mile FWIA Study Area contains several surface waters (see **Figures 3** and **4**), including White Plains Reservoirs No. 1 and No. 2, Rye Lake, Kensico Reservoir, Cranberry Lake, and unnamed ponds. Many rivers and creeks are present within the 2-Mile FWIA Study Area, including an unnamed Bronx River tributary without a defined channel that feeds White Plains Reservoirs No. 1 and 2 (New York District Corps of Engineers 1981). NYSDEC classifies all state-regulated waterbodies using a letter classification that denotes their "best uses" (e.g., fishing, swimming, potable water sources). The surface waters within the 2-Mile FWIA Study Area have NYSDEC classifications ranging from Class AA (Kensico Reservoir and Rye Lake) through Class C (Bronx River and Mamaroneck River), with White Plains Reservoirs No. 1 and No. 2 and the associated East Pond classified as Class A waterbodies (see **Figure 4**). The best uses for Class

A and AA waters are as a source of drinking water, recreation, and fishing. The best uses for Class C waters are for fisheries and non-contact activities.

Project Study Area

As stated above, White Plains Reservoir No. 2 and East Pond are classified by NYSDEC as Class A waterbodies (see **Figure 4**).

White Plains Reservoir No. 2 is mapped by NWI as a lacustrine system (i.e., lake that is permanently flooded) and East Pond as a freshwater pond (i.e., permanently flooded palustrine wetland) (see **Figure 3**). Both have unconsolidated bottoms that were created by human-made barriers (i.e., dams) to obstruct water flow. For this reason, White Plains Reservoir No. 2 and East Pond can be characterized as reservoir/artificial impoundments[2] according to Edinger et al. (2014), and together occupy 16.2 acres of the Project Study Area, as shown in **Table 2**. As shown in **Figures 5a** and **5b**, White Plains Reservoir No. 2 and East Pond are separated by Old Orchard Street, with the reservoir to the north and the pond to the south. These waterbodies were observed to consist of open water, with much of the shallow water and shoreline areas containing submerged, floating, and emergent aquatic vegetation, including common reed.

As described above, there is an NWI-mapped PFO1A wetland within the Project Study Area in the vicinity of East Pond. However, as described above, the PFO1A wetland was not observed during the October 18, 2023 site investigation. Instead, an intermittent stream with a rocky streambed with shallow water with flow in a northerly direction toward East Pond is present and occupies 0.03 acres of the Project Study Area (see **Table 2**). The intermittent stream flows from an offsite source south of the Project Study Area boundary (see **Figures 5a** and **5b**). As shown in **Figure 4**, it is not mapped as a NYSDEC stream and does not have a NYSDEC water quality classification.

A second intermittent stream is located north of the FDDS and flows westward from a potential vernal pool into the East Pond and occupies 0.06 acres of the Project Study Area (see **Figures 5a** and **5b**). The westward flowing intermittent stream is not mapped by NYSDEC or NWI. The westward flowing intermittent stream has a rocky streambed, with only thin layers of sediment over the bedrock, and during the October 18, 2023 site investigation was observed to have slow flowing shallow water. As shown in **Figure 4**, it is not mapped as a NYSDEC stream and does not have a NYSDEC water quality classification. In total, the unmapped intermittent streams occupy approximately 0.1 acres of the Project Study Area.

As shown in **Figures 5a** and **5b** and **Table 2**, five potential vernal pools[3] were observed within the Project Study Area. Collectively, these five potential vernal pools cover 1.0 acre of land within the beech-maple mesic forest. Vernal pools are defined by Edinger et al. (2014) as aquatic communities "of small, shallow depressions that are intermittently to ephemerally flooded." Four of the potential vernal pools are in the eastern half of the Project Study Area, south of Old Orchard Street and east of

[2] Edinger et al. 2014 describes the reservoir/artificial impoundment community as "the aquatic community of an artificial lake created by the impoundment of a river with a dam."

[3] Vernal pool coverage is typically verified in the early spring months. A review of aerial imagery (image date: March 20, 2021) was conducted and it confirmed them as present in the Project Study Area. However, since they were not field verified in the spring, they are identified as potential vernal pools for the purposes of this report. The limits of the vernal pools would need to be verified in early spring.

the FDDS, with the fifth potential vernal pool located to the southwest of the FDDS (see **Figures 5a** and **5b**). The potential vernal pools are not mapped by NYSDEC or NWI. Within the Project Study Area, these potential vernal pools were observed to be primarily unvegetated depressions with approximately 3 to 12 inches of standing water.

The 2022 Annual Drinking Water Quality Report, conducted by the White Plains Department of Public Works, assessed the water quality and concentration of chemical contaminants within White Plains Reservoir No. 2. The water quality report determined that White Plains Reservoir No. 2 contains no discrete Potential Contaminant Sources and none of the land cover contaminant prevalence ratings were above the "low-risk"[4] category. However, because microbial contaminants in reservoirs are generally highly mobile, this drinking water intake has a susceptibility rating of "medium high" for protozoa and enteric bacteria and viruses (New York State Department of Health [NYSDOH]) (City of White Plains 2022).[5]

TERRESTRIAL COMMUNITIES

This section primarily focuses on cover types associated with terrestrial communities. While wetlands and surface water cover types are described above according to the NYSDEC and NWI mapping and field observations, they are also listed in **Table 2** below and depicted in **Figures 5a** and **5b** for completeness.

The ecological communities mapping for the ½-Mile FWIA Study Area outside of the Project Study Area is based on Westchester County land use mapping data and a review of aerial imagery (see **Figures 5a** and **5b**). Ecological communities mapping was conducted in the Project Study Area during the October 18, 2023 site investigation. Therefore, the mapped categories outside of the Project Study Area but within the ½-Mile FWIA Study Area are limited to general land use descriptors such as "commercial," "residential," or "forested" land use types. All terrestrial ecological communities mapped in the Project Study Area are documented according to the *Ecological Communities of New York State* (Edinger et al. 2014), as described above. Mapping of ecological communities outside of the Project Study Area was based on the Westchester County land use mapping data. A full list of plant species observed in the Project Study Area is provided in **Appendix A**, **Table 1**.

[4] A water supply is considered "low risk" when the contaminant prevalence and natural sensitivity of the water supply are both assessed as "low." A "low" sensitivity water supply is determined when the groundwater recharge rate of the water supply falls outside the selected time-of-travel for any given contaminant. Time-of-travel reflects the time required by water molecules in a groundwater flow system to progress along the flow path; shorter times-of travel generally reflect less opportunity for natural filtration or dilution of contaminants (NYSDOH 1999).

[5] A water supply is considered "medium risk" under either of the following conditions: the contaminant prevalence is assessed as high and the natural sensitivity of the water source to contamination is low, or the contaminant prevalence is assessed as medium and the natural sensitivity of the water source to contamination is medium. A "medium" sensitivity water supply is determined when the groundwater recharge rate of the water supply falls within the selected time-of-travel for any given contaminant, or the aquifer from which the water supply is drawn experiences high hydraulic conductivity (e.g., contained within fractured or soluble bedrock, which provides less of a physical barrier to potential contamination) (NYSDOH 1999).

½-Mile FWIA Study Area

Figures 5a and **5b** show land use types within the ½-Mile FWIA Study Area that surround the Project Study Area. As shown on **Figures 5a** and **5b**, most of the west, northwest, and southwest portions of the ½-Mile Study Area are developed with residential, commercial, and community services, and the majority of the east, northeast, and southeast portions of the ½-Mile FWIA Study Area are mostly undeveloped and consist of forest and reservoirs.[6]

Project Study Area

Terrestrial ecological communities observed within the Project Study Area are best characterized as terrestrial cultural and forested upland communities. Terrestrial cultural communities are those that are created or maintained by human activities, or modified by humans such that they are substantially different from their original composition. Forested uplands are woodlands that contain less than 50% rock outcrops and have more than 60% tree canopy cover (Edinger et. al 2014). Forested upland and terrestrial cultural communities identified within the Project Study Area are listed and quantified in **Table 2** below.

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[6] The forest and reservoirs are identified by the Westchester County land use data as "Public Services," but were mapped as forest and surface waters based on a review of aerial imagery for the purposes of describing the land use types of the ½-Mile Study Area.

Table 2
Ecological Communities Coverage Within the Project Study Area

Ecological Community	Acreage	Percent Cover
Surface Waters & Wetlands		
Reservoir/Artificial Impoundment	16.2	18.6
Common Reed Marsh	11.5	13.2
Potential Vernal Pool	1.0	1.1
Intermittent Stream	0.1	0.1
Total Wetland/Surface Waters Communities	**28.7**	**33.0**
Terrestrial Ecological Communities		
Forested Uplands		
Beech-maple Mesic Forest	25.6	29.4
Successional Southern Hardwoods	11.0	12.6
Hemlock-northern Hardwoods Forest	4.3	5.0
Total Forested Uplands	***40.9***	***47.0***
Terrestrial Cultural		
Paved Road/Path	7.1	8.2
Mowed Lawn with Trees	3.3	3.8
Mowed Lawn	3.0	3.4
Mowed Roadside/Pathway	1.8	2.1
Rural Structure Exterior	1.7	2.0
Unpaved Road	0.3	0.4
Riprap/Erosion Control Roadside	0.1	0.1
Total Terrestrial Cultural	***17.3***	***20.0***
Total Terrestrial Communities	**58.5**	**67.0**

Notes: All acreages and percent coverages are approximate.
These are aquatic communities and are documented in the wetlands and surface sections above. They are noted here for completeness and consistency with **Figures 5a** and **5b**.

Sources: (1) Observations made during October 18, 2023 site investigation.
(2) Edinger et al. (2014). Ecological Communities of New York State Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

As indicated in **Table 2** above, there are seven terrestrial cultural communities (i.e., paved road/path, mowed lawn, mowed lawn with trees, mowed roadside/pathway, rural structure exterior, unpaved road, and riprap/erosion control roadside) within the Project Study area. Collectively, these terrestrial cultural communities comprise approximately 17.3 acres, or 20% of the Project Study Area, and are shown on **Figures 5a** and **5b**. These terrestrial cultural communities within the Project Study Area were observed to contain limited vegetation.

Three forested uplands communities (i.e., beech-maple mesic forest, hemlock-northern hardwoods forest, and successional southern hardwoods) make up approximately 41 acres, or 47% of the Project Study Area, as indicated in **Table 2** and shown in **Figures 5a** and **5b**. The vegetative composition of the forested upland communities is discussed in further detail below.

Beech-maple Mesic Forest

As indicated in **Table 2** and shown in **Figures 5a** and **5b**, a beech-maple mesic forest occupies approximately 25.6 acres of the south, southeast, and east portions of the Project Study Area, where it continues beyond the Project Study Area. A beech-maple mesic forest is a broadly defined and varied forest community that typically occurs on moist, well-drained, and usually acidic soils, defined by Edinger et al. (2014) as "a northern hardwood forest with sugar maple (*Acer saccharum*) and American beech (*Fagus grandifolia*) codominant." Within the herbaceous layer, there is a wide variety of characteristic herbs found in this community, including woodferns (*Dryopteris intermedia*, *Dryopteris carthusiana*, *Dryopteris marginalis*), Canada mayflower (*Maianthemum canadense*), Christmas fern (*Polystichum acrostichoides*), white wood aster (*Eurybia divaricata*), white snakeroot (*Ageratina altissima*), and hay-scented fern (*Dennstaedtia punctilobula*), among others (Edinger et al. 2014).

Within the Project Study Area, sugar maple and American beech occur as codominant species, with red maple (*Acer rubrum*) and American hornbeam (*Carpinus caroliniana*) present throughout. Herbaceous species observed in the ground layer include white wood aster (*Eurybia divaricata*), Christmas fern (*Polystichum acrostichoides*), white snakeroot (*Ageratina altissima*), and hayscented fern (*Dennstaedtia punctilobula*). The understory of the beech-maple mesic forest community within the Project Study Area is over-browsed due to high white-tailed deer (*Odocoileus virginianus*) densities. This community is relatively undisturbed and intact, although invasive species (e.g., Japanese knotweed) from the adjacent successional southern hardwoods community (described below) is encroaching into the community in some locations, particularly in the vicinity of the FDDS area. This beech-maple mesic forest continues east and south beyond the Project Study Area.

Successional Southern Hardwoods

As indicated in **Table 2** and shown in **Figures 5a** and **5b**, a successional southern hardwoods community occupies 11 acres in the vicinity of Old Orchard Street, the FDDS area, East Pond, and the Orchard Street Pump Station within the Project Study Area. A successional southern hardwoods forest is defined as "a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed." This is a broadly defined and varied community. Any one of the following tree species may be dominant or codominant within successional southern hardwood communities: American elm (*Ulmus americana*), slippery elm (*Ulmus rubra*), white ash, red maple, box elder (*Acer negundo*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), gray birch (*Betula populifolia*), hawthorns (*Crataegus spp*.), eastern red cedar (*Juniperus virginiana*), and chokecherry (*Prunus virginiana*). Introduced species, including black locust (*Robinia pseudoacacia*), tree of heaven (*Alianthus altissima*), and buckthorn (*Rhamnus cathartica*) are also commonly found within this community type (Edinger et al. 2014). Characteristic plants of the herbaceous layer are not defined for this community.

All of the tree species described above were observed in the successional southern hardwoods forests of the Project Study Area. Black locust, red maple, and box elder were identified as dominant tree species. Although Edinger et al. (2014) does not provide a characteristic herb species list for the successional southern hardwoods community, common mugwort (*Polystichum acrostichoides*), foxtails (*Alopecurus spp*.), goldenrods (*Solidago spp*.), and Japanese knotweed (*Reynoutria japonica*) were observed within this community. The understory of the successional southern hardwoods forest community within the Project Study Area is over-browsed due to high deer densities. As shown on **Figures 5a** and **5b**, this community forms a vegetated buffer between the terrestrial cultural communities and other upland hardwood forests of the Project Study Area.

Hemlock-northern Hardwoods Forest

As indicated in **Table 2** and shown in **Figures 5a** and **5b**, a hemlock-northern hardwoods forest covers 4.3 acres of the Project Study Area, with the majority bordering the eastern shoreline of White Plains Reservoir No. 2 and continuing north and northeast beyond the border of the Project Study Area. The hemlock-northern hardwoods forest community is defined as "a mixed forest that typically occurs on middle to lower slopes of ravines, on cool, mid-elevation slopes, and on moist, well-drained sites at the margins of swamps." In any one stand within this community, eastern hemlock (*Tsuga canadensis*) is codominant with any one to three of the following: sugar maple, red maple, yellow birch (*Betula alleghaniensis*), black birch (*Betula lenta*), American beech, red oak (*Quercus rubra*), white ash (*Fraxinus americana*), chestnut oak (*Quercus montana*), white oak (*Quercus alba*), or white pine (*Pinus strobus*). Characteristic herb species observed in the ground layer include marginal wood fern (*Dryopteris marginalis*), Christmas fern, and white wood aster (Edinger et al. 2014).

