FINAL
Site Inspection Report
Albany Army Aviation Support Facility #3
Latham, New York

Site Inspection for Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorohexanesulfonic acid (PFHxS), Perfluorononanoic acid (PFNA), Hexafluoropropylene oxide dimer acid (HFPO-DA), and Perfluorobutanesulfonic acid (PFBS) at ARNG Installations, Nationwide

June 2023

Prepared for:

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Acronyms and Abbreviations

%	percent
°C	degrees Celsius
°F	degrees Fahrenheit
µg/kg	micrograms per kilogram
AASF	Army Aviation Support Facility
ACP	access control point
AECOM	AECOM Technical Services, Inc.
AFFF	aqueous film-forming foam
AFD	Albany Fire Department
AOI	Area of Interest
ARNG	Army National Guard
bgs	below ground surface
CAMP	Community Air Monitoring Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CoC	chain of custody
CSM	conceptual site model
DA	Department of the Army
DoD	Department of Defense
DPT	direct push technology
DQO	data quality objective
DUA	data usability assessment
EDR™	Environmental Data Resources, Inc.™
ELAP	Environmental Laboratory Accreditation Program
EM	Engineer Manual
FedEx	Federal Express
FTA	Fire Training Area
GIS	Geographic Information System
GPRS	Ground Penetrating Radar Systems
GPS	Global positioning system
HDPE	high-density polyethylene
HEF	High Expansion Foam
HFPO-DA	hexafluoropropylene oxide dimer acid
IDW	investigation-derived waste
ITRC	Interstate Technology Regulatory Council
LC/MS/MS	liquid chromatography with tandem mass spectrometry
MIL-SPEC	military specification
NELAP	National Environmental Laboratory Accreditation Program
ng/L	nanograms per liter
NYARNG	New York Army National Guard
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSD	Office of the Secretary of Defense

OWS	oil-water separator
PA	Preliminary Assessment
PFAS	per- and polyfluoroalkyl substances
PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PID	photoionization detector
PQAPP	Programmatic UFP-QAPP
PVC	polyvinyl chloride
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
QSM	Quality Systems Manual
SI	Site Inspection
SL	screening level
SOP	standard operating procedure
TOC	total organic carbon
TPP	Technical Project Planning
UFP	Uniform Federal Policy
US	United States
USACE	United States Army Corps of Engineers
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Executive Summary

The Army National Guard (ARNG) G-9 is performing Preliminary Assessments (PAs) and Site Inspections (SIs) on the current or potential historical use of per- and polyfluoroalkyl substances (PFAS) with a focus on the six compounds presented in the memorandum from the Office of the Secretary of Defense (OSD) dated 6 July 2022 (Assistant Secretary of Defense, 2022). The six compounds listed in the OSD memorandum include perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), perfluorohexanesulfonic acid (PFHxS), hexafluoropropylene oxide dimer acid (HFPO-DA)[1], and perfluorobutanesulfonic acid (PFBS). These compounds are collectively referred to as "relevant compounds" throughout the document and the applicable screening levels (SLs) are provided in **Table ES-1**.

The PA identified three Areas of Interest (AOIs) where PFAS-containing materials may have been used, stored, disposed, or released historically (see **Table ES-2** for AOI locations). The objective of the SI is to identify whether there has been a release to the environment from the AOIs identified in the PA and determine whether further investigation is warranted, a removal action is required to address immediate threats, or no further action is required based on SLs for relevant compounds. This SI was completed at the Albany Army Aviation Support Facility (AASF) #3 in Latham, New York and determined further evaluation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is warranted for AOI 1, AOI 2, and AOI 3. The Albany AASF #3 will also be referred to as the "facility" throughout this document.

Albany AASF #3 is in Latham, Albany County, which is located in eastern New York. The facility is on Albany International Airport property and leased to the New York ARNG. The facility is approximately 7 miles north-northwest from the Albany city center and 0.75 miles east of the southern end of Runway 1, at Albany International Airport. Interstate 87 is 0.25 miles to the east of the facility.

The PA identified three AOIs for investigation during the SI phase. SI sampling results from the three AOIs were compared to OSD SLs. **Table ES-2** summarizes the SI results for each AOI. Based on the results of this SI, further evaluation under CERCLA is warranted in a Remedial Investigation (RI) for AOI 1, AOI 2, and AOI 3.

[1] Of the six PFAS compounds presented in the 6 July 2022 OSD memorandum, HFPO-DA (commonly referred to as GenX) was not included as an analyte at the time of this SI. Based on the conceptual site model (CSM) developed during the PA and revised based on SI findings, the presence of HFPO-DA is not anticipated at the facility because HFPO-DA is generally not a component of military specification (MIL-SPEC) aqueous film forming foam (AFFF) and based on its history including distribution limitations that restricted use of GenX, it is generally not a component of other products the military used. In addition, it is unlikely that GenX would be an individual chemical of concern in the absence of other PFAS.

Table ES-1: Screening Levels (Soil and Groundwater)

Analyte[b]	Residential (Soil) (µg/kg)[a] 0-2 feet bgs	Industrial/ Commercial Composite Worker (Soil) (µg/kg)[a] 2-15 feet bgs	Tap Water (Groundwater) (ng/L)[a]
PFOA	19	250	6
PFOS	13	160	4
PFBS	1,900	25,000	601
PFHxS	130	1,600	39
PFNA	19	250	6

Notes:
bgs = below ground surface; µg/kg = micrograms per kilogram; ng/L = nanograms per liter

a.) Assistant Secretary of Defense, 2022. Risk Based Screening Levels in Groundwater and Soil using United States Environmental Protection Agency's (USEPA's) Regional Screening Level Calculator. Hazard Quotient (HQ) = 0.1. 6 July 2022.

b.) Of the six PFAS compounds presented in the 6 July 2022 OSD memorandum, HFPO-DA (commonly referred to as GenX) was not included as an analyte at the time of this SI. Based on the CSM developed during the PA and revised based on SI findings, the presence of HFPO-DA is not anticipated at the facility because HFPO-DA is generally not a component of MIL-SPEC AFFF and based on its history including distribution limitations that restricted use of GenX, it is generally not a component of other products the military used. In addition, it is unlikely that GenX would be an individual chemical of concern in the absence of other PFAS.

Table ES-2: Summary of Site Inspection Findings and Recommendations

AOI	Potential Release Area	Soil – Source Area	Groundwater – Source Area	Groundwater – Facility Boundary	Future Action
1	AASF #3 Hangar Release/ Fire Response Unit	●	●	●	Proceed to RI
2	Garbage Truck Fire	◐	●	◐	Proceed to RI
3	Stockpiled Soil	◐	●	N/A	Proceed to RI

Legend:
N/A = not applicable
● = detected; exceedance of the screening levels
◐ = detected; no exceedance of the screening levels
○ = not detected

1. Introduction

1.1 Project Authorization

The Army National Guard (ARNG) G-9 is the lead agency in performing Preliminary Assessments (PAs) and Site Inspections (SIs) on the current or potential historical use of per- and polyfluoroalkyl substances (PFAS) with a focus on the six compounds presented in the memorandum from the Office of the Secretary of Defense (OSD) dated 6 July 2022 (Assistant Secretary of Defense, 2022). The six compounds listed in the OSD memorandum will be referred to as "relevant compounds" throughout this document and include perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorohexanesulfonic acid (PFHxS), perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA)[1], and perfluorobutanesulfonic acid (PFBS) at ARNG facilities nationwide. The ARNG performed this SI at the Albany Army Aviation Support Facility (AASF) #3 in Latham, New York. The Albany AASF #3 is also referred to as the "facility" throughout this document.

The SI project elements were performed in compliance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; United States [US] Environmental Protection Agency [USEPA], 1980), as amended, the National Oil and Hazardous Substances Pollution Contingency Plan (40 Code of Federal Regulations Part 300; USEPA, 1994), and in compliance with US Department of the Army (DA) requirements and guidance for field investigations.

1.2 SI Purpose

A PA was performed at Albany AASF #3 (AECOM Technical Services, Inc. [AECOM], 2020) that identified three Areas of Interest (AOIs) where PFAS-containing materials may have been used, stored, disposed, or released historically. The objective of the SI is to identify whether there has been a release to the environment from the AOIs identified in the PA and determine whether further investigation is warranted, a removal action is required to address immediate threats, or no further action is required based on screening levels (SLs) for the relevant compounds.

[1] Of the six PFAS compounds presented in the 6 July 2022 OSD memorandum, HFPO-DA (commonly referred to as GenX) was not included as an analyte at the time of this SI. Based on the conceptual site model (CSM) developed during the PA and revised based on SI findings, the presence of HFPO-DA is not anticipated at the facility because HFPO-DA is generally not a component of military specification (MIL-SPEC) aqueous film forming foam (AFFF) and based on its history including distribution limitations that restricted use of GenX, it is generally not a component of other products the military used. In addition, it is unlikely that GenX would be an individual chemical of concern in the absence of other PFAS.

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2. Facility Background

2.1 Facility Location and Description

Albany AASF #3 is in Latham, Albany County, which is located in eastern New York. The facility is on Albany International Airport property and leased to the New York ARNG (NYARNG) (**Figure 2-1**). The facility is approximately 7 miles north-northwest from the Albany city center and 0.75 miles east of the southern end of Runway 1, at Albany International Airport. Interstate 87 is 0.25 miles to the east of the facility.

Prior to 1977, the facility property was undeveloped. A small airplane hangar, which the NYARNG began operating immediately, was built shortly before 1983. Since that time, lease agreements for multiple additional parcels adjacent to the original facility property expanded the current property to a total of roughly 50 acres.

2.2 Facility Environmental Setting

Albany AASF #3 is located in a predominantly urban area comprised of a hilly mix of deciduous and evergreen trees, with an average elevation of 354 feet above mean sea level. According to the 2010 US Census, Albany County has a population of 305,506 and comprises 533 square miles of which only ten are water (US Census Bureau, 2010). Approximately 2 miles north of Albany AASF #3 is the Mohawk River, which trends west to east before it converges with the Hudson River roughly 4 miles to the northeast of AASF #3. Several towns are less than 2 miles from the Albany AASF #3, including the Town of Verdoy, located 1.25 miles to the north, and the Town of Colonie, located 1.75 miles to the southwest. There are also multiple industries located within a 2-mile radius of Albany AASF #3. The facility's topography is shown in **Figure 2-2**.

2.2.1 Geology

The facility is located south of the Mohawk River, within the southeastern geological region of the Hudson-Mohawk River Lowlands, which is a segment of the Mohawk River Basin physiographic province (US Geological Survey [USGS], 2006). This region extends eastward from the Great Lakes Lowlands to the Hudson Valley through the center of the basin. The Mohawk River valley is an area of generally subdued topography shaped over multiple periods of extensive glacial advancement and recession (deglaciation).

Deglaciation is responsible for thick deposits of fluvial sand, gravel, and lacustrine clay, silt, and fine sand found throughout the region. As a result, glacially derived landforms are present near the facility, including eskers, drumlins, recessional moraines, outwash systems, and massive deposits of sand and gravel, known as kame, laid down at the periphery of ice sheets during glacial drainage (Fairchild, 1896; Isachsen et al., 2000).

The facility lies on the southernmost edge of the Colonie Channel, a north-south oriented bedrock channel that runs from the Town of Colonie up through the Town of Malta (USGS, 2002). The majority of both the surface and underlying material of the facility are Pleistocene age unconsolidated glacial deposits, recent floodplain deposits, and lacustrine delta. These sediments consist of layers of fine sands and gravel underlain by silts and clays of variable thicknesses ranging between 20 to nearly 350 feet (USGS, 1964; USGS 1981b). These sediments were deposited fluvially against glacial ice but prograded into glacial Lake Albany, distinguished by steeply dipping forest beds, which indicate deposition in standing water (USGS, 1964). The nearshore lake sediments were reworked by wind, after the lake had drained, to form well-sorted blanket lake sands and dune fields; this creates permeable dunes and blanket sands that overlie thick sequences of relatively impermeable lacustrine silt and clay (USGS, 1988).

A previous subsurface investigation by the US Department of Agriculture Soil Conservation Service, who performs the National Cooperative Soil Survey, indicated that the upper 0-12 feet of the western side of the facility subsurface material is mostly various types of ground moraines and silt loam. This silt loam consists of low permeability, somewhat-poorly to poorly drained, fine-grained silts and clays with very slow infiltration rates. These soil layers can impede the downward movement of water, suggesting there is high surficial runoff from the facility to surrounding water body features. The central and eastern areas of the facility, however, are composed of fine sands with high infiltration rates and high permeability, causing this area to have more influence on the local groundwater flow.

Underneath the silt loam and fine-grained sands lies sedimentary bedrock such as shale, sandstone, and carbonate rocks. Many of the drinking water wells in the Mohawk River Basin are situated in bedrock; however, they do not yield as much as the unconsolidated sediments (USGS, 2006).

Soil borings completed during the SI found sand as the dominant lithology of the unconsolidated sediments below the Albany AASF #3. The borings were completed at depths between 5 and 15 feet below ground surface (bgs). The sands were described as silty sand, well-graded sand, and poorly graded sand. Many of the logs also reported varying percentages of gravel included near or at the surface of the boring. These results and facility observations are consistent with the reported depositional environment of the region and near surface fill material expected at a developed site. Boring logs are presented in **Appendix E**.

2.2.2 Hydrogeology

Based on review of USEPA's map of Sole Source Aquifers, Albany AASF #3 is not located above a sole source aquifer. Based on review of New York State Department of Environmental Conservation's (NYSDEC) Map of Principal and Primary Aquifers in New York State, the facility cantonment area is located over a primary aquifer spanning roughly 40 square miles as well as portions of two other aquifers. The unconsolidated sand and gravel units form a virtually continuous aquifer system underlying the Mohawk River Valley (USGS, 1981a). Water in the aquifer is principally under water-table conditions and in hydraulic contact with the Mohawk River, so that pumping of most wells in the area induces recharge from the river to an unknown extent (USGS, 2002).

An unconfined lacustrine sand aquifer is the surficial aquifer, and there are also parts of the Colonie Channel aquifer, which is confined within the deepest parts of the channel, is variably confined and unconfined within the shallower peripheral channel areas and consists of thin sand and gravel. The unconsolidated sand and gravel units yield the largest supply to wells in the Mohawk River Valley, with yields as much as nine million gallons per day across the entire aquifer (USGS, 1981a). Precipitation that infiltrates the land surface is the sole source of recharge to the lacustrine sand aquifer and recharges the alluvial aquifer and unconfined parts of the Colonie channel aquifer (USGS, 2002).

An Environmental Data Resources, Inc. (EDR™) Report included a well search for a 1-mile radius surrounding the facility (AECOM, 2020). Using additional online resources, such as state and local Geographic Information System (GIS) databases, wells were researched to a 4-mile radius of the facility. Well data from New York State indicated there are several potable wells within 4 miles of the facility, as shown on **Figure 2-3** (New York State, 2016). The depth to groundwater ranges between 4.5 and 150 feet bgs, with well depths ranging anywhere from 30 to 900 feet bgs and yield anywhere from 0.5 to 120 gallons per minute. Data from the USGS National Water Information System Mapper identified inactive monitoring wells within the 4-mile radius, but no active USGS monitoring wells were identified (USGS, 2020). The facility receives water from the Town of Colonie municipal water utility that sources water from Mohawk River and utilizes the Town of Colonie sanitary sewer system; there are no septic systems present at the facility.

Depths to water measured in April 2022 during the SI ranged from 0.56 to 5.72 feet bgs. Groundwater elevation contours from the SI are presented on **Figure 2-4** and indicate the groundwater flow direction at the facility is primarily to the west (which is different from the anticipated flow direction expected to be to the north).

2.2.3 Hydrology

The facility is in the Shakers Creek-Mohawk River Watershed (**Figure 2-5**), which is a part of the much larger Mohawk River Basin. The Mohawk River Basin covers 3,500 square miles, drains over 12,000 square miles of streams, and encompasses parts of 14 counties, including all of Montgomery County, most of Schoharie and Schenectady Counties, and parts of Herkimer, Hamilton, Fulton, Greene, Oneida, Saratoga, Albany, Lewis, Madison, Ostego, and Delaware Counties. The Mohawk River is a major tributary to the Hudson River, while the Schoharie and West Canada Creeks are major tributaries to the Mohawk River (USGS, 2006). The main channel of the Mohawk River runs west to east roughly 2 miles north of the facility and forms a floodplain. Surface water resources near the Albany AASF #3 include natural streams, rivers, and open water features (**Figure 2-5**).

The stormwater system at the facility routes surface runoff to a drainage ditch on the southwestern boundary of the facility. From the drainage ditch, the runoff travels south around the southern runway (Runway 1) and flows west-northwest before converging with Ann Lee Pond. Approximately 0.75 miles west of the facility is Shaker's Creek. Shakers Creek headwaters flow south to north from Ann Lee Pond and then west to east-northeast at the end of the Runway 19 of Albany International Airport (**Figure 2-5**). A second branch of Shakers Creek flows south to north 0.75 miles east of the facility, which converges with Shaker's Creek slightly east of Runway 19. Shaker's Creek empties into the Mohawk River less than 1 mile after the convergence of the eastern branch (**Figure 2-5**).

2.2.4 Climate

The climate is predominately continental, with an average annual temperature of 49.4 degrees Fahrenheit (°F). Seasonally, temperatures vary from an average summer high of 71.0 °F to average winter lows of 27.2 °F. The total mean annual precipitation is 40.68 inches. February is the driest month, with 2.28 inches of precipitation, while July is the wettest month, with 4.55 inches (National Oceanic and Atmospheric Association, 2022).

2.2.5 Current and Future Land Use

The facility is accessible through a guarded security gate off Old Niskayuna Road. The property is leased by the NYARNG, which conducts training of personnel and aircraft maintenance. There are no current expansion plans for the facility and, in general, the future land use at the facility is not expected to change. Surrounding current land use includes mostly aviation, commercial, industrial, and residential uses. Besides Albany International Airport, some of the closest commercial and industrial neighbors to Albany AASF #3 include a pool manufacturer, an auto glass repair company, and an industrial equipment supplier.

2.2.6 Sensitive Habitat and Threatened/ Endangered Species

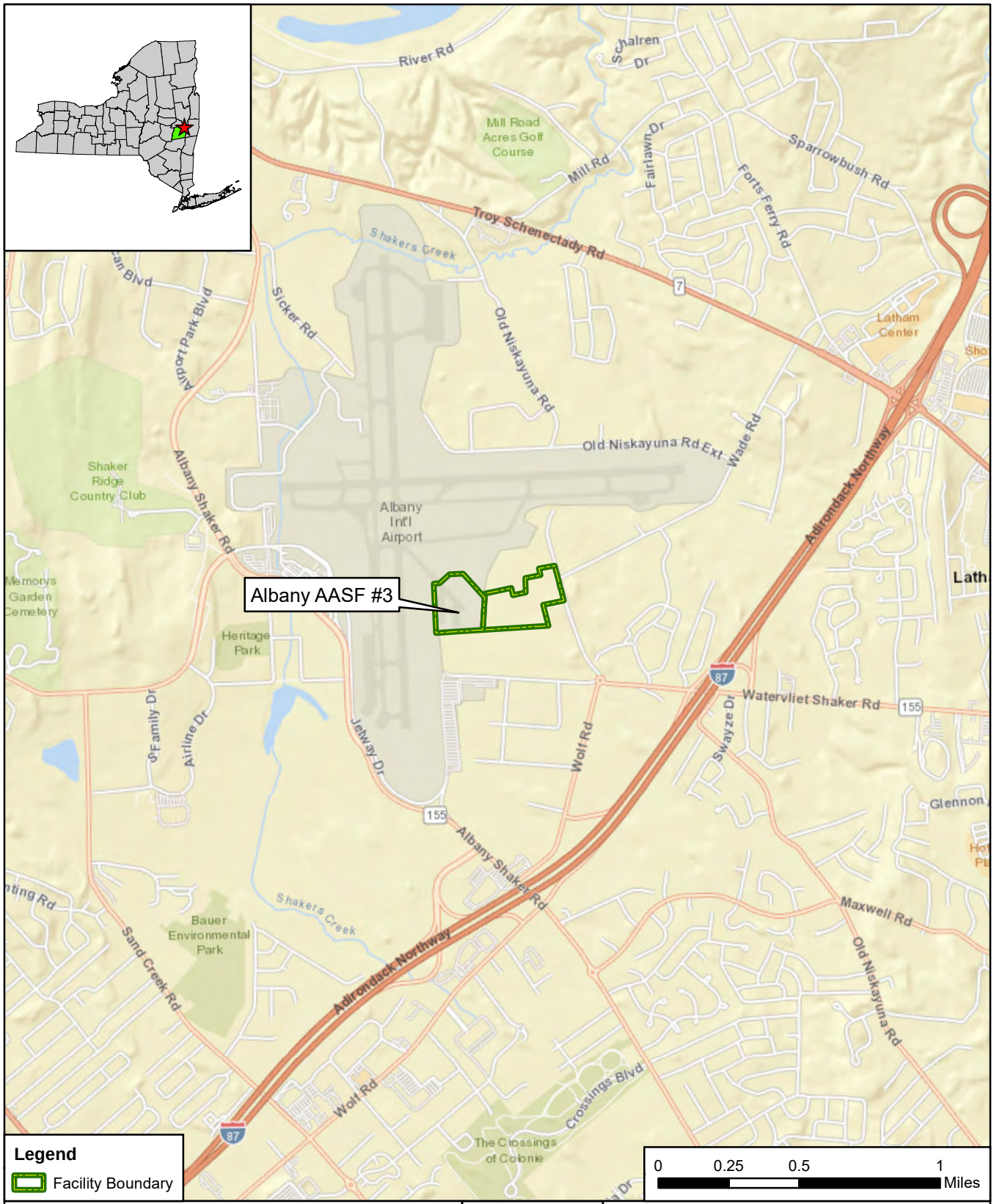
A wildlife survey has not occurred at the facility, and the facility does not have any significant areas of habitat. The following species have not been identified at the facility but may be present in the surrounding area.

The following insects and mammals are federally endangered, threatened, proposed, and/ or are listed as candidate species in Albany County, New York (US Fish and Wildlife Service [USFWS], 2022).

- **Insects:** Monarch butterfly, *Danaus plexippus* (candidate); Karner blue butterfly, *Lycaeides melissa samuelis* (endangered)
- **Mammals**: Tricolored bat, *Perimyotis subflavus* (under review), Little brown bat, *Myotis lucifugus* (under review); Indiana bat, *Myotis sodalis* (endangered); Northern Long-Eared Bat, *Myotis septentrionalis* (threatened)

2.3 History of PFAS Use

Two AOIs were identified in the PA where AFFF may have been used, stored, disposed, or released historically at the Albany AASF #3 (AECOM, 2020). AFFF may have historically been released at the facility during fire training, fire equipment maintenance, AFFF storage, and emergency response. An additional AOI, AOI 3, was identified during the SI planning phase (AECOM, 2021). The potential release areas were grouped into three AOIs based on preliminary data and presumed groundwater flow directions. A description of each AOI is presented in **Section 3**.

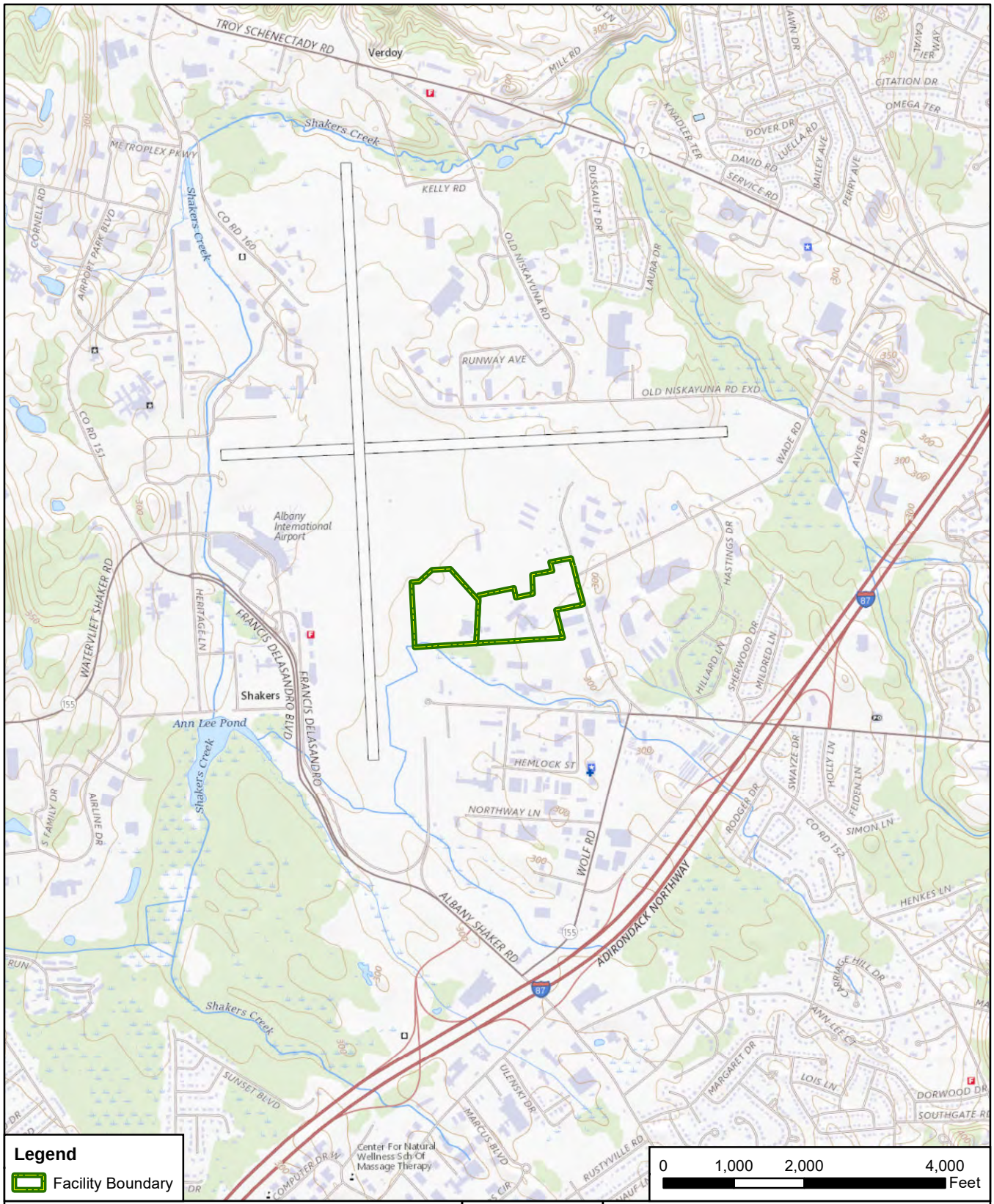


CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 2,640 feet	CHK BY	AB	5/12/2023
Base Map: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI,		PM	CM	5/12/2023

Facility Location

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 2-1

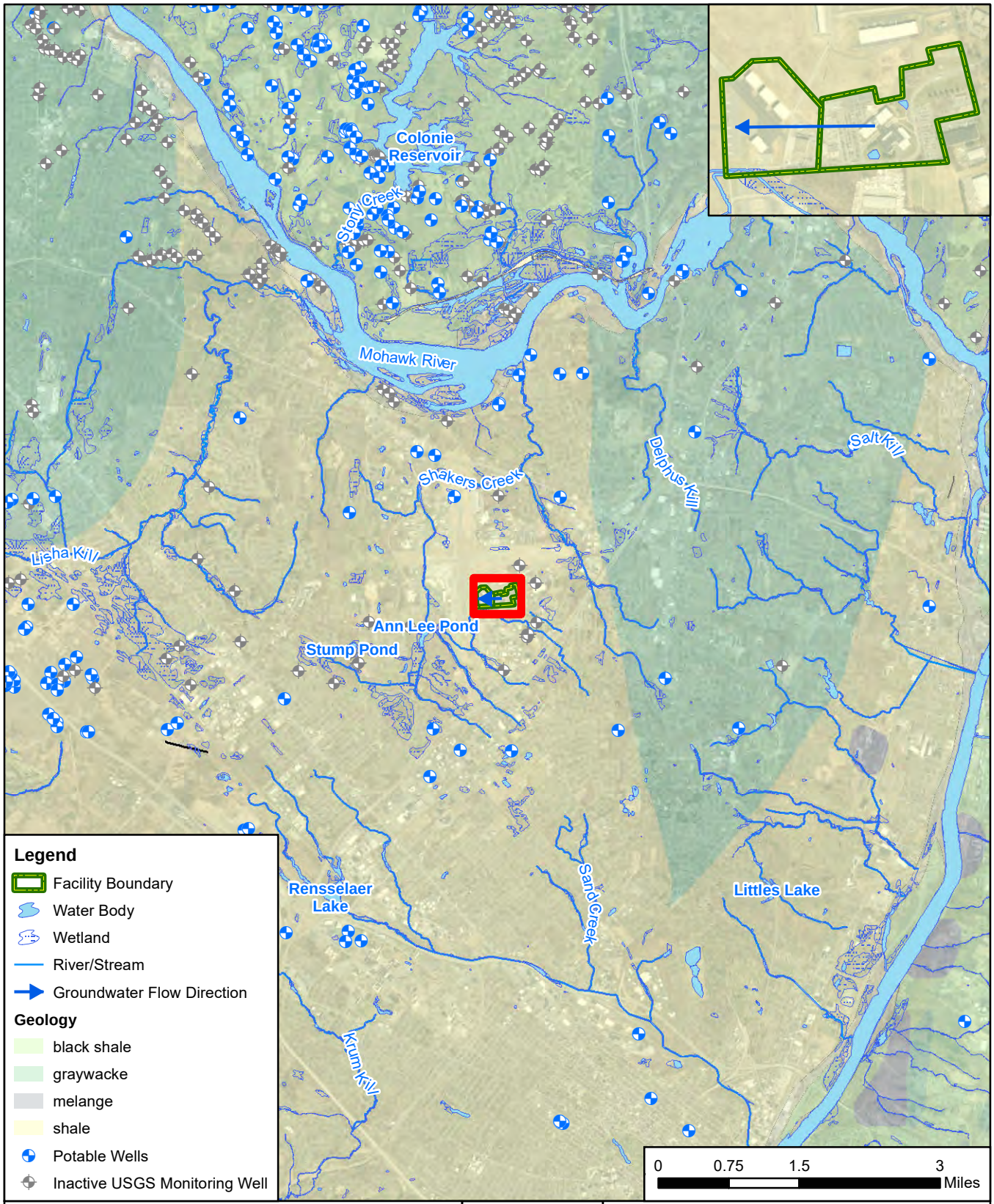


CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 2,000 feet	CHK BY	AB	5/12/2023
Base Map: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program,		PM	CM	5/12/2023

Facility Topography

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 2-2



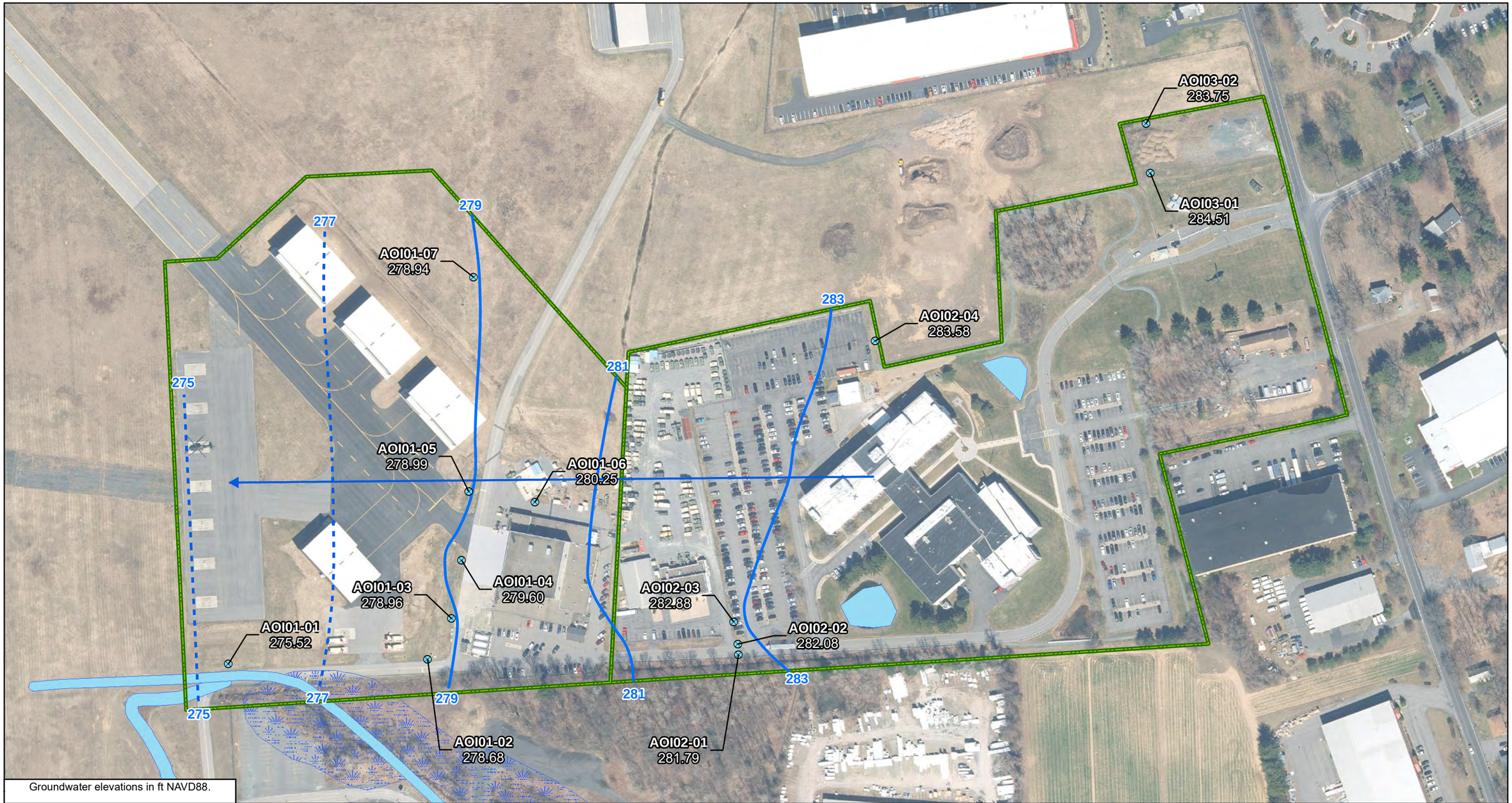
CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 7,920 feet	CHK BY	AB	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

Groundwater Features

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 2-3

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Groundwater elevations in ft NAVD88.

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch equals 200 feet	CHK BY	AB	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

Legend

- Soil Boring/Monitoring Well Location
- Facility Boundary
- Water Body
- Wetland
- River/Stream
- Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Groundwater Flow Direction

0 100 200 400 Feet

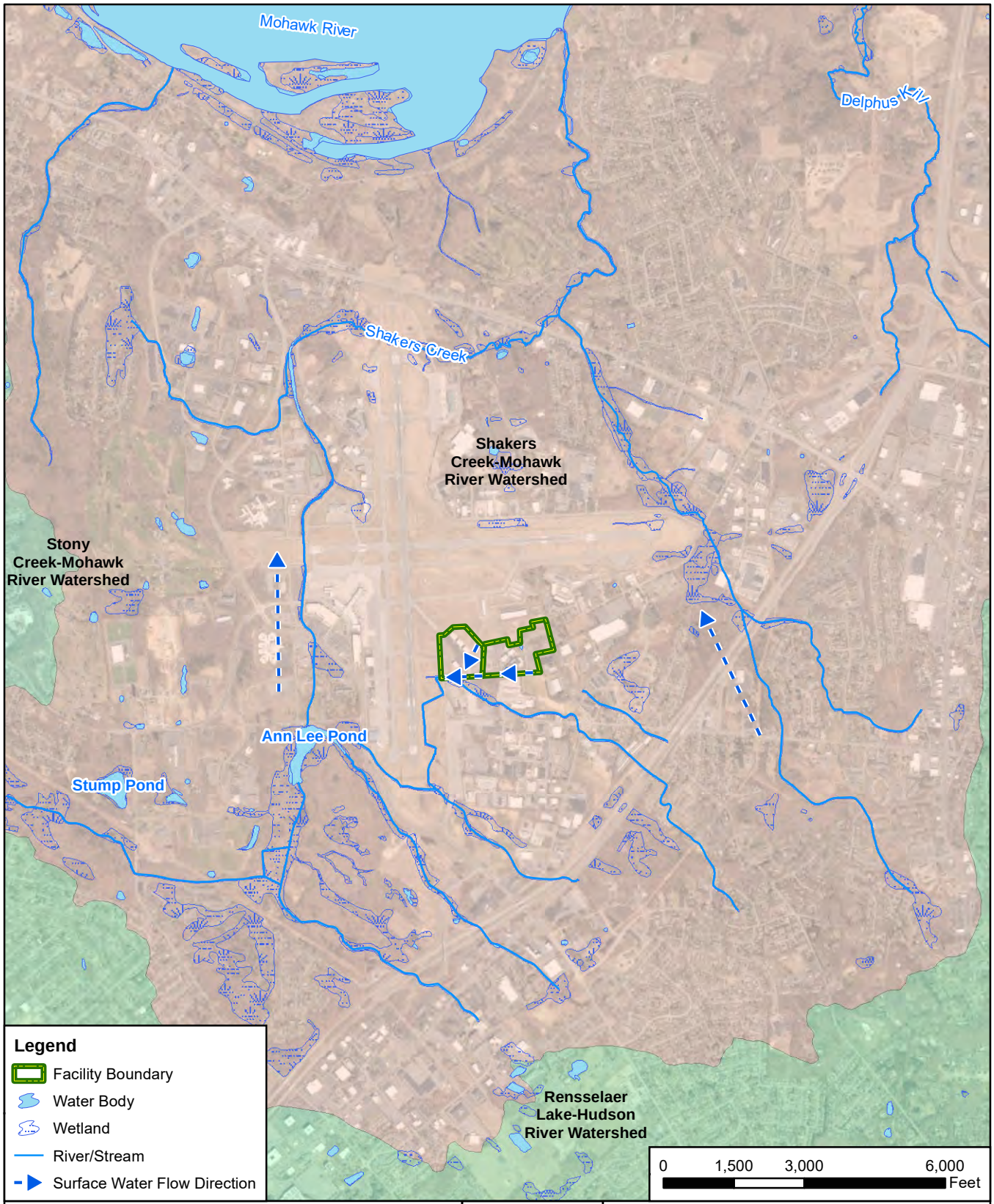
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Groundwater Elevations, April 2022

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Figure 2-4

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CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 3,000 feet	CHK BY	AB	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

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Surface Water Features

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Figure 2-5

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3. Summary of Areas of Interest

The PA evaluated areas where PFAS-containing materials may have been used, stored, disposed, or released historically. Based on the PA findings and the additional information learned during the SI planning phase, four potential release areas were identified at Albany AASF #3 and grouped into three AOIs (AECOM, 2020). The potential release areas and adjacent potential sources are shown on **Figure 3-1**.

3.1 AOI 1 AASF #3 Hangar Release / Fire Response Unit

AOI 1 (~1.00 acres) encompasses two releases of the fire suppression system (2012 and 2021) from the AASF #3 Hangar and the former Fire Response Unit room. Two 200-gallon tanks are connected to the deluge system and are located in the former Fire Response Unit building. An initial testing of the fire suppression system in 2012 caused foam to completely fill the hangar. The hangar bay doors were opened and allowed the foam to spill out onto the tarmac and into the grass. The release was cleaned up and disposed of by a contractor. The PA findings indicated in 2012 the fire suppression system was primed with 3% AFFF; however, the existing fire suppression system is documented as containing JET-X 2.75% HEF as of August 1, 2007 (purchase date indicated on tag attached to tank). This finding was documented by ARNG during the SI field work in 2022 (see **Appendix C**). Based on this finding, it is unknown if the current system is the original fire suppression system or if a retrofit occurred around 2007. The information documented in the PA regarding the fire suppression system is based solely on the recollections of interviewed personnel from the Albany Fire Department (AFD) and NYARNG. No documentation (e.g., plans, permits, invoices) were found during the PA to confirm the use of AFFF in the fire suppression system. Uncertainty regarding the timing and use of AFFF at the facility remains; however, NYARNG continues to perform records searches to obtain additional information.

Albany AASF #3 had a Fire Response Unit during the 1980s that was disbanded in the early 1990s. During this time, a firetruck was reported to have been stationed in the Fire Response Unit, housed in a room attached to the northern side of the AASF #3 Hangar. The firetruck was reported to have a 150-gallon dual line of 3% AFFF and water tank and a 400-gallon Purple K tank. It is unknown where the firetruck was filled or washed or whether the firetruck leaked. There were no documented releases of AFFF within the Fire Response Unit. This unit existed between 1983 and 1992 and responded to all fire and emergency related incidents that occurred at the Albany AASF #3 and Albany International Airport, in conjunction with the AFD.

Between May and November 2020, the NYARNG constructed four new cold storage hangars (Hangars A through D) at Albany AASF #3 (**Figure 5-1**). The hangars do not have fire suppression systems, and at no time was any AFFF stored or used in the new hangars. During construction activities, soil was removed to approximately 4 feet bgs in portions of the grassy area between the Albany AASF #3 main hangar and Hangar D. Soil was also excavated in this area during construction of an underground stormwater detention system to the east of Hangar D. Additionally, in the grassy area between the main hangar and Hangars C and D, a pit was dug at each side of the taxiway/roadway in order to bore under the taxiway and roadway at a depth of approximately 6 feet bgs. Excavated soil was used as backfill material at the same location. Any excess soil from the excavation work was stockpiled to the north of the facility's access control point (ACP). The stockpiled soil was investigated as AOI 3 (see additional details below). These soil removal activities may have partially fallen within the footprint of the previous hangar release. However, facility staff indicated that an approximately 100-foot by 100-foot area within the grass to the west of the AASF remains intact from prior to construction activities.

In August 2021, it was reported that the AASF #3 Hangar had an accidental release of the fire suppression system. The discharge spilled onto the tarmac immediately west of the hangar and

reached the grassy area, where several SI samples were subsequently collected, as already proposed in the SI QAPP Addendum to investigate the 2012 release at the same hangar (AECOM, 2021). The photographs of the fire suppression system release appear in **Appendix C**. An estimated 75-100 gallons of JET-X 2.75% HEF were released from the system. Clean-up activities were performed by a subcontractor the following day after release, which involved rising, wiping, and collection of rinse aid into drums. It was during this release that the fire suppression system was determined to have HEF and not AFFF. The fire suppression system is currently fitted with two 200-gallon tanks of JET-X 2.75% HEF. It is unknown if or when the fire suppression system were retrofitted with HEF rather than AFFF, as previously reported. The AASF #3 Hangar also contains storage of two 36-gallon floor units of Ansulite 3% AFFF concentrate.

3.2 AOI 2 Garbage Truck Fire

AOI 2 (~0.05 acres) encompasses the area where a fire occurred in the back of a garbage truck, southeast of the AASF #3 Hangar, in May 2017; the Colonie Fire Department responded to the incident. While the use of AFFF during the emergency response was not documented, photographs of the incident appear to show foam being used.

A stormwater drop inlet is located immediately north of the AOI 2 release area in the grass on the north side of the road. Historical photographs show that booms and socks were used to protect materials from the garbage truck fire from flowing into the stormwater drain.

3.3 AOI 3 Stockpiled Soil

Between May and November 2020, the NYARNG constructed four new cold storage hangars (Hangars A through D) at Albany AASF #3. During construction of the hangars and associated subsurface infrastructure, including an underground stormwater detention system, soil was removed from within the footprint of the potential release area at AOI 1, as described previously. Excess soil from the excavation work was stockpiled to the north of the facility's ACP. AOI 3 (~ 0.07 acres) encompasses the stockpiled soil, and according to interviewed facility staff, the stockpiles contain approximately 80 cubic yards of soil.

3.4 Adjacent Sources

Five off-facility, potential sources were identified adjacent to the Albany AASF #3 during the PA and are not associated with ARNG activities. The adjacent potential sources are shown on **Figure 3-1** and described in the following sections for informational purposes only and were not investigated as part of this SI.

3.4.1 Town of Colonie Fire Department Training Area

Less than one mile to the northeast of the facility is the fire training area used by the Colonie Fire Department. NYARNG staff indicated that live fire training has historically been conducted by local fire departments with AFFF at the location shown in **Figure 3-1**. This area is upgradient from the facility and it is possible that potential PFAS contamination from the fire training activities are migrating towards the facility.

3.4.2 Crushed Stone Area

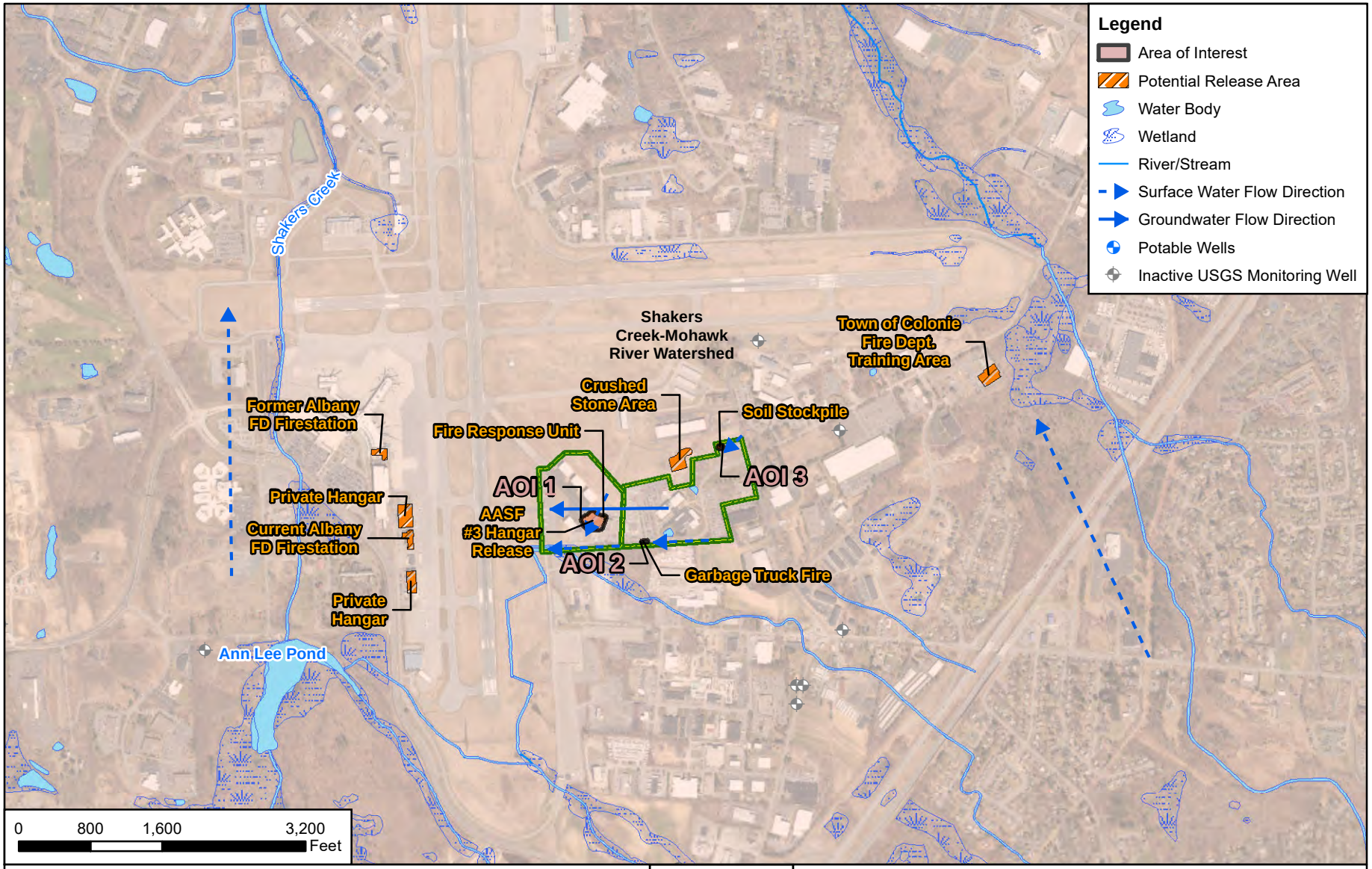
Just north of the facility is the Crushed Stone Area where the AFD and NYARNG Fire Response Unit conducted joint live burn fire training once per year between 1983 and 1992. Sources indicated that fuels and AFFF were used during the fire training events. The AFFF used during these training events was left to dissipate on the grass and soil. In addition, joint nozzle testing

also occurred during this period twice per year. Records indicate 20 gallons of 3% AFFF were used during the activities. The Crushed Stone Area is cross-gradient of the facility and it is possible the that potential PFAS contamination from the training events are migrating towards the facility.

3.4.3 Downgradient Sources

The remaining adjacent sources are the Albany Fire Station (Former and Current) and the Private Hangars. These adjacent sources are all located within the Albany International Airport and are downgradient of the facility. These adjacent potential sources are identified for informational purposes, and potential PFAS contamination from these downgradient adjacent sources are not anticipated to migrate towards the facility.

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CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 1,600 feet	CHK BY	AB	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

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Areas of Interest

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Figure 3-1

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4. Project Data Quality Objectives

As identified during the Data Quality Objective (DQO) process and outlined in the SI Quality Assurance Project Plan (QAPP) Addendum (AECOM, 2021), the objective of the SI is to identify whether there has been a release to the environment at the AOIs identified in the PA. For each AOI, ARNG determines if further investigation is warranted, a removal action is required to address immediate threats, or whether no further action is warranted. This SI evaluated groundwater and soil for presence or absence of relevant compounds at each of the sampled AOIs.

4.1 Problem Statement

ARNG will recommend an AOI for Remedial Investigation (RI) if related soil and groundwater samples have concentrations of the relevant compounds above the OSD risk-based SLs. The SLs are presented in **Section 6.1** of this report.

4.2 Information Inputs

Primary information inputs included:

- The PA for Albany AASF #3 (AECOM, 2020);
- Analytical data from groundwater and soil samples collected as part of this SI in accordance with the site-specific Uniform Federal Policy (UFP)-QAPP Addendum (AECOM, 2021); and
- Field data collected during the SI, including groundwater elevation and water quality parameters measured at the time of sampling.

4.3 Study Boundaries

The scope of the SI was bounded by the property limits of the facility (**Figure 2-2**). Off-facility sampling was not included in the scope of this SI. If future off-facility sampling is required, the proper stakeholders will be notified, and necessary rights of entry will be obtained by ARNG with property owner(s).

4.4 Analytical Approach

Samples were analyzed by Pace Analytical Gulf Coast, accredited under the Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP; Accreditation Number 74960) and the National Environmental Laboratory Accreditation Program (NELAP; Certificate Number 01955). Data were compared to applicable SLs within this document and decision rules as defined in the SI QAPP Addendum (AECOM, 2021).

4.5 Data Usability Assessment

The Data Usability Assessment (DUA), which is provided in **Appendix A**, is an evaluation at the conclusion of data collection activities that uses the results of both data verification and validation in the context of the overall project decisions or objectives. Using both quantitative and qualitative methods, the assessment determines whether project execution and the resulting data have met installation-specific DQOs. Both sampling and analytical activities are considered to assess whether the collected data are of the right type, quality, and quantity to support the decision-making (DoD, 2019a; DoD, 2019b; USEPA, 2017).

Based on the DUA, the environmental data collected during the SI were found to be acceptable and usable for this SI evaluation with the qualifications documented in the DUA and its associated data validation reports. These data are of sufficient quality to meet the objectives and requirements of the SI QAPP Addendum (AECOM, 2021).

5. Site Inspection Activities

This section describes the environmental investigation and sampling activities that occurred as part of the SI. The SI sampling approach was based on the findings of the PA and implemented in accordance with the following approved documents:

- *Final Site Inspection Programmatic Uniform Federal Policy-Quality Assurance Project Plan (PQAPP)* dated March 2018 (AECOM, 2018a);
- *Final Programmatic Accident Prevention Plan* dated July 2018 (AECOM, 2018b);
- *Final Preliminary Assessment Report, Albany Army Aviation Support Facility #3, Latham, New York* dated April 2020 (AECOM, 2020);
- *Final Site Inspection Uniform Federal Policy-Quality Assurance Project Plan Addendum, Albany Army Aviation Support Facility #3, Latham, New York* dated July 2021 (AECOM, 2021); and
- *Final Site Safety and Health Plan, Albany Army Aviation Support Facility #3, Latham, New York* dated March 2022 (AECOM, 2022).

The SI field activities were conducted on 4 January 2022 and from 8 to 14 April 2022 and consisted of utility clearance, direct push boring, soil sample collection, temporary monitoring well installation, grab groundwater sample collection, and land surveying. Field activities were conducted in accordance with the SI QAPP Addendum (AECOM, 2021), except as noted in **Section 5.8**.

The following samples were collected during the SI and analyzed for a subset of 18 compounds by liquid chromatography with tandem mass spectrometry (LC/MS/MS) compliant with Quality Systems Manual (QSM) 5.3 Table B-15 to fulfill the project DQOs:

- Thirty-six (36) soil samples from 13 boring locations and 8 hand auger locations;
- Thirteen (13) grab groundwater samples from 13 temporary wells;
- Twenty (20) quality assurance (QA)/quality control (QC) samples.

Figure 5-1 through **Figure 5-4** provide the sample locations for all media across the facility. **Table 5-1** presents the list of samples collected for each media. Field documentation is provided in **Appendix B**. A Log of Daily Notice of Field Activity was completed throughout the SI field activities, which is provided in **Appendix B1**. Sampling forms are provided in **Appendix B2**, Field Change Request Forms are provided in **Appendix B3**, investigation-derived waste (IDW) polygons are provided in **Appendix B4**, and land survey data are provided in **Appendix B5**. Additionally, a photographic log of field activities is provided in **Appendix C**.

5.1 Pre-Investigation Activities

In preparation for the SI field activities, project team members participated in Technical Project Planning (TPP) meetings, performed utility clearance, and sampled decontamination source water. Details for each of these activities are presented below.

5.1.1 Technical Project Planning

The US Army Corps of Engineers (USACE) TPP Process, Engineer Manual (EM) 200-1-2 (USACE, 2016) defines four phases to project planning: 1.) defining the project phase; 2.) determining data needs; 3.) developing data collection strategies; and 4.) finalizing the data collection plan. The process encourages stakeholder involvement in the SI, beginning with

defining overall project objectives, including DQOs, and formulating a sampling approach to address the AOIs identified in the PA.

A combined TPP Meeting 1 and 2 was held on 3 September 2020, prior to SI field activities. The combined TPP Meeting 1 and 2 was conducted in general accordance with EM 200-1-2. The stakeholders for this SI include the ARNG, NYARNG, USACE, NYSDEC, and New York State Department of Health (NYSDOH). Stakeholders were provided the opportunity to make comments on the technical sampling approach and methods at the combined TPP Meeting 1 and 2. The outcome of the combined TPP Meeting 1 and 2 was memorialized in the SI QAPP Addendum (AECOM, 2021).

A TPP Meeting 3 was held after the field event to discuss the results of the SI. Meeting minutes for TPP 3 are included in **Appendix D** of this report. Future TPP meetings will provide an opportunity to discuss the results and findings, and future actions, where warranted.

5.1.2 Utility Clearance

AECOM's drilling subcontractor, Cascade Technical Services, LLC. placed a ticket with the New York 811 utility clearance provider to notify them of intrusive work on 5 April 2022. Additionally, AECOM contracted Ground Penetrating Radar Systems (GPRS), a private utility location service, to perform utility clearance. GPRS performed utility clearance of the proposed boring locations on 8 April 2022 with input from the AECOM field team and Albany AASF #3 facility staff. General locating services and ground-penetrating radar were used to complete the clearance. Results of the utility clearing resulted in borings AOI01-01 and AOI01-02 being moved to the north side of the facility access road. This change is documented in **Appendix B3**. Additionally, the first 5 feet of each boring were pre-cleared using a hand auger to verify utility clearance in shallow subsurface where utilities would typically be encountered.

5.1.3 Source Water and Sampling Equipment Acceptability

The potable water source at Albany AASF #3 was sampled on 19 November 2021 to assess usability for decontamination of drilling equipment. Results of the sample collected at the outdoor spigot of the Maintenance Shop (ALB-DECON-01) confirmed this source to be acceptable for use in this investigation at the time of the analysis; therefore, it was used throughout the field activities. Specifically, the samples were analyzed by LC/MS/MS compliant with QSM 5.3 Table B-15. The results of the decontamination water sample associated with the wash rack spigot source used during the SI are provided in **Appendix F**. A discussion of the results is presented in the DUA (**Appendix A**).

Materials that were used within the sampling zone were confirmed as acceptable for use in the sampling environment. The checklist of acceptable materials for use in the sampling environment was provided in the Standard Operating Procedures (SOPs) appendix to the SI QAPP Addendum (AECOM, 2021). Prior to the start of field work each day, a Sampling Checklist was completed as an additional layer of control. The checklist served as a daily reminder to each field team member regarding the allowable materials within the sampling environment.

5.2 Soil Borings and Soil Sampling

Soil borings were placed as close to the release areas as possible given the subsurface utilities in the area. Soil samples were collected via direct push technology (DPT), in accordance with the SI QAPP Addendum (AECOM, 2021). A GeoProbe® 7822 dual-tube sampling system was used to collect continuous soil cores to the target depth. A hand auger was used to collect soil from the top 5 feet of the boring, in accordance with AECOM utility clearance procedures. The soil boring locations are shown on **Figure 5-1** through **Figure 5-4**, and depths are provided **Table 5-1**.

Several boring locations were adjusted within a 50-foot offset for reasons including drill rig access, utility avoidance and bias toward sampling within observed drainage features.

In general, up to three discrete soil samples were collected from the vadose zone for chemical analysis from each soil boring: one surface soil sample (0 to 2 feet bgs), one subsurface soil sample approximately 2 feet above the groundwater table, and one subsurface soil sample at the mid-point between the surface and the groundwater table. Due to the shallow groundwater depths (less than 6 feet bgs) encountered at the majority of the boring locations, one or two discrete soil samples were typically collected from each boring location. At borings along the facility boundary (AOI01-07 and AOI02-04), only one soil sample was collected approximately 2 feet above the groundwater table in accordance with the SI QAPP Addendum (AECOM, 2021).

The soil cores were continuously logged for lithological descriptions by an AECOM field geologist using the Unified Soil Classification System (USCS). A photoionization detector (PID) was used to screen the breathing zone during boring activities as part of personal safety requirements. Observations and measurements were recorded on sampling forms (**Appendix B2**) and in a non-treated field logbook (i.e., composition notebook). Depth interval, recovery thickness, PID concentrations, moisture, relative density, color (using a Munsell soil color chart), and texture (using the USCS) were recorded. The boring logs are provided in **Appendix E**.

Soil borings completed during the SI found sand as the dominant lithology of the unconsolidated sediments below the Albany AASF #3. The borings were completed at depths between 5 and 15 feet bgs. The sands were described as silty sand, well graded sand, and poorly graded sand. Many of the logs also reported varying percentages of gravel included near or at the surface of the boring. These results and facility observations are consistent with the reported depositional environment of the region and near surface fill material expected at a developed site.

Each soil sample was collected into laboratory-supplied PFAS-free high-density polyethylene (HDPE) bottles and labeled using a PFAS-free marker or pen. Samples were packaged on ice and transported via Federal Express (FedEx) under standard chain of custody (CoC) procedures to the laboratory and analyzed by LC/MS/MS compliant with QSM 5.3 Table B-15, total organic carbon (TOC) (USEPA Method 9060A), and pH (USEPA Method 9045D) in accordance with the SI QAPP Addendum (AECOM, 2021). No clay lens was observed during drilling; therefore, no grain size sample was collected.

Field duplicate samples were collected at a rate of 10% and analyzed for the same parameters as the accompanying samples. Matrix spike (MS)/MS duplicates (MSDs) were collected at a rate of 5% and analyzed for the same parameters as the accompanying samples. In instances when non-dedicated sampling equipment was used, such as a hand auger for the shallow soil samples, equipment rinsate blanks were collected at a rate of 5% and analyzed for the same parameters as the soil samples. A temperature blank was placed in each cooler to ensure that samples were preserved at or below 6 degrees Celsius (°C) during shipment.

DPT borings were converted to temporary wells, which were subsequently abandoned in accordance with the SI QAPP Addendum (AECOM, 2021) using bentonite chips at completion of sampling activities. The temporary well, AOI02-01, was installed in asphalt and additionally repaired with an asphalt cold patch.

5.2.1 Community Air Monitoring Program

Community air monitoring was performed in accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP), Attachment 1A of the NYSDEC Division of Environmental Remediation-10 Technical Guidance for Site Investigation and Remediation. Air monitoring activities were implemented to protect the community from any potential airborne releases that could result from field activities associated with the SI (NYSDEC, 2010).

Continuous air monitoring was performed in the vicinity of the drill rig when intrusive activities were taking place. Air monitoring consisted of a dust monitor and PID placed on a tripod adjacent to the work areas, in a downwind location. Background (upwind) levels were measured each day prior to start-up of site activities and periodically throughout the day. Readings were regularly checked throughout the day and at no time exceeded the thresholds outlined in the SI QAPP Addendum (AECOM, 2021). Measurement records from the dust monitor and PID were not recorded or downloaded at the end of the field activities.

5.3 Temporary Well Installation and Groundwater Grab Sampling

Temporary wells were installed using a GeoProbe® 7822 dual-tube sampling system. Once the borehole was advanced to the desired depth, a temporary well was constructed with either a 5-foot section or 10-foot section of 1-inch Schedule 40 poly-vinyl chloride (PVC) screen with sufficient casing to reach ground surface. New PVC pipe and screen were used to avoid cross contamination between locations. The screen intervals for the temporary wells are provided in **Table 5-2**.

Groundwater samples were collected after a period of time following well installation to allow groundwater to infiltrate and recharge the temporary well screen intervals. After the recharge period, groundwater samples were collected using a peristaltic pump with PFAS-free HDPE tubing. The temporary wells were purged at a rate determined in the field to reduce turbidity and draw down prior to sampling. Water quality parameters (e.g., temperature, specific conductance, pH, dissolved oxygen, and oxidation-reduction potential) were measured using a water quality meter and recorded on the field sampling form (**Appendix B2**) before each grab sample was collected. Additionally, a subsample of each groundwater sample was collected in a separate container, and a shaker test was completed to identify if there were any foaming. Slight to moderate foaming was observed in sample locations AOI01-03 and AOI01-04.

Each sample was collected into laboratory-supplied PFAS-free HDPE bottles and labeled using a PFAS-free marker or pen. Samples were packaged on ice and transported via FedEx under standard CoC procedures to the laboratory and analyzed by LC/MS/MS compliant with QSM 5.3 Table B-15 in accordance with the SI QAPP Addendum (AECOM, 2021).

Field duplicate samples were collected at a rate of 10% and analyzed for the same parameters as the accompanying samples. MS/MSDs were collected at a rate of 5% and analyzed for the same parameters as the accompanying samples. One field reagent blank was collected in accordance with the PQAPP (AECOM, 2018a). A temperature blank was placed in each cooler to ensure that samples were preserved at or below 6°C during shipment.

Following well surveying (described below in **Section 5.5**), temporary wells were abandoned in accordance with the SI QAPP Addendum (AECOM, 2021) by removing the PVC and backfilling the hole with bentonite chips. Upon completion of well abandonment, the ground surface at each location was patched to match existing surrounding conditions.

5.4 Synoptic Water Level Measurements

Groundwater elevation measurements were collected from the 13 new temporary monitoring wells prior to groundwater purging and sampling. Water level measurements were taken from the northern side of the well casing. A groundwater flow contour map is provided in **Figure 2-4**. Groundwater elevation data are provided in **Table 5-2**. It should be noted that the groundwater flow direction was anticipated to be to the north, but based on SI-specific data was determined to be to the west. This resulted in two downgradient boring locations to be cross-gradient (AOI01-07 and AOI02-04). This development did not result in a data gap or otherwise impact the SI results or recommendations.

5.5 Surveying

The northern side of each well casing was surveyed by New York-licensed land surveyors following guidelines provided in the SOPs provided in the SI QAPP Addendum (AECOM, 2021). Survey data from the newly installed wells on the facility were collected on 14 April 2022 in the applicable North American Datum of 1983 in New York State Plane System Coordinate System, East Zone (horizontal) and North American Vertical Datum 1988 (vertical). The surveyed well data are provided in **Appendix B5**.

5.6 Investigation-Derived Waste

As of the date of this report, the disposal of IDW is not regulated federally. IDW generated during the SI is considered non-hazardous waste and was managed in accordance with the SI QAPP Addendum (AECOM, 2021) and with the DA Guidance for Addressing Releases of PFAS, Q18 (DA, 2018).

Soil IDW (i.e., soil cuttings) generated during the SI activities had no evidence of contamination (e.g., no visual or olfactory evidence of contamination, no elevated readings on the PID); therefore, the soil IDW was returned to the ground surface on the downgradient side of the borehole. The soil IDW was not sampled and assumes the characteristics of the associated soil samples collected from that source location.

Liquid IDW generated during SI activities (i.e., purge water and decontamination fluids) were contained in properly labeled, 55-gallon steel drums, and left onsite in a designated waste storage area. The liquid IDW was not sampled and assumes the characteristics of the associated groundwater samples collected from that source location. ARNG will manage and dispose of the liquid IDW under a separate contract in accordance with SOP No. 042A for Treating Liquid Investigation-Derived Material (Purge water, drilling water, and decontamination fluids) (EA Engineering, Science, and Technology, Inc., 2021). ARNG will further coordinate with the NYSDEC to ensure proper disposal is in accordance with Section 6 of New York Codes, Rules, and Regulations (NYCRR) Part 364 and the Army Guidance for Addressing Releases of PFAS, Q18 (DA, 2018).

Geographic coordinates were collected using a Global positioning system (GPS) around each location where IDW was placed (i.e., an IDW polygon). The IDW polygons are displayed on the figure in **Appendix B4**.

Other solids such as spent personal protective equipment, plastic sheeting, tubing, rope, unused monitoring well construction materials, and other environmental media generated during the field activities were disposed of at a licensed solid waste landfill.

5.7 Laboratory Analytical Methods

Samples were analyzed by LC/MS/MS compliant with QSM 5.3 Table B-15 at Pace Analytical Gulf Coast in Baton Rouge, Louisiana, a DoD ELAP and NELAP certified laboratory. Select soil samples were also analyzed for TOC using USEPA Method 9060A and pH by USEPA Method 9045D.

5.8 Deviations from SI QAPP Addendum

Two deviations from the SI QAPP Addendum are noted below and documented in Field Change Request Forms (**Appendix B3**):

- During a review of the sampling locations with the drilling subcontractor prior to field mobilization, it was determined that AOI01-01 and AOI01-02 were located too close to an existing electrical line. To accommodate the health and safety concerns, the two boring locations were relocated to the north side of the adjacent access road, and the final locations were confirmed during the subsequent private utility clearance event.
- During a site walk, NYSDEC requested an additional surface soil sample be collected south of AOI02-01. This surface soil sample location was designated as AOI02-05 and was collected via a hand auger in the field.

Table 5-1
Site Inspection Samples by Medium
Site Inspection Report, Albany AASF #3, New York

Sample Identification	Sample Collection Date/Time	Sample Depth (feet bgs)	LC/MS/MS compliant with QSM 5.3 Table B-15	TOC (USEPA Method 9060A)	pH (USEPA Method 9045D)	Comments
Soil Samples						
AOI01-01-SB-00-02	04/11/22 10:55	0 - 2	x			
AOI01-01-SB-03-04	04/11/22 11:00	3 - 4	x			
AOI01-01-SB-05.6-06.2	04/11/22 09:45	5.6 - 6.2	x			
AOI01-02-SB-00-02	04/11/22 12:45	0 - 2	x			
AOI01-02-SB-03-04	04/11/22 12:50	3 - 4	x			
AOI01-03-SB-00-02	04/11/22 13:35	0 - 2	x			
AOI01-03-SB-02-03	04/11/22 13:40	2 - 3	x			
AOI01-04-SB-00-02	04/11/22 15:10	0 - 2	x			
AOI01-04-SB-03-04	04/11/22 15:15	3 - 4	x			
AOI01-05-SB-00-02	04/12/22 12:30	0 - 2	x			
AOI01-05-SB-03-04	04/12/22 12:40	3 - 4	x			
AOI01-SB-DUP-2	04/12/22 12:40	3 - 4	x			DUP for AOI01-05-SB-03-04
AOI01-06-SB-00-02	04/12/22 11:15	0 - 2	x			
AOI01-06-SB-02-02.7	04/12/22 11:20	2 - 2.7	x	x	x	
AOI01-06-SB-02-02.7-MS	04/12/22 11:20	2 - 2.7		x	x	MS
AOI01-06-SB-02-02.7-MSD	04/12/22 11:20	2 - 2.7		x	x	MSD
AOI01-07-SB-00-02	04/12/22 09:30	0 - 2	x			
AOI01-07-SB-00-02-MS	04/12/22 09:30	0 - 2	x			MS
AOI01-07-SB-00-02-MSD	04/12/22 09:30	0 - 2	x			MSD
AOI01-08-SB-00-02	04/11/22 14:20	0 - 2	x			
AOI01-SB-DUP-1	04/11/22 14:20	0 - 2	x			DUP for AOI01-08-SB-00-02
AOI01-09-SB-00-02	04/11/22 16:15	0 - 2	x			
AOI02-01-SB-00.9-03.5	04/14/22 09:45	0.9 - 3.5	x			
AOI02-SB-DUP-3	04/14/22 09:45	0.9 - 3.5	x			DUP for AOI02-01-SB-00.9-03.5
AOI02-01-SB-03.5-04.3	04/14/22 09:55	3.5 - 4.3	x	x	x	
AOI02-SB-DUP-4	04/14/22 09:55	3.5 - 4.3	x	x	x	DUP for AOI02-01-SB-03.5-04.3
AOI02-01-SB-03.5-04.3-MS	04/14/22 09:55	3.5 - 4.3	x			MS
AOI02-01-SB-03.5-04.3-MSD	04/14/22 09:55	3.5 - 4.3	x			MSD
AOI02-02-SB-00-02	04/12/22 16:05	0 - 2	x			
AOI02-02-SB-03-03.7	04/12/22 16:10	3 - 3.7	x			
AOI02-03-SB-00-02	04/13/22 09:35	0 - 2	x			
AOI02-03-SB-02-02.7	04/13/22 09:40	2 - 2.7	x			
AOI02-04-SB-05-05.5	04/12/22 14:25	5 - 5.5	x			
AOI02-05-SB-00-02	04/14/22 10:45	0 - 2	x			
AOI03-01-SB-00-01	04/13/22 11:00	0 - 1	x			
AOI03-02-SB-00-01	04/13/22 11:50	0 - 1	x			
AOI03-03-SB-00-02	01/04/22 12:35	0 - 2	x			
AOI03-03-SB-02-04	01/04/22 12:50	2 -4	x			
AOI03-04-SB-00-02	01/04/22 09:50	0 - 2	x			
AOI03-04-SB-00-02-DUP	01/04/22 09:50	0 - 2	x			DUP
AOI03-04-SB-02-04	01/04/22 10:10	2 -4	x			
AOI03-05-SB-00-02	01/04/22 10:40	0 - 2	x			
AOI03-05-SB-02-04	01/04/22 11:00	2 -4	x			
AOI03-06-SB-00-02	01/04/22 12:00	0 - 2	x			
AOI03-06-SB-02-04	01/04/22 12:15	2 -4	x			
AOI03-07-SB-00-02	01/04/22 11:20	0 - 2	x			
AOI03-07-SB-02-04	01/04/22 11:40	2 -4	x			

Table 5-1
Site Inspection Samples by Medium
Site Inspection Report, Albany AASF #3, New York

Sample Identification	Sample Collection Date/Time	Sample Depth (feet bgs)	LC/MS/MS compliant with QSM 5.3 Table B-15	TOC (USEPA Method 9060A)	pH (USEPA Method 9045D)	Comments
Groundwater Samples						
AOI01-01-GW	04/11/22 13:00	NA	x			
AOI01-02-GW	04/11/22 14:45	NA	x			
AOI01-03-GW	04/12/22 10:05	NA	x			
AOI01-04-GW	04/12/22 13:55	NA	x			
DUP-GW-01	04/12/22 13:55	NA	x			DUP for AOI01-04-GW
AOI01-04-GW-MS	04/12/22 13:55	NA	x			MS
AOI01-04-GW-MSD	04/12/22 13:55	NA	x			MSD
AOI01-05-GW	04/12/22 15:40	NA	x			
AOI01-06-GW	04/13/22 09:20	NA	x			
AOI01-07-GW	04/12/22 12:10	NA	x			
AOI02-01-GW	04/14/22 13:05	NA	x			
AOI02-02-GW	04/13/22 11:30	NA	x			
AOI02-03-GW	04/13/22 12:55	NA	x			
AOI02-DUP-GW-02	04/13/22 13:00	NA	x			DUP for AOI02-03-GW
AOI02-04-GW	04/13/22 14:30	NA	x			
AOI03-01-GW	04/14/22 11:00	NA	x			
AOI03-02-GW	04/14/22 09:50	NA	x			
Quality Control Samples						
ALB-DECON-01	11/19/21 08:20	NA	x			decontamination water sample
ALB-ERB-01	01/04/22 13:10	NA	x			from hand auger
EB-1 041122	04/11/22 09:25	NA	x			from DPT shoe
EB-2-041422	04/14/22 11:20	NA	x			from acetate liner
EB-3-041422	04/14/22 11:35	NA	x			from hand auger

Notes:
bgs = below ground surface
DPT = direct push technology
DUP = duplicate
EB = equipment rinsate blank
LC/MS/MS = Liquid Chromatography Mass Spectrometry
MS/MSD = matrix spike/ matrix spike duplicate
QSM = Quality Systems Manual
TOC = total organic carbon
USEPA = United States Environmental Protection Agency

Table 5-2
Soil Boring Depths, Temporary Well Screen Intervals, and Groundwater Elevations
Site Inspection Report, Albany AASF #3, New York

Area of Interest	Boring Location	Soil Boring Depth (feet bgs)	Temporary Well Screen Interval (feet bgs)	Top of Casing Elevation (feet NAVD88)	Ground Surface Elevation (feet NAVD88)	Depth to Water[2] (feet btoc)	Depth to Water (feet bgs)	Groundwater Elevation (feet NAVD88)
1	AOI01-01	15	5- 15	281.92	280.98	6.40	5.46	275.52
	AOI01-02	8	3 - 8	282.36	280.40	3.68	1.72	278.68
	AOI01-03	7	2 - 7	284.40	281.39	5.44	2.43	278.96
	AOI01-04	8	3 - 8	283.35	280.68	3.75	1.08	279.60
	AOI01-05	8	3 - 8	283.30	281.29	4.31	2.30	278.99
	AOI01-06	7	2 - 7	284.47	281.51	4.22	1.26	280.25
	AOI01-07	6	1 - 6	280.94	279.50	2.00	0.56	278.94
2	AOI02-01	8	3 - 8	288.10	285.72	6.31	3.93	281.79
	AOI02-02	8	3 - 8	287.77	285.07	5.69	2.99	282.08
	AOI02-03	7	2 - 7	287.83	284.34	4.95	1.46	282.88
	AOI02-04	10	4.5 - 9.5 [1]	290.05	289.30	6.47	5.72	283.58
3	AOI03-01	5	0 - 5	286.61	285.26	2.10	0.75	284.51
	AOI03-02	5	0 - 5	286.30	284.63	2.55	0.88	283.75

Notes:

[1] Temporary well screen set above total depth to capture groundwater interface

[2]Depth to Water measured between 4/11/22 and 4/14/22

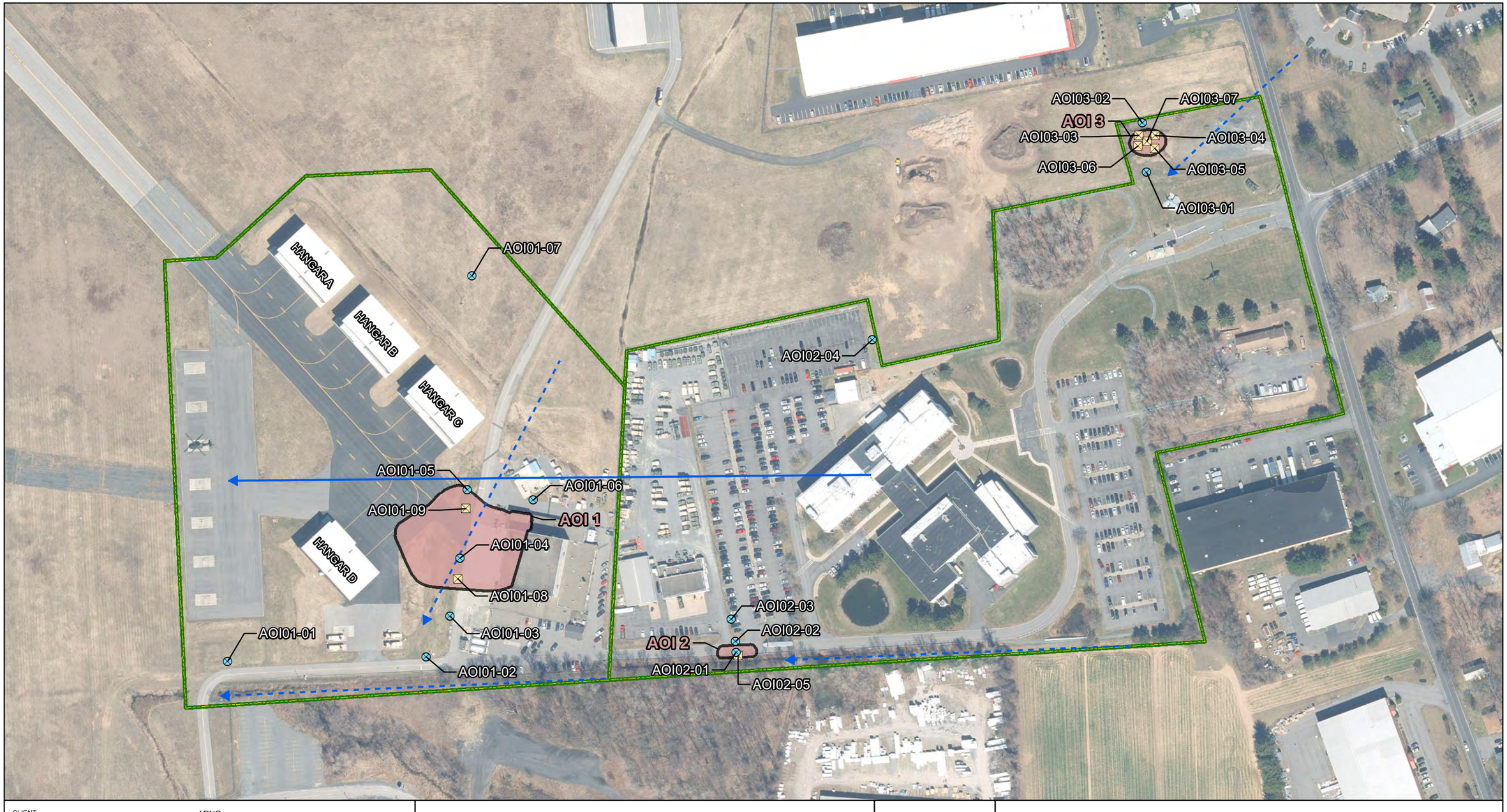
bgs = below ground surface

btoc = below top of casing

NA = not applicable

NAVD88 = North American Vertical Datum 1988

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CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch equals 200 feet	CHK BY	AB	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

Legend

- Soil Boring/Monitoring Well Location
- Hand Auger Soil Sample Location
- Area of Interest
- Facility Boundary
- Surface Water Flow Direction
- Groundwater Flow Direction

0 100 200 400 Feet

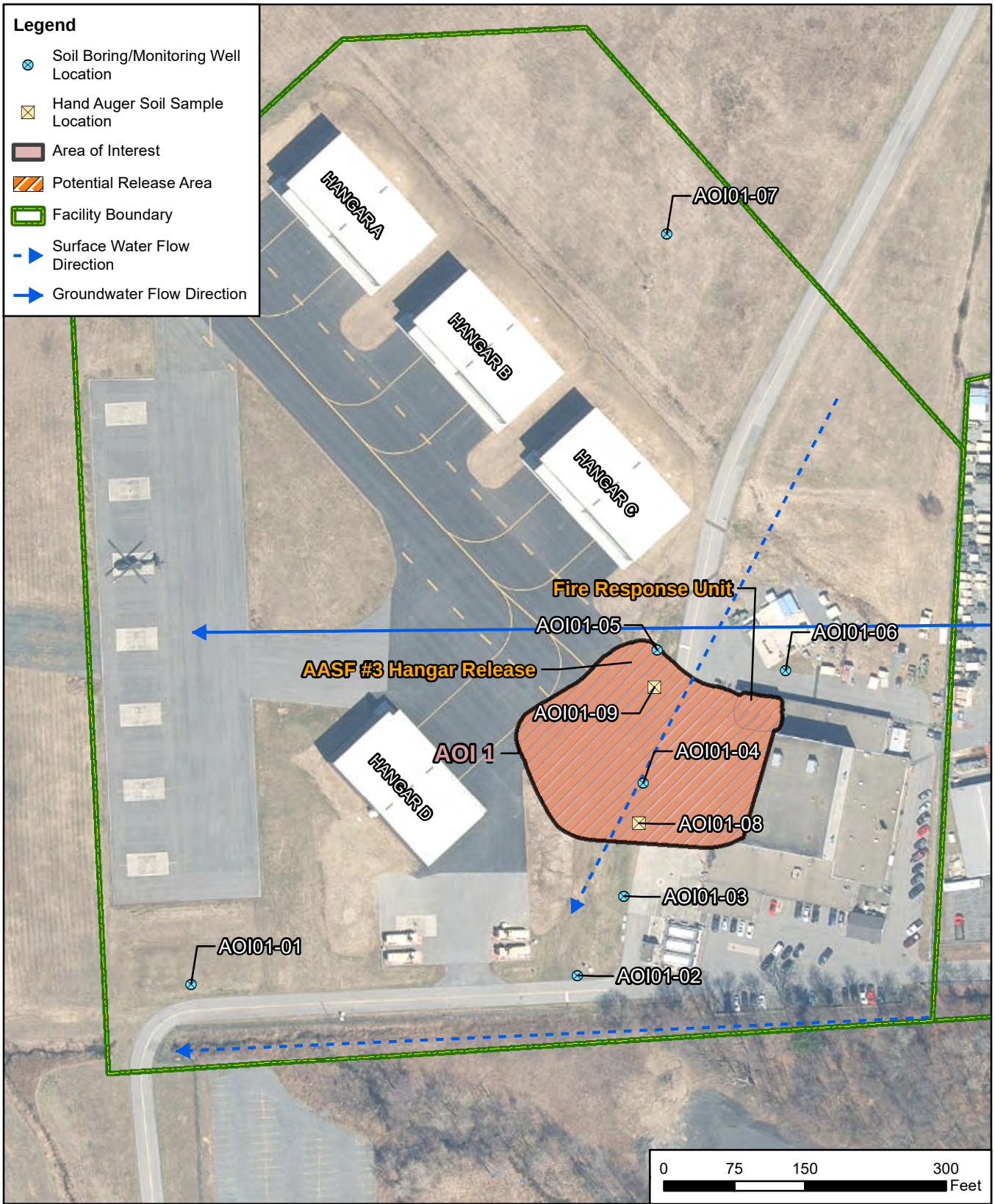
N

Site Inspection Sample Locations

AECOM 12420 Milestone Center Drive Germantown, MD 20876

Figure 5-1

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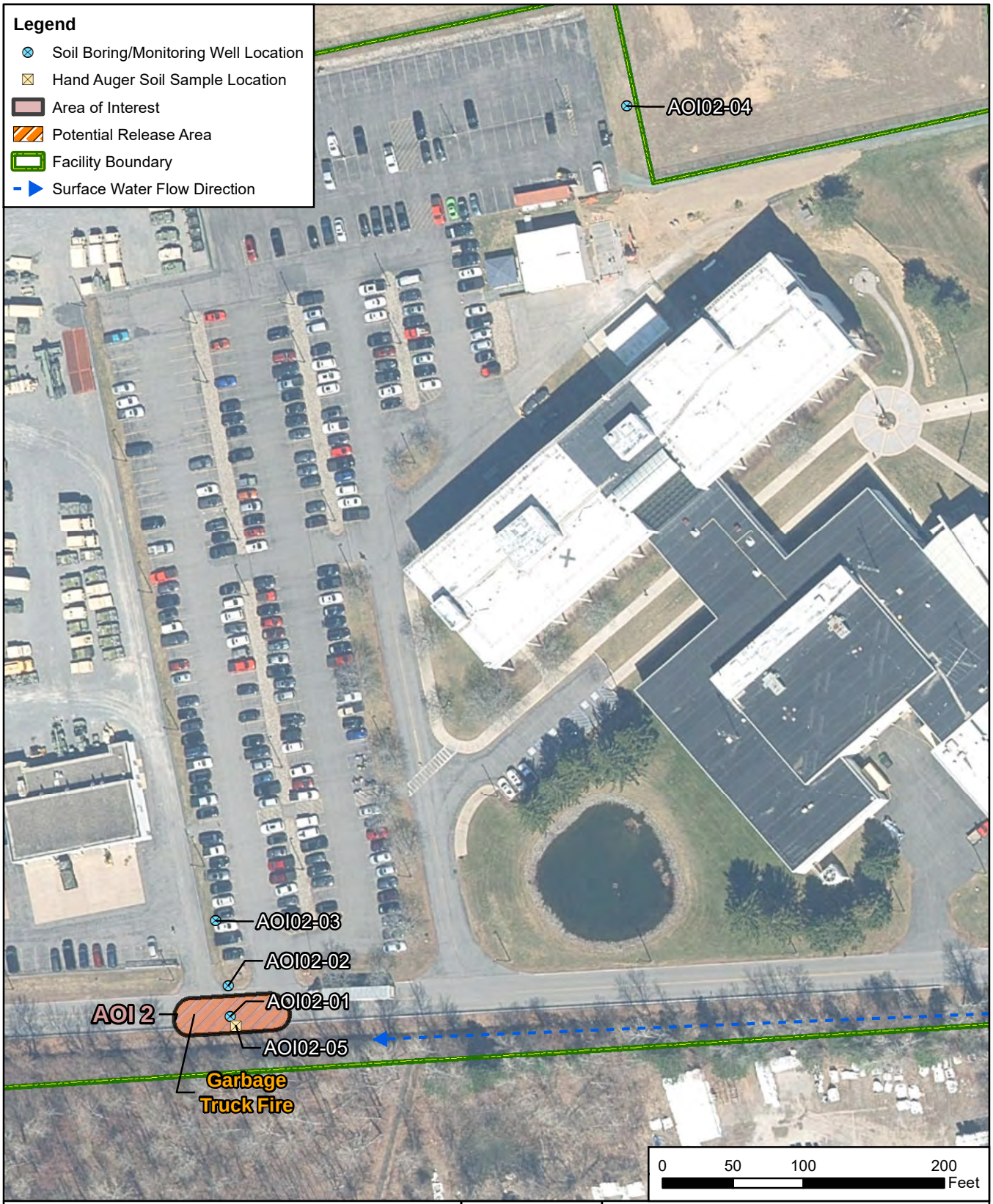
CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 150 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

N

Site Inspection
Sample Locations - AOI 1

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 5-2



CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 100 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

N

Site Inspection
Sample Locations - AOI 2

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 5-3



CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 80 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

Site Inspection
Sample Locations - AOI 3

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 5-4

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6. Site Inspection Results

This section presents the analytical results of the SI. The SLs used in this evaluation are presented in **Section 6.1**. A discussion of the results for each AOI is provided in **Section 6.3** through **Section 6.5**. **Table 6-2** through **Table 6-4** present results in soil or groundwater for the relevant compounds. Tables that contain all results are provided in **Appendix F**, and the laboratory reports are provided in **Appendix G**.