The dominant and codominant tree and ground layer species observed in this community match the species described in the definition above. Eastern hemlock was observed to occur as codominant with sugar maple, black birch, and American basswood (*Tilia americana*) throughout this community. Characteristic herb species observed in the herbaceous layer include white wood aster, Christmas fern, and marginal wood fern. The understory of the hemlock-northern hardwoods forest community within the Project Study Area is over-browsed due to high deer densities. This hemlock-northern hardwoods forest continues north beyond the Project Study Area.

WILDLIFE OBSERVED & EXPECTED TO OCCUR WITHIN EACH COVERTYPE

The potential for bird species to occur within the Project Study Area was assessed through a review of the NYSDEC 2000-2005 (complete) and 2020-2024 (ongoing) Breeding Bird Atlases (see **Appendix A**, **Table 2**). Potential reptile and amphibian species presence was assessed through a review of the NYSDEC Herp Atlas for the White Plains USGS Quadrangle, which contains the Project Study Area. As described above, a wildlife biologist conducted a wildlife investigation within the Project Study Area on October 9, 2023 to document observations of wildlife species and overall habitat quality. In addition, incidental wildlife observations were made by plant/wetland ecologists during the October 18, 2023 site investigation.

Habitat Quality

The wetland, surface waters, and terrestrial ecological communities described above provide habitat to wildlife in the Project Study Area and its vicinity (e.g., the 2-Mile FWIA Study Area). However, even though the hemlock-northern hardwoods and beech-maple mesic forest communities represent intact, relatively undisturbed habitats within the Project Study Area, from a wildlife perspective these habitats are relatively small and degraded by fragmentation due to their proximity to roadways and surrounding development. As a result, the understories of these communities were observed to be over-browsed due to high deer densities. For these reasons, the habitats of the Project Study Area have the potential to support wildlife that are tolerant of moderate levels of fragmentation and are common to suburban landscapes in southern New York State.

Birds

A full list of bird species documented by the NYSDEC Breeding Bird Atlas for the atlas blocks containing the Project Study Area (Blocks 5954B and 5954D, 2000-2005; White Plains CE Block,

2020-2024) is available in **Appendix A**, **Table 2**. **Table 3** lists bird species with the potential to use the ecological communities within the Project Study Area for breeding and identifies birds observed within the Project Study Area during the October 9, 2023 and October 18, 2023 wildlife and site investigations.

Table 3
Bird Species with the Potential to Breed and Bird Species Observed within the Project Study Area by Ecological Community

Common Name	Scientific Name
Forested Uplands	
Tufted titmouse	*Baeolophus bicolor*
Red-tailed hawk	*Buteo jamaicensis*
Red-shouldered hawk	*Buteo lineatus*
Veery	*Catharus fuscescens*
Northern cardinal*	*Cardinalis cardinalis**
Northern flicker^	*Colaptes auratus*^
Eastern wood pewee	*Contopus virens*
Blue jay*^	*Cyanocitta cristata**^
Downy woodpecker*^	*Dryobates pubescens**^
Gray catbird	*Dumetella carolinensis*
Wood thrush	*Hylocichla mustelina*
Baltimore oriole	*Icterus galbula*
Eastern screech owl	*Megascops asio*
Northern mockingbird*^	*Mimus polyglottos**^
Great crested flycatcher	*Myiarchus crinitus*
Scarlet tanager	*Piranga olivacea*
Black-capped chickadee*^	*Poecile atricapillus**^
Kinglet^	*Regulus* sp.^
Eastern phoebe^	*Sayornis phoebe*^
Ovenbird	*Seiurus aurocapilla*
American redstart	*Setophaga ruticilla*
White-breasted nuthatch*	*Sitta carolinensis**
Barred owl	*Strix varia*
Carolina wren*	*Thryothorus ludovicianus**
House wren*	*Troglodytes aedon**
American robin*	*Turdus migratorius**
Red-eyed vireo	*Vireo olivaceus*
Mourning dove^	*Zenaida macroura*^
White-throated sparrow*	*Zonotrichia albicollis**

Table 3
Bird Species with the Potential to Breed and Bird Species Observed within the Project Study Area by Ecological Community (Cont.)

Common Name	Scientific Name
Wetlands and Surface Waters	
Red-winged blackbird*^	*Agelaius phoeniceus*^
Canada goose^	*Branta canadensis*^
Green heron	*Butorides virescens*
Willow flycatcher	*Empidonax traillii*
Common yellowthroat	*Geothlypis trichas*
Song sparrow*^	*Melospiza melodia*^
Yellow warbler	*Setophaga petechia*
Eastern kingbird	*Tyrannus tyrannus*

Notes: * Indicates a species identified within the Project Study Area during the October 9, 2023 wildlife investigation.

^ Indicates a species identified within the Project Study Area during the October 18, 2023 site investigation.

While red-shouldered hawk and great crested flycatcher have the potential to use the ecological communities within the Project Study Area for nesting habitat, these species were not documented by the NYSDEC Breeding Bird Atlas within the atlas blocks (5954D and 5954B [2000-2005]; White Plains CE [2020-2024]) containing the Project Study Area.

Sources: Habitat and species determinations made by AKRF wildlife biologist following the October 9, 2023 wildlife investigation.

Reptiles and Amphibians

A full list of reptile and amphibian species documented by the NYSDEC Herp Atlas as occurring within the White Plains USGS Quadrangle, which contains the Project Study Area, is available in **Appendix A**, **Table 3**. Available habitat in Project Study Area includes upland forest, including forest bordering surface waterbodies (e.g., White Plains Reservoir No. 2 and East Pond), surface waters, and wetlands. Reptiles and amphibians with the potential to occur within the Project Study Area include common garter snake (*Thamnophis sirtalis*), milk snake (*Lampropeltis t. triangulum*), black rat snake (*Elaphe o. obsoleta*), northern red-backed salamander (*Plethodon cinereus*), and wood frog (*Lithobates sylvaticus*). The potential vernal pools in the Project Study Area may be used for breeding habitat by wood frog and spotted salamander (*Ambystoma maculatum*) but are unlikely to support other vernal pool-obligate amphibians due to the fragmentation and degradation of the surrounding forest.

Reptile and amphibian species with the potential to use the surface waters, particularly East Pond and the common reed marsh within the Project Study Area, include bullfrog (*Lithobates catesbeianus*), eastern newt (*Notophthalmus viridescens*), garter snake, gray treefrog (*Dryophytes versicolor*), green frog (*Lithobates clamitans*), northern water snake (*Nerodia sipedon*), red-eared slider (*Trachemys scripta elegans*), common snapping turtle (*Chelydra s. serpentina*), and northern spring peeper (*Pseudacris crucifer*). A snapping turtle was observed within the FDDS during the October 9, 2023 wildlife investigation. Gray treefrog and green frog were observed within the successional southern hardwoods forest in the vicinity of the FDDS during the October 18, 2023 site investigation.

Mammals

Mammals expected to occur within the upland forests of the Project Study Area include big brown bat (*Eptesicus fuscus*), eastern chipmunk (*Tamias striatus*), eastern cottontail (*Sylvilagus floridanus*), eastern red bat (*Lasiurus borealis*), eastern coyote (*Canis latrans*), gray squirrel (*Sciurus carolinensis*), little brown bat (*Myotis lucifugus*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), white-footed mouse (*Peromyscus leucopus*), and white-tailed deer (*Odocoileus virginianus*). Muskrat (*Ondatra zibethicus*) likely occurs in surface waters and common reed marsh within the Project Study Area. Eastern cottontail, white-tailed deer, gray squirrel, eastern chipmunk, and eastern meadow vole *(Microtus pennsylvanicus*) were observed within the terrestrial cultural (e.g., the unpaved road, mowed lawn, and mowed lawn with trees communities) and upland forest communities (e.g., the beech-maple mesic forest and successional southern hardwoods) in the Project Study Area during the October 18, 2023 site investigation.

Aquatic Biota

The presence of aquatic biota within the 2-Mile FWIA Study Area and Project Study Area was assessed through a review of available NYSDEC online resources and Edinger et al. (2014) habitat literature.

White Plains Reservoirs No. 1 and No. 2 were created by the partial damming of a Bronx River tributary, which flows south from its source, the Kensico Reservoir which is approximately 1.4 miles upstream of the Project Study Area. Kensico Reservoir and White Plains Reservoir No. 2 discharge to the Bronx River (see **Figure 4**). NYSDEC identifies lake trout (*Salvelinus namaycush*), brown trout (*Salmo trutta*), largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), and panfish within the Kensico Reservoir.

As described above, White Plains Reservoir No. 2 and the East Pond are best characterized as reservoir/artificial impoundment. Based on the reservoir/artificial impoundment ecological community characteristics described by Edinger et al. (2014), the fish species with potential to occur in this ecological community include chain pickerel (*Esox niger*), and other pikes (*Esocidae*), brown bullhead (*Ameiurus nebulosus*), yellow bullhead (*A. natalis*), bluegill (*Lepomis* macrochirus), pumpkinseed (*Lepomis gibbosus*), golden shiner (*Notemigonus crysoleucas*), fathead minnow (*Pimephales promelas*), and rainbow trout (*Salmo gairdneri*).

THREATENED, ENDANGERED & SPECIAL CONCERN SPECIES

A review of the USFWS Information for Planning and Consultation (IPaC) system for federally threatened and endangered species, conducted on December 15, 2023 (see **Appendix B**), returned three federally listed animal species as having the potential to occur within the 2-Mile FWIA Study Area (see **Table 4**). A review of the NYSDEC Environmental Assessment Form (EAF) mapper, conducted on December 13, 2023 (see **Appendix C**), indicated that two state-listed animals (see **Table 4**) and six state-listed plants have the potential to occur within the 2-Mile FWIA Study Area (see **Table 5**). In addition, two state-listed exploitably vulnerable[7] plant species were observed within the Project Study Area (see **Table 5**) during the October 18, 2023 field investigation.

[7] Exploitably vulnerable plants are likely to become threatened in the near future if causal factors continue unchecked (6 CRR-NY 193.3).

Wildlife

Table 4 identifies the federally and state-listed threatened and endangered wildlife documented with the potential to occur within the 2-Mile FWIA Study Area.

Table 4
Federally and State-listed Wildlife Documented in the 2-Mile FWIA Study Area

Wildlife Species	Federal Status	State Status	Habitat	Potential to Occur in Project Study Area
Indiana bat (*Myotis sodalis*)	Endangered	Endangered	Riparian, bottomland/floodplain, upland forests often within agricultural landscapes. Typically roost near forest gaps and edges beneath loose bark or in crevices within dead, dying, and/or decayed trees. Maternity colonies typically located near abundant freshwater sources.(1)	Low Potential To Occur – Forest edges near reservoir
Northern long-eared bat (*Myotis septentrionalis*)	Endangered	Endangered	Mature, closed canopy, deciduous or mixed forests within heavily forested landscapes usually within 60 miles of the hibernaculum. Avoids habitat edges (e.g., roads, riparian corridors, linear landscape features, urban environments).(1)	Very Low Potential To Occur – limited habitat due to fragmentation
Monarch butterfly (*Danaus plexippus*)	Candidate	Unlisted	Open meadows and fields containing abundant wildflowers, coastal dunes and beaches, manmade butterfly gardens. Larvae are reliant upon *Asclepias* spp. milkweeds, the host plant of this species.(2)	Limited Potential To Occur – *Asclepias* spp. present, but limited coverage
Peregrine falcon (*Falco peregrinus*)	Unlisted	Endangered	Nests on tall structures (e.g., cliff ledges, manmade platforms, bridges). Primarily feeds upon waterfowl.(1)	Potential To Occur – open reservoir (i.e., waterfowl)
Bald eagle (*Haliaeetus leucocephalus*)	Unlisted	Threatened	Found near large bodies of water (e.g., bays, rivers, and lakes). Perches and nests in tall, mature deciduous or coniferous trees; generally tends to avoid areas of human activity. May roost further away from food sources in search of a more sheltered, warmer area during the winter.(1)	Potential To Occur - reservoir

Sources: (1) NYNHP species profiles accessed December 2023;
(2) United States Forest Service 2023

Plants

Table 5 outlines the state-listed threatened, endangered, rare, and exploitably vulnerable plants with the potential to occur within the 2-Mile FWIA Study Area.

Table 5
State-Listed Plants with the Potential to Occur in the 2-Mile FWIA Study Area

Plant Species	State Status	Habitat	Potential to Occur in Project Study Area
American featherfoil (*Hottonia inflata*)	Threatened	Kettle ponds, vernal pools, coastal swales, ponded streams, wet soil, marshes(1)	Potential to Occur – wet soils, potential vernal pools, marshes
Small swollen bladderwort (*Utricularia radiata*)	Threatened	Small, shallow ponds surrounded by pine barrens, artificial pools, gravel pits, beaver ponds, sites suffering from eutrophication and dominated by exotics(1)	Potential to Occur – common reed marsh, reservoir/ artificial impoundments
Green screwstem (*Bartonia paniculata*)	Endangered	Level sandy or peaty acidic wetlands on the Atlantic coastal plain, wet peat and sand, within swamps, bogs, and wet meadows, coastal meadows with Sphagnum mosses(1)	No Potential to Occur – preferred habitat not present
Narrow-leaved pinweed (*Lechea tenuifolia*)	Threatened	Dry, grassy, natural or artificial open habitat (e.g., pine or oak barrens), disturbed areas (e.g., roads, firebreaks, ATV trails, runways), rocky limestone slopes and summits(1)	Potential to Occur – unpaved roads and paths
Tall beak sedge (*Rhynchospora macrostachya*)	Threatened	Acidic, sunny wetlands, pond shores, seeps, bogs, marshlands(2)	Potential to Occur – reservoir/artificial impoundment shoreline, potential vernal pools
Long-beaked beak sedge (*Rhynchospora scirpoides*)	Rare	Peaty and sandy shores and swamps, mucky or sandy soils on wetland margins, drawdown wetlands and zones at the edges of coastal plain ponds within pine barrens, boglike or inland poor fen habitat with rich, peaty, acidic, and mucky soils(1)	No Potential to Occur – preferred habitat not present
Christmas fern (*Polystichum acrostichoides*)	Exploitably Vulnerable	Rocky, forested slopes; ledges, rock outcrops; mesic hardwood or hemlock-hardwood forested slopes on generally calcareous soils, can tolerate a wide range of soil pH(3)	Observed on October 18, 2023(4)
Marginal wood fern (*Dryopteris marginalis*)	Exploitably Vulnerable	Mesic hardwood forests with rich, rocky soils(3)	Observed on October 18, 2023(4)

Sources: (1) NYNHP species profiles accessed December 2023;
(2) Flora of North America species profiles accessed December 2023;
(3) New York Flora Atlas species profiles accessed December 2023;
(4) Field observations made in the Project Study Area on October 18, 2023 site investigation.

CRITICAL ENVIRONMENTAL AREAS

A review of the NYSDEC EAF mapper was conducted to determine the presence of CEAs within the 2-Mile FWIA Study Area including the Project Study Area (see **Figure 6**).

2-Mile FWIA Study Area

Figure 6 identifies five CEAs occurring within the 2-Mile FWIA Study Area. The five CEAs present within the 2-Mile FWIA Study Area include: (1) Watershed Properties (approximately 43 acres), (2) County and State Park Lands (approximately 69.5 acres), (3) Westchester County Airport 60 Ldn Noise Contour (approximately 81.6 acres), (4) Floodplains (approximately 5.3 acres), and (5) Hilltops at or > 400 ft (approximately 48.5 acres). A portion of the Watershed Properties CEA occurs within the Project Study Area; however, the remaining four CEAs present within the 2-Mile FWIA Study Area fall entirely outside the boundaries of the Project Study Area.

Project Study Area

As discussed above, **Figure 6** indicates that the portion of White Plains Reservoir No. 2 within the Project Study Area represents approximately 7.1 acres of the Watershed Properties CEA.

SIGNIFICANT NATURAL COMMUNITIES

A review of the NYSDEC mapping for Significant Natural Communities did not indicate any significant natural communities within the vicinity of the 2-Mile FWIA Study Area, including the Project Study Area.

SOILS

Soil types were evaluated for the Project Study Area based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) mapping tool (see **Figure 7**). Surface field observations (e.g., standing water) were noted during the October 18, 2023 site investigation as part of the inspection of wetlands, surface waters, and terrestrial communities.

Project Study Area

As shown in **Figure 7**, according to the USDA NRCS WSS, the Project Study Area consists of 14 soil types (including Water [W]). These soil types and their associated drainage classifications are listed below in **Table 6**.

Table 6
Soils Identified within the Project Study Area

Soil Code	Soil Definition	Drainage Classification
ChC	Charlton fine sandy loam	Well-drained
CrC	Charlton-Chatfield complex	Well-drained
CsD	Chatfield-Charlton complex	Well-drained
CtC	Chatfield-Hollis-Rock outcrop complex	Well-drained
CuD	Chatfield-Hollis-Rock outcrop complex	Well-drained
Fr	Fredon silt loam	Poorly drained
HrF	Hollis-Rock outcrop complex	Excessively drained
KnB	Knickerbocker fine sandy loam	Excessively drained
NdA	Natchaug and Catden mucks, ponded	Excessively poorly drained
Ub	Udorthents, smoothed	Well-drained
Uc	Udorthents, wet substratum	Well-drained
Uf	Urban land (i.e., buildings/parking lot)	N/A
UvB	Urban land-Riverhead complex	Well-drained
W	Water (i.e., the reservoir)	N/A

Sources: USDA NRCS WSS mapper.

Most soils within the Project Study Area are classified as "well-drained" and "excessively well drained" (i.e., soils which do not retain water). The "Fr" and "NdA" soil types are classified as "poorly drained" and "excessively poorly drained," respectively (i.e., the soils retain water). The "Uf" and "W" soil types do not have associated drainage characteristics.

Field observations of ecological communities and drainage confirmed the presence of the "poorly drained" "Fr" and "excessively poorly drained "NdA" soils (e.g., the common reed marsh community) mapping. Observations also confirm the presence of the "W" classified soil type (e.g., White Plains Reservoir No. 2 and the East Pond). The intermittent streams identified within the Project Study Area cross through the "CtC" and "CrC" soil types.

SITE DRAINAGE

Site drainage was evaluated by reviewing topographic mapping, NYSDEC wetlands and surface waters mapping, NWI mapping, and walking the Project Study Area during the October 18, 2023 site investigation to determine the general direction of water flow.

Project Study Area

Water drainage generally follows a northwesterly direction within the Project Study Area. During periods of heavy precipitation and during wetter periods of the year (e.g., spring), stormwater within the Project Study Area may flow toward and collect in White Plains Reservoir No. 2, the East Pond, the north-flowing and west-flowing intermittent streams which drain into the East Pond, the common reed marsh to the west, and the potential vernal pools located in the eastern portion of the Project Study Area (see **Figure 8**).

OBSERVATIONS OF STRESS

As described above, the wildlife and plant ecologists reviewed the Project Study Area for primary evidence of stress to vegetation and wildlife (e.g., burnt leaves, abnormal growth, defoliation/death, discolored soils, leachate seeps, atypical odors dead or dying wildlife, etc.) during the October 2023 field investigations.

Only one area within the Project Study Area showed the potential for stress, and that was in the FDDS area where two destroyed vehicles were observed. As described within the RIR, these vehicles were utilized in firefighting training sessions conducted by the White Plains Fire Department and extinguished with AFFFs. As described in the RIR, AFFF was identified as being the potential source of PFAS contamination and evidence of chemical runoff associated with the use of AFFF has been documented in waterbodies associated with the Project Study Area. However, no signs of stress on the ground, vegetation, and wildlife were observed in the vicinity of FDDS area or any other area of the Project Study Area.

DESCRIPTION OF FISH AND WILDLIFE RESOURCE VALUE

The value that the ½-Mile and 2-Mile FWIA Study Areas and the Project Study Area provide to wildlife and humans, as described in this section, was qualitatively evaluated using observations from the October 2023 field observations, mapping data prepared for this FWIA, and a review of aerial imagery using Google Maps. The assessments of value of habitats to associated fauna and value of resources to humans use a different study area radius, as per the 1994 NYSDEC guidance. Thes study areas and value assessments are discussed below.

VALUE OF HABITAT TO ASSOCIATED FAUNA

The ½-Mile FWIA Study Area was used for the assessment of habitat to fish and wildlife.

½-Mile FWIA Study Area

The ½-Mile FWIA Study Area includes a number of natural resources that provide valuable habitat to fish wildlife. The ½-Mile FWIA Study Area contains intact forest, a common reed marsh mapped by NYSDEC as wetland W-9, and several surface waterbodies including, but not limited to, White Plains Reservoirs No. 1 and No. 2, East Pond, intermittent streams, and potential vernal pools (see **Figure 5a**). The diverse resources found within the ½-Mile FWIA Study Area, particularly to the east and northeast, have potential to provide habitat to wildlife species that are tolerant of moderate levels of fragmentation and are common to suburban landscapes in southern New York State

Project Study Area

The gravel, asphalt, and concrete portions of the terrestrial cultural communities within the Project Study Area (e.g., the unpaved road, paved road/path, rural structure exterior, and riprap/erosion control roadside ecological communities) provide poor to marginal habitat with insufficient permanent food and cover to sustain a diverse wildlife population. The vegetated terrestrial cultural communities within the Project Study Area (e.g., the mowed lawn and mowed lawn with trees communities) may provide habitat to wildlife tolerant of fragmented, disturbed habitats characterized by human activity, (e.g., gray squirrel, raccoon, white-footed mouse, northern cardinal, blue jay, song sparrow, and mourning dove). The NYSDEC and NWI-mapped common reed marsh (NYSDEC W-9 / PEM1/5E), a wetland

characterized by invasive species and disturbance, may still provide limited habitat for adaptable species such as the eastern meadow vole and red-winged blackbird.

The surface waters and forests have the potential to provide the food and habitat to most of the wildlife species that have the potential to occur within the Project Study Area. The beech-maple mesic forest, successional southern hardwoods, and hemlock-northern hardwoods forest communities provide sufficient habitat to support populations of forest-dwelling mammals and birds common to fragmented disturbed woodlands, including but not limited to white-tailed deer, eastern chipmunk, red fox, northern flicker, black-capped chickadee, and eastern phoebe. The intermittent streams, potential vernal pools, and reservoir/artificial impoundment communities provide potential foraging and breeding habitat and drinking water sources for mammals, birds, reptiles, and amphibians within the Project Study Area. These species include but are not limited to muskrat, mallard duck, belted kingfisher (*Megaceryle alcyon*), snapping turtle, gray treefrog, and green frog. The habitat available within the Project Study Area provides opportunities to support federally and State-listed threatened, endangered, and candidate species, including peregrine falcon and bald eagle (White Plain Reservoir No. 2). Habitats of the Project Study Area provide only limited habitat for Indiana bat, northern long-eared bat, and monarch butterfly.

VALUE OF RESOURCES TO HUMANS

The 2-Mile FWIA Study Area was used for the qualitative assessment of value of the ecological communities to humans, following the NYSDEC FWIA guidance. As per the guidance, human use of fish and wildlife resources includes, "hunting, fishing, wildlife observation, scientific research, and other recreational or economic activities."

2-Mile FWIA Study Area

Much of the western portion of the 2-Mile FWIA Study Area consists of commercial and residential properties, however, a number of natural resources are present throughout this study area. The 2-Mile FWIA Study Area includes intact forest to the east and northeast, Kensico Reservoir, Rye Lake, and Cranberry Lakes to the north and northeast, Silver Lake to the southeast, and White Plains Reservoirs No. 1 and No. 2 and the East Pond in the center of this study area (see **Figures 4** and **5a**). As shown in **Figure 4**, the surface waters present within the 2-Mile FWIA Study Area are classified by NYSDEC as Class A and AA waters, which as described above, are those that are a source of drinking water, culinary and food processing purposes, primary and secondary contact recreation, fishing, and are suitable for fish, shellfish, and wildlife propagation and survival. Therefore, within the 2-Mile FWIA Study Area these surface waters have the potential to provide valuable resources for human use. Based on a review of aerial imagery available through Google Maps, there are hiking trails, such as the greenway along the Bronx River Parkway that leads to Kensico Reservoir (see **Figures 5a** and **6**) and forested parklands associated with the mapped lakes shown in **Figure 1** (e.g., Cranberry Lakes and Silver Lake) within the 2-Mile FWIA Study Area. These terrestrial resources within the 2-Mile FWIA Study Area provide recreational and wildlife observation value to humans.

White Plains Reservoir No. 2 was constructed in the early 1900s and operated as a water supply source that provided potable drinking water to residents of White Plains until 2005 when it was deemed too costly to operate. While White Plains Reservoir No. 2 is not currently used as a potable supply, it provides a valuable backup water supply source that could be utilized in the future and, for this reason, it is of high value to humans. In addition, White Plains Reservoir No. 2 performs local stormwater retention, filtration, and groundwater sequestration functions, which provide value to humans. As

discussed in the RIR, a Water Withdrawal Permit Application was submitted to NYSDEC for a new in-City water supply treatment facility at the Orchard Street Pump Station that would use water from White Plains Reservoir No. 2. However, potential human exposure to contaminants (i.e., PFAS) is a concern. For these reasons, White Plains is designing and incorporating treatment methods into the proposed groundwater supply system to address the PFAS contamination so that the reservoir may be used as a backup potable drinking water source in the future. In addition, White Plains is conducting environmental sampling as part of the NYSDEC requirements to investigate and remediate the PFAS contamination under a Consent Order (CO) with the state.

Project Study Area

A number of resources present within the Project Study Area are not publicly accessible, including the forest communities, the East Pond, the common reed marsh, and White Plains Reservoir No. 2. However, the Project Study Area is partially located within a residential and commercial area, and therefore provides the potential for wildlife observations due to the habitat and natural resources present in the neighboring forested, wetland, and surface water communities. As described above, White Plains Reservoir No. 2 may be used in the future as a backup drinking water supply, and for this reason is of value to humans.

IDENTIFICATION OF APPLICABLE FISH AND WILDLIFE REGULATORY CRITERIA

In accordance with the 1994 NYSDEC FWIA guidance, applicable contaminant and natural resources federal and state regulations apply to the resources in the vicinity of the Project Study Area and are described in the following subsections.

CONTAMINANT-SPECIFIC REGULATORY CRITERIA

As described in the RIR (2023) prepared in tandem with this FWIA, an investigation was completed in accordance with the RIWP, which was prepared following the requirements included in NYSDEC DER 10 and the NYSDEC PFAS guidance document titled Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) – Under NYSDECs Part 375 Programs (April 2023). The original guidance document was released in October 2020, with revisions in January 2021, June 2021, and April 2023, and is referred to herein as the NYSDEC PFAS guidance. The soil guidance values used for the Project Study Area include the Commercial Guidance Values (CGVs) for site use and the Protection of Groundwater Guidance Values (PGWGVs). Sediment results were compared to the freshwater sediment guidance values included in the NYSDEC Screening and Assessment of Contaminated Sediments, 2014 guidance document. Groundwater and surface water results were compared to the established NYSDEC Ambient Water Quality Standards and Guidance Values (AWQSGVs). In March 2023, NYSDEC released final AWQSGVs for emerging contaminants for sources of drinking water (groundwater and surface water) and fish propagation (acute) and fish survival (chronic) aquatic life. The AWQSGVs include criteria for PFOA, PFOS, and 1,4-dioxane.

NATURAL RESOURCES REGULATORY CRITERIA

Table 7 lists the federal and state regulations pertaining to wetlands, surface waters, CEAs, federally and state listed threatened and endangered wildlife, and state-protected plant species with the potential to occur in the 2-Mile FWIA Study Area, including the Project Study Area. As described above, no NYSDEC Significant Natural Communities were documented in the 2-Mile FWIA Study Area.