6.1 Screening Levels

The DoD has adopted a policy to retain facilities in the CERCLA process based on risk-based SLs for soil and groundwater, as described in a memorandum from the OSD dated 6 July 2022 (Assistant Secretary of Defense, 2022). The ARNG program under which this SI was performed follows this DoD policy. Should the maximum site concentration for sampled media exceed the SLs established in the OSD memorandum, the AOI will proceed to the next phase under CERCLA. The SLs established in the OSD memorandum apply to the five compounds presented on **Table 6-1** below.

Table 6-1: Screening Levels (Soil and Groundwater)

Analyte[b]	Residential (Soil) (µg/kg)[a] 0-2 feet bgs	Industrial/ Commercial Composite Worker (Soil) (µg/kg)[a] 2-15 feet bgs	Tap Water (Groundwater) (ng/L)[a]
PFOA	19	250	6
PFOS	13	160	4
PFBS	1,900	25,000	601
PFHxS	130	1,600	39
PFNA	19	250	6

Notes:
bgs = below ground surface; µg/kg = micrograms per kilogram; ng/L = nanograms per liter

a.) Assistant Secretary of Defense, 2022. Risk Based Screening Levels in Groundwater and Soil using United States Environmental Protection Agency's (USEPA's) Regional Screening Level Calculator. Hazard Quotient (HQ) = 0.1. 6 July 2022.

b.) Of the six PFAS compounds presented in the 6 July 2022 OSD memorandum, HFPO-DA (commonly referred to as GenX) was not included as an analyte at the time of this SI. Based on the CSM developed during the PA and revised based on SI findings, the presence of HFPO-DA is not anticipated at the facility because HFPO-DA is generally not a component of MIL-SPEC AFFF and based on its history including distribution limitations that restricted use of GenX, it is generally not a component of other products the military used. In addition, it is unlikely that GenX would be an individual chemical of concern in the absence of other PFAS.

The data in the subsequent sections are compared to the SLs presented in **Table 6-1**. The SLs for groundwater are based on direct ingestion. The SLs for soil are based on incidental ingestion and are applied to the depth intervals reasonably anticipated to be encountered by the receptors identified at the facility: the residential scenario is applied to surface soil results (0 to 2 feet bgs) and the industrial/commercial worker scenario is applied to shallow subsurface soil results (2 to 15 feet bgs). The SLs are not applied to deep subsurface soil results (>15 feet bgs) because 15 feet is the anticipated limit of construction activities.

6.2 Soil Physicochemical Analyses

To provide basic soil parameter information, soil samples were analyzed for TOC and pH, which are important for evaluating transport through the soil medium. **Appendix F** contains the results of the TOC and pH sampling.

The data collected in this investigation will be used in subsequent investigations, where appropriate, to assess fate and transport. According to the Interstate Technology Regulatory Council (ITRC), several important partitioning mechanisms include hydrophobic and lipophobic effects, electrostatic interactions, and interfacial behaviors. At relevant environmental pH values, certain PFAS are present as organic anions and are therefore relatively mobile in groundwater (Xiao et al., 2015), but tend to associate with the organic carbon fraction that may be present in soil or sediment (Higgins and Luthy, 2006; Guelfo and Higgins, 2013). When sufficient organic carbon is present, organic carbon normalized distribution coefficients (K_{oc} values) can help in evaluating transport potential, though other geochemical factors (for example, pH and presence of polyvalent cations) may also affect PFAS sorption to solid phases (ITRC, 2018).

6.3 AOI 1

This section presents the analytical results for soil and groundwater in comparison to SLs for AOI 1: AASF #3 Hangar Release / Fire Response Unit. The soil and groundwater results are summarized on **Table 6-2** through **Table 6-4**. Soil and groundwater results are presented on **Figure 6-1** through **Figure 6-7**.

6.3.1 AOI 1 Soil Analytical Results

Figure 6-1 through **Figure 6-5** present the ranges of detections in soil. **Table 6-2** and **Table 6-3** summarize the soil results.

Surface soil was sampled from 0 to 2 feet bgs at boring locations AOI01-01 through AOI01-09. PFOS was detected above the SL of 13 micrograms per kilogram (µg/kg) at two of nine boring locations: AOI01-04 and AOI01-08 at concentrations of 60.1 and 14.1 µg/kg, respectively. PFOA, PFHxS, PFNA, and PFBS were also detected at concentrations less than 1.24 µg/kg, and all detections were below their SLs.

Soil was sampled from the shallow subsurface interval (between 2 and 6.2 feet bgs) from boring locations AOI01-01 through AOI01-06. All detected concentrations for PFOA, PFOS, PFHxS, PFNA, and PFBS were below their SLs by at least one order of magnitude. PFOS was the most frequently and highest detected compound, with a maximum concentration of 14.7 µg/kg, an order of magnitude below the SL of 160 µg/kg.

6.3.2 AOI 1 Groundwater Analytical Results

Figure 6-6 and **Figure 6-7** present the ranges of detections in groundwater. **Table 6-4** summarizes the groundwater results.

Groundwater was sampled from temporary monitoring wells AOI01-01 through AOI01-07. PFOA, PFOS, PFHxS, and PFNA were detected above their SLs in groundwater, and at least one SL exceedance was measured in all temporary wells, except for AOI01-07, located north and side-gradient to the AOI 1 source area. The exceedances of the SLs ranged in concentrations from 8.55 to 61.9 nanograms per liter (ng/L) (PFOA), 57.8 to 15,000 ng/L (PFOS), and 139 to 1,180 ng/L (PFHxS). The SL of 6 ng/L for PFNA was exceeded at one temporary well, AOI01-06, at a concentration of 13.3 ng/L. PFBS was detected in all temporary wells below the SL of 601 ng/L, with a maximum concentration of 51.6 ng/L.

6.3.3 AOI 1 Conclusions

Based on the results of the SI, PFOS was detected in soil at concentrations above the SL. PFOA, PFOS, PFHxS, and PFNA were also detected in groundwater at concentrations above their respective SLs. Based on the exceedances of the SLs in soil and groundwater, further evaluation at AOI 1 is warranted.

6.4 AOI 2

This section presents the analytical results for soil and groundwater in comparison to SLs for AOI 2: Garbage Truck Fire. The results in soil and groundwater are summarized on **Table 6-2** through **Table 6-4**. Soil and groundwater results are presented on **Figure 6-1** through **Figure 6-7**.

6.4.1 AOI 2 Soil Analytical Results

Figure 6-1 through **Figure 6-5** present the ranges of detections in soil. **Table 6-2** and **Table 6-3** summarize the soil results.

Surface soil was sampled from 0 to 2 feet bgs at boring locations AOI02-02, AOI02-03, and AOI02-05; surface soil was also sampled at AOI02-01 from 0.9 to 3.5 feet bgs just below the asphalt. PFOS and PFNA were detected in surface soil at concentrations below their SLs. PFOS was detected in all borings at concentrations ranging from 0.071 J (estimated) to 0.492 J µg/kg. PFNA was detected in two borings at concentrations of 0.031 J and 0.029 J µg/kg. PFOA, PFHxS, and PFBS were not detected in surface soil.

Soil was sampled from the shallow subsurface interval (between 2 and 5.5 feet bgs) from boring locations AOI02-01 through AOI02-04. PFOS, PFHxS, and PFBS were detected at concentrations less than 0.398 µg/kg, and all detections were below their SLs. PFOA and PFNA were not detected in shallow subsurface soil.

6.4.2 AOI 2 Groundwater Analytical Results

Figure 6-6 and **Figure 6-7** present the ranges of detections in groundwater. **Table 6-4** summarizes the groundwater results.

Groundwater was sampled from temporary monitoring wells AOI2-01 through AOI2-04. PFOA and PFOS were detected above their SLs in groundwater. PFOA exceeded the SL of 6 ng/L in temporary well AOI02-03, at concentrations 10.5 and 9.97 ng/L (duplicate). PFOS was above the SL of 4 ng/L in all wells (ranging from 11.6 to 21.8 ng/L) except AOI02-04, which was located north and side-gradient to the AOI 2 source area. PFHxS, PFNA, and PFBS were also detected in groundwater below their SLs.

6.4.3 AOI 2 Conclusions

Based on the results of the SI, PFOS, PFHxS, PFNA, and PFBS were detected in soil at concentrations below their SLs. PFOA and PFOS were detected in groundwater at concentrations above their SLs. Based on the exceedances of the SLs in groundwater, further evaluation at AOI 2 is warranted.

6.5 AOI 3

This section presents the analytical results for soil and groundwater in comparison to SLs for AOI 3: Stockpiled Soil. The results in soil and groundwater are presented in **Table 6-2** through **Table 6-4**. Soil and groundwater results are presented on **Figure 6-1** through **Figure 6-7**.

6.5.1 AOI 3 Soil Analytical Results

Figure 6-1 through **Figure 6-5** present the ranges of detections in soil. **Table 6-2** and **Table 6-3** summarize the soil results.

Surface soil was sampled from 0 to 2 feet bgs at boring locations AOI03-03 through AOI03-07 per the SI QAPP Addendum (AECOM, 2021). Due to groundwater being encountered at 1 foot bgs at AOI03-01 and AOI03-02, surface soil was sampled from 0 to 1 foot bgs at those locations. PFOA, PFOS, PFHxS, and PFNA were detected in surface soil below their SLs. PFOS was the most frequently and highest detected compound, with a maximum concentration of 3.44 µg/kg. PFBS was not detected in surface soil.

Soil was sampled from the shallow subsurface interval (2 to 4 feet bgs) from boring locations AOI03-03 through AOI03-07. PFOA, PFOS, PFHxS, and PFNA were detected below their SLs in shallow subsurface soil. PFOS was the most frequently and highest detected compound and at the highest concentrations; with a maximum concentration of 4.12 µg/kg, two orders of magnitude below the SL of 160 µg/kg. PFBS was not detected in shallow subsurface soil.

6.5.2 AOI 3 Groundwater Analytical Results

Figure 6-6 and **Figure 6-7** present the ranges of detections in groundwater. **Table 6-4** summarizes the groundwater results.

Groundwater was sampled from temporary wells AOI03-01 and AOI03-02. PFOA and PFOS were detected in both wells and exceeded their SLs. PFOA was detected above the SL of 6 ng/L, at concentrations of 13.7 and 17.9 ng/L. PFOS was detected above the SL of 4 ng/L, at concentrations of 11.4 and 24.6 ng/L. PFHxS, PFNA, and PFBS were also detected in groundwater below their respective SLs.

6.5.3 AOI 3 Conclusions

Based on the results of the SI, PFOA, PFOS, PFHxS, and PFNA were detected in soil at concentrations below their respective SLs. PFOA and PFOS were detected in groundwater at concentrations above their respective SLs. Based on the exceedances of the SLs in groundwater, further evaluation at AOI 3 is warranted.

Table 6-2
PFOA, PFOS, PFBS, PFNA, and PFHxS Results in Surface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI01															
Sample ID		AOI01-01-SB-00-02		AOI01-02-SB-00-02		AOI01-03-SB-00-02		AOI01-04-SB-00-02		AOI01-05-SB-00-02		AOI01-06-SB-00-02		AOI01-07-SB-00-02		AOI01-08-SB-00-02	
Sample Date		04/11/2022		04/11/2022		04/11/2022		04/11/2022		04/12/2022		04/12/2022		04/12/2022		04/11/2022	
Depth		0-2 ft		0-2 ft		0-2 ft		0-2 ft		0-2 ft		0-2 ft		0-2 ft		0-2 ft	
Analyte	OSD Screening Level [a]	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																	
PFBS	1900	ND	U	ND	U	ND	U	0.039	J	ND	U	ND	U	0.028	J	ND	U
PFHxS	130	0.250	J	ND	U	0.102	J	1.24		0.332	J	0.260	J	0.088	J	0.146	J
PFNA	19	0.060	J	0.071	J	0.057	J	0.037	J	0.077	J	0.039	J	0.079	J	0.058	J
PFOA	19	0.164	J	0.104	J	0.177	J	0.174	J	0.229	J	ND	U	0.242	J	0.136	J
PFOS	13	7.45		0.538	J	4.70		60.1		6.40		6.33		0.310	J	14.1	

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on residential scenario for direct ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

UJ = The analyte was not detected at a level greater than or equal to the adjusted DL. However, the reported adjusted DL is approximate and may be inaccurate or imprecise.

Notes

ND = Analyte not detected above the LOD. LOD values are presented in Appendix F.

Chemical Abbreviations

PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
ND	analyte not detected above the LOD
OSD	Office of the Secretary of Defense
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram

Table 6-2
PFOA, PFOS, PFBS, PFNA, and PFHxS Results in Surface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI01				AOI02										AOI03			
Sample ID		AOI01-SB-DUP-1		AOI01-09-SB-00-02		AOI02-01-SB-00.9-03.5		AOI02-SB-DUP-3		AOI02-02-SB-00-02		AOI02-03-SB-00-02		AOI02-05-SB-00-02		AOI03-01-SB-00-01		AOI03-02-SB-00-01	
Sample Date		04/12/2022		04/11/2022		04/14/2022		04/14/2022		04/12/2022		04/13/2022		04/14/2022		04/13/2022		04/13/2022	
Depth		0-2 ft		0-2 ft		0.9-3.5 ft		0.9-3.5 ft		0-2 ft		0-2 ft		0-2 ft		0-1 ft		0-1 ft	
Analyte	OSD Screening Level [a]	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																			
PFBS	1900	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
PFHxS	130	0.121	J	0.086	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
PFNA	19	0.042	J	ND	U	ND	U	ND	U	0.031	J	0.029	J	ND	U	0.028	J	0.072	J
PFOA	19	ND	UJ	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
PFOS	13	12.0		8.88		0.071	J	0.087	J	0.463	J	0.492	J	0.080	J	0.320	J	0.638	J

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on residential scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

UJ = The analyte was not detected at a level greater than or equal to the adjusted DL. However, the reported adjusted DL is approximate and may be inaccurate or imprecise.

Notes

ND = Analyte not detected above the LOD. LOD values are presented in Appendix F.

AOI01-SB-DUP-1 collected from AOI01-08-SB

AOI02-SB-DUP-3 collected from AOI02-01-SB

Chemical Abbreviations

PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
ND	analyte not detected above the LOD
OSD	Office of the Secretary of Defense
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram

Table 6-2
PFOA, PFOS, PFBS, PFNA, and PFHxS Results in Surface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI03											
Sample ID		AOI03-03-SB-00-02		AOI03-04-SB-00-02		AOI03-04-SB-00-02-DUP		AOI03-05-SB-00-02		AOI03-06-SB-00-02		AOI03-07-SB-00-02	
Sample Date		01/04/2022		01/04/2022		01/04/2022		01/04/2022		01/04/2022		01/04/2022	
Depth		0-2 ft		0-2 ft		0-2 ft		0-2 ft		0-2 ft		0-2 ft	
Analyte	**OSD Screening Level [a]**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)													
PFBS	1900	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
PFHxS	130	0.047	J	0.163	J	0.145	J	0.078	J	0.116	J	0.163	J
PFNA	19	0.096	J	0.069	J	0.089	J	0.060	J	0.076	J	0.101	J
PFOA	19	0.107	J	0.151	J	0.196	J	0.120	J	0.146	J	0.191	J
PFOS	13	0.441	J	2.67		2.19		1.23		3.44		3.12	

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on residential scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

UJ = The analyte was not detected at a level greater than or equal to the adjusted DL. However, the reported adjusted DL is approximate and may be inaccurate or imprecise.

Notes

ND = Analyte not detected above the LOD. LOD values are presented in Appendix F.

Chemical Abbreviations

PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
ND	analyte not detected above the LOD
OSD	Office of the Secretary of Defense
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram

Table 6-3
PFOA, PFOS, PFBS, PFNA, and PFHxS Results in Shallow Subsurface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI01																AOI02			
Sample ID		AOI01-01-SB-03-04		AOI01-01-SB-05.6-06.2		AOI01-02-SB-03-04		AOI01-03-SB-02-03		AOI01-04-SB-03-04		AOI01-05-SB-03-04		AOI01-SB-DUP-2		AOI01-06-SB-02-02.7		AOI02-01-SB-03.5-04.3		AOI02-02-SB-03-03.7	
Sample Date		04/11/2022		04/11/2022		04/11/2022		04/11/2022		04/11/2022		04/12/2022		04/12/2022		04/12/2022		04/14/2022		04/12/2022	
Depth		3-4 ft		5.6-6.2 ft		3-4 ft		2-3 ft		3-4 ft		3-4 ft		3-4 ft		2-2.7 ft		3.5-4.3 ft		3-3.7 ft	
Analyte	**OSD Screening Level [a]**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																					
PFBS	25000	0.027	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
PFHxS	1600	3.23		0.433	J	ND	U	0.036	J	0.398	J	2.18		2.09		0.196	J	ND	U	ND	U
PFNA	250	0.049	J	0.057	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
PFOA	250	0.726	J	0.193	J	ND	U	ND	U	ND	U	0.148	J	0.133	J	ND	U	ND	U	ND	U
PFOS	160	10.7		14.7		0.063	J	1.22		10.3		0.925	J	0.597	J	3.87		0.398	J	0.148	J

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on industrial/commercial composite worker scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Notes

ND = Analyte not detected above the LOD. LOD values are presented in Appendix F.

AOI01-SB-DUP-2 collected from AOI01-05-SB

Chemical Abbreviations

PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
ND	analyte not detected above the LOD
OSD	Office of the Secretary of Defense
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram

Table 6-3
PFOA, PFOS, PFBS, PFNA, and PFHxS Results in Shallow Subsurface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI02				AOI03									
Sample ID		AOI02-03-SB-02-02.7		AOI02-04-SB-05-05.5		AOI03-03-SB-02-04		AOI03-04-SB-02-04		AOI03-05-SB-02-04		AOI03-06-SB-02-04		AOI03-07-SB-02-04	
Sample Date		04/13/2022		04/12/2022		01/04/2022		01/04/2022		01/04/2022		01/04/2022		01/04/2022	
Depth		2-2.7 ft		5-5.5 ft		2-4 ft		2-4 ft		2-4 ft		2-4 ft		2-4 ft	
Analyte	**OSD Screening Level [a]**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)															
PFBS	25000	ND	U	0.032	J	ND	U	ND	U	ND	U	ND	U	ND	U
PFHxS	1600	ND	U	0.166	J	ND	U	0.144	J	0.079	J	0.133	J	0.091	J
PFNA	250	ND	U	ND	U	0.078	J	0.090	J	0.130	J	0.131	J	0.098	J
PFOA	250	ND	U	ND	U	ND	U	0.193	J	0.219	J	0.235	J	0.179	J
PFOS	160	0.139	J	0.230	J	0.391	J	2.20		1.87		4.12		2.00	

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on industrial/commercial composite worker scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Notes

ND = Analyte not detected above the LOD. LOD values are presented in Appendix F.

Chemical Abbreviations

PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
ND	analyte not detected above the LOD
OSD	Office of the Secretary of Defense
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram

Table 6-4
PFOA, PFOS, PFBS, PFNA, and PFHxS Results in Groundwater
Site Inspection Report, Albany AASF #3

Area of Interest		AOI01																AOI02	
Sample ID		AOI01-01-GW		AOI01-02-GW		AOI01-03-GW		AOI01-04-GW		DUP-GW-01		AOI01-05-GW		AOI01-06-GW		AOI01-07-GW		AOI02-01-GW	
Sample Date		04/11/2022		04/11/2022		04/12/2022		04/12/2022		04/12/2022		04/12/2022		04/13/2022		04/12/2022		04/14/2022	
Analyte	OSD Screening Level [a]	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Water, LCMSMS compliant with QSM 5.3 Table B-15 (ng/l)																			
PFBS	601	9.07		2.05	J	3.54	J	48.5		51.6		49.6		7.55		1.90	J	ND	U
PFHxS	39	276		6.51		24.4		1120		1180		597		139		14.6		1.59	J
PFNA	6	1.72	J	1.31	J	ND	U	4.90		5.06		2.46	J	13.3		ND	U	ND	U
PFOA	6	29.6		2.71	J	8.55		58.7		61.9		31.5		28.5		1.46	J	4.50	
PFOS	4	533		57.8		95.8		14100	J	15000		1190		391		1.31	J	16.6	

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022 Groundwater screening levels based on residential scenario for direct ingestion of groundwater.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Notes

ND = Analyte not detected above the LOD. LOD values are presented in Appendix F.

DUP-GW-01 collected from AOI01-04

Chemical Abbreviations

PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
GW	groundwater
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
ND	analyte not detected above the LOD
OSD	Office of the Secretary of Defense
QSM	Quality Systems Manual
Qual	interpreted qualifier
USEPA	United States Environmental Protection Agency
ng/l	nanogram per liter

Table 6-4
PFOA, PFOS, PFBS, PFNA, and PFHxS Results in Groundwater
Site Inspection Report, Albany AASF #3

Area of Interest		AOI02								AOI03			
Sample ID		AOI02-02-GW		AOI02-03-GW		AOI02-DUP-GW-02		AOI02-04-GW		AOI03-01-GW		AOI03-02-GW	
Sample Date		04/13/2022		04/13/2022		04/13/2022		04/13/2022		04/14/2022		04/14/2022	
Analyte	OSD Screening Level [a]	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Water, LCMSMS compliant with QSM 5.3 Table B-15 (ng/l)													
PFBS	601	1.21	J	6.69		6.28		ND	U	3.30	J	1.87	J
PFHxS	39	ND	U	2.89	J	2.34	J	ND	U	3.36	J	2.42	J
PFNA	6	1.80	J	2.13	J	2.08	J	ND	U	ND	U	1.17	J
PFOA	6	1.51	J	10.5		9.97		ND	U	17.9		13.7	
PFOS	4	11.6		21.8		20.4		ND	U	24.6		11.4	

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022 Groundwater screening levels based on residential scenario for direct ingestion of groundwater.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Notes

ND = Analyte not detected above the LOD. LOD values are presented in Appendix F.

AOI02-DUP-GW-02 collected from AOI02-03

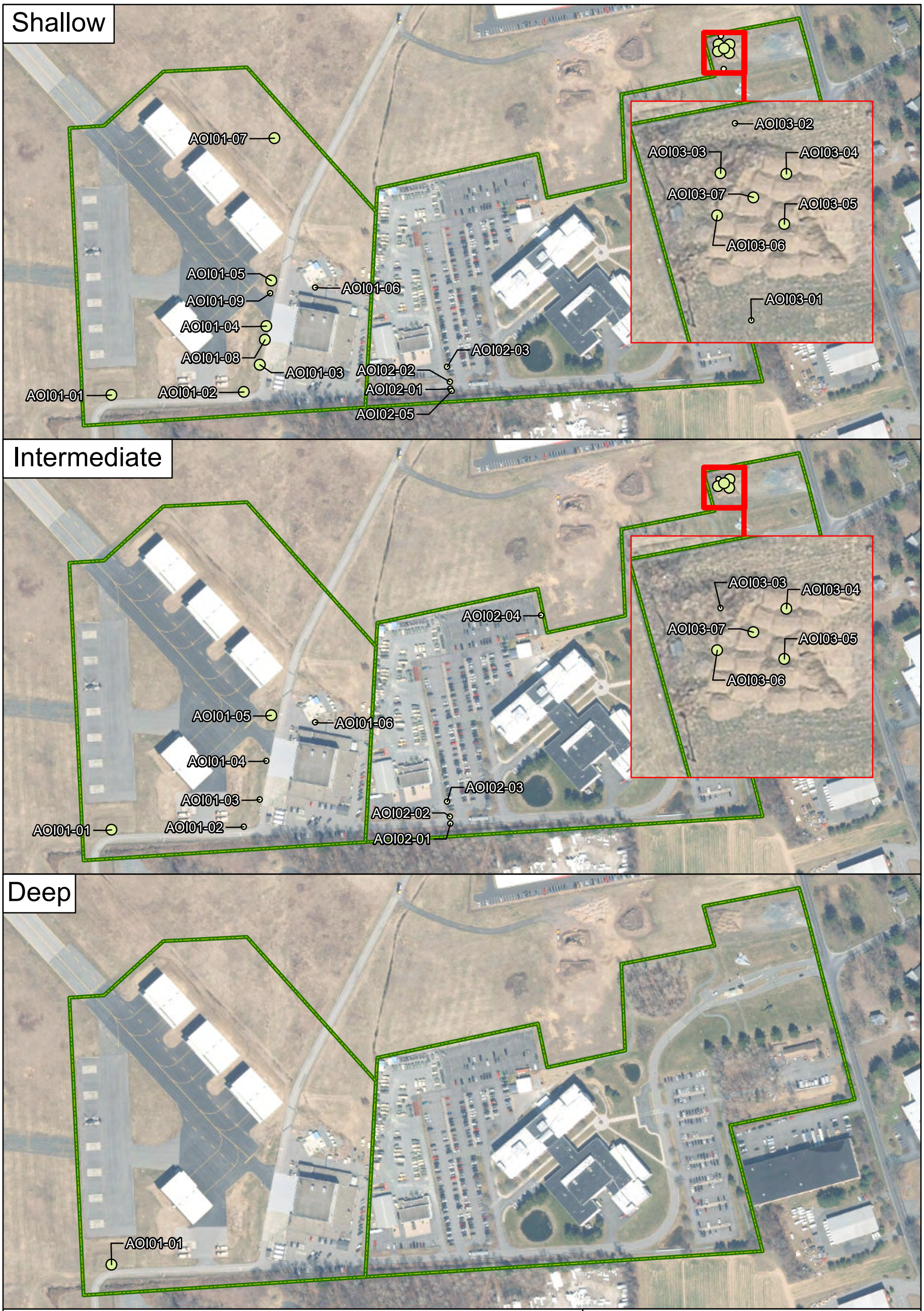
Chemical Abbreviations

PFBS	perfluorobutanesulfonic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
GW	groundwater
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
ND	analyte not detected above the LOD
OSD	Office of the Secretary of Defense
QSM	Quality Systems Manual
Qual	interpreted qualifier
USEPA	United States Environmental Protection Agency
ng/l	nanogram per liter

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Legend

Facility Boundary

PFOA Residential Soil Screening Level 0-2 ft bgs: 19µg/kg

PFOA Industrial Soil Screen Level 2-15 ft bgs: 250 µg/kg

PFOA Results (µg/Kg)

- ND
- >ND - 19
- >19 - 250
- >250 - 2,500
- >2,500

N

0 150 300 600 Feet

Exceedances of the OSD SL are depicted with a yellow halo.
Depth intervals shown represent respective sampling position within a given soil boring location.

PFOA Detections in Soil

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 300 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

AECOM 12420 Milestone Center Drive Germantown, MD 20876

Figure 6-1

Shallow

AOI01-07
AOI01-05
AOI01-09
AOI01-04
AOI01-08
AOI01-03
AOI01-01
AOI01-02
AOI01-06
AOI02-03
AOI02-02
AOI02-01
AOI02-05
AOI03-02
AOI03-03
AOI03-04
AOI03-07
AOI03-05
AOI03-06
AOI03-01

Intermediate

AOI01-05
AOI01-06
AOI01-04
AOI01-03
AOI01-01
AOI01-02
AOI02-04
AOI02-03
AOI02-02
AOI02-01
AOI03-03
AOI03-04
AOI03-07
AOI03-05
AOI03-06

Deep

AOI01-01

Legend

Facility Boundary

PFOS Residential Soil Screening Level 0-2 ft bgs: 13 µg/kg

PFOS Industrial Soil Screen Level 2-15 ft bgs: 160 µg/kg

PFOS Results (µg/Kg)

ND

>ND - 13

>13 - 160

>160 - 1,600

>1,600

N

0 150 300 600 Feet

Exceedances of the OSD SL are depicted with a yellow halo.
Depth intervals shown represent respective sampling position within a given soil boring location.

PFOS Detections in Soil

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 300 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

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Germantown, MD 20876

Figure 6-2

Shallow

AOI01-07
AOI01-05
AOI01-06
AOI01-09
AOI01-04
AOI01-08
AOI01-03
AOI01-01
AOI01-02
AOI02-03
AOI02-02
AOI02-01
AOI02-05
AOI03-02
AOI03-03
AOI03-04
AOI03-07
AOI03-06
AOI03-05
AOI03-01

Intermediate

AOI02-04
AOI01-05
AOI01-06
AOI01-04
AOI01-03
AOI01-01
AOI01-02
AOI02-03
AOI02-02
AOI02-01
AOI03-03
AOI03-04
AOI03-06
AOI03-05
AOI03-07

Deep

AOI01-01

Legend

Facility Boundary

PFBS Residential Soil Screening Level 0-2 ft bgs: 1,900 µg/kg

PFBS Industrial Soil Screen Level 2-15 ft bgs: 25,000 µg/kg

PFBS Results (µg/Kg)

ND
>ND - 10
>10 - 1,900
>1,900 - 25,000
>25,000

N

0 150 300 600 Feet

Exceedances of the OSD SL are depicted with a yellow halo.
Depth intervals shown represent respective sampling position within a given soil boring location.

PFBS Detections in Soil

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 300 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

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Germantown, MD 20876

Figure 6-3

Shallow

AOI01-07
AOI01-05
AOI01-09
AOI01-06
AOI01-04
AOI01-08
AOI01-03
AOI01-01
AOI01-02
AOI02-03
AOI02-02
AOI02-01
AOI02-05
AOI03-02
AOI03-03
AOI03-04
AOI03-07
AOI03-05
AOI03-06
AOI03-01

Intermediate

AOI01-05
AOI01-06
AOI01-04
AOI01-03
AOI01-01
AOI01-02
AOI02-04
AOI02-03
AOI02-02
AOI02-01
AOI03-03
AOI03-04
AOI03-07
AOI03-05
AOI03-06

Deep

AOI01-01

Legend

Facility Boundary

PFHxS Residential Soil Screening Level 0 - 2 ftbgs: 130 µg/kg

PFHxS Industrial Soil Screen Level 2-15 ftbgs: 1,600 µg/kg

PFHxS Results (µg/Kg)

ND

>ND - 10

>10 - 130

>130 - 1,600

>1,600

N

0 140 280 560 Feet

Exceedances of the OSD SL are depicted with a yellow halo.
Depth intervals shown represent respective sampling position within a given soil boring location.

PFHxS Detections in Soil

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 300 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

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Figure 6-4

Shallow

AOI01-07
AOI01-05
AOI01-09
AOI01-04
AOI01-08
AOI01-03
AOI01-01
AOI01-02
AOI01-06
AOI02-03
AOI02-02
AOI02-01
AOI02-05
AOI03-02
AOI03-03
AOI03-04
AOI03-07
AOI03-05
AOI03-06
AOI03-01

Intermediate

AOI01-05
AOI01-06
AOI01-04
AOI01-03
AOI01-01
AOI01-02
AOI02-04
AOI02-03
AOI02-02
AOI02-01
AOI03-03
AOI03-04
AOI03-07
AOI03-05
AOI03-06

Deep

AOI01-01

Legend

Facility Boundary

PFNA Residential Soil Screening Level 0 - 2 ft bgs: 19 µg/kg

PFNA Industrial Soil Screen Level 2-15 ft bgs: 250 µg/kg

PFNA Results (µg/Kg)

ND

>ND - 19

>19 - 250

>250 - 2,500

>2,500

N

0 150 300 600 Feet

Exceedances of the OSD SL are depicted with a yellow halo.
Depth intervals shown represent respective sampling position within a given soil boring location.

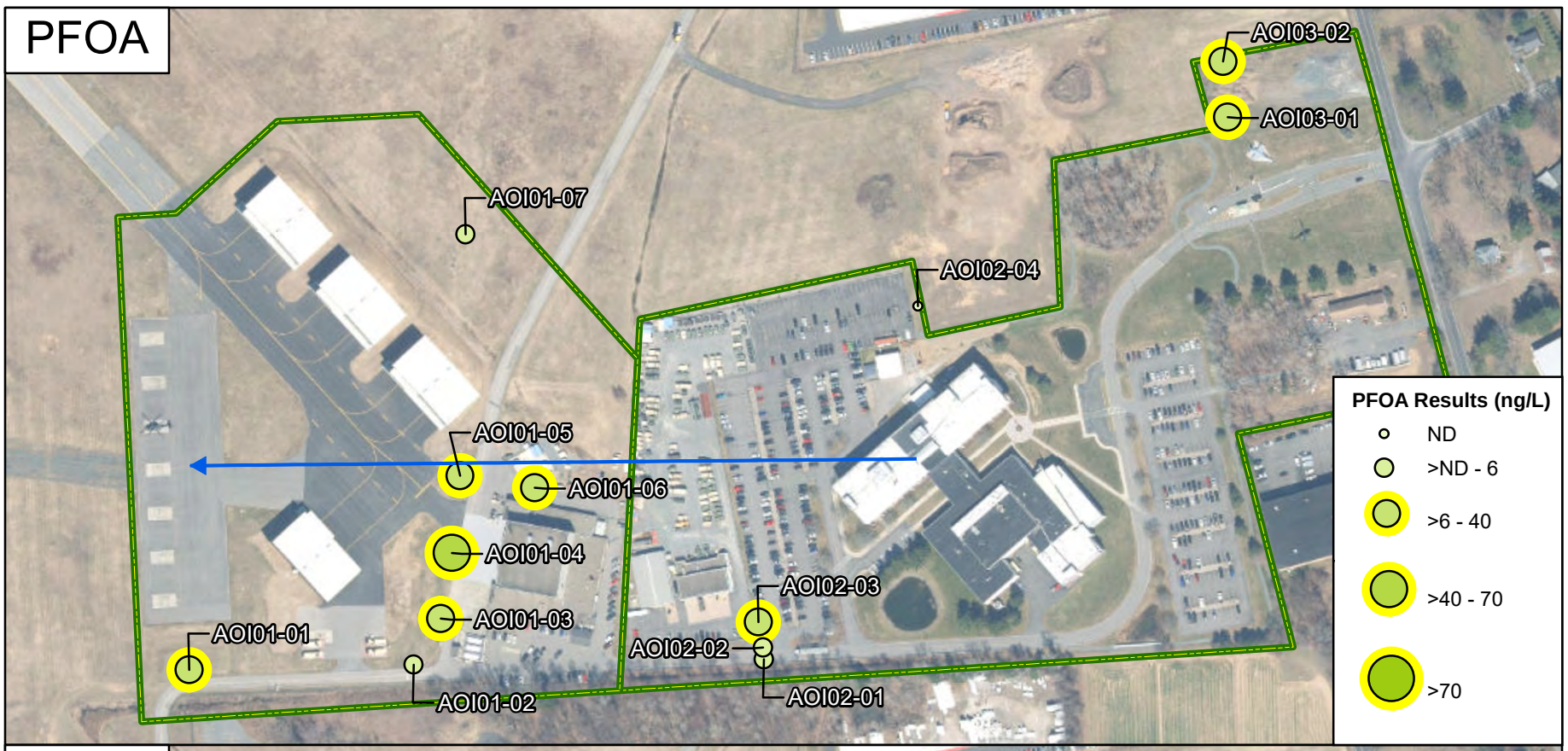
PFNA Detections in Soil

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 300 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

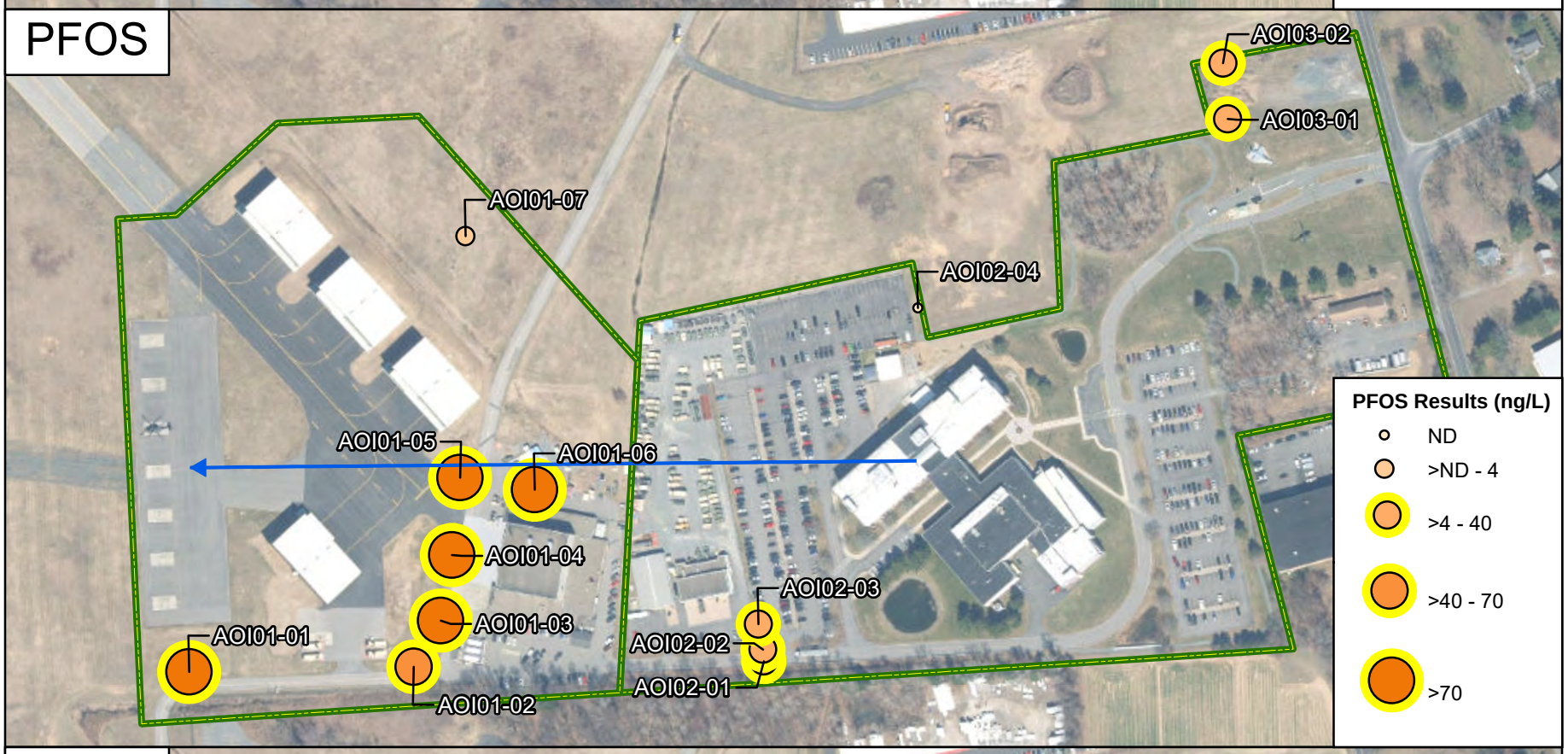
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Figure 6-5

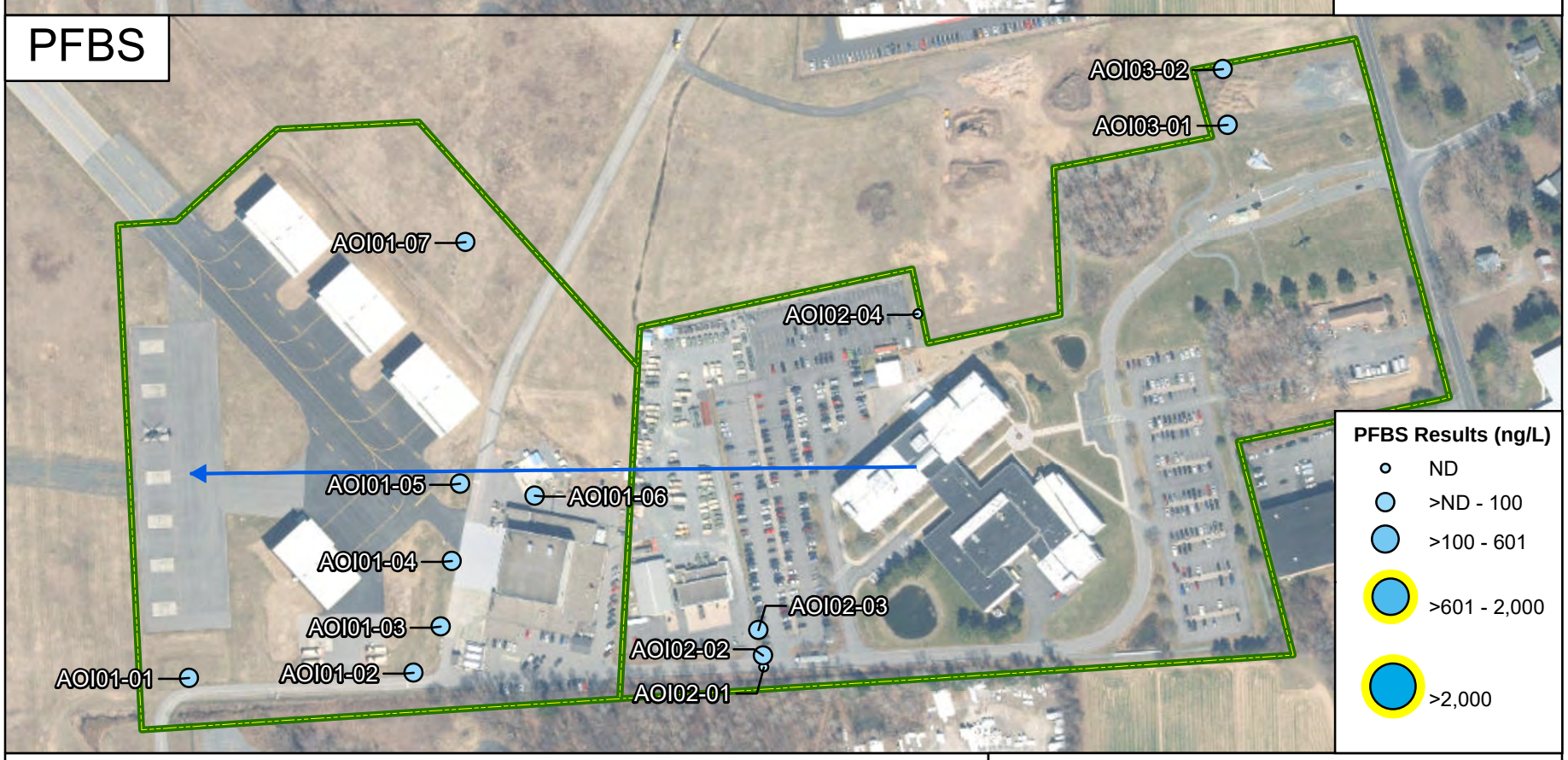
PFOA



PFOS



PFBS



Legend

Facility Boundary

Groundwater Flow Direction

PFOA Groundwater Screening Level: 6 ng/L

PFOS Groundwater Screening Level: 4 ng/L

PFBS Groundwater Screening Level: 601 ng/L

N

0 150 300 600 Feet

Exceedances of the OSD SL are depicted with a yellow halo.

PFOA, PFOS, and PFBS Detections in Groundwater

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 300 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

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Figure 6-6

PFHxS

AOI03-02
AOI03-01
AOI01-07
AOI02-04
AOI01-05
AOI01-06
AOI01-04
AOI02-03
AOI01-03
AOI02-02
AOI01-01
AOI01-02
AOI02-01

PFHxS Results (ng/L)
- ND
- >ND - 39
- >39 - 100
- >100 - 1,000
- >1,000

PFNA

AOI03-02
AOI03-01
AOI01-07
AOI02-04
AOI01-05
AOI01-06
AOI01-04
AOI02-03
AOI01-03
AOI02-02
AOI01-01
AOI01-02
AOI02-01

PFNA Results (ng/L)
- ND
- >ND - 6
- >6 - 100
- >100 - 1,000
- >1,000

Legend
- Facility Boundary
- Groundwater Flow Direction

PFHxS Groundwater Screening Level: 39 ng/L

PFNA Groundwater Screening Level: 6 ng/L

N

0 140 280 560 Feet

Exceedances of the OSD SL are depicted with a yellow halo.

PFHxS and PFNA Detections in Groundwater

CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	5/12/2023	GIS BY	MS	5/12/2023
SCALE	1 inch = 280 feet	CHK BY	AM	5/12/2023
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	5/12/2023

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Figure 6-7

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7. Exposure Pathways

The CSMs for each AOI, revised based on the SI findings, are presented on **Figure 7-1** through **Figure 7-3**. Please note that while the CSM discussion assists in determining if a receptor may be impacted, the decision to move from SI to Remedial Investigation (RI) or interim action is determined based upon exceedances of the SLs for the relevant compounds and whether the release is more than likely attributable to the DoD. A CSM presents the current understanding of the site conditions with respect to known and suspected sources, potential transport mechanisms and migration pathways, and potentially exposed human receptors. A human exposure pathway is considered potentially complete when the following conditions are present:

1. Contaminant source;
2. Environmental fate and transport;
3. Exposure point;
4. Exposure route; and
5. Potentially exposed populations.

If any of these elements are missing, the pathway is incomplete. The CSM figures use an empty circle symbol to represent an incomplete exposure pathway. Areas with an incomplete pathway generally warrant no further action. However, the pathway is considered potentially complete if the relevant compounds are detected, in which case the CSM figure uses a half-filled circle symbol to represent a potentially complete exposure pathway. Additionally, a completely filled circle symbol is used to indicate when a potentially complete exposure pathway has detections of relevant compounds above the SLs. Areas with an identified potentially complete pathway that have detections of the relevant compounds above the SLs may warrant further investigation. Although the CSMs indicate whether potentially complete exposure pathways may exist, the recommendation for future study in an RI or no action at this time is based on the comparison of the SI analytical results for the relevant compounds to the SLs.

In general, the potential routes of exposure to the relevant compounds are ingestion and inhalation. Human exposure via the dermal contact pathway may occur, and current risk practice suggests it is an insignificant pathway compared to ingestion; however, exposure data for dermal pathways are sparse and continue to be the subject of toxicological study. The receptors evaluated are consistent with those listed in USEPA guidance for risk screening (USEPA, 2001). Receptors at the facility include site workers (e.g., facility staff and visiting soldiers), construction workers, trespassers (though unlikely due to restricted access), residents outside the facility boundary, and recreational users outside of the facility boundary.

7.1 Soil Exposure Pathway

The SI results in soil were used to determine whether a potentially complete pathway exists between the source and potential receptors at AOI 1, AOI 2, and AOI 3 based on the aforementioned criteria.

7.1.1 AOI 1

AOI 1 encompasses the release of HEF and potentially AFFF from the AASF #3 Hangar and the former Fire Response Unit room.

The relevant compounds were detected in surface and subsurface soil at AOI 1. PFOS exceeded the residential SL. No active construction was ongoing during site activities, but site workers and

future construction workers could contact constituents in surface soil via incidental ingestion and inhalation of dust. Therefore, the surface soil exposure pathway for site workers and future construction workers are potentially complete. Construction workers could contact constituents in subsurface soil via incidental ingestion; therefore, the subsurface soil exposure pathway for future construction workers is potentially complete. The CSM for AOI 1 is presented on **Figure 7-1**.

7.1.2 AOI 2

AOI 2 encompasses the area southeast of the AASF #3 Hangar, where a fire occurred in the back of a garbage truck. While the use of AFFF during the emergency response was not documented, photographs of the incident appear to show foam being used and discharged directly to the paved surface.

Several relevant compounds were detected in surface and subsurface soil at AOI 2. No active construction was ongoing during site activities, but site workers and future construction workers could contact constituents in surface soil via incidental ingestion and inhalation of dust. Therefore, the surface soil exposure pathway for site workers and future construction workers are potentially complete. Construction workers could contact constituents in subsurface soil via incidental ingestion; therefore, the subsurface soil exposure pathway for future construction workers is potentially complete. It should be noted that the results from AOI02-01 were categorized as surface soil (residential exposure) rather than shallow subsurface (industrial/commercial). This sample was collected beneath an asphalt road which does act as a barrier to site worker, construction worker, or trespasser exposure scenario. However, the sample was left as surface soil sample as a conservative measure. The CSM for AOI 2 is presented on **Figure 7-2**.

7.1.3 AOI 3

AOI 3 encompasses the stockpiled soil, where excavated soil from AOI 1 was moved to facilitate the construction of hangars and associated subsurface infrastructure.

The relevant compounds were detected in surface and subsurface soil at AOI 3. No active construction was ongoing during site activities, but site workers and future construction workers could contact constituents in surface soil via incidental ingestion and inhalation of dust. Therefore, the surface soil exposure pathway for site workers and future construction workers are potentially complete. Construction workers could contact constituents in subsurface soil via incidental ingestion; therefore, the subsurface soil exposure pathway for future construction workers is potentially complete. The CSM for AOI 3 is presented on **Figure 7-3**.

7.2 Groundwater Exposure Pathway

The SI results in groundwater were used to determine whether a potentially complete pathway exists between the source and potential receptors based on the aforementioned criteria.

7.2.1 AOI 1

PFOA, PFOS, PFHxS, and PFNA were detected above their SLs in groundwater samples collected at AOI 1. Private drinking water wells are located downgradient to cross-gradient of the facility, approximately 1.5 miles to the northwest, on the opposite side of Shakers Creek. The ingestion exposure pathway for groundwater is potentially complete for residents that are located downgradient of AOI 1. Depths to water measured at AOI 1 during the SI ranged from 0.56 to 5.46 feet bgs. Therefore, the exposure pathway for site workers and future construction workers via ingestion of shallow groundwater is considered potentially complete. Because groundwater is so shallow, the pathway to the site worker is also potentially complete. The CSM for AOI 1 is presented on **Figure 7-1**.

7.2.2 AOI 2

PFOA and PFOS were detected above their SLs in groundwater samples collected at AOI 2. Private drinking water wells are located downgradient to cross-gradient of the facility, approximately 1.5 miles to the northwest, on the opposite side of Shakers Creek. The ingestion exposure pathway for groundwater is potentially complete for residents that are located downgradient of AOI 2. Depths to water measured at AOI 2 during the SI ranged from 1.46 to 5.72 feet bgs. Therefore, the exposure pathway for site workers and future construction workers via ingestion of shallow groundwater is considered potentially complete. Because groundwater is so shallow, the pathway to the site worker is also potentially complete. The CSM for AOI 2 is presented on **Figure 7-2**.

7.2.3 AOI 3

PFOA and PFOS were detected above their SLs in groundwater samples collected at AOI 3. Private drinking water wells are located downgradient to cross-gradient of the facility, approximately 1.6 miles to the northwest, on the opposite side of Shakers Creek. The ingestion exposure pathway for groundwater is potentially complete for residents that are located downgradient of AOI 3. Depths to water measured at AOI 3 during the SI ranged from 0.75 to 0.88 feet bgs. Therefore, the exposure pathway for site workers and future construction workers via ingestion of shallow groundwater is considered potentially complete. Because groundwater is so shallow, the pathway to the site worker is also potentially complete. The CSM for AOI 3 is presented on **Figure 7-3**.

7.3 Surface Water and Sediment Exposure Pathway

No surface water or sediment samples were collected during the SI. However, the SI results in soil and groundwater, in combination with knowledge of the fate and transport properties of PFAS, were used to determine whether a potentially complete pathway exists between the source and potential receptors.

7.3.1 AOI 1

The floor drains within the AASF #3 flow to an oil-water separator (OWS) located approximately 40 feet west of AASF #3 Hangar. The OWS is also connected to the catch basin at the aircraft washdown station west of the hangar and south of the apron. The OWS discharges to the Town of Colonie sanitary sewer system during washing events, and when not washing, it discharges to the drainage ditch along the southwest boundary of the facility. The drainage ditch flows to the west within the facility property. Even if the foam were diverted during the initial testing of the 2012 fire suppression system in AASF #3 Hangar, it is possible that residual foam within the drain piping may impact subsequent water that is discharged to the drainage ditch. The drainage ditch flows to the west within the facility property and subsequently to an offsite stream, which flows to Shakers Creek and to the Mohawk River.

The facility receives water from the Town of Colonie municipal water utility, with the distribution plant and surface water intakes from the Mohawk River less than 3.5 miles northeast of the facility. This potable water source was sampled at the facility and had low-level detections of PFOA, PFOS, and PFBS (results provided in **Appendix F**). Therefore, the surface water ingestion exposure pathway for site workers is considered potentially complete.

PFAS are water soluble and can migrate readily from soil to surface water via leaching and run-off. Because the relevant compounds were detected in soil and groundwater at AOI 1, it is possible that those compounds may have migrated from soil and groundwater to the Mohawk River via groundwater discharge or the stormwater drainage system. Therefore, the surface water and

sediment ingestion exposure pathway for future construction workers, trespassers, and recreational users of the Mohawk River are also considered potentially complete.

7.3.2 AOI 2

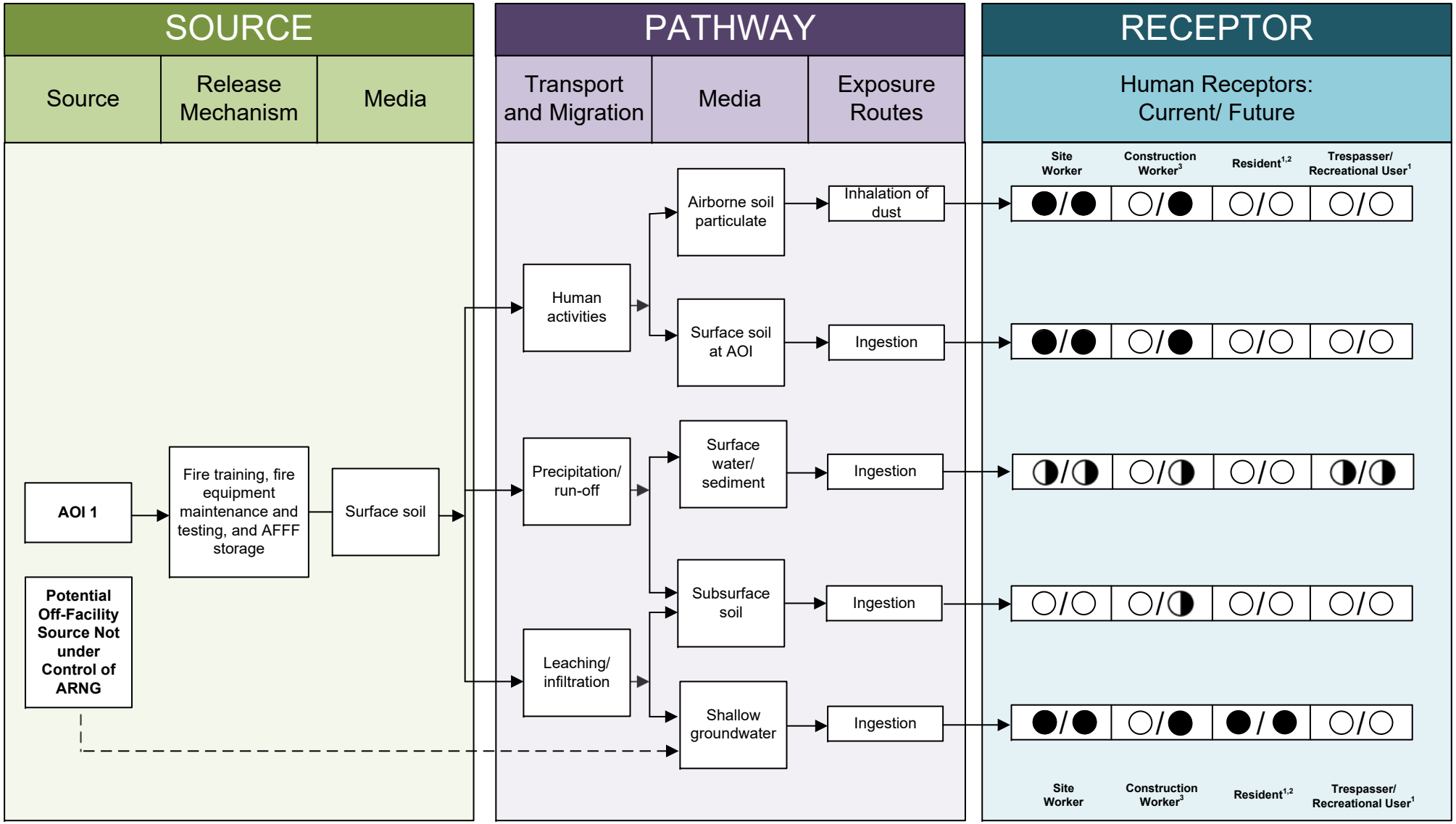
Although no surface water features flow through this AOI, a stormwater drop inlet is located immediately north of the AOI 2 release area, in the grass on the north side of the road. Although historical photographs show that booms and socks were used to protect contents from the garbage truck fire from flowing into the stormwater drain, it is possible that some runoff from the incident entered the drains. The stormwater network carries surface runoff from AOI 2 to the drainage ditch along the southwest boundary of the facility. The drainage ditch flows to the west within the facility property and subsequently to an offsite stream, which flows to Shakers Creek and to the Mohawk River.

Relevant compounds were detected in soil and groundwater at AOI 2, and it is possible that those compounds may have migrated from soil and groundwater to the Mohawk River via groundwater discharge or the stormwater drainage system. The surface water and sediment exposure pathways and receptors for AOI 2 are the same as described in **Section 7.3.1**.

7.3.3 AOI 3

Although no surface water features flow through this AOI, a drainage ditch is located south of AOI 3. The stormwater network carries surface runoff from AOI 3 to the drainage ditch flowing west within the facility property and subsequently to an offsite stream, which flows to Shakers Creek and on to the Mohawk River.

Relevant compounds were detected in soil and groundwater at AOI 3, and it is possible that those compounds may have migrated from soil and groundwater to the Mohawk River via groundwater discharge or the stormwater drainage system. The surface water and sediment exposure pathways and receptors for AOI 3 are the same as described in **Section 7.3.1**.



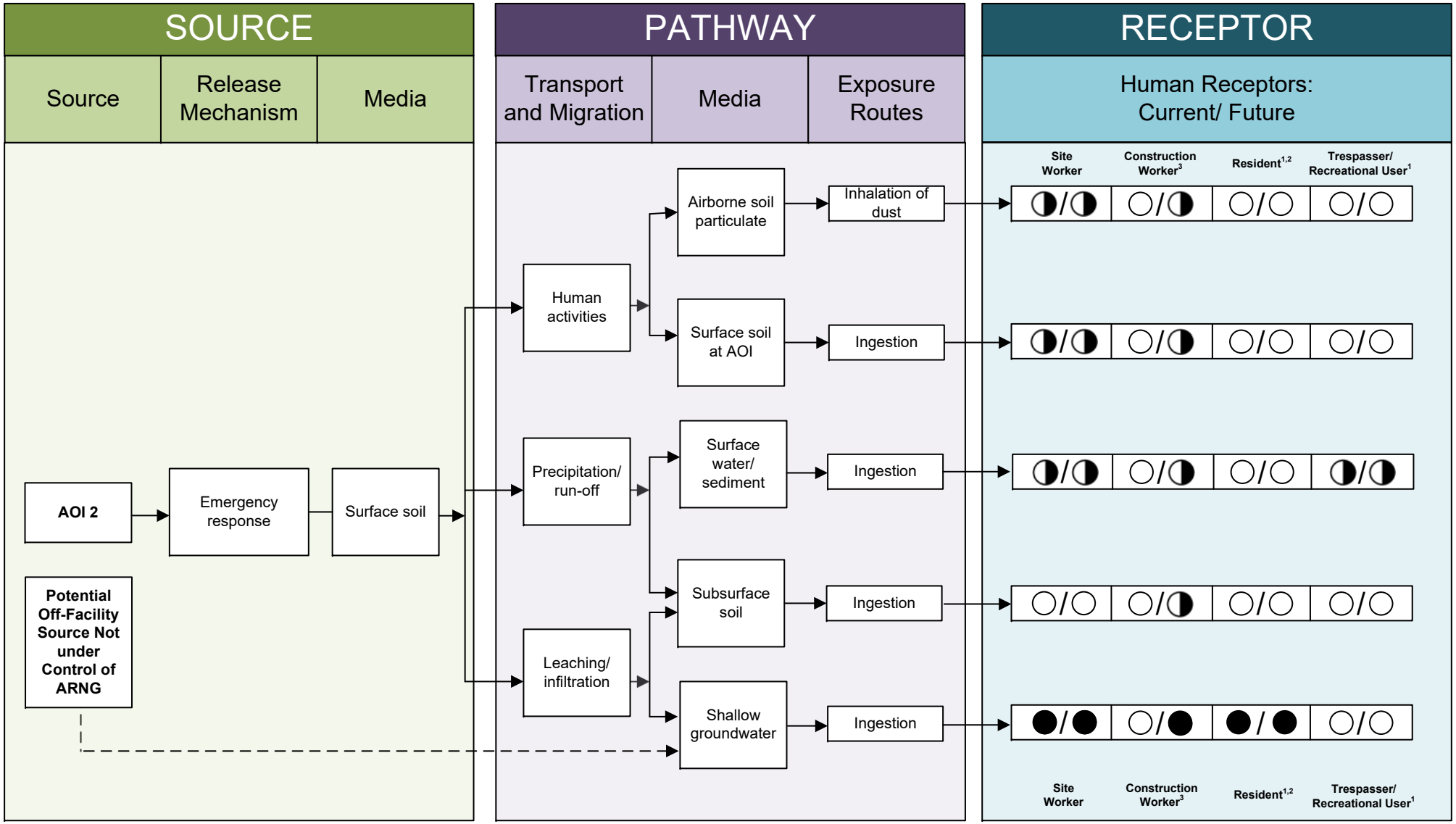
LEGEND

- Flow-Chart Stops
- Flow-Chart Continues
- Partial/ Possible Flow
- Incomplete Pathway
- Potentially Complete Pathway
- Potentially Complete Pathway with Exceedance of SL

Notes:

1. The resident and recreational users refer to off-site receptors.
2. Inhalation of dust for off-site receptors is likely insignificant.
3. No current active construction at the facility.

Figure 7-1
Conceptual Site Model, AOI 1
Albany AASF #3



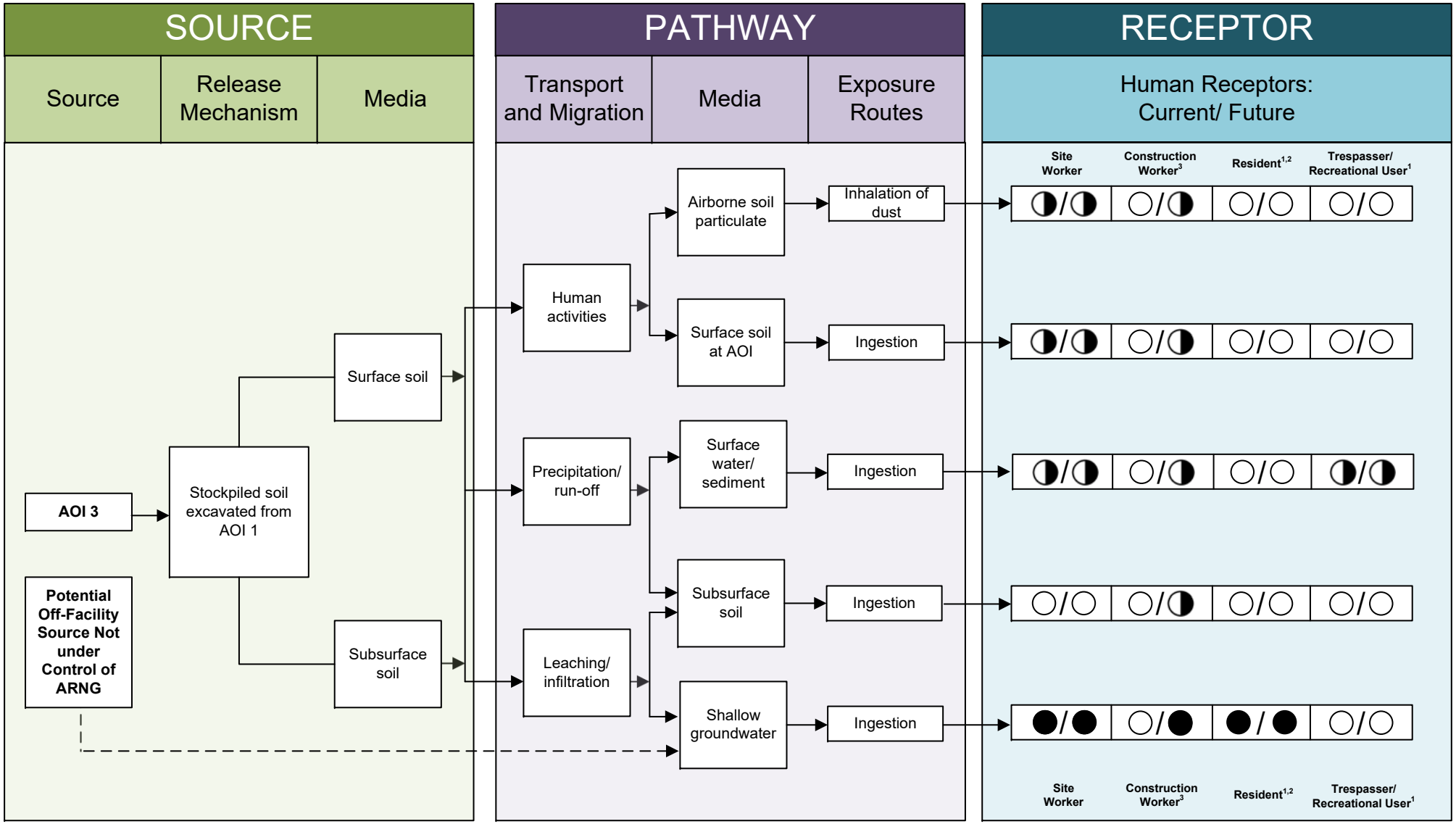
LEGEND

- Flow-Chart Stops
- Flow-Chart Continues
- Partial/ Possible Flow
- Incomplete Pathway
- Potentially Complete Pathway
- Potentially Complete Pathway with Exceedance of SL

Notes:

1. The resident and recreational users refer to off-site receptors.
2. Inhalation of dust for off-site receptors is likely insignificant.
3. No current active construction at the facility.

Figure 7-2
Conceptual Site Model, AOI 2
Albany AASF #3



LEGEND

- Flow-Chart Stops
- Flow-Chart Continues
- Partial/ Possible Flow
- Incomplete Pathway
- Potentially Complete Pathway
- Potentially Complete Pathway with Exceedance of SL

Notes:

1. The resident and recreational users refer to off-site receptors.
2. Inhalation of dust for off-site receptors is likely insignificant.
3. No current active construction at the facility.

Figure 7-3
Conceptual Site Model, AOI 3
Albany AASF #3

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8. Summary and Outcome

This section summarizes SI activities and findings. The most significant findings are summarized in this section and are reproduced directly or abstracted from information contained in this report. The outcome provides general and comparative interpretations of the findings relative to the SLs.

8.1 SI Activities

The SI field activities were conducted on 4 January 2022 and from 8 to 14 April 2022 and consisted of utility clearance, direct push boring, soil sample collection, temporary monitoring well installation, grab groundwater sample collection, and land surveying. Field activities were conducted in accordance with the SI QAPP Addendum (AECOM, 2021), except as noted in **Section 5.8**.

To fulfill the project DQOs set forth in the approved SI QAPP Addendum (AECOM, 2021), samples were collected and analyzed for a subset of 18 compounds by LC/MS/MS compliant with QSM 5.3 Table B-15 as follows.

- Thirty-six (36) soil samples from 13 boring locations and 8 hand auger locations;
- Thirteen (13) grab groundwater samples from 13 temporary wells;
- Twenty (20) QA/QC samples.

An SI is conducted when the PA determines an AOI exists based on probable use, storage, and/or disposal of PFAS-containing materials. The SI includes multi-media sampling at AOIs to determine whether or not a release has occurred. The SI may conclude further investigation is warranted, a removal action is required to address immediate threats, or no further action is required. Additionally, the CSMs were refined to assess whether a potentially complete pathway exists between the source and potential receptors for potential exposure at the AOIs, which are described in **Section 7**.

8.2 Outcome

Based on the results of this SI, further evaluation under CERCLA is warranted in an RI for AOI 1, AOI 2, and AOI 3 (see **Table 8-1**). Based on the CSMs developed and revised in light of the SI findings, there is potential for exposure to drinking water receptors from AOI 1, AOI 2, and AOI 3 from sources on the facility resulting from historical DoD activities. Sample analytical concentrations collected during the SI were compared to the project SLs in soil and groundwater, as described in **Table 6-1**. A summary of the results of the SI data relative to the SLs is as follows:

- At AOI 1:
    - PFOS in surface soil exceeded the SL of 13 µg/kg at AOI01-04 and AOI01-08, with concentrations of 60.1 and 14.1 µg/kg, respectively.
    - PFOA, PFOS, PFHxS, and PFNA were detected above their SLs in groundwater. The exceedances of the SLs were detected at maximum concentrations of 61.9 ng/L (PFOA), 15,000 ng/L (PFOS), 1,180 ng/L (PFHxS), and 13.3 ng/L (PFNA).
    - Based on the exceedances of the SLs in soil and groundwater, further evaluation of AOI 1 is warranted in an RI.

- At AOI 2:
    - The detected concentrations of PFOS, PFHxS, PFNA, and PFBS in soil at AOI 2 were below their SLs.
    - PFOA and PFOS were detected above their SLs in groundwater. PFOA exceeded the SL of 6 ng/L with a maximum concentration of 10.5 ng/L, and PFOS exceeded the SL of 4 ng/L with a maximum concentration of 21.8 ng/L.
    - Based on the exceedances of the SLs in groundwater, further evaluation at AOI 2 is warranted.
- At AOI 3:
    - The detected concentrations of PFOA, PFOS, PFHxS, and PFNA in soil were below their SLs.
    - PFOA and PFOS were detected above their SLs in groundwater. PFOA exceeded the SL of 6 ng/L with a maximum concentration of 17.9 ng/L, and PFOS exceeded the SL of 4 ng/L with a maximum concentration of 24.6 ng/L.
    - Based on the exceedances of the SLs in groundwater, further evaluation at AOI 3 is warranted.

There is still uncertainty regarding the history and use of AFFF in the fire suppression system at the AASF #3 Hangar. As noted in **Section 3**, it was determined after the PA that HEF was currently primed in the system. Regardless, this uncertainty does not impact the results of the SI or recommendations. Additionally, because AOI01-01 and AOI01-02 were shifted from their proposed locations due to health and safety concerns, the potential impact to the drainage ditch remains uncertain. This should be a consideration in the development of the RI scope to determine fate and transport.

Of the six PFAS compounds presented in the 6 July 2022 OSD memorandum, HFPO-DA (commonly referred to as GenX) was not included as an analyte at the time of this SI. Based on the CSM developed during the PA and revised based on SI findings, the presence of HFPO-DA is not anticipated at the facility because HFPO-DA is generally not a component of MIL-SPEC AFFF and based on its history including distribution limitations that restricted use of GenX, it is generally not a component of other products the military used. In addition, it is unlikely that GenX would be an individual chemical of concern in the absence of other PFAS.

Table 8-1 summarizes the SI results for soil and groundwater used to determine if an AOI should be considered for further investigation under CERCLA and undergo an RI.

Table 8-1: Summary of Site Inspection Findings and Recommendations

AOI	Potential Release Area	Soil – Source Area	Groundwater – Source Area	Groundwater – Facility Boundary	Future Action
1	AASF #3 Hangar Release/ Fire Response Unit	●	●	●	Proceed to RI
2	Garbage Truck Fire	◐	●	◐	Proceed to RI
3	Stockpiled Soil	◐	●	N/A	Proceed to RI

Legend:

● = detected; exceedance of the screening levels

◐ = detected; no exceedance of the screening levels

○ = not detected

9. References

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Appendix A
Data Usability Assessment and Validation Reports

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Data Usability Assessment

The Data Usability Assessment (DUA) is an evaluation at the conclusion of data collection activities that uses the results of both data verification and validation in the context of the overall project decisions or objectives. Using both quantitative and qualitative methods, the assessment determines whether project execution and the resulting data have met installation-specific Data Quality Objectives (DQOs). Both sampling and analytical activities are considered to assess whether the collected data are of the right type, quality, and quantity to support the decision-making (Department of Defense [DoD], 2019a; DoD, 2019b; United States Environmental Protection Agency [USEPA], 2017). The references for all sources cited in this DUA are provided in Section 9.0 of the Site Inspection (SI) Report.

Data Quality Indicators (DQIs) (Precision, Accuracy, Representativeness, Comparability, Completeness and Sensitivity) are important components in assessing data usability. These DQIs were evaluated in the subsequent sections and demonstrate that the data presented in this SI report are of high quality. Although the SI data are considered reliable, some degree of uncertainty can be associated with the data collected. Specific factors that may contribute to the uncertainty of the data evaluation are described below. The Data Validation Report (DVR) (**Appendix A**) presents explanations for all qualified data in greater detail.

Precision

Precision is the degree of agreement among repeated measurements of the same characteristic on the same sample or on separate samples collected as close as possible in time and place. Field sampling precision is measured with the field duplicate relative percent differences (RPD); laboratory precision is measured with calibration verification, laboratory control spike (LCS) and matrix spike (MS) duplicate RPD.

Calibration verifications were performed routinely to ensure that instrument responses for all calibrated analytes were within established quality control (QC) criteria. No associated calibration verifications displayed results outside the project established precision limits presented in the Quality Assurance Project Plan (QAPP) Addendum (AECOM, 2021).

LCS/LCS duplicate (LCSD) pairs were prepared by addition of known concentrations of each analyte in a matrix-free media known to be free of target analytes. LCS/LCSD pairs were analyzed for every analytical batch to demonstrate the ability of the laboratory to detect similar concentrations of a known quantity in matrix-free media. The LCS/LCSD samples were within the project established precision limits presented in the QAPP Addendum (AECOM, 2021).

MS/MS duplicate (MSD) samples were prepared, analyzed, and reported for all preparation batches. MS/MSD samples demonstrated that the analytical system was in control for the matrix being tested. MS/MSD samples were submitted to the laboratory for analysis at a rate of 5 percent (%). The MS/MSD samples were within the project established precision limits presented in the QAPP Addendum (AECOM, 2021), with two exceptions. The MS/MSD performed on field sample AOI03-05-SB-00-02 displayed an RPD exceedance for 6:2 fluorotelomer sulfonate (6:2 FTS). The associated field duplicate pair results were non-detect; no qualifying action was taken. During the total organic carbon (TOC) analysis, AOI01-06-SB-02-02.7 also displayed an MS/MSD RPD exceedance. The associated parent sample result was previously qualified based on the MS/MSD percent recovery anomaly and should be considered usable as qualified.

Field duplicate samples were collected at a rate of 10% to assess the overall sampling and measurement precision for this sampling effort. The field duplicate samples were analyzed for per- and polyfluoroalkyl substances (PFAS) and general chemistry parameters. The field duplicate samples were within the project established precision limits presented in the QAPP Addendum (AECOM, 2021) with one exception. During the TOC analysis, the field duplicate pair collected at location AOI02-01-SB-03.5-04.3 displayed an RPD exceedance in the field duplicate and laboratory duplicate analysis. The associated field duplicate pair results were qualified as estimate based on the laboratory duplicate RPD exceedance and the results should be considered usable as qualified. In addition, the field duplicate pairs collected at sites AOI03-04-SB-00-02 and AOI01-08-SB-00-02 displayed positive results in one sample and non-detect results in the associated duplicate sample. The positive field duplicate pair results were qualified as estimate, and these results should be considered usable as qualified.

Accuracy

Accuracy is a measure of confidence in a measurement. The smaller the difference between the measurement of a parameter and its "true" or expected value, the more accurate the measurement. The more precise or reproducible the result, the more reliable or accurate the result. Accuracy is measured through percent recoveries in the LCS/LCSD, MS/MSD, internal standards, and surrogates.

LCS/LCSD samples were prepared by addition of known concentrations of each analyte in a matrix free media known to be free of target analytes. LCS/LCSD samples were analyzed for every analytical batch and demonstrated that the analytical system was in control during sample preparation and analysis. The LCS/LCSD samples were within the project established accuracy limits presented in the QAPP Addendum (AECOM, 2021).

MS/MSD samples were prepared, analyzed, and reported at a rate of 5%. MS/MSD samples demonstrated that the analytical system was in control for the matrix being tested. The MS/MSD samples were within the project established control limits presented in the QAPP Addendum (AECOM, 2021) with multiple exceptions. The MS/MSD performed on field samples AOI03-05-SB-00-02 displayed a MS/MSD percent recoveries greater than the upper QC limit for 6:2 FTS. The native sample concentrations in field samples AOI01-04-GW and AOI01-04-GWDL displayed results greater than four times the spike values and were not applicable for qualifying purposes. The associated parent sample result was non-detect and required no data qualifying action. During the TOC analysis the MS/MSD performed on field sample AOI01-06-SB-02-02.7 displayed a percent recovery greater than the upper QC limit in the MS. The associated parent sample result was positive and was qualified as estimate with a positive bias.

Extraction internal standards (EIS) were added by the laboratory during sample extraction to measure relative responses of target analytes and used to correct for bias associated with matrix interferences and sample preparation efficiencies, injection volume variances, mass spectrometry ionization efficiencies, and other associated preparation and analytical anomalies The field samples were within the project established control limits presented in the QAPP Addendum (AECOM, 2021).

Injection internal standards (IIS) were added by the laboratory after sample extraction and prior to analysis as a legacy requirement of DoD QSM 5.1 to measure relative responses of target analytes. Even though not required under the current DoD QSM 5.3 analysis, the IIS are still added to the sample after extraction as an additional QC measure. The IIS percent recoveries were within the established precision limits presented in the QAPP Addendum (AECOM, 2021) with limited exceptions. The IIS performed on the method blank MB2278878 displayed area

counts outside the QC limits for all PFAS analytes. PFAS results are not quantified using IIS area counts; no data qualifying action was required.

Representativeness

Representativeness qualitatively expresses the degree to which data accurately reflect site conditions. Factors that affect the representativeness of analytical data include appropriate sample population definitions, proper sample collection and preservation techniques, analytical holding times, use of standard analytical methods, and determination of matrix or analyte interferences.

Relating to the use of standard analytical methods, the laboratory followed the method as established in PFAS by liquid chromatography with tandem mass spectrometry (LC/MS/MS) Compliant with Quality Systems Manual (QSM) 5.3 Table B-15, including the specific preparation requirements (i.e. ENVI-Carb or equivalent used), mass calibration, spectra, all the ion transitions identified in Table B-15 were monitored, standards that contained both branched and linear isomers when available were used, and isotopically labeled standards were used for quantitation.

Field QC samples were collected to assess the representativeness of the data collected. Field duplicates were collected at a rate of 10% for all field samples, while MS/MSD samples were collected at a rate of 5%. The laboratory used approved standard methods in accordance with the QAPP Addendum (AECOM, 2021) for all analyses. All technical and analytical holding times were met by the laboratory with minor exceptions. The holding time for pH analysis is considered ‘immediate’ so all pH sample results have been qualified as estimate.

Decontamination water samples were collected by the field team in advance of the field effort as a negative control. The decontamination sample ALB-DECON-01 displayed positive results for several target analytes. The field sample results associated with the decontamination sample detections were either non-detect or displayed positive results greater than five times the blank concentrations; no data qualifying action was required.

Field and equipment blanks were collected by the field team as a negative control. The equipment blank ALB-ERB-01 displayed a positive result for perlfuorooctanesulfonic acid (PFOS). The field sample results associated with the equipment blank detection were either non-detect or displayed positive results greater than five times the blank concentration; no data qualifying action was required.

Instrument blanks and method blanks were prepared by the laboratory in each batch as a negative control. Two method blanks and one instrument blank displayed positive results for several target analytes. The field sample results associated with the blank detections were either non-detect or displayed positive results greater than five times the blank concentrations; no data qualifying action was required.

Overall, the data are usable for evaluating the presence or absence of relevant compounds at the facility. Sufficient usable data were obtained to meet the objectives of the SI.

Comparability

Comparability is the extent to which data from one study can be compared directly to either past data from the current project or data from another study. Using standardized sampling and analytical methods, units of reporting, and site selection procedures help ensure comparability. Standard field sampling and typical laboratory protocols were used during the SI and are considered comparable to ongoing investigations. As of 1 April 2022, Pace Gulf Coast was

certified for PFOS and perfluorooctanoic acid (PFOA) by the New York State Department of Health via method 537.1 in accordance with the New York Department of Environmental Protection requirements for PFAS analysis. The performance testing samples were submitted on 11 February 2022.

Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount of data expected under normal conditions. The laboratory provided data that met system QC acceptance criteria for all samples tested. Project completeness was determined by evaluating the planned versus actual quantities of data. Percent completeness per parameter is as follows and reflects the exclusion of “X/UX” flagged data:

- PFAS in groundwater by LC/MS/MS compliant with QSM 5.3 Table B-15 at 100%
- PFAS in soil by LC/MS/MS compliant with QSM 5.3 Table B-15 at 100%
- pH in soil by USEPA Method 9045D at 100%
- TOC by USEPA Method 9060 at 100%

Sensitivity

Sensitivity is the capability of a test method or instrument to discriminate between measurement responses representing different levels (e.g., concentrations) of a variable of interest. Examples of QC measures for determining sensitivity include laboratory fortified blanks, a method detection limit (MDL) study, and calibration standards at the limit of quantitation (LOQ). In order to meet the needs of the data users, project data must meet the measurement performance criteria for sensitivity and project LOQs specified in the SI QAPP Addendum (AECOM, 2021). The laboratory provided the requested MDL studies and provided applicable calibration standards at the LOQ. In order to achieve the DQOs for sensitivity outlined in the SI QAPP Addendum (AECOM, 2021), the laboratory reported all field sample results at the lowest possible dilution. Additionally, any analytes detected below the LOQ and above the detection limit were reported and qualified.

DATA VALIDATION REPORT - Level III Review

SDG No.:	**221112126 + 10612 + 41526 + 41582**	**Analysis:**	**Per- and Polyfluorinated Alkyl Substances + Wet Chem**
Laboratory:	**Pace Gulf Coast**	**Project:**	**Albany**
Reviewer:	**Tyler Bryant**	**Date:**	**June 23rd, 2022**

This report presents the findings of a review of the referenced data. The report consists of this summary, a listing of the samples included in the review, copies of data reports with data qualifying flags applied, data review worksheets, supporting documentation, and an explanation of the data qualifying flags employed. The review performed is based on the specifics of the analytical method referenced and provisions of the approved project-specific work plan; and, qualified according to the *Contract Laboratory Program National Functional Guidelines* (NFG) *for Superfund Organic Methods Data Review*, EPA-540-R-20-005, November 2020, *Contract Laboratory Program National Functional Guidelines* (NFG) *for Superfund Inorganic Methods Data Review*, EPA-540-R-20-006, November 2020, Department of Defense (DOD) Data Validation Guidelines Module 3 and QSM Table B-15, May 2020. Modifications reflect the level of review requested, the specifications of the project specific QAPP, and the specifics of the analytical methods employed.

Major Anomalies: None.

Minor Anomalies: During the PFAS analysis, the following blanks displayed target analyte concentrations greater than the detection limit:

Blank	Date	Time	Batch	Analyte	Concentration	Units
ALB-DECON-01	12/07/21	1910	728786	PFBS	0.642	ng/L
				PFBA	1.83	
				PFHxA	1.62	
				PFOS	1.49	
				PFOA	0.889	
				PFPeA	1.68	
ALB-ERB-01	1/10/22	2233	731351	PFOS	4.50	
MB2340536	5/2/22	0440	739843	PFHxS	0.032	ug/Kg
MB2340725	5/3/22	1223	740023	PFOS	7.94	ng/L
2220501C_1	5/2/22	0410	739843	PFHxS	1.37	

The field sample results associated with the blank contaminations displayed concentrations greater than five times the blank detections; no data qualifying action was required. The following quality control (QC) samples displayed extraction internal standard (EIS) area counts outside the QC limits of 50%-150%:

Field Sample	EIS	Associated Target Compound(s)	Area Count (%)
AOI02-01-SB-03.5-04.3-MSD	M2 4:2 FTS	4:2 FTS	47
	M2 6:2 FTS	6:2 FTS	46
MB2341409			160
AOI01-07-SB-00-02-MD	M2PFTA	PFTeDA, PFTrDA	32

PFAS sample results are not qualified based on QC sample EIS anomalies; no data qualifying action was required. The matrix spike pair (MS/MSD) performed on the following field samples displayed percent recoveries outside QC limits and/ or relative percent difference (RPD) exceedances:

Parent Sample	QC Batch	Analyte	MS Recovery (%)	MSD Recovery (%)	QC Limits (%)	RPD (%)
AOI03-05-SB-00-02	731694	6:2 FTS	192	96	64-140	61
AOI01-04-GW	740280	PFHxS*	120	58	68-131	4
AOI01-04-GWDL	740280	PFOS*	-1840	-2540	65-140	4

*Native sample concentrations were greater than four times the spike values; not applicable for qualifying purposes

The parent sample and field duplicate pair results associated with the high MS/MSD recovery and RPD exceedance for 6:2 FTS were non-detect; no data qualifying action was required. The field duplicate pairs collected at the following sites displayed positive results in one sample and non-detect results in the associated duplicate sample:

Parent Sample ID	Analyte	Sample Conc. (µg/Kg)		Duplicate Conc. (µg/Kg)	
AOI03-04-SB-00-02	PFDA	0.110	U	0.052	J
	PFDOA	0.055	U	0.026	J
AOI01-08-SB-00-02	PFOA	0.136	J	0.220	U
	PFUnA	0.024	J	0.055	U

The positive associated duplicate sample results were qualified J,fd while the non-detect results were qualified UJ,fd. The injection internal standards (IIS) performed on the method blank, MB2278878, displayed area counts outside the QC limits for all analytes. PFAS sample results are not quantitated based on IIS recoveries or qualified based on QC sample IIS area counts; no data qualifying action was required.

During the TOC analysis, the MS/MSD performed on parent sample AOI01-06-SB-02-02.7 displayed a percent recovery greater than the upper QC limit of 128% at 140% in the MS. This field sample also displayed a RPD greater than the QC limit of 20% at 21%. The associated parent sample result was qualified J+,m based on the MS spike recovery anomaly. The laboratory duplicate performed on parent sample AOI02-01-SB-03.5-04.3 displayed a RPD greater than the QC limit of 20% at 38%. The associated field sample results were qualified J,ld. The field duplicate analysis for this sample also displayed an RPD exceedance greater than the QC limit of 30% at 119.4%. The associated duplicate pair results were previously qualified based on the laboratory duplicate RPD exceedance; no further data qualifying action was required.

The technical holding time for the pH analysis is “immediate.” The associated field sample results were qualified J,h.

Correctable Anomalies: None.

Comments: Only TOC/pH containers were received by the laboratory for field samples AOI02-01-SB-03.5-04.3 and AOI02-SB-DUP-4. On the basis of this evaluation, the laboratory appears to have followed the specified method, with the exception of anomalies discussed previously. If a given fraction was not discussed, all quality control criteria reviewed were within acceptable limits. All data are usable, as qualified, for their intended purposed based on the quality control data reviewed.

Signed: Tyler Bryant

Albany

Laboratory: Pace Gulf Coast

Job: 60552172 SDG#: 221112126 + 10612 + 41526 + 41582

Sample ID	Client ID	Sample Type	Sample Date	Matrix	PFAS - QSM B-15	TOC + pH
22111212601	ALB-DECON-01	Decon Water	11/19/2021	Aqueous	X	
22201061201	AOI03-04-SB-00-02	Field Sample	1/4/2022	Soil	X	
22201061202	AOI03-04-SB-02-04	Field Sample	1/4/2022	Soil	X	
22201061203	AOI03-05-SB-00-02	Field Sample	1/4/2022	Soil	X	
22201061206	AOI03-05-SB-02-04	Field Sample	1/4/2022	Soil	X	
22201061207	AOI03-07-SB-00-02	Field Sample	1/4/2022	Soil	X	
22201061208	AOI03-07-SB-02-04	Field Sample	1/4/2022	Soil	X	
22201061209	AOI03-06-SB-00-02	Field Sample	1/4/2022	Soil	X	
22201061210	AOI03-06-SB-02-04	Field Sample	1/4/2022	Soil	X	
22201061211	AOI03-03-SB-00-02	Field Sample	1/4/2022	Soil	X	
22201061212	AOI03-03-SB-02-04	Field Sample	1/4/2022	Soil	X	
22201061213	AOI03-04-SB-00-02-DUP	Field Duplicate	1/4/2022	Soil	X	
22201061214	ALB-ERB-01	Equipment Blank	1/4/2022	Aqueous	X	
22204152601	EB-1 041122	Equipment Blank	Water	Aqueous	X	
22204152602	AOI01-01-SB-05.6-06.2	Field Sample	4/11/2022	Soil	X	
22204152603	AOI01-01-SB-00-02	Field Sample	4/11/2022	Soil	X	
22204152604	AOI01-01-SB-03-04	Field Sample	4/11/2022	Soil	X	
22204152605	AOI01-02-SB-00-02	Field Sample	4/11/2022	Soil	X	
22204152606	AOI01-02-SB-03-04	Field Sample	4/11/2022	Soil	X	
22204152607	AOI01-03-SB-00-02	Field Sample	4/11/2022	Soil	X	
22204152608	AOI01-03-SB-02-03	Field Sample	4/11/2022	Soil	X	
22204152609	AOI01-08-SB-00-02	Field Sample	4/11/2022	Soil	X	
22204152610	AOI01-04-SB-00-02	Field Sample	4/11/2022	Soil	X	
22204152611	AOI01-04-SB-03-04	Field Sample	4/11/2022	Soil	X	
22204152612	AOI01-09-SB-00-02	Field Sample	4/11/2022	Soil	X	
22204152613	AOI01-01-GW	Field Sample	4/11/2022	Water	X	
22204152614	AOI01-02-GW	Field Sample	4/11/2022	Water	X	
22204152615	AOI01-07-SB-00-02	Field Sample	4/12/2022	Soil	X	
22204152616	AOI01-06-SB-00-02	Field Sample	4/12/2022	Soil	X	
22204152617	AOI01-06-SB-02-02.7	Field Sample	4/12/2022	Soil	X	X
22204152622	AOI01-05-SB-00-02	Field Sample	4/12/2022	Soil	X	
22204152623	AOI01-05-SB-03-04	Field Sample	4/12/2022	Soil	X	
22204152624	AOI02-04-SB-05-05.5	Field Sample	4/12/2022	Soil	X	
22204152625	AOI02-02-SB-00-02	Field Sample	4/12/2022	Soil	X	
22204152626	AOI02-02-SB-03-03.7	Field Sample	4/12/2022	Soil	X	
22204152627	AOI01-03-GW	Field Sample	4/12/2022	Water	X	
22204152628	AOI01-07-GW	Field Sample	4/12/2022	Water	X	
22204152629	AOI01-04-GW	Field Sample	4/12/2022	Water	X	
22204152630	AOI01-05-GW	Field Sample	4/12/2022	Water	X	
22204152633	AOI01-SB-DUP-1	Field Duplicate	4/12/2022	Soil	X	
22204152634	AOI01-SB-DUP-2	Field Duplicate	4/12/2022	Soil	X	
22204152635	DUP-GW-01	Field Duplicate	4/12/2022	Water	X	
22204158201	AOI02-03-SB-00-02	Field Sample	4/13/2022	Soil	X	
22204158202	AOI02-03-SB-02-02.7	Field Sample	4/13/2022	Soil	X	
22204158203	AOI03-01-SB-00-01	Field Sample	4/13/2022	Soil	X	
22204158204	AOI03-02-SB-00-01	Field Sample	4/13/2022	Soil	X	
22204158205	AOI02-01-SB-03.5-04.3	Field Sample	4/14/2022	Soil	X	
22204158208	AOI02-01-SB-00.9-03.5	Field Sample	4/14/2022	Soil	X	
22204158209	AOI02-05-SB-0-0-02	Field Sample	4/14/2022	Soil	X	

Albany

Laboratory: Pace Gulf Coast

Job: 60552172 SDG#: 221112126 + 10612 + 41526 + 41582

Sample ID	Client ID	Sample Type	Sample Date	Matrix	PFAS - QSM B-15	TOC + pH
22204158210	AOI02-SB-DUP-3	Field Duplicate	4/14/2022	Soil	X	
22204158211	AOI02-01-SB-03.5-04.3	Field Sample	4/14/2022	Soil	X	X
22204158212	AOI02-SB-DUP-4	Field Duplicate	4/14/2022	Soil		X
22204158213	AOI01-06-GW	Field Sample	4/13/2022	Water	X	
22204158214	AOI03-01-GW	Field Sample	4/14/2022	Water	X	
22204158215	AOI02-02-GW	Field Sample	4/13/2022	Water	X	
22204158216	AOI02-03-GW	Field Sample	4/13/2022	Water	X	
22204158217	AOI02-DUP-GW-02	Field Duplicate	4/13/2022	Water	X	
22204158218	AOI02-04-GW	Field Sample	4/13/2022	Water	X	
22204158219	AOI03-02-GW	Field Sample	4/14/2022	Water	X	
22204158220	AOI02-01-GW	Field Sample	4/14/2022	Water	X	
22204158221	EB-2-041422	Equipment Blank	4/14/2022	Aqueous	X	
22204158222	EB-3-041422	Equipment Blank	4/14/2022	Aqueous	X	

Albany
Field Duplicates

Client Sample ID:				AOI03-04-SB-00-02		AOI03-04-SB-00-02-DUP					
Date Sampled:				1/4/22		1/4/22					
	Units	LOQ	5x LOQ	Sample Conc		Duplicate Conc		% RPD	Delta	2x LOQ	Pass/ Fail
Perfluorinated Alkyl Substances											
6:2 FTS	µg/Kg	1.10	5.50	0.219	U	0.229	U	4.5%	0.010	2.20	Pass
8:2 FTS	µg/Kg	1.10	5.50	0.110	U	0.115	U	4.4%	0.0050	2.20	Pass
NEtFOSAA	µg/Kg	1.10	5.50	0.110	U	0.115	U	4.4%	0.0050	2.20	Pass
NMeFOSAA	µg/Kg	1.10	5.50	0.055	U	0.057	U	3.6%	0.0020	2.20	Pass
PFBS	µg/Kg	1.10	5.50	0.055	U	0.057	U	3.6%	0.0020	2.20	Pass
PFBA	µg/Kg	1.10	5.50	0.087	J	0.111	J	24.2%	0.024	2.20	Pass
PFDA	µg/Kg	1.10	5.50	0.110	U	0.052	J	71.6%	0.058	2.20	Fail
PFDOA	µg/Kg	1.10	5.50	0.055	U	0.026	J	71.6%	0.029	2.20	Fail
PFHpA	µg/Kg	1.10	5.50	0.060	J	0.068	J	12.5%	0.0080	2.20	Pass
PFHxS	µg/Kg	1.10	5.50	0.163	J	0.145	J	11.7%	0.018	2.20	Pass
PFHxA	µg/Kg	1.10	5.50	0.129	J	0.094	J	31.4%	0.035	2.20	Pass
PFNA	µg/Kg	1.10	5.50	0.069	J	0.089	J	25.3%	0.020	2.20	Pass
PFOS	µg/Kg	1.10	5.50	2.67		2.19		19.8%	0.48	2.20	Pass
PFOA	µg/Kg	1.10	5.50	0.151	J	0.196	J	25.9%	0.045	2.20	Pass
PFPeA	µg/Kg	1.10	5.50	0.087	J	0.077	J	12.2%	0.010	2.20	Pass
PFTeDA	µg/Kg	1.10	5.50	0.055	U	0.057	U	3.6%	0.0020	2.20	Pass
PFTrDA	µg/Kg	1.10	5.50	0.110	U	0.115	U	4.4%	0.0050	2.20	Pass
PFUnDA	µg/Kg	1.10	5.50	0.039	J	0.054	J	32.3%	0.015	2.20	Pass

Control limit [sample]>5xLOQ use 30%
[sample]<5xLOQ use Delta<2xLOQ

Albany
Field Duplicates

Client Sample ID:				AOI01-08-SB-00-02		AOI01-SB-DUP-1					
Date Sampled:				4/11/22		4/12/22					
	Units	LOQ	5x LOQ	Sample Conc		Duplicate Conc		% RPD	Delta	2x LOQ	Pass/ Fail
Perfluorinated Alkyl Substances											
6:2 FTS	µg/Kg	1.10	5.50	0.221	U	0.220	U	0.5%	0.0010	2.20	Pass
8:2 FTS	µg/Kg	1.10	5.50	0.110	U	0.110	U	0.0%	0.0	2.20	Pass
NEtFOSAA	µg/Kg	1.10	5.50	0.110	U	0.110	U	0.0%	0.0	2.20	Pass
NMeFOSAA	µg/Kg	1.10	5.50	0.055	U	0.055	U	0.0%	0.0	2.20	Pass
PFBS	µg/Kg	1.10	5.50	0.055	U	0.055	U	0.0%	0.0	2.20	Pass
PFBA	µg/Kg	1.10	5.50	0.072	J	0.046	J	44.1%	0.026	2.20	Pass
PFDA	µg/Kg	1.10	5.50	0.110	U	0.110	U	0.0%	0.0	2.20	Pass
PFDOA	µg/Kg	1.10	5.50	0.055	U	0.055	U	0.0%	0.0	2.20	Pass
PFHpA	µg/Kg	1.10	5.50	0.042	J	0.026	J	47.1%	0.016	2.20	Pass
PFHxS	µg/Kg	1.10	5.50	0.146	J	0.121	J	18.7%	0.025	2.20	Pass
PFHxA	µg/Kg	1.10	5.50	0.095	J	0.066	J	36.0%	0.029	2.20	Pass
PFNA	µg/Kg	1.10	5.50	0.058	J	0.042	J	32.0%	0.016	2.20	Pass
PFOS	µg/Kg	1.10	5.50	14.1		12.0		16.1%	2.10	2.20	Pass
PFOA	µg/Kg	1.10	5.50	0.136	J	0.220	U	47.2%	0.084	2.20	Fail
PFPeA	µg/Kg	1.10	5.50	0.070	J	0.043	J	47.8%	0.027	2.20	Pass
PFTeDA	µg/Kg	1.10	5.50	0.055	U	0.055	U	0.0%	0.0	2.20	Pass
PFTrDA	µg/Kg	1.10	5.50	0.110	U	0.110	U	0.0%	0.0	2.20	Pass
PFUnDA	µg/Kg	1.10	5.50	0.024	J	0.055	U	78.5%	0.031	2.20	Fail

Control limit [sample]>5xLOQ use 30%
[sample]<5xLOQ use Delta<2xLOQ

Albany
Field Duplicates

Client Sample ID:				AOI01-05-SB-03-04		AOI01-SB-DUP-2					
Date Sampled:				4/12/22		4/12/22					
	Units	LOQ	5x LOQ	Sample Conc		Duplicate Conc		% RPD	Delta	2x LOQ	Pass/ Fail
Perfluorinated Alkyl Substances											
6:2 FTS	µg/Kg	1.39	6.95	0.279	U	0.236	U	16.7%	0.043	2.78	Pass
8:2 FTS	µg/Kg	1.39	6.95	0.139	U	0.118	U	16.3%	0.021	2.78	Pass
NEtFOSAA	µg/Kg	1.39	6.95	0.139	U	0.118	U	16.3%	0.021	2.78	Pass
NMeFOSAA	µg/Kg	1.39	6.95	0.070	U	0.059	U	17.1%	0.011	2.78	Pass
PFBS	µg/Kg	1.39	6.95	0.070	U	0.059	U	17.1%	0.011	2.78	Pass
PFBA	µg/Kg	1.39	6.95	0.139	U	0.118	U	16.3%	0.021	2.78	Pass
PFDA	µg/Kg	1.39	6.95	0.139	U	0.118	U	16.3%	0.021	2.78	Pass
PFDOA	µg/Kg	1.39	6.95	0.070	U	0.059	U	17.1%	0.011	2.78	Pass
PFHpA	µg/Kg	1.39	6.95	0.068	J	0.064	J	6.1%	0.0040	2.78	Pass
PFHxS	µg/Kg	1.39	6.95	2.18		2.09		4.2%	0.090	2.78	Pass
PFHxA	µg/Kg	1.39	6.95	0.301	J	0.313	J	3.9%	0.012	2.78	Pass
PFNA	µg/Kg	1.39	6.95	0.070	U	0.059	U	17.1%	0.011	2.78	Pass
PFOS	µg/Kg	1.39	6.95	0.925	J	0.597	J	43.1%	0.33	2.78	Pass
PFOA	µg/Kg	1.39	6.95	0.148	J	0.133	J	10.7%	0.015	2.78	Pass
PFPeA	µg/Kg	1.39	6.95	0.089	J	0.080	J	10.7%	0.0090	2.78	Pass
PFTeDA	µg/Kg	1.39	6.95	0.070	U	0.059	U	17.1%	0.011	2.78	Pass
PFTrDA	µg/Kg	1.39	6.95	0.139	U	0.118	U	16.3%	0.021	2.78	Pass
PFUnDA	µg/Kg	1.39	6.95	0.070	U	0.059	U	17.1%	0.011	2.78	Pass

Control limit [sample]>5xLOQ use 30%
[sample]<5xLOQ use Delta<2xLOQ

Albany
Field Duplicates

Client Sample ID:				AOI02-01-SB-00.9-03.5		AOI02-SB-DUP-3					
Date Sampled:				4/14/22		4/14/22					
	Units	LOQ	5x LOQ	Sample Conc		Duplicate Conc		% RPD	Delta	2x LOQ	Pass/ Fail
Perfluorinated Alkyl Substances											
6:2 FTS	µg/Kg	0.947	4.74	0.189	U	0.193	U	2.1%	0.0040	1.89	Pass
8:2 FTS	µg/Kg	0.947	4.74	0.095	U	0.096	U	1.0%	0.0010	1.89	Pass
NEtFOSAA	µg/Kg	0.947	4.74	0.095	U	0.096	U	1.0%	0.0010	1.89	Pass
NMeFOSAA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFBS	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFBA	µg/Kg	0.947	4.74	0.095	U	0.096	U	1.0%	0.0010	1.89	Pass
PFDA	µg/Kg	0.947	4.74	0.095	U	0.096	U	1.0%	0.0010	1.89	Pass
PFDOA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFHpA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFHxS	µg/Kg	0.947	4.74	0.095	U	0.096	U	1.0%	0.0010	1.89	Pass
PFHxA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFNA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFOS	µg/Kg	0.947	4.74	0.071	J	0.087	J	20.3%	0.016	1.89	Pass
PFOA	µg/Kg	0.947	4.74	0.189	U	0.193	U	2.1%	0.0040	1.89	Pass
PFPeA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFTeDA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass
PFTrDA	µg/Kg	0.947	4.74	0.095	U	0.096	U	1.0%	0.0010	1.89	Pass
PFUnDA	µg/Kg	0.947	4.74	0.047	U	0.048	U	2.1%	0.0010	1.89	Pass

Control limit [sample]>5xLOQ use 30%
[sample]<5xLOQ use Delta<2xLOQ

Albany
Field Duplicates

Client Sample ID:				AOI02-01-SB-03.5-04.3	AOI02-SB-DUP-4				
Date Sampled:				4/14/22	4/14/22				
	Units	LOQ	5x LOQ	Sample Conc	Duplicate Conc	% RPD	Delta	2x LOQ	Pass/ Fail
General Chemistry									
pH	SU	1.00	5.00	7.97	7.56	5.3%	0.410	2.00	Pass
TOC	mg/Kg	500	2500	2830	714	119.4%	2116	1000	Fail

Control limit [sample]>5xLOQ use 30%
[sample]<5xLOQ use Delta<2xLOQ

Albany
Field Duplicates

Client Sample ID:				AOI02-03-GW		AOI02-DUP-GW-02					
Date Sampled:				4/13/22		4/13/22					
	Units	LOQ	5x LOQ	Sample Conc		Duplicate Conc		% RPD	Delta	2x LOQ	Pass/ Fail
Perfluorinated Alkyl Substances											
6:2 FTS	ng/L	4.07	20.4	3.05	U	3.02	U	1.0%	0.030	8.14	Pass
8:2 FTS	ng/L	4.07	20.4	3.05	U	3.02	U	1.0%	0.030	8.14	Pass
NEtFOSAA	ng/L	8.13	40.7	4.07	U	4.03	U	1.0%	0.040	16.3	Pass
NMeFOSAA	ng/L	8.13	40.7	4.07	U	4.03	U	1.0%	0.040	16.3	Pass
PFBS	ng/L	4.07	20.4	6.69		6.28		6.3%	0.41	8.14	Pass
PFBA	ng/L	4.07	20.4	13.3		15.4		14.6%	2.1	8.14	Pass
PFDA	ng/L	4.07	20.4	3.96	J	4.10		3.5%	0.14	8.14	Pass
PFDOA	ng/L	4.07	20.4	3.05	U	3.02	U	1.0%	0.030	8.14	Pass
PFHpA	ng/L	4.07	20.4	18.4		18.6		1.1%	0.20	8.14	Pass
PFHxS	ng/L	4.07	20.4	2.89	J	2.34	J	21.0%	0.55	8.14	Pass
PFHxA	ng/L	4.07	20.4	22.8		23.3		2.2%	0.50	8.14	Pass
PFNA	ng/L	4.07	20.4	2.13	J	2.08	J	2.4%	0.050	8.14	Pass
PFOS	ng/L	4.07	20.4	21.8		20.4		6.6%	1.4	8.14	Pass
PFOA	ng/L	4.07	20.4	10.5		10.0		5.2%	0.53	8.14	Pass
PFPeA	ng/L	4.07	20.4	22.8		25.3		10.4%	2.5	8.14	Pass
PFTeDA	ng/L	4.07	20.4	3.05	U	3.02	U	1.0%	0.030	8.14	Pass
PFTrDA	ng/L	4.07	20.4	3.05	U	3.02	U	1.0%	0.030	8.14	Pass
PFUnDA	ng/L	4.07	20.4	3.05	U	3.02	U	1.0%	0.030	8.14	Pass

Control limit [sample]>5xLOQ use 30%
[sample]<5xLOQ use Delta<2xLOQ

Albany
Field Duplicates

Client Sample ID:				AOI01-04-GW		DUP-GW-01					
Date Sampled:				4/12/22		4/12/22					
	Units	LOQ	5x LOQ	Sample Conc		Duplicate Conc		% RPD	Delta	2x LOQ	Pass/ Fail
Perfluorinated Alkyl Substances											
6:2 FTS	ng/L	4.00	20.0	5.48		5.26		4.1%	0.22	8.00	Pass
8:2 FTS	ng/L	4.00	20.0	3.00	U	3.00	U	0.0%	0.0	8.00	Pass
NEtFOSAA	ng/L	8.00	40.0	4.00	U	4.00	U	0.0%	0.0	16.0	Pass
NMeFOSAA	ng/L	8.00	40.0	4.00	U	4.00	U	0.0%	0.0	16.0	Pass
PFBS	ng/L	4.00	20.0	48.5		51.6		6.2%	3.1	8.00	Pass
PFBA	ng/L	4.00	20.0	49.2		52.2		5.9%	3.0	8.00	Pass
PFDA	ng/L	4.00	20.0	2.94	J	3.05	J	3.7%	0.11	8.00	Pass
PFDOA	ng/L	4.00	20.0	3.00	U	3.00	U	0.0%	0.0	8.00	Pass
PFHpA	ng/L	4.00	20.0	33.9		35.3		4.0%	1.4	8.00	Pass
PFHxS	ng/L	4.00	20.0	1120		1180		5.2%	60	8.00	Pass
PFHxA	ng/L	4.00	20.0	152		167		9.4%	15	8.00	Pass
PFNA	ng/L	4.00	20.0	4.90		5.06		3.2%	0.16	8.00	Pass
PFOS	ng/L	80.0	400	14100	J	15000		6.2%	900	160	Pass
PFOA	ng/L	4.00	20.0	58.7		61.9		5.3%	3.2	8.00	Pass
PFPeA	ng/L	4.00	20.0	78.6		82.9		5.3%	4.3	8.00	Pass
PFTeDA	ng/L	4.00	20.0	3.00	U	3.00	U	0.0%	0.0	8.00	Pass
PFTrDA	ng/L	4.00	20.0	3.00	U	3.00	U	0.0%	0.0	8.00	Pass
PFUnDA	ng/L	4.00	20.0	3.00	U	3.00	U	0.0%	0.0	8.00	Pass

Control limit [sample]>5xLOQ use 30%
[sample]<5xLOQ use Delta<2xLOQ

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	221112126	Client Sample ID:	ALB-DECON-01
Collect Date:	11/19/21 Time: 0820	GCAL Sample ID:	22111212601
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2211207A_37.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	11/29/21	Analysis Date:	12/07/21 Time: 1910
Prep Batch:	727989	Analytical Batch:	728786
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	0.642	J	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	1.83	J	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	1.62	J	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	1.49	J	0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	0.889	J	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	1.68	J	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-04-SB-00-02
Collect Date:	01/04/22 Time: 0950	GCAL Sample ID:	22201061201
Matrix:	Solid % Moisture: 14.0	Instrument ID:	QQQ4
Sample Amt:	5.3 g	Lab File ID:	2220116B_14.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2104
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.219	U	0.066	0.219	1.10
39108-34-4	8:2 Fluorotelomersulfonic acid	0.110	U	0.033	0.110	1.10
2991-50-6	NEtFOSAA	0.110	U	0.033	0.110	1.10
2355-31-9	NMeFOSAA	0.055	U	0.022	0.055	1.10
375-73-5	Perfluorobutanesulfonic acid	0.055	U	0.022	0.055	1.10
375-22-4	Perfluorobutanoic acid	0.087	J	0.044	0.110	1.10
335-76-2	Perfluorodecanoic acid	0.110	U	0.044	0.110	1.10
307-55-1	Perfluorododecanoic acid	0.055	U	0.022	0.055	1.10
375-85-9	Perfluoroheptanoic acid	0.060	J	0.022	0.055	1.10
355-46-4	Perfluorohexanesulfonic acid	0.163	J	0.033	0.110	1.10
307-24-4	Perfluorohexanoic acid	0.129	J	0.022	0.055	1.10
375-95-1	Perfluorononanoic acid	0.069	J	0.022	0.055	1.10
1763-23-1	Perfluorooctanesulfonic acid	2.67		0.055	0.219	1.10
335-67-1	Perfluorooctanoic acid	0.151	J	0.088	0.219	1.10
2706-90-3	Perfluoropentanoic acid	0.087	J	0.022	0.055	1.10
376-06-7	Perfluorotetradecanoic acid	0.055	U	0.022	0.055	1.10
72629-94-8	Perfluorotridecanoic acid	0.110	U	0.033	0.110	1.10
2058-94-8	Perfluoroundecanoic acid	0.039	J	0.022	0.055	1.10

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-04-SB-02-04
Collect Date:	01/04/22 Time: 1010	GCAL Sample ID:	22201061202
Matrix:	Solid % Moisture: 17.3	Instrument ID:	QQQ4
Sample Amt:	5.18 g	Lab File ID:	2220116B_15.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2118
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.233	U	0.070	0.233	1.17
39108-34-4	8:2 Fluorotelomersulfonic acid	0.117	U	0.035	0.117	1.17
2991-50-6	NEtFOSAA	0.117	U	0.035	0.117	1.17
2355-31-9	NMeFOSAA	0.058	U	0.023	0.058	1.17
375-73-5	Perfluorobutanesulfonic acid	0.058	U	0.023	0.058	1.17
375-22-4	Perfluorobutanoic acid	0.112	J	0.047	0.117	1.17
335-76-2	Perfluorodecanoic acid	0.050	J	0.047	0.117	1.17
307-55-1	Perfluorododecanoic acid	0.058	U	0.023	0.058	1.17
375-85-9	Perfluoroheptanoic acid	0.068	J	0.023	0.058	1.17
355-46-4	Perfluorohexanesulfonic acid	0.144	J	0.035	0.117	1.17
307-24-4	Perfluorohexanoic acid	0.085	J	0.023	0.058	1.17
375-95-1	Perfluorononanoic acid	0.090	J	0.023	0.058	1.17
1763-23-1	Perfluorooctanesulfonic acid	2.20		0.058	0.233	1.17
335-67-1	Perfluorooctanoic acid	0.193	J	0.093	0.233	1.17
2706-90-3	Perfluoropentanoic acid	0.075	J	0.023	0.058	1.17
376-06-7	Perfluorotetradecanoic acid	0.058	U	0.023	0.058	1.17
72629-94-8	Perfluorotridecanoic acid	0.117	U	0.035	0.117	1.17
2058-94-8	Perfluoroundecanoic acid	0.049	J	0.023	0.058	1.17

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-05-SB-00-02
Collect Date:	01/04/22 Time: 1040	GCAL Sample ID:	22201061203
Matrix:	Solid % Moisture: 8.3	Instrument ID:	QQQ4
Sample Amt:	5.05 g	Lab File ID:	2220116B_17.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2148
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.355	JJ	0.065	0.216	1.08
39108-34-4	8:2 Fluorotelomersulfonic acid	0.077	J	0.032	0.108	1.08
2991-50-6	NEtFOSAA	0.108	U	0.032	0.108	1.08
2355-31-9	NMeFOSAA	0.054	U	0.022	0.054	1.08
375-73-5	Perfluorobutanesulfonic acid	0.054	U	0.022	0.054	1.08
375-22-4	Perfluorobutanoic acid	0.077	J	0.043	0.108	1.08
335-76-2	Perfluorodecanoic acid	0.108	U	0.043	0.108	1.08
307-55-1	Perfluorododecanoic acid	0.054	U	0.022	0.054	1.08
375-85-9	Perfluoroheptanoic acid	0.047	J	0.022	0.054	1.08
355-46-4	Perfluorohexanesulfonic acid	0.078	J	0.032	0.108	1.08
307-24-4	Perfluorohexanoic acid	0.074	J	0.022	0.054	1.08
375-95-1	Perfluorononanoic acid	0.060	J	0.022	0.054	1.08
1763-23-1	Perfluorooctanesulfonic acid	1.23		0.054	0.216	1.08
335-67-1	Perfluorooctanoic acid	0.120	J	0.086	0.216	1.08
2706-90-3	Perfluoropentanoic acid	0.064	J	0.022	0.054	1.08
376-06-7	Perfluorotetradecanoic acid	0.054	U	0.022	0.054	1.08
72629-94-8	Perfluorotridecanoic acid	0.108	U	0.032	0.108	1.08
2058-94-8	Perfluoroundecanoic acid	0.035	J	0.022	0.054	1.08

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-05-SB-02-04
Collect Date:	01/04/22 Time: 1100	GCAL Sample ID:	22201061206
Matrix:	Solid % Moisture: 16.0	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220116B_20.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2233
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.238	U	0.071	0.238	1.19
39108-34-4	8:2 Fluorotelomersulfonic acid	0.119	U	0.036	0.119	1.19
2991-50-6	NEtFOSAA	0.119	U	0.036	0.119	1.19
2355-31-9	NMeFOSAA	0.060	U	0.024	0.060	1.19
375-73-5	Perfluorobutanesulfonic acid	0.060	U	0.024	0.060	1.19
375-22-4	Perfluorobutanoic acid	0.149	J	0.048	0.119	1.19
335-76-2	Perfluorodecanoic acid	0.071	J	0.048	0.119	1.19
307-55-1	Perfluorododecanoic acid	0.034	J	0.024	0.060	1.19
375-85-9	Perfluoroheptanoic acid	0.083	J	0.024	0.060	1.19
355-46-4	Perfluorohexanesulfonic acid	0.079	J	0.036	0.119	1.19
307-24-4	Perfluorohexanoic acid	0.091	J	0.024	0.060	1.19
375-95-1	Perfluorononanoic acid	0.130	J	0.024	0.060	1.19
1763-23-1	Perfluorooctanesulfonic acid	1.87		0.060	0.238	1.19
335-67-1	Perfluorooctanoic acid	0.219	J	0.095	0.238	1.19
2706-90-3	Perfluoropentanoic acid	0.100	J	0.024	0.060	1.19
376-06-7	Perfluorotetradecanoic acid	0.060	U	0.024	0.060	1.19
72629-94-8	Perfluorotridecanoic acid	0.119	U	0.036	0.119	1.19
2058-94-8	Perfluoroundecanoic acid	0.068	J	0.024	0.060	1.19

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-07-SB-00-02
Collect Date:	01/04/22 Time: 1120	GCAL Sample ID:	22201061207
Matrix:	Solid % Moisture: 14.5	Instrument ID:	QQQ4
Sample Amt:	5.08 g	Lab File ID:	2220116B_21.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2248
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.230	U	0.069	0.230	1.15
39108-34-4	8:2 Fluorotelomersulfonic acid	0.115	U	0.035	0.115	1.15
2991-50-6	NEtFOSAA	0.115	U	0.035	0.115	1.15
2355-31-9	NMeFOSAA	0.058	U	0.023	0.058	1.15
375-73-5	Perfluorobutanesulfonic acid	0.058	U	0.023	0.058	1.15
375-22-4	Perfluorobutanoic acid	0.117	J	0.046	0.115	1.15
335-76-2	Perfluorodecanoic acid	0.060	J	0.046	0.115	1.15
307-55-1	Perfluorododecanoic acid	0.029	J	0.023	0.058	1.15
375-85-9	Perfluoroheptanoic acid	0.068	J	0.023	0.058	1.15
355-46-4	Perfluorohexanesulfonic acid	0.163	J	0.035	0.115	1.15
307-24-4	Perfluorohexanoic acid	0.088	J	0.023	0.058	1.15
375-95-1	Perfluorononanoic acid	0.101	J	0.023	0.058	1.15
1763-23-1	Perfluorooctanesulfonic acid	3.12		0.058	0.230	1.15
335-67-1	Perfluorooctanoic acid	0.191	J	0.092	0.230	1.15
2706-90-3	Perfluoropentanoic acid	0.083	J	0.023	0.058	1.15
376-06-7	Perfluorotetradecanoic acid	0.058	U	0.023	0.058	1.15
72629-94-8	Perfluorotridecanoic acid	0.115	U	0.035	0.115	1.15
2058-94-8	Perfluoroundecanoic acid	0.057	J	0.023	0.058	1.15

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-07-SB-02-04
Collect Date:	01/04/22 Time: 1140	GCAL Sample ID:	22201061208
Matrix:	Solid % Moisture: 14.4	Instrument ID:	QQQ4
Sample Amt:	5.19 g	Lab File ID:	2220116B_22.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2303
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.225	U	0.068	0.225	1.13
39108-34-4	8:2 Fluorotelomersulfonic acid	0.113	U	0.034	0.113	1.13
2991-50-6	NEtFOSAA	0.113	U	0.034	0.113	1.13
2355-31-9	NMeFOSAA	0.056	U	0.023	0.056	1.13
375-73-5	Perfluorobutanesulfonic acid	0.056	U	0.023	0.056	1.13
375-22-4	Perfluorobutanoic acid	0.128	J	0.045	0.113	1.13
335-76-2	Perfluorodecanoic acid	0.063	J	0.045	0.113	1.13
307-55-1	Perfluorododecanoic acid	0.028	J	0.023	0.056	1.13
375-85-9	Perfluoroheptanoic acid	0.066	J	0.023	0.056	1.13
355-46-4	Perfluorohexanesulfonic acid	0.091	J	0.034	0.113	1.13
307-24-4	Perfluorohexanoic acid	0.087	J	0.023	0.056	1.13
375-95-1	Perfluorononanoic acid	0.098	J	0.023	0.056	1.13
1763-23-1	Perfluorooctanesulfonic acid	2.00		0.056	0.225	1.13
335-67-1	Perfluorooctanoic acid	0.179	J	0.090	0.225	1.13
2706-90-3	Perfluoropentanoic acid	0.077	J	0.023	0.056	1.13
376-06-7	Perfluorotetradecanoic acid	0.056	U	0.023	0.056	1.13
72629-94-8	Perfluorotridecanoic acid	0.113	U	0.034	0.113	1.13
2058-94-8	Perfluoroundecanoic acid	0.058	J	0.023	0.056	1.13

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-06-SB-00-02
Collect Date:	01/04/22 Time: 1200	GCAL Sample ID:	22201061209
Matrix:	Solid % Moisture: 14.3	Instrument ID:	QQQ4
Sample Amt:	5.13 g	Lab File ID:	2220116B_23.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2318
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.227	U	0.068	0.227	1.14
39108-34-4	8:2 Fluorotelomersulfonic acid	0.114	U	0.034	0.114	1.14
2991-50-6	NEtFOSAA	0.114	U	0.034	0.114	1.14
2355-31-9	NMeFOSAA	0.057	U	0.023	0.057	1.14
375-73-5	Perfluorobutanesulfonic acid	0.057	U	0.023	0.057	1.14
375-22-4	Perfluorobutanoic acid	0.084	J	0.045	0.114	1.14
335-76-2	Perfluorodecanoic acid	0.048	J	0.045	0.114	1.14
307-55-1	Perfluorododecanoic acid	0.057	U	0.023	0.057	1.14
375-85-9	Perfluoroheptanoic acid	0.055	J	0.023	0.057	1.14
355-46-4	Perfluorohexanesulfonic acid	0.116	J	0.034	0.114	1.14
307-24-4	Perfluorohexanoic acid	0.074	J	0.023	0.057	1.14
375-95-1	Perfluorononanoic acid	0.076	J	0.023	0.057	1.14
1763-23-1	Perfluorooctanesulfonic acid	3.44		0.057	0.227	1.14
335-67-1	Perfluorooctanoic acid	0.146	J	0.091	0.227	1.14
2706-90-3	Perfluoropentanoic acid	0.075	J	0.023	0.057	1.14
376-06-7	Perfluorotetradecanoic acid	0.057	U	0.023	0.057	1.14
72629-94-8	Perfluorotridecanoic acid	0.114	U	0.034	0.114	1.14
2058-94-8	Perfluoroundecanoic acid	0.043	J	0.023	0.057	1.14

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-06-SB-02-04
Collect Date:	01/04/22 Time: 1215	GCAL Sample ID:	22201061210
Matrix:	Solid % Moisture: 14.3	Instrument ID:	QQQ4
Sample Amt:	5.05 g	Lab File ID:	2220116B_24.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2332
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.231	U	0.069	0.231	1.15
39108-34-4	8:2 Fluorotelomersulfonic acid	0.115	U	0.035	0.115	1.15
2991-50-6	NEtFOSAA	0.115	U	0.035	0.115	1.15
2355-31-9	NMeFOSAA	0.058	U	0.023	0.058	1.15
375-73-5	Perfluorobutanesulfonic acid	0.058	U	0.023	0.058	1.15
375-22-4	Perfluorobutanoic acid	0.132	J	0.046	0.115	1.15
335-76-2	Perfluorodecanoic acid	0.073	J	0.046	0.115	1.15
307-55-1	Perfluorododecanoic acid	0.029	J	0.023	0.058	1.15
375-85-9	Perfluoroheptanoic acid	0.093	J	0.023	0.058	1.15
355-46-4	Perfluorohexanesulfonic acid	0.133	J	0.035	0.115	1.15
307-24-4	Perfluorohexanoic acid	0.110	J	0.023	0.058	1.15
375-95-1	Perfluorononanoic acid	0.131	J	0.023	0.058	1.15
1763-23-1	Perfluorooctanesulfonic acid	4.12		0.058	0.231	1.15
335-67-1	Perfluorooctanoic acid	0.235	J	0.092	0.231	1.15
2706-90-3	Perfluoropentanoic acid	0.124	J	0.023	0.058	1.15
376-06-7	Perfluorotetradecanoic acid	0.058	U	0.023	0.058	1.15
72629-94-8	Perfluorotridecanoic acid	0.115	U	0.035	0.115	1.15
2058-94-8	Perfluoroundecanoic acid	0.063	J	0.023	0.058	1.15

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-03-SB-00-02
Collect Date:	01/04/22 Time: 1235	GCAL Sample ID:	22201061211
Matrix:	Solid % Moisture: 17.3	Instrument ID:	QQQ4
Sample Amt:	5.26 g	Lab File ID:	2220116B_25.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 2347
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.230	U	0.069	0.230	1.15
39108-34-4	8:2 Fluorotelomersulfonic acid	0.115	U	0.034	0.115	1.15
2991-50-6	NEtFOSAA	0.115	U	0.034	0.115	1.15
2355-31-9	NMeFOSAA	0.057	U	0.023	0.057	1.15
375-73-5	Perfluorobutanesulfonic acid	0.057	U	0.023	0.057	1.15
375-22-4	Perfluorobutanoic acid	0.118	J	0.046	0.115	1.15
335-76-2	Perfluorodecanoic acid	0.067	J	0.046	0.115	1.15
307-55-1	Perfluorododecanoic acid	0.029	J	0.023	0.057	1.15
375-85-9	Perfluoroheptanoic acid	0.059	J	0.023	0.057	1.15
355-46-4	Perfluorohexanesulfonic acid	0.047	J	0.034	0.115	1.15
307-24-4	Perfluorohexanoic acid	0.070	J	0.023	0.057	1.15
375-95-1	Perfluorononanoic acid	0.096	J	0.023	0.057	1.15
1763-23-1	Perfluorooctanesulfonic acid	0.441	J	0.057	0.230	1.15
335-67-1	Perfluorooctanoic acid	0.107	J	0.092	0.230	1.15
2706-90-3	Perfluoropentanoic acid	0.095	J	0.023	0.057	1.15
376-06-7	Perfluorotetradecanoic acid	0.057	U	0.023	0.057	1.15
72629-94-8	Perfluorotridecanoic acid	0.115	U	0.034	0.115	1.15
2058-94-8	Perfluoroundecanoic acid	0.058	J	0.023	0.057	1.15

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-03-SB-02-04
Collect Date:	01/04/22 Time: 1250	GCAL Sample ID:	22201061212
Matrix:	Solid % Moisture: 14.9	Instrument ID:	QQQ4
Sample Amt:	5.14 g	Lab File ID:	2220117A_16.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/17/22 Time: 1518
Prep Batch:	731655	Analytical Batch:	731768
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.229	U	0.069	0.229	1.14
39108-34-4	8:2 Fluorotelomersulfonic acid	0.114	U	0.034	0.114	1.14
2991-50-6	NEtFOSAA	0.114	U	0.034	0.114	1.14
2355-31-9	NMeFOSAA	0.057	U	0.023	0.057	1.14
375-73-5	Perfluorobutanesulfonic acid	0.057	U	0.023	0.057	1.14
375-22-4	Perfluorobutanoic acid	0.084	J	0.046	0.114	1.14
335-76-2	Perfluorodecanoic acid	0.057	J	0.046	0.114	1.14
307-55-1	Perfluorododecanoic acid	0.027	J	0.023	0.057	1.14
375-85-9	Perfluoroheptanoic acid	0.035	J	0.023	0.057	1.14
355-46-4	Perfluorohexanesulfonic acid	0.114	U	0.034	0.114	1.14
307-24-4	Perfluorohexanoic acid	0.067	J	0.023	0.057	1.14
375-95-1	Perfluorononanoic acid	0.078	J	0.023	0.057	1.14
1763-23-1	Perfluorooctanesulfonic acid	0.391	J	0.057	0.229	1.14
335-67-1	Perfluorooctanoic acid	0.229	U	0.091	0.229	1.14
2706-90-3	Perfluoropentanoic acid	0.042	J	0.023	0.057	1.14
376-06-7	Perfluorotetradecanoic acid	0.057	U	0.023	0.057	1.14
72629-94-8	Perfluorotridecanoic acid	0.114	U	0.034	0.114	1.14
2058-94-8	Perfluoroundecanoic acid	0.057	J	0.023	0.057	1.14

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	AOI03-04-SB-00-02-DUP
Collect Date:	01/04/22 Time: 0001	GCAL Sample ID:	22201061213
Matrix:	Solid % Moisture: 15.3	Instrument ID:	QQQ4
Sample Amt:	5.15 g	Lab File ID:	2220117A_14.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/17/22 Time: 1448
Prep Batch:	731655	Analytical Batch:	731768
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.229	U	0.069	0.229	1.15
39108-34-4	8:2 Fluorotelomersulfonic acid	0.115	U	0.034	0.115	1.15
2991-50-6	NEtFOSAA	0.115	U	0.034	0.115	1.15
2355-31-9	NMeFOSAA	0.057	U	0.023	0.057	1.15
375-73-5	Perfluorobutanesulfonic acid	0.057	U	0.023	0.057	1.15
375-22-4	Perfluorobutanoic acid	0.111	J	0.046	0.115	1.15
335-76-2	Perfluorodecanoic acid	0.052	J	0.046	0.115	1.15
307-55-1	Perfluorododecanoic acid	0.026	J	0.023	0.057	1.15
375-85-9	Perfluoroheptanoic acid	0.068	J	0.023	0.057	1.15
355-46-4	Perfluorohexanesulfonic acid	0.145	J	0.034	0.115	1.15
307-24-4	Perfluorohexanoic acid	0.094	J	0.023	0.057	1.15
375-95-1	Perfluorononanoic acid	0.089	J	0.023	0.057	1.15
1763-23-1	Perfluorooctanesulfonic acid	2.19		0.057	0.229	1.15
335-67-1	Perfluorooctanoic acid	0.196	J	0.092	0.229	1.15
2706-90-3	Perfluoropentanoic acid	0.077	J	0.023	0.057	1.15
376-06-7	Perfluorotetradecanoic acid	0.057	U	0.023	0.057	1.15
72629-94-8	Perfluorotridecanoic acid	0.115	U	0.034	0.115	1.15
2058-94-8	Perfluoroundecanoic acid	0.054	J	0.023	0.057	1.15

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	ALB-ERB-01
Collect Date:	01/04/22 Time: 1310	GCAL Sample ID:	22201061214
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220110A_43.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: ADA
Prep Date:	01/10/22	Analysis Date:	01/10/22 Time: 2233
Prep Batch:	731277	Analytical Batch:	731351
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.00	U	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.50	U	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	2.00	U	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	4.50		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.00	U	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	2.00	U	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-03-SB-00-02
Collect Date:	04/13/22 Time: 0935	GCAL Sample ID:	22204158201
Matrix:	Solid % Moisture: 15.4	Instrument ID:	QQQ3
Sample Amt:	5.37 g	Lab File ID:	2220504A_11.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1545
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.220	U	0.066	0.220	1.10
39108-34-4	8:2 Fluorotelomersulfonic acid	0.110	U	0.033	0.110	1.10
2991-50-6	NEtFOSAA	0.110	U	0.033	0.110	1.10
2355-31-9	NMeFOSAA	0.055	U	0.022	0.055	1.10
375-73-5	Perfluorobutanesulfonic acid	0.055	U	0.022	0.055	1.10
375-22-4	Perfluorobutanoic acid	0.110	U	0.044	0.110	1.10
335-76-2	Perfluorodecanoic acid	0.102	J	0.044	0.110	1.10
307-55-1	Perfluorododecanoic acid	0.052	J	0.022	0.055	1.10
375-85-9	Perfluoroheptanoic acid	0.055	U	0.022	0.055	1.10
355-46-4	Perfluorohexanesulfonic acid	0.110	U	0.033	0.110	1.10
307-24-4	Perfluorohexanoic acid	0.031	J	0.022	0.055	1.10
375-95-1	Perfluorononanoic acid	0.029	J	0.022	0.055	1.10
1763-23-1	Perfluorooctanesulfonic acid	0.492	J	0.055	0.220	1.10
335-67-1	Perfluorooctanoic acid	0.220	U	0.088	0.220	1.10
2706-90-3	Perfluoropentanoic acid	0.025	J	0.022	0.055	1.10
376-06-7	Perfluorotetradecanoic acid	0.033	J	0.022	0.055	1.10
72629-94-8	Perfluorotridecanoic acid	0.110	U	0.033	0.110	1.10
2058-94-8	Perfluoroundecanoic acid	0.042	J	0.022	0.055	1.10

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-03-SB-02-02.7
Collect Date:	04/13/22 Time: 0940	GCAL Sample ID:	22204158202
Matrix:	Solid % Moisture: 16.1	Instrument ID:	QQQ5
Sample Amt:	5.35 g	Lab File ID:	2220509B_5.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/08/22	Analysis Date:	05/09/22 Time: 2002
Prep Batch:	740324	Analytical Batch:	740543
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.223	U	0.067	0.223	1.11
39108-34-4	8:2 Fluorotelomersulfonic acid	0.111	U	0.033	0.111	1.11
2991-50-6	NEtFOSAA	0.111	U	0.033	0.111	1.11
2355-31-9	NMeFOSAA	0.056	U	0.022	0.056	1.11
375-73-5	Perfluorobutanesulfonic acid	0.056	U	0.022	0.056	1.11
375-22-4	Perfluorobutanoic acid	0.111	U	0.045	0.111	1.11
335-76-2	Perfluorodecanoic acid	0.111	U	0.045	0.111	1.11
307-55-1	Perfluorododecanoic acid	0.056	U	0.022	0.056	1.11
375-85-9	Perfluoroheptanoic acid	0.056	U	0.022	0.056	1.11
355-46-4	Perfluorohexanesulfonic acid	0.111	U	0.033	0.111	1.11
307-24-4	Perfluorohexanoic acid	0.056	U	0.022	0.056	1.11
375-95-1	Perfluorononanoic acid	0.056	U	0.022	0.056	1.11
1763-23-1	Perfluorooctanesulfonic acid	0.139	J	0.056	0.223	1.11
335-67-1	Perfluorooctanoic acid	0.223	U	0.089	0.223	1.11
2706-90-3	Perfluoropentanoic acid	0.056	U	0.022	0.056	1.11
376-06-7	Perfluorotetradecanoic acid	0.056	U	0.022	0.056	1.11
72629-94-8	Perfluorotridecanoic acid	0.111	U	0.033	0.111	1.11
2058-94-8	Perfluoroundecanoic acid	0.056	U	0.022	0.056	1.11

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI03-01-SB-00-01
Collect Date:	04/13/22 Time: 1100	GCAL Sample ID:	22204158203
Matrix:	Solid % Moisture: 9.8	Instrument ID:	QQQ3
Sample Amt:	5.26 g	Lab File ID:	2220504A_13.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1614
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.211	U	0.063	0.211	1.05
39108-34-4	8:2 Fluorotelomersulfonic acid	0.105	U	0.032	0.105	1.05
2991-50-6	NEtFOSAA	0.105	U	0.032	0.105	1.05
2355-31-9	NMeFOSAA	0.053	U	0.021	0.053	1.05
375-73-5	Perfluorobutanesulfonic acid	0.053	U	0.021	0.053	1.05
375-22-4	Perfluorobutanoic acid	0.105	U	0.042	0.105	1.05
335-76-2	Perfluorodecanoic acid	0.105	U	0.042	0.105	1.05
307-55-1	Perfluorododecanoic acid	0.021	J	0.021	0.053	1.05
375-85-9	Perfluoroheptanoic acid	0.053	U	0.021	0.053	1.05
355-46-4	Perfluorohexanesulfonic acid	0.105	U	0.032	0.105	1.05
307-24-4	Perfluorohexanoic acid	0.053	U	0.021	0.053	1.05
375-95-1	Perfluorononanoic acid	0.028	J	0.021	0.053	1.05
1763-23-1	Perfluorooctanesulfonic acid	0.320	J	0.053	0.211	1.05
335-67-1	Perfluorooctanoic acid	0.211	U	0.084	0.211	1.05
2706-90-3	Perfluoropentanoic acid	0.053	U	0.021	0.053	1.05
376-06-7	Perfluorotetradecanoic acid	0.053	U	0.021	0.053	1.05
72629-94-8	Perfluorotridecanoic acid	0.105	U	0.032	0.105	1.05
2058-94-8	Perfluoroundecanoic acid	0.034	J	0.021	0.053	1.05

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI03-02-SB-00-01
Collect Date:	04/13/22 Time: 1150	GCAL Sample ID:	22204158204
Matrix:	Solid % Moisture: 19.7	Instrument ID:	QQQ3
Sample Amt:	5.36 g	Lab File ID:	2220504A_15.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1644
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.232	U	0.070	0.232	1.16
39108-34-4	8:2 Fluorotelomersulfonic acid	0.116	U	0.035	0.116	1.16
2991-50-6	NEtFOSAA	0.116	U	0.035	0.116	1.16
2355-31-9	NMeFOSAA	0.058	U	0.023	0.058	1.16
375-73-5	Perfluorobutanesulfonic acid	0.058	U	0.023	0.058	1.16
375-22-4	Perfluorobutanoic acid	0.093	J	0.046	0.116	1.16
335-76-2	Perfluorodecanoic acid	0.047	J	0.046	0.116	1.16
307-55-1	Perfluorododecanoic acid	0.058	U	0.023	0.058	1.16
375-85-9	Perfluoroheptanoic acid	0.035	J	0.023	0.058	1.16
355-46-4	Perfluorohexanesulfonic acid	0.116	U	0.035	0.116	1.16
307-24-4	Perfluorohexanoic acid	0.045	J	0.023	0.058	1.16
375-95-1	Perfluorononanoic acid	0.072	J	0.023	0.058	1.16
1763-23-1	Perfluorooctanesulfonic acid	0.638	J	0.058	0.232	1.16
335-67-1	Perfluorooctanoic acid	0.232	U	0.093	0.232	1.16
2706-90-3	Perfluoropentanoic acid	0.064	J	0.023	0.058	1.16
376-06-7	Perfluorotetradecanoic acid	0.058	U	0.023	0.058	1.16
72629-94-8	Perfluorotridecanoic acid	0.116	U	0.035	0.116	1.16
2058-94-8	Perfluoroundecanoic acid	0.033	J	0.023	0.058	1.16

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-01-SB-03.5-04.3
Collect Date:	04/14/22 Time: 0955	GCAL Sample ID:	22204158205
Matrix:	Solid % Moisture: 13.9	Instrument ID:	QQQ3
Sample Amt:	5.39 g	Lab File ID:	2220504A_16.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1658
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.215	U	0.065	0.215	1.08
39108-34-4	8:2 Fluorotelomersulfonic acid	0.108	U	0.032	0.108	1.08
2991-50-6	NEtFOSAA	0.108	U	0.032	0.108	1.08
2355-31-9	NMeFOSAA	0.054	U	0.022	0.054	1.08
375-73-5	Perfluorobutanesulfonic acid	0.054	U	0.022	0.054	1.08
375-22-4	Perfluorobutanoic acid	0.108	U	0.043	0.108	1.08
335-76-2	Perfluorodecanoic acid	0.108	U	0.043	0.108	1.08
307-55-1	Perfluorododecanoic acid	0.054	U	0.022	0.054	1.08
375-85-9	Perfluoroheptanoic acid	0.054	U	0.022	0.054	1.08
355-46-4	Perfluorohexanesulfonic acid	0.108	U	0.032	0.108	1.08
307-24-4	Perfluorohexanoic acid	0.054	U	0.022	0.054	1.08
375-95-1	Perfluorononanoic acid	0.054	U	0.022	0.054	1.08
1763-23-1	Perfluorooctanesulfonic acid	0.398	J	0.054	0.215	1.08
335-67-1	Perfluorooctanoic acid	0.215	U	0.086	0.215	1.08
2706-90-3	Perfluoropentanoic acid	0.028	J	0.022	0.054	1.08
376-06-7	Perfluorotetradecanoic acid	0.054	U	0.022	0.054	1.08
72629-94-8	Perfluorotridecanoic acid	0.108	U	0.032	0.108	1.08
2058-94-8	Perfluoroundecanoic acid	0.054	U	0.022	0.054	1.08

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-01-SB-00.9-03.5
Collect Date:	04/14/22 Time: 0945	GCAL Sample ID:	22204158208
Matrix:	Solid % Moisture: 3.0	Instrument ID:	QQQ3
Sample Amt:	5.44 g	Lab File ID:	2220504A_20.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1757
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.189	U	0.057	0.189	0.947
39108-34-4	8:2 Fluorotelomersulfonic acid	0.095	U	0.028	0.095	0.947
2991-50-6	NEtFOSAA	0.095	U	0.028	0.095	0.947
2355-31-9	NMeFOSAA	0.047	U	0.019	0.047	0.947
375-73-5	Perfluorobutanesulfonic acid	0.047	U	0.019	0.047	0.947
375-22-4	Perfluorobutanoic acid	0.095	U	0.038	0.095	0.947
335-76-2	Perfluorodecanoic acid	0.095	U	0.038	0.095	0.947
307-55-1	Perfluorododecanoic acid	0.047	U	0.019	0.047	0.947
375-85-9	Perfluoroheptanoic acid	0.047	U	0.019	0.047	0.947
355-46-4	Perfluorohexanesulfonic acid	0.095	U	0.028	0.095	0.947
307-24-4	Perfluorohexanoic acid	0.047	U	0.019	0.047	0.947
375-95-1	Perfluorononanoic acid	0.047	U	0.019	0.047	0.947
1763-23-1	Perfluorooctanesulfonic acid	0.071	J	0.047	0.189	0.947
335-67-1	Perfluorooctanoic acid	0.189	U	0.076	0.189	0.947
2706-90-3	Perfluoropentanoic acid	0.047	U	0.019	0.047	0.947
376-06-7	Perfluorotetradecanoic acid	0.047	U	0.019	0.047	0.947
72629-94-8	Perfluorotridecanoic acid	0.095	U	0.028	0.095	0.947
2058-94-8	Perfluoroundecanoic acid	0.047	U	0.019	0.047	0.947

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-05-SB-0-0-02
Collect Date:	04/14/22 Time: 1045	GCAL Sample ID:	22204158209
Matrix:	Solid % Moisture: 11.2	Instrument ID:	QQQ3
Sample Amt:	5.33 g	Lab File ID:	2220504A_21.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1811
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.211	U	0.063	0.211	1.06
39108-34-4	8:2 Fluorotelomersulfonic acid	0.106	U	0.032	0.106	1.06
2991-50-6	NEtFOSAA	0.106	U	0.032	0.106	1.06
2355-31-9	NMeFOSAA	0.053	U	0.021	0.053	1.06
375-73-5	Perfluorobutanesulfonic acid	0.053	U	0.021	0.053	1.06
375-22-4	Perfluorobutanoic acid	0.106	U	0.042	0.106	1.06
335-76-2	Perfluorodecanoic acid	0.106	U	0.042	0.106	1.06
307-55-1	Perfluorododecanoic acid	0.053	U	0.021	0.053	1.06
375-85-9	Perfluoroheptanoic acid	0.053	U	0.021	0.053	1.06
355-46-4	Perfluorohexanesulfonic acid	0.106	U	0.032	0.106	1.06
307-24-4	Perfluorohexanoic acid	0.053	U	0.021	0.053	1.06
375-95-1	Perfluorononanoic acid	0.053	U	0.021	0.053	1.06
1763-23-1	Perfluorooctanesulfonic acid	0.080	J	0.053	0.211	1.06
335-67-1	Perfluorooctanoic acid	0.211	U	0.085	0.211	1.06
2706-90-3	Perfluoropentanoic acid	0.029	J	0.021	0.053	1.06
376-06-7	Perfluorotetradecanoic acid	0.053	U	0.021	0.053	1.06
72629-94-8	Perfluorotridecanoic acid	0.106	U	0.032	0.106	1.06
2058-94-8	Perfluoroundecanoic acid	0.053	U	0.021	0.053	1.06

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-SB-DUP-3
Collect Date:	04/14/22 Time: 0001	GCAL Sample ID:	22204158210
Matrix:	Solid % Moisture: 2.6	Instrument ID:	QQQ3
Sample Amt:	5.33 g	Lab File ID:	2220504A_22.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1826
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.193	U	0.058	0.193	0.963
39108-34-4	8:2 Fluorotelomersulfonic acid	0.096	U	0.029	0.096	0.963
2991-50-6	NEtFOSAA	0.096	U	0.029	0.096	0.963
2355-31-9	NMeFOSAA	0.048	U	0.019	0.048	0.963
375-73-5	Perfluorobutanesulfonic acid	0.048	U	0.019	0.048	0.963
375-22-4	Perfluorobutanoic acid	0.096	U	0.039	0.096	0.963
335-76-2	Perfluorodecanoic acid	0.096	U	0.039	0.096	0.963
307-55-1	Perfluorododecanoic acid	0.048	U	0.019	0.048	0.963
375-85-9	Perfluoroheptanoic acid	0.048	U	0.019	0.048	0.963
355-46-4	Perfluorohexanesulfonic acid	0.096	U	0.029	0.096	0.963
307-24-4	Perfluorohexanoic acid	0.048	U	0.019	0.048	0.963
375-95-1	Perfluorononanoic acid	0.048	U	0.019	0.048	0.963
1763-23-1	Perfluorooctanesulfonic acid	0.087	J	0.048	0.193	0.963
335-67-1	Perfluorooctanoic acid	0.193	U	0.077	0.193	0.963
2706-90-3	Perfluoropentanoic acid	0.048	U	0.019	0.048	0.963
376-06-7	Perfluorotetradecanoic acid	0.048	U	0.019	0.048	0.963
72629-94-8	Perfluorotridecanoic acid	0.096	U	0.029	0.096	0.963
2058-94-8	Perfluoroundecanoic acid	0.048	U	0.019	0.048	0.963