Table 7
Federal and State Laws and Regulations pertaining to Fish and Wildlife Resources

Laws and Regulations	Regulates	Federal or State	Regulated within Project Study Area and 2-Mile FWIA Study Area
Clean Water Act (Section 401 and Section 404)	Wetlands, Waters of the United States	Federal	Section 404 regulates waters of the United States (WOTUS) including streams, rivers, and wetlands that meet the specified requirements defined in 33 CFR 328.3. Wetlands throughout the Project Study Area and 2-Mile FWIA Study Area that meet these requirements would be subject to Section 401 of the Clean Water Act.
Endangered Species Act	Threatened and Endangered Species	Federal	Prohibits the importation, exportation, taking, possession, and other activities involving illegally taking a species, and interstate or foreign commercial activities. Applies to federally listed species with the potential to occur in the 2-Mile FWIA Study Area, including Indiana bat and northern long-eared bat.
Article 24, New York State Freshwater Wetlands Act	Wetlands	State	Wetlands greater than 12.4 acres or wetlands deemed special, are regulated including a 100-foot adjacent area. Wetlands listed within **Table 1**, and other wetlands that meet the state criteria would be subject to Article 24.
Article 15 Protection of Waters (6 NYCRR Part 608)	Navigable Waterbodies and streams	State	6 NYCRR Part 608.2 also regulates disturbances to streams based on the classification of the stream. According to NYCRR, the portion of White Plains Reservoir No. 2 and the East Pond are Class "A" waterbodies. Class "A" waters are protected under Article 15. Article 15 also protects waters that are considered “navigable”. Some aquatic resources throughout the 2-Mile FWIA Study Area may also be considered “navigable waters”; however, further investigation and delineation of these aquatic resources would be required in order determined if they meet the criteria of “navigable waters”.
New York State Conservation Law (6 NYCRR Part 617.14 [g])	Critical Environmental Areas	State	A total of five CEAs occur within the 2-Mile FWIA Study Area: Watershed Properties, County and State Park Lands, Westchester County Airport 60 Ldn Noise Contour, Floodplains, and Hilltops at or >400 ft. The Watershed Properties CEA encompasses the White Plains Reservoir No. 2 present in the Project Study Area.
New York State Conservation Law (6 NYCRR Part 182.5)	Endangered, Threatened, and Special Concern Species	State	Indiana bat, northern long-eared bat, peregrine falcon, and bald eagle
New York State Conservation Law (6 NYCRR Part 193.3)	Removal of Trees and Protect Plants	State	American featherfoil, small swollen bladderwort, green screwstem, narrow-leaved pinweed, tall beak sedge, long-beaked beak sedge, marginal wood fern, Christmas fern.

CONCLUSIONS

As per the 1994 NYSDEC guidance, this FWIA was prepared in tandem with the RIR, which was developed to address contamination associated with the FDDS site. As described in further detail within the RIR, AFFFs were used during fire fighter training sessions on the FDDS site and have been documented as potential sources of PFAS contamination. A desktop review of the ½-Mile and 2-Mile FWIA Study Areas was conducted for wetlands, surface waters, aquatic biota, threatened and endangered species, soils, and site drainage. On October 9, 2023, a wildlife biologist conducted a

habitat and wildlife investigation within the Project Study Area, including the FDDS site, to document wildlife observed and expected to occur within each terrestrial community cover type. On October 18, 2023, a team of two wetland and plant ecologists conducted a site investigation to confirm desktop analyzed resources, document and map terrestrial and wetland/surface water communities, dominant plant species, and observations of stress associated with contamination throughout the Project Study Area, including the FDDS site. The desktop analyses and field investigations confirmed that there are valuable natural resources within the ½-Mile and 2-Mile FWIA Study Areas, as well the Project Study Area for fish and wildlife and human use. This FWIA fulfills the requirements of the impact assessment process outlined in Step 1 of the 1994 NYSDEC FWIA guidance. Further information regarding the extent of contamination associated with the FDDS site can be found within the RIR.

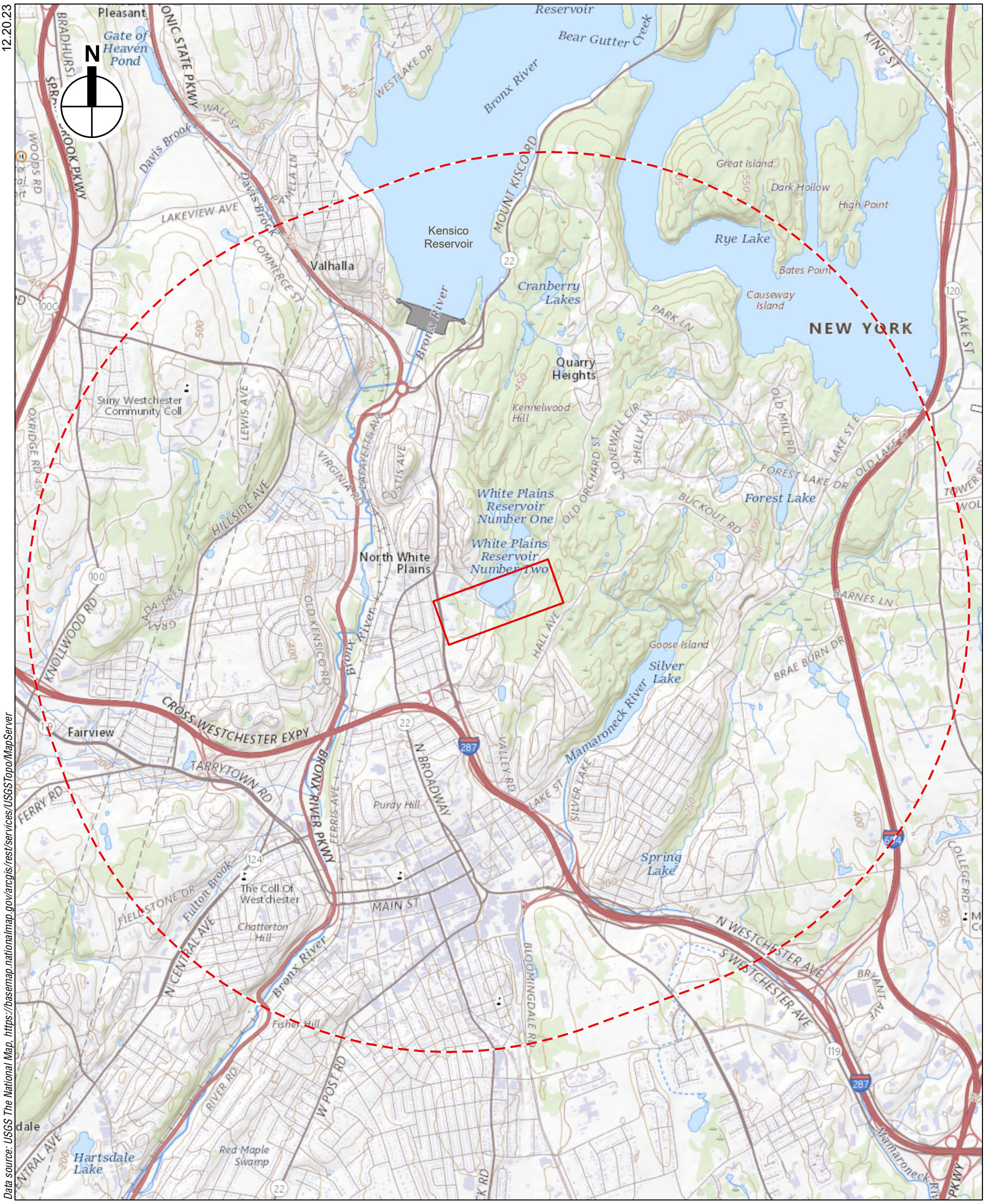
ATTACHMENTS AND APPENDICES

- **Attachment 1**: Figures
- **Attachment 2**: References
- **Appendix A**: Supplemental Tables
- **Appendix B**: United States Fish and Wildlife Service Information for Planning and Consultation (IPAC) Threatened and Endangered Species Results
- **Appendix C**: NYSDEC Environmental Assessment Mapper New York Natural Heritage Program Threatened and Endangered Species Results

ATTACHMENT 1

FIGURES

12.20.23



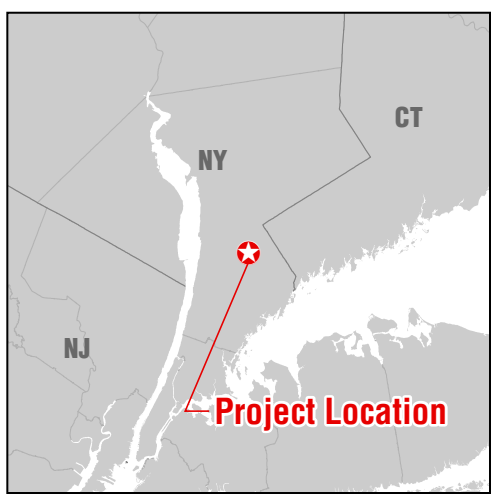
Data source: USGS The National Map, https://basemap.nationalmap.gov/arcgis/rest/services/USGSTopo/MapServer

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Project Study Area

2-Mile FWIA Study Area

Approximate coordinates of Fire Department Drill School:
41°03'14"N 73°45'24"W



USGS Topographic Map – White Plains and Glenville Quadrangle

FWIA

Figure 1

12.20.23



Project Study Area

Tax Parcels

10-ft Contour Lines

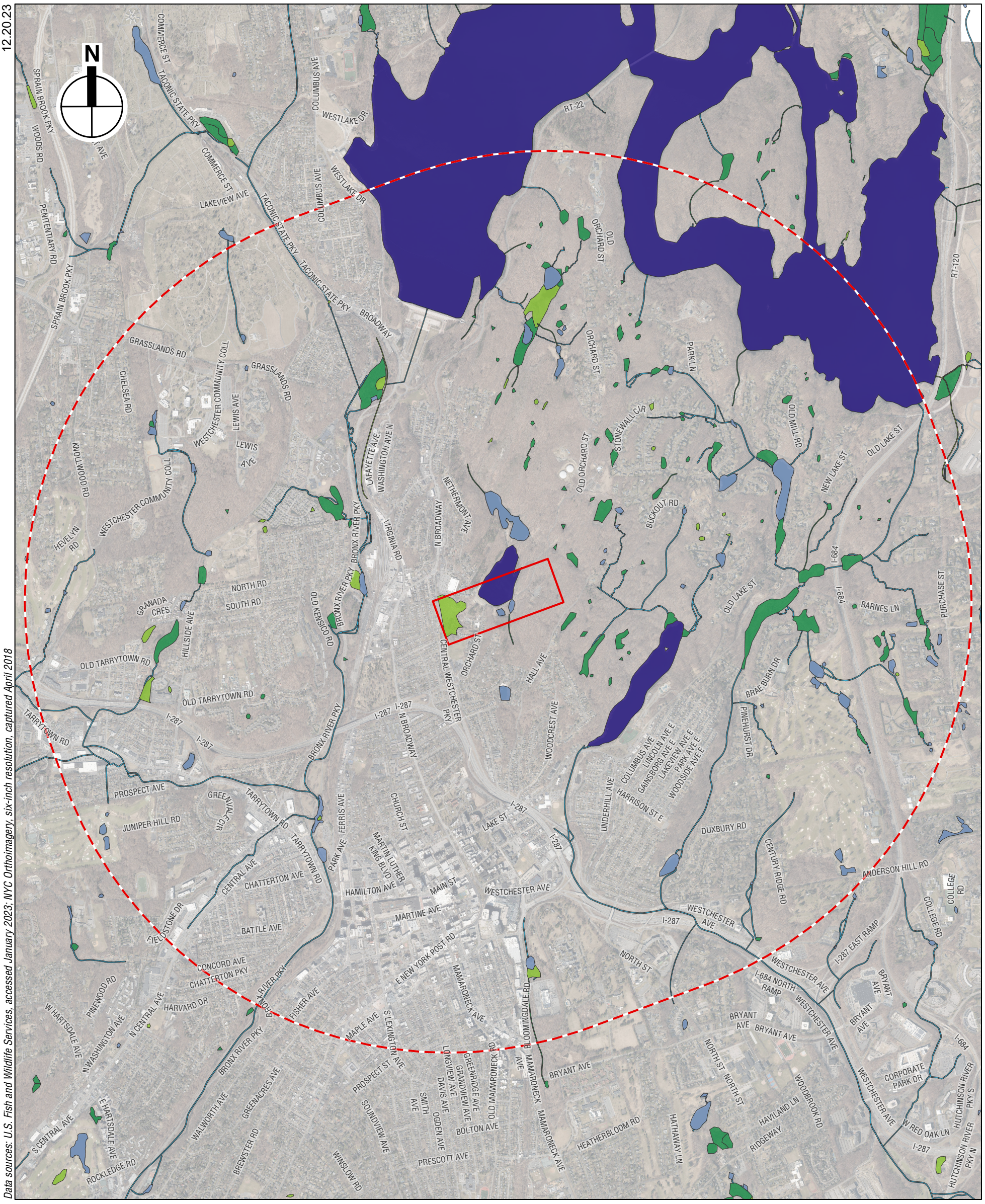
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FWIA

Project Study Area

Figure 2

12.20.23



Data sources: U.S. Fish and Wildlife Services, accessed January 2023; NYC Orthoimagery, six-inch resolution, captured April 2018

- Project Study Area
- 2-Mile FWIA Study Area
- Estuarine and Marine Deepwater (E1, M1)
- Estuarine and Marine Wetland (E2, M2)
- Freshwater Emergent Wetland (PEM)
- Freshwater Forested/Shrub Wetland (PFO, PSS)
- Freshwater Pond (PUB, PAB)
- Lake (L)
- Other (Pf, PML, PRB)
- Riverine (R)