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI01-06-GW
Collect Date:	04/13/22 Time: 0920	GCAL Sample ID:	22204158213
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220503B_38.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0138
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	8.06		1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	7.55		0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	18.0		1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	2.82	J	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	37.5		1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	139		1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	31.7		0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	13.3		0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	391		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	28.5		0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	46.1		0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI03-01-GW
Collect Date:	04/14/22 Time: 1100	GCAL Sample ID:	22204158214
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	124 mL	Lab File ID:	2220503B_39.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0153
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.02	U	1.51	3.02	4.03
39108-34-4	8:2 Fluorotelomersulfonic acid	3.02	U	1.07	3.02	4.03
2991-50-6	NEtFOSAA	4.03	U	1.59	4.03	8.06
2355-31-9	NMeFOSAA	4.03	U	0.907	4.03	8.06
375-73-5	Perfluorobutanesulfonic acid	3.30	J	0.625	2.02	4.03
375-22-4	Perfluorobutanoic acid	9.27		1.53	3.53	4.03
335-76-2	Perfluorodecanoic acid	3.02	U	1.45	3.02	4.03
307-55-1	Perfluorododecanoic acid	3.02	U	1.31	3.02	4.03
375-85-9	Perfluoroheptanoic acid	3.35	J	1.17	3.02	4.03
355-46-4	Perfluorohexanesulfonic acid	3.36	J	1.25	3.02	4.03
307-24-4	Perfluorohexanoic acid	3.59	J	0.948	2.02	4.03
375-95-1	Perfluorononanoic acid	2.02	U	0.988	2.02	4.03
1763-23-1	Perfluorooctanesulfonic acid	24.6		0.766	2.02	4.03
335-67-1	Perfluorooctanoic acid	17.9		0.847	2.02	4.03
2706-90-3	Perfluoropentanoic acid	3.11	J	0.887	2.02	4.03
376-06-7	Perfluorotetradecanoic acid	3.02	U	1.15	3.02	4.03
72629-94-8	Perfluorotridecanoic acid	3.02	U	1.24	3.02	4.03
2058-94-8	Perfluoroundecanoic acid	3.02	U	1.25	3.02	4.03

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-02-GW
Collect Date:	04/13/22 Time: 1130	GCAL Sample ID:	22204158215
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220503B_40.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0207
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	1.21	J	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	32.3		1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	10.1		1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	43.5		0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	1.80	J	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	11.6		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	1.51	J	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	86.8		0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-03-GW
Collect Date:	04/13/22 Time: 1255	GCAL Sample ID:	22204158216
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	123 mL	Lab File ID:	2220503B_42.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0237
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.05	U	1.52	3.05	4.07
39108-34-4	8:2 Fluorotelomersulfonic acid	3.05	U	1.08	3.05	4.07
2991-50-6	NEtFOSAA	4.07	U	1.61	4.07	8.13
2355-31-9	NMeFOSAA	4.07	U	0.915	4.07	8.13
375-73-5	Perfluorobutanesulfonic acid	6.69		0.630	2.03	4.07
375-22-4	Perfluorobutanoic acid	13.3		1.54	3.56	4.07
335-76-2	Perfluorodecanoic acid	3.96	J	1.46	3.05	4.07
307-55-1	Perfluorododecanoic acid	3.05	U	1.32	3.05	4.07
375-85-9	Perfluoroheptanoic acid	18.4		1.18	3.05	4.07
355-46-4	Perfluorohexanesulfonic acid	2.89	J	1.26	3.05	4.07
307-24-4	Perfluorohexanoic acid	22.8		0.955	2.03	4.07
375-95-1	Perfluorononanoic acid	2.13	J	0.996	2.03	4.07
1763-23-1	Perfluorooctanesulfonic acid	21.8		0.772	2.03	4.07
335-67-1	Perfluorooctanoic acid	10.5		0.854	2.03	4.07
2706-90-3	Perfluoropentanoic acid	22.8		0.894	2.03	4.07
376-06-7	Perfluorotetradecanoic acid	3.05	U	1.16	3.05	4.07
72629-94-8	Perfluorotridecanoic acid	3.05	U	1.25	3.05	4.07
2058-94-8	Perfluoroundecanoic acid	3.05	U	1.26	3.05	4.07

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-DUP-GW-02
Collect Date:	04/13/22 Time: 1300	GCAL Sample ID:	22204158217
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	124 mL	Lab File ID:	2220503B_43.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0252
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.02	U	1.51	3.02	4.03
39108-34-4	8:2 Fluorotelomersulfonic acid	3.02	U	1.07	3.02	4.03
2991-50-6	NEtFOSAA	4.03	U	1.59	4.03	8.06
2355-31-9	NMeFOSAA	4.03	U	0.907	4.03	8.06
375-73-5	Perfluorobutanesulfonic acid	6.28		0.625	2.02	4.03
375-22-4	Perfluorobutanoic acid	15.4		1.53	3.53	4.03
335-76-2	Perfluorodecanoic acid	4.10		1.45	3.02	4.03
307-55-1	Perfluorododecanoic acid	3.02	U	1.31	3.02	4.03
375-85-9	Perfluoroheptanoic acid	18.6		1.17	3.02	4.03
355-46-4	Perfluorohexanesulfonic acid	2.34	J	1.25	3.02	4.03
307-24-4	Perfluorohexanoic acid	23.3		0.948	2.02	4.03
375-95-1	Perfluorononanoic acid	2.08	J	0.988	2.02	4.03
1763-23-1	Perfluorooctanesulfonic acid	20.4		0.766	2.02	4.03
335-67-1	Perfluorooctanoic acid	9.97		0.847	2.02	4.03
2706-90-3	Perfluoropentanoic acid	25.3		0.887	2.02	4.03
376-06-7	Perfluorotetradecanoic acid	3.02	U	1.15	3.02	4.03
72629-94-8	Perfluorotridecanoic acid	3.02	U	1.24	3.02	4.03
2058-94-8	Perfluoroundecanoic acid	3.02	U	1.25	3.02	4.03

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-04-GW
Collect Date:	04/13/22 Time: 1430	GCAL Sample ID:	22204158218
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	124 mL	Lab File ID:	2220503B_44.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0307
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.02	U	1.51	3.02	4.03
39108-34-4	8:2 Fluorotelomersulfonic acid	3.02	U	1.07	3.02	4.03
2991-50-6	NEtFOSAA	4.03	U	1.59	4.03	8.06
2355-31-9	NMeFOSAA	4.03	U	0.907	4.03	8.06
375-73-5	Perfluorobutanesulfonic acid	2.02	U	0.625	2.02	4.03
375-22-4	Perfluorobutanoic acid	3.53	U	1.53	3.53	4.03
335-76-2	Perfluorodecanoic acid	3.02	U	1.45	3.02	4.03
307-55-1	Perfluorododecanoic acid	3.02	U	1.31	3.02	4.03
375-85-9	Perfluoroheptanoic acid	3.02	U	1.17	3.02	4.03
355-46-4	Perfluorohexanesulfonic acid	3.02	U	1.25	3.02	4.03
307-24-4	Perfluorohexanoic acid	2.02	U	0.948	2.02	4.03
375-95-1	Perfluorononanoic acid	2.02	U	0.988	2.02	4.03
1763-23-1	Perfluorooctanesulfonic acid	2.02	U	0.766	2.02	4.03
335-67-1	Perfluorooctanoic acid	2.02	U	0.847	2.02	4.03
2706-90-3	Perfluoropentanoic acid	2.02	U	0.887	2.02	4.03
376-06-7	Perfluorotetradecanoic acid	3.02	U	1.15	3.02	4.03
72629-94-8	Perfluorotridecanoic acid	3.02	U	1.24	3.02	4.03
2058-94-8	Perfluoroundecanoic acid	3.02	U	1.25	3.02	4.03

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI03-02-GW
Collect Date:	04/14/22 Time: 0950	GCAL Sample ID:	22204158219
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220503B_45.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0322
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	1.87	J	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	2.51	J	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	2.29	J	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	2.42	J	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	1.50	J	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	1.17	J	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	11.4		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	13.7		0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	1.77	J	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-01-GW
Collect Date:	04/14/22 Time: 1305	GCAL Sample ID:	22204158220
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	122 mL	Lab File ID:	2220503B_46.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0337
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.07	U	1.54	3.07	4.10
39108-34-4	8:2 Fluorotelomersulfonic acid	3.07	U	1.09	3.07	4.10
2991-50-6	NEtFOSAA	4.10	U	1.62	4.10	8.20
2355-31-9	NMeFOSAA	4.10	U	0.922	4.10	8.20
375-73-5	Perfluorobutanesulfonic acid	2.05	U	0.635	2.05	4.10
375-22-4	Perfluorobutanoic acid	5.82		1.56	3.59	4.10
335-76-2	Perfluorodecanoic acid	3.07	U	1.48	3.07	4.10
307-55-1	Perfluorododecanoic acid	3.07	U	1.33	3.07	4.10
375-85-9	Perfluoroheptanoic acid	3.07	J	1.19	3.07	4.10
355-46-4	Perfluorohexanesulfonic acid	1.59	J	1.27	3.07	4.10
307-24-4	Perfluorohexanoic acid	3.29	J	0.963	2.05	4.10
375-95-1	Perfluorononanoic acid	2.05	U	1.00	2.05	4.10
1763-23-1	Perfluorooctanesulfonic acid	16.6		0.779	2.05	4.10
335-67-1	Perfluorooctanoic acid	4.50		0.861	2.05	4.10
2706-90-3	Perfluoropentanoic acid	5.42		0.902	2.05	4.10
376-06-7	Perfluorotetradecanoic acid	3.07	U	1.17	3.07	4.10
72629-94-8	Perfluorotridecanoic acid	3.07	U	1.26	3.07	4.10
2058-94-8	Perfluoroundecanoic acid	3.07	U	1.27	3.07	4.10

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	EB-2-041422
Collect Date:	04/14/22 Time: 1120	GCAL Sample ID:	22204158221
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220503B_47.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0352
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.00	U	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.50	U	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	2.00	U	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	2.00	U	0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.00	U	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	2.00	U	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	EB-3-041422
Collect Date:	04/14/22 Time: 1135	GCAL Sample ID:	22204158222
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	124 mL	Lab File ID:	2220503C_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 0452
Prep Batch:	740006	Analytical Batch:	740176
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.02	U	1.51	3.02	4.03
39108-34-4	8:2 Fluorotelomersulfonic acid	3.02	U	1.07	3.02	4.03
2991-50-6	NEtFOSAA	4.03	U	1.59	4.03	8.06
2355-31-9	NMeFOSAA	4.03	U	0.907	4.03	8.06
375-73-5	Perfluorobutanesulfonic acid	2.02	U	0.625	2.02	4.03
375-22-4	Perfluorobutanoic acid	3.53	U	1.53	3.53	4.03
335-76-2	Perfluorodecanoic acid	3.02	U	1.45	3.02	4.03
307-55-1	Perfluorododecanoic acid	3.02	U	1.31	3.02	4.03
375-85-9	Perfluoroheptanoic acid	3.02	U	1.17	3.02	4.03
355-46-4	Perfluorohexanesulfonic acid	3.02	U	1.25	3.02	4.03
307-24-4	Perfluorohexanoic acid	2.02	U	0.948	2.02	4.03
375-95-1	Perfluorononanoic acid	2.02	U	0.988	2.02	4.03
1763-23-1	Perfluorooctanesulfonic acid	2.02	U	0.766	2.02	4.03
335-67-1	Perfluorooctanoic acid	2.02	U	0.847	2.02	4.03
2706-90-3	Perfluoropentanoic acid	2.02	U	0.887	2.02	4.03
376-06-7	Perfluorotetradecanoic acid	3.02	U	1.15	3.02	4.03
72629-94-8	Perfluorotridecanoic acid	3.02	U	1.24	3.02	4.03
2058-94-8	Perfluoroundecanoic acid	3.02	U	1.25	3.02	4.03

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	EB-1 041122
Collect Date:	04/11/22 Time: 0925	GCAL Sample ID:	22204152601
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	123 mL	Lab File ID:	2220506C_13.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/07/22 Time: 0412
Prep Batch:	740175	Analytical Batch:	740405
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.05	U	1.52	3.05	4.07
39108-34-4	8:2 Fluorotelomersulfonic acid	3.05	U	1.08	3.05	4.07
2991-50-6	NEtFOSAA	4.07	U	1.61	4.07	8.13
2355-31-9	NMeFOSAA	4.07	U	0.915	4.07	8.13
375-73-5	Perfluorobutanesulfonic acid	2.03	U	0.630	2.03	4.07
375-22-4	Perfluorobutanoic acid	3.56	U	1.54	3.56	4.07
335-76-2	Perfluorodecanoic acid	3.05	U	1.46	3.05	4.07
307-55-1	Perfluorododecanoic acid	3.05	U	1.32	3.05	4.07
375-85-9	Perfluoroheptanoic acid	3.05	U	1.18	3.05	4.07
355-46-4	Perfluorohexanesulfonic acid	3.05	U	1.26	3.05	4.07
307-24-4	Perfluorohexanoic acid	2.03	U	0.955	2.03	4.07
375-95-1	Perfluorononanoic acid	2.03	U	0.996	2.03	4.07
1763-23-1	Perfluorooctanesulfonic acid	2.03	U	0.772	2.03	4.07
335-67-1	Perfluorooctanoic acid	2.03	U	0.854	2.03	4.07
2706-90-3	Perfluoropentanoic acid	2.03	U	0.894	2.03	4.07
376-06-7	Perfluorotetradecanoic acid	3.05	U	1.16	3.05	4.07
72629-94-8	Perfluorotridecanoic acid	3.05	U	1.25	3.05	4.07
2058-94-8	Perfluoroundecanoic acid	3.05	U	1.26	3.05	4.07

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-01-SB-05.6-06.2
Collect Date:	04/11/22 Time: 0945	GCAL Sample ID:	22204152602
Matrix:	Solid % Moisture: 13.4	Instrument ID:	QQQ4
Sample Amt:	5.41 g	Lab File ID:	2220501C_9.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	04/30/22	Analysis Date:	05/02/22 Time: 0609
Prep Batch:	739811	Analytical Batch:	739843
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.214	U	0.064	0.214	1.07
39108-34-4	8:2 Fluorotelomersulfonic acid	0.107	U	0.032	0.107	1.07
2991-50-6	NEtFOSAA	0.578	J	0.032	0.107	1.07
2355-31-9	NMeFOSAA	0.053	U	0.021	0.053	1.07
375-73-5	Perfluorobutanesulfonic acid	0.053	U	0.021	0.053	1.07
375-22-4	Perfluorobutanoic acid	0.107	U	0.043	0.107	1.07
335-76-2	Perfluorodecanoic acid	0.107	U	0.043	0.107	1.07
307-55-1	Perfluorododecanoic acid	0.053	U	0.021	0.053	1.07
375-85-9	Perfluoroheptanoic acid	0.034	J	0.021	0.053	1.07
355-46-4	Perfluorohexanesulfonic acid	0.433	J	0.032	0.107	1.07
307-24-4	Perfluorohexanoic acid	0.127	J	0.021	0.053	1.07
375-95-1	Perfluorononanoic acid	0.057	J	0.021	0.053	1.07
1763-23-1	Perfluorooctanesulfonic acid	14.7		0.053	0.214	1.07
335-67-1	Perfluorooctanoic acid	0.193	J	0.085	0.214	1.07
2706-90-3	Perfluoropentanoic acid	0.079	J	0.021	0.053	1.07
376-06-7	Perfluorotetradecanoic acid	0.053	U	0.021	0.053	1.07
72629-94-8	Perfluorotridecanoic acid	0.107	U	0.032	0.107	1.07
2058-94-8	Perfluoroundecanoic acid	0.097	J	0.021	0.053	1.07

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-01-SB-00-02
Collect Date:	04/11/22 Time: 1055	GCAL Sample ID:	22204152603
Matrix:	Solid % Moisture: 12.0	Instrument ID:	QQQ4
Sample Amt:	5.33 g	Lab File ID:	2220501C_10.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	04/30/22	Analysis Date:	05/02/22 Time: 0624
Prep Batch:	739811	Analytical Batch:	739843
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.213	U	0.064	0.213	1.07
39108-34-4	8:2 Fluorotelomersulfonic acid	0.107	U	0.032	0.107	1.07
2991-50-6	NEtFOSAA	5.53		0.032	0.107	1.07
2355-31-9	NMeFOSAA	0.053	U	0.021	0.053	1.07
375-73-5	Perfluorobutanesulfonic acid	0.053	U	0.021	0.053	1.07
375-22-4	Perfluorobutanoic acid	0.076	J	0.043	0.107	1.07
335-76-2	Perfluorodecanoic acid	0.050	J	0.043	0.107	1.07
307-55-1	Perfluorododecanoic acid	0.034	J	0.021	0.053	1.07
375-85-9	Perfluoroheptanoic acid	0.033	J	0.021	0.053	1.07
355-46-4	Perfluorohexanesulfonic acid	0.250	J	0.032	0.107	1.07
307-24-4	Perfluorohexanoic acid	0.077	J	0.021	0.053	1.07
375-95-1	Perfluorononanoic acid	0.060	J	0.021	0.053	1.07
1763-23-1	Perfluorooctanesulfonic acid	7.45		0.053	0.213	1.07
335-67-1	Perfluorooctanoic acid	0.164	J	0.085	0.213	1.07
2706-90-3	Perfluoropentanoic acid	0.053	J	0.021	0.053	1.07
376-06-7	Perfluorotetradecanoic acid	0.053	U	0.021	0.053	1.07
72629-94-8	Perfluorotridecanoic acid	0.110	J	0.032	0.107	1.07
2058-94-8	Perfluoroundecanoic acid	0.206	J	0.021	0.053	1.07

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-01-SB-03-04
Collect Date:	04/11/22 Time: 1100	GCAL Sample ID:	22204152604
Matrix:	Solid % Moisture: 4.8	Instrument ID:	QQQ4
Sample Amt:	5.28 g	Lab File ID:	2220503B_5.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1727
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.199	U	0.060	0.199	0.995
39108-34-4	8:2 Fluorotelomersulfonic acid	0.099	U	0.030	0.099	0.995
2991-50-6	NEtFOSAA	3.58		0.030	0.099	0.995
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	0.995
375-73-5	Perfluorobutanesulfonic acid	0.027	J	0.020	0.050	0.995
375-22-4	Perfluorobutanoic acid	0.099	U	0.040	0.099	0.995
335-76-2	Perfluorodecanoic acid	0.099	U	0.040	0.099	0.995
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	0.995
375-85-9	Perfluoroheptanoic acid	0.050	J	0.020	0.050	0.995
355-46-4	Perfluorohexanesulfonic acid	3.23		0.030	0.099	0.995
307-24-4	Perfluorohexanoic acid	0.121	J	0.020	0.050	0.995
375-95-1	Perfluorononanoic acid	0.049	J	0.020	0.050	0.995
1763-23-1	Perfluorooctanesulfonic acid	10.7		0.050	0.199	0.995
335-67-1	Perfluorooctanoic acid	0.726	J	0.080	0.199	0.995
2706-90-3	Perfluoropentanoic acid	0.020	J	0.020	0.050	0.995
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	0.995
72629-94-8	Perfluorotridecanoic acid	0.099	U	0.030	0.099	0.995
2058-94-8	Perfluoroundecanoic acid	0.097	J	0.020	0.050	0.995

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-02-SB-00-02
Collect Date:	04/11/22 Time: 1245	GCAL Sample ID:	22204152605
Matrix:	Solid % Moisture: 19.6	Instrument ID:	QQQ4
Sample Amt:	5.46 g	Lab File ID:	2220503B_6.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1742
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.228	U	0.068	0.228	1.14
39108-34-4	8:2 Fluorotelomersulfonic acid	0.114	U	0.034	0.114	1.14
2991-50-6	NEtFOSAA	0.114	U	0.034	0.114	1.14
2355-31-9	NMeFOSAA	0.057	U	0.023	0.057	1.14
375-73-5	Perfluorobutanesulfonic acid	0.057	U	0.023	0.057	1.14
375-22-4	Perfluorobutanoic acid	0.080	J	0.046	0.114	1.14
335-76-2	Perfluorodecanoic acid	0.054	J	0.046	0.114	1.14
307-55-1	Perfluorododecanoic acid	0.057	U	0.023	0.057	1.14
375-85-9	Perfluoroheptanoic acid	0.046	J	0.023	0.057	1.14
355-46-4	Perfluorohexanesulfonic acid	0.114	U	0.034	0.114	1.14
307-24-4	Perfluorohexanoic acid	0.040	J	0.023	0.057	1.14
375-95-1	Perfluorononanoic acid	0.071	J	0.023	0.057	1.14
1763-23-1	Perfluorooctanesulfonic acid	0.538	J	0.057	0.228	1.14
335-67-1	Perfluorooctanoic acid	0.104	J	0.091	0.228	1.14
2706-90-3	Perfluoropentanoic acid	0.037	J	0.023	0.057	1.14
376-06-7	Perfluorotetradecanoic acid	0.057	U	0.023	0.057	1.14
72629-94-8	Perfluorotridecanoic acid	0.114	U	0.034	0.114	1.14
2058-94-8	Perfluoroundecanoic acid	0.041	J	0.023	0.057	1.14

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-02-SB-03-04
Collect Date:	04/11/22 Time: 1250	GCAL Sample ID:	22204152606
Matrix:	Solid % Moisture: 21.6	Instrument ID:	QQQ4
Sample Amt:	5.35 g	Lab File ID:	2220503B_7.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1757
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.238	U	0.072	0.238	1.19
39108-34-4	8:2 Fluorotelomersulfonic acid	0.119	U	0.036	0.119	1.19
2991-50-6	NEtFOSAA	0.119	U	0.036	0.119	1.19
2355-31-9	NMeFOSAA	0.060	U	0.024	0.060	1.19
375-73-5	Perfluorobutanesulfonic acid	0.060	U	0.024	0.060	1.19
375-22-4	Perfluorobutanoic acid	0.119	U	0.048	0.119	1.19
335-76-2	Perfluorodecanoic acid	0.119	U	0.048	0.119	1.19
307-55-1	Perfluorododecanoic acid	0.060	U	0.024	0.060	1.19
375-85-9	Perfluoroheptanoic acid	0.060	U	0.024	0.060	1.19
355-46-4	Perfluorohexanesulfonic acid	0.119	U	0.036	0.119	1.19
307-24-4	Perfluorohexanoic acid	0.060	U	0.024	0.060	1.19
375-95-1	Perfluorononanoic acid	0.060	U	0.024	0.060	1.19
1763-23-1	Perfluorooctanesulfonic acid	0.063	J	0.060	0.238	1.19
335-67-1	Perfluorooctanoic acid	0.238	U	0.095	0.238	1.19
2706-90-3	Perfluoropentanoic acid	0.060	U	0.024	0.060	1.19
376-06-7	Perfluorotetradecanoic acid	0.060	U	0.024	0.060	1.19
72629-94-8	Perfluorotridecanoic acid	0.119	U	0.036	0.119	1.19
2058-94-8	Perfluoroundecanoic acid	0.060	U	0.024	0.060	1.19

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-03-SB-00-02
Collect Date:	04/11/22 Time: 1335	GCAL Sample ID:	22204152607
Matrix:	Solid % Moisture: 17.4	Instrument ID:	QQQ4
Sample Amt:	5.28 g	Lab File ID:	2220503B_8.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1812
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.229	U	0.069	0.229	1.15
39108-34-4	8:2 Fluorotelomersulfonic acid	0.115	U	0.034	0.115	1.15
2991-50-6	NEtFOSAA	0.115	U	0.034	0.115	1.15
2355-31-9	NMeFOSAA	0.057	U	0.023	0.057	1.15
375-73-5	Perfluorobutanesulfonic acid	0.057	U	0.023	0.057	1.15
375-22-4	Perfluorobutanoic acid	0.082	J	0.046	0.115	1.15
335-76-2	Perfluorodecanoic acid	0.115	U	0.046	0.115	1.15
307-55-1	Perfluorododecanoic acid	0.057	U	0.023	0.057	1.15
375-85-9	Perfluoroheptanoic acid	0.052	J	0.023	0.057	1.15
355-46-4	Perfluorohexanesulfonic acid	0.102	J	0.034	0.115	1.15
307-24-4	Perfluorohexanoic acid	0.071	J	0.023	0.057	1.15
375-95-1	Perfluorononanoic acid	0.057	J	0.023	0.057	1.15
1763-23-1	Perfluorooctanesulfonic acid	4.70		0.057	0.229	1.15
335-67-1	Perfluorooctanoic acid	0.177	J	0.092	0.229	1.15
2706-90-3	Perfluoropentanoic acid	0.058	J	0.023	0.057	1.15
376-06-7	Perfluorotetradecanoic acid	0.057	U	0.023	0.057	1.15
72629-94-8	Perfluorotridecanoic acid	0.115	U	0.034	0.115	1.15
2058-94-8	Perfluoroundecanoic acid	0.029	J	0.023	0.057	1.15

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-03-SB-02-03
Collect Date:	04/11/22 Time: 1340	GCAL Sample ID:	22204152608
Matrix:	Solid % Moisture: 15.8	Instrument ID:	QQQ5
Sample Amt:	5.31 g	Lab File ID:	2220505A_37.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 0043
Prep Batch:	740195	Analytical Batch:	740271
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.224	U	0.067	0.224	1.12
39108-34-4	8:2 Fluorotelomersulfonic acid	0.112	U	0.034	0.112	1.12
2991-50-6	NEtFOSAA	0.112	U	0.034	0.112	1.12
2355-31-9	NMeFOSAA	0.056	U	0.022	0.056	1.12
375-73-5	Perfluorobutanesulfonic acid	0.056	U	0.022	0.056	1.12
375-22-4	Perfluorobutanoic acid	0.112	U	0.045	0.112	1.12
335-76-2	Perfluorodecanoic acid	0.112	U	0.045	0.112	1.12
307-55-1	Perfluorododecanoic acid	0.056	U	0.022	0.056	1.12
375-85-9	Perfluoroheptanoic acid	0.056	U	0.022	0.056	1.12
355-46-4	Perfluorohexanesulfonic acid	0.036	J	0.034	0.112	1.12
307-24-4	Perfluorohexanoic acid	0.056	U	0.022	0.056	1.12
375-95-1	Perfluorononanoic acid	0.056	U	0.022	0.056	1.12
1763-23-1	Perfluorooctanesulfonic acid	1.22		0.056	0.224	1.12
335-67-1	Perfluorooctanoic acid	0.224	U	0.089	0.224	1.12
2706-90-3	Perfluoropentanoic acid	0.056	U	0.022	0.056	1.12
376-06-7	Perfluorotetradecanoic acid	0.056	U	0.022	0.056	1.12
72629-94-8	Perfluorotridecanoic acid	0.112	U	0.034	0.112	1.12
2058-94-8	Perfluoroundecanoic acid	0.056	U	0.022	0.056	1.12

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-08-SB-00-02
Collect Date:	04/11/22 Time: 1420	GCAL Sample ID:	22204152609
Matrix:	Solid % Moisture: 15.4	Instrument ID:	QQQ4
Sample Amt:	5.35 g	Lab File ID:	2220503B_10.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1841
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.221	U	0.066	0.221	1.10
39108-34-4	8:2 Fluorotelomersulfonic acid	0.110	U	0.033	0.110	1.10
2991-50-6	NEtFOSAA	0.110	U	0.033	0.110	1.10
2355-31-9	NMeFOSAA	0.055	U	0.022	0.055	1.10
375-73-5	Perfluorobutanesulfonic acid	0.055	U	0.022	0.055	1.10
375-22-4	Perfluorobutanoic acid	0.072	J	0.044	0.110	1.10
335-76-2	Perfluorodecanoic acid	0.110	U	0.044	0.110	1.10
307-55-1	Perfluorododecanoic acid	0.055	U	0.022	0.055	1.10
375-85-9	Perfluoroheptanoic acid	0.042	J	0.022	0.055	1.10
355-46-4	Perfluorohexanesulfonic acid	0.146	J	0.033	0.110	1.10
307-24-4	Perfluorohexanoic acid	0.095	J	0.022	0.055	1.10
375-95-1	Perfluorononanoic acid	0.058	J	0.022	0.055	1.10
1763-23-1	Perfluorooctanesulfonic acid	14.1		0.055	0.221	1.10
335-67-1	Perfluorooctanoic acid	0.136	J	0.088	0.221	1.10
2706-90-3	Perfluoropentanoic acid	0.070	J	0.022	0.055	1.10
376-06-7	Perfluorotetradecanoic acid	0.055	U	0.022	0.055	1.10
72629-94-8	Perfluorotridecanoic acid	0.110	U	0.033	0.110	1.10
2058-94-8	Perfluoroundecanoic acid	0.024	J	0.022	0.055	1.10

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-04-SB-00-02
Collect Date:	04/11/22 Time: 1510	GCAL Sample ID:	22204152610
Matrix:	Solid % Moisture: 17.7	Instrument ID:	QQQ4
Sample Amt:	5.24 g	Lab File ID:	2220503B_11.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1856
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.232	U	0.070	0.232	1.16
39108-34-4	8:2 Fluorotelomersulfonic acid	0.116	U	0.035	0.116	1.16
2991-50-6	NEtFOSAA	0.116	U	0.035	0.116	1.16
2355-31-9	NMeFOSAA	0.058	U	0.023	0.058	1.16
375-73-5	Perfluorobutanesulfonic acid	0.039	J	0.023	0.058	1.16
375-22-4	Perfluorobutanoic acid	0.063	J	0.046	0.116	1.16
335-76-2	Perfluorodecanoic acid	0.070	J	0.046	0.116	1.16
307-55-1	Perfluorododecanoic acid	0.024	J	0.023	0.058	1.16
375-85-9	Perfluoroheptanoic acid	0.064	J	0.023	0.058	1.16
355-46-4	Perfluorohexanesulfonic acid	1.24		0.035	0.116	1.16
307-24-4	Perfluorohexanoic acid	0.188	J	0.023	0.058	1.16
375-95-1	Perfluorononanoic acid	0.037	J	0.023	0.058	1.16
335-67-1	Perfluorooctanoic acid	0.174	J	0.093	0.232	1.16
2706-90-3	Perfluoropentanoic acid	0.109	J	0.023	0.058	1.16
376-06-7	Perfluorotetradecanoic acid	0.058	U	0.023	0.058	1.16
72629-94-8	Perfluorotridecanoic acid	0.116	U	0.035	0.116	1.16
2058-94-8	Perfluoroundecanoic acid	0.035	J	0.023	0.058	1.16

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-04-SB-00-02DL
Collect Date:	04/11/22 Time: 1510	GCAL Sample ID:	22204152610DL
Matrix:	Solid % Moisture: 17.7	Instrument ID:	QQQ4
Sample Amt:	5.24 g	Lab File ID:	2220518A_4.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	5 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/18/22 Time: 1245
Prep Batch:	739931	Analytical Batch:	741201
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
1763-23-1	Perfluorooctanesulfonic acid	60.1		0.290	1.16	5.80

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-04-SB-03-04
Collect Date:	04/11/22 Time: 1515	GCAL Sample ID:	22204152611
Matrix:	Solid % Moisture: 19.5	Instrument ID:	QQQ4
Sample Amt:	5.33 g	Lab File ID:	2220503B_12.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1911
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.233	U	0.070	0.233	1.17
39108-34-4	8:2 Fluorotelomersulfonic acid	0.117	U	0.035	0.117	1.17
2991-50-6	NEtFOSAA	0.117	U	0.035	0.117	1.17
2355-31-9	NMeFOSAA	0.058	U	0.023	0.058	1.17
375-73-5	Perfluorobutanesulfonic acid	0.058	U	0.023	0.058	1.17
375-22-4	Perfluorobutanoic acid	0.117	U	0.047	0.117	1.17
335-76-2	Perfluorodecanoic acid	0.117	U	0.047	0.117	1.17
307-55-1	Perfluorododecanoic acid	0.058	U	0.023	0.058	1.17
375-85-9	Perfluoroheptanoic acid	0.058	U	0.023	0.058	1.17
355-46-4	Perfluorohexanesulfonic acid	0.398	J	0.035	0.117	1.17
307-24-4	Perfluorohexanoic acid	0.067	J	0.023	0.058	1.17
375-95-1	Perfluorononanoic acid	0.058	U	0.023	0.058	1.17
1763-23-1	Perfluorooctanesulfonic acid	10.3		0.058	0.233	1.17
335-67-1	Perfluorooctanoic acid	0.233	U	0.093	0.233	1.17
2706-90-3	Perfluoropentanoic acid	0.034	J	0.023	0.058	1.17
376-06-7	Perfluorotetradecanoic acid	0.058	U	0.023	0.058	1.17
72629-94-8	Perfluorotridecanoic acid	0.117	U	0.035	0.117	1.17
2058-94-8	Perfluoroundecanoic acid	0.058	U	0.023	0.058	1.17

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-09-SB-00-02
Collect Date:	04/11/22 Time: 1615	GCAL Sample ID:	22204152612
Matrix:	Solid % Moisture: 16.7	Instrument ID:	QQQ5
Sample Amt:	5.42 g	Lab File ID:	2220505A_38.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 0057
Prep Batch:	740195	Analytical Batch:	740271
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.221	U	0.066	0.221	1.11
39108-34-4	8:2 Fluorotelomersulfonic acid	0.111	U	0.033	0.111	1.11
2991-50-6	NEtFOSAA	0.111	U	0.033	0.111	1.11
2355-31-9	NMeFOSAA	0.055	U	0.022	0.055	1.11
375-73-5	Perfluorobutanesulfonic acid	0.055	U	0.022	0.055	1.11
375-22-4	Perfluorobutanoic acid	0.111	U	0.044	0.111	1.11
335-76-2	Perfluorodecanoic acid	0.111	U	0.044	0.111	1.11
307-55-1	Perfluorododecanoic acid	0.055	U	0.022	0.055	1.11
375-85-9	Perfluoroheptanoic acid	0.055	U	0.022	0.055	1.11
355-46-4	Perfluorohexanesulfonic acid	0.086	J	0.033	0.111	1.11
307-24-4	Perfluorohexanoic acid	0.055	U	0.022	0.055	1.11
375-95-1	Perfluorononanoic acid	0.055	U	0.022	0.055	1.11
1763-23-1	Perfluorooctanesulfonic acid	8.88		0.055	0.221	1.11
335-67-1	Perfluorooctanoic acid	0.221	U	0.089	0.221	1.11
2706-90-3	Perfluoropentanoic acid	0.055	U	0.022	0.055	1.11
376-06-7	Perfluorotetradecanoic acid	0.055	U	0.022	0.055	1.11
72629-94-8	Perfluorotridecanoic acid	0.111	U	0.033	0.111	1.11
2058-94-8	Perfluoroundecanoic acid	0.055	U	0.022	0.055	1.11

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-01-GW
Collect Date:	04/11/22 Time: 1300	GCAL Sample ID:	22204152613
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220503A_9.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1336
Prep Batch:	739862	Analytical Batch:	740023
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	3.02	J	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	9.07		0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.84	J	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	4.74		1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	276		1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	20.7		0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	1.72	J	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	533		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	29.6		0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	4.66		0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-02-GW
Collect Date:	04/11/22 Time: 1445	GCAL Sample ID:	22204152614
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220506C_14.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/07/22 Time: 0426
Prep Batch:	740175	Analytical Batch:	740405
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.05	J	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	7.49		1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.07	J	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	6.51		1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	5.75		0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	1.31	J	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	57.8		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.71	J	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	7.59		0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-07-SB-00-02
Collect Date:	04/12/22 Time: 0930	GCAL Sample ID:	22204152615
Matrix:	Solid % Moisture: 26.0	Instrument ID:	QQQ4
Sample Amt:	5.26 g	Lab File ID:	2220503B_14.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1941
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.257	U	0.077	0.257	1.28
39108-34-4	8:2 Fluorotelomersulfonic acid	0.128	U	0.039	0.128	1.28
2991-50-6	NEtFOSAA	0.128	U	0.039	0.128	1.28
2355-31-9	NMeFOSAA	0.064	U	0.026	0.064	1.28
375-73-5	Perfluorobutanesulfonic acid	0.028	J	0.026	0.064	1.28
375-22-4	Perfluorobutanoic acid	0.248	J	0.051	0.128	1.28
335-76-2	Perfluorodecanoic acid	0.128	U	0.051	0.128	1.28
307-55-1	Perfluorododecanoic acid	0.064	U	0.026	0.064	1.28
375-85-9	Perfluoroheptanoic acid	0.106	J	0.026	0.064	1.28
355-46-4	Perfluorohexanesulfonic acid	0.088	J	0.039	0.128	1.28
307-24-4	Perfluorohexanoic acid	0.096	J	0.026	0.064	1.28
375-95-1	Perfluorononanoic acid	0.079	J	0.026	0.064	1.28
1763-23-1	Perfluorooctanesulfonic acid	0.310	J	0.064	0.257	1.28
335-67-1	Perfluorooctanoic acid	0.242	J	0.103	0.257	1.28
2706-90-3	Perfluoropentanoic acid	0.155	J	0.026	0.064	1.28
376-06-7	Perfluorotetradecanoic acid	0.064	U	0.026	0.064	1.28
72629-94-8	Perfluorotridecanoic acid	0.128	U	0.039	0.128	1.28
2058-94-8	Perfluoroundecanoic acid	0.064	U	0.026	0.064	1.28

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-06-SB-00-02
Collect Date:	04/12/22 Time: 1115	GCAL Sample ID:	22204152616
Matrix:	Solid % Moisture: 17.0	Instrument ID:	QQQ5
Sample Amt:	5.28 g	Lab File ID:	2220505A_39.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 0112
Prep Batch:	740195	Analytical Batch:	740271
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.228	U	0.068	0.228	1.14
39108-34-4	8:2 Fluorotelomersulfonic acid	0.114	U	0.034	0.114	1.14
2991-50-6	NEtFOSAA	0.114	U	0.034	0.114	1.14
2355-31-9	NMeFOSAA	0.057	U	0.023	0.057	1.14
375-73-5	Perfluorobutanesulfonic acid	0.057	U	0.023	0.057	1.14
375-22-4	Perfluorobutanoic acid	0.114	U	0.046	0.114	1.14
335-76-2	Perfluorodecanoic acid	0.094	J	0.046	0.114	1.14
307-55-1	Perfluorododecanoic acid	0.057	U	0.023	0.057	1.14
375-85-9	Perfluoroheptanoic acid	0.057	U	0.023	0.057	1.14
355-46-4	Perfluorohexanesulfonic acid	0.260	J	0.034	0.114	1.14
307-24-4	Perfluorohexanoic acid	0.031	J	0.023	0.057	1.14
375-95-1	Perfluorononanoic acid	0.039	J	0.023	0.057	1.14
1763-23-1	Perfluorooctanesulfonic acid	6.33		0.057	0.228	1.14
335-67-1	Perfluorooctanoic acid	0.228	U	0.091	0.228	1.14
2706-90-3	Perfluoropentanoic acid	0.057	U	0.023	0.057	1.14
376-06-7	Perfluorotetradecanoic acid	0.057	U	0.023	0.057	1.14
72629-94-8	Perfluorotridecanoic acid	0.114	U	0.034	0.114	1.14
2058-94-8	Perfluoroundecanoic acid	0.054	J	0.023	0.057	1.14

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-06-SB-02-02.7
Collect Date:	04/12/22 Time: 1120	GCAL Sample ID:	22204152617
Matrix:	Solid % Moisture: 23.0	Instrument ID:	QQQ4
Sample Amt:	5.27 g	Lab File ID:	2220503B_17.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 2026
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	1.80		0.074	0.246	1.23
39108-34-4	8:2 Fluorotelomersulfonic acid	0.123	U	0.037	0.123	1.23
2991-50-6	NEtFOSAA	0.123	U	0.037	0.123	1.23
2355-31-9	NMeFOSAA	0.062	U	0.025	0.062	1.23
375-73-5	Perfluorobutanesulfonic acid	0.062	U	0.025	0.062	1.23
375-22-4	Perfluorobutanoic acid	0.123	U	0.049	0.123	1.23
335-76-2	Perfluorodecanoic acid	0.123	U	0.049	0.123	1.23
307-55-1	Perfluorododecanoic acid	0.062	U	0.025	0.062	1.23
375-85-9	Perfluoroheptanoic acid	0.062	U	0.025	0.062	1.23
355-46-4	Perfluorohexanesulfonic acid	0.196	J	0.037	0.123	1.23
307-24-4	Perfluorohexanoic acid	0.098	J	0.025	0.062	1.23
375-95-1	Perfluorononanoic acid	0.062	U	0.025	0.062	1.23
1763-23-1	Perfluorooctanesulfonic acid	3.87		0.062	0.246	1.23
335-67-1	Perfluorooctanoic acid	0.246	U	0.099	0.246	1.23
2706-90-3	Perfluoropentanoic acid	0.041	J	0.025	0.062	1.23
376-06-7	Perfluorotetradecanoic acid	0.062	U	0.025	0.062	1.23
72629-94-8	Perfluorotridecanoic acid	0.123	U	0.037	0.123	1.23
2058-94-8	Perfluoroundecanoic acid	0.062	U	0.025	0.062	1.23

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-05-SB-00-02
Collect Date:	04/12/22 Time: 1230	GCAL Sample ID:	22204152622
Matrix:	Solid % Moisture: 17.1	Instrument ID:	QQQ5
Sample Amt:	5.37 g	Lab File ID:	2220505A_40.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 0127
Prep Batch:	740195	Analytical Batch:	740271
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.225	U	0.067	0.225	1.12
39108-34-4	8:2 Fluorotelomersulfonic acid	0.112	U	0.034	0.112	1.12
2991-50-6	NEtFOSAA	0.112	U	0.034	0.112	1.12
2355-31-9	NMeFOSAA	0.056	U	0.022	0.056	1.12
375-73-5	Perfluorobutanesulfonic acid	0.056	U	0.022	0.056	1.12
375-22-4	Perfluorobutanoic acid	0.053	J	0.045	0.112	1.12
335-76-2	Perfluorodecanoic acid	0.112	U	0.045	0.112	1.12
307-55-1	Perfluorododecanoic acid	0.056	U	0.022	0.056	1.12
375-85-9	Perfluoroheptanoic acid	0.045	J	0.022	0.056	1.12
355-46-4	Perfluorohexanesulfonic acid	0.332	J	0.034	0.112	1.12
307-24-4	Perfluorohexanoic acid	0.080	J	0.022	0.056	1.12
375-95-1	Perfluorononanoic acid	0.077	J	0.022	0.056	1.12
1763-23-1	Perfluorooctanesulfonic acid	6.40		0.056	0.225	1.12
335-67-1	Perfluorooctanoic acid	0.229	J	0.090	0.225	1.12
2706-90-3	Perfluoropentanoic acid	0.050	J	0.022	0.056	1.12
376-06-7	Perfluorotetradecanoic acid	0.056	U	0.022	0.056	1.12
72629-94-8	Perfluorotridecanoic acid	0.112	U	0.034	0.112	1.12
2058-94-8	Perfluoroundecanoic acid	0.037	J	0.022	0.056	1.12

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-05-SB-03-04
Collect Date:	04/12/22 Time: 1240	GCAL Sample ID:	22204152623
Matrix:	Solid % Moisture: 31.6	Instrument ID:	QQQ5
Sample Amt:	5.24 g	Lab File ID:	2220506B_13.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 2107
Prep Batch:	740195	Analytical Batch:	740290
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.279	U	0.084	0.279	1.39
39108-34-4	8:2 Fluorotelomersulfonic acid	0.139	U	0.042	0.139	1.39
2991-50-6	NEtFOSAA	0.139	U	0.042	0.139	1.39
2355-31-9	NMeFOSAA	0.070	U	0.028	0.070	1.39
375-73-5	Perfluorobutanesulfonic acid	0.070	U	0.028	0.070	1.39
375-22-4	Perfluorobutanoic acid	0.139	U	0.056	0.139	1.39
335-76-2	Perfluorodecanoic acid	0.139	U	0.056	0.139	1.39
307-55-1	Perfluorododecanoic acid	0.070	U	0.028	0.070	1.39
375-85-9	Perfluoroheptanoic acid	0.068	J	0.028	0.070	1.39
355-46-4	Perfluorohexanesulfonic acid	2.18		0.042	0.139	1.39
307-24-4	Perfluorohexanoic acid	0.301	J	0.028	0.070	1.39
375-95-1	Perfluorononanoic acid	0.070	U	0.028	0.070	1.39
1763-23-1	Perfluorooctanesulfonic acid	0.925	J	0.070	0.279	1.39
335-67-1	Perfluorooctanoic acid	0.148	J	0.112	0.279	1.39
2706-90-3	Perfluoropentanoic acid	0.089	J	0.028	0.070	1.39
376-06-7	Perfluorotetradecanoic acid	0.070	U	0.028	0.070	1.39
72629-94-8	Perfluorotridecanoic acid	0.139	U	0.042	0.139	1.39
2058-94-8	Perfluoroundecanoic acid	0.070	U	0.028	0.070	1.39

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI02-04-SB-05-05.5
Collect Date:	04/12/22 Time: 1425	GCAL Sample ID:	22204152624
Matrix:	Solid % Moisture: 14.9	Instrument ID:	QQQ4
Sample Amt:	5.45 g	Lab File ID:	2220503B_22.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 2140
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.216	U	0.065	0.216	1.08
39108-34-4	8:2 Fluorotelomersulfonic acid	0.108	U	0.032	0.108	1.08
2991-50-6	NEtFOSAA	0.108	U	0.032	0.108	1.08
2355-31-9	NMeFOSAA	0.054	U	0.022	0.054	1.08
375-73-5	Perfluorobutanesulfonic acid	0.032	J	0.022	0.054	1.08
375-22-4	Perfluorobutanoic acid	0.108	U	0.043	0.108	1.08
335-76-2	Perfluorodecanoic acid	0.108	U	0.043	0.108	1.08
307-55-1	Perfluorododecanoic acid	0.054	U	0.022	0.054	1.08
375-85-9	Perfluoroheptanoic acid	0.054	U	0.022	0.054	1.08
355-46-4	Perfluorohexanesulfonic acid	0.166	J	0.032	0.108	1.08
307-24-4	Perfluorohexanoic acid	0.054	U	0.022	0.054	1.08
375-95-1	Perfluorononanoic acid	0.054	U	0.022	0.054	1.08
1763-23-1	Perfluorooctanesulfonic acid	0.230	J	0.054	0.216	1.08
335-67-1	Perfluorooctanoic acid	0.216	U	0.086	0.216	1.08
2706-90-3	Perfluoropentanoic acid	0.054	U	0.022	0.054	1.08
376-06-7	Perfluorotetradecanoic acid	0.054	U	0.022	0.054	1.08
72629-94-8	Perfluorotridecanoic acid	0.108	U	0.032	0.108	1.08
2058-94-8	Perfluoroundecanoic acid	0.054	U	0.022	0.054	1.08

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI02-02-SB-00-02
Collect Date:	04/12/22 Time: 1605	GCAL Sample ID:	22204152625
Matrix:	Solid % Moisture: 13.3	Instrument ID:	QQQ5
Sample Amt:	5.47 g	Lab File ID:	2220506B_14.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 2121
Prep Batch:	740195	Analytical Batch:	740290
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.211	U	0.063	0.211	1.05
39108-34-4	8:2 Fluorotelomersulfonic acid	0.105	U	0.032	0.105	1.05
2991-50-6	NEtFOSAA	0.105	U	0.032	0.105	1.05
2355-31-9	NMeFOSAA	0.053	U	0.021	0.053	1.05
375-73-5	Perfluorobutanesulfonic acid	0.053	U	0.021	0.053	1.05
375-22-4	Perfluorobutanoic acid	0.105	U	0.042	0.105	1.05
335-76-2	Perfluorodecanoic acid	0.044	J	0.042	0.105	1.05
307-55-1	Perfluorododecanoic acid	0.053	U	0.021	0.053	1.05
375-85-9	Perfluoroheptanoic acid	0.026	J	0.021	0.053	1.05
355-46-4	Perfluorohexanesulfonic acid	0.105	U	0.032	0.105	1.05
307-24-4	Perfluorohexanoic acid	0.042	J	0.021	0.053	1.05
375-95-1	Perfluorononanoic acid	0.031	J	0.021	0.053	1.05
1763-23-1	Perfluorooctanesulfonic acid	0.463	J	0.053	0.211	1.05
335-67-1	Perfluorooctanoic acid	0.211	U	0.084	0.211	1.05
2706-90-3	Perfluoropentanoic acid	0.051	J	0.021	0.053	1.05
376-06-7	Perfluorotetradecanoic acid	0.053	U	0.021	0.053	1.05
72629-94-8	Perfluorotridecanoic acid	0.105	U	0.032	0.105	1.05
2058-94-8	Perfluoroundecanoic acid	0.053	U	0.021	0.053	1.05

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI02-02-SB-03-03.7
Collect Date:	04/12/22 Time: 1610	GCAL Sample ID:	22204152626
Matrix:	Solid % Moisture: 25.7	Instrument ID:	QQQ5
Sample Amt:	5.44 g	Lab File ID:	2220506B_15.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 2136
Prep Batch:	740195	Analytical Batch:	740290
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.247	U	0.074	0.247	1.24
39108-34-4	8:2 Fluorotelomersulfonic acid	0.124	U	0.037	0.124	1.24
2991-50-6	NEtFOSAA	0.124	U	0.037	0.124	1.24
2355-31-9	NMeFOSAA	0.062	U	0.025	0.062	1.24
375-73-5	Perfluorobutanesulfonic acid	0.062	U	0.025	0.062	1.24
375-22-4	Perfluorobutanoic acid	0.124	U	0.049	0.124	1.24
335-76-2	Perfluorodecanoic acid	0.124	U	0.049	0.124	1.24
307-55-1	Perfluorododecanoic acid	0.062	U	0.025	0.062	1.24
375-85-9	Perfluoroheptanoic acid	0.062	U	0.025	0.062	1.24
355-46-4	Perfluorohexanesulfonic acid	0.124	U	0.037	0.124	1.24
307-24-4	Perfluorohexanoic acid	0.027	J	0.025	0.062	1.24
375-95-1	Perfluorononanoic acid	0.062	U	0.025	0.062	1.24
1763-23-1	Perfluorooctanesulfonic acid	0.148	J	0.062	0.247	1.24
335-67-1	Perfluorooctanoic acid	0.247	U	0.099	0.247	1.24
2706-90-3	Perfluoropentanoic acid	0.040	J	0.025	0.062	1.24
376-06-7	Perfluorotetradecanoic acid	0.062	U	0.025	0.062	1.24
72629-94-8	Perfluorotridecanoic acid	0.124	U	0.037	0.124	1.24
2058-94-8	Perfluoroundecanoic acid	0.062	U	0.025	0.062	1.24

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-03-GW
Collect Date:	04/12/22 Time: 1005	GCAL Sample ID:	22204152627
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220503A_11.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1405
Prep Batch:	739862	Analytical Batch:	740023
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	3.54	J	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	5.20		1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.07	J	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	24.4		1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	8.08		0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	95.8		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	8.55		0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	6.32		0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-07-GW
Collect Date:	04/12/22 Time: 1210	GCAL Sample ID:	22204152628
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	120 mL	Lab File ID:	2220506C_20.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/07/22 Time: 0554
Prep Batch:	740175	Analytical Batch:	740405
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.13	U	1.56	3.13	4.17
39108-34-4	8:2 Fluorotelomersulfonic acid	3.13	U	1.10	3.13	4.17
2991-50-6	NEtFOSAA	4.17	U	1.65	4.17	8.33
2355-31-9	NMeFOSAA	4.17	U	0.938	4.17	8.33
375-73-5	Perfluorobutanesulfonic acid	1.90	J	0.646	2.08	4.17
375-22-4	Perfluorobutanoic acid	1.73	J	1.58	3.65	4.17
335-76-2	Perfluorodecanoic acid	3.13	U	1.50	3.13	4.17
307-55-1	Perfluorododecanoic acid	3.13	U	1.35	3.13	4.17
375-85-9	Perfluoroheptanoic acid	3.13	U	1.21	3.13	4.17
355-46-4	Perfluorohexanesulfonic acid	14.6		1.29	3.13	4.17
307-24-4	Perfluorohexanoic acid	1.12	J	0.979	2.08	4.17
375-95-1	Perfluorononanoic acid	2.08	U	1.02	2.08	4.17
1763-23-1	Perfluorooctanesulfonic acid	1.31	J	0.792	2.08	4.17
335-67-1	Perfluorooctanoic acid	1.46	J	0.875	2.08	4.17
2706-90-3	Perfluoropentanoic acid	1.26	J	0.917	2.08	4.17
376-06-7	Perfluorotetradecanoic acid	3.13	U	1.19	3.13	4.17
72629-94-8	Perfluorotridecanoic acid	3.13	U	1.28	3.13	4.17
2058-94-8	Perfluoroundecanoic acid	3.13	U	1.29	3.13	4.17

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-04-GW
Collect Date:	04/12/22 Time: 1355	GCAL Sample ID:	22204152629
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220504B_8.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/05/22 Time: 0059
Prep Batch:	739862	Analytical Batch:	740280
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	5.48		1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	48.5		0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	49.2		1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	2.94	J	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	33.9		1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	1120		1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	152		0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	4.90		0.980	2.00	4.00
335-67-1	Perfluorooctanoic acid	58.7		0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	78.6		0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-04-GWDL
Collect Date:	04/12/22 Time: 1355	GCAL Sample ID:	22204152629DL
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220504B_4.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	20 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/05/22 Time: 0001
Prep Batch:	739862	Analytical Batch:	740280
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
1763-23-1	Perfluorooctanesulfonic acid	14100	J	15.2	40.0	80.0

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-05-GW
Collect Date:	04/12/22 Time: 1540	GCAL Sample ID:	22204152630
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	130 mL	Lab File ID:	2220506C_17.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/07/22 Time: 0510
Prep Batch:	740175	Analytical Batch:	740405
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	2.88	U	1.44	2.88	3.85
39108-34-4	8:2 Fluorotelomersulfonic acid	2.88	U	1.02	2.88	3.85
2991-50-6	NEtFOSAA	3.85	U	1.52	3.85	7.69
2355-31-9	NMeFOSAA	3.85	U	0.865	3.85	7.69
375-73-5	Perfluorobutanesulfonic acid	49.6		0.596	1.92	3.85
375-22-4	Perfluorobutanoic acid	11.8		1.46	3.37	3.85
335-76-2	Perfluorodecanoic acid	2.88	U	1.38	2.88	3.85
307-55-1	Perfluorododecanoic acid	2.88	U	1.25	2.88	3.85
375-85-9	Perfluoroheptanoic acid	11.3		1.12	2.88	3.85
355-46-4	Perfluorohexanesulfonic acid	597		1.19	2.88	3.85
307-24-4	Perfluorohexanoic acid	64.1		0.904	1.92	3.85
375-95-1	Perfluorononanoic acid	2.46	J	0.942	1.92	3.85
1763-23-1	Perfluorooctanesulfonic acid	1190		0.731	1.92	3.85
335-67-1	Perfluorooctanoic acid	31.5		0.808	1.92	3.85
2706-90-3	Perfluoropentanoic acid	23.9		0.846	1.92	3.85
376-06-7	Perfluorotetradecanoic acid	2.88	U	1.10	2.88	3.85
72629-94-8	Perfluorotridecanoic acid	2.88	U	1.18	2.88	3.85
2058-94-8	Perfluoroundecanoic acid	2.88	U	1.19	2.88	3.85

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-SB-DUP-1
Collect Date:	04/12/22 Time: 0001	GCAL Sample ID:	22204152633
Matrix:	Solid % Moisture: 15.5	Instrument ID:	QQQ4
Sample Amt:	5.38 g	Lab File ID:	2220503B_25.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 2224
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.220	U	0.066	0.220	1.10
39108-34-4	8:2 Fluorotelomersulfonic acid	0.110	U	0.033	0.110	1.10
2991-50-6	NEtFOSAA	0.110	U	0.033	0.110	1.10
2355-31-9	NMeFOSAA	0.055	U	0.022	0.055	1.10
375-73-5	Perfluorobutanesulfonic acid	0.055	U	0.022	0.055	1.10
375-22-4	Perfluorobutanoic acid	0.046	J	0.044	0.110	1.10
335-76-2	Perfluorodecanoic acid	0.110	U	0.044	0.110	1.10
307-55-1	Perfluorododecanoic acid	0.055	U	0.022	0.055	1.10
375-85-9	Perfluoroheptanoic acid	0.026	J	0.022	0.055	1.10
355-46-4	Perfluorohexanesulfonic acid	0.121	J	0.033	0.110	1.10
307-24-4	Perfluorohexanoic acid	0.066	J	0.022	0.055	1.10
375-95-1	Perfluorononanoic acid	0.042	J	0.022	0.055	1.10
1763-23-1	Perfluorooctanesulfonic acid	12.0		0.055	0.220	1.10
335-67-1	Perfluorooctanoic acid	0.220	U	0.088	0.220	1.10
2706-90-3	Perfluoropentanoic acid	0.043	J	0.022	0.055	1.10
376-06-7	Perfluorotetradecanoic acid	0.055	U	0.022	0.055	1.10
72629-94-8	Perfluorotridecanoic acid	0.110	U	0.033	0.110	1.10
2058-94-8	Perfluoroundecanoic acid	0.055	U	0.022	0.055	1.10

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-SB-DUP-2
Collect Date:	04/12/22 Time: 0001	GCAL Sample ID:	22204152634
Matrix:	Solid % Moisture: 21.1	Instrument ID:	QQQ5
Sample Amt:	5.37 g	Lab File ID:	2220506B_16.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/06/22 Time: 2151
Prep Batch:	740195	Analytical Batch:	740290
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.236	U	0.071	0.236	1.18
39108-34-4	8:2 Fluorotelomersulfonic acid	0.118	U	0.035	0.118	1.18
2991-50-6	NEtFOSAA	0.118	U	0.035	0.118	1.18
2355-31-9	NMeFOSAA	0.059	U	0.024	0.059	1.18
375-73-5	Perfluorobutanesulfonic acid	0.059	U	0.024	0.059	1.18
375-22-4	Perfluorobutanoic acid	0.118	U	0.047	0.118	1.18
335-76-2	Perfluorodecanoic acid	0.118	U	0.047	0.118	1.18
307-55-1	Perfluorododecanoic acid	0.059	U	0.024	0.059	1.18
375-85-9	Perfluoroheptanoic acid	0.064	J	0.024	0.059	1.18
355-46-4	Perfluorohexanesulfonic acid	2.09		0.035	0.118	1.18
307-24-4	Perfluorohexanoic acid	0.313	J	0.024	0.059	1.18
375-95-1	Perfluorononanoic acid	0.059	U	0.024	0.059	1.18
1763-23-1	Perfluorooctanesulfonic acid	0.597	J	0.059	0.236	1.18
335-67-1	Perfluorooctanoic acid	0.133	J	0.094	0.236	1.18
2706-90-3	Perfluoropentanoic acid	0.080	J	0.024	0.059	1.18
376-06-7	Perfluorotetradecanoic acid	0.059	U	0.024	0.059	1.18
72629-94-8	Perfluorotridecanoic acid	0.118	U	0.035	0.118	1.18
2058-94-8	Perfluoroundecanoic acid	0.059	U	0.024	0.059	1.18

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	DUP-GW-01
Collect Date:	04/12/22 Time: 0001	GCAL Sample ID:	22204152635
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220504B_11.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/05/22 Time: 0143
Prep Batch:	739862	Analytical Batch:	740280
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	5.26		1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	51.6		0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	52.2		1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.05	J	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	35.3		1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	1180		1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	167		0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	5.06		0.980	2.00	4.00
335-67-1	Perfluorooctanoic acid	61.9		0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	82.9		0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	DUP-GW-01DL
Collect Date:	04/12/22 Time: 0001	GCAL Sample ID:	22204152635DL
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220504B_7.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	20 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/05/22 Time: 0044
Prep Batch:	739862	Analytical Batch:	740280
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
1763-23-1	Perfluorooctanesulfonic acid	15000		15.2	40.0	80.0

FORM I SV-1

I - GENERAL CHEMISTRY ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-01-SB-03.5-04.3
Collect Date:	04/14/22 0955	LAB Sample ID:	22204158211
Matrix:	Solid	Instrument ID:	PH01
% Solids:	NA	Analyst:	LMH
Sample Amt:	NA	Lab File ID:	NA
Prep Vol.:	NA	Dilution Factor:	1
Prep Date:	NA	Analysis Date:	04/19/22 1424
Prep Batch:	NA	Analytical Batch:	738774
Prep Method:	NA	Analytical Method:	EPA 9045D

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
pH	7.97	pH UNITS		1.00	1.00	1.00

FORM I - GENCHEM

I - GENERAL CHEMISTRY ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-SB-DUP-4
Collect Date:	04/14/22 0001	LAB Sample ID:	22204158212
Matrix:	Solid	Instrument ID:	PH01
% Solids:	NA	Analyst:	LMH
Sample Amt:	NA	Lab File ID:	NA
Prep Vol.:	NA	Dilution Factor:	1
Prep Date:	NA	Analysis Date:	04/19/22 1425
Prep Batch:	NA	Analytical Batch:	738774
Prep Method:	NA	Analytical Method:	EPA 9045D

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
pH	7.56	pH UNITS		1.00	1.00	1.00

FORM I - GENCHEM

I - GENERAL CHEMISTRY ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-01-SB-03.5-04.3
Collect Date:	04/14/22 0955	LAB Sample ID:	22204158211
Matrix:	Solid	Instrument ID:	TOC7
% Solids:	NA	Analyst:	JGD
Sample Amt:	NA	Lab File ID:	NA
Prep Vol.:	NA	Dilution Factor:	1
Prep Date:	NA	Analysis Date:	04/22/22 1224
Prep Batch:	NA	Analytical Batch:	739144
Prep Method:	NA	Analytical Method:	EPA 9060A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	2830	mg/kg		153	350	500

FORM I - GENCHEM

I - GENERAL CHEMISTRY ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	AOI02-SB-DUP-4
Collect Date:	04/14/22 0001	LAB Sample ID:	22204158212
Matrix:	Solid	Instrument ID:	TOC7
% Solids:	NA	Analyst:	JGD
Sample Amt:	NA	Lab File ID:	NA
Prep Vol.:	NA	Dilution Factor:	1
Prep Date:	NA	Analysis Date:	04/22/22 1324
Prep Batch:	NA	Analytical Batch:	739144
Prep Method:	NA	Analytical Method:	EPA 9060A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	714	mg/kg		153	350	500

FORM I - GENCHEM

I - GENERAL CHEMISTRY ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-06-SB-02-02.7
Collect Date:	04/12/22 1120	LAB Sample ID:	22204152617
Matrix:	Solid	Instrument ID:	PH01
% Solids:	NA	Analyst:	EAN
Sample Amt:	NA	Lab File ID:	NA
Prep Vol.:	NA	Dilution Factor:	1
Prep Date:	NA	Analysis Date:	04/15/22 1616
Prep Batch:	NA	Analytical Batch:	738599
Prep Method:	NA	Analytical Method:	EPA 9045D

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
pH	7.08	pH UNITS		1.00	1.00	1.00

FORM I - GENCHEM

I - GENERAL CHEMISTRY ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	AOI01-06-SB-02-02.7
Collect Date:	04/12/22 1120	LAB Sample ID:	22204152617
Matrix:	Solid	Instrument ID:	TOC7
% Solids:	NA	Analyst:	JGD
Sample Amt:	NA	Lab File ID:	NA
Prep Vol.:	NA	Dilution Factor:	1
Prep Date:	NA	Analysis Date:	04/21/22 1600
Prep Batch:	NA	Analytical Batch:	738945
Prep Method:	NA	Analytical Method:	EPA 9060A

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	4580	mg/kg		153	350	500

FORM I - GENCHEM

DATA VALIDATION WORKSHEET

Per- and Polyfluorinated Compounds by LC/MS/MS

Reviewer: Tyler Bryant
Date: 6/23/2022
DV Level: II **III** IV

Project Name: Albany
Project Number: 60552172
Laboratory: Pace Gulf Coast
SDG No.: 221112126 + 10612 + 41526 + 41582
Test Name: PFAS

Review Document:

__X__ DoD Module 3 Data Validation Guidance
__X__ DOD QSM 5.3, Table B-15

1.0 Laboratory Deliverables		**Yes**	**No**	**NA**
1.1	Do Chain-of-Custody forms list all samples that were analyzed?	X		
1.2	Are all Chain-of-Custody forms signed, indicating sample chain-of-custody was maintained?	X		
1.3	Do sample preservation, collection and storage condition meet method requirement? 4±2°C	X		
	If samples were received with the cooler temperature exceeding 6°C, then flag J(+)/UJ(-). If >20°C, J(+)/X(-)			
1.4	Do the traffic Reports, chain-of-custody, and lab narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	

Notes:

2.0 Holding Times		**Yes**	**No**	**NA**
2.1	Have any technical holding times, determined from date of sampling to date of analysis, been exceeded? If yes, J(+)/UJ(-). Extraction: 28 days; Analysis: 40 days.		X	
2.2	Have any technical holding time grossly (twice the holding time) been exceeded? If yes, J(+)/X(-) .		X	

Notes:

3.0 Blanks (Laboratory and Field)		**Yes**	**No**	**NA**
3.1	Were method blanks (MB) prepared at the appropriate frequency (one per 20 samples, per batch per matrix?)	X		
3.2	Do any instrument/method blanks have positive results?	X		
3.3	Do any field equipment blanks/trip blanks have positive results?	X		

Notes: Several blanks displayed target analyte concentrations greater than the detection limit.

4.0 Initial and Continuing Calibration		Yes	No	NA
4.1	For each calibration standard, was each analyte calculated within 70%-130% of the true value, RSD ≤20%, or r^2≥0.99?	X		
4.2	Was the retention time window for each analyte and surrogate set using the midpoint standard of the curve?	X		
4.3	Was the relative retention time of each analyte within laboratory control limits?	X		
4.4	Was a second source calibration verification (ICV) analyzed for each calibration curve? If no, flag "X".	X		
4.5	Were continuing calibration standards analyzed every ten samples and at the end of the sequence? If no, flag "X".	X		
4.6	For each calibration standard used for quantitation, was the S/N Ratio ≥10:1 and for all analytes with promulgated standards was the confirmation ion at a S/N at 3:1? (Table B-15, non-DW matrices)			X
For initial calibration: 70%-130%, RSD ≤20%, or r2≥0.99. J(+)/UJ(-)				
For ICV/CCV: %D>30%, Positive: J(+), Negative:J(+)/UJ(-).				

Notes:

5.0 Laboratory Control Sample (LCS)		Yes	No	NA
5.1	Were LCS/LCSD analyzed at required frequency (one per 20 samples per batch) for each matrix?	X		
5.2	Are there any %R for LCS/LCSD recoveries outside the laboratory QC limits(lab default is 70%-130%)?		X	
	Action: If Yes, for %R >130, J+(+) only; for %R 30%-70%, J-(+)/UJ(-), and %R<30%, J-(+)/X(-).			
5.3	Are there any RPD for LCS/LCSD recoveries outside the QC limits? If Yes, J(+) only.		X	

Notes:

6.0 Surrogate Recovery/Internal Standard Area Count/Extracted Internal Standards (For Table B-15 Matrices)					Yes	No	NA
6.1	Are recoveries within acceptance criteria for all samples and method blanks?					X	
6.2	If No in Section 6.1, are these sample(s) or method blank(s) reanalyzed?				X		
6.3	If No in Section 6.2, is any sample dilution factor greater than 10? (recoveries may be diluted out.)					X	
		<10%	low	high			
	Positives	J-	J-	J+			
	Non-detects	X	UJ	None			
6.4	Has the Extracted/Injected Standard area count been met for all quality control and field samples? (50%-150%) If					X	
		<20%	low	high			
	Positives	J+	J+	J-			
	Non-detects	X	UJ	None			

Notes: Threee QC samples displayed EIS area counts outside the QC limits. Field sample results area not qualified based on QC sample EIS anomalies.

7.0 Matrix Spike/Matrix Spike Duplicate (MS/MSD)		Yes	No	NA
7.1	Were matrix spikes analyzed at required frequency (one per 20 samples per batch) for each matrix?	X		
7.2	Are there any %R for matrix spike and matrix spike duplicate recoveries outside the laboratory QC limits?	X		
	%Recovery: <30% 30%-70% >130%			
	Action: J-(+)/X(-) J-(+)/UJ(-) J+(+) only			
7.3	Are there any RPD for matrix spike and matrix spike duplicate recoveries outside the QC limits? (±30%)	X		
	Action: No action is required based on MS/MSD failure alone. Note in the report and use professional judgement.			

Notes: Two field samples displayed MS/MSD percent recoveries outside QC limits and/or RPD exceedances.

8.0 Field/Laboratory Duplicates		Yes	No	NA
8.1	Acceptable field duplicate results? If no, J(+) parent sample/field duplicate only.		X	

Notes: Several field duplicate pairs displayed imprecise results and one laboratory duplicate displayed an RPD exceedance.