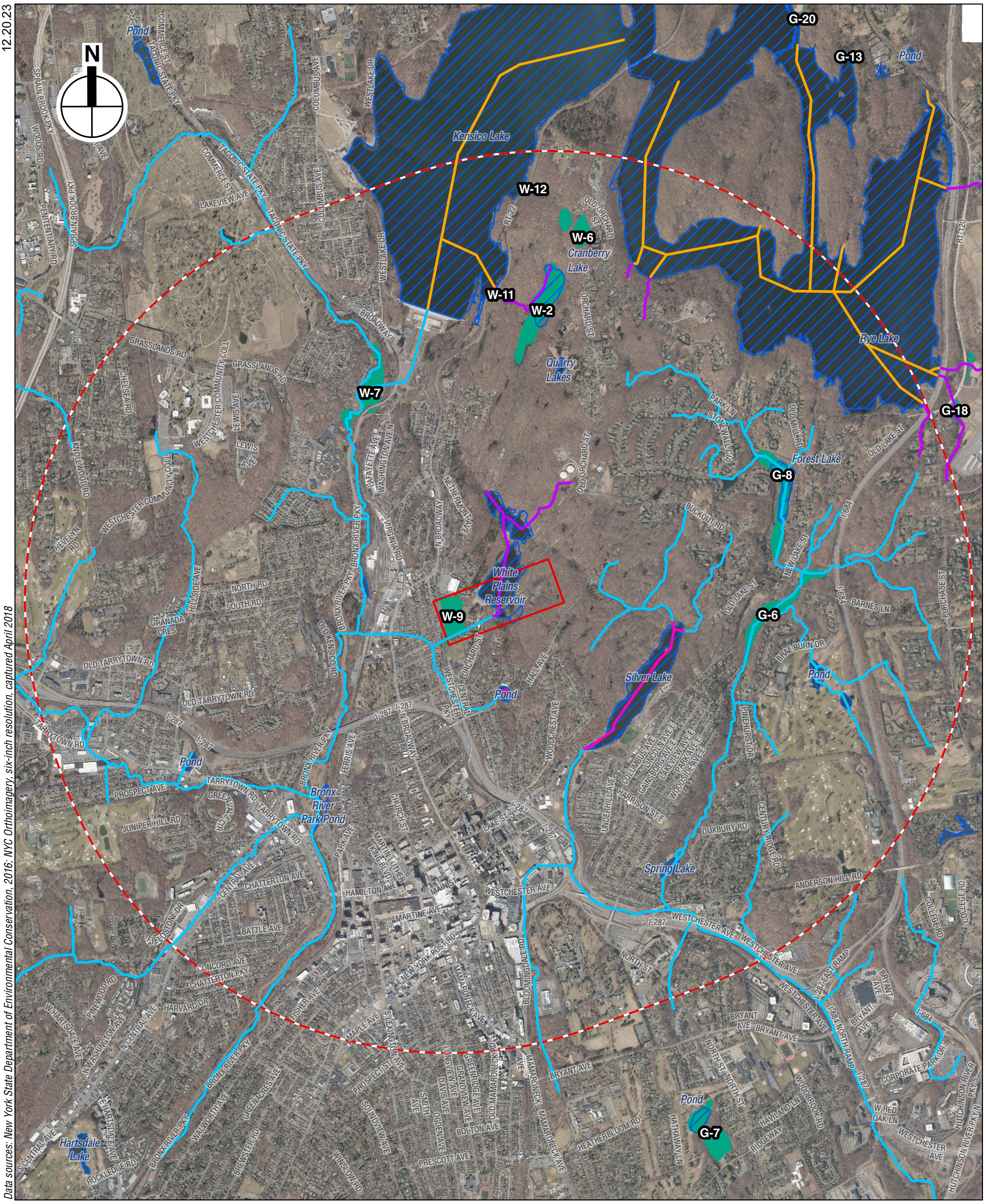
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NWI Wetlands

FWIA

Figure 3

12.20.23



Data sources: New York State Department of Environmental Conservation, 2016; NYC Orthoimagery, six-inch resolution, captured April 2018

Project Study Area

FWIA Study Area (2-Miles)

Freshwater Wetlands (NYSDEC)

Surface Water - Lake/Pond/Reservoir

NYSDEC Water Quality Classification

Class A

Class AA

Class B

Class C

0 4,000 FEET

NYSDEC Wetlands and Surface Waters

FWIA

Figure 4

12.20.23



Project Study Area

1/2-Mile FWIA Study Area

Ecological Communities

- *Beech-maple Mesic Forest*
- *Hemlock-northern Hardwoods Forest*
- *Successional Southern Hardwoods*
- *Unmapped Potential Vernal Pool*
- *Common Reed Marsh* *mapped by NYSDEC as W-9
- *Reservoir/Artificial Impoundment*
- *Unmapped Intermittent Stream*
- *Mowed Lawn*
- *Mowed Lawn with Trees*
- *Mowed Roadside/Pathway*
- *Unpaved Road*
- *Paved Road/Path*
- *Rural Structure Exterior*
- *Riprap/Erosion Control Roadside*

Land Use

- *Commercial*
- *Community Services*
- *Industrial*
- *Public Services*
- *Recreation & Entertainment*
- *Residential*
- *Vacant Land*
- *Forested*
- *Surface Water*

0 1,000 FEET

Note: Ecological communities within the Project Study Area were classified based on field verification. Land use types within the 1/2-Mile FWIA Study Area, outside of the Project Study Area, were identified using Westchester County GIS data and aerial imagery

FWIA

Ecological Communities and Land Use

Figure 5a

12.20.23



Project Study Area

Ecological Communities

- *Beech-maple Mesic Forest*
- *Hemlock-northern Hardwoods Forest*
- *Successional Southern Hardwoods*
- *Unmapped Potential Vernal Pool*
- *Common Reed Marsh* *mapped by NYSDEC as W-9
- *Reservoir/Artificial Impoundment*
- *Unmapped Intermittent Stream*
- *Mowed Lawn*
- *Mowed Lawn with Trees*
- *Mowed Roadside/Pathway*
- *Unpaved Road*
- *Paved Road/Path*
- *Rural Structure Exterior*
- *Riprap/Erosion Control Roadside*

Land Use

- *Commercial*
- *Community Services*
- *Industrial*
- *Public Services*
- *Recreation & Entertainment*
- *Residential*
- *Vacant Land*
- *Forested*
- *Surface Water*

0 400 FEET

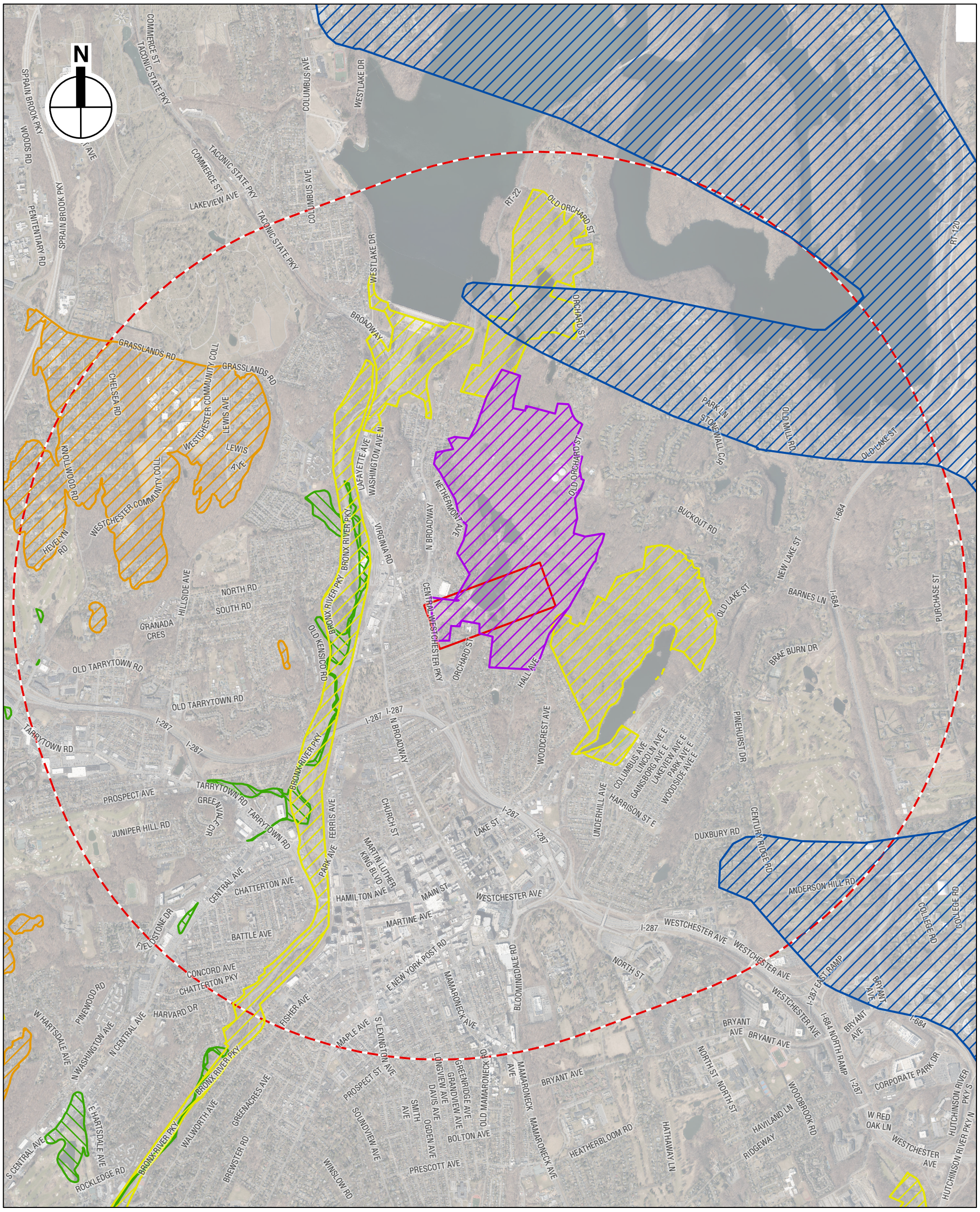
Note: Ecological communities within the Project Study Area were classified based on field verification. Land use types within the 1/2-Mile FWIA Study Area, outside of the Project Study Area, were identified using Westchester County GIS data and aerial imagery

FWIA

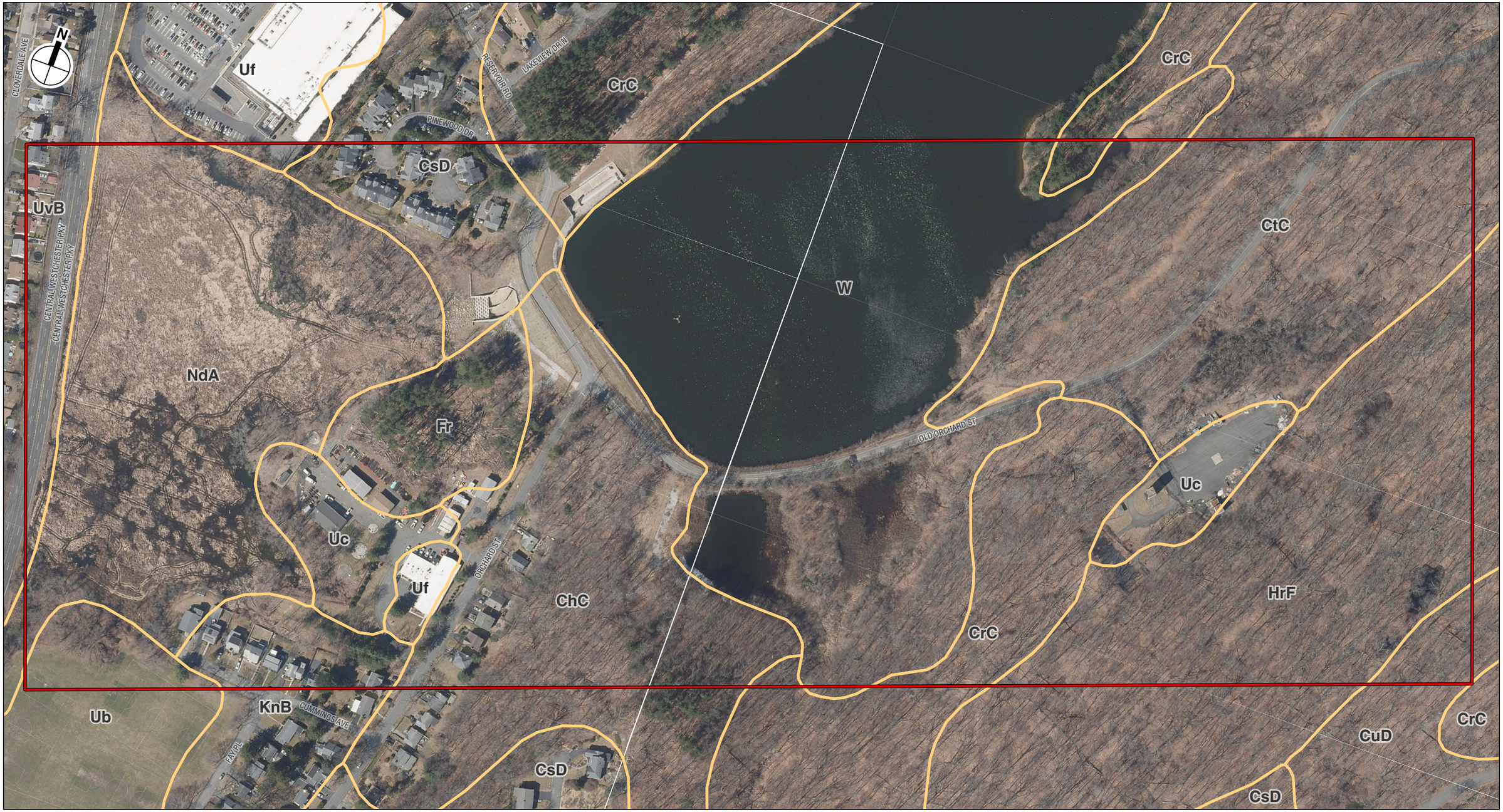
Ecological Communities

Figure 5b

12.20.23


N
COMMERCE ST
TACONIC STATE PKY
SPRAIN BROOK PKY
WOODS RD
PENITENTIARY RD
COLUMBUS AVE
WESTLAKE DR
LAKEVIEW AVE
RT-22
OLD ORCHARD ST
RT-120
BROADWAY
GRASSLANDS RD
CHELSEA RD
KNOLLWOOD RD
WESTCHESTER COMMUNITY COLL
LEWIS AVE
PARK LN
STONEWALL CLB
OLD MILL RD
OLD LAKE ST
LAFAYETTE AVE
WASHINGTON AVE N
NETHERMONT AVE
BUCKOUT RD
I-684
NEW LAKE ST
BARNES LN
PURCHASE ST
BRONX RIVER PKY
VIRGINIA RD
CENTRAL-WESTCHESTER PKY
ORCHARD ST
HALL AVE
HILLSIDE AVE
NORTH RD
SOUTH RD
GRANADA CRES
OLD KENSICO RD
OLD TARRYTOWN RD
BRAE BURN DR
I-287
N BROADWAY
WOODCREST AVE
PINEHURST DR
COLUMBUS AVE
LINCOLN AVE E
GAINSBORG AVE E
LAKEVIEW AVE E
PARK AVE E
WOODSIDE AVE E
UNDERHILL AVE
HARRISON ST E
TARRYTOWN RD
PROSPECT AVE
GREENACRES AVE
JUNIPER HILL RD
FERRIS AVE
CHURCH ST
MARTIN LUTHER KING BLVD
LAKE ST
DUXBURY RD
CENTURY RIDGE RD
ANDERSON HILL RD
COLLEGE RD
CENTRAL AVE
CHATTERTON AVE
PARK AVE
HAMILTON AVE
MAIN ST
WESTCHESTER AVE
FIELDSTONE DR
BATTLE AVE
MARTINE AVE
I-287 EAST RAMP
BRYANT AVE
CONCORD AVE
CHATTERTON PKY
E NEW YORK POST RD
BLOOMINGDALE RD
NORTH ST
PINEWOOD RD
HARVARD DR
FISHER AVE
MAPLE AVE
S LEXINGTON AVE
MAMARONECK AVE
W HARTSDALE AVE
N WASHINGTON AVE
N CENTRAL AVE
I-684 NORTH RAMP
I-287
CORPORATE PARK DR
W RED OAK LN
HUTCHINSON RIVER PKY S
HUTCHINSON RIVER PKY N
WESTCHESTER AVE
E HARTSDALE AVE
S CENTRAL AVE
ROCKLEDGE RD
WALWORTH AVE
BREWSTER RD
WINSLOW RD
SOUNDVIEW AVE
PRESCOTT AVE
SMITH AVE
DAVIS AVE
OGDEN AVE
GREENRIDGE AVE
GRANDVIEW AVE
LONGVIEW AVE
BOLTON AVE
OLD MAMARONECK RD
HEATHERBLOOM RD
HATHAWAY LN
HAVILAND LN
RIDGEWAY
WOODBROOK RD
BRYANT AVE
NORTH ST
PROSPECT ST
GREEN LAWN CIR
TARRYTOWN RD
I-287
LAKE ST
I-287
I-287
I-287