9.0 Instrument Sensitivity Check (ISC)		Yes	No	NA
9.1	Was an instrument sensitivity check analyzed prior to analysis and every 12 hours? If not X(+/-)	X		
9.2	Were analyte concentrations at the LOQ for the ISC and within ±30% of their true values? If not (J(+)/UJ(-)	X		

Notes:

10.0 Compound Identification/Tune and Detection Limit Verification		Yes	No	NA
10.1	Do detection limits meet those required by the project QAPP and were they properly adjusted for dilution factors and moisture (including adjustment of wet weight aliquot)?	X		
10.2	Was a mass calibration performed daily prior to analysis?	X		

Notes:

11.0 Data Completeness		Yes	No	NA
11.1	Is % completeness within the control limits? (Control limit $95\%_{aq}$ and $90\%_{so}$)	X		
11.1.1	Number of samples: 61			
11.1.2	Number of target compounds in each analysis: 18			
11.1.3	Number of results "X" or "R" flagged results: 0			

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2211130A.batch.bin
Current ICAL Batch: 2211129BCAL
ICAL Std (ID/Exp): 019-55-1 4/18/22
ICV Std (ID/Exp): 019-51-1 1/26/22

LIMS Batch (HBN): 728084
20mM NH4OAc (ID/Exp): 019-59-8 12/1/21 9:30
Methanol (ID/Exp): 2130932 7/31/26
EIS Mix (ID/Exp): 019-54-9 5/1/22
IIS Mix (ID/Exp): 019-55-3 5/12/22

Acquisition time	Data File	Name	Type	Dilution	Comment
11/29/21 11:45:57	2211129A_1.d	1201	Cal	1	SXA,QQQ4;ICAL
11/29/21 12:00:54	2211129A_2.d	1202	Cal	1	SXA,QQQ4;ICAL
11/29/21 12:15:42	2211129A_3.d	1203	Cal	1	SXA,QQQ4;ICAL
11/29/21 12:30:30	2211129A_4.d	1204	Cal	1	SXA,QQQ4;ICAL
11/29/21 12:45:18	2211129A_5.d	1205	Cal	1	SXA,QQQ4;ICAL
11/29/21 13:00:06	2211129A_6.d	1206	Cal	1	SXA,QQQ4;ICAL
11/29/21 13:14:57	2211129A_7.d	1207	Cal	1	SXA,QQQ4;ICAL
11/29/21 13:29:45	2211129A_8.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
11/29/21 13:44:36	2211129A_9.d	1600	Sample	1	SXA,QQQ4;ICV
11/29/21 13:59:24	2211129A_10.d	1450	QC	1	SXA,QQQ4;CCV
11/30/21 10:12:34	2211130A_1.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
11/30/21 10:27:31	2211130A_2.d	1450	QC	1	SXA,QQQ4;CCV
11/30/21 10:49:44	2211130A_3.d	1450	QC	1	SXA,QQQ4;CCV
11/30/21 11:06:44	2211130A_4.d	22111202919	Sample	1	SXA,QQQ4;727332
11/30/21 11:21:40	2211130A_5.d	22111202921	Sample	1	SXA,QQQ4;727332
11/30/21 11:36:28	2211130A_6.d	22111203116	Sample	1	SXA,QQQ4;727697
11/30/21 11:51:18	2211130A_7.d	22111203103	Sample	1	SXA,QQQ4;727697
11/30/21 12:11:14	2211130A_8.d	22111203104	Sample	1	SXA,QQQ4;727697
11/30/21 12:26:10	2211130A_9.d	2278878	Blank	1	SXA,QQQ4;727989; IIS double spiked
11/30/21 12:40:59	2211130A_10.d	2278879	QC	1	SXA,QQQ4;727989
11/30/21 12:55:47	2211130A_11.d	2278880	QC	1	SXA,QQQ4;727989
11/30/21 13:10:36	2211130A_12.d	221111352111	Sample	1	SXA,QQQ4;727989
11/30/21 13:25:24	2211130A_13.d	1400	QC	1	SXA,QQQ4;CCV
11/30/21 13:40:28	2211130A_14.d	2278411	Blank	1	SXA,QQQ4;727818
11/30/21 13:55:33	2211130A_15.d	2278412	QC	1	SXA,QQQ4;727818
11/30/21 14:10:22	2211130A_16.d	2278413	QC	1	SXA,QQQ4;727818
11/30/21 14:25:12	2211130A_17.d	22111135301	Sample	1	SXA,QQQ4;727818
11/30/21 14:40:02	2211130A_18.d	22111135302	Sample	1	SXA,QQQ4;727818
11/30/21 14:54:51	2211130A_19.d	22111135304	Sample	1	SXA,QQQ4;727818
11/30/21 15:09:39	2211130A_20.d	22111135305	Sample	1	SXA,QQQ4;727818
11/30/21 15:24:28	2211130A_21.d	22111135402	Sample	1	SXA,QQQ4;727818
11/30/21 15:39:17	2211130A_22.d	22111135403	Sample	1	SXA,QQQ4;727818
11/30/21 15:54:05	2211130A_23.d	22111135405	Sample	1	SXA,QQQ4;727818
11/30/21 16:08:53	2211130A_24.d	22111135406	Sample	1	SXA,QQQ4;727818
11/30/21 16:23:42	2211130A_25.d	22111135502	Sample	1	SXA,QQQ4;727818
11/30/21 16:38:30	2211130A_26.d	22111135503	Sample	1	SXA,QQQ4;727818
11/30/21 16:53:21	2211130A_27.d	1400	QC	1	SXA,QQQ4;CCV
11/30/21 17:08:26	2211130A_28.d	22111135505	Sample	1	SXA,QQQ4;727818
11/30/21 17:23:31	2211130A_29.d	22111135506	QC	1	SXA,QQQ4;727818
11/30/21 17:38:19	2211130A_30.d	22111135507	QC	1	SXA,QQQ4;727818
11/30/21 17:53:08	2211130A_31.d	22111135509	Sample	1	SXA,QQQ4;727818
11/30/21 18:07:56	2211130A_32.d	22111135510	Sample	1	SXA,QQQ4;727818
11/30/21 18:22:45	2211130A_33.d	22111135604	Sample	1	SXA,QQQ4;727818
11/30/21 18:37:34	2211130A_34.d	22111135605	Sample	1	SXA,QQQ4;727818
11/30/21 18:52:22	2211130A_35.d	22111135607	Sample	1	SXA,QQQ4;727818
11/30/21 19:07:10	2211130A_36.d	22111135608	Sample	1	SXA,QQQ4;727818
11/30/21 19:22:01	2211130A_37.d	22111135610	Sample	1	SXA,QQQ4;727818
11/30/21 19:36:49	2211130A_38.d	1400	QC	1	SXA,QQQ4;CCV

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2211207A.batch.bin
Current ICAL Batch: 2211206CCAL
ICAL Std (ID/Exp): 019-62-1 6/3/22
ICV Std (ID/Exp): 019-63-2 1/26/22

LIMS Batch (HBN): 728786
20mM NH4OAc (ID/Exp): 019-63-3 12/8/21 16:00
Methanol (ID/Exp): 2130932 7/31/26
EIS Mix (ID/Exp): 019-61-6 5/23/22
IIS Mix (ID/Exp): 019-63-1 5/25/22

Acquisition time	Data File	Name	Type	Dilution	Comment
12/06/21 12:52:29	2211206C_1.d	1201	Cal	1	SXA,QQQ4;ICAL
12/06/21 13:07:25	2211206C_2.d	1202	Cal	1	SXA,QQQ4;ICAL
12/06/21 13:22:16	2211206C_3.d	1203	Cal	1	SXA,QQQ4;ICAL
12/06/21 13:37:03	2211206C_4.d	1204	Cal	1	SXA,QQQ4;ICAL
12/06/21 13:51:52	2211206C_5.d	1205	Cal	1	SXA,QQQ4;ICAL
12/06/21 14:06:40	2211206C_6.d	1206	Cal	1	SXA,QQQ4;ICAL
12/06/21 14:21:29	2211206C_7.d	1207	Cal	1	SXA,QQQ4;ICAL
12/06/21 14:52:51	2211206C_8.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
12/06/21 15:07:48	2211206C_9.d	1600	Sample	1	SXA,QQQ4;ICV
12/06/21 15:22:37	2211206C_10.d	1450	QC	1	SXA,QQQ4;CCV
12/07/21 10:04:04	2211207A_1.d	1400 RT	QC	1	SXA,QQQ4;RT 1400
12/07/21 10:29:19	2211207A_2.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
12/07/21 10:44:15	2211207A_3.d	1450	QC	1	SXA,QQQ4;CCV
12/07/21 11:00:34	2211207A_4.d	Blank Contam.	Blank	1	SXA,QQQ4;Blank Contamination
12/07/21 11:15:25	2211207A_5.d	22111172349	Sample	1	SXA,QQQ4;727987
12/07/21 11:30:23	2211207A_6.d	22111172350	Sample	1	SXA,QQQ4;727987
12/07/21 11:45:12	2211207A_7.d	22111172351	Sample	1	SXA,QQQ4;727987
12/07/21 12:00:00	2211207A_8.d	22111172352	Sample	1	SXA,QQQ4;727987
12/07/21 12:14:48	2211207A_9.d	22111172353	Sample	1	SXA,QQQ4;727987
12/07/21 12:29:36	2211207A_10.d	22111172354	Sample	1	SXA,QQQ4;727987
12/07/21 12:44:24	2211207A_11.d	22111172355	Sample	1	SXA,QQQ4;727987
12/07/21 12:59:12	2211207A_12.d	22111172356	Sample	1	SXA,QQQ4;727987
12/07/21 13:14:00	2211207A_13.d	22111172357	Sample	1	SXA,QQQ4;727987
12/07/21 13:28:51	2211207A_14.d	22111172358	Sample	1	SXA,QQQ4;727987
12/07/21 13:43:40	2211207A_15.d	1400	QC	1	SXA,QQQ4;CCV
12/07/21 13:58:44	2211207A_16.d	22111172359	QC	1	SXA,QQQ4;727987
12/07/21 14:13:49	2211207A_17.d	22111172360	QC	1	SXA,QQQ4;727987
12/07/21 14:28:37	2211207A_18.d	22111172361	Sample	1	SXA,QQQ4;727987
12/07/21 14:43:25	2211207A_19.d	22111172362	Sample	1	SXA,QQQ4;727987
12/07/21 14:58:14	2211207A_20.d	22111172363	Sample	1	SXA,QQQ4;727987
12/07/21 15:13:02	2211207A_21.d	22111172601	Sample	1	SXA,QQQ4;727987
12/07/21 15:27:50	2211207A_22.d	2280544	Blank	1	SXA,QQQ4;728405
12/07/21 15:42:54	2211207A_23.d	2280545	QC	1	SXA,QQQ4;728405
12/07/21 15:57:44	2211207A_24.d	2280546	QC	1	SXA,QQQ4;728405
12/07/21 16:12:32	2211207A_25.d	22111178901	Sample	1	SXA,QQQ4;728405
12/07/21 16:27:21	2211207A_26.d	2280230	Blank	1	SXA,QQQ4;728343
12/07/21 16:42:08	2211207A_27.d	2280231	QC	1	SXA,QQQ4;728343
12/07/21 16:56:57	2211207A_28.d	2280232	QC	1	SXA,QQQ4;728343
12/07/21 17:11:45	2211207A_29.d	22111222401	Sample	1	SXA,QQQ4;728343
12/07/21 17:26:34	2211207A_30.d	22111135704	Sample	1	ADA,QQQ4;727560
12/07/21 17:41:22	2211207A_31.d	2278752	Blank	1	SXA,QQQ4;727941
12/07/21 17:56:10	2211207A_32.d	2278753	QC	1	SXA,QQQ4;727941
12/07/21 18:10:58	2211207A_33.d	2278754	QC	1	SXA,QQQ4;727941
12/07/21 18:25:48	2211207A_34.d	22111207404	Sample	1	SXA,QQQ4;727941
12/07/21 18:40:36	2211207A_35.d	1400	QC	1	SXA,QQQ4;CCV
12/07/21 18:55:41	2211207A_36.d	22111211202	Sample	1	SXA,QQQ4;727989
12/07/21 19:10:46	2211207A_37.d	22111212601	Sample	1	SXA,QQQ4;727989
12/07/21 19:25:35	2211207A_38.d	22111213322X100DAI	Sample	1	SXA,QQQ4;728353
12/07/21 19:40:41	2211207A_39.d	2283586	Sample	1	SXA,QQQ4;728353
12/07/21 19:55:30	2211207A_40.d	22111213322X10	Sample	10	SXA,QQQ4;728353
12/07/21 20:10:18	2211207A_41.d	22111213323X50	Sample	50	SXA,QQQ4;728353
12/07/21 20:25:07	2211207A_42.d	22111213323X5	Sample	5	SXA,QQQ4;728353
12/07/21 20:39:55	2211207A_43.d	22111213324X50	Sample	50	SXA,QQQ4;728353
12/07/21 20:54:47	2211207A_44.d	22111213324X5	Sample	5	SXA,QQQ4;728353
12/07/21 21:09:36	2211207A_45.d	22111180402X10	Sample	10	SXA,QQQ4;728098
12/07/21 21:24:24	2211207A_46.d	1400	QC	1	SXA,QQQ4;CCV

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	11/30/2021 10:49	Lab File ID:	2211130A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728084

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	4.15	109	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	4.56	119	70	130	
NEtFOSAA	ng/L	4.00	4.18	105	70	130	
NMeFOSAA	ng/L	4.00	4.36	109	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.22	105	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.70	104	70	130	
Perfluorodecanoic acid	ng/L	4.00	4.21	105	70	130	
Perfluorododecanoic acid	ng/L	4.00	4.23	106	70	130	
Perfluoroheptanoic acid	ng/L	4.00	4.19	105	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.24	106	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.89	106	70	130	
Perfluorononanoic acid	ng/L	4.00	4.21	105	70	130	
Perfluorooctanoic acid	ng/L	4.00	4.32	108	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	4.02	108	70	130	
Perfluoropentanoic acid	ng/L	4.00	4.22	106	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	4.33	108	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.37	109	70	130	
Perfluoroundecanoic acid	ng/L	4.00	4.11	103	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	12/07/2021 10:44	Lab File ID:	2211207A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728786

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.92	103	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.58	93	70	130	
NEtFOSAA	ng/L	4.00	3.61	90	70	130	
NMeFOSAA	ng/L	4.00	4.27	107	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.92	98	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.42	96	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.90	97	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.65	91	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.90	98	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.91	98	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.62	99	70	130	
Perfluorononanoic acid	ng/L	4.00	3.98	100	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.88	97	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.70	100	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.89	97	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.96	99	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.60	90	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.94	98	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	11/29/2021 13:44	Lab File ID:	2211129A_9.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	727972

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	11400	114	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	11000	109	70	130	
NEtFOSAA	ng/L	10000	10500	105	70	130	
NMeFOSAA	ng/L	10000	10300	103	70	130	
Perfluorobutanoic acid	ng/L	10000	10500	105	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	10700	107	70	130	
Perfluorodecanoic acid	ng/L	10000	10800	108	70	130	
Perfluorododecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroheptanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanoic acid	ng/L	10100	10700	106	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	10700	107	70	130	
Perfluorononanoic acid	ng/L	10000	11200	112	70	130	
Perfluorooctanoic acid	ng/L	10100	10500	104	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	9530	95	70	130	
Perfluoropentanoic acid	ng/L	10100	11200	111	70	130	
Perfluorotetradecanoic acid	ng/L	10000	11000	110	70	130	
Perfluorotridecanoic acid	ng/L	10000	10000	100	70	130	
Perfluoroundecanoic acid	ng/L	10000	10300	103	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	12/06/2021 15:07	Lab File ID:	2211206C_9.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728588

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	11700	117	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	12000	119	70	130	
NEtFOSAA	ng/L	10000	10900	109	70	130	
NMeFOSAA	ng/L	10000	11600	116	70	130	
Perfluorobutanoic acid	ng/L	10000	11300	113	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	11300	113	70	130	
Perfluorodecanoic acid	ng/L	10000	11400	114	70	130	
Perfluorododecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroheptanoic acid	ng/L	10000	11300	113	70	130	
Perfluorohexanoic acid	ng/L	10100	11000	109	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	11200	112	70	130	
Perfluorononanoic acid	ng/L	10000	11800	118	70	130	
Perfluorooctanoic acid	ng/L	10100	11000	109	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	10100	101	70	130	
Perfluoropentanoic acid	ng/L	10100	11500	114	70	130	
Perfluorotetradecanoic acid	ng/L	10000	12300	123	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	11300	113	70	130	

4I - ORGANICS INSTRUMENT BLANK

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	11/30/2021 10:12	Lab File ID:	2211130A_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	728084

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	12/07/2021 10:29	Lab File ID:	2211207A_2.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	728786

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

Quantitative Analysis Calibration Report

Batch Data Path	D:\MassHunter\Data\QQQ4\2211129ACAL\QuantResults\2211130A.batch.bin		
Analysis Time	12/1/2021 9:03 AM	**Analyst Name**	GCAL\lcms
Report Time	12/2/2021 9:18 AM	**Reporter Name**	GCAL\lcms
Last Calib Update	11/29/2021 1:46 PM	**Batch State**	Processed

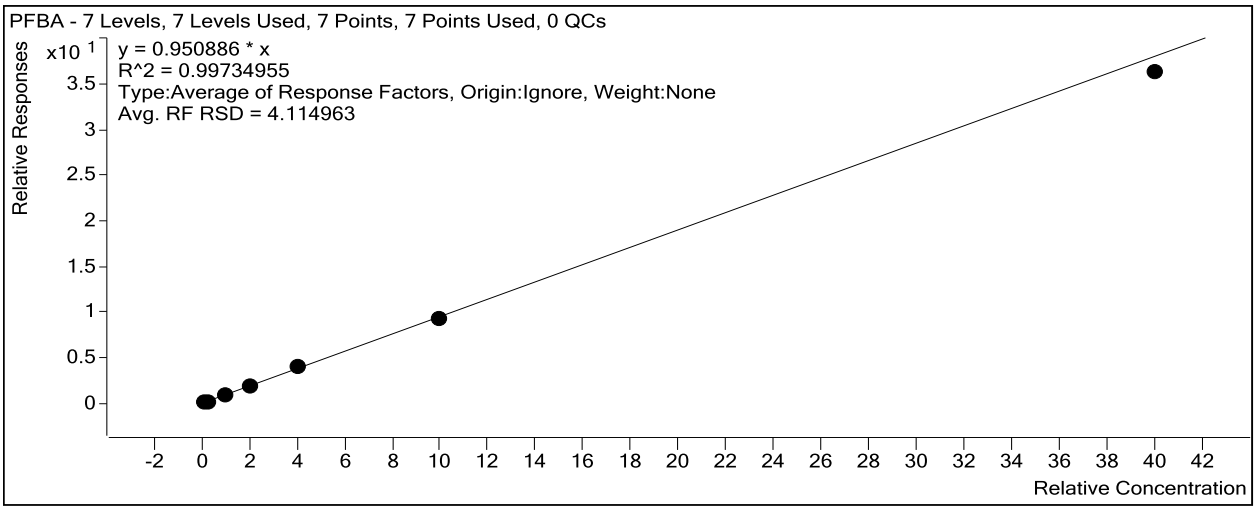
Calibration Info

Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	132606	5.0000	26521.2665
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	120950	5.0000	24189.9165
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	119083	5.0000	23816.5086
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	118283	5.0000	23656.6984
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	115025	5.0000	23004.9201
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	116297	5.0000	23259.4771
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	112062	5.0000	22412.4207

Target Compound *PFBA*

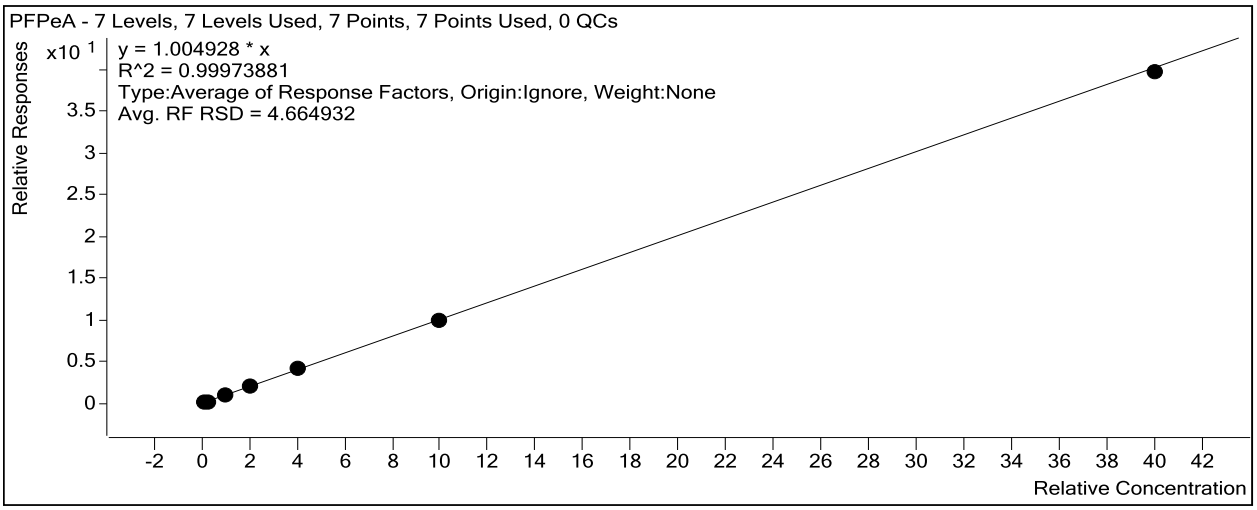
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	12699	0.5000	0.9576
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	27495	1.2500	0.9093
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	112472	5.0000	0.9445
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	236254	10.0000	0.9987
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	462730	20.0000	1.0057
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	1081687	50.0000	0.9301
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	4080418	200.0000	0.9103



Target Compound *PFMPA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
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D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	4457	1.2500	0.1142
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	17365	5.0000	0.1136
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	36386	10.0000	0.1215

Quantitative Analysis Calibration Report

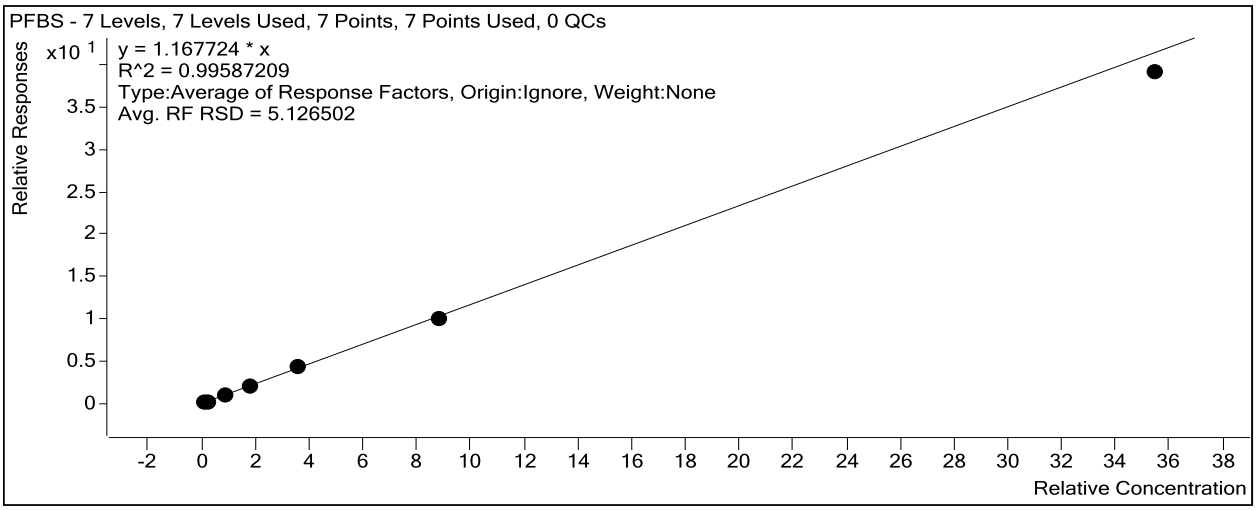


Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
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D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	45177	5.0000	9035.4338
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	45483	5.0000	9096.6389
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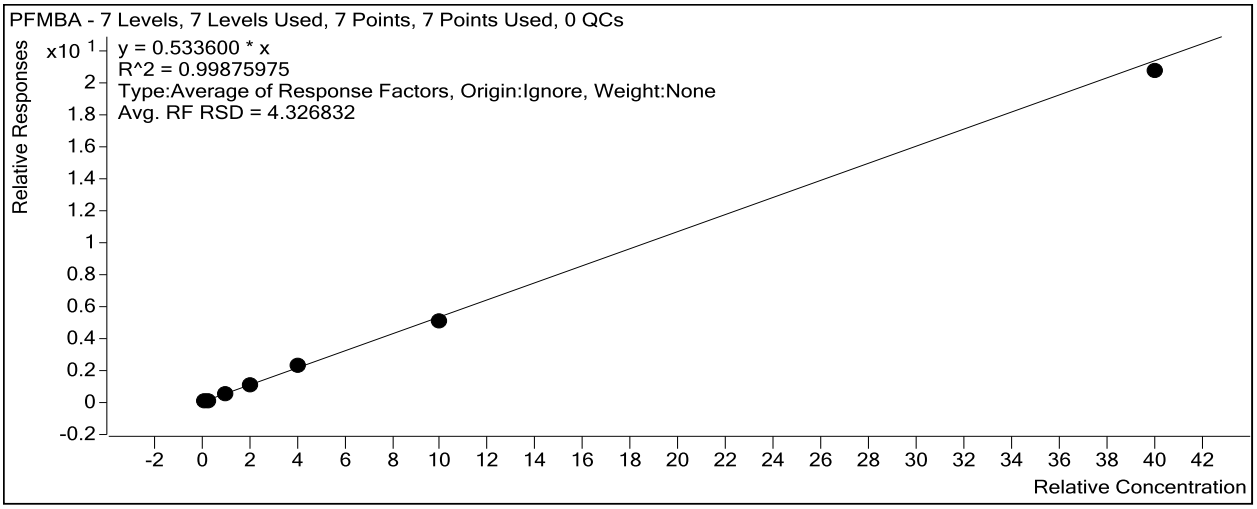
Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	5862	0.4435	1.2240
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	12113	1.1088	1.0977
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	48749	4.4350	1.1466
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	102284	8.8700	1.2092
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	200318	17.7400	1.2497
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	460253	44.3500	1.1408
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1648905	177.4000	1.1060



Target Compound *PFMBA*

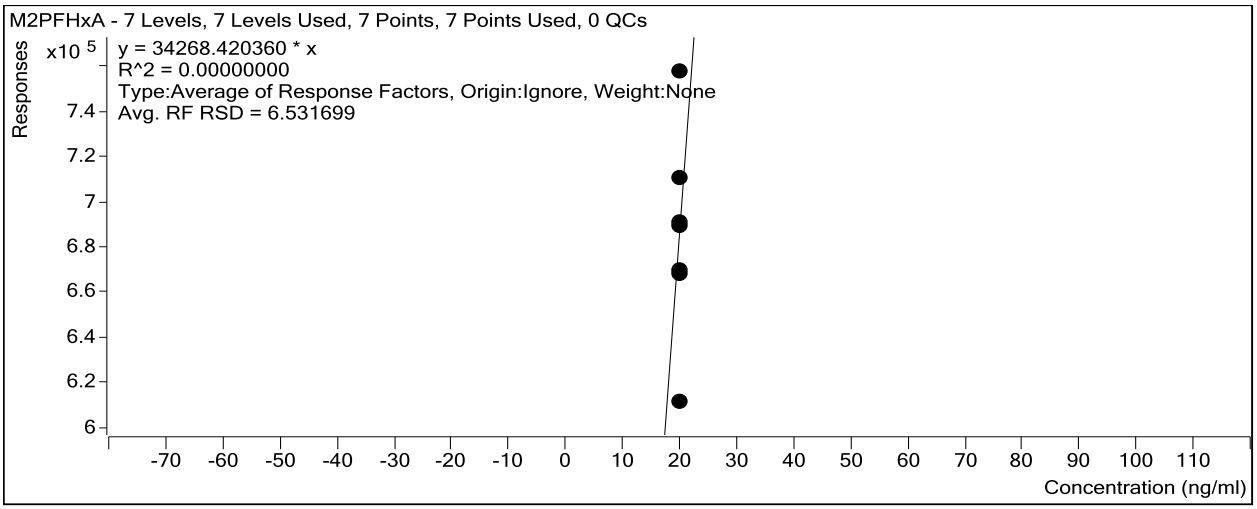
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	10201	0.5000	0.5181
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	23697	1.2500	0.5175
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	96725	5.0000	0.5468
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	196778	10.0000	0.5601
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	386325	20.0000	0.5650
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	881186	50.0000	0.5086
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	3353654	200.0000	0.5191



Target Compound *PFEESA*

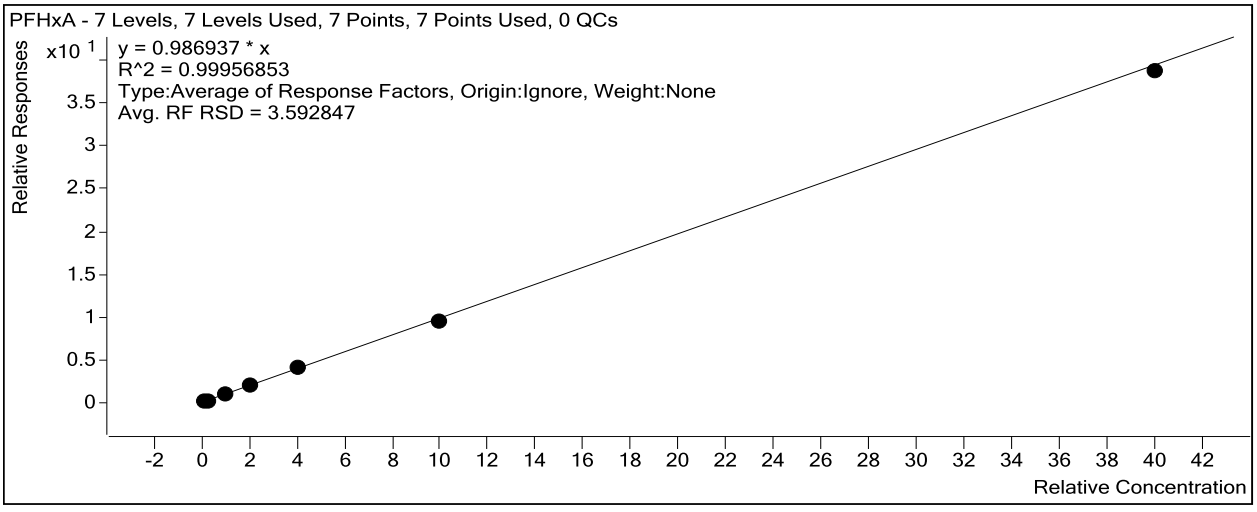
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	17086	0.4450	4.3697
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	36749	1.1125	4.0997
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	152634	4.4500	4.3287
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	312677	8.9000	4.4645
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	605832	17.8000	4.5079

D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	667850	20.0000	33392.4946
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	611237	20.0000	30561.8489



Target Compound *PFHxA*

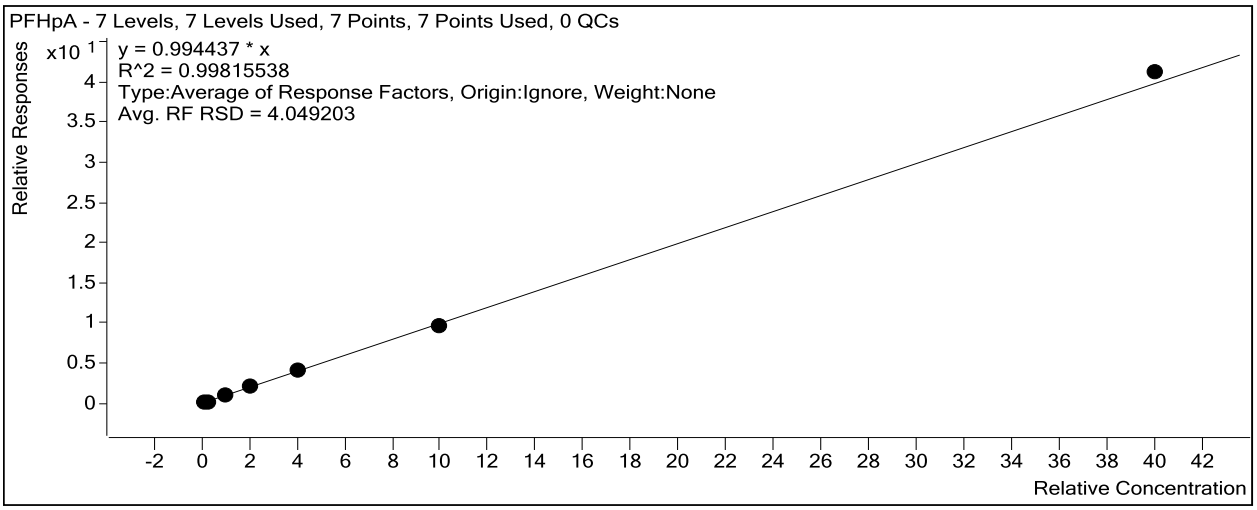
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	19396	0.5000	0.9851
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	43074	1.2500	0.9406
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	174804	5.0000	0.9881
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	363269	10.0000	1.0340
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	705726	20.0000	1.0322
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	1658030	50.0000	0.9570
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	6276620	200.0000	0.9716



Target Compound *PFPeS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	5549	0.4705	1.0920
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	11709	1.1763	1.0002
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	48364	4.7050	1.0723

Quantitative Analysis Calibration Report

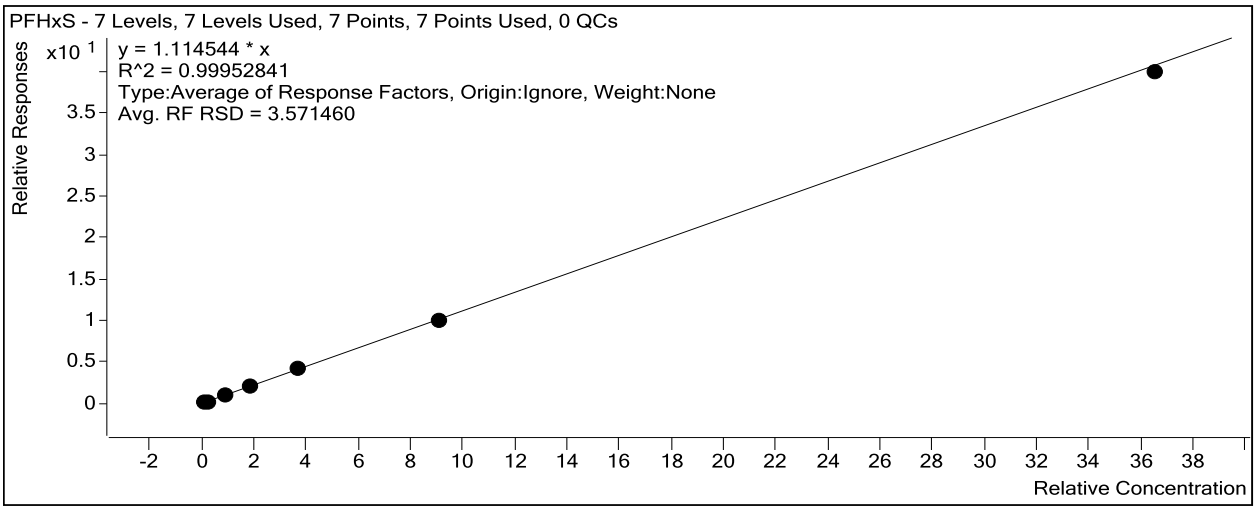


Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	43934	5.0000	8786.8728
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	40288	5.0000	8057.5457
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	39619	5.0000	7923.8806
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	39346	5.0000	7869.1934
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	37751	5.0000	7550.2567
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	37431	5.0000	7486.1109
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	33746	5.0000	6749.2147

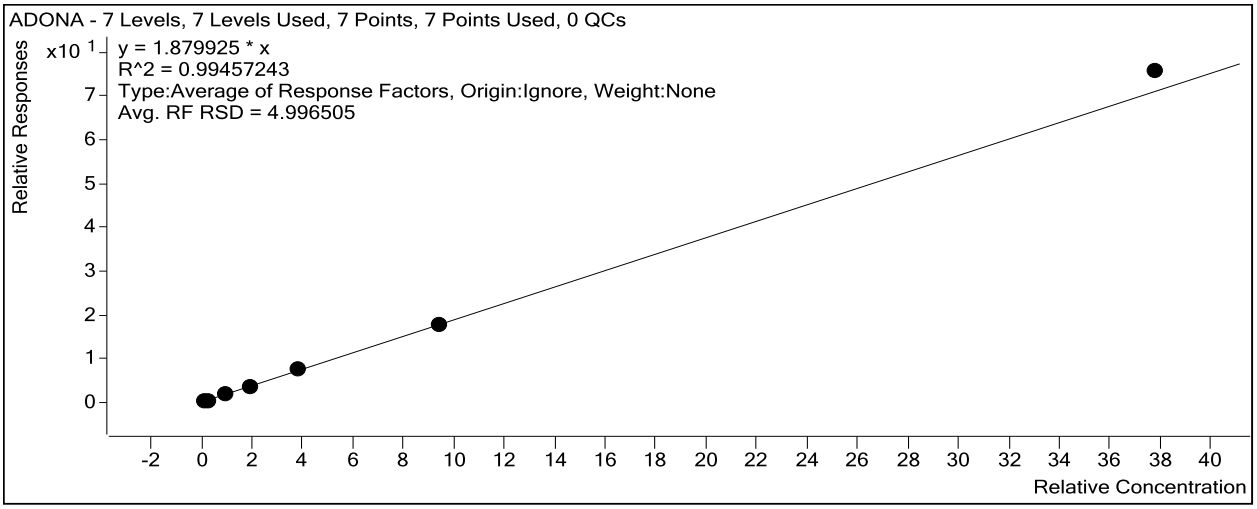
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	4501	0.4570	1.1209
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	9800	1.1425	1.0645
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	39414	4.5700	1.0884
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	82799	9.1400	1.1512
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	162958	18.2800	1.1807
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	376709	45.7000	1.1011
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1350961	182.8000	1.0950



Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	38256	0.4725	1.7728
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	87069	1.1813	1.7737
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	351924	4.7250	1.8400
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	737513	9.4500	1.9246
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	1462794	18.9000	1.9759
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	3428404	47.2500	1.8620
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	13658897	189.0000	2.0105



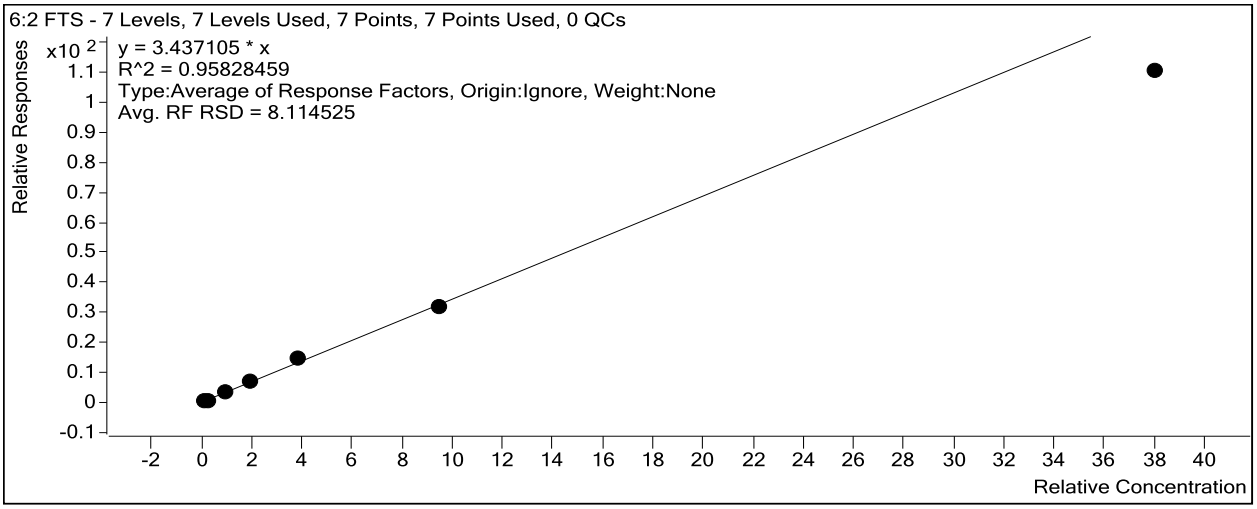
Extracted ISTD *M2 6:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	16849	5.0000	3369.7797
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	15734	5.0000	3146.8530
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	12971	5.0000	2594.1932
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	14631	5.0000	2926.1491
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	11790	5.0000	2357.9390

D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	11312	5.0000	2262.4600
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	11473	5.0000	2294.5638

Target Compound *6:2 FTS*

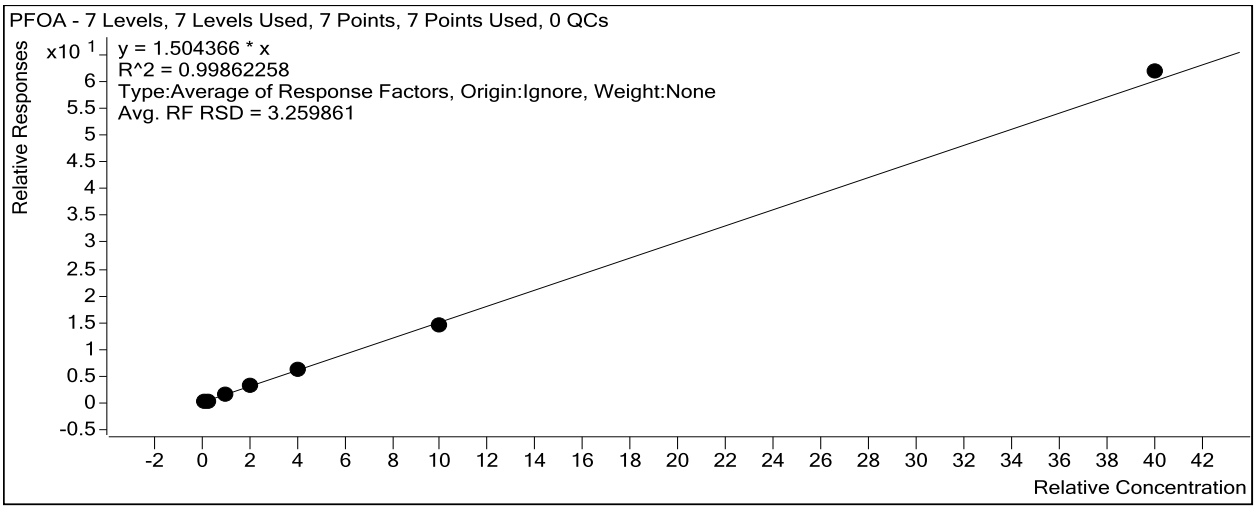
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	5573	0.4755	3.4783
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	12728	1.1888	3.4023
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	42376	4.7550	3.4353
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	101331	9.5100	3.6414
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	171217	19.0200	3.8177
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	362518	47.5500	3.3698
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1272145	190.2000	2.9149



Instrument ISTD *MPFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	1624245	25.0000	64969.8077
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	1494880	25.0000	59795.1944
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	1455571	25.0000	58222.8455
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	1466051	25.0000	58642.0335
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	1400175	25.0000	56006.9924
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	1348889	25.0000	53955.5592
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1258241	25.0000	50329.6229

D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	2839575	50.0000	1.4574
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	11168713	200.0000	1.5536



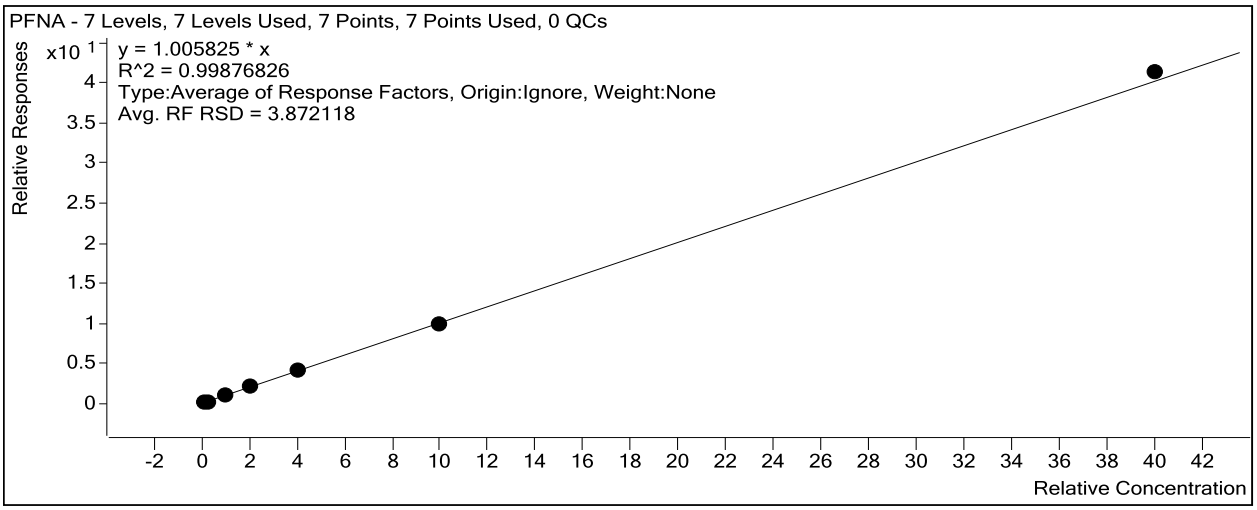
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	228355	5.0000	45670.9645
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	207776	5.0000	41555.1429
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	202398	5.0000	40479.5972
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	202754	5.0000	40550.7020
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	195853	5.0000	39170.6798
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	194839	5.0000	38967.7247
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	179728	5.0000	35945.5502

Target Compound *PFHpS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	4548	0.4765	1.0863
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	10663	1.1913	1.1108
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	42474	4.7650	1.1249
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	89467	9.5300	1.1930
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	171060	19.0600	1.1887
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	393798	47.6500	1.1040
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1382024	190.6000	1.0743

Quantitative Analysis Calibration Report

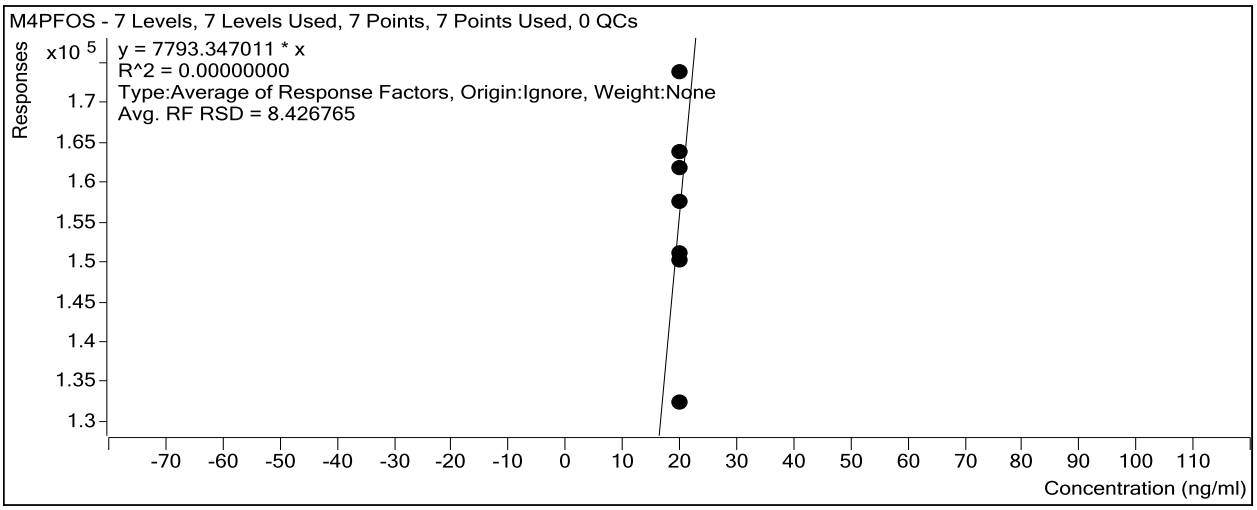


Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	41115	5.0000	8223.0544
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	37647	5.0000	7529.4356
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	36847	5.0000	7369.4033
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	36496	5.0000	7299.1495
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	34969	5.0000	6993.8354
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	34624	5.0000	6924.8205
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	30941	5.0000	6188.1268

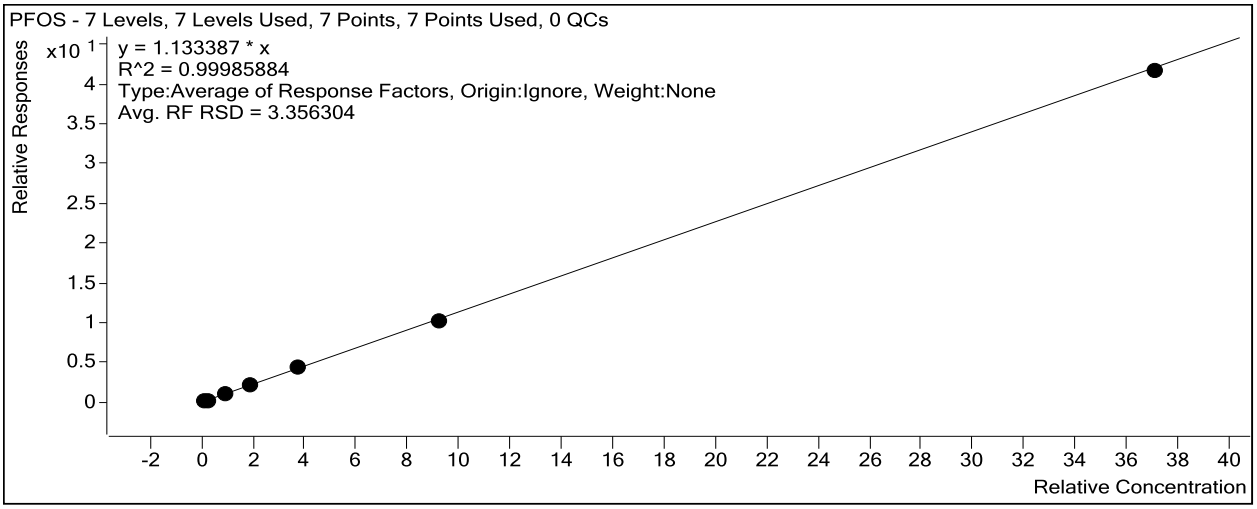
Instrument ISTD *M4PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	173961	20.0000	8698.0550
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	163778	20.0000	8188.9234
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	161823	20.0000	8091.1717
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	157635	20.0000	7881.7291
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	151194	20.0000	7559.7041
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	150353	20.0000	7517.6340
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	132324	20.0000	6616.2117



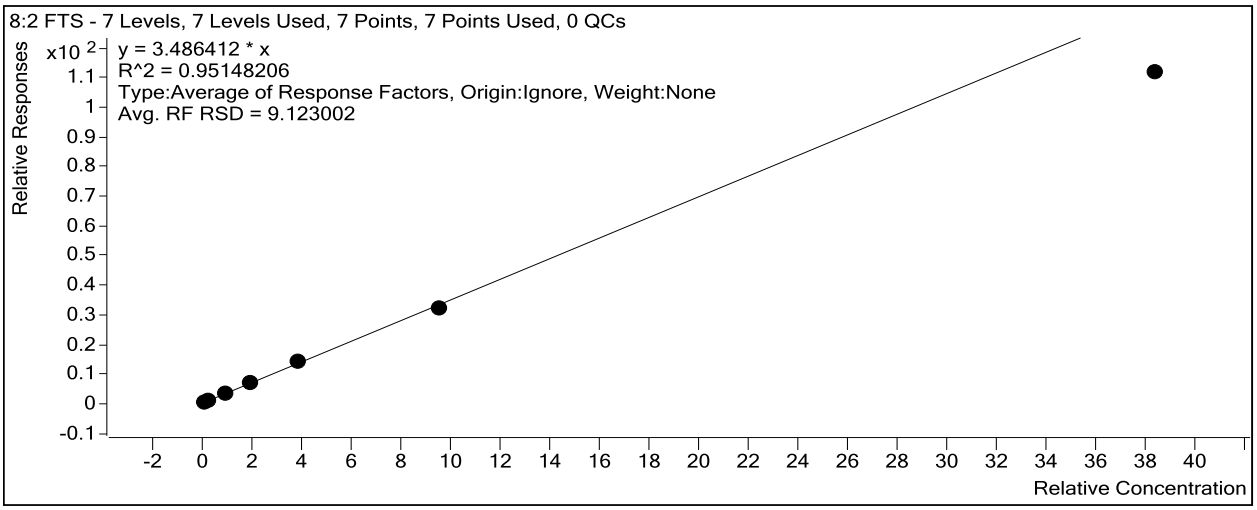
Target Compound *PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	4245	0.4640	1.1125
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	9521	1.1600	1.0901
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	38333	4.6400	1.1210
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	79653	9.2800	1.1759
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	155253	18.5600	1.1960
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	357628	46.4000	1.1130
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1292140	185.6000	1.1251



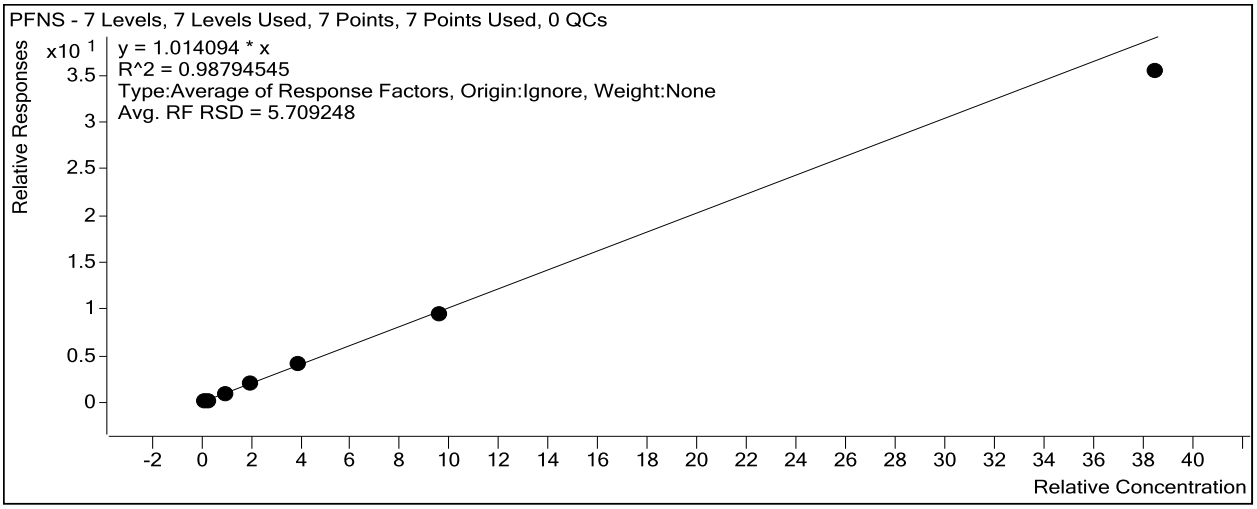
Target Compound *9Cl-PF3ONS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	29688	0.4665	7.7391
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	69610	1.1663	7.9268
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	271586	4.6650	7.8999
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	576098	9.3300	8.4594
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	1111753	18.6600	8.5189



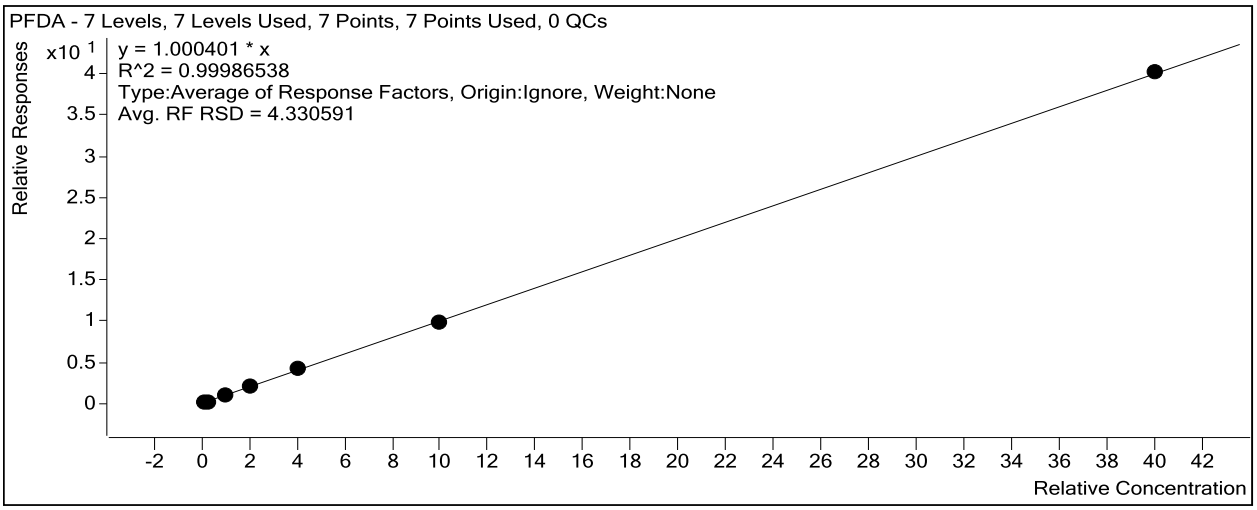
Target Compound *PFNS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	3945	0.4810	0.9973
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	8895	1.2025	0.9824
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	36748	4.8100	1.0367
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	75672	9.6200	1.0777
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	146667	19.2400	1.0900
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	329555	48.1000	0.9894
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1101523	192.4000	0.9252



Extracted ISTD *M6PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	292484	5.0000	58496.8604
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	270076	5.0000	54015.1146
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	262670	5.0000	52534.0876
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	252655	5.0000	50530.9772
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	248412	5.0000	49682.4568

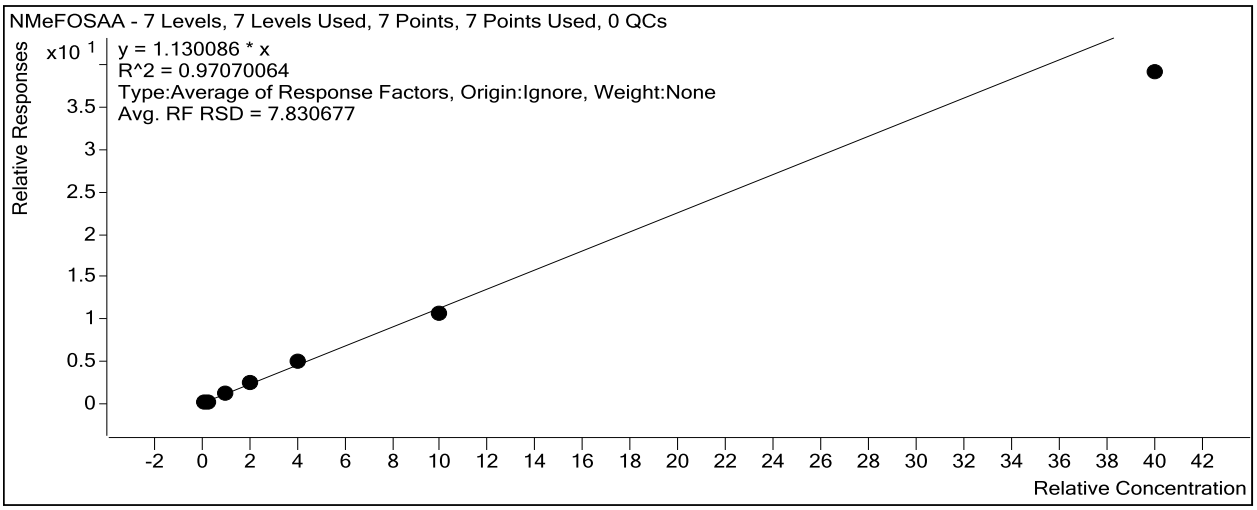


Extracted ISTD *d3-NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	31834	5.0000	6366.8556
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	28989	5.0000	5797.8720
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	28395	5.0000	5679.0834
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	27474	5.0000	5494.7623
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	27167	5.0000	5433.3085
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	28417	5.0000	5683.4396
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	29404	5.0000	5880.8630

Target Compound *NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	3585	0.5000	1.1263
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	8191	1.2500	1.1302
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	32089	5.0000	1.1301
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	67843	10.0000	1.2347
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	134198	20.0000	1.2350
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	304389	50.0000	1.0711
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1156483	200.0000	0.9833



Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	95413	5.0000	19082.6444
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	87638	5.0000	17527.5134
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	85538	5.0000	17107.5301
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	85238	5.0000	17047.6644
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	84302	5.0000	16860.4432
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	83871	5.0000	16774.2659
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	81580	5.0000	16316.0921

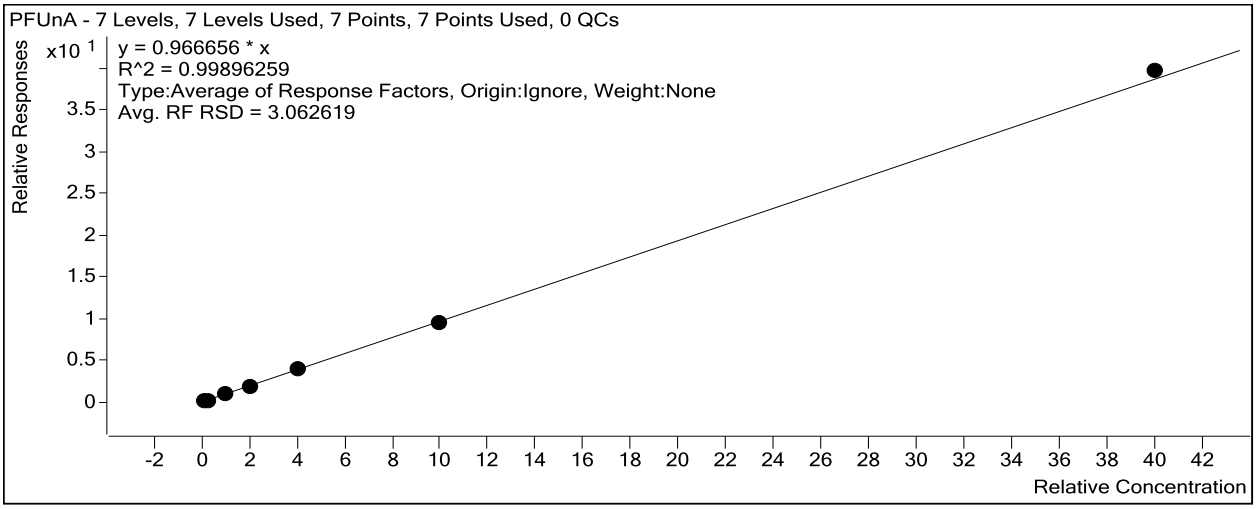
Target Compound *FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	9802	0.5000	1.0273
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	22173	1.2500	1.0120
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	87361	5.0000	1.0213
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	187646	10.0000	1.1007
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	363086	20.0000	1.0767
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	851334	50.0000	1.0150
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	3275342	200.0000	1.0037

D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	244134	5.0000	48826.8748
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	214493	5.0000	42898.6858

Target Compound *PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	28254	0.5000	0.9407
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	64118	1.2500	0.9322
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	253133	5.0000	0.9437
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	523043	10.0000	0.9857
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	1025730	20.0000	1.0080
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	2347721	50.0000	0.9617
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	8533662	200.0000	0.9946

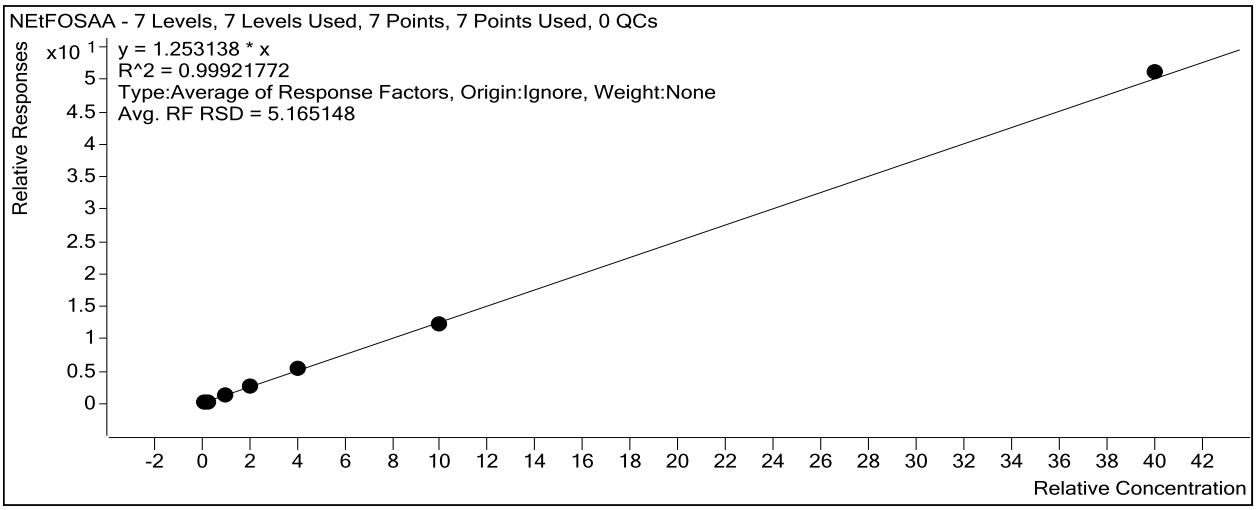


Extracted ISTD *d5-NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	54334	5.0000	10866.8075
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	49224	5.0000	9844.8517
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	47665	5.0000	9533.0766
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	47530	5.0000	9506.0058
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	44662	5.0000	8932.4900
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	42747	5.0000	8549.3233
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	35126	5.0000	7025.1090

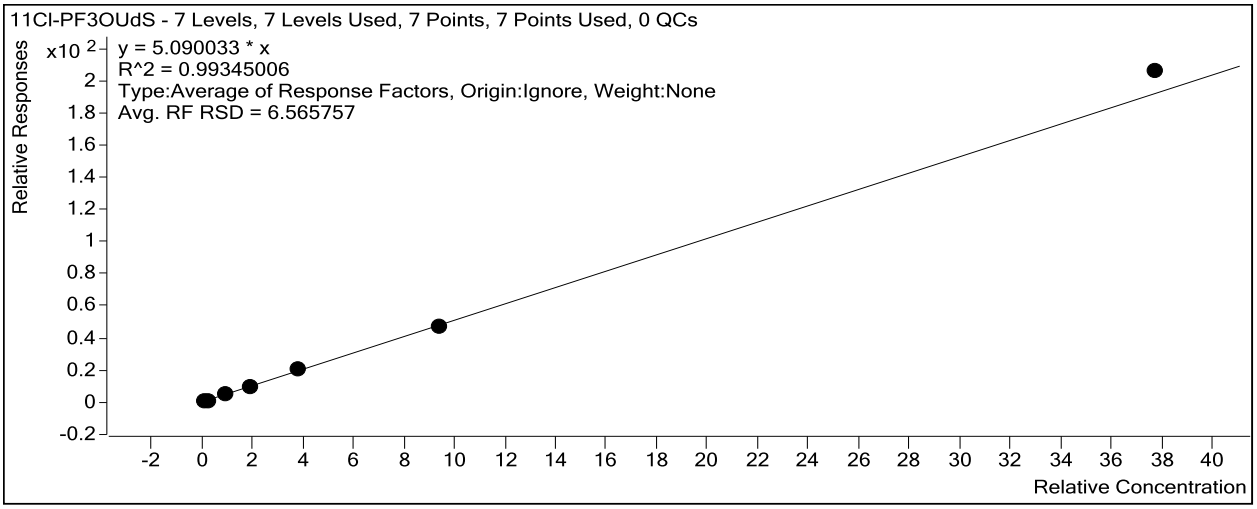
Target Compound *NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	6467	0.5000	1.1903
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	14353	1.2500	1.1663
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	59783	5.0000	1.2542
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	123277	10.0000	1.2968
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	241946	20.0000	1.3543
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	524753	50.0000	1.2276
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	1801785	200.0000	1.2824



Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	18444	0.4715	4.7572
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	40877	1.1788	4.6055
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	174457	4.7150	5.0208
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	362380	9.4300	5.2648
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	719818	18.8600	5.4571
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	1647035	47.1500	5.0444
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	6396046	188.6000	5.4804



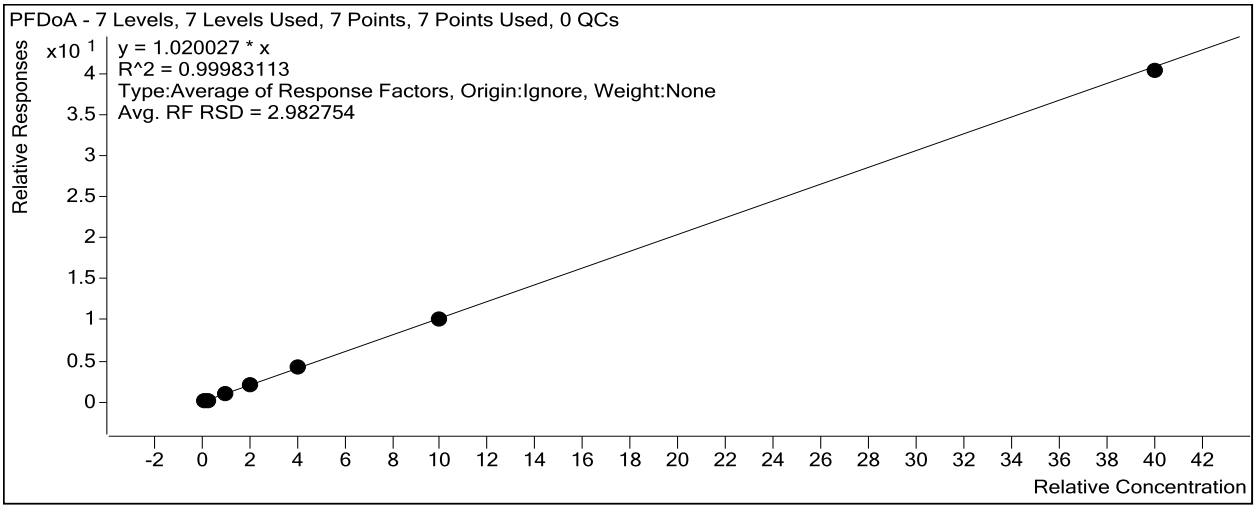
Extracted ISTD *MPFDoA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	322778	5.0000	64555.6008
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	299452	5.0000	59890.4357
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	293845	5.0000	58768.9823
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	286710	5.0000	57342.0306
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	282942	5.0000	56588.4893

D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	279430	5.0000	55886.0984
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	267117	5.0000	53423.3304

Target Compound *PFDoA*

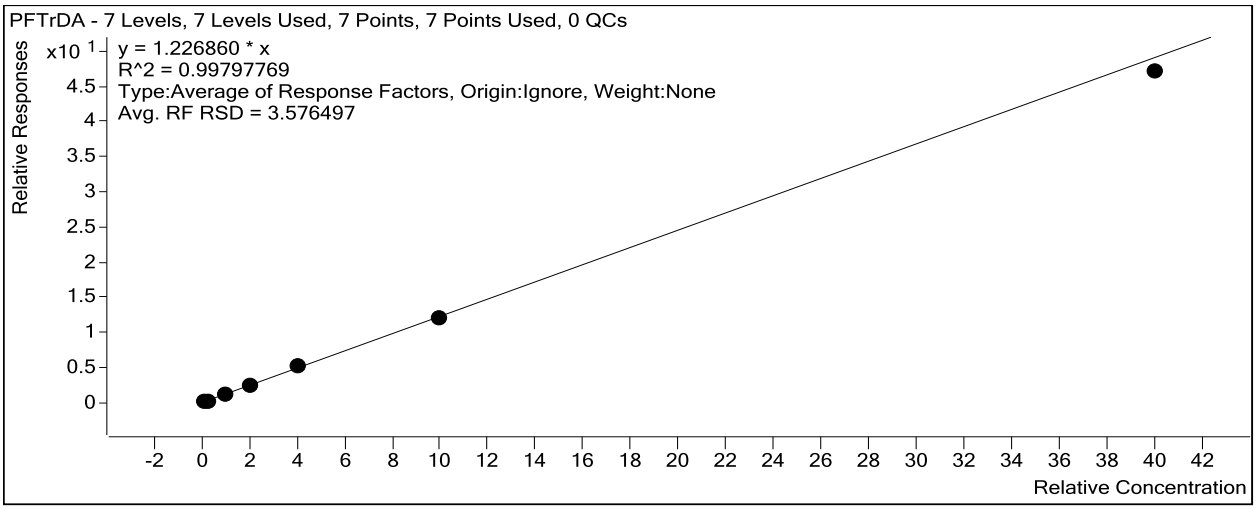
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	32180	0.5000	0.9970
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	74261	1.2500	0.9920
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	294958	5.0000	1.0038
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	602680	10.0000	1.0510
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	1214949	20.0000	1.0735
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	2830484	50.0000	1.0129
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	10791750	200.0000	1.0100



Target Compound *10:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	3602	0.4820	3.1167
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	8231	1.2050	3.2274
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	30920	4.8200	3.1779
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	63648	9.6400	3.3194
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	121169	19.2800	3.4236
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	258774	48.2000	3.1279
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	774599	192.8000	2.8672

D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	3350149	50.0000	1.1989
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	12618688	200.0000	1.1810

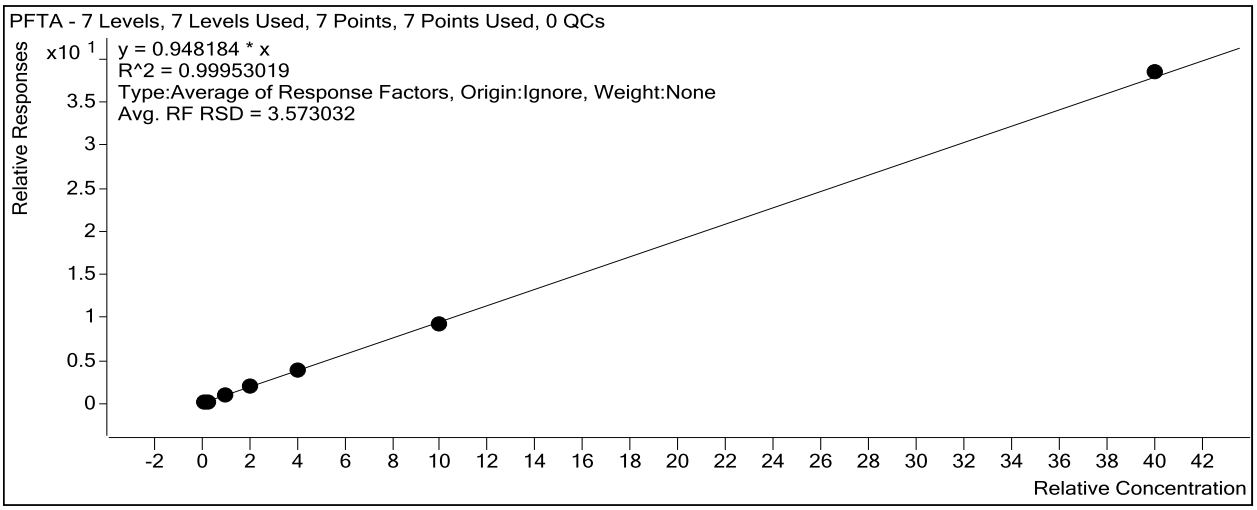


Extracted ISTD *d-NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	22879	5.0000	4575.7089
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	20570	5.0000	4113.9831
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	20684	5.0000	4136.8660
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	21270	5.0000	4254.0628
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	20727	5.0000	4145.3860
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	20703	5.0000	4140.5665
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	21449	5.0000	4289.7159

Target Compound *NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	2477	0.5000	1.0828
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	5301	1.2500	1.0308
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	22726	5.0000	1.0987
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	46976	10.0000	1.1043
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	94813	20.0000	1.1436
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	216370	50.0000	1.0451
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	816988	200.0000	0.9523



Extracted ISTD *d-NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	24306	5.0000	4861.2467
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	22905	5.0000	4581.0944
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	22274	5.0000	4454.8247
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	22087	5.0000	4417.3819
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	21263	5.0000	4252.6826
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	20843	5.0000	4168.6797
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	19797	5.0000	3959.4218

Target Compound *NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211129BCAL\2211129A_1.d	Calibration	1	☑	2907	0.5000	1.0553
D:\MassHunter\Data\2211129BCAL\2211129A_2.d	Calibration	2	☑	6296	1.2500	0.9877
D:\MassHunter\Data\2211129BCAL\2211129A_3.d	Calibration	3	☑	24962	5.0000	0.9984
D:\MassHunter\Data\2211129BCAL\2211129A_4.d	Calibration	4	☑	51974	10.0000	1.0451
D:\MassHunter\Data\2211129BCAL\2211129A_5.d	Calibration	5	☑	100414	20.0000	1.0487
D:\MassHunter\Data\2211129BCAL\2211129A_6.d	Calibration	6	☑	232545	50.0000	0.9533
D:\MassHunter\Data\2211129BCAL\2211129A_7.d	Calibration	7	☑	834797	200.0000	0.9351

Quantitative Analysis Calibration Report

Batch Data Path	D:\MassHunter\Data\QQQ4\2211206CCAL\QuantResults\2211207A.batch.bin		
Analysis Time	12/8/2021 4:42 PM	**Analyst Name**	GCAL\lcms
Report Time	12/9/2021 11:24 AM	**Reporter Name**	GCAL\lcms
Last Calib Update	12/6/2021 2:43 PM	**Batch State**	Processed

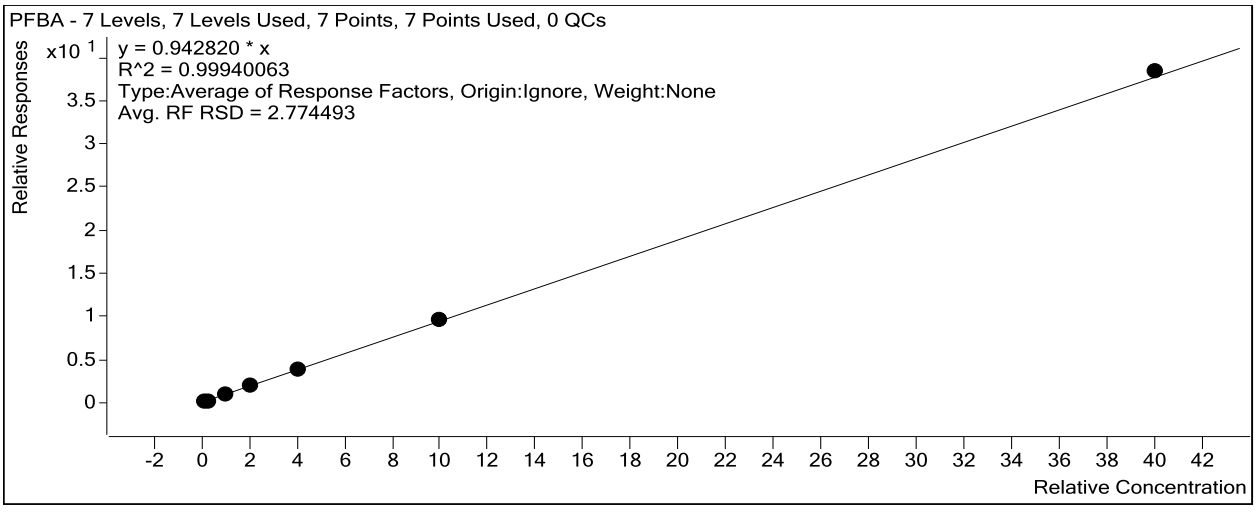
Calibration Info

Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	123107	5.0000	24621.4711
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	130798	5.0000	26159.5653
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	131294	5.0000	26258.7329
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	124815	5.0000	24962.9644
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	131919	5.0000	26383.7399
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	128379	5.0000	25675.7242
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	120845	5.0000	24168.9621

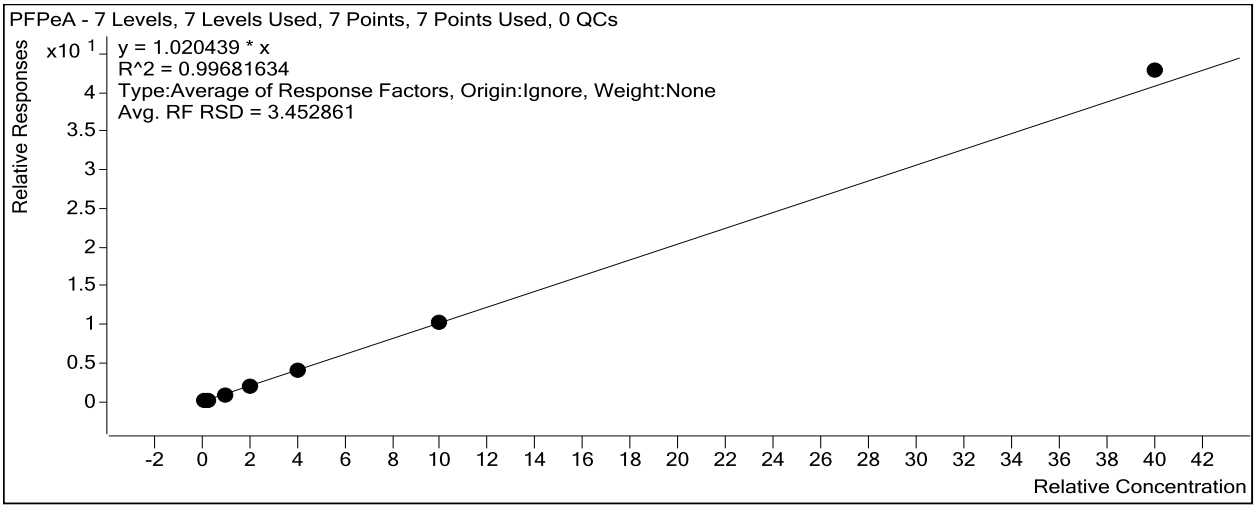
Target Compound *PFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	11627	0.5000	0.9444
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	30067	1.2500	0.9195
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	117944	5.0000	0.8983
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	243282	10.0000	0.9746
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	498524	20.0000	0.9448
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	1225769	50.0000	0.9548
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	4656770	200.0000	0.9634



Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	15762	0.5000	1.0145
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	40649	1.2500	0.9790
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	162506	5.0000	0.9770
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	330794	10.0000	1.0503
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	675846	20.0000	1.0217
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	1656470	50.0000	1.0266
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	6276534	200.0000	1.0740



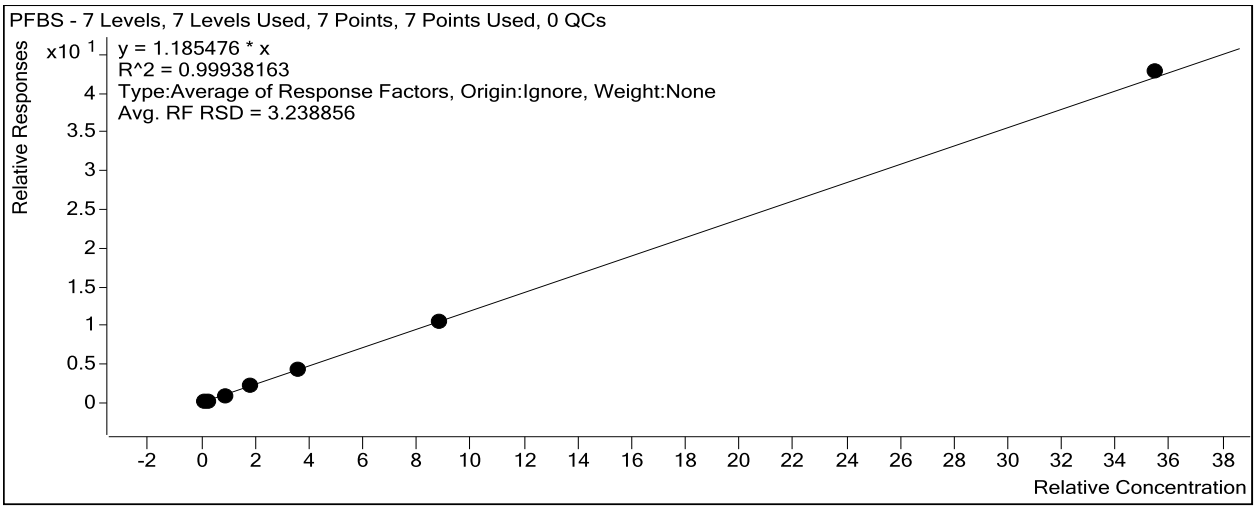
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	56666	5.0000	11333.2532
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	60140	5.0000	12027.9674
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	60442	5.0000	12088.3291
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	56489	5.0000	11297.7543
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	60121	5.0000	12024.1043
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	57327	5.0000	11465.4094
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	51156	5.0000	10231.2291

Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	5905	0.4435	1.1749

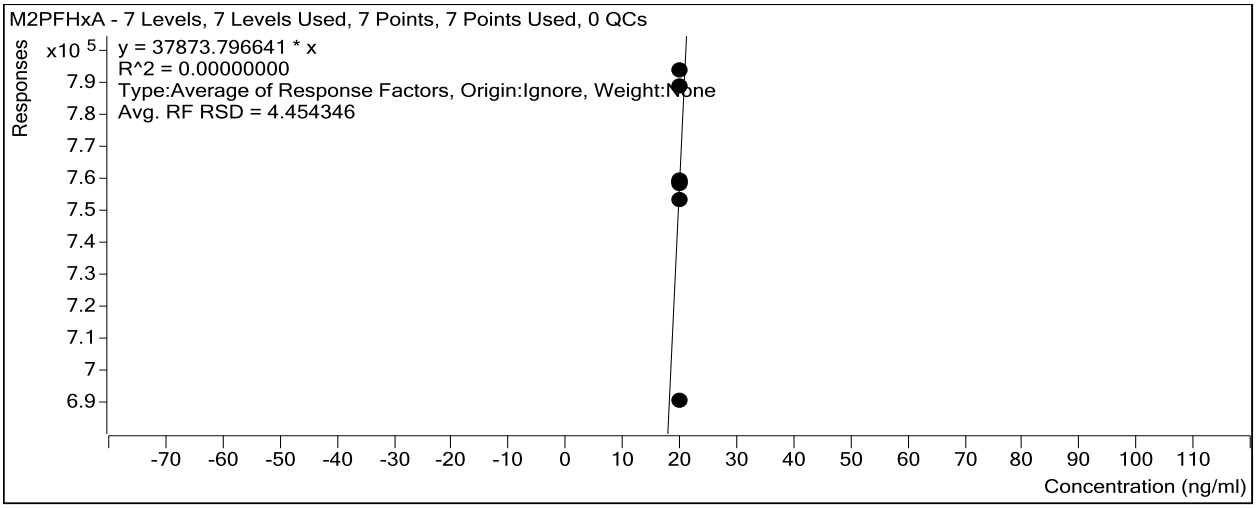
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	15843	1.1088	1.1879
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	59466	4.4350	1.1092
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	123339	8.8700	1.2308
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	252861	17.7400	1.1854
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	609333	44.3500	1.1983
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	2199400	177.4000	1.2118