12.20.23



Project Study Area

Soils

ChC - Charlton fine sandy loam, 8 to 15 percent slopes

CrC - Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky

CsD - Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky

CtC - Chatfield-Hollis-Rock outcrop complex, 0 to 15 percent slopes

CuD - Chatfield-Hollis-Rock outcrop complex, 15 to 35 percent slopes

Fr - Fredon silt loam

HrF - Hollis-Rock outcrop complex, 35 to 60 percent slopes

KnB - Knickerbocker fine sandy loam, 2 to 8 percent slopes

NdA - Natchaug and Catden mucks, ponded, 0 to 2 percent slopes

Ub - Udorthents, smoothed

Uc - Udorthents, wet substratum

Uf - Urban land

UvB - Urban land-Riverhead complex, 2 to 8 percent slopes

W - Water

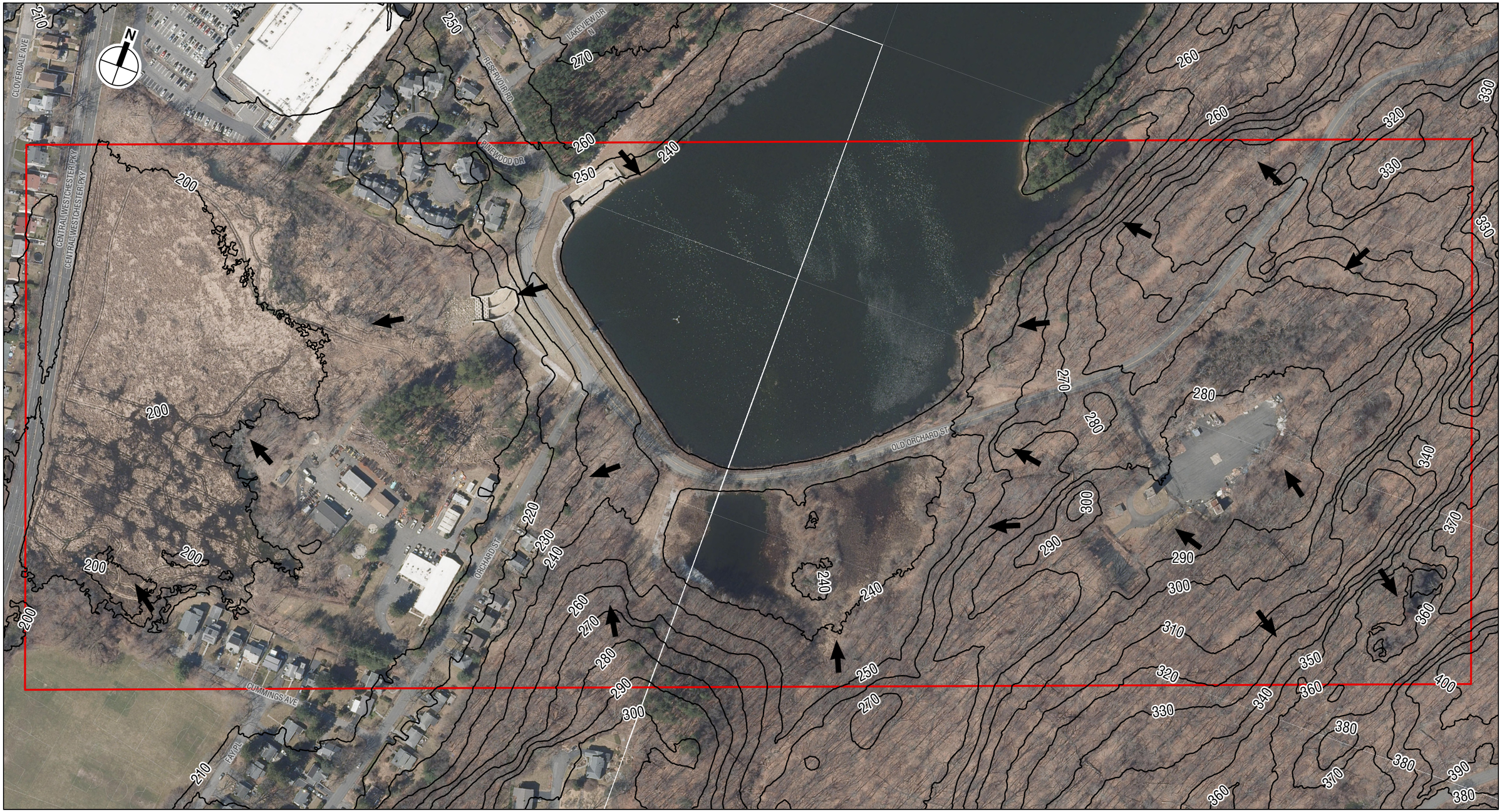
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FWIA

NRCS Soils

Figure 7

12.20.23



Project Study Area

10-ft Contour Lines

Flow Direction

0 400 FEET

FWIA

Drainage

Figure 8

12.20.23



Project Study Area

Photograph View Direction and Reference Number

0 400 FEET

FWIA

Photograph Locations
Figure 9



Shoreline of White Plains Reservoir No. 2. Facing southwest. Photograph taken on October 18, 2023 **1**



Hemlock – northern hardwood forested hillside. Facing west. Photograph taken on October 18, 2023 **2**



Open successional southern hardwoods forest. Facing northwest. Photograph taken on October 18, 2023 **3**



Potential vernal pool within beech – maple mesic forest. Facing north. Photograph taken on October 18, 2023 **4**



Beech – maple mesic forested hillside overlooking potential vernal pool. Facing west. Photograph taken on October 18, 2023 **5**



Potential vernal pool within beech – maple mesic forest. Facing northwest. Photograph taken on October 18, 2023 **6**



Potential vernal pool within beech - maple mesic forest. Facing southeast. Photograph taken on October 18, 2023 **7**



Fire Department Drill School paved area surrounded by successional southern hardwood forest. Facing northeast. Photograph taken on October 18, 2023 **8**



Intermittent stream within beech – maple mesic forest. Facing northwest. **9**
Photograph taken on October 18, 2023



Intermittent stream within beech – maple mesic forest. Facing west. **10**
Photograph taken on October 18, 2023



Beech – maple mesic forested hillside. Facing south. **11**
Photograph taken on October 18, 2023



Edge of East Pond dominated by invasive common reed (*Phragmites australis*). Facing east. **12**
Photograph taken on October 18, 2023



Reservoir well and pump within beech – maple mesic forest, east of Orchard Street and west of the East Pond. Facing northwest. Photograph taken on October 18, 2023 **13**



Successional southern hardwood forest and wetland dominated by invasive common reed (*Phragmites australis*), at the Orchard Street Pump Station. Facing southwest. Photograph taken on October 18, 2023 **14**



Successional southern hardwood forest opening and wetland dominated by invasive common reed (*Phragmites australis*), at the Orchard Street Pump Station. Facing west. Photograph taken on October 18, 2023 **15**



Paved parking lot, mowed roadside, successional southern hardwood forest edge, and reservoir overflow retention pond, at the Orchard Street Pump Station. Facing northwest. Photograph taken on October 18, 2023 **16**



Mowed lawn with trees and paved path at the Orchard Street Pump Station. Facing northeast. Photograph taken on October 18, 2023 **17**



Successional southern hardwood forest edge and wetland dominated by common reed (*Phragmites australis*), at the Orchard Street Pump Station. Facing northwest. Photograph taken on October 18, 2023 **18**

ATTACHMENT 2

REFERENCES

ATTACHMENT 2

REFERENCES

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APPENDIX A

SUPPLEMENTAL TABLES

The supplemental tables presented in this attachment support the analyses outlined in the Fish and Wildlife Impact Analysis (FWIA) performed on behalf of the City of White Plains, owner of the White Plains Fire Department Drill School (FDDS), located in White Plains, New York. The approximately 87-acre Project Study Area, which contains the FDDS area, is the primary focus of the FWIA. The supplemental tables below include a list of plant species observed within the Project Study Area during an October 18, 2023 field reconnaissance investigation (**Table 1**) and data documented by the New York State Department of Environmental Conservation (NYSDEC) on breeding birds, amphibians, and reptiles that have potential to occur within vicinity of the Project Study Area (**Tables 2** and **3**).

VEGETATION

Table 1 below includes the 83 plant species observed by AKRF ecologists within the Project Study Area during the October 18, 2023 field reconnaissance investigation.

Table 1
Vegetation Observed within the Project Study Area

Common Name	Scientific Name	Stratum
Box elder	*Acer negundo*	Tree
Japanese maple	*Acer palmatum*	Tree
Norway maple	*Acer platanoides*	Tree
Red maple	*Acer rubrum*	Tree
Sugar maple	*Acer saccharum*	Tree
Tatarian maple	*Acer tataricum*	Tree
Tree of heaven	*Ailanthus altissima*	Tree
Black birch	*Betula lenta*	Tree
Gray birch	*Betula populifolia*	Tree
American hornbeam	*Carpinus caroliniana*	Tree
Pignut hickory	*Carya glabra*	Tree
Shagbark hickory	*Carya ovata*	Tree
Catalpa	*Catalpa* sp.	Tree
American beech	*Fagus grandifolia*	Tree
Ash	*Fraxinus* sp.	Tree
Eastern red cedar	*Juniperus virginiana*	Tree
Tulip poplar	*Liriodendron tulipifera*	Tree
Princess tree	*Paulownia tomentosa*	Tree
Norway spruce	*Picea abies*	Tree
Blue spruce	*Picea pungens*	Tree
Eastern white pine	*Pinus strobus*	Tree
London planetree	*Platanus acerifolia*	Tree
American sycamore	*Platanus occidentalis*	Tree
Eastern cottonwood	*Populus deltoides*	Tree
Black cherry	*Prunus serotina*	Tree
White oak	*Quercus alba*	Tree
Swamp white oak	*Quercus bicolor*	Tree
Chestnut oak	*Quercus prinus*	Tree
Northern red oak	*Quercus rubra*	Tree

Table 1
Vegetation Observed within the Project Study Area (Cont.)

Common Name	Scientific Name	Stratum
Black oak	*Quercus velutina*	Tree
Black locust	*Robinia pseudoacacia*	Tree
Blue spruce	*Picea pungens*	Tree
Eastern white pine	*Pinus strobus*	Tree
London planetree	*Platanus acerifolia*	Tree
Weeping willow	*Salix babylonica*	Tree
Sassafras	*Sassafras albidum*	Tree
American linden	*Tilia americana*	Tree
Eastern hemlock	*Tsuga canadensis*	Tree
American elm	*Ulmus americana*	Tree
Japanese barberry	*Berberis thunbergii*	Shrub
Boxwood	*Buxus* sp.	Shrub
Oriental bittersweet	*Celastrus orbiculatus*	Shrub
Autumn olive	*Elaeagnus umbellata*	Shrub
Burning bush	*Euonymus alatus*	Shrub
Witch hazel	*Hamamelis virginiana*	Shrub
Japanese honeysuckle	*Lonicera japonica*	Shrub
Multiflora rose	*Rosa multiflora*	Shrub
Pussy willow	*Salix discolor*	Shrub
Lowbush blueberry	*Vaccinium angustifolium*	Shrub
Highbush blueberry	*Vaccinium corymbosum*	Shrub
White snakeroot	*Ageratina altissima*	Herb
Garlic mustard	*Alliaria petiolata*	Herb
Foxtails	*Alopecurus* sp.	Herb
Burdock	*Arctium* sp.	Herb
Common mugwort	*Artemisia vulgaris*	Herb
Common milkweed	*Asclepias syriaca*	Herb
Yellow nutsedge	*Cyperus esculentus*	Herb
Queen Anne's lace	*Daucus carota*	Herb
Hayscented fern	*Dennstaedtia punctilobula*	Herb
Deertongue	*Dichanthelium clandestinum*	Herb
Marginal wood fern*	*Dryopteris marginalis**	Herb
White wood aster	*Eurybia divaricata*	Herb
Wintergreen	*Gaultheria procumbens*	Herb
Japanese stiltgrass	*Microstegium vimineum*	Herb
Sensitive fern	*Onoclea sensibilis*	Herb
Southern wood sorrel	*Oxalis dillenii*	Herb
Common reed	*Phragmites australis*	Herb
Pokeweed	*Phytolacca americana*	Herb
Broadleaf plaintain	*Plantago major*	Herb
Oriental lady's-thumb	*Polygonum cespitosum*	Herb
Christmas fern*	*Polystichum acrostichoides**	Herb
Japanese knotweed	*Reynoutria japonica*	Herb

Table 1
Vegetation Observed within the Project Study Area (Cont.)

Common Name	Scientific Name	Stratum
Purple crown vetch	*Securigera varia*	Herb
Common greenbriar	*Smilax rotundifolia*	Herb
Goldenrod	*Solidago* sp.	Herb
Asters	*Symphyotrichum* sp.	Herb
Dandelion	*Taraxacum* sp.	Herb
Narrowleaf cattail	*Typha angustifolia*	Herb
Mullein	*Verbascum thapsus*	Herb
Porcelainberry	*Ampelopsis brevipedunculata*	Vine
English ivy	*Hedera helix*	Vine
Virginia creeper	*Parthenocissus quinquefolia*	Vine
Wineberry	*Rubus phoenicolasius*	Vine
Poison ivy	*Toxicodendron radicans*	Vine
Wild grape	*Vitis* sp.	Vine
Wisteria	*Wisteria* sp.	Vine

Notes: * indicates plants identified as "exploitably vulnerable" under the New York State Protected Native Plants list (6 CRR-NY 193.3),
Sources: AKRF site investigation conducted on October 18, 2023.