Target Compound *PFMBA*

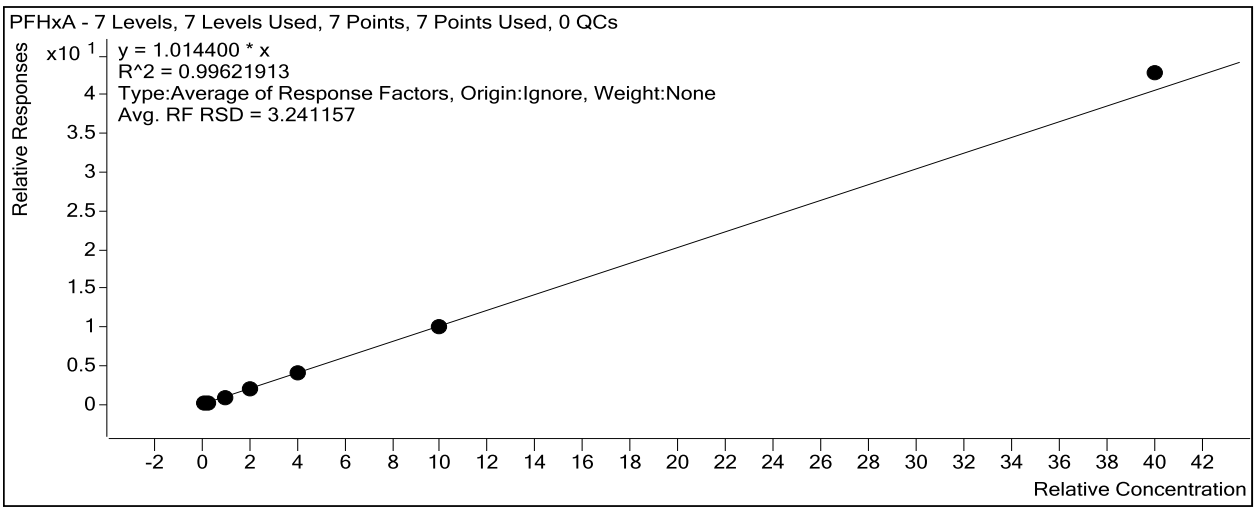
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	10232	0.5000	0.5175
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	25729	1.2500	0.5024
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	100452	5.0000	0.4809
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	206982	10.0000	0.5249
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	421003	20.0000	0.5000
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	1023119	50.0000	0.5074
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	3536671	200.0000	0.4864

D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	690438	20.0000	34521.9052

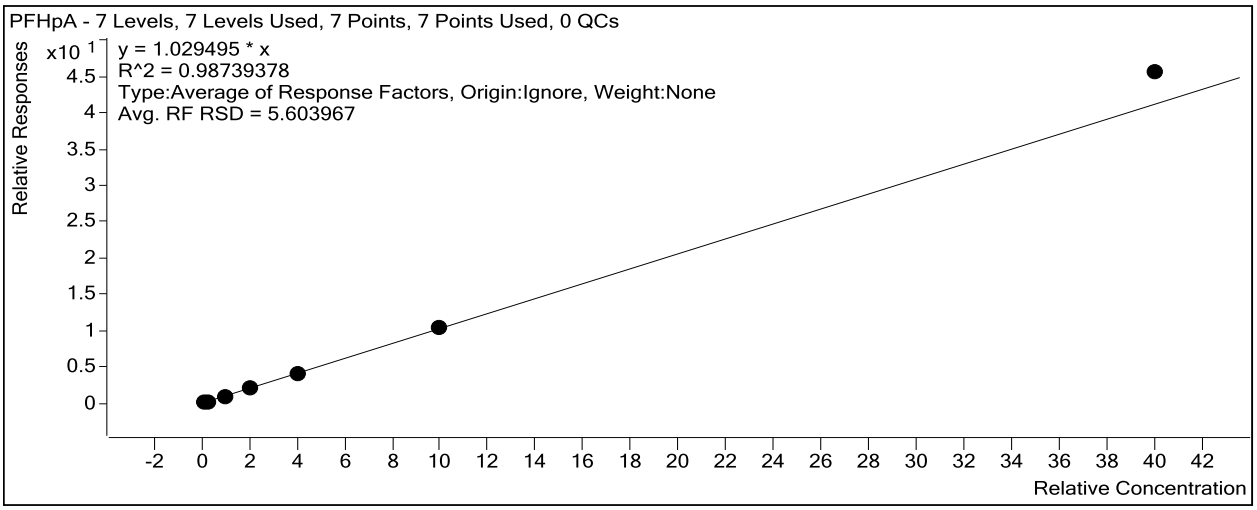


Target Compound *PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	20166	0.5000	1.0200
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	51560	1.2500	1.0069
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	201613	5.0000	0.9652
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	405010	10.0000	1.0271
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	836952	20.0000	0.9940
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	2046164	50.0000	1.0148
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	7800799	200.0000	1.0728



Target Compound *PFPeS*

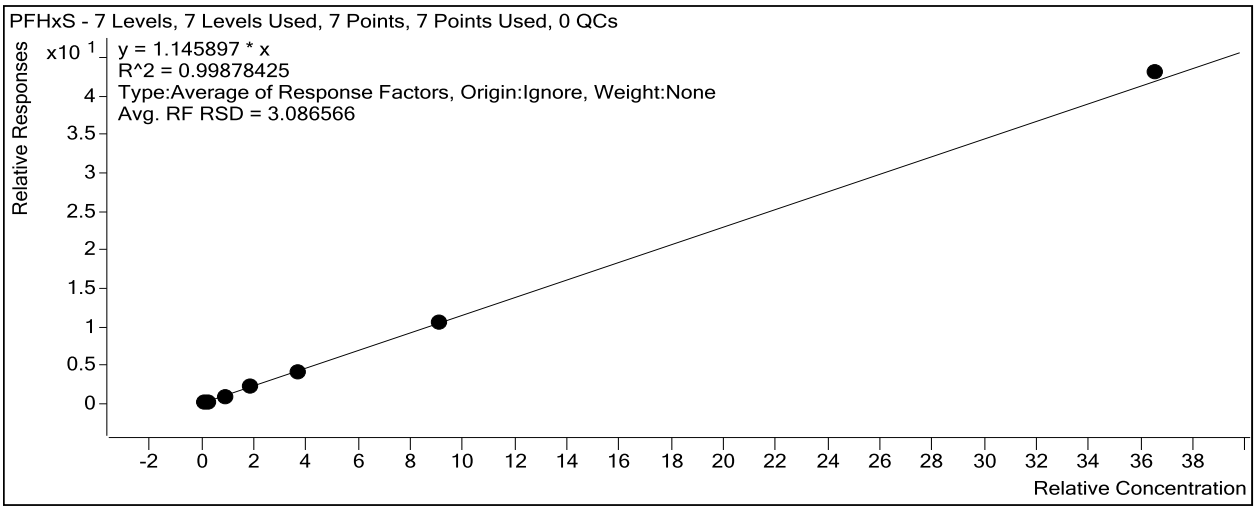


Extracted ISTD *M4PFHpA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	327219	5.0000	65443.8745
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	335436	5.0000	67087.1052
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	335531	5.0000	67106.1102
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	315987	5.0000	63197.4521
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	333926	5.0000	66785.2115
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	324225	5.0000	64844.9409
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	295588	5.0000	59117.5224

Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	4854	0.4570	1.1685
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	12319	1.1425	1.1142
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	48128	4.5700	1.0849
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	96904	9.1400	1.1764
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	199827	18.2800	1.1469
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	484575	45.7000	1.1481
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	1760244	182.8000	1.1823

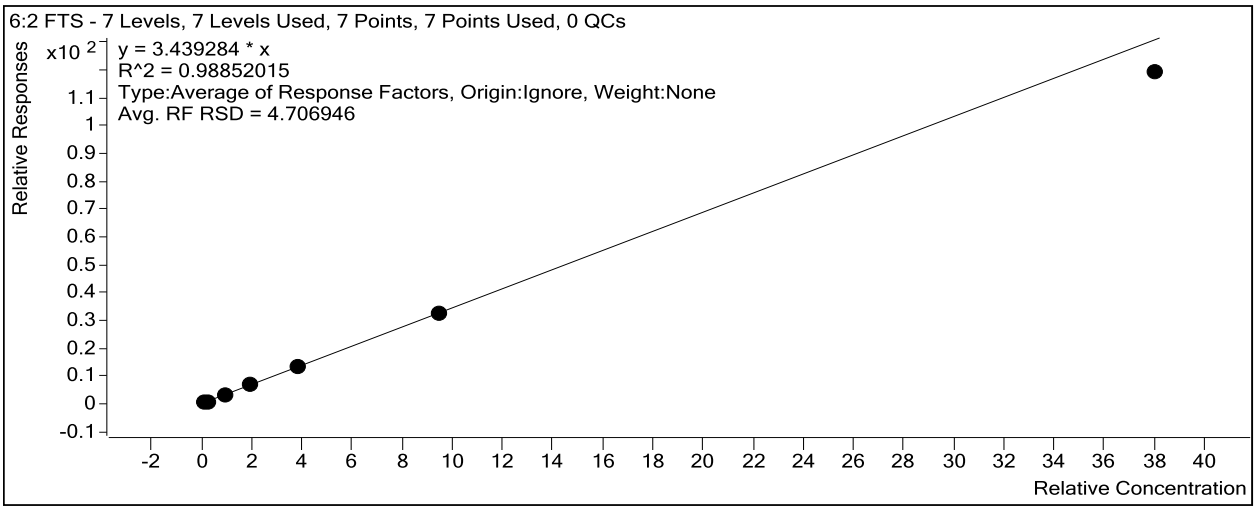


Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	45453	5.0000	9090.5946
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	48390	5.0000	9677.9458
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	48538	5.0000	9707.5358
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	45063	5.0000	9012.5044
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	47655	5.0000	9530.9394
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	46178	5.0000	9235.5098
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	40723	5.0000	8144.5416

Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	37981	0.4725	1.5763
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	100097	1.1813	1.6505
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	395196	4.7250	1.5969
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	795977	9.4500	1.7048
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	1668887	18.9000	1.7173
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	4139114	47.2500	1.7448
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	16690487	189.0000	2.0149



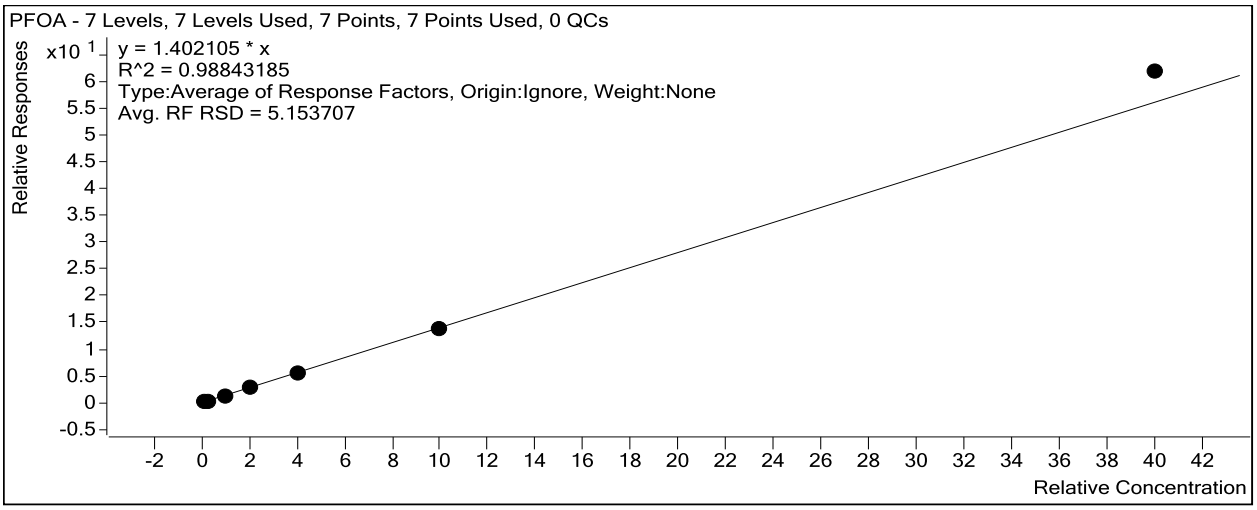
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	254972	5.0000	50994.4640
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	256700	5.0000	51339.9673
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	261880	5.0000	52375.9399
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	247033	5.0000	49406.5940
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	257094	5.0000	51418.8129
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	251033	5.0000	50206.6510
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	219136	5.0000	43827.1656

Instrument ISTD *MPFOA*

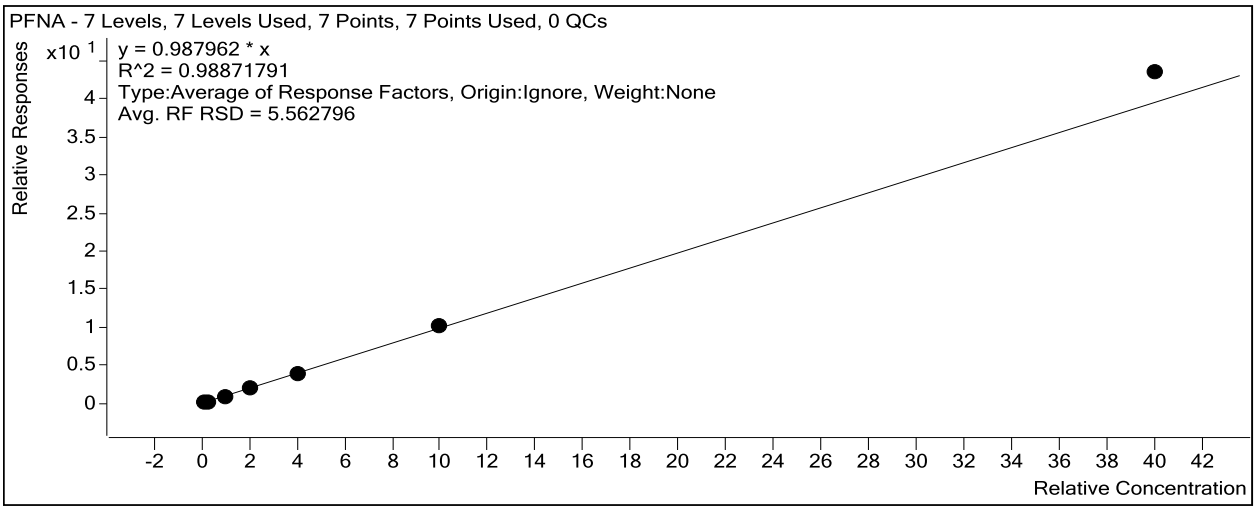
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	1671020	25.0000	66840.7874
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	1697001	25.0000	67880.0587
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	1600087	25.0000	64003.4818
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	1602554	25.0000	64102.1787
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	1715890	25.0000	68635.6044
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	1599573	25.0000	63982.9377
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	1443484	25.0000	57739.3425

D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	35210	0.5000	1.3809
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	87087	1.2500	1.3570
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	345703	5.0000	1.3201
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	699357	10.0000	1.4155
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	1440629	20.0000	1.4009
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	3490684	50.0000	1.3905
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	13584433	200.0000	1.5498



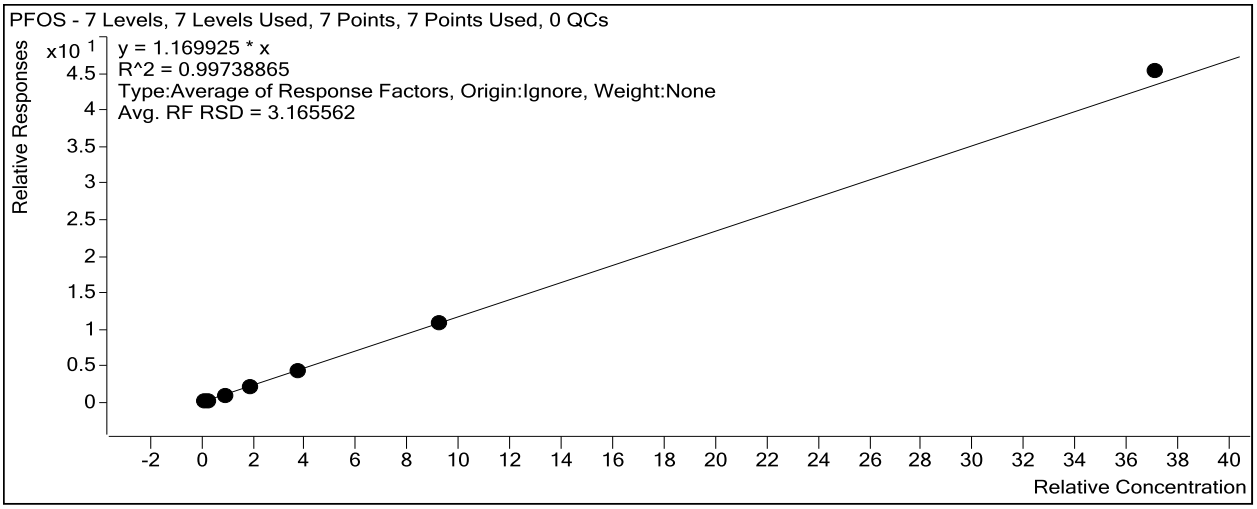
Target Compound *PFHpS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	4839	0.4765	1.1172
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	12292	1.1913	1.0661
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	49114	4.7650	1.0618
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	101186	9.5300	1.1781
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	202708	19.0600	1.1159
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	488999	47.6500	1.1112
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	1712410	190.6000	1.1031



Target Compound *PFOS*

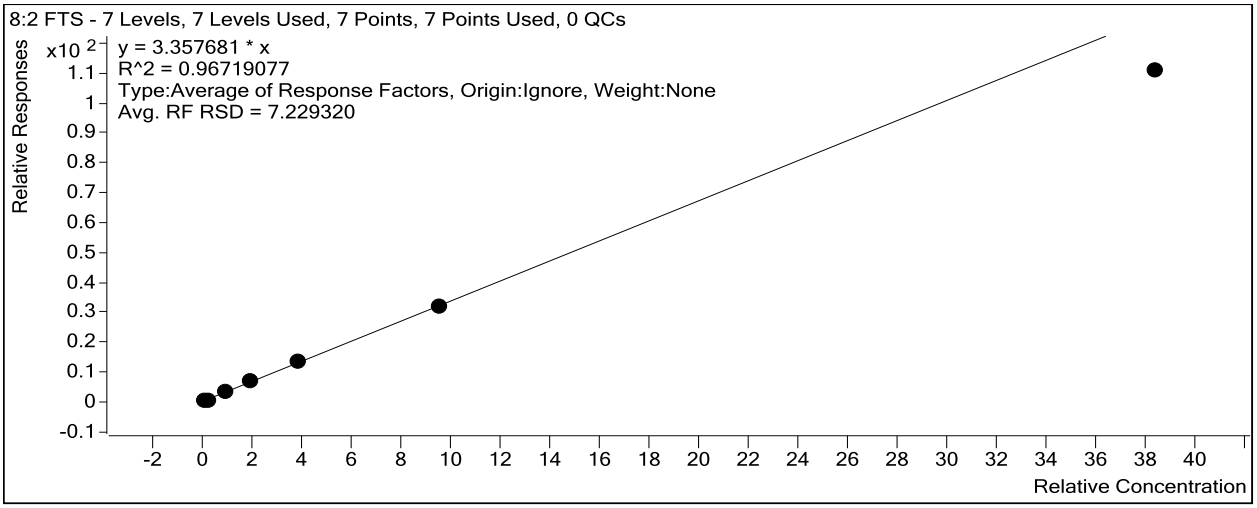
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	4595	0.4640	1.1780
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	11523	1.1600	1.1514
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	44111	4.6400	1.1061
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	90728	9.2800	1.1952
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	186088	18.5600	1.1641
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	443227	46.4000	1.1694
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	1605678	185.6000	1.2253



Extracted ISTD *M8PFOS*

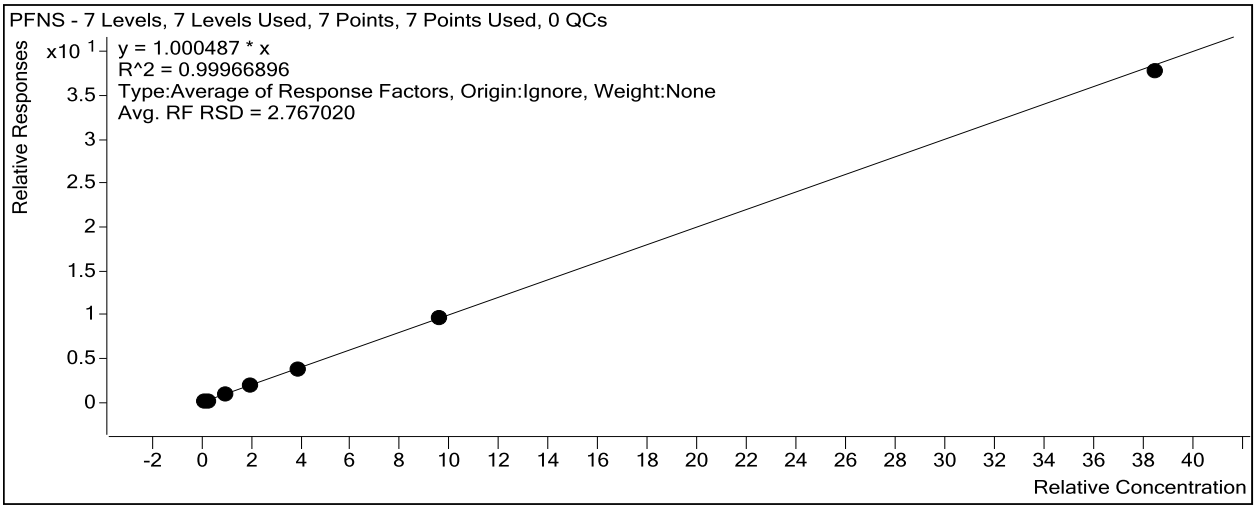
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	873728	192.0000	2.8960



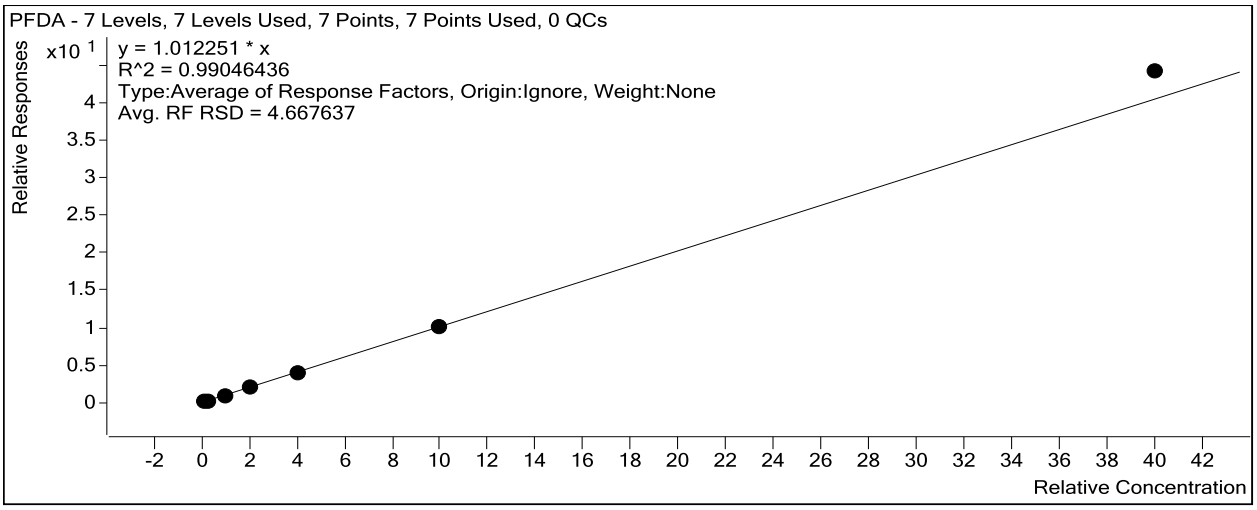
Target Compound *PFNS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	3915	0.4810	0.9683
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	10665	1.2025	1.0279
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	40371	4.8100	0.9765
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	82220	9.6200	1.0448
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	165227	19.2400	0.9970
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	394463	48.1000	1.0040
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	1337850	192.4000	0.9848



Extracted ISTD *M6PFDA*

D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	74080	1.2500	0.9726
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	291487	5.0000	0.9789
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	586642	10.0000	1.0364
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	1179081	20.0000	0.9948
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	2883473	50.0000	1.0074
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	10701446	200.0000	1.1081



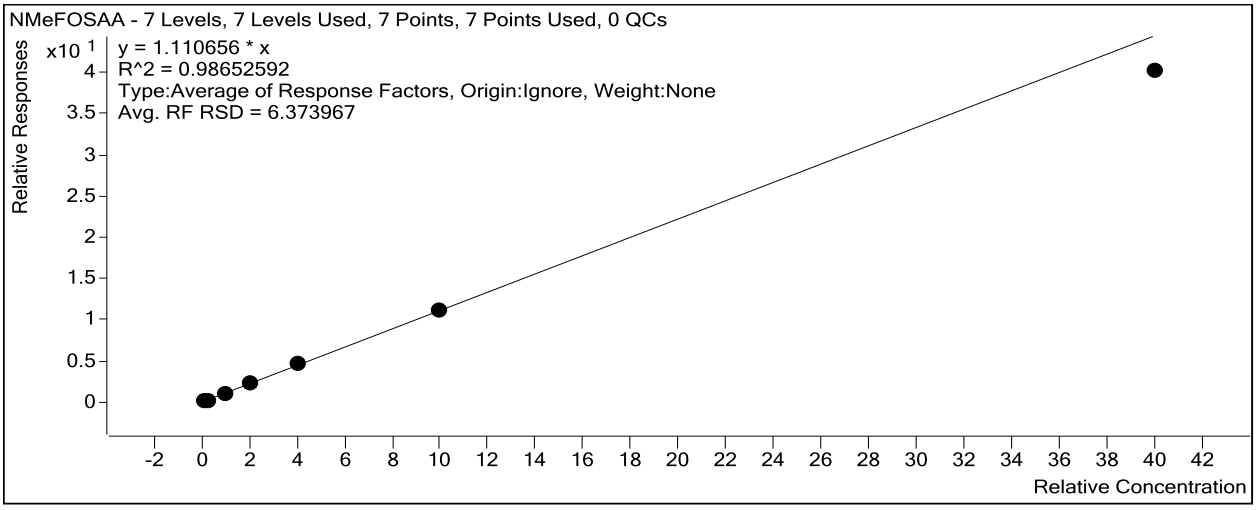
Extracted ISTD *d3-NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	26929	5.0000	5385.7548
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	26859	5.0000	5371.8855
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	28189	5.0000	5637.8781
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	25462	5.0000	5092.4986
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	26545	5.0000	5308.9479
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	27241	5.0000	5448.2632
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	28483	5.0000	5696.5142

Target Compound *NMeFOSAA*

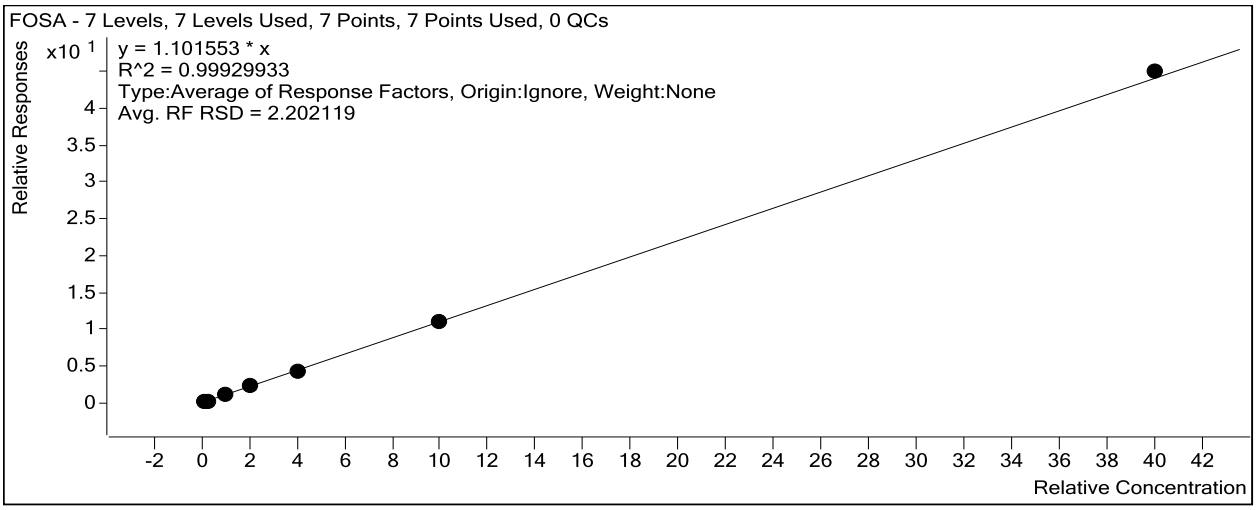
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	3244	0.5000	1.2048
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	7423	1.2500	1.1055
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	29059	5.0000	1.0308
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	58885	10.0000	1.1563

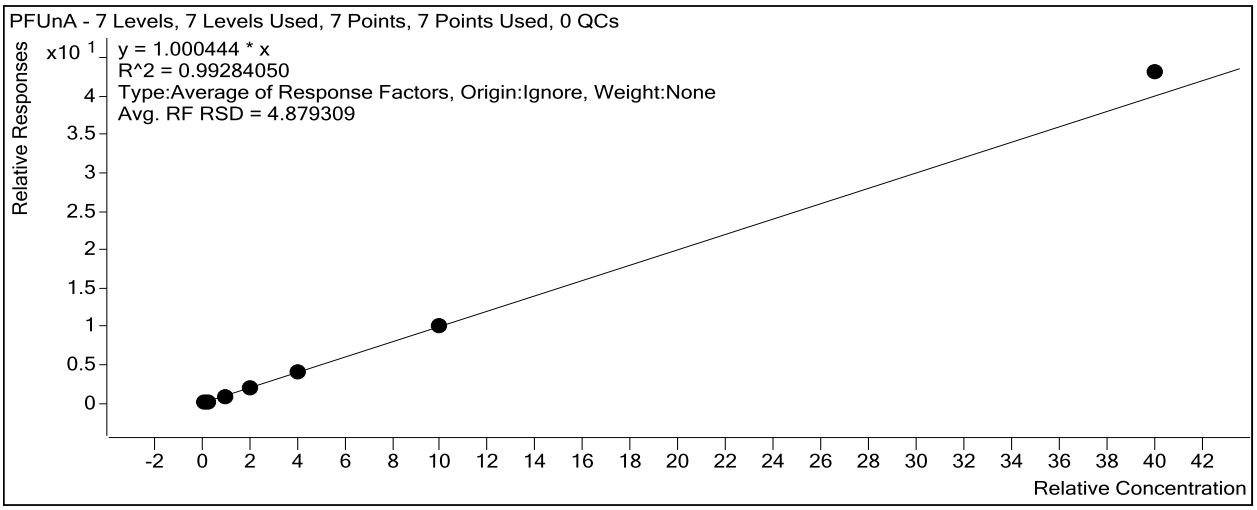
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	122784	20.0000	1.1564
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	303255	50.0000	1.1132
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	1147938	200.0000	1.0076



Target Compound *FOSA*

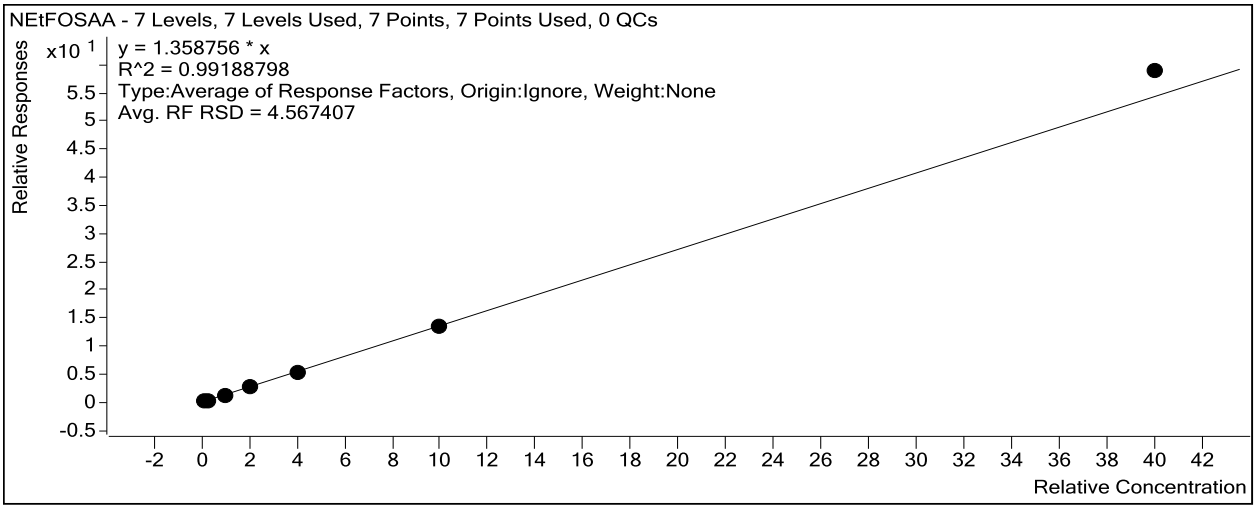
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	10489	0.5000	1.1150
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	26481	1.2500	1.0820
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	101379	5.0000	1.0621
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	208178	10.0000	1.1249
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	426499	20.0000	1.0903
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	1053055	50.0000	1.1087
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	4113054	200.0000	1.1278





Target Compound *NEtFOSAA*

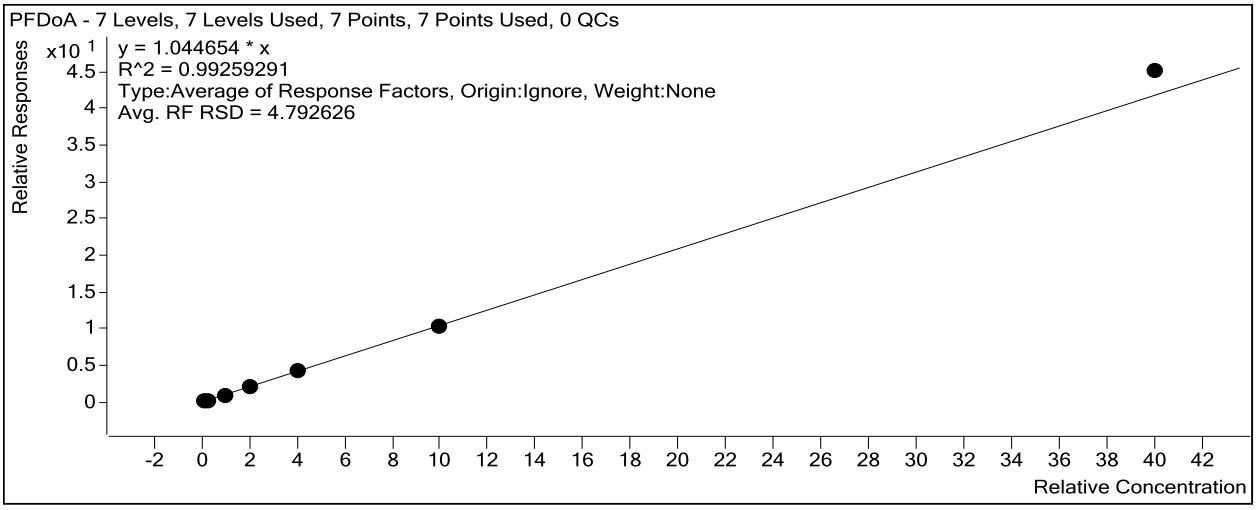
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	6254	0.5000	1.3662
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	14817	1.2500	1.2875
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	56985	5.0000	1.2968
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	118457	10.0000	1.3739
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	240965	20.0000	1.3533
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	566102	50.0000	1.3570
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	1947323	200.0000	1.4766



Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

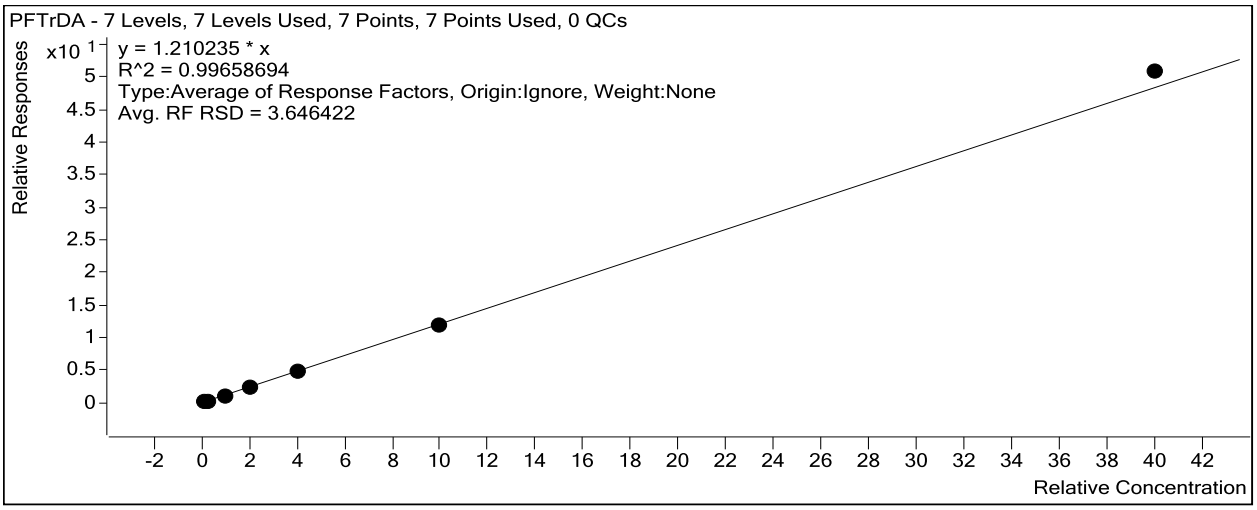
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	664183	10.0000	1.0891
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	1346881	20.0000	1.0447
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	3279942	50.0000	1.0382
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	13094681	200.0000	1.1308



Target Compound *10:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	3620	0.4820	3.3663
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	7230	1.2050	2.9232
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	27952	4.8200	2.9088
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	59248	9.6400	3.3417
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	114583	19.2800	3.0826
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	269851	48.2000	3.0717
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	771771	192.8000	2.5474

D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	39702	0.5000	1.1994
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	98695	1.2500	1.1788
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	372556	5.0000	1.1519
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	761419	10.0000	1.2485
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	1592663	20.0000	1.2353
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	3734215	50.0000	1.1820
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	14772918	200.0000	1.2757

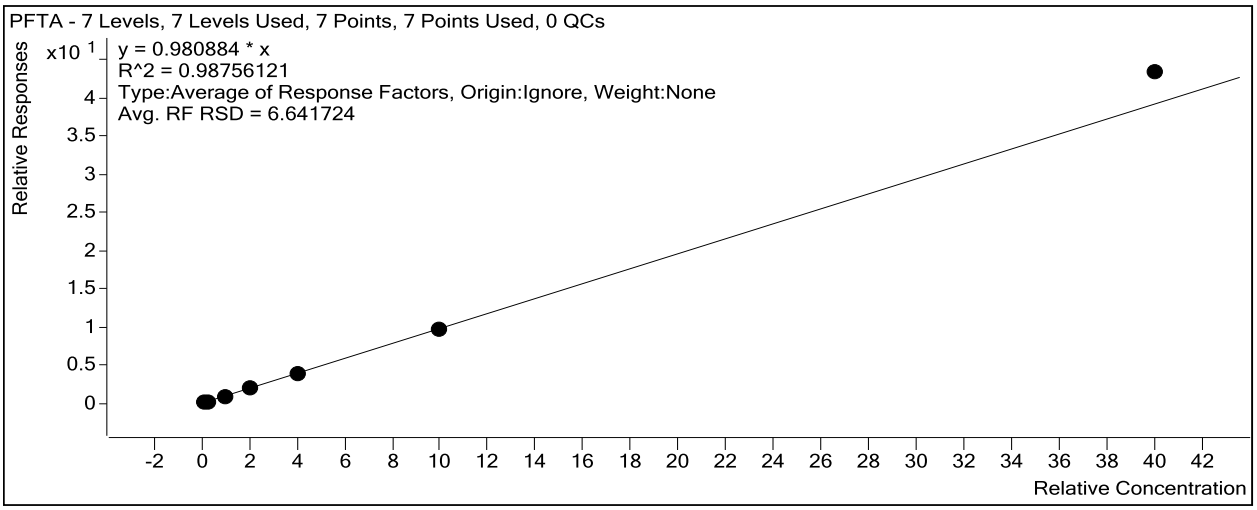


Extracted ISTD *d-NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	23618	5.0000	4723.5571
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	25467	5.0000	5093.3259
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	24542	5.0000	4908.4917
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	23883	5.0000	4776.5647
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	25830	5.0000	5166.0513
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	25290	5.0000	5057.9194
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	26067	5.0000	5213.3827

Target Compound *NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	2566	0.5000	1.0863
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	6063	1.2500	0.9523
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	25923	5.0000	1.0563



Extracted ISTD *d9-NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	21383	5.0000	4276.5808
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	22376	5.0000	4475.2028
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	21802	5.0000	4360.4270
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	20943	5.0000	4188.6944
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	21874	5.0000	4374.7795
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	20939	5.0000	4187.8573
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	20471	5.0000	4094.2666

Extracted ISTD *d-NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2211206CCAL\2211206C_1.d	Calibration	1	☑	26051	5.0000	5210.1229
D:\MassHunter\Data\2211206CCAL\2211206C_2.d	Calibration	2	☑	26850	5.0000	5369.9764
D:\MassHunter\Data\2211206CCAL\2211206C_3.d	Calibration	3	☑	26684	5.0000	5336.8037
D:\MassHunter\Data\2211206CCAL\2211206C_4.d	Calibration	4	☑	25220	5.0000	5043.9467
D:\MassHunter\Data\2211206CCAL\2211206C_5.d	Calibration	5	☑	26842	5.0000	5368.4187
D:\MassHunter\Data\2211206CCAL\2211206C_6.d	Calibration	6	☑	26662	5.0000	5332.4829
D:\MassHunter\Data\2211206CCAL\2211206C_7.d	Calibration	7	☑	24858	5.0000	4971.5307

Target Compound *NEtFOSE*

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	11/30/2021 13:25	Lab File ID:	2211130A_13.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728084

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10300	109	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10600	110	70	130	
NEtFOSAA	ng/L	10000	10200	102	70	130	
NMeFOSAA	ng/L	10000	10900	109	70	130	
Perfluorobutanoic acid	ng/L	10000	10600	106	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9250	104	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroheptanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9660	106	70	130	
Perfluorononanoic acid	ng/L	10000	10700	107	70	130	
Perfluorooctanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9790	105	70	130	
Perfluoropentanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotridecanoic acid	ng/L	10000	10800	108	70	130	
Perfluoroundecanoic acid	ng/L	10000	10600	106	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	11/30/2021 16:53	Lab File ID:	2211130A_27.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728084

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10200	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10900	114	70	130	
NEtFOSAA	ng/L	10000	10100	101	70	130	
NMeFOSAA	ng/L	10000	10700	107	70	130	
Perfluorobutanoic acid	ng/L	10000	10500	105	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9360	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroheptanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9610	105	70	130	
Perfluorononanoic acid	ng/L	10000	10600	106	70	130	
Perfluorooctanoic acid	ng/L	10000	10600	106	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9520	103	70	130	
Perfluoropentanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10700	107	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	11/30/2021 19:36	Lab File ID:	2211130A_38.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728084

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10500	110	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10500	110	70	130	
NEtFOSAA	ng/L	10000	10700	107	70	130	
NMeFOSAA	ng/L	10000	10500	105	70	130	
Perfluorobutanoic acid	ng/L	10000	10500	105	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9410	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroheptanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9550	104	70	130	
Perfluorononanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9580	103	70	130	
Perfluoropentanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10200	102	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	12/07/2021 13:43	Lab File ID:	2211207A_15.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728786

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10300	109	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10600	110	70	130	
NEtFOSAA	ng/L	10000	9680	97	70	130	
NMeFOSAA	ng/L	10000	9960	100	70	130	
Perfluorobutanoic acid	ng/L	10000	10400	104	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9180	103	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10200	102	70	130	
Perfluoroheptanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanoic acid	ng/L	10000	10300	103	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9190	101	70	130	
Perfluorononanoic acid	ng/L	10000	10200	102	70	130	
Perfluorooctanoic acid	ng/L	10000	10200	102	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9360	101	70	130	
Perfluoropentanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	10300	103	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	12/07/2021 18:40	Lab File ID:	2211207A_35.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728786

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10000	105	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10600	110	70	130	
NEtFOSAA	ng/L	10000	10000	100	70	130	
NMeFOSAA	ng/L	10000	9900	99	70	130	
Perfluorobutanoic acid	ng/L	10000	10400	104	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9210	104	70	130	
Perfluorodecanoic acid	ng/L	10000	10100	101	70	130	
Perfluorododecanoic acid	ng/L	10000	10300	103	70	130	
Perfluoroheptanoic acid	ng/L	10000	10100	101	70	130	
Perfluorohexanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9440	103	70	130	
Perfluorononanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanoic acid	ng/L	10000	10100	101	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9470	102	70	130	
Perfluoropentanoic acid	ng/L	10000	10100	101	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10200	102	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	10300	103	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	221112126	Instrument ID:	QQQ4
Analysis Date:	12/07/2021 21:24	Lab File ID:	2211207A_46.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728786

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10500	110	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10600	111	70	130	
NEtFOSAA	ng/L	10000	9890	99	70	130	
NMeFOSAA	ng/L	10000	10200	102	70	130	
Perfluorobutanoic acid	ng/L	10000	10400	104	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9170	103	70	130	
Perfluorodecanoic acid	ng/L	10000	10200	102	70	130	
Perfluorododecanoic acid	ng/L	10000	10300	103	70	130	
Perfluoroheptanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9300	102	70	130	
Perfluorononanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanoic acid	ng/L	10000	10100	101	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9490	102	70	130	
Perfluoropentanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10600	106	70	130	

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	221112126	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ4
Analysis Date:	11/30/21 10:49	Lab File ID:	2211130A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728084

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	1174839	786405	934393	176697

CLIENT SAMPLE ID	*LAB SAMP ID*		*#*		*#*		*#*		*#*
MB2278878	2278878	2592279	*	1716436	*	2066452	*	377173	*
LCS2278879	2278879	1197990		805434		978855		180344	
LCSD2278880	2278880	1224786		819256		991674		185977	

*for information only

AREA UPPER LIMIT = +50% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits
* Value outside QC limits

FORM 8I - ORG

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	221112126	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ4
Analysis Date:	12/07/21 10:44	Lab File ID:	2211207A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	728786

		M2PFDA		**M2PFHxA**		**M2PFOA**		**M4PFOS**	
		Area		***Area***		***Area***		***Area***	
STANDARD		1150354		783912		978622		185407	
CLIENT SAMPLE ID	***LAB SAMP ID***		***#***		***#***		***#***		***#***
ALB-DECON-01	22111212601	1274393		867261		1081325		196458	

AREA UPPER LIMIT = +50% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits

* Value outside QC limits

FORM 8I - ORG

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220110A.batch.bin
Current ICAL Batch: 2220110ACAL
ICAL Std (ID/Exp): 019-73-6 7/6/22
ICV Std (ID/Exp): 019-75-3 1/26/22

LIMS Batch (HBN): 731351
20mM NH4OAc (ID/Exp): 019-74-4 1/12/22 9:00
Methanol (ID/Exp): 2131082 7/31/26
EIS Mix (ID/Exp): 019-71-9 7/3/22
IIS Mix (ID/Exp): 019-73-5 6/14/22

Acquisition time	Data File	Name	Type	Dilution	Comment
01/10/22 11:36:48	2220110A_1.d	1201	Sample	1	SXA,QQQ4;ICAL; EIS HIGH
01/10/22 11:57:16	2220110A_2.d	1202	Cal	1	SXA,QQQ4;ICAL
01/10/22 12:12:16	2220110A_3.d	1203	Cal	1	SXA,QQQ4;ICAL
01/10/22 12:27:04	2220110A_4.d	1204	Cal	1	SXA,QQQ4;ICAL
01/10/22 12:41:53	2220110A_5.d	1205	Cal	1	SXA,QQQ4;ICAL
01/10/22 12:56:41	2220110A_6.d	1206	Cal	1	SXA,QQQ4;ICAL
01/10/22 13:11:30	2220110A_7.d	1207	Cal	1	SXA,QQQ4;ICAL
01/10/22 13:33:37	2220110A_8.d	1201	Cal	1	SXA,QQQ4;ICAL
01/10/22 13:48:35	2220110A_9.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
01/10/22 14:04:53	2220110A_10.d	1600	Sample	1	SXA,QQQ4;ICV; COMPOUNDS HIGH
01/10/22 14:19:49	2220110A_11.d	1450	QC	1	SXA,QQQ4;CCV
01/10/22 14:39:37	2220110A_12.d	1600	Sample	1	SXA,QQQ4;ICV; EIS failure
01/10/22 15:04:39	2220110A_13.d	1600	Sample	1	SXA,QQQ4;ICV
01/10/22 15:38:03	2220110A_15.d	22112236704*200	Sample	1	SXA,QQQ4;730573:TA_PRE_DAI
01/10/22 15:53:01	2220110A_16.d	22112236704*200 dup	Sample	1	SXA,QQQ4;730573:TA_PRE_DAI
01/10/22 16:07:49	2220110A_17.d	22112236704*200 dup*ms	QC	1	SXA,QQQ4;730573:TA_PRE_DAI
01/10/22 16:22:37	2220110A_18.d	22112236705*200	Sample	1	SXA,QQQ4;730573:TA_PRE_DAI
01/10/22 16:37:25	2220110A_19.d	22112236705*200 dup	Sample	1	SXA,QQQ4;730573:TA_PRE_DAI
01/10/22 16:52:13	2220110A_20.d	22112236705*200 dup*ms	QC	1	SXA,QQQ4;730573:TA_PRE_DAI
01/10/22 17:07:01	2220110A_21.d	22112236704*200	Sample	1	SXA,QQQ4;730660:TA_POST_DAI
01/10/22 17:21:52	2220110A_22.d	22112236704*200 dup	Sample	1	SXA,QQQ4;730660:TA_POST_DAI
01/10/22 17:36:40	2220110A_23.d	22112236704*200 dup*ms	QC	1	SXA,QQQ4;730660:TA_POST_DAI
01/10/22 17:51:29	2220110A_24.d	22112236705*200	Sample	1	SXA,QQQ4;730660:TA_POST_DAI
01/10/22 18:06:17	2220110A_25.d	22112236705*200 dup	Sample	1	SXA,QQQ4;730660:TA_POST_DAI
01/10/22 18:21:05	2220110A_26.d	22112236705*200 dup*ms	QC	1	SXA,QQQ4;730660:TA_POST_DAI
01/10/22 18:35:53	2220110A_27.d	1400	QC	1	SXA,QQQ4;CCV
01/10/22 18:50:59	2220110A_28.d	2295000	Blank	1	ADA,QQQ4;731286; TA_PRE_W
01/10/22 19:06:04	2220110A_29.d	2295001	QC	1	ADA,QQQ4;731286; TA_PRE_W
01/10/22 19:20:52	2220110A_30.d	2295002	QC	1	ADA,QQQ4;731286; TA_PRE_W
01/10/22 19:35:40	2220110A_31.d	22112236701	Sample	1	ADA,QQQ4;731286; TA_PRE_W
01/10/22 19:50:32	2220110A_32.d	22112236702	Sample	1	ADA,QQQ4;731286; TA_PRE_W
01/10/22 20:05:20	2220110A_33.d	22112236703	Sample	1	ADA,QQQ4;731286; TA_PRE_W
01/10/22 20:20:09	2220110A_34.d	2294956	Blank	1	ADA,QQQ4;731277
01/10/22 20:34:57	2220110A_35.d	2294957	QC	1	ADA,QQQ4;731277
01/10/22 20:49:45	2220110A_36.d	2294958	QC	1	ADA,QQQ4;731277
01/10/22 21:04:32	2220110A_37.d	22201053801	Sample	1	ADA,QQQ4;731277
01/10/22 21:19:21	2220110A_38.d	22201053802	Sample	1	ADA,QQQ4;731277
01/10/22 21:34:09	2220110A_39.d	22201053803	Sample	1	ADA,QQQ4;731277
01/10/22 21:48:59	2220110A_40.d	22201053804	Sample	1	ADA,QQQ4;731277
01/10/22 22:03:47	2220110A_41.d	22201053805	Sample	1	ADA,QQQ4;731277
01/10/22 22:18:38	2220110A_42.d	22201053806	Sample	1	ADA,QQQ4;731277
01/10/22 22:33:26	2220110A_43.d	22201061214	Sample	1	ADA,QQQ4;731277
01/10/22 22:48:14	2220110A_44.d	1400	QC	1	ADA,QQQ4;CCV
01/10/22 23:03:19	2220110A_45.d	22201073701	Sample	1	ADA,QQQ4;731277
01/10/22 23:18:23	2220110A_46.d	22201073702	Sample	1	ADA,QQQ4;731277
01/10/22 23:33:11	2220110A_47.d	22201073703	Sample	1	ADA,QQQ4;731277
01/10/22 23:48:00	2220110A_48.d	22201073704	Sample	1	ADA,QQQ4;731277
01/11/22 00:02:49	2220110A_49.d	22201073705	Sample	1	ADA,QQQ4;731277
01/11/22 00:17:38	2220110A_50.d	22201073501	Sample	1	ADA,QQQ4;731277
01/11/22 00:32:26	2220110A_51.d	22201073706	Sample	1	ADA,QQQ4;731277
01/11/22 00:47:17	2220110A_52.d	22201065801	Sample	1	ADA,QQQ4;731277
01/11/22 01:02:05	2220110A_53.d	1400	QC	1	ADA,QQQ4;CCV

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220116B.batch.bin
Current ICAL Batch: 2220111CCAL
ICAL Std (ID/Exp): 019-73-6 7/6/22
ICV Std (ID/Exp): 019-75-3 1/26/22

LIMS Batch (HBN): 731694
20mM NH4OAc (ID/Exp): 019-81-2 1/18/22 8:48 AM
Methanol (ID/Exp): 2131082 7/31/26
EIS Mix (ID/Exp): 019-71-9 7/3/22
IIS Mix (ID/Exp): 019-73-5 6/14/22

Acquisition time	Data File	Name	Type	Dilution	Comment
01/11/22 16:47:07	2220111C_1.d	1201	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:04:35	2220111C_2.d	1202	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:19:32	2220111C_3.d	1203	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:34:19	2220111C_4.d	1204	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:49:10	2220111C_5.d	1205	Cal	1	SXA,QQQ4;ICAL
01/11/22 18:03:59	2220111C_6.d	1206	Cal	1	SXA,QQQ4;ICAL
01/11/22 18:18:47	2220111C_7.d	1207	Cal	1	SXA,QQQ4;ICAL
01/11/22 18:38:25	2220111C_8.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
01/11/22 18:53:22	2220111C_9.d	1600	Sample	1	SXA,QQQ4;ICV
01/11/22 19:08:10	2220111C_10.d	1450	QC	1	SXA,QQQ4;CCV
01/16/22 17:51:01	2220116B_1.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
01/16/22 18:05:50	2220116B_2.d	1450	QC	1	SXA,QQQ4;CCV
01/16/22 18:20:38	2220116B_3.d	2296552	Blank	1	SXA,QQQ4;731572
01/16/22 18:35:43	2220116B_4.d	2296553	QC	1	SXA,QQQ4;731572
01/16/22 18:50:32	2220116B_5.d	2296554	QC	1	SXA,QQQ4;731572
01/16/22 19:05:21	2220116B_6.d	22201073901	Sample	1	SXA,QQQ4;731572
01/16/22 19:20:17	2220116B_7.d	22201073902	Sample	1	SXA,QQQ4;731572
01/16/22 19:35:06	2220116B_8.d	22201073903	Sample	1	SXA,QQQ4;731572
01/16/22 19:49:55	2220116B_9.d	22201073904	Sample	1	SXA,QQQ4;731572
01/16/22 20:04:44	2220116B_10.d	22201073905	Sample	1	SXA,QQQ4;731572; IIS double spiked
01/16/22 20:19:35	2220116B_11.d	22201073906	Sample	1	SXA,QQQ4;731572
01/16/22 20:34:26	2220116B_12.d	22201073907	Sample	1	SXA,QQQ4;731572
01/16/22 20:49:14	2220116B_13.d	22201073908	Sample	1	SXA,QQQ4;731572
01/16/22 21:04:03	2220116B_14.d	22201061201	Sample	1	SXA,QQQ4;731572
01/16/22 21:18:52	2220116B_15.d	22201061202	Sample	1	SXA,QQQ4;731572
01/16/22 21:33:41	2220116B_16.d	1400	QC	1	SXA,QQQ4;CCV
01/16/22 21:48:46	2220116B_17.d	22201061203	Sample	1	SXA,QQQ4;731572
01/16/22 22:03:51	2220116B_18.d	22201061204	QC	1	SXA,QQQ4;731572
01/16/22 22:18:40	2220116B_19.d	22201061205	QC	1	SXA,QQQ4;731572
01/16/22 22:33:29	2220116B_20.d	22201061206	Sample	1	SXA,QQQ4;731572
01/16/22 22:48:20	2220116B_21.d	22201061207	Sample	1	SXA,QQQ4;731572
01/16/22 23:03:09	2220116B_22.d	22201061208	Sample	1	SXA,QQQ4;731572
01/16/22 23:18:00	2220116B_23.d	22201061209	Sample	1	SXA,QQQ4;731572
01/16/22 23:32:49	2220116B_24.d	22201061210	Sample	1	SXA,QQQ4;731572
01/16/22 23:47:37	2220116B_25.d	22201061211	Sample	1	SXA,QQQ4;731572
01/17/22 00:02:26	2220116B_26.d	1400	QC	1	SXA,QQQ4;CCV

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220117A.batch.bin
Current ICAL Batch: 2220111CCAL
ICAL Std (ID/Exp): 019-73-6 7/6/22
ICV Std (ID/Exp): 019-75-3 1/26/22

LIMS Batch (HBN): 731743/731768
20mM NH4OAc (ID/Exp): 019-81-2 1/18/22 8:48 AM
Methanol (ID/Exp): 2131082 7/31/26
EIS Mix (ID/Exp): 019-71-9 7/3/22
IIS Mix (ID/Exp): 019-73-5 6/14/22

Acquisition time	Data File	Name	Type	Dilution	Comment
01/11/22 16:47:07	2220111C_1.d	1201	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:04:35	2220111C_2.d	1202	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:19:32	2220111C_3.d	1203	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:34:19	2220111C_4.d	1204	Cal	1	SXA,QQQ4;ICAL
01/11/22 17:49:10	2220111C_5.d	1205	Cal	1	SXA,QQQ4;ICAL
01/11/22 18:03:59	2220111C_6.d	1206	Cal	1	SXA,QQQ4;ICAL
01/11/22 18:18:47	2220111C_7.d	1207	Cal	1	SXA,QQQ4;ICAL
01/11/22 18:38:25	2220111C_8.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
01/11/22 18:53:22	2220111C_9.d	1600	Sample	1	SXA,QQQ4;ICV
01/11/22 19:08:10	2220111C_10.d	1450	QC	1	SXA,QQQ4;CCV
01/17/22 09:29:21	2220117A_1.d	1400RT	QC	1	SXA,QQQ4;RT TEST
01/17/22 09:53:32	2220117A_2.d	1500	Blank	1	SXA,QQQ4;Instrument Blank
01/17/22 10:08:30	2220117A_3.d	1450	QC	1	SXA,QQQ4;CCV
01/17/22 10:25:59	2220117A_4.d	2297199	Blank	1	SXA,QQQ4;731665_TA_POST_W
01/17/22 10:40:59	2220117A_5.d	2297200	QC	1	SXA,QQQ4;731665_TA_POST_W
01/17/22 10:55:47	2220117A_6.d	2297201	QC	1	SXA,QQQ4;731665_TA_POST_W
01/17/22 11:10:36	2220117A_7.d	22112236701	Sample	1	SXA,QQQ4;731665_TA_POST_W
01/17/22 11:25:25	2220117A_8.d	Reagent Blank	Blank	1	SXA,QQQ4;731665_TA_POST_W
01/17/22 11:40:13	2220117A_9.d	1400	QC	1	SXA,QQQ4;CCV
01/17/22 13:49:20	2220117A_10.d	1400	QC	1	SXA,QQQ4;CCV
01/17/22 14:04:17	2220117A_11.d	2297103	Blank	1	SXA,QQQ4;731655
01/17/22 14:19:22	2220117A_12.d	2297104	QC	1	SXA,QQQ4;731655
01/17/22 14:34:10	2220117A_13.d	2297105	QC	1	SXA,QQQ4;731655
01/17/22 14:48:58	2220117A_14.d	22201061213	Sample	1	SXA,QQQ4;731655
01/17/22 15:03:49	2220117A_15.d	22201102701	Sample	1	SXA,QQQ4;731655
01/17/22 15:18:37	2220117A_16.d	22201061212	Sample	1	SXA,QQQ4;731655
01/17/22 15:33:25	2220117A_17.d	1400	QC	1	SXA,QQQ4;CCV
01/17/22 16:55:38	2220117A_18.d	1400	QC	1	ADA,QQQ4;CCV
01/17/22 17:10:35	2220117A_19.d	2297430	Blank	1	ADA,QQQ4;731731
01/17/22 17:25:40	2220117A_20.d	2297431	QC	1	ADA,QQQ4;731731
01/17/22 17:40:28	2220117A_21.d	2297432	QC	1	ADA,QQQ4;731731
01/17/22 17:55:17	2220117A_22.d	22112310701	Sample	1	ADA,QQQ4;731731
01/17/22 18:10:06	2220117A_23.d	22112310702	Sample	1	ADA,QQQ4;731731
01/17/22 18:24:55	2220117A_24.d	1400	QC	1	ADA,QQQ4;CCV
01/17/22 18:40:03	2220117A_25.d	MB REAGENT	Blank	1	ADA,QQQ4;731466; TA_POST_W
01/17/22 18:55:08	2220117A_26.d	22201073901*10	Sample	10	ADA,QQQ4;731572
01/17/22 19:09:57	2220117A_27.d	1400	QC	1	ADA,QQQ4;CCV

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/10/2022 14:19	Lab File ID:	2220110A_11.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731351

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.51	92	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.64	95	70	130	
NEtFOSAA	ng/L	4.00	3.73	93	70	130	
NMeFOSAA	ng/L	4.00	3.97	99	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.66	91	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.26	92	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.64	91	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.62	91	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.62	91	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.76	94	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.38	93	70	130	
Perfluorononanoic acid	ng/L	4.00	3.62	91	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.70	93	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.65	98	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.68	92	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.67	92	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.70	93	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.54	88	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/16/2022 18:05	Lab File ID:	2220116B_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731694

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.80	100	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.74	97	70	130	
NEtFOSAA	ng/L	4.00	3.69	92	70	130	
NMeFOSAA	ng/L	4.00	4.06	102	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.70	93	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.28	93	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.73	93	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.70	92	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.54	88	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.91	98	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.37	92	70	130	
Perfluorononanoic acid	ng/L	4.00	3.56	89	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.57	89	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.46	93	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.71	93	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.73	93	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.90	98	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.78	95	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 10:08	Lab File ID:	2220117A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.70	97	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.61	94	70	130	
NEtFOSAA	ng/L	4.00	3.82	95	70	130	
NMeFOSAA	ng/L	4.00	4.14	103	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.69	92	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.34	94	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.74	93	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.72	93	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.54	88	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.85	96	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.47	95	70	130	
Perfluorononanoic acid	ng/L	4.00	3.62	90	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.71	93	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.56	96	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.74	94	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.78	95	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.94	98	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.60	90	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/10/2022 15:04	Lab File ID:	2220110A_13.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731351

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	12800	128	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	12100	120	70	130	
NEtFOSAA	ng/L	10000	11500	115	70	130	
NMeFOSAA	ng/L	10000	12200	122	70	130	
Perfluorobutanoic acid	ng/L	10000	11900	119	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	11900	119	70	130	
Perfluorodecanoic acid	ng/L	10000	12200	122	70	130	
Perfluorododecanoic acid	ng/L	10000	11200	112	70	130	
Perfluoroheptanoic acid	ng/L	10000	11900	119	70	130	
Perfluorohexanoic acid	ng/L	10100	11800	117	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	11700	117	70	130	
Perfluorononanoic acid	ng/L	10000	12500	125	70	130	
Perfluorooctanoic acid	ng/L	10100	11500	114	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	10900	109	70	130	
Perfluoropentanoic acid	ng/L	10100	12000	119	70	130	
Perfluorotetradecanoic acid	ng/L	10000	12600	126	70	130	
Perfluorotridecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroundecanoic acid	ng/L	10000	11500	115	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/11/2022 18:53	Lab File ID:	2220111C_9.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731554

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	13000	130	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	12300	121	70	130	
NEtFOSAA	ng/L	10000	11500	115	70	130	
NMeFOSAA	ng/L	10000	12300	123	70	130	
Perfluorobutanoic acid	ng/L	10000	11800	118	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	11700	117	70	130	
Perfluorodecanoic acid	ng/L	10000	11900	119	70	130	
Perfluorododecanoic acid	ng/L	10000	11000	110	70	130	
Perfluoroheptanoic acid	ng/L	10000	11700	117	70	130	
Perfluorohexanoic acid	ng/L	10100	11800	117	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	11700	117	70	130	
Perfluorononanoic acid	ng/L	10000	12400	124	70	130	
Perfluorooctanoic acid	ng/L	10100	11300	112	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	10700	107	70	130	
Perfluoropentanoic acid	ng/L	10100	12100	119	70	130	
Perfluorotetradecanoic acid	ng/L	10000	11800	118	70	130	
Perfluorotridecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroundecanoic acid	ng/L	10000	11700	117	70	130	

4I - ORGANICS INSTRUMENT BLANK

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/10/2022 13:48	Lab File ID:	2220110A_9.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	731351

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/16/2022 17:51	Lab File ID:	2220116B_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	731694

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

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Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 09:53	Lab File ID:	2220117A_2.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	731768

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

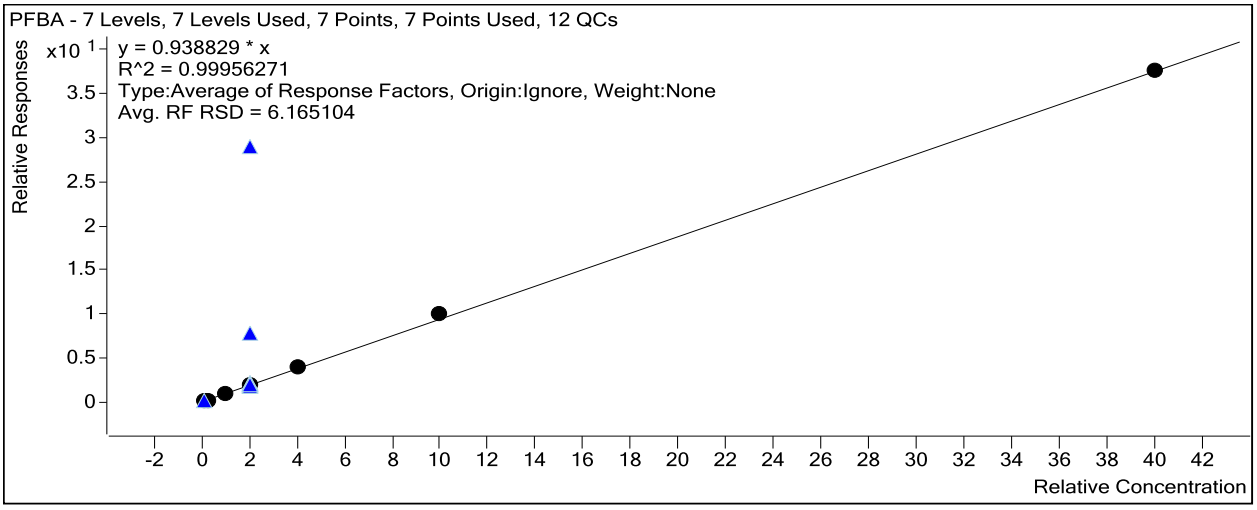
Quantitative Analysis Calibration Report

Batch Data Path	D:\MassHunter\Data\QQQ4\2220110ACAL\QuantResults\2220110A.batch.bin		
Analysis Time	1/11/2022 1:23 PM	**Analyst Name**	GCAL\lcms
Report Time	1/11/2022 3:05 PM	**Reporter Name**	GCAL\lcms
Last Calib Update	1/11/2022 12:28 PM	**Batch State**	Processed

Calibration Info

Target Compound *PFBA*

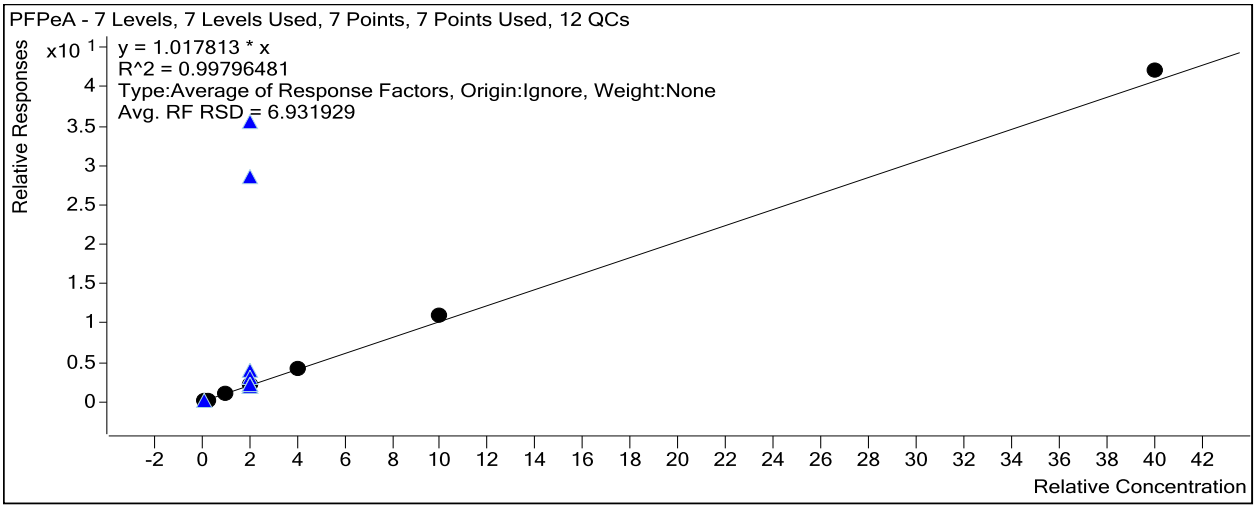
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	11820	0.5000	0.8720
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	27911	1.2500	0.8654
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	120020	5.0000	0.9114
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	261524	10.0000	1.0034
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	512510	20.0000	0.9727
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	1271133	50.0000	1.0032
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	4328263	200.0000	0.9436



Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	135557	5.0000	27111.3553
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	129003	5.0000	25800.6735
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	131684	5.0000	26336.8358
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	130318	5.0000	26063.6370
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	131719	5.0000	26343.7584
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	126703	5.0000	25340.6252
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	114674	5.0000	22934.7260

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	15867	0.5000	0.9234
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	37718	1.2500	0.9353
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	161935	5.0000	0.9870
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	352642	10.0000	1.0904
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	685321	20.0000	1.0373
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	1711032	50.0000	1.0964
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	5797534	200.0000	1.0548



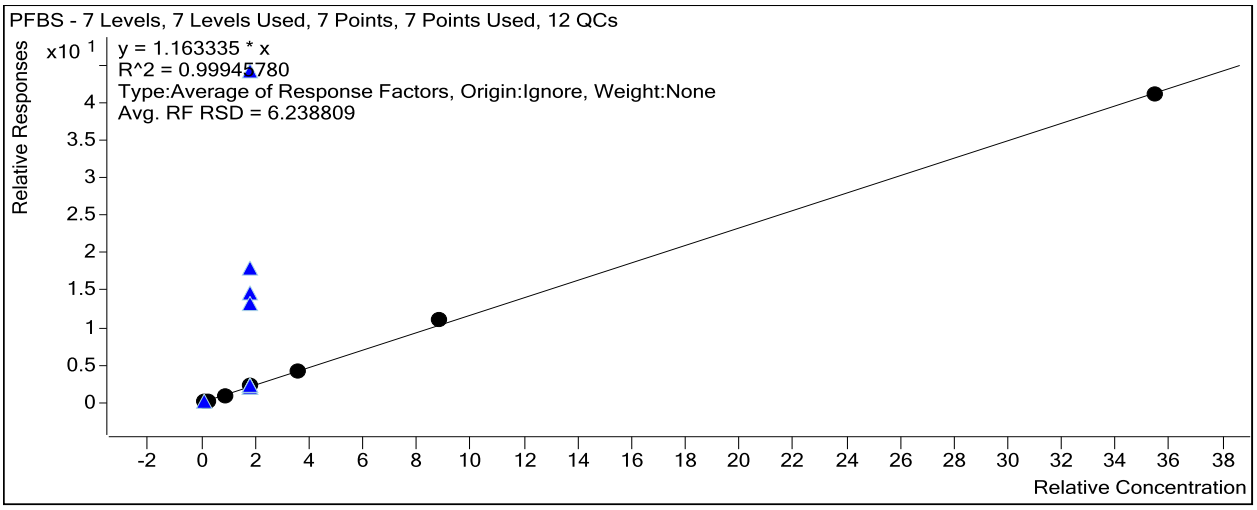
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	62389	5.0000	12477.7337
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	58847	5.0000	11769.3652
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	59975	5.0000	11994.9889
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	58821	5.0000	11764.1749
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	58499	5.0000	11699.7601
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	56237	5.0000	11247.4728
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	50441	5.0000	10088.1441

Target Compound *PFBS*

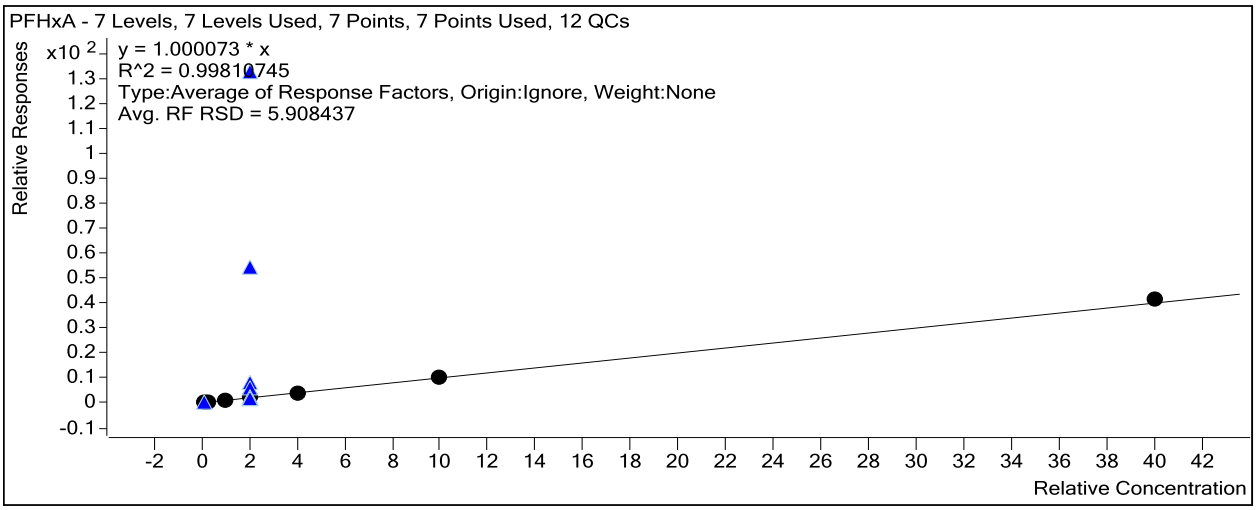
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	5976	0.4435	1.0798

\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	14113	1.1088	1.0814
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	59645	4.4350	1.1212
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	129452	8.8700	1.2406
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	251140	17.7400	1.2100
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	624848	44.3500	1.2526
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	2071795	177.4000	1.1577



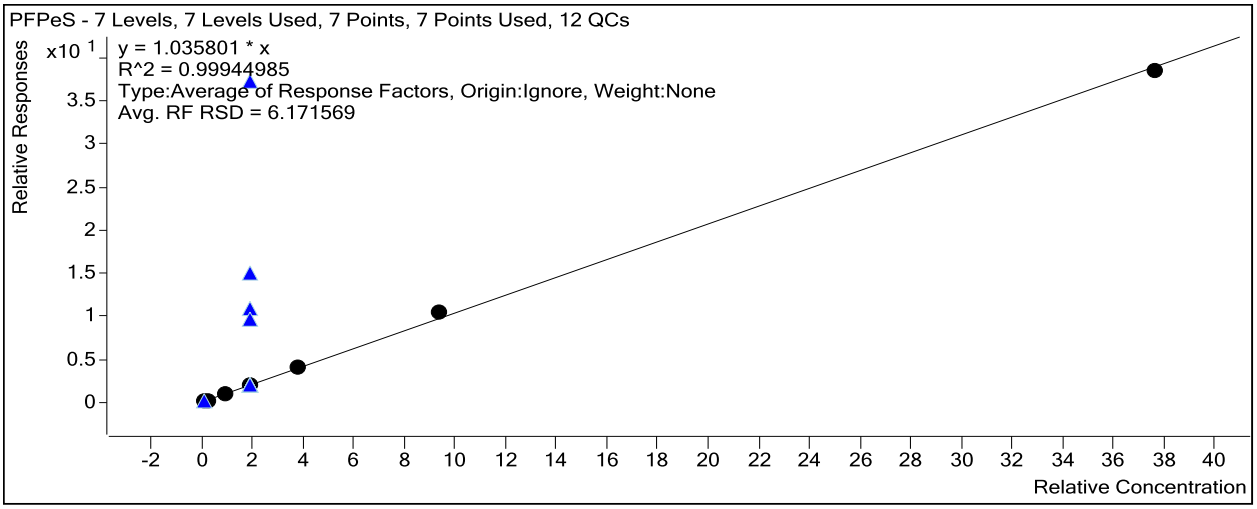
Target Compound *PFMBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	10343	0.5000	0.5034
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	25188	1.2500	0.5069
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	106723	5.0000	0.5333
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	233810	10.0000	0.5951
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	454631	20.0000	0.5710
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	1122804	50.0000	0.5868
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	3851692	200.0000	0.5639