BIRDS

The New York State (NYS) Breeding Bird Atlas (BBA) is a periodic census of the distribution of the State's breeding birds. The census was last completed between 2000 to 2005 and a new census is currently being conducted from 2020 through 2024. The 2000 to 2005 census documented a total of 84 species as confirmed or probable/possible breeding birds within the census blocks in which the Project Study Area is located (Census Blocks 5954B and 5954D). The ongoing third breeding bird atlas identified 91 confirmed or probable/possible breeding birds within the updated survey block in which the Project Study Area is located (White Plains CE Block).

Table 2 includes the confirmed, probable, and possible breeding bird species documented within the study area by both the second breeding bird atlas (2000 to 2005) and the ongoing third breeding bird atlas (2020 to 2024).

Table 2
Birds Documented during the NYSDEC 2000-2005 Second Breeding Bird Atlas (Blocks 5954B and 5954D) and the NYSDEC 2020-2024 Third Breeding Bird Atlas (White Plains CE Block)

Common Name	Scientific Name	2000-2005	2020-2024
Cooper's hawk†	*Accipiter cooperii*†	X	
Spotted sandpiper	*Actitis macularius*	X	
Red-winged blackbird	*Agelaius phoeniceus*	X	X
Wood duck	*Aix sponsa*	X	X
Mallard	*Anas platyrhynchos*	X	X
American black duck	*Anas rubripes*	X	
Ruby-throated hummingbird	*Archilochus colubris*	X	X
Great egret	*Ardea alba*	X	
Great blue heron	*Ardea herodias*	X	
Tufted titmouse	*Baeolophus bicolor*	X	X
Cedar waxwing	*Bombycilla cedrorum*	X	X
Canada goose	*Branta canadensis*	X	X
Great horned owl	*Bubo virginianus*	X	X
Red-tailed hawk	*Buteo jamaicensis*	X	X
Green heron	*Butorides virescens*	X	X
Northern cardinal	*Cardinalis cardinalis*	X	X
House finch	*Carpodacus mexicanus*	X	X
Turkey vulture	*Cathartes aura*	X	
Veery	*Catharus fuscescens*	X	X
Brown creeper	*Certhia americana*	X	
Chimney swift	*Chaetura pelagica*	X	X
Killdeer	*Charadrius vociferus*	X	X
Yellow-billed cuckoo	*Coccyzus americanus*	X	X
Northern flicker	*Colaptes auratus*	X	X
Rock pigeon	*Columba livia*	X	
Eastern wood pewee	*Contopus virens*	X	X
Black vulture	*Coragyps atratus*	X	
American crow	*Corvus brachyrhynchos*	X	X
Fish crow	*Corvus ossifragus*	X	
Blue jay	*Cyanocitta cristata*	X	X
Mute swan	*Cygnus olor*	X	
Chestnut-sided warbler	*Dendroica pensylvanica*	X	
Yellow warbler	*Dendroica petechia*	X	X
Pine warbler	*Dendroica pinus*	X	X
Pileated woodpecker	*Dryocopus pileatus*	X	X
Gray catbird	*Dumetella carolinensis*	X	X
Least flycatcher	*Empidonax minimus*	X	X
Willow flycatcher	*Empidonax traillii*	X	X
Acadian flycatcher	*Empidonax virescens*	X	X
Common yellowthroat	*Geothlypis trichas*	X	X
Bald eagle^	*Haliaeetus leucocephalus*^		X
Worm-eating warbler	*Helmitheros vermivorum*	X	X

Table 2
Birds Documented during the NYSDEC 2000-2005 Second Breeding Bird Atlas (Blocks 5954B and 5954D) and the NYSDEC 2020-2024 Third Breeding Bird Atlas (White Plains CE Block) (Cont.)

Common Name	Scientific Name	2000-2005	2020-2024
Barn swallow	*Hirundo rustica*	X	X
Wood thrush	*Hylocichla mustelina*	X	X
Baltimore oriole	*Icterus galbula*	X	X
Orchard oriole	*Icterus spurius*	X	
Belted kingfisher	*Megaceryle alcyon*	X	X
Eastern screech owl	*Megascops asio*	X	X
Red-bellied woodpecker	*Melanerpes carolinus*	X	X
Wild turkey	*Meleagris gallopavo*	X	X
Swamp sparrow	*Melospiza georgiana*	X	X
Song sparrow	*Melospiza melodia*	X	X
Northern mockingbird	*Mimus polyglottos*	X	X
Black-and-white warbler	*Mniotilta varia*	X	X
Brown-headed cowbird	*Molothrus ater*	X	X
Black-crowned night-heron	*Nycticorax nycticorax*	X	
Osprey†	*Pandion haliaetus*†	X	X
Northern waterthrush	*Parkesia noveboracensis*		X
House sparrow	*Passer domesticus*	X	X
Indigo bunting	*Passerina cyanea*	X	X
Cliff swallow	*Petrochelidon pyrrhonota*	X	
Double-crested cormorant	*Phalacrocorax auritus*		X
Rose-breasted grosbeak	*Pheucticus ludovicianus*	X	X
Downy woodpecker	*Picoides pubescens*	X	X
Hairy woodpecker	*Picoides villosus*	X	X
Eastern towhee	*Pipilo erythrophthalmus*	X	X
Scarlet tanager	*Piranga olivacea*	X	X
Black-capped chickadee	*Poecile atricapillus*	X	X
Blue-gray gnatcatcher	*Polioptila caerulea*	X	X
Common grackle	*Quiscalus quiscula*	X	X
Eastern phoebe	*Sayornis phoebe*	X	X
Ovenbird	*Seiurus aurocapilla*	X	X
Louisiana waterthrush	*Seiurus motacilla*	X	
Northern parula	*Setophaga americana*		X
Black-throated blue warbler	*Setophaga caerulescens*		X
Yellow-rumped warbler	*Setophaga coronata*		X
Blackburnian warbler	*Setophaga fusca*		X
Magnolia warbler	*Setophaga magnolia*		X
American redstart	*Setophaga ruticilla*	X	X
Black-throated green warbler	*Setophaga virens*		X
Eastern bluebird	*Sialia sialis*	X	
Red-breasted nuthatch	*Sitta canadensis*	X	

Table 2
Birds Documented during the NYSDEC 2000-2005 Second Breeding Bird Atlas (Blocks 5954B and 5954D) and the NYSDEC 2020-2024 Third Breeding Bird Atlas (White Plains CE Block) (Cont.)

Common Name	Scientific Name	2000-2005	2020-2024
White-breasted nuthatch	*Sitta carolinensis*	X	X
American goldfinch	*Spinus tristis*	X	X
Chipping sparrow	*Spizella passerina*	X	X
Field sparrow	*Spizella pusilla*		X
Northern rough-winged swallow	*Stelgidopteryx serripennis*	X	X
Barred owl	*Strix varia*		X
European starling	*Sturnus vulgaris*	X	X
Tree swallow	*Tachycineta bicolor*	X	X
Carolina wren	*Thryothorus ludovicianus*	X	X
Brown thrasher	*Toxostoma rufum*	X	
House wren	*Troglodytes aedon*	X	X
American robin	*Turdus migratorius*	X	X
Eastern kingbird	*Tyrannus tyrannus*	X	X
Blue-winged warbler	*Vermivora pinus*	X	X
Yellow-throated vireo	*Vireo flavifrons*	X	X
Warbling vireo	*Vireo gilvus*	X	X
White-eyed vireo	*Vireo griseus*	X	
Red-eyed vireo	*Vireo olivaceus*	X	X
Blue-headed vireo	*Vireo solitarius*		X
Mourning dove	*Zenaida macroura*	X	X
White-throated sparrow	*Zonotrichia albicollis*		X
Black-and-white warbler	*Mniotilta varia*	X	X

Notes: The NYSDEC 2020-2024 Third Breeding Bird Atlas (BBA) is ongoing. Available data are uploaded by volunteer citizen scientists and occasionally reviewed by eBird regional reviewers. Survey blocks are roughly 9 square miles and are a subset of the 7.5' USGS Topo Quad in which the survey block is located (the USGS Topo Quads are broken up into six smaller blocks). The survey blocks from the Third BBA do not correlate directly with the Second Breeding BBA survey blocks. As of December 12, 2023, the White Plains CE Block for the 2020-2024 BBA is considered "complete", and no new species will be added to the species log for this survey block for the duration of the 2020-2024 BBA. Only birds identified to species and with "confirmed," "probable," or "possible" breeding evidence are included in this table.

^ indicates a State-listed threatened species.

† indicates a State-listed special concern species.

Sources: NYSDEC 2000-2005 Second Breeding Bird Atlas results for Blocks 5954B and 5954D. Available from: dec.ny.gov/cfmx/extapps/bba/ (accessed December 11, 2023).

NYSDEC 2020-2024 Third Breeding Bird Atlas results for White Plains CE Block. Available from: ebird.org/atlasny (accessed December 12, 2023).

REPTILES AND AMPHIBIANS

The NYSDEC Amphibian and Reptile Atlas Project (Herp Atlas) conducted a survey between 1990 and 1999 documenting the geographic distribution of reptiles and amphibians in New York State. **Table 3** lists the 14 species documented by for survey for the White Plains United States Geological Survey (USGS) Quadrangle where the Project Study Area is located.

Table 3
Reptiles and Amphibians Documented in the White Plains USGS Quadrangle

Common Name	Scientific Name
Spotted salamander	*Ambystoma maculatum*
American toad	*Anaxyrus americanus*
Fowler's toad	*Anaxyrus fowleri*
Common snapping turtle	*Chelydra s. serpentina*
Painted turtle	*Chrysemys picta*
Northern two-lined salamander	*Eurycea bislineata*
Bullfrog	*Lithobates catesbeianus*
Green frog	*Lithobates clamitans*
Wood frog	*Lithobates sylvaticus*
Northern water snake	*Nerodia sipedon*
Northern red-backed salamander	*Plethodon cinereus*
Northern spring peeper	*Pseudacris crucifer*
Brown snake	*Storeria d. dekayi*
Eastern box turtle†	*Terrapene c. carolina†*

Notes: † indicates a State-listed special concern species.

Sources: NYS Herp Atlas (1990-1999) White Plains USGS Quadrangle. Available from https://www.dec.ny.gov/nature/animals-fish-plants/amphibians-reptiles/herp-atlas-project.

APPENDIX B

UNITED STATES FISH AND WILDLIFE SERVICE INFORMATION FOR PLANNING AND CONSULTATION (IPAC) THREATENED AND ENDANGERED SPECIES RESULTS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: December 15, 2023
Project Code: 2024-0027306
Project Name: City of White Plains Fire Department Drill School

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

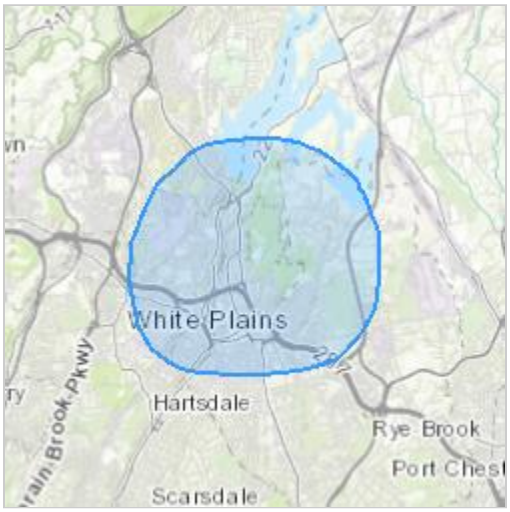
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

PROJECT SUMMARY

Project Code: 2024-0027306
Project Name: City of White Plains Fire Department Drill School
Project Type: Non-NPL Site Remediation
Project Description: A remedial investigation is being conducted at the City of White Plains Fire Department Drill School, a state hazardous waste site located in White Plains, New York. The property contains a forest clearing surrounded by undeveloped wooded land that is located adjacent to the White Plains Reservoir No.2, a drinking water source for the City of White Plains. The White Plains Fire Department conducted training and maintenance exercises which involved the use of a PFAS-containing chemical foam spray, which has resulted in contaminated soil within the clearing, sediment, and surface waters in the immediate vicinity of the Fire Drill School.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.054234949999994,-73.7604873988168,14z



Counties: Westchester County, New York

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

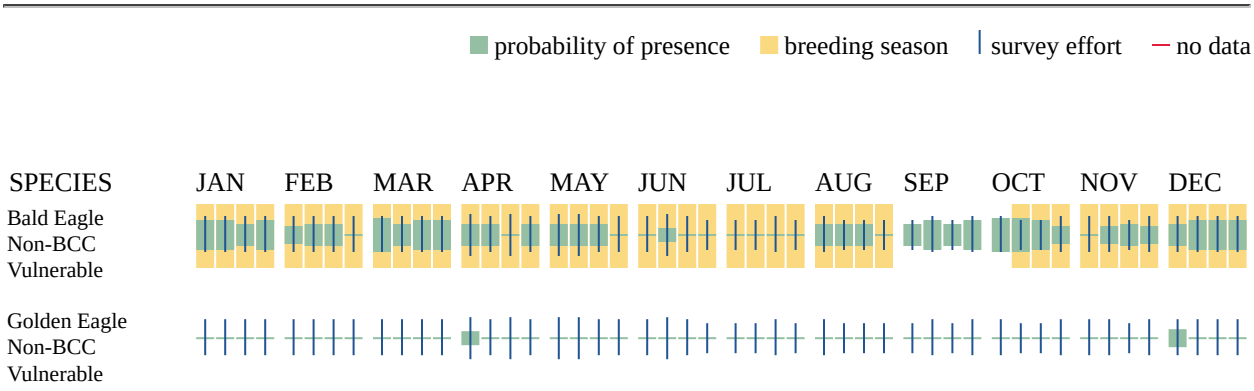
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler *Vermivora pinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9509	Breeds May 1 to Jun 30
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