Target Compound *PFPeS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	5598	0.4705	0.9535
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	13536	1.1763	0.9778
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	56345	4.7050	0.9984
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	123498	9.4100	1.1156
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	235765	18.8200	1.0707
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	586624	47.0500	1.1085
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1948206	188.2000	1.0261



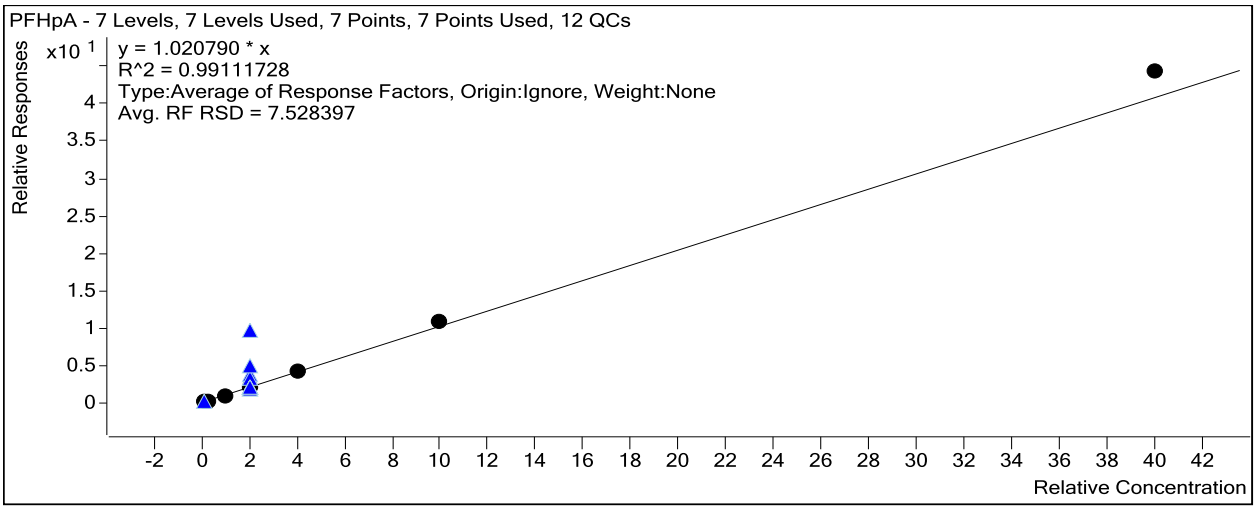
Extracted ISTD *M3HFPODA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	328907	5.0000	65781.3098
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	322835	5.0000	64566.9768
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	310809	5.0000	62161.7276
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	281169	5.0000	56233.7391

Target Compound *PFHpA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	31801	0.5000	0.9245
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	76409	1.2500	0.9315
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	319650	5.0000	0.9744
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	697085	10.0000	1.0597
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1355004	20.0000	1.0493
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	3401788	50.0000	1.0945
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	12503204	200.0000	1.1117



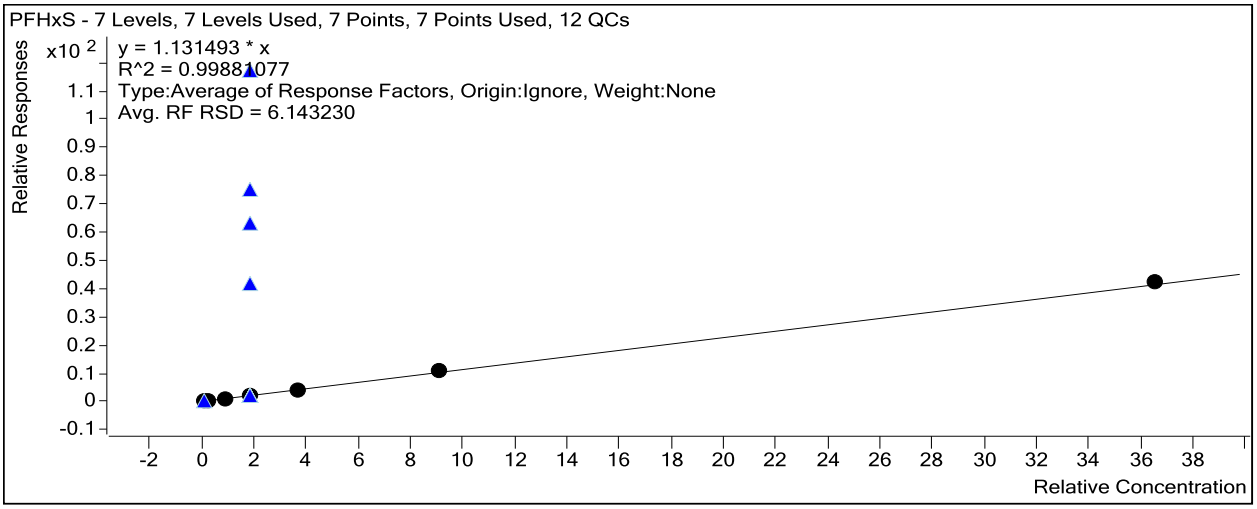
Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	50822	5.0000	10164.4133
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	48765	5.0000	9753.0407
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	48782	5.0000	9756.4070
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	48667	5.0000	9733.4772
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	49282	5.0000	9856.3368
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	46919	5.0000	9383.8063

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	41267	5.0000	8253.3616

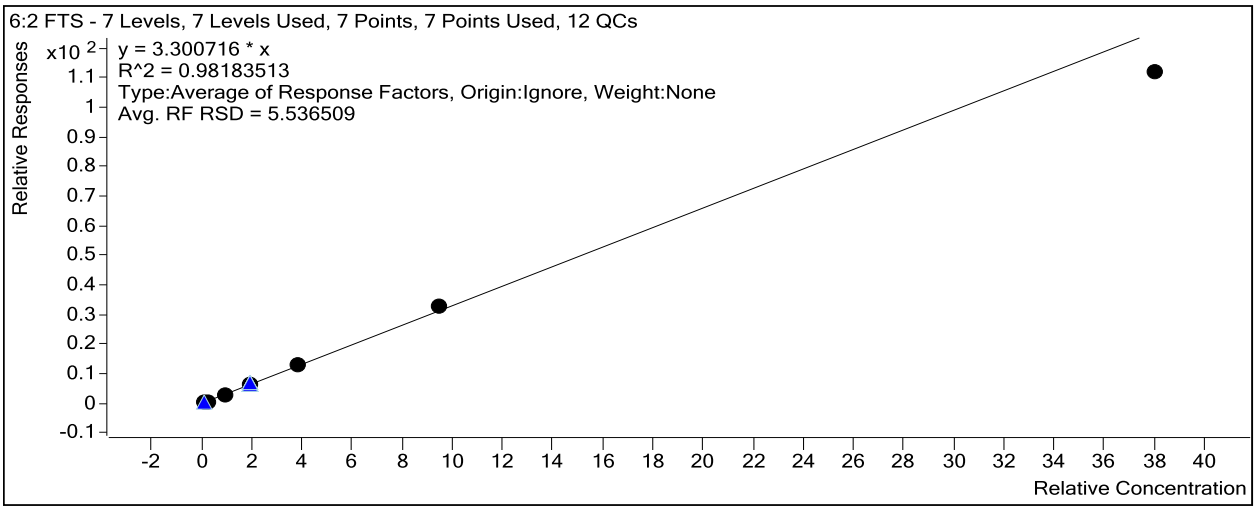
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	4895	0.4570	1.0538
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	11580	1.1425	1.0392
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	48922	4.5700	1.0972
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	107205	9.1400	1.2050
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	207609	18.2800	1.1523
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	520069	45.7000	1.2127
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1750375	182.8000	1.1602



Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	37213	0.4725	1.4877
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	89112	1.1813	1.4749
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	376435	4.7250	1.5660
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	823422	9.4500	1.7072
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1617719	18.9000	1.7175
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	4123772	47.2500	1.8260
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	15083518	189.0000	1.8563



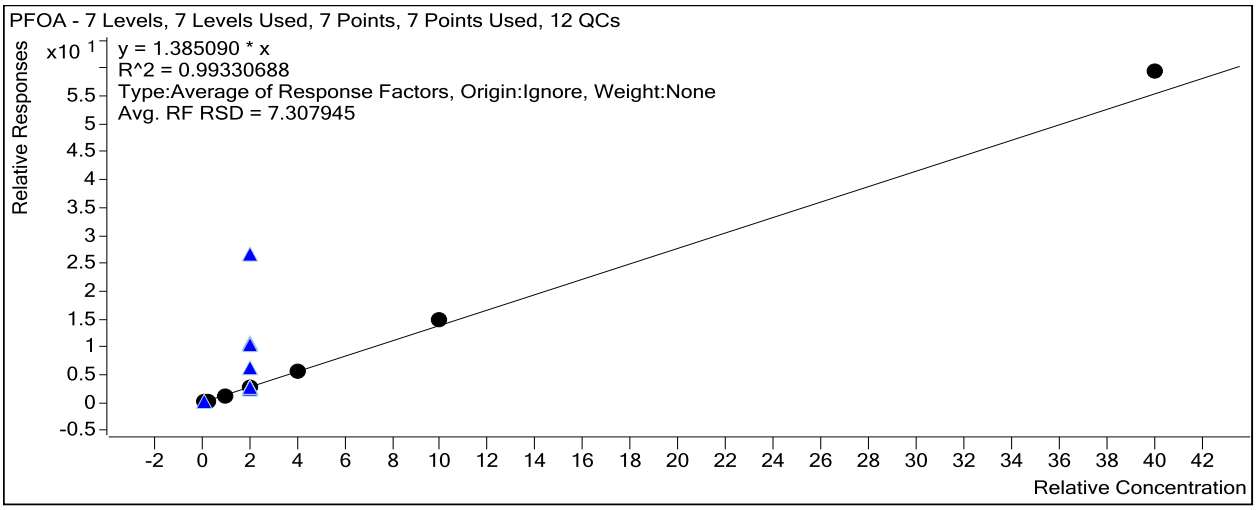
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	264708	5.0000	52941.5070
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	255730	5.0000	51145.9164
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	254377	5.0000	50875.4687
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	255190	5.0000	51038.0375
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	249176	5.0000	49835.1112
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	238983	5.0000	47796.6192
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	214958	5.0000	42991.5710

Instrument ISTD *MPFOA*

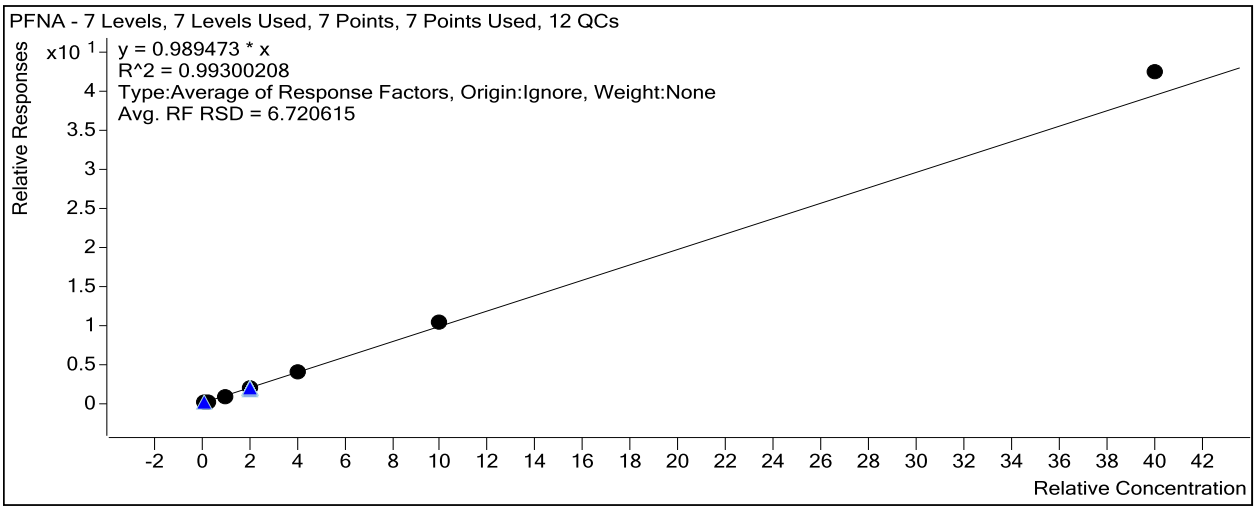
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	1795801	25.0000	71832.0556
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	1719233	25.0000	68769.3272
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	1701955	25.0000	68078.1804
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	1712422	25.0000	68496.8945
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1676181	25.0000	67047.2243
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	1653865	25.0000	66154.5867
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1456227	25.0000	58249.0820

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	33591	0.5000	1.2690
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	80206	1.2500	1.2545
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	336541	5.0000	1.3230
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	737392	10.0000	1.4448
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1419800	20.0000	1.4245
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	3561178	50.0000	1.4901
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	12808861	200.0000	1.4897



Target Compound *PFHpS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	4959	0.4765	1.0239
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	11806	1.1913	1.0162
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	52011	4.7650	1.1188
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	114948	9.5300	1.2392
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	216146	19.0600	1.1506
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	529899	47.6500	1.1851
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1717100	190.6000	1.0915

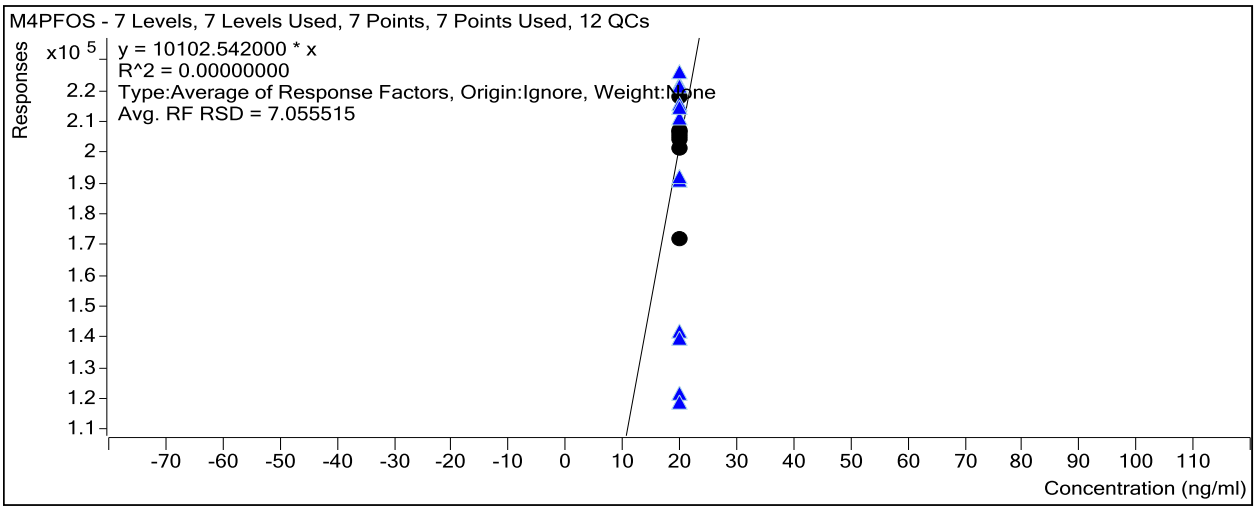


Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	47616	5.0000	9523.2750
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	45445	5.0000	9089.0008
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	45383	5.0000	9076.6971
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	45987	5.0000	9197.3543
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	45479	5.0000	9095.7530
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	43930	5.0000	8786.0764
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	37429	5.0000	7485.7594

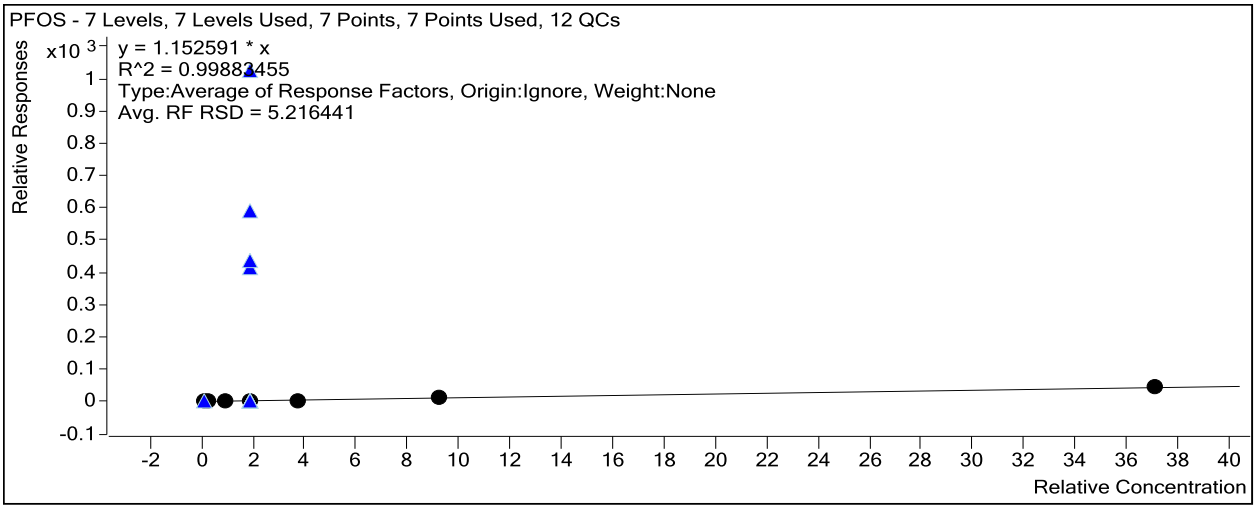
Instrument ISTD *M4PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	218204	20.0000	10910.2139
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	201583	20.0000	10079.1486
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	203994	20.0000	10199.7188
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	206407	20.0000	10320.3482
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	206891	20.0000	10344.5449
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	205255	20.0000	10262.7413
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	172022	20.0000	8601.0783



Target Compound *PFOS*

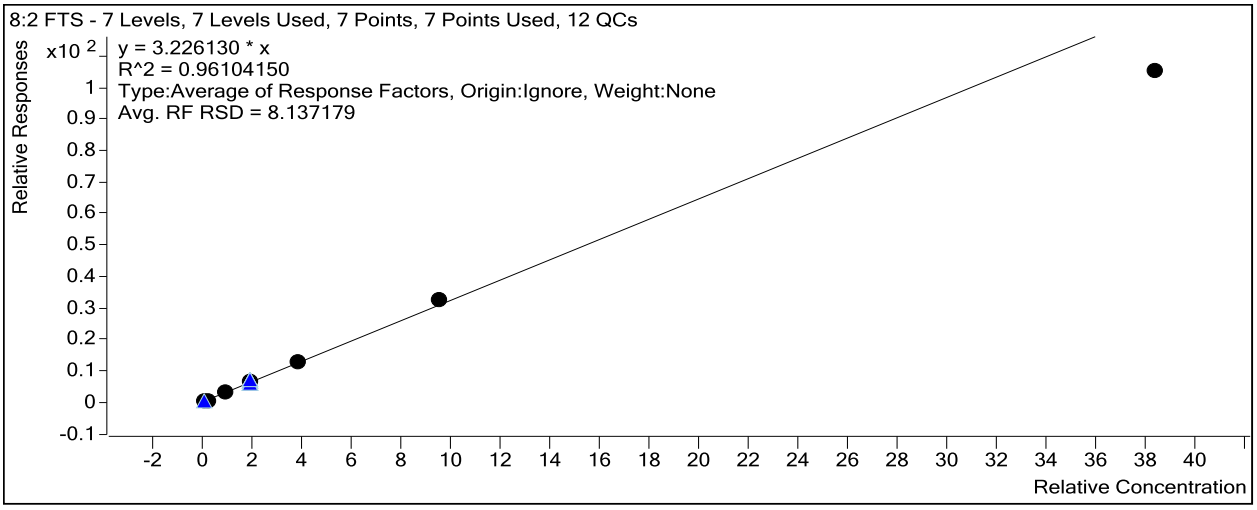
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	4845	0.4640	1.0965
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	11206	1.1600	1.0628
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	47141	4.6400	1.1193
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	102310	9.2800	1.1987
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	199391	18.5600	1.1811
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	500156	46.4000	1.2269
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1643471	185.6000	1.1829



Target Compound *9Cl-PF3ONS*

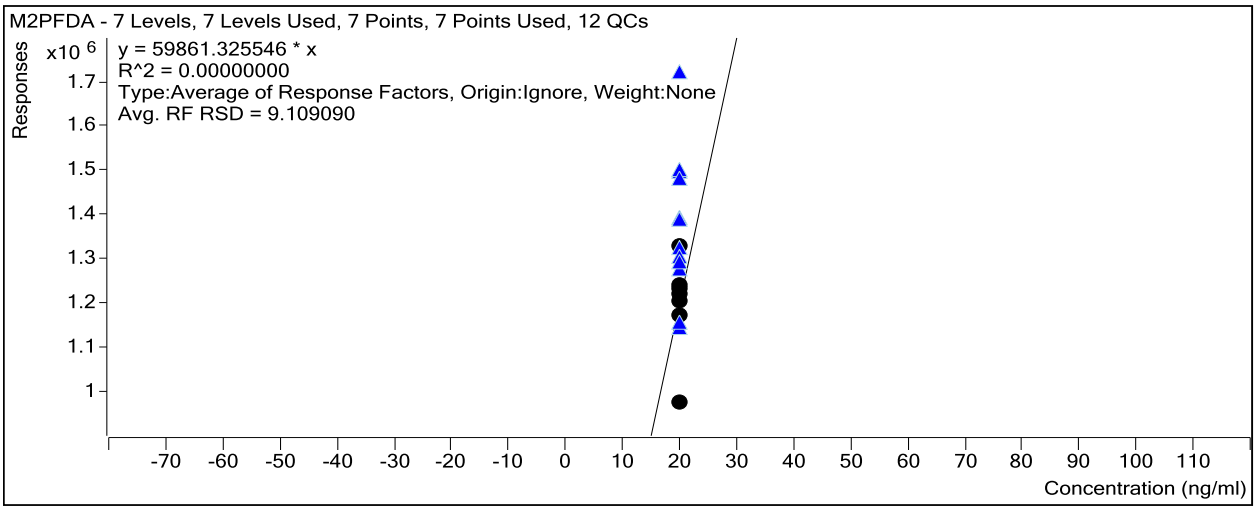
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	92503	9.6000	3.5594
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	168955	19.2000	3.2857
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	366695	48.0000	3.3979
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	948393	192.0000	2.7494



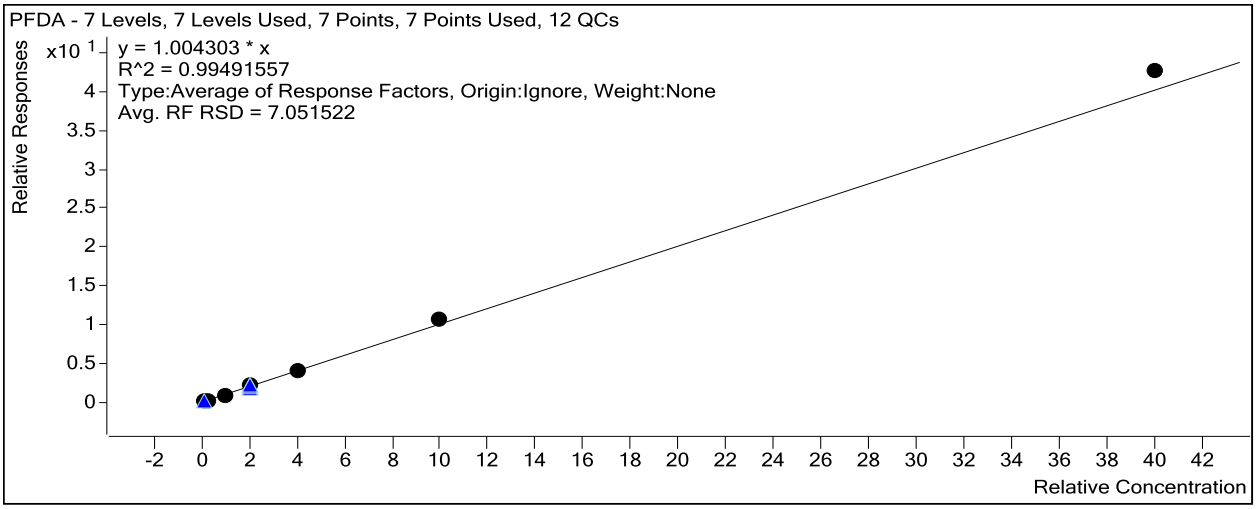
Target Compound *PFNS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	4472	0.4810	0.9763
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	10777	1.2025	0.9861
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	44265	4.8100	1.0139
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	95517	9.6200	1.0796
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	185173	19.2400	1.0581
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	445840	48.1000	1.0550
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1384411	192.4000	0.9612



Target Compound *PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	29591	0.5000	0.9030
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	73924	1.2500	0.9313
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	296935	5.0000	0.9661
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	648157	10.0000	1.0595
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1229412	20.0000	1.0231
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	3046509	50.0000	1.0780
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	10300405	200.0000	1.0692



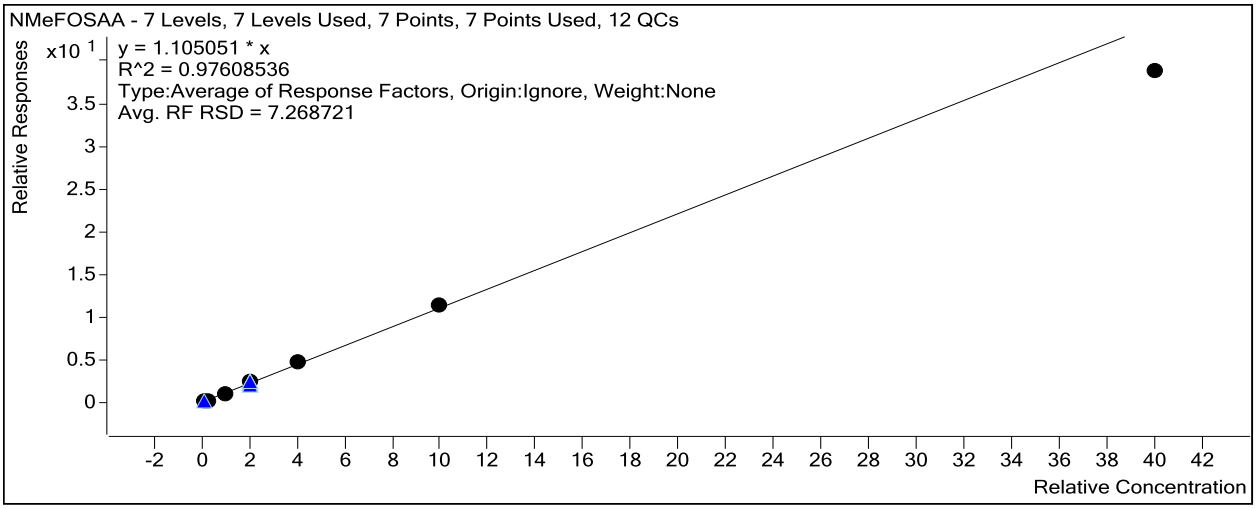
Extracted ISTD *d3-NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	30782	5.0000	6156.3082
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	29106	5.0000	5821.2387
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	28925	5.0000	5784.9565
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	28016	5.0000	5603.2963
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	28167	5.0000	5633.4174
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	29412	5.0000	5882.4327
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	29197	5.0000	5839.4766

Target Compound *NMeFOSAA*

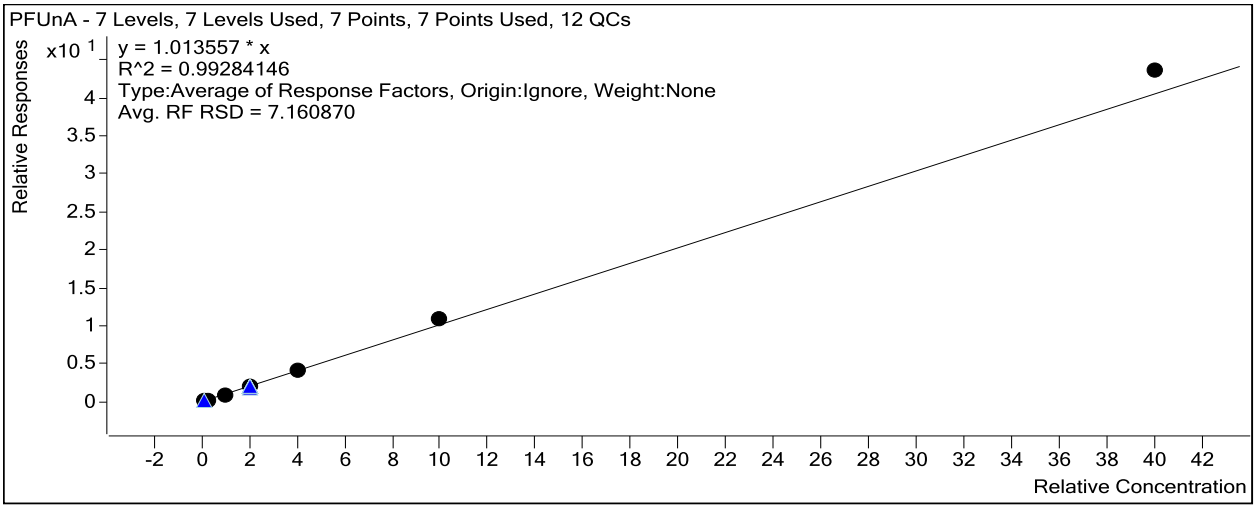
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	3326	0.5000	1.0805
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	7974	1.2500	1.0958
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	30604	5.0000	1.0581
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	68260	10.0000	1.2182
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	132019	20.0000	1.1718
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	334752	50.0000	1.1381
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1136248	200.0000	0.9729



Extracted ISTD *M8FOSA*

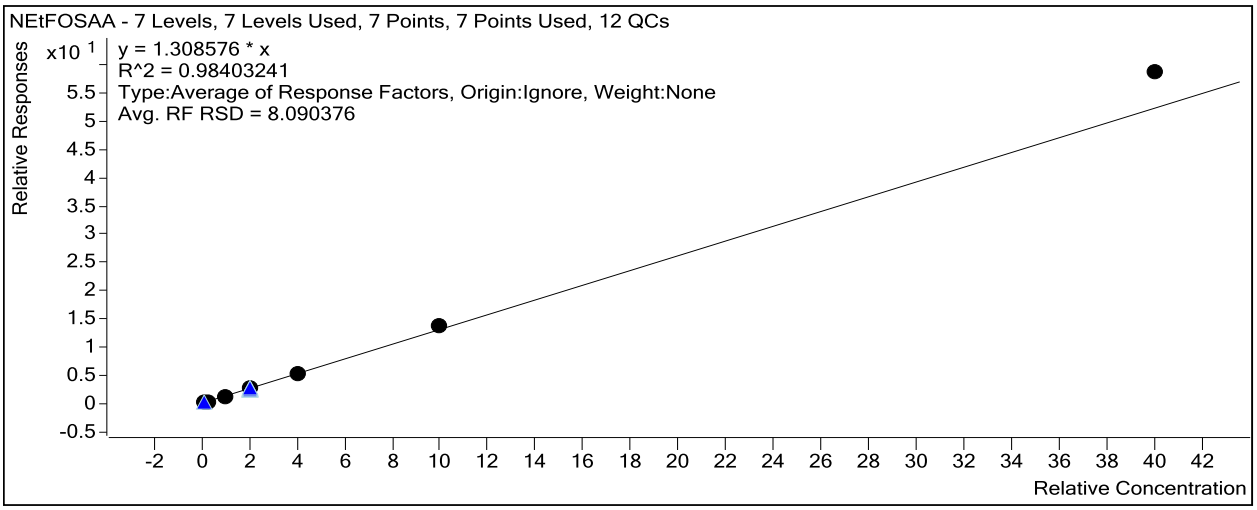
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	107226	5.0000	21445.2444
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	101729	5.0000	20345.8104
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	101870	5.0000	20374.0420

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	28947	0.5000	0.9247
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	71821	1.2500	0.9238
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	291492	5.0000	0.9704
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	631666	10.0000	1.0539
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1227616	20.0000	1.0467
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	2993515	50.0000	1.0817
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	9861514	200.0000	1.0936



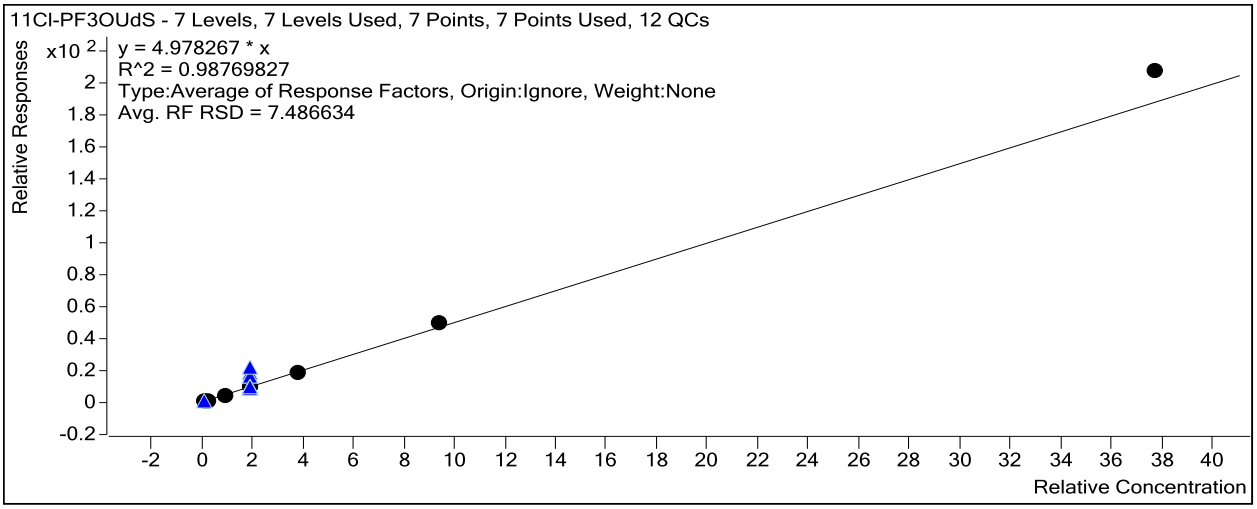
Target Compound *NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	7351	0.5000	1.3219
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	15119	1.2500	1.1513
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	61154	5.0000	1.2151
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	133295	10.0000	1.3130
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	255035	20.0000	1.2966
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	619906	50.0000	1.3898
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	1913195	200.0000	1.4724



Target Compound *11Cl-PF3OUdS*

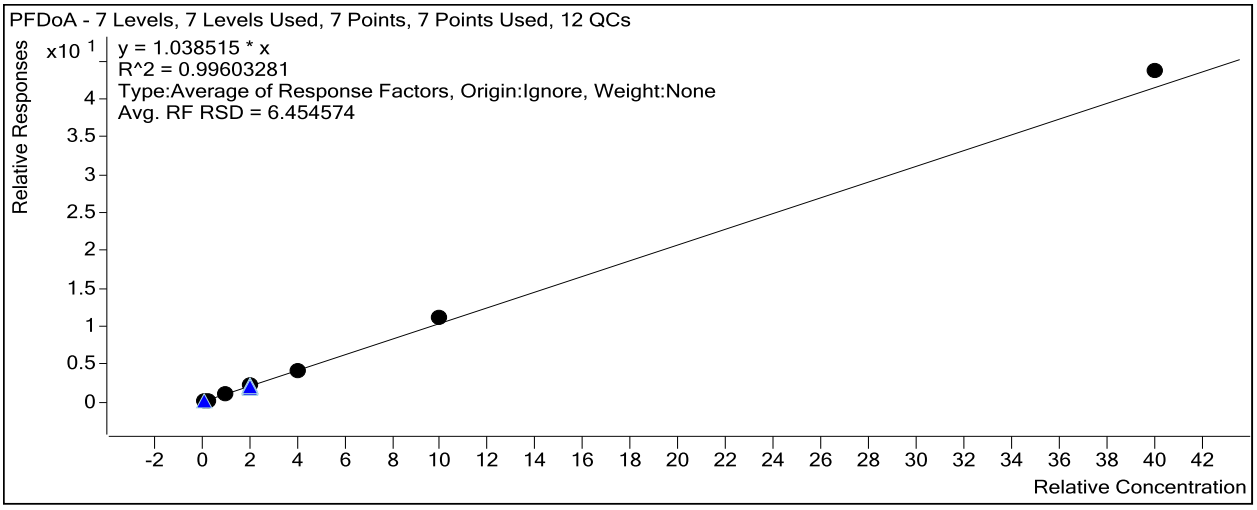
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	20180	0.4715	4.4942
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	48907	1.1788	4.5648
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	206435	4.7150	4.8236
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	444709	9.4300	5.1274
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	865578	18.8600	5.0458
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	2185994	47.1500	5.2768
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	7786476	188.6000	5.5152



Target Compound *10:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	747129	10.0000	1.0938
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1422141	20.0000	1.0416
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	3585293	50.0000	1.1123
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	12912410	200.0000	1.0968



Extracted ISTD *d-NMeFOSA*

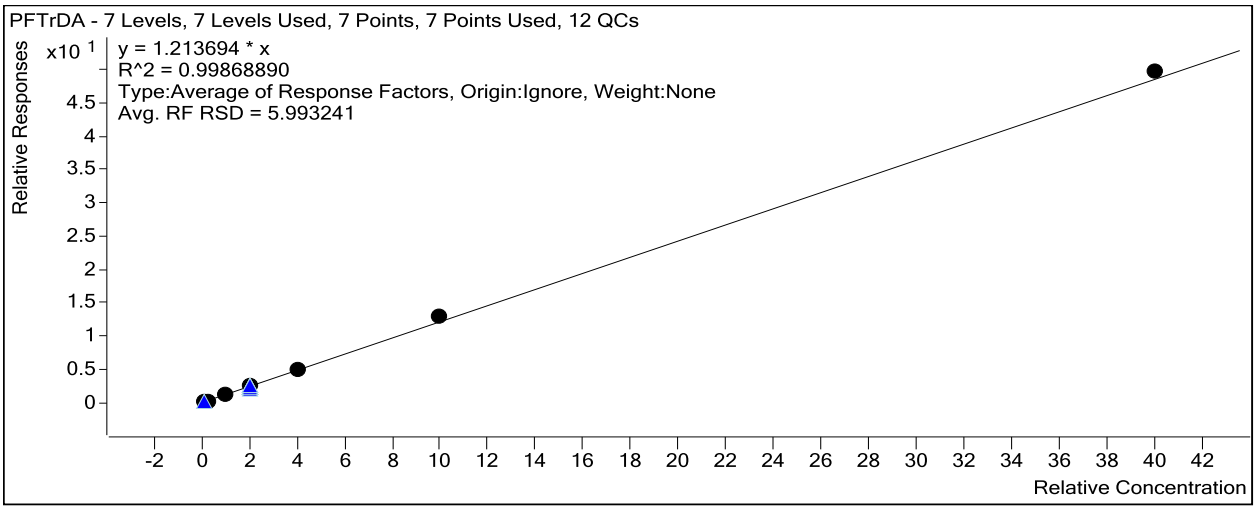
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	25735	5.0000	5146.9195
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	25317	5.0000	5063.3368
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	24654	5.0000	4930.7567
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	24555	5.0000	4911.0095
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	24881	5.0000	4976.1508
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	24794	5.0000	4958.7582
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	23281	5.0000	4656.2667

Target Compound *PFDoS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	2947	0.4840	0.6393
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	7288	1.2100	0.6627
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	30316	4.8400	0.6901
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	68356	9.6800	0.7678
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	128142	19.3600	0.7277
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	316612	48.4000	0.7445

Quantitative Analysis Calibration Report

\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	41403	0.5000	1.1146
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	103355	1.2500	1.1383
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	402828	5.0000	1.1758
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	881060	10.0000	1.2899
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	1678165	20.0000	1.2291
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	4194416	50.0000	1.3013
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	14679221	200.0000	1.2469

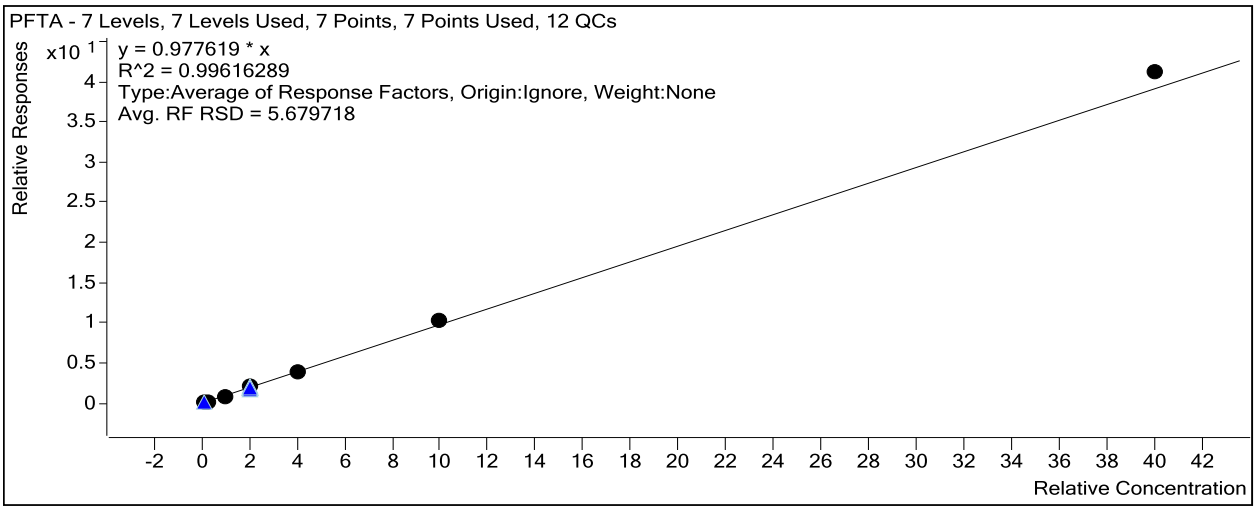


Extracted ISTD *d9-NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	30323	5.0000	6064.6081
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	28034	5.0000	5606.7106
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	27953	5.0000	5590.6146
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	28034	5.0000	5606.7769
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	27886	5.0000	5577.2827
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	27550	5.0000	5509.9470
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	26400	5.0000	5279.9972

Target Compound *NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	3282	0.5000	1.0824
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	7290	1.2500	1.0402
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	31502	5.0000	1.1269



Extracted ISTD *M2PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	58726	5.0000	11745.1849
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	60364	5.0000	12072.8509
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	57530	5.0000	11506.0671
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	55377	5.0000	11075.3532
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	55665	5.0000	11132.9144
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	53368	5.0000	10673.5111
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	49512	5.0000	9902.3208

Target Compound *PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_8.d	Calibration	1	☑	61531	0.5000	10.4777
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_2.d	Calibration	2	☑	139622	1.2500	9.2520
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_3.d	Calibration	3	☑	523523	5.0000	9.1000
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_4.d	Calibration	4	☑	1106534	10.0000	9.9910
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_5.d	Calibration	5	☑	2125050	20.0000	9.5440
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_6.d	Calibration	6	☑	5608355	50.0000	10.5089
\\10.18.11.192\d$\MassHunter\Data\2220110ACAL\2220110A_7.d	Calibration	7	☑	19947453	200.0000	10.0721

Quantitative Analysis Calibration Report

Batch Data Path	D:\MassHunter\Data\QQQ4\2220111CCAL\QuantResults\2220116B.batch.bin		
Analysis Time	1/17/2022 5:20 PM	**Analyst Name**	GCAL\lcms
Report Time	1/18/2022 1:15 PM	**Reporter Name**	GCAL\lcms
Last Calib Update	1/11/2022 6:37 PM	**Batch State**	Processed

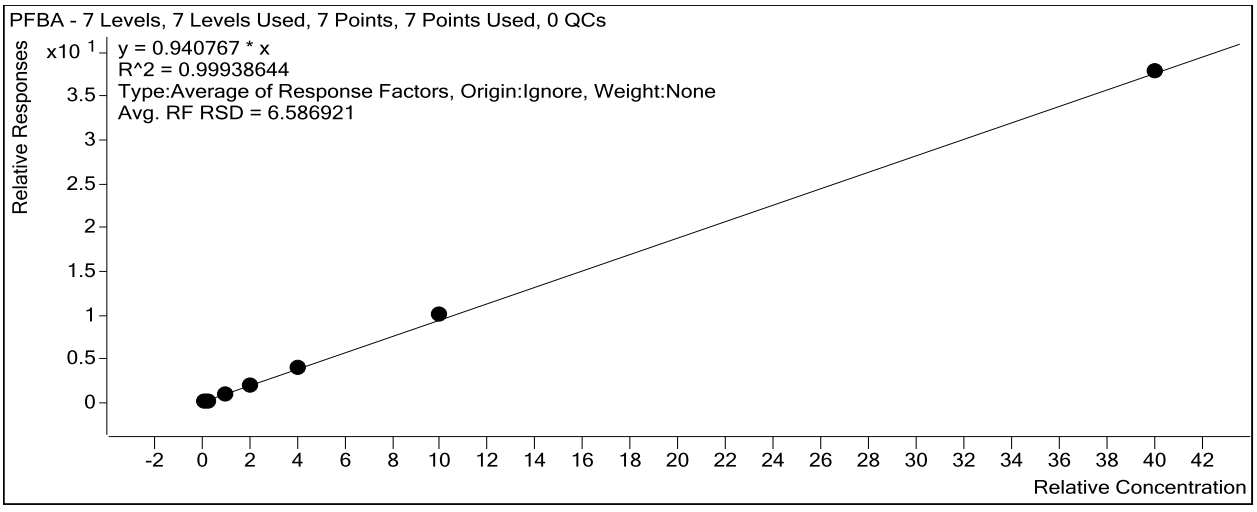
Calibration Info

Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	141284	5.0000	28256.7491
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	141782	5.0000	28356.3550
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	141569	5.0000	28313.8077
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	137930	5.0000	27586.0049
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	138107	5.0000	27621.4660
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	134829	5.0000	26965.7407
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	125713	5.0000	25142.6875

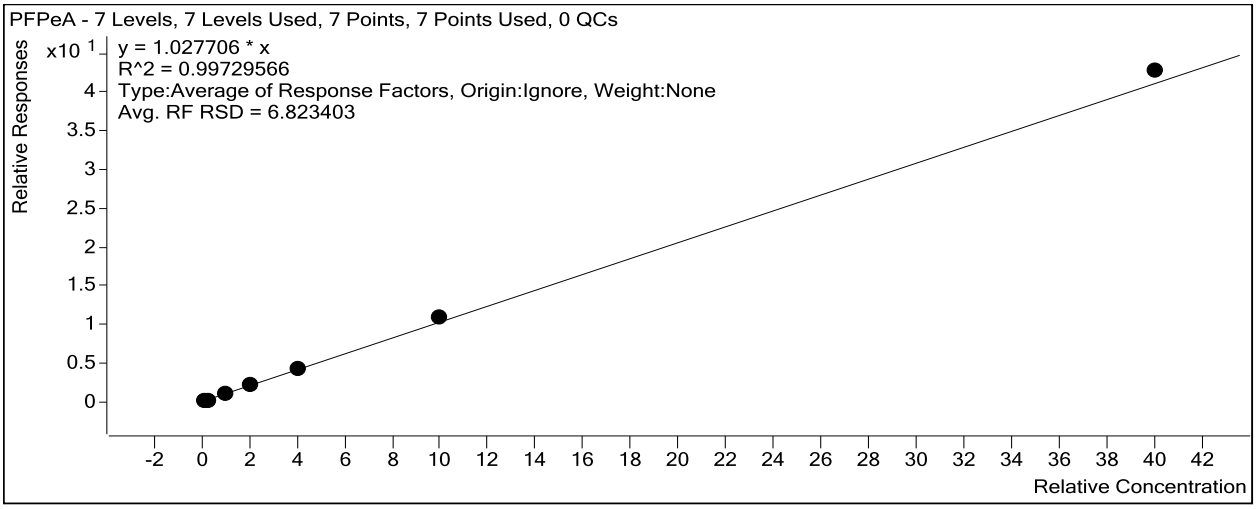
Target Compound *PFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	12214	0.5000	0.8645
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	30609	1.2500	0.8636
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	129198	5.0000	0.9126
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	276138	10.0000	1.0010
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	542050	20.0000	0.9812
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	1364917	50.0000	1.0123
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	4777664	200.0000	0.9501



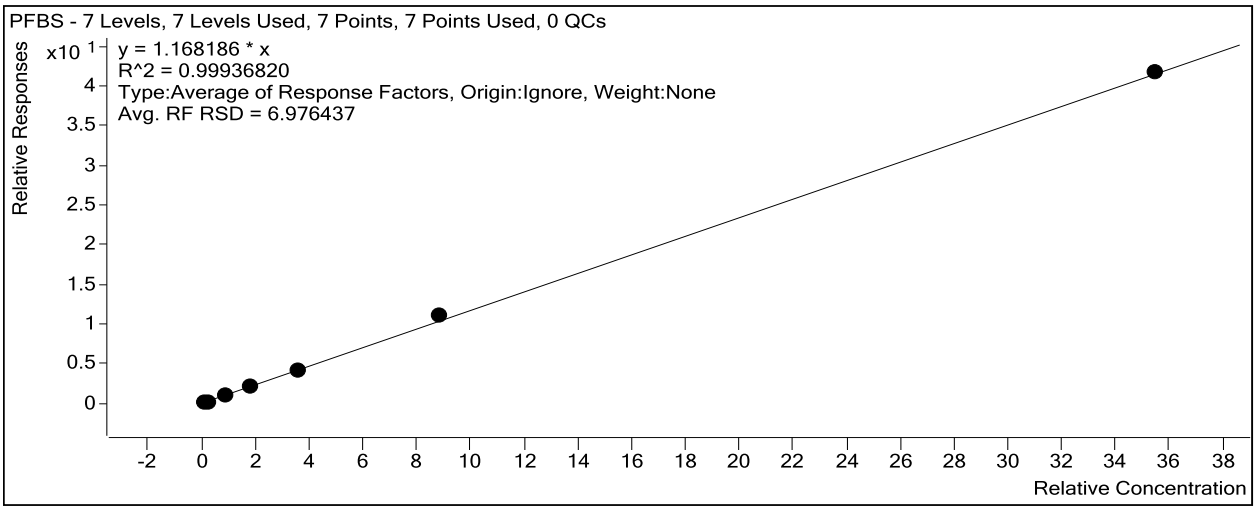
Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	16783	0.5000	0.9278
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	42570	1.2500	0.9492
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	178323	5.0000	0.9947
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	379463	10.0000	1.0869
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	735195	20.0000	1.0588
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	1873773	50.0000	1.1035
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	6490564	200.0000	1.0731



Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	5933	0.4435	1.0508
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	15341	1.1088	1.0753
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	64292	4.4350	1.1546
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	136370	8.8700	1.2543
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	263939	17.7400	1.2023
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	658580	44.3500	1.2607
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	2171297	177.4000	1.1793



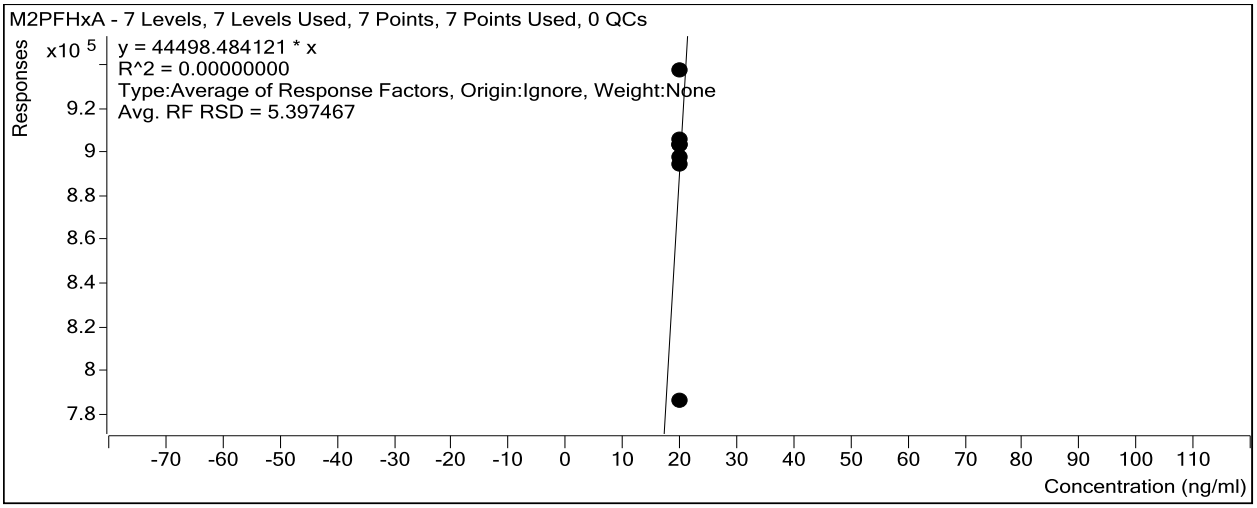
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	63651	5.0000	12730.1832
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	64338	5.0000	12867.5565
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	62775	5.0000	12555.0049
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	61285	5.0000	12256.9436
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	61874	5.0000	12374.8438
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	58895	5.0000	11778.9935
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	51896	5.0000	10379.1006

Target Compound *PFMBA*

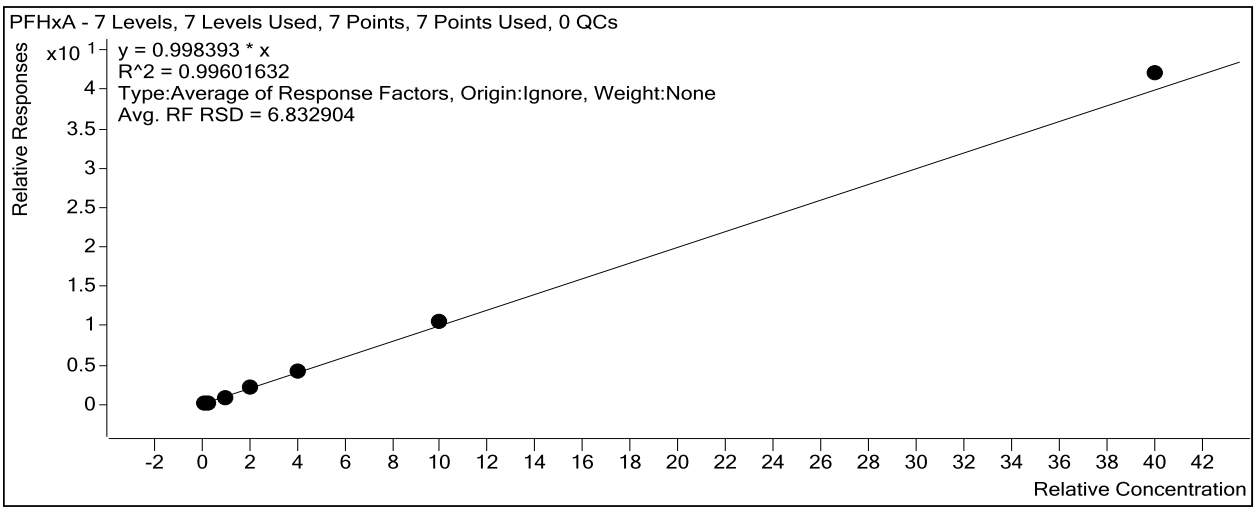
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	10888	0.5000	0.4886
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	27859	1.2500	0.4945
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	115444	5.0000	0.5091
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	247522	10.0000	0.5704
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	477362	20.0000	0.5528
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	1211152	50.0000	0.5701
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	4229297	200.0000	0.5571

D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	785936	20.0000	39296.8128



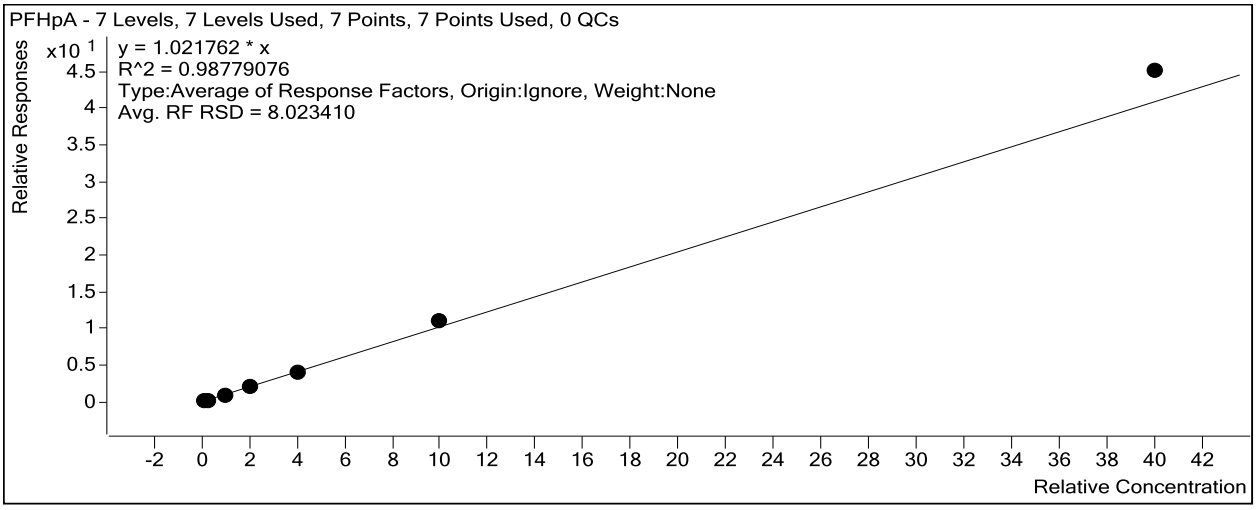
Target Compound *PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	20879	0.5000	0.9369
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	50431	1.2500	0.8952
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	216039	5.0000	0.9527
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	456858	10.0000	1.0528
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	894038	20.0000	1.0354
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	2253308	50.0000	1.0607
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	8010270	200.0000	1.0551



Target Compound *PFPeS*

D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1466289	20.0000	1.0257
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	3811179	50.0000	1.1073
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	13866608	200.0000	1.1304

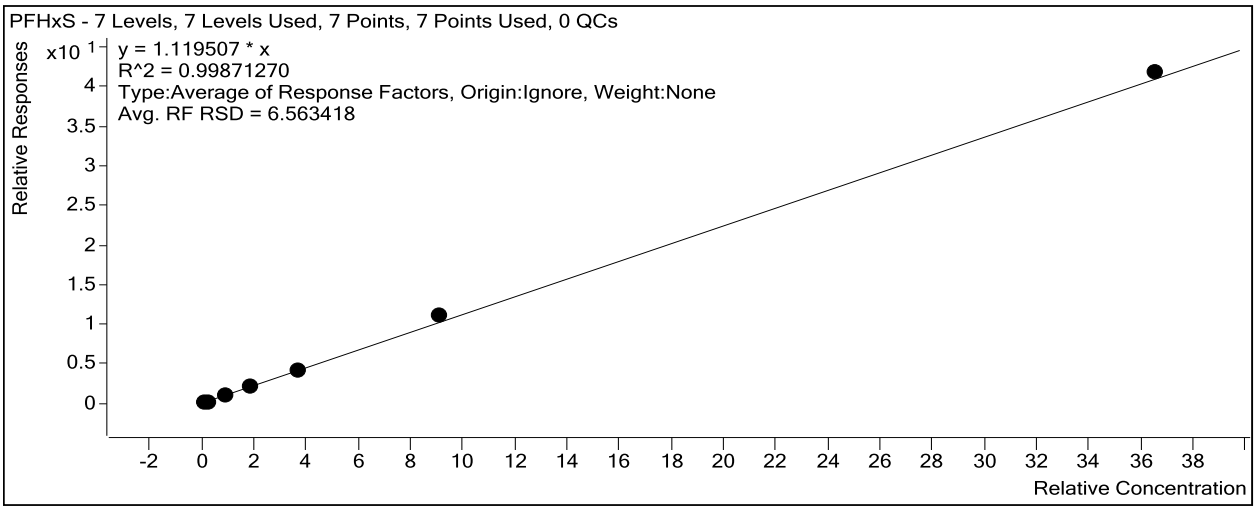


Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	52137	5.0000	10427.4848
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	52045	5.0000	10409.0419
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	52446	5.0000	10489.2313
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	50851	5.0000	10170.1336
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	50202	5.0000	10040.4655
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	48561	5.0000	9712.1610
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	42770	5.0000	8553.9195

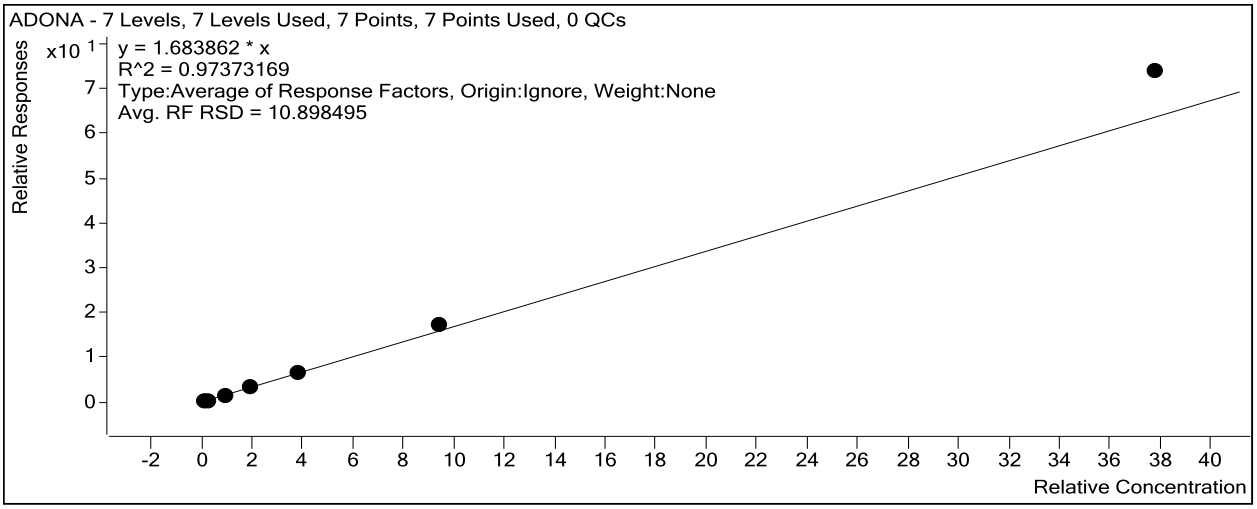
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	4917	0.4570	1.0319
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	12335	1.1425	1.0372
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	50998	4.5700	1.0639
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	109937	9.1400	1.1827
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	213605	18.2800	1.1638
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	536825	45.7000	1.2095
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	1794493	182.8000	1.1476



Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	39328	0.4725	1.4559
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	100361	1.1813	1.5071
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	426468	4.7250	1.5783
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	901814	9.4500	1.7280
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1778222	18.9000	1.7055
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	4652361	47.2500	1.8489
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	17265736	189.0000	1.9633



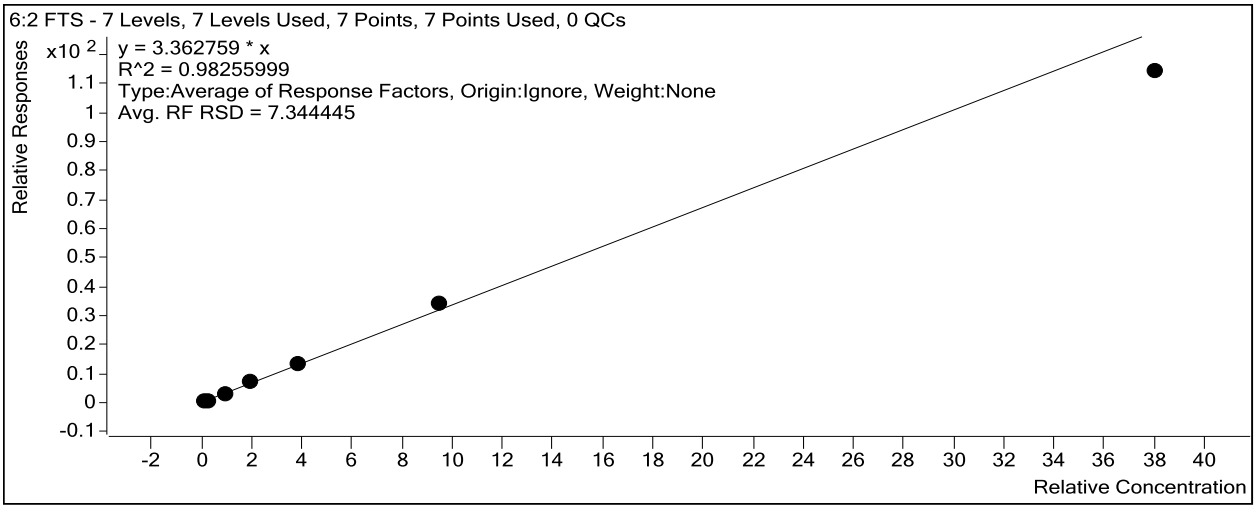
Extracted ISTD *M2 6:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	16686	5.0000	3337.2058
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	16983	5.0000	3396.6375
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	16713	5.0000	3342.6249
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	16235	5.0000	3246.9235
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	15446	5.0000	3089.2994
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	14072	5.0000	2814.4735
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	12519	5.0000	2503.7439

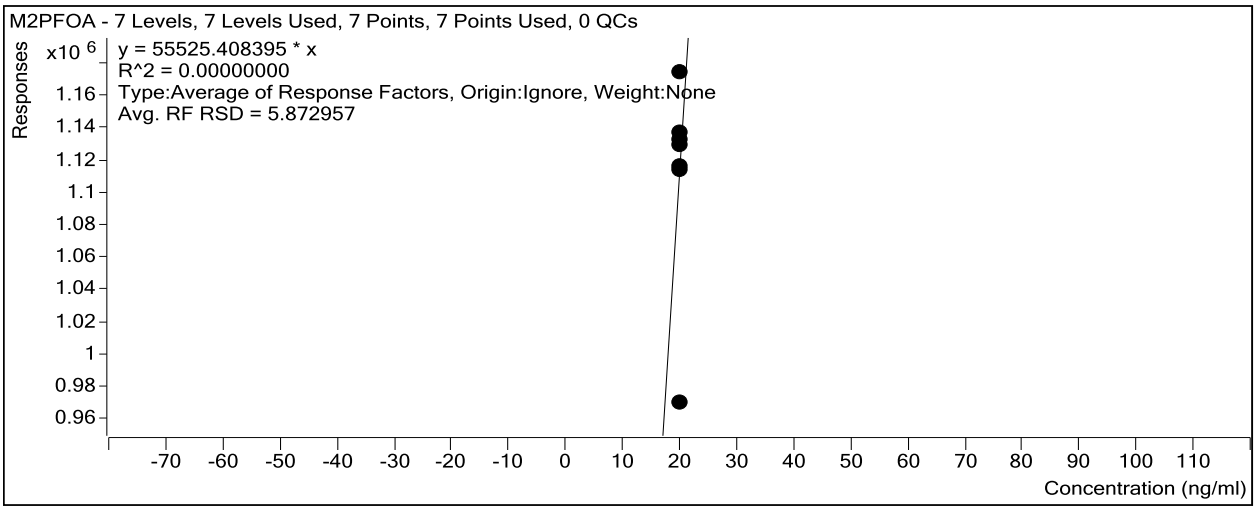
Target Compound *6:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	5205	0.4755	3.2803
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	12642	1.1888	3.1309
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	52578	4.7550	3.3080
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	113815	9.5100	3.6859
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	208084	19.0200	3.5413
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	478687	47.5500	3.5769
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	1436247	190.2000	3.0160



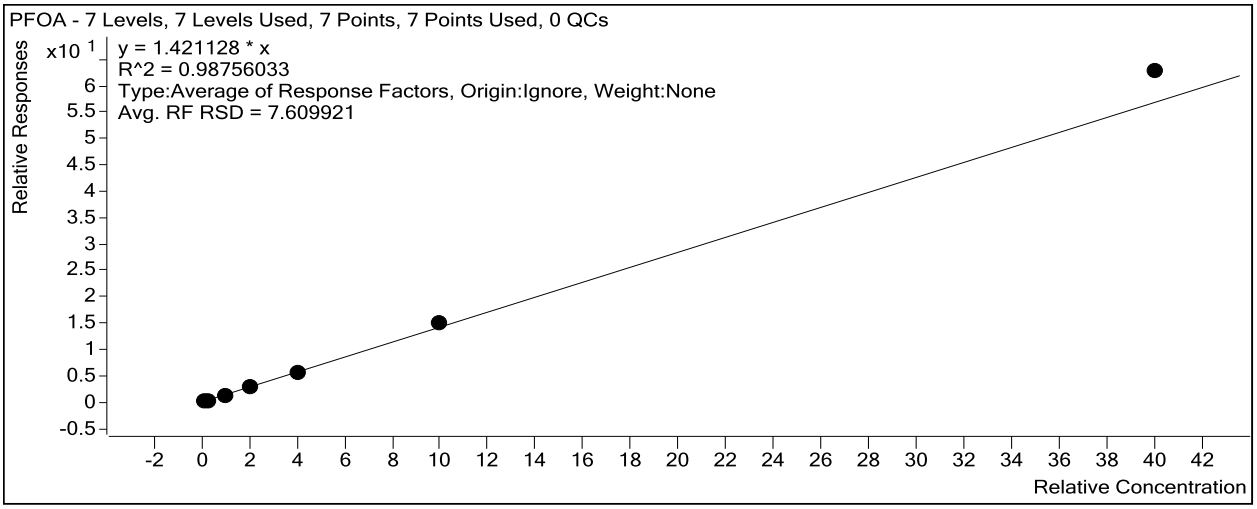
Instrument ISTD *MPFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	1962238	25.0000	78489.5300
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	1970916	25.0000	78836.6224
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	1941539	25.0000	77661.5473



Target Compound *PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	37421	0.5000	1.3091
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	91923	1.2500	1.3045
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	381074	5.0000	1.3328
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	811317	10.0000	1.4691
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1584391	20.0000	1.4360
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	4051612	50.0000	1.5216
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	14655156	200.0000	1.5748



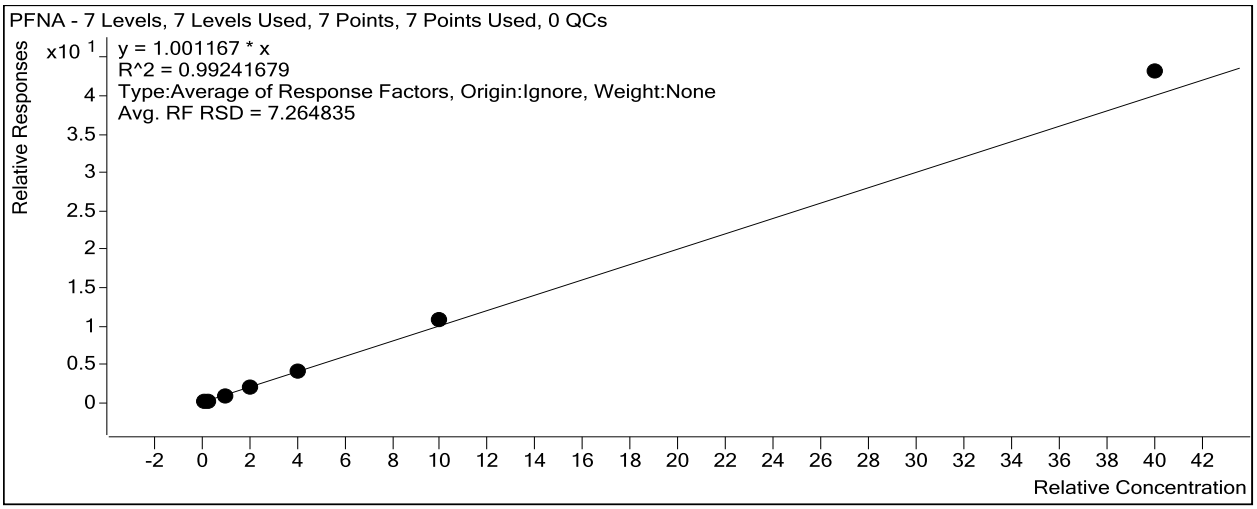
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	349212	5.0000	69842.3449
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	351659	5.0000	70331.7773
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	342228	5.0000	68445.6996
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	294050	5.0000	58810.0260

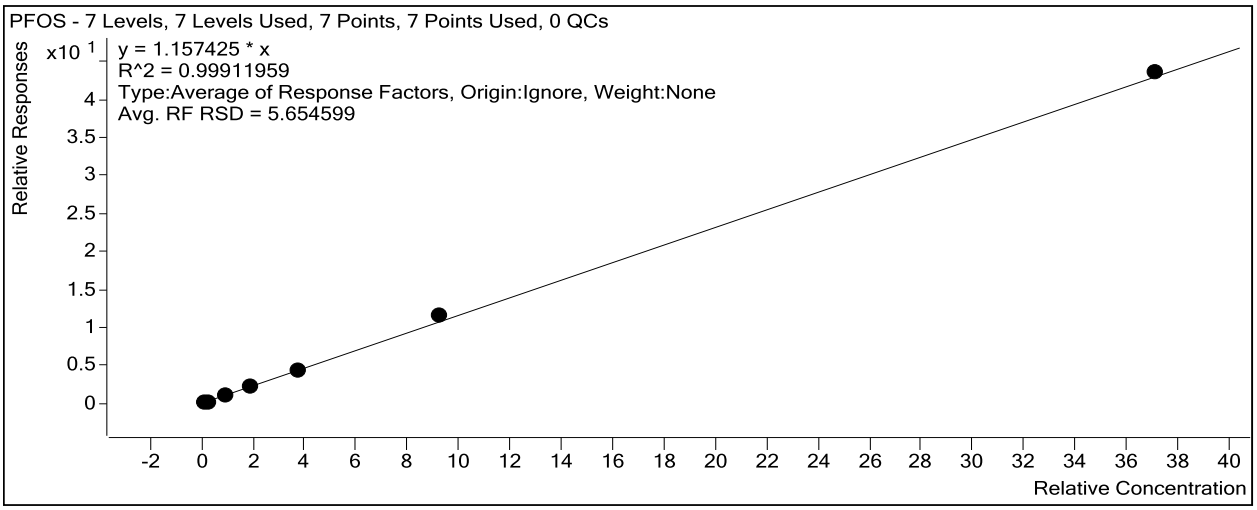
Target Compound *PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	33137	0.5000	0.9094
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	83235	1.2500	0.9138
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	347441	5.0000	0.9632
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	732118	10.0000	1.0482
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1432646	20.0000	1.0185
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	3669940	50.0000	1.0724
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	12735092	200.0000	1.0827



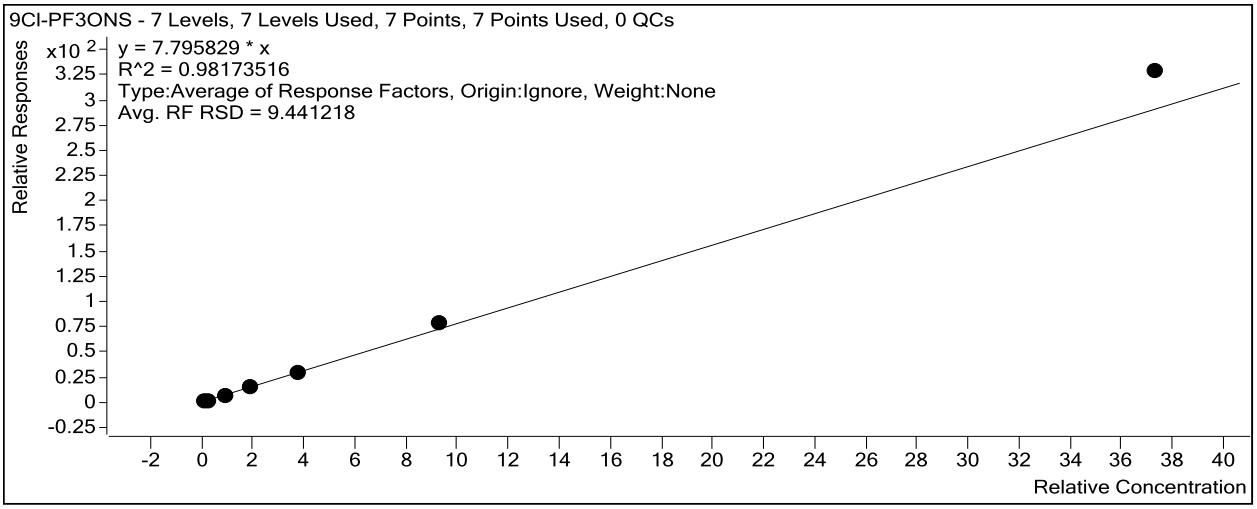
Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	47644	5.0000	9528.8467
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	47974	5.0000	9594.7733
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	48578	5.0000	9715.5799
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	46432	5.0000	9286.3588
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	46373	5.0000	9274.6264
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	44211	5.0000	8842.2832