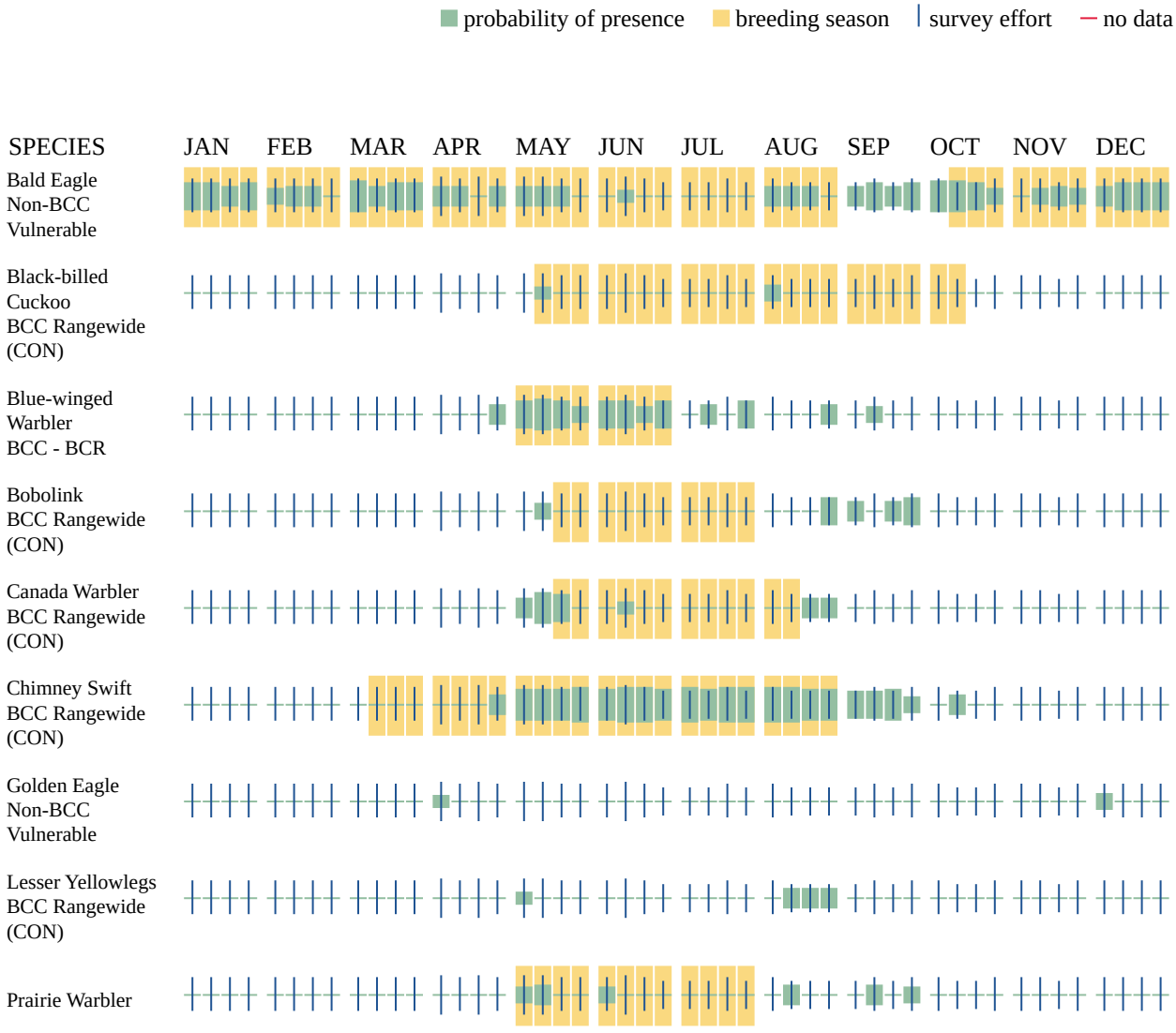
Probability of Presence (■)

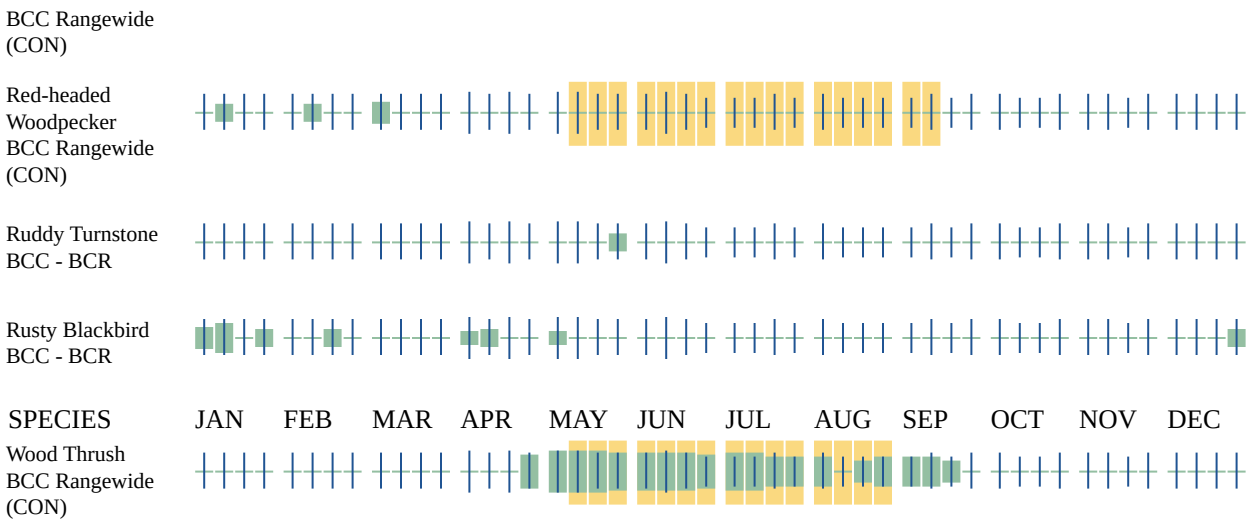
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2UBHx
- R5UBH
- R2UBH
- R4SBCx
- R3UBH

- R4SBC

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1C
- PSS1E
- PFO1/SS1E
- PFO1Eh
- PFO1/SS1C
- PFO1A
- PFO1Ch
- PFO1C
- PFO1E
- PSS1A

FRESHWATER EMERGENT WETLAND

- PEM1/5E
- PEM1Eh
- PEM1Ch
- PEM1Fh
- PEM1Fx
- PEM1E
- PEM1C
- PEM1Cx
- PEM1F
- PEM1/5C
- PEM1/FO1Eh

LAKE

- L1UBHh

FRESHWATER POND

- PUBHh
- PUBH
- PUB/EM1Fh
- PUBHx
- PUBFh

IPAC USER CONTACT INFORMATION

Agency: AKRF
Name: Caroline Davidson
Address: 440 Park Avenue South
Address Line 2: 7th Floor
City: New York City
State: NY
Zip: 10016
Email cdavidson@akrf.com
Phone: 6463889746

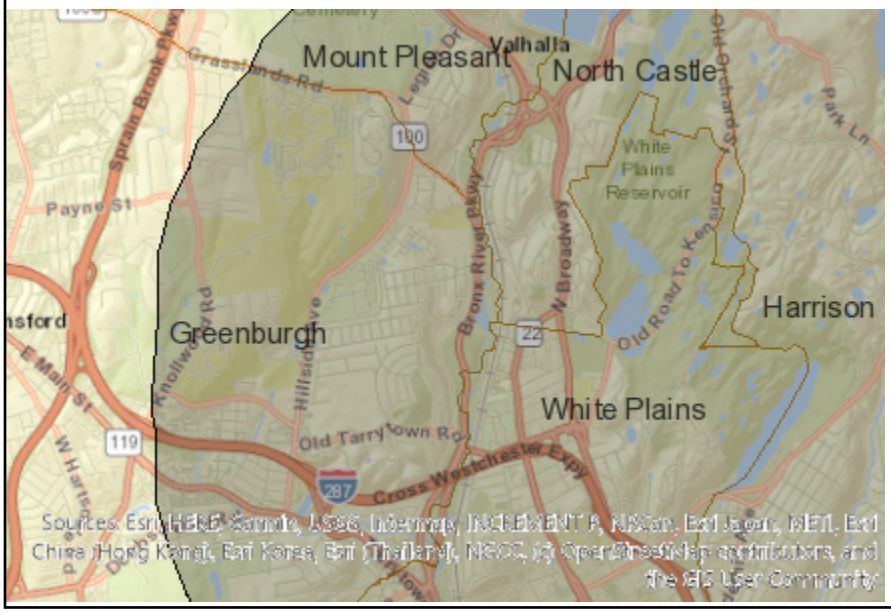
APPENDIX C

NYSDEC ENVIRONMENTAL ASSESSMENT MAPPER

NEW YORK NATURAL HERITAGE PROGRAM THREATENED AND ENDANGERED SPECIES RESULTS

EAF Mapper Summary Report

Wednesday, December 13, 2023 7:48 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	Remediaton Sites:C360129, Remediaton Sites:C360129A, Remediaton Sites:V00572, Remediaton Sites:C360073, Remediaton Sites:V00457, Remediaton Sites:C360221, Remediaton Sites:C360235, Remediaton Sites:C360219, Remediaton Sites:C360246, Remediaton Sites:360095, Remediaton Sites:C360177, Remediaton Sites:C360131, Remediaton Sites:V00438, Remediaton Sites:C360206, Remediaton Sites:C360209, Remediaton Sites:C360148, Remediaton Sites:C360115, Remediaton Sites:360193, Remediaton Sites:360208, NYC Watershed Boundary
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Yes - Digital mapping data for Spills Incidents are not available for this location. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Yes
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Yes
E.1.h.i [DEC Spills or Remediation Site - DEC ID Number]	C360129, C360129A, V00572, C360073, V00457, C360221, C360235, C360219, C360246, 360095, C360177, C360131, V00438, C360206, C360209, C360148, C360115, 360193, 360208
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	C360129, C360129A, V00572, C360073, V00457, C360221, C360235, C360219, C360246, 360095, C360177, C360131, V00438, C360206, C360209, C360148, C360115, 360193, 360208, C360174, 360035
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes

E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	935-84, 935-35, 935-20, 935-85, 935-73, 935-41, 935-40, 935-44, 935-36, 935-38, 935-37, 935-42, 935-21, 935-45, 935-39, 935-87, 935-86
E.2.h.iv [Surface Water Features - Stream Classification]	C, C(T), C(TS), AA, B
E.2.h.iv [Surface Water Features - Lake/Pond Name]	935-45
E.2.h.iv [Surface Water Features - Lake/Pond Classification]	A
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):21.5, NYS Wetland (in acres):14.4, NYS Wetland (in acres):0.6, NYS Wetland (in acres):11.9, NYS Wetland (in acres):29.1, NYS Wetland (in acres):1.4, NYS Wetland (in acres):23.0, NYS Wetland (in acres):24.5
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	W-7, W-9, W-12, W-6, W-2, W-11, G-6, G-8
E.2.h.v [Impaired Water Bodies]	Yes
E.2.h.v [Impaired Water Bodies - Name and Basis for Listing]	Name - Pollutants - Uses:Silver Lake – Algal/Weed Growth;Nutrients – Recreation;Public Bathing, Name - Pollutants - Uses:Bronx River, Upper, and tribs – Pathogens;D.O./Oxygen Demand – Recreation;Aquatic Life, Name - Pollutants - Uses:Mamaroneck River, and minor tribs – D.O./Oxygen Demand;Silt/Sediment – Recreation;Aquatic Life
E.2.i. [Floodway]	Yes
E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	Yes
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Peregrine Falcon, American Featherfoil, Small Swollen Bladderwort, Green Screwstem, Listed Plant – contact NY Natural Heritage, Narrow-leaved Pinweed, Tall Beak Sedge, Bald Eagle
E.2.p. [Rare Plants or Animals]	Yes
E.2.p. [Rare Plants or Animals - Name]	Long-beaked Beak Sedge
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	Yes
E.3.d [Critical Environmental Area - Name]	Floodplains, Hilltops at or > 400 ft, County & State Park Lands, Airport 60 Ldn Noise Contour, Watershed Properties
E.3.d.ii [Critical Environmental Area - Reason]	Protect water & natural area, Preserve open space, Exceptional or unique character
E.3.d.iii [Critical Environmental Area – Date and Agency]	Agency:Greenburgh, Town of, Agency:Westchester County, Date:1-30-79, Date:7-10-93, Date:1-31-90
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.

E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property:30 WINDSOR TERRACE - UNIT 5A, Eligible property:White Plains Fire Station #3, Eligible property:300 MAIN STREET - UNIT 2B, Eligible property:VALHALLA RAILROAD STATION-HARLEM LINE, Eligible property:St. Mary's In The Field School, Eligible property:KENNEDY DUNCAN HOUSE (YMCA), Eligible property:Grace Episcopal Church, Eligible property:White Plains Fire Station #6, Eligible property:Richard J Bailey Elementary School, Eligible property:Bank of New York, Eligible property:Tudor Revival Apartment Building, Eligible property:NEW YORK SCHOOL FOR THE DEAF, Eligible property:Pre-fab metal professional/commercial bldg, 1950, Eligible property:1 BROAD PARKWAY - UNIT 5K, Eligible property:312 MAIN STREET - UNIT 6D, Eligible property:Calloway House, Eligible property:Board of Elections / Former U.S. Post Office - White Plains, Eligible property:KENSICO OVERFLOW CHANNEL BRIDGE BIN 336 5070, Eligible property:KENSICO CEMETERY, Eligible property:Home Savings Bank, Eligible property:White Plains Fire Station #4, Eligible property:Eastview Middle School, Eligible property:Westchester Title and Trust Building, Eligible property:Northcourt Building, Eligible property:Art Deco Building, Eligible property:Michaelin Office Building, Eligible property:Chateau Condominiums, Eligible property:White Plains Presbyterian Church & Cemetery, Eligible property:Preston Hall - Pace Law School, Eligible property:White Plains YMCA, Eligible property:St Matthew's Lutheran Church, Eligible property:Rochambeau School, Eligible property:Knollwood Country Club Golf and Events Venue, Eligible property:St. John's Church School, Eligible property:St. John's Auditorium, Eligible property:R.C. Church of St. John the Evangelist, Bronx River Parkway Reservation, Bar Building, Purdy, Jacob, House, White Plains Rural Cemetery, Presbyterian Rest for Convalescents, New York Hospital--Westchester Division, White Plains Armory, Grainger, Percy, Home and Studio, People's National Bank and Trust Company Building, Good Counsel Complex, Mapleton, Hartford, John A., Miller House, Stony Hill Cemetery, Taconic State Parkway
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No