Target Compound *9Cl-PF3ONS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	30508	0.4665	6.8632
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	79103	1.1663	7.0689
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	334335	4.6650	7.3767
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	699399	9.3300	8.0723
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1357155	18.6600	7.8419
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	3501593	46.5500	8.5071
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	12555820	186.6000	8.8408



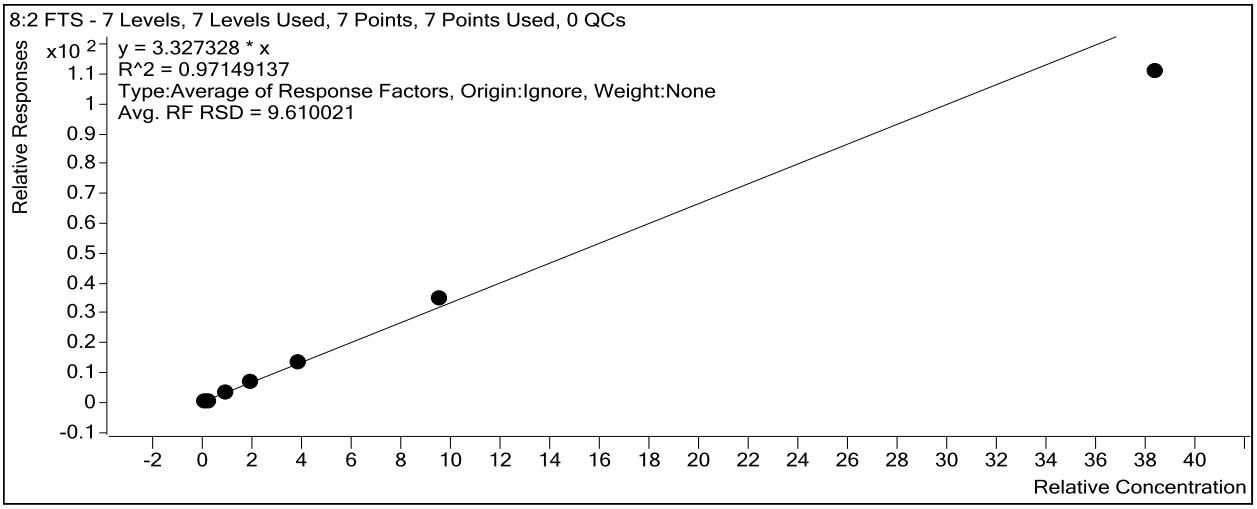
Extracted ISTD *M2 8:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	14205	5.0000	2841.0000
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	14405	5.0000	2881.0084
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	13585	5.0000	2717.0323
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	12631	5.0000	2526.2172
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	12067	5.0000	2413.4254
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	10724	5.0000	2144.8641
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	9031	5.0000	1806.2788

Target Compound *8:2 FTS*

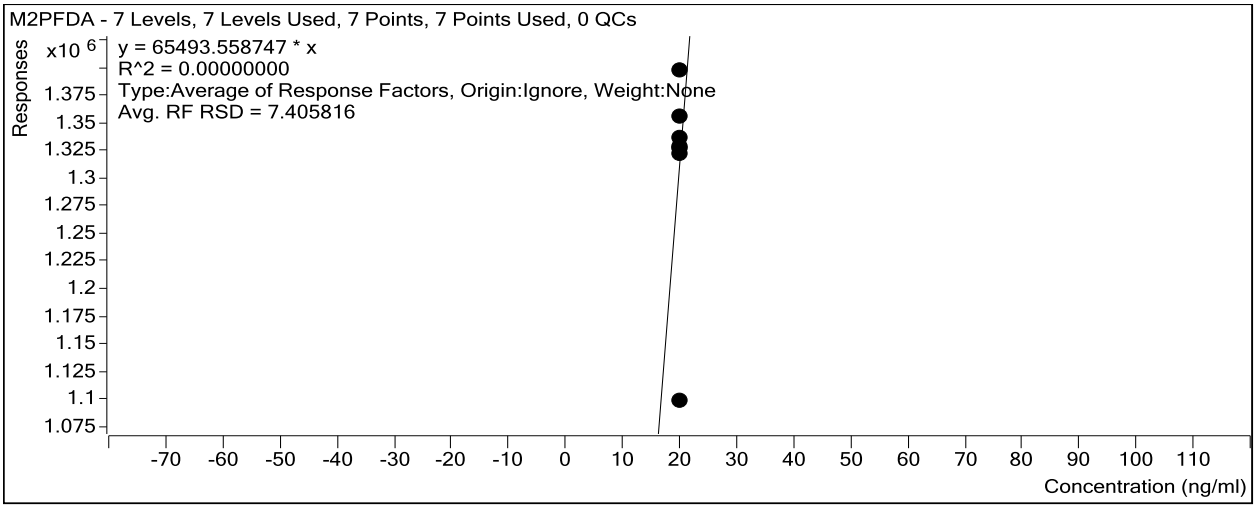
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	4253	0.4800	3.1184
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	10375	1.2000	3.0009
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	43999	4.8000	3.3737
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	88907	9.6000	3.6660
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	167100	19.2000	3.6061
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	373093	48.0000	3.6239
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	1006506	192.0000	2.9022



Target Compound *PFNS*

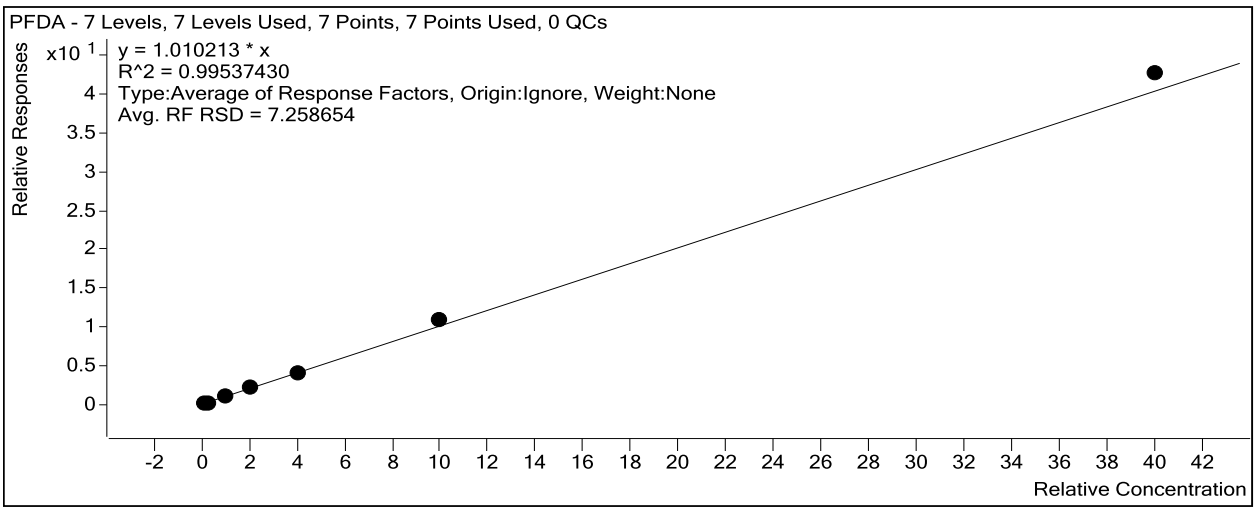
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	4366	0.4810	0.9525
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	11432	1.2025	0.9908
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	46012	4.8100	0.9846

D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	1098105	20.0000	54905.2311



Target Compound *PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	30894	0.5000	0.9033
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	78945	1.2500	0.9377
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	331987	5.0000	0.9688
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	694282	10.0000	1.0674
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1348030	20.0000	1.0331
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	3408329	50.0000	1.0896
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	11426811	200.0000	1.0715



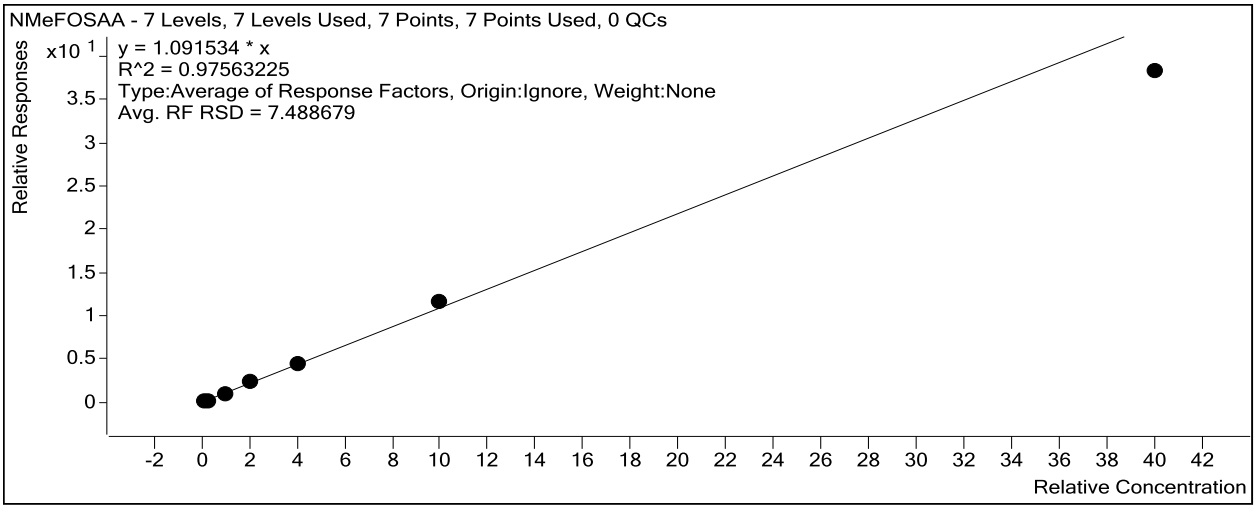
Extracted ISTD *d3-NMeFOSAA*

Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	33064	5.0000	6612.8566
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	32350	5.0000	6470.0921
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	31680	5.0000	6336.0131
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	31602	5.0000	6320.4043
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	32191	5.0000	6438.1150
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	32080	5.0000	6415.9027
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	33030	5.0000	6605.9728

Target Compound *NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	3550	0.5000	1.0735
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	8343	1.2500	1.0316
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	34128	5.0000	1.0773
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	75903	10.0000	1.2009
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	146168	20.0000	1.1352
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	372680	50.0000	1.1617
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	1268991	200.0000	0.9605



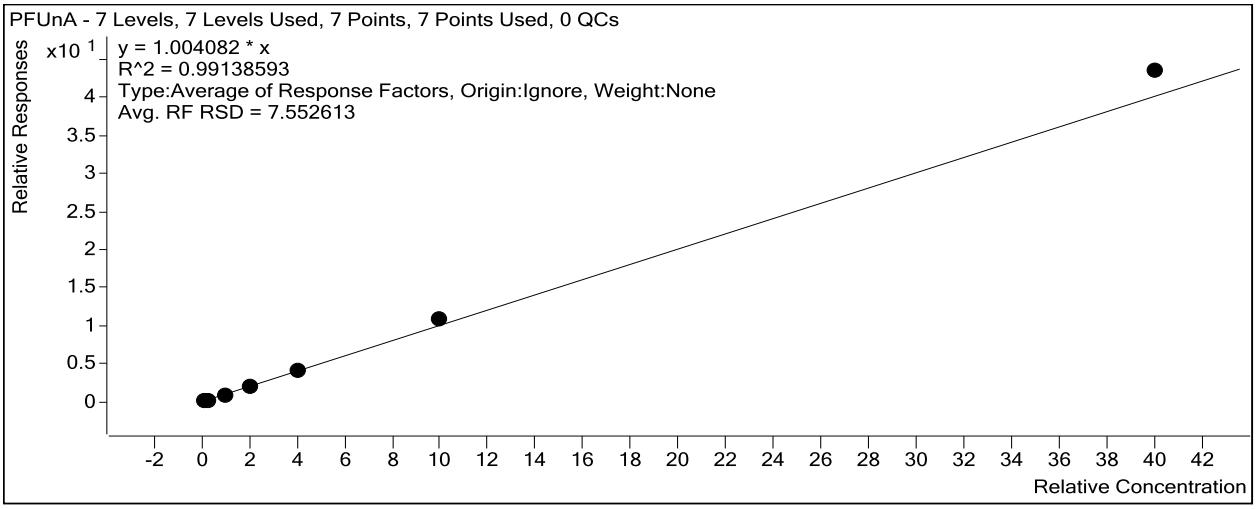
Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	105420	5.0000	21083.9172

Quantitative Analysis Calibration Report

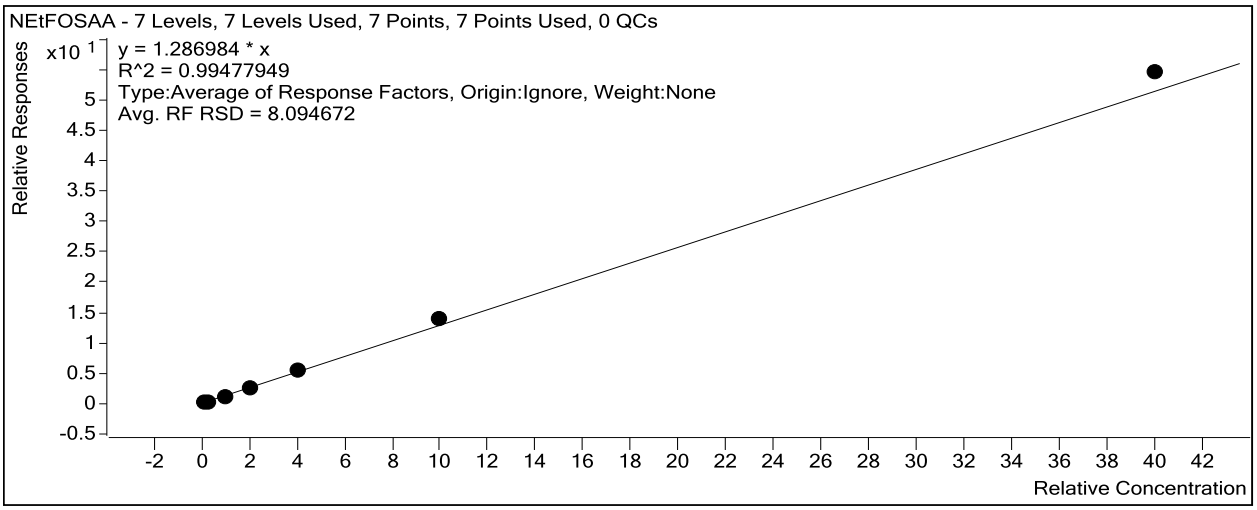
Target Compound *PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	30688	0.5000	0.8949
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	79445	1.2500	0.9501
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	322535	5.0000	0.9458
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	689280	10.0000	1.0516
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1326492	20.0000	1.0111
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	3335206	50.0000	1.0835
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	11054039	200.0000	1.0916



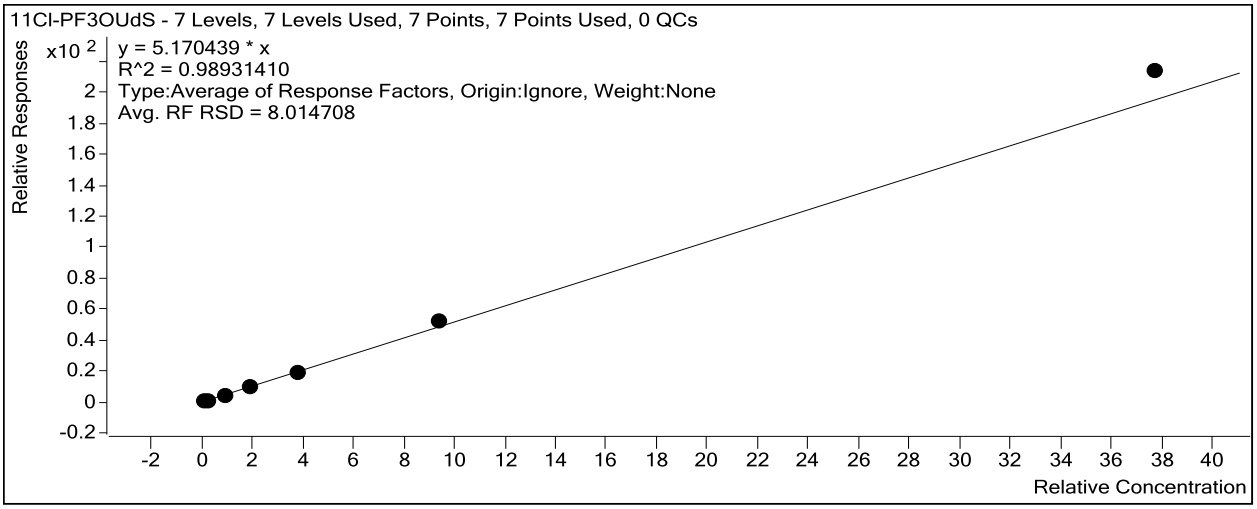
Target Compound *NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	6649	0.5000	1.1704
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	16678	1.2500	1.1554
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	68242	5.0000	1.2085
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	147539	10.0000	1.3416
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	283832	20.0000	1.3698
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	701013	50.0000	1.3933
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	2160621	200.0000	1.3700



Target Compound *11Cl-PF3OUdS*

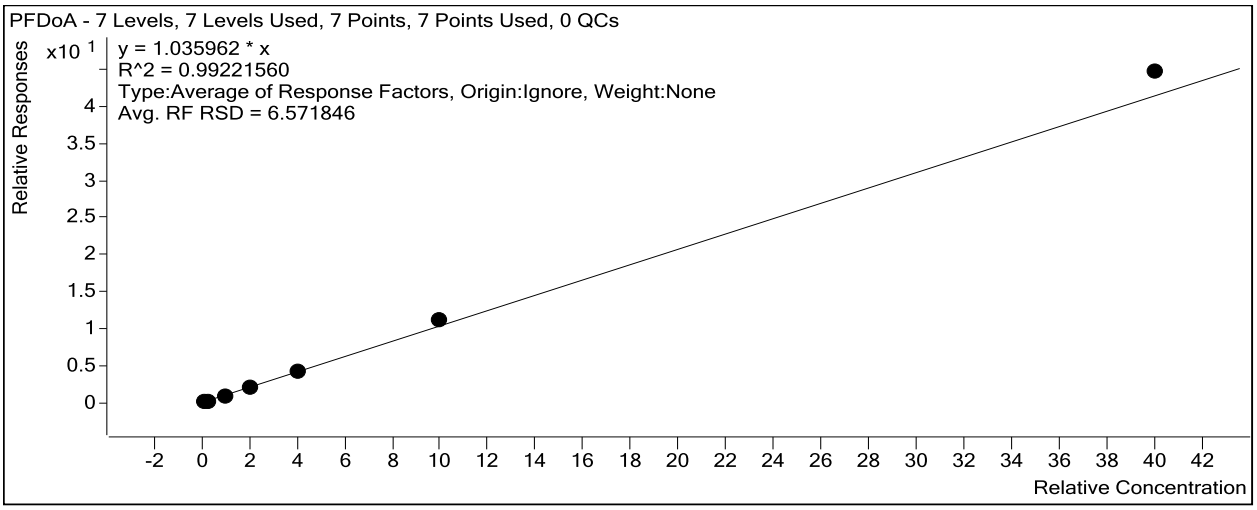
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	21582	0.4715	4.8037
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	51884	1.1788	4.5873
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	224361	4.7150	4.8977
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	477601	9.4300	5.4539
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	914780	18.8600	5.2297
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	2308904	47.1500	5.5381
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	8157120	188.6000	5.6827



Target Compound *PFDoA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	36381	0.5000	0.9686
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	88268	1.2500	0.9594
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	368632	5.0000	0.9801
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	782426	10.0000	1.0591
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	1513439	20.0000	1.0476
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	3876307	50.0000	1.1155
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	14279221	200.0000	1.1213

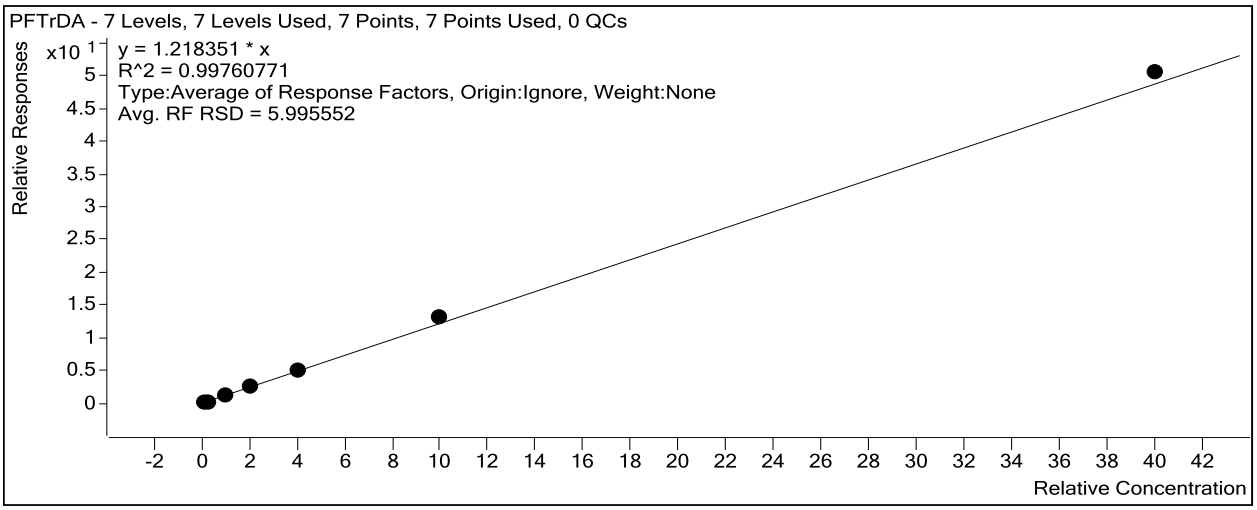


Extracted ISTD *MPFDoA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	375604	5.0000	75120.7527
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	367993	5.0000	73598.6375
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	376135	5.0000	75226.9078
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	369373	5.0000	73874.6336
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	361152	5.0000	72230.4797
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	347491	5.0000	69498.1748
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	318349	5.0000	63669.7837

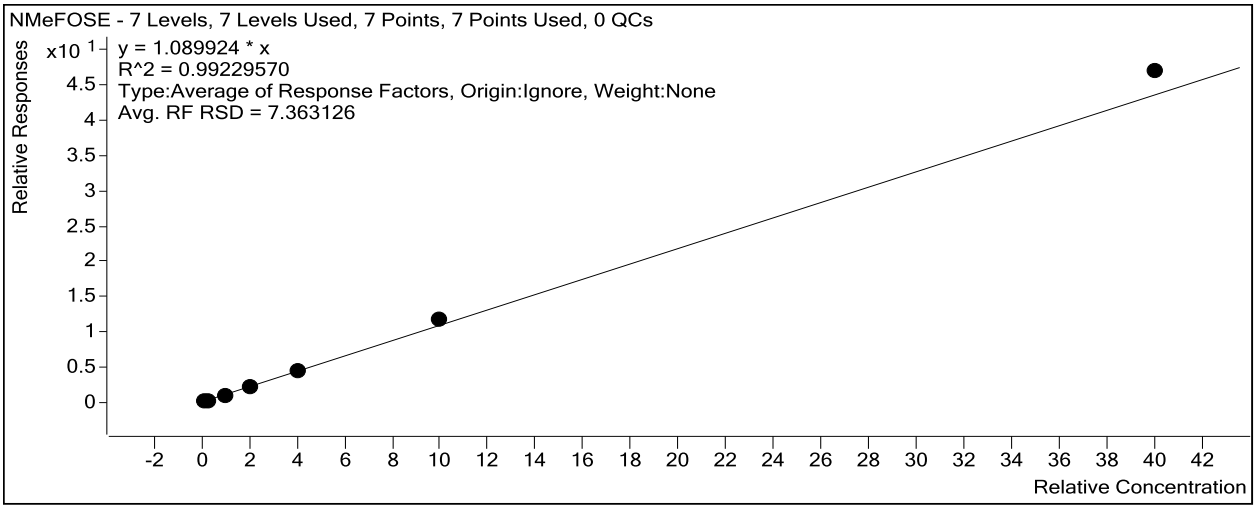
Target Compound *10:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	4107	0.4820	2.9996
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	10022	1.2050	2.8867
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	39610	4.8200	3.0246



Target Compound *NMeFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	2312	0.5000	0.9799
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	6017	1.2500	1.0202
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	24139	5.0000	1.0331
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	50188	10.0000	1.1207
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	100681	20.0000	1.1112
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	252325	50.0000	1.1860
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	879139	200.0000	1.1784



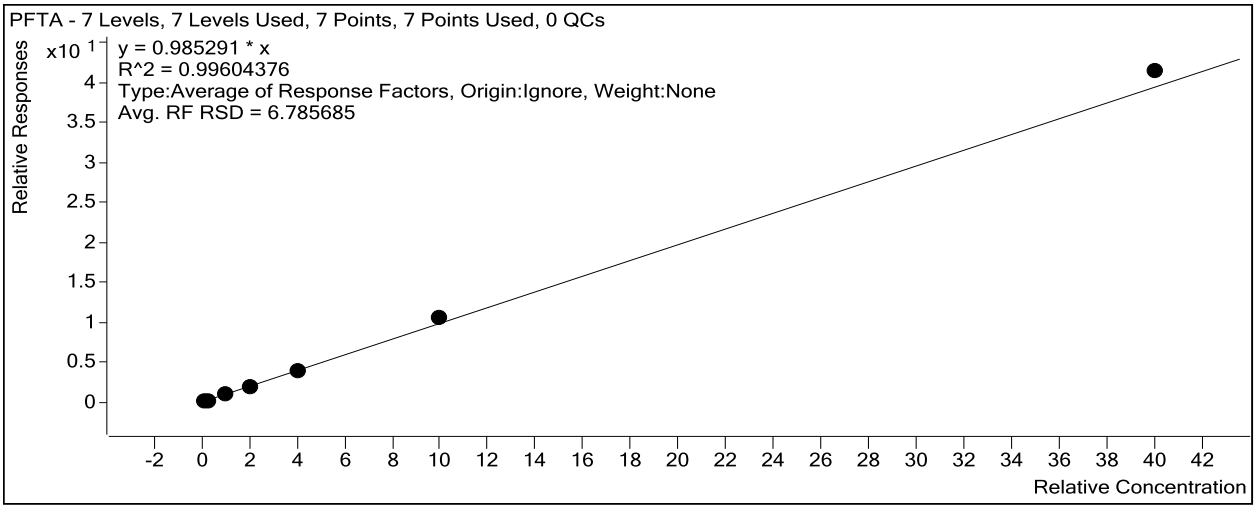
Extracted ISTD *d9-NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	529411	5.0000	105882.2202
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	545174	5.0000	109034.7609
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	533865	5.0000	106772.9726
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	526966	5.0000	105393.2434
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	516628	5.0000	103325.5047
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	508134	5.0000	101626.7167
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	470292	5.0000	94058.4703

Target Compound *PFTA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	48157	0.5000	0.9096
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	122399	1.2500	0.8981
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	506368	5.0000	0.9485
D:\MassHunter\Data\2220111CCAL\2220111C_4.d	Calibration	4	☑	1074305	10.0000	1.0193
D:\MassHunter\Data\2220111CCAL\2220111C_5.d	Calibration	5	☑	2089498	20.0000	1.0111
D:\MassHunter\Data\2220111CCAL\2220111C_6.d	Calibration	6	☑	5444554	50.0000	1.0715
D:\MassHunter\Data\2220111CCAL\2220111C_7.d	Calibration	7	☑	19543935	200.0000	1.0389



Target Compound *PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220111CCAL\2220111C_1.d	Calibration	1	☑	61964	0.5000	10.2016
D:\MassHunter\Data\2220111CCAL\2220111C_2.d	Calibration	2	☑	139250	1.2500	8.8802
D:\MassHunter\Data\2220111CCAL\2220111C_3.d	Calibration	3	☑	581427	5.0000	9.0046

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/10/2022 18:35	Lab File ID:	2220110A_27.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731351

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10500	110	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	11000	114	70	130	
NEtFOSAA	ng/L	10000	9970	100	70	130	
NMeFOSAA	ng/L	10000	10700	107	70	130	
Perfluorobutanoic acid	ng/L	10000	10700	107	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9430	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorododecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroheptanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9760	107	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10000	10600	106	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9730	105	70	130	
Perfluoropentanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotridecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroundecanoic acid	ng/L	10000	10300	103	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/10/2022 22:48	Lab File ID:	2220110A_44.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731351

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10500	111	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10900	113	70	130	
NEtFOSAA	ng/L	10000	9990	100	70	130	
NMeFOSAA	ng/L	10000	10800	108	70	130	
Perfluorobutanoic acid	ng/L	10000	10700	107	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9540	108	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroheptanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanoic acid	ng/L	10000	10600	106	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9640	106	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10000	10600	106	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9790	105	70	130	
Perfluoropentanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotridecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroundecanoic acid	ng/L	10000	10400	104	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/11/2022 01:02	Lab File ID:	2220110A_53.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731351

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10700	113	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	11200	117	70	130	
NEtFOSAA	ng/L	10000	10100	101	70	130	
NMeFOSAA	ng/L	10000	10800	108	70	130	
Perfluorobutanoic acid	ng/L	10000	10700	107	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9410	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorododecanoic acid	ng/L	10000	10300	103	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9690	106	70	130	
Perfluorononanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9820	106	70	130	
Perfluoropentanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10400	104	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/16/2022 21:33	Lab File ID:	2220116B_16.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731694

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10900	115	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	11300	118	70	130	
NEtFOSAA	ng/L	10000	10200	102	70	130	
NMeFOSAA	ng/L	10000	10600	106	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9490	107	70	130	
Perfluorodecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorododecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroheptanoic acid	ng/L	10000	10300	103	70	130	
Perfluorohexanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9840	108	70	130	
Perfluorononanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9940	107	70	130	
Perfluoropentanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10200	102	70	130	
Perfluorotridecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroundecanoic acid	ng/L	10000	10500	105	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 00:02	Lab File ID:	2220116B_26.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731694

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10900	114	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	11700	122	70	130	
NEtFOSAA	ng/L	10000	9970	100	70	130	
NMeFOSAA	ng/L	10000	10900	109	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9350	105	70	130	
Perfluorodecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorododecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10600	106	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9840	108	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9980	108	70	130	
Perfluoropentanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotridecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroundecanoic acid	ng/L	10000	10700	107	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 13:49	Lab File ID:	2220117A_10.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10500	111	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	11200	117	70	130	
NEtFOSAA	ng/L	10000	9850	98	70	130	
NMeFOSAA	ng/L	10000	10400	104	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9490	107	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10300	103	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9700	106	70	130	
Perfluorononanoic acid	ng/L	10000	10600	106	70	130	
Perfluorooctanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9700	105	70	130	
Perfluoropentanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10800	108	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 15:33	Lab File ID:	2220117A_17.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10700	112	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10800	113	70	130	
NEtFOSAA	ng/L	10000	10500	105	70	130	
NMeFOSAA	ng/L	10000	10500	105	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9500	107	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9810	107	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9810	106	70	130	
Perfluoropentanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotridecanoic acid	ng/L	10000	10900	109	70	130	
Perfluoroundecanoic acid	ng/L	10000	10400	104	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 16:55	Lab File ID:	2220117A_18.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10800	113	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	11500	120	70	130	
NEtFOSAA	ng/L	10000	10300	103	70	130	
NMeFOSAA	ng/L	10000	10700	107	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9380	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorododecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10600	106	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9680	106	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9640	104	70	130	
Perfluoropentanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotridecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroundecanoic acid	ng/L	10000	10700	107	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 18:24	Lab File ID:	2220117A_24.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10700	113	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10800	112	70	130	
NEtFOSAA	ng/L	10000	10200	102	70	130	
NMeFOSAA	ng/L	10000	11100	111	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9530	107	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9700	106	70	130	
Perfluorononanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9820	106	70	130	
Perfluoropentanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10700	107	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222010612	Instrument ID:	QQQ4
Analysis Date:	01/17/2022 19:09	Lab File ID:	2220117A_27.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10700	113	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	11200	117	70	130	
NEtFOSAA	ng/L	10000	10500	105	70	130	
NMeFOSAA	ng/L	10000	10800	108	70	130	
Perfluorobutanoic acid	ng/L	10000	10700	107	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9440	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10800	108	70	130	
Perfluorododecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroheptanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9730	106	70	130	
Perfluorononanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9780	105	70	130	
Perfluoropentanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotridecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroundecanoic acid	ng/L	10000	10300	103	70	130	

FORM 7E - ORG

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	222010612	Standard ID:	1205 (ICAL Midpoint)
Analyst:	ADA	Instrument ID:	QQQ4
Analysis Date:	01/10/22 12:41	Lab File ID:	2220110A_5.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731351

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	1220599	820370	1017755	206891

CLIENT SAMPLE ID	*LAB SAMP ID*		*#*		*#*		*#*		*#*
ALB-ERB-01	22201061214	1225183		826977		1059347		198886	
MB2294956	2294956	1241526		834688		1066528		205761	
LCS2294957	2294957	1146360		778731		994533		190748	
LCSD2294958	2294958	1157902		788801		998254		191958	

AREA UPPER LIMIT = +50% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits
* Value outside QC limits

FORM 8I - ORG

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	222010612	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ4
Analysis Date:	01/16/22 18:05	Lab File ID:	2220116B_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731694

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	1262665	877860	1066224	190698

CLIENT SAMPLE ID	*LAB SAMP ID*		#		#		#		#
AOI03-04-SB-00-02	22201061201	1072886		730126		912888		157359	
AOI03-04-SB-02-04	22201061202	1059348		738282		922044		161822	
AOI03-05-SB-00-02	22201061203	1105911		761396		955784		164551	
AOI03-05-SB-00-02-MS	22201061204	1043723		707556		892291		156379	
AOI03-05-SB-00-02-MSD	22201061205	1033720		714896		878755		155122	
AOI03-05-SB-02-04	22201061206	1076310		732567		920075		162814	
AOI03-07-SB-00-02	22201061207	1083757		725966		917540		160145	
AOI03-07-SB-02-04	22201061208	1053434		719827		892295		156797	
AOI03-06-SB-00-02	22201061209	1038403		721228		882008		154632	
AOI03-06-SB-02-04	22201061210	1056500		734019		915049		157850	
AOI03-03-SB-00-02	22201061211	1110932		747048		933228		166025	
MB2296552	2296552	1042337		730209		902830		160068	
LCS2296553	2296553	1021150		720054		904181		159978	
LCSD2296554	2296554	1021725		706735		888760		156860	

AREA UPPER LIMIT = +50% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits
* Value outside QC limits

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	222010612	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ4
Analysis Date:	01/17/22 10:08	Lab File ID:	2220117A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	1183583	812154	990377	179622

CLIENT SAMPLE ID	*LAB SAMP ID*		#		#		#		#
AOI03-03-SB-02-04	22201061212	1037609		696339		880702		154553	
AOI03-04-SB-00-02-DUP	22201061213	1020110		691964		874318		151684	
MB2297103	2297103	1027412		708211		887897		157101	
LCS2297104	2297104	987568		695621		868022		152511	
LCSD2297105	2297105	975612		695479		856839		150499	

AREA UPPER LIMIT = +50% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits
* Value outside QC limits

FORM 8I - ORG

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220503B.batch.bin
Current ICAL Batch: 2220501A
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 740027
20mM NH4OAc (ID/Exp): 022-54--8 5/4/22 8:00AM
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/20/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/01/22 10:10:55	2220501A_2.d	1201	Cal	1	SXA,QQQ4,ICAL#022-47-5
05/01/22 10:25:51	2220501A_3.d	1202	Cal	1	SXA,QQQ4,ICAL#022-47-6
05/01/22 10:40:40	2220501A_4.d	1203	Cal	1	SXA,QQQ4,ICAL#022-48-1
05/01/22 10:55:28	2220501A_5.d	1204	Cal	1	SXA,QQQ4,ICAL#022-48-2
05/01/22 11:10:17	2220501A_6.d	1205	Cal	1	SXA,QQQ4,ICAL#022-48-3
05/01/22 11:25:06	2220501A_7.d	1206	Cal	1	SXA,QQQ4,ICAL#022-48-4
05/01/22 11:39:55	2220501A_8.d	1207	Cal	1	SXA,QQQ4,ICAL#022-48-5
05/01/22 11:57:05	2220501A_9.d	1500	Blank	1	SXA,QQQ4,Instrument Blank#022-54-3
05/01/22 12:12:02	2220501A_10.d	1600	Sample	1	SXA,QQQ4,ICV#022-49-1
05/01/22 12:26:52	2220501A_11.d	1450	QC	1	SXA,QQQ4,CCV
05/03/22 16:28:20	2220503B_1.d	1500	Blank	1	SXA,QQQ4,Instrument Blank
05/03/22 16:43:10	2220503B_2.d	1450	QC	1	SXA,QQQ4,CCV
05/03/22 16:57:58	2220503B_3.d	2340976	Blank	1	SXA,QQQ4,739931
05/03/22 17:13:03	2220503B_4.d	2340977	QC	1	SXA,QQQ4,739931
05/03/22 17:27:52	2220503B_5.d	22204152604	Sample	1	SXA,QQQ4,739931
05/03/22 17:42:43	2220503B_6.d	22204152605	Sample	1	SXA,QQQ4,739931
05/03/22 17:57:32	2220503B_7.d	22204152606	Sample	1	SXA,QQQ4,739931
05/03/22 18:12:21	2220503B_8.d	22204152607	Sample	1	SXA,QQQ4,739931
05/03/22 18:27:10	2220503B_9.d	22204152608X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 18:41:59	2220503B_10.d	22204152609	Sample	1	SXA,QQQ4,739931
05/03/22 18:56:48	2220503B_11.d	22204152610	Sample	1	SXA,QQQ4,739931
05/03/22 19:11:37	2220503B_12.d	22204152611	Sample	1	SXA,QQQ4,739931
05/03/22 19:26:26	2220503B_13.d	22204152612	Sample	1	SXA,QQQ4,739931
05/03/22 19:41:14	2220503B_14.d	22204152615	Sample	1	SXA,QQQ4,739931
05/03/22 19:56:05	2220503B_15.d	1400	QC	1	SXA,QQQ4,CCV
05/03/22 20:11:14	2220503B_16.d	22204152616	Sample	1	SXA,QQQ4,739931
05/03/22 20:26:19	2220503B_17.d	22204152617	Sample	1	SXA,QQQ4,739931
05/03/22 20:41:08	2220503B_18.d	22204152620MS	QC	1	SXA,QQQ4,739931
05/03/22 20:55:57	2220503B_19.d	22204152621MSD	QC	1	SXA,QQQ4,739931
05/03/22 21:10:46	2220503B_20.d	22204152622	Sample	1	SXA,QQQ4,739931
05/03/22 21:25:36	2220503B_21.d	22204152623	Sample	1	SXA,QQQ4,739931
05/03/22 21:40:25	2220503B_22.d	22204152624	Sample	1	SXA,QQQ4,739931
05/03/22 21:55:13	2220503B_23.d	22204152625X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 22:10:03	2220503B_24.d	22204152626X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 22:24:51	2220503B_25.d	22204152633	Sample	1	SXA,QQQ4,739931
05/03/22 22:39:42	2220503B_26.d	22204152634X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 22:54:32	2220503B_27.d	1400	QC	1	SXA,QQQ4,CCV
05/03/22 23:09:38	2220503B_28.d	2341409	Blank	1	SXA,QQQ4,740006
05/03/22 23:24:44	2220503B_29.d	2341410	QC	1	SXA,QQQ4,740006
05/03/22 23:39:34	2220503B_30.d	2341411	QC	1	SXA,QQQ4,740006
05/03/22 23:54:23	2220503B_31.d	22204153833	Sample	1	SXA,QQQ4,740006
05/04/22 00:09:13	2220503B_32.d	22204153834	Sample	1	SXA,QQQ4,740006
05/04/22 00:24:03	2220503B_33.d	22204153835	Sample	1	SXA,QQQ4,740006
05/04/22 00:38:52	2220503B_34.d	22204153836	Sample	1	SXA,QQQ4,740006
05/04/22 00:53:42	2220503B_35.d	22204153838	Sample	1	SXA,QQQ4,740006
05/04/22 01:08:35	2220503B_36.d	22204153839	Sample	1	SXA,QQQ4,740006
05/04/22 01:23:25	2220503B_37.d	22204153840	Sample	1	SXA,QQQ4,740006
05/04/22 01:38:15	2220503B_38.d	22204158213	Sample	1	SXA,QQQ4,740006
05/04/22 01:53:06	2220503B_39.d	22204158214	Sample	1	SXA,QQQ4,740006
05/04/22 02:07:56	2220503B_40.d	22204158215	Sample	1	SXA,QQQ4,740006
05/04/22 02:22:46	2220503B_41.d	1400	QC	1	SXA,QQQ4,CCV
05/04/22 02:37:53	2220503B_42.d	22204158216	Sample	1	SXA,QQQ4,740006
05/04/22 02:52:59	2220503B_43.d	22204158217	Sample	1	SXA,QQQ4,740006
05/04/22 03:07:51	2220503B_44.d	22204158218	Sample	1	SXA,QQQ4,740006
05/04/22 03:22:41	2220503B_45.d	22204158219	Sample	1	SXA,QQQ4,740006
05/04/22 03:37:34	2220503B_46.d	22204158220	Sample	1	SXA,QQQ4,740006
05/04/22 03:52:25	2220503B_47.d	22204158221	Sample	1	SXA,QQQ4,740006
05/04/22 04:07:14	2220503B_48.d	1400	QC	1	SXA,QQQ4,CCV

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220503C.batch.bin
Current ICAL Batch: 2220501A
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 740176
20mM NH4OAc (ID/Exp): 022-54--8 5/4/22 8:00AM
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/20/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/01/22 10:10:55	2220501A_2.d	1201	Cal	1	SXA,QQQ4,ICAL#022-47-5
05/01/22 10:25:51	2220501A_3.d	1202	Cal	1	SXA,QQQ4,ICAL#022-47-6
05/01/22 10:40:40	2220501A_4.d	1203	Cal	1	SXA,QQQ4,ICAL#022-48-1
05/01/22 10:55:28	2220501A_5.d	1204	Cal	1	SXA,QQQ4,ICAL#022-48-2
05/01/22 11:10:17	2220501A_6.d	1205	Cal	1	SXA,QQQ4,ICAL#022-48-3
05/01/22 11:25:06	2220501A_7.d	1206	Cal	1	SXA,QQQ4,ICAL#022-48-4
05/01/22 11:39:55	2220501A_8.d	1207	Cal	1	SXA,QQQ4,ICAL#022-48-5
05/01/22 11:57:05	2220501A_9.d	1500	Blank	1	SXA,QQQ4,Instrument Blank#022-54-3
05/01/22 12:12:02	2220501A_10.d	1600	Sample	1	SXA,QQQ4,ICV#022-49-1
05/01/22 12:26:52	2220501A_11.d	1450	QC	1	SXA,QQQ4,CCV
05/04/22 04:22:21	2220503C_1.d	1500	Blank	1	SXA,QQQ4,Instrument Blank
05/04/22 04:37:11	2220503C_2.d	1450	QC	1	SXA,QQQ4,CCV
05/04/22 04:52:00	2220503C_3.d	22204158222	Sample	1	SXA,QQQ4,740006
05/04/22 05:07:06	2220503C_4.d	22204159701	Sample	1	SXA,QQQ4,740006
05/04/22 05:21:56	2220503C_5.d	1400	QC	1	SXA,QQQ4,CCV

LC-QQQ Instrument Run Log

Instrument: QQQ 3
Instrument Batch: 2220504A.batch.bin
Current ICAL Batch: 2220502ACAL
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 740216/740217
20mM NH4OAc (ID/Exp): 022-57-1 5/6/22 8:00 AM
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/20/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/02/22 11:14:59	2220502A_2.d	1201	Cal	1	RXJ,QQQ3;ICAL#022-47-5
05/02/22 11:29:37	2220502A_3.d	1202	Cal	1	RXJ,QQQ3;ICAL#022-47-6
05/02/22 11:44:16	2220502A_4.d	1203	Cal	1	RXJ,QQQ3;ICAL#022-48-1
05/02/22 11:58:54	2220502A_5.d	1204	Cal	1	RXJ,QQQ3;ICAL#022-48-2
05/02/22 12:13:32	2220502A_6.d	1205	Cal	1	RXJ,QQQ3;ICAL#022-48-3
05/02/22 12:28:12	2220502A_7.d	1206	Cal	1	RXJ,QQQ3;ICAL#022-48-4
05/02/22 12:42:51	2220502A_8.d	1207	Cal	1	RXJ,QQQ3;ICAL#022-48-5
05/02/22 13:05:22	2220502A_9.d	1500	Blank	1	RXJ,QQQ3;ICAL#022-54-3
05/02/22 13:20:09	2220502A_10.d	1600	Sample	1	RXJ,QQQ3;ICAL#022-49-1
05/02/22 13:34:50	2220502A_11.d	1450	QC	1	RXJ,QQQ3;ICAL#022-47-5
05/02/22 13:53:52	2220502A_12.d	1600	Sample	1	RXJ,QQQ3;ICAL#022-49-1
05/04/22 12:16:01	2220504A_1.d	1400 RT TEST	QC	1	RXJ,QQQ3;#022-48-2
05/04/22 12:30:51	2220504A_2.d	1500	Blank	1	RXJ,QQQ3;Instrument Blank# 022-54-3
05/04/22 12:45:31	2220504A_3.d	1450	QC	1	RXJ,QQQ3;CCV#022-47-5
05/04/22 14:02:42	2220504A_4.d	2341454	Blank	1	RXJ,QQQ3;740025
05/04/22 14:17:29	2220504A_5.d	2341455	QC	1	RXJ,QQQ3;740025
05/04/22 14:32:08	2220504A_6.d	22204133811	Sample	1	RXJ,QQQ3;740025
05/04/22 14:46:46	2220504A_7.d	22204134411	Sample	1	RXJ,QQQ3;740025
05/04/22 15:01:25	2220504A_8.d	22204154616	Sample	1	RXJ,QQQ3;740025
05/04/22 15:16:04	2220504A_9.d	22204154618	Sample	1	RXJ,QQQ3;740025
05/04/22 15:30:43	2220504A_10.d	22204154620	Sample	1	RXJ,QQQ3;740025
05/04/22 15:45:21	2220504A_11.d	22204158201	Sample	1	RXJ,QQQ3;740025
05/04/22 16:00:03	2220504A_12.d	22204158202	Sample	1	RXJ,QQQ3;740025
05/04/22 16:14:41	2220504A_13.d	22204158203	Sample	1	RXJ,QQQ3;740025
05/04/22 16:29:20	2220504A_14.d	IIS TEST	Blank	1	RXJ,QQQ3;022-57-4
05/04/22 16:44:00	2220504A_15.d	22204158204	Sample	1	RXJ,QQQ3;740025
05/04/22 16:58:39	2220504A_16.d	22204158205	Sample	1	RXJ,QQQ3;740025
05/04/22 17:13:18	2220504A_17.d	1400	QC	1	RXJ,QQQ3;CCV 022-48-2
05/04/22 17:27:57	2220504A_18.d	22204158206	Sample	1	RXJ,QQQ3;740025
05/04/22 17:42:36	2220504A_19.d	22204158207	Sample	1	RXJ,QQQ3;740025
05/04/22 17:57:15	2220504A_20.d	22204158208	Sample	1	RXJ,QQQ3;740025
05/04/22 18:11:53	2220504A_21.d	22204158209	Sample	1	RXJ,QQQ3;740025
05/04/22 18:26:35	2220504A_22.d	22204158210	Sample	1	RXJ,QQQ3;740025
05/04/22 18:41:14	2220504A_23.d	22204159301	Sample	1	RXJ,QQQ3;740025
05/04/22 18:55:53	2220504A_24.d	22204159302	Sample	1	RXJ,QQQ3;740025
05/04/22 19:10:32	2220504A_25.d	22204159303	Sample	1	RXJ,QQQ3;740025
05/04/22 19:25:10	2220504A_26.d	22204159304	Sample	1	RXJ,QQQ3;740025
05/04/22 19:39:49	2220504A_27.d	1400	QC	1	RXJ,QQQ3;CCV 022-48-2
05/04/22 20:17:45	2220504A_28.d	2339779	Blank	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 20:32:32	2220504A_29.d	2339780	QC	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 20:47:10	2220504A_30.d	2339781	QC	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 21:01:49	2220504A_31.d	22204192001	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 21:16:30	2220504A_32.d	22204192002	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 21:31:09	2220504A_33.d	22204192003	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 21:45:48	2220504A_34.d	22204192004	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 22:00:27	2220504A_35.d	22204192005	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 22:15:06	2220504A_36.d	22204192006	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 22:29:45	2220504A_37.d	22204192007	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 22:44:23	2220504A_38.d	22204192008	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 22:59:01	2220504A_39.d	22204192009	Sample	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 23:13:40	2220504A_40.d	Reagent Blank	Blank	1	RXJ,QQQ3;739710, TOP Assay Post
05/04/22 23:28:18	2220504A_41.d	1400	QC	1	RXJ,QQQ3;CCV 022-48-2

LC-QQQ Instrument Run Log

Instrument: QQQ5
Instrument Batch: 2220509B.batch.bin
Current ICAL Batch: 2220509ACAL
ICAL Std (ID/Exp): 022-56-2 10/21/22
ICV Std (ID/Exp): 022-59-4 7/19/22

LIMS Batch (HBN): 740543
20mM NH4OAc (ID/Exp): 022-67-1 5/10/22 8:00
Methanol (ID/Exp): 2131409 10/31/26
EIS Mix (ID/Exp): 022-55-3 10/12/22
IIS Mix (ID/Exp): 022-57-4 11/4/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/09/22 08:56:40	2220509A_2.d	1201	Cal	1	SXA,QQQ5,ICAL 022-57-7
05/09/22 09:11:26	2220509A_3.d	1202	Cal	1	SXA,QQQ5,ICAL#022-58-1
05/09/22 09:26:02	2220509A_4.d	1203	Cal	1	SXA,QQQ5,ICAL#022-58-2
05/09/22 09:40:38	2220509A_5.d	1204	Cal	1	SXA,QQQ5,ICAL#022-58-3
05/09/22 09:55:14	2220509A_6.d	1205	Cal	1	SXA,QQQ5,ICAL#022-58-4
05/09/22 10:09:53	2220509A_7.d	1206	Cal	1	SXA,QQQ5,ICAL#022-59-2
05/09/22 10:24:29	2220509A_8.d	1207	Cal	1	SXA,QQQ5,ICAL#022-59-3
05/09/22 11:17:56	2220509A_9.d	1500	Blank	1	SXA,QQQ5,Instrument Blank#022-59-5
05/09/22 11:32:40	2220509A_10.d	1600	Sample	1	SXA,QQQ5,ICV#022-59-4
05/09/22 11:47:17	2220509A_11.d	1450	QC	1	SXA,QQQ5,ICAL 022-57-7
05/09/22 18:54:51	2220509B_1.d	1500	Blank	1	SXA,QQQ5,Instrument Blank#022-59-5
05/09/22 19:09:36	2220509B_2.d	1450	QC	1	SXA,QQQ5,CCV# 022-57-7
05/09/22 19:33:31	2220509B_3.d	2343451	Blank	1	SXA,QQQ5,740324
05/09/22 19:48:16	2220509B_4.d	2343452	QC	1	SXA,QQQ5,740324
05/09/22 20:02:53	2220509B_5.d	22204158202	Sample	1	SXA,QQQ5,740324
05/09/22 20:17:30	2220509B_6.d	22204180204	Sample	1	SXA,QQQ5,740324
05/09/22 20:32:06	2220509B_7.d	22205033017	Sample	1	SXA,QQQ5,740324
05/09/22 20:46:43	2220509B_8.d	22205033018	Sample	1	SXA,QQQ5,740324
05/09/22 21:01:24	2220509B_9.d	22205033019	Sample	1	SXA,QQQ5,740324
05/09/22 21:16:01	2220509B_10.d	22205033020	Sample	1	SXA,QQQ5,740324
05/09/22 21:30:38	2220509B_11.d	22205033021	Sample	1	SXA,QQQ5,740324
05/09/22 21:45:15	2220509B_12.d	22205033022	Sample	1	SXA,QQQ5,740324
05/09/22 21:59:52	2220509B_13.d	22205033023	Sample	1	SXA,QQQ5,740324
05/09/22 22:14:29	2220509B_14.d	22205033024	Sample	1	SXA,QQQ5,740324
05/09/22 22:29:06	2220509B_15.d	1400	QC	1	SXA,QQQ5,CCV#022-58-3
05/09/22 22:44:00	2220509B_16.d	22205033025	Sample	1	SXA,QQQ5,740324
05/09/22 22:58:53	2220509B_17.d	22205033026	Sample	1	SXA,QQQ5,740324

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 16:43	Lab File ID:	2220503B_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.86	101	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.80	99	70	130	
NEtFOSAA	ng/L	4.00	3.82	96	70	130	
NMeFOSAA	ng/L	4.00	3.92	98	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.78	95	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.49	98	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.66	92	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.66	91	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.76	94	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.85	96	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.65	100	70	130	
Perfluorononanoic acid	ng/L	4.00	3.73	93	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.75	94	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.78	102	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.73	93	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.79	95	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.04	101	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.78	94	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/04/2022 04:37	Lab File ID:	2220503C_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740176

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.91	103	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	4.19	109	70	130	
NEtFOSAA	ng/L	4.00	3.61	90	70	130	
NMeFOSAA	ng/L	4.00	4.08	102	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.74	94	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.47	98	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.74	93	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.50	88	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.75	94	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.90	98	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.46	94	70	130	
Perfluorononanoic acid	ng/L	4.00	3.68	92	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.75	94	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.62	98	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.82	95	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.65	91	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.76	94	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.76	94	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041582	Instrument ID:	QQQ3
Analysis Date:	05/04/2022 12:45	Lab File ID:	2220504A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740216

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	4.06	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	4.21	110	70	130	
NEtFOSAA	ng/L	4.00	4.02	101	70	130	
NMeFOSAA	ng/L	4.00	4.34	108	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.10	102	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.72	105	70	130	
Perfluorodecanoic acid	ng/L	4.00	4.14	103	70	130	
Perfluorododecanoic acid	ng/L	4.00	4.04	101	70	130	
Perfluoroheptanoic acid	ng/L	4.00	4.12	103	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.13	103	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.82	104	70	130	
Perfluorononanoic acid	ng/L	4.00	4.00	100	70	130	
Perfluorooctanoic acid	ng/L	4.00	4.01	100	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.96	107	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.96	99	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.95	99	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.99	100	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.89	97	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041582	Instrument ID:	QQQ5
Analysis Date:	05/09/2022 19:09	Lab File ID:	2220509B_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740543

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	4.10	108	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	4.40	115	70	130	
NEtFOSAA	ng/L	4.00	3.88	97	70	130	
NMeFOSAA	ng/L	4.00	4.31	108	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.06	102	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.63	102	70	130	
Perfluorodecanoic acid	ng/L	4.00	4.09	102	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.95	99	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.94	98	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.12	103	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.81	104	70	130	
Perfluorononanoic acid	ng/L	4.00	3.98	99	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.91	98	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	4.16	112	70	130	
Perfluoropentanoic acid	ng/L	4.00	4.13	103	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	4.02	101	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.09	102	70	130	
Perfluoroundecanoic acid	ng/L	4.00	4.02	101	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ3
Analysis Date:	05/02/2022 13:53	Lab File ID:	2220502A_12.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	739970

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	10700	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	10500	104	70	130	
NEtFOSAA	ng/L	10000	10500	105	70	130	
NMeFOSAA	ng/L	10000	9990	100	70	130	
Perfluorobutanoic acid	ng/L	10000	9960	100	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	10700	107	70	130	
Perfluorodecanoic acid	ng/L	10000	10300	103	70	130	
Perfluorododecanoic acid	ng/L	10000	9190	92	70	130	
Perfluoroheptanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanoic acid	ng/L	10100	11000	109	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	10600	106	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10100	9680	96	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	8910	89	70	130	
Perfluoropentanoic acid	ng/L	10100	10200	101	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotridecanoic acid	ng/L	10000	9390	94	70	130	
Perfluoroundecanoic acid	ng/L	10000	9320	93	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/01/2022 12:12	Lab File ID:	2220501A_10.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	739818

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	10700	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	10200	101	70	130	
NEtFOSAA	ng/L	10000	10400	104	70	130	
NMeFOSAA	ng/L	10000	10200	102	70	130	
Perfluorobutanoic acid	ng/L	10000	10200	102	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	10800	108	70	130	
Perfluorodecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorododecanoic acid	ng/L	10000	9390	94	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10100	10800	107	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	10900	109	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10100	9690	96	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	9120	91	70	130	
Perfluoropentanoic acid	ng/L	10100	10200	101	70	130	
Perfluorotetradecanoic acid	ng/L	10000	11000	110	70	130	
Perfluorotridecanoic acid	ng/L	10000	9310	93	70	130	
Perfluoroundecanoic acid	ng/L	10000	9750	98	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ5
Analysis Date:	05/09/2022 11:32	Lab File ID:	2220509A_10.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740496

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	10300	103	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	10400	103	70	130	
NEtFOSAA	ng/L	10000	9510	95	70	130	
NMeFOSAA	ng/L	10000	9250	92	70	130	
Perfluorobutanoic acid	ng/L	10000	9620	96	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	10100	101	70	130	
Perfluorodecanoic acid	ng/L	10000	9740	97	70	130	
Perfluorododecanoic acid	ng/L	10000	9000	90	70	130	
Perfluoroheptanoic acid	ng/L	10000	10000	100	70	130	
Perfluorohexanoic acid	ng/L	10100	10500	104	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	10300	103	70	130	
Perfluorononanoic acid	ng/L	10000	10200	102	70	130	
Perfluorooctanoic acid	ng/L	10100	9640	95	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	8490	85	70	130	
Perfluoropentanoic acid	ng/L	10100	9930	98	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotridecanoic acid	ng/L	10000	8930	89	70	130	
Perfluoroundecanoic acid	ng/L	10000	9230	92	70	130	

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 16:28	Lab File ID:	2220503B_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740027

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/04/2022 04:22	Lab File ID:	2220503C_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740176

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041582	Instrument ID:	QQQ3
Analysis Date:	05/04/2022 12:30	Lab File ID:	2220504A_2.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740216

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041582	Instrument ID:	QQQ5
Analysis Date:	05/09/2022 18:54	Lab File ID:	2220509B_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740543

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

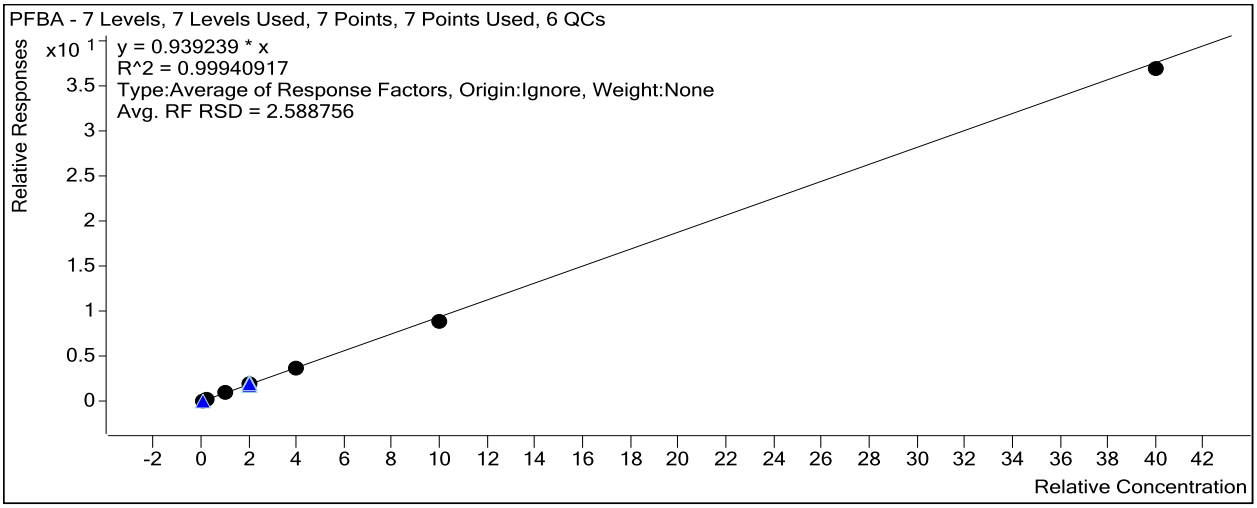
Quantitative Analysis Calibration Report

Batch Data Path	C:\MassHunter\Data\QQQ3\2220502ACAL\QuantResults\2220504A.batch.bin		
Analysis Time	5/5/2022 2:07 PM	**Analyst Name**	GCAL\lcms
Report Time	5/6/2022 7:30 AM	**Reporter Name**	GCAL\lcms
Last Calib Update	5/3/2022 3:11 PM	**Batch State**	Processed

Calibration Info

Target Compound *PFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	10899	0.5000	0.9693
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	26887	1.2500	0.9336
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	104012	5.0000	0.9614
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	191182	10.0000	0.9524
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	425561	20.0000	0.9373
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	1016513	50.0000	0.8985
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	3658946	200.0000	0.9223



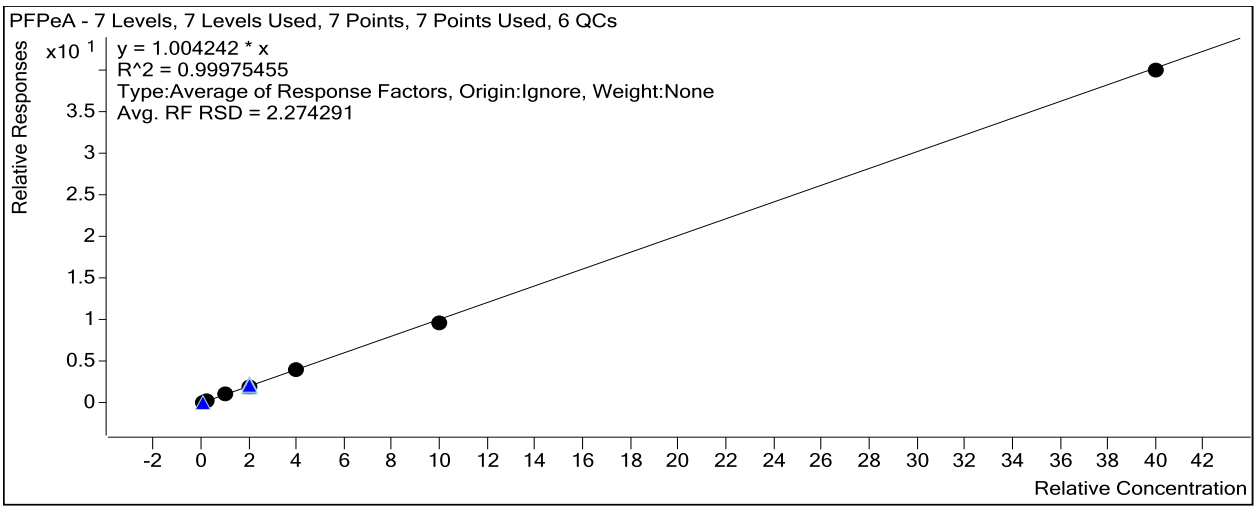
Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
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I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	115192	5.0000	23038.4126
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	108192	5.0000	21638.3553
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	100371	5.0000	20074.2223
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	113511	5.0000	22702.1191
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	113137	5.0000	22627.3662
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	99182	5.0000	19836.3323

Target Compound *PFMPA*

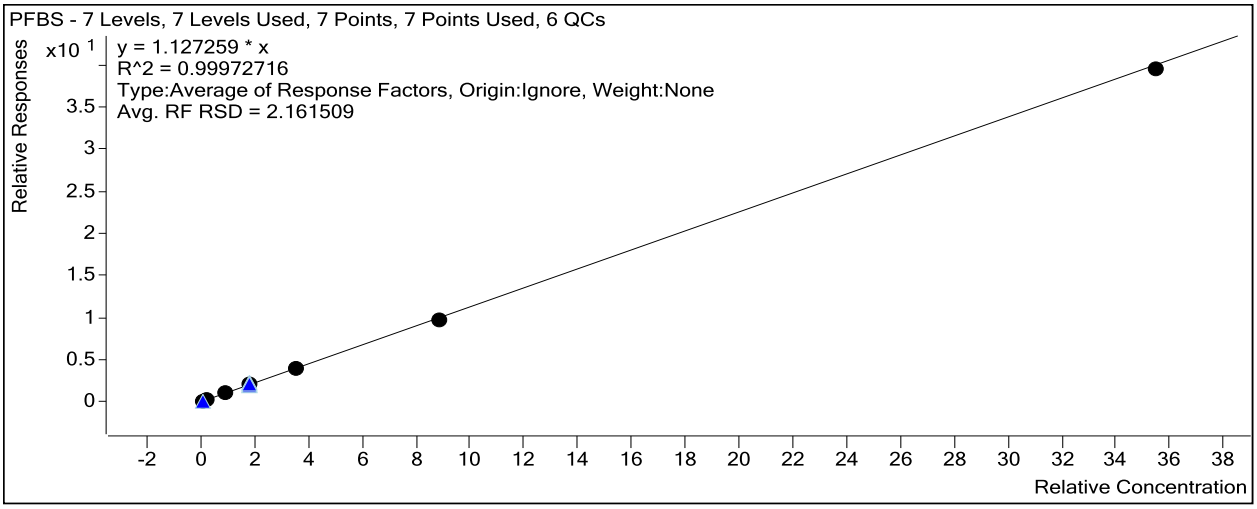
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
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I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	4834	1.2500	0.1390
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	17969	5.0000	0.1370
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	33269	10.0000	0.1338

Quantitative Analysis Calibration Report



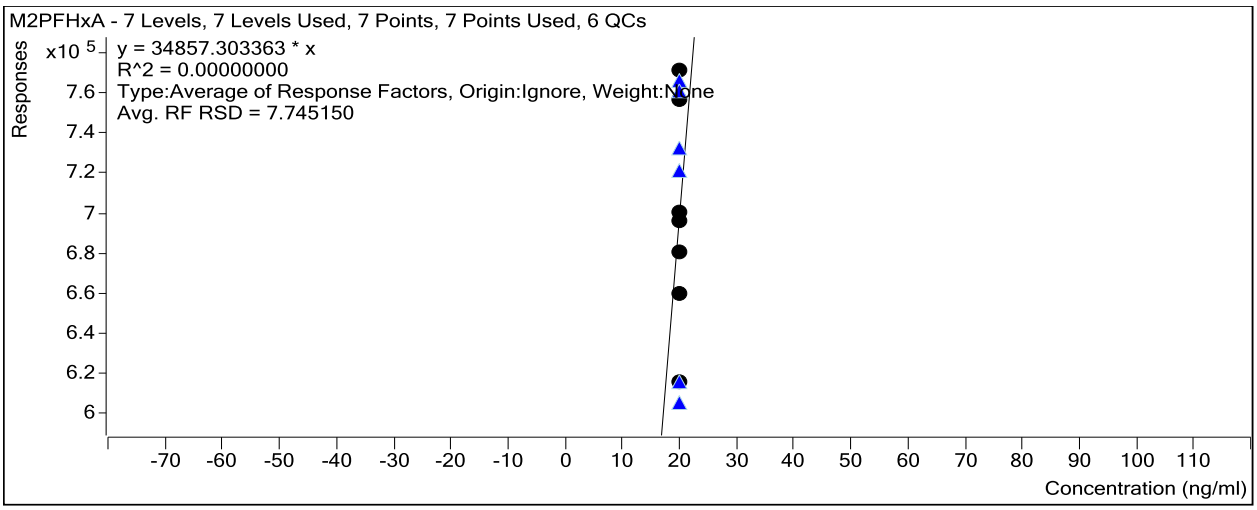
Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	5384	0.4435	1.1270
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	13626	1.1088	1.1326
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	53146	4.4350	1.1648
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	98625	8.8700	1.1500
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	211107	17.7400	1.1082
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	497462	44.3500	1.0949
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	1699156	177.4000	1.1134



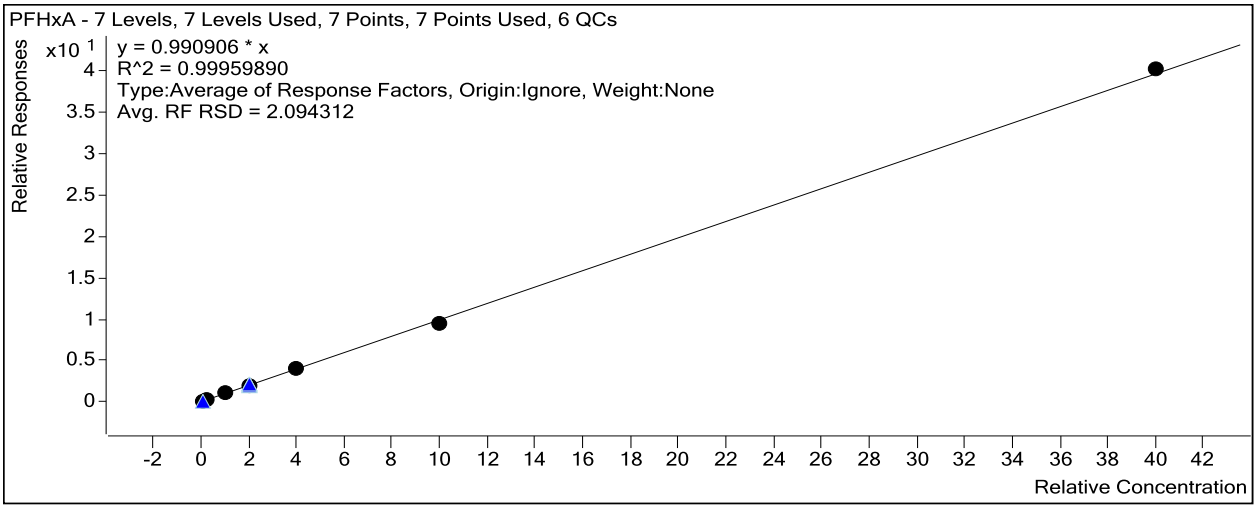
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	53860	5.0000	10772.0388
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	54248	5.0000	10849.5706
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	51439	5.0000	10287.8324
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	48344	5.0000	9668.7453
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	53692	5.0000	10738.3391



Target Compound *PFHxA*

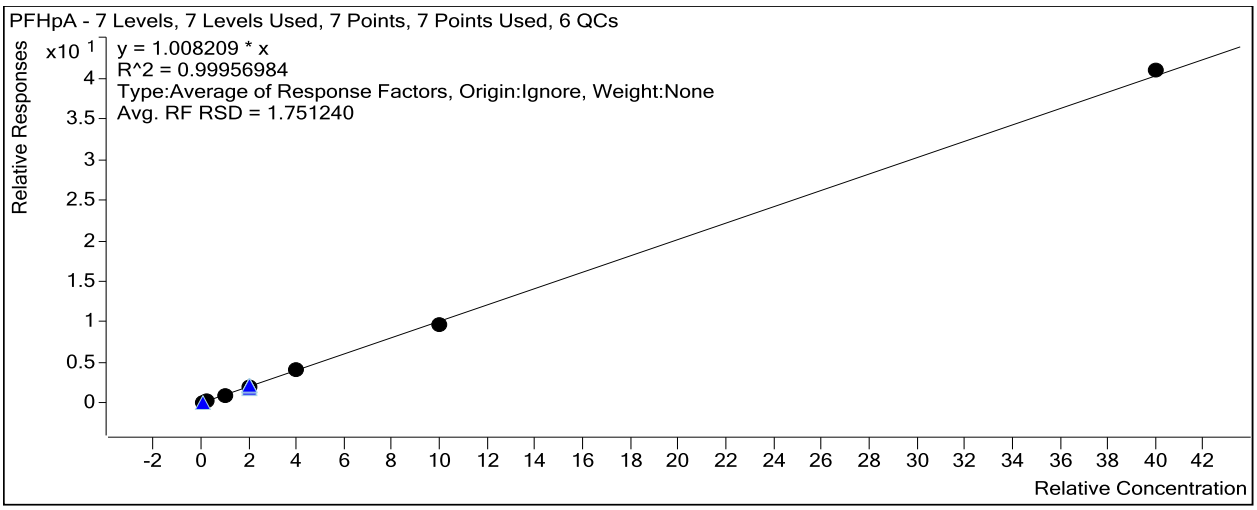
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	19027	0.5000	0.9880
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	48699	1.2500	1.0055
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	189773	5.0000	1.0131
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	355971	10.0000	0.9860
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	774765	20.0000	0.9875
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	1812201	50.0000	0.9507
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	6591697	200.0000	1.0056



Target Compound *PFPeS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	5349	0.4705	1.0554
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	13733	1.1763	1.0760
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	52944	4.7050	1.0938
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	101679	9.4100	1.1176
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	217705	18.8200	1.0772

Quantitative Analysis Calibration Report

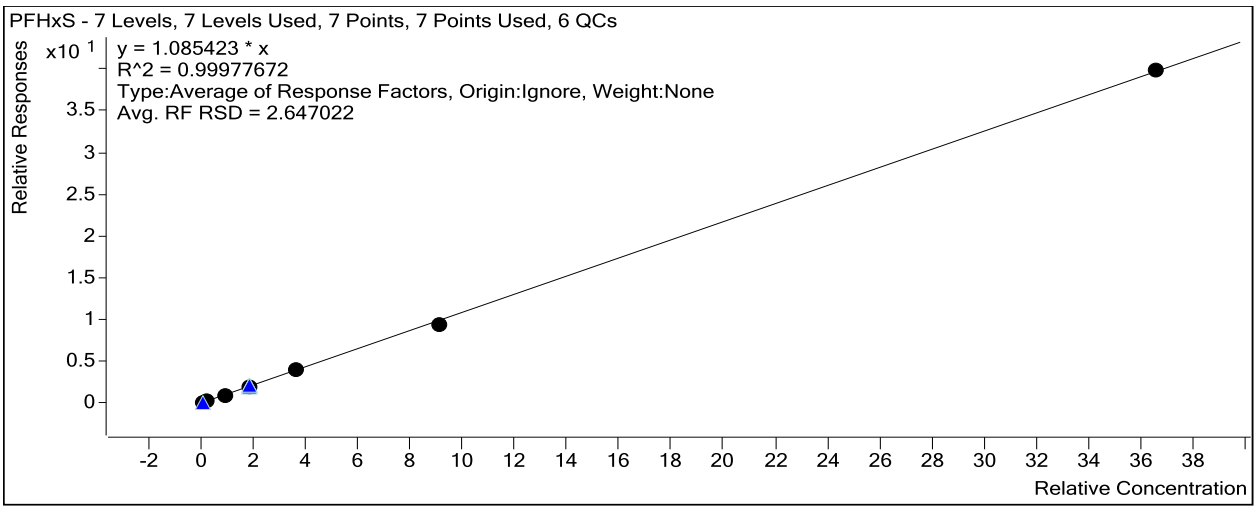


Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	41984	5.0000	8396.7165
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	42529	5.0000	8505.8924
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	41615	5.0000	8322.9129
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	39418	5.0000	7883.6908
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	42912	5.0000	8582.4876
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	41967	5.0000	8393.3710
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	36251	5.0000	7250.2346

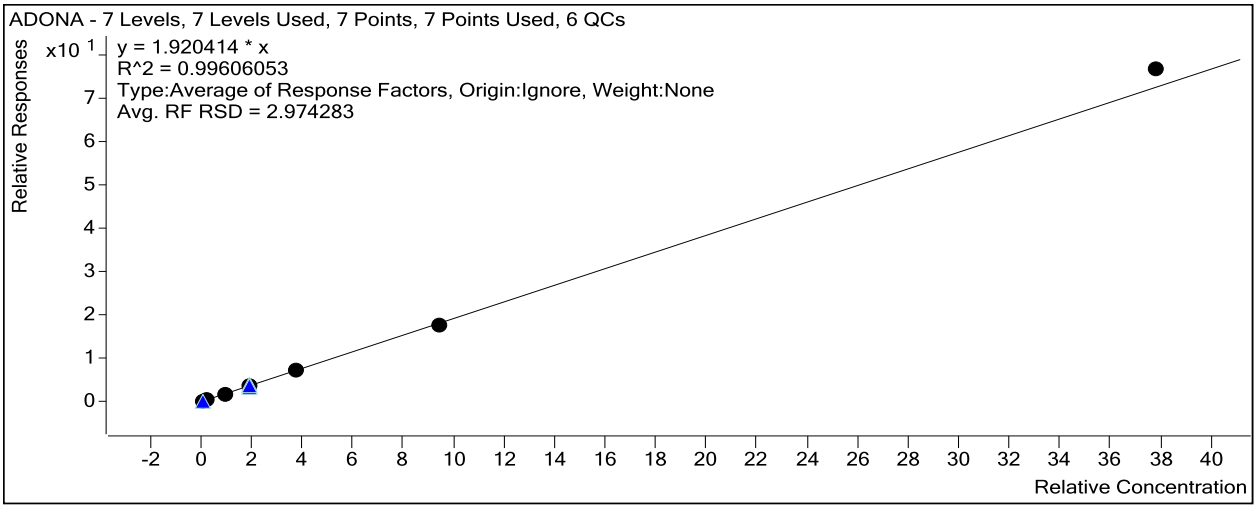
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	4296	0.4570	1.1194
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	10783	1.1425	1.1096
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	40955	4.5700	1.0768
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	77746	9.1400	1.0789
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	171488	18.2800	1.0931
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	395274	45.7000	1.0305
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	1444138	182.8000	1.0896



Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	35330	0.4725	1.8711
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	92673	1.1813	1.9311
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	353746	4.7250	1.9346
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	665266	9.4500	1.8909
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	1462380	18.9000	1.9209
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	3427827	47.2500	1.8619
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	12848923	189.0000	2.0323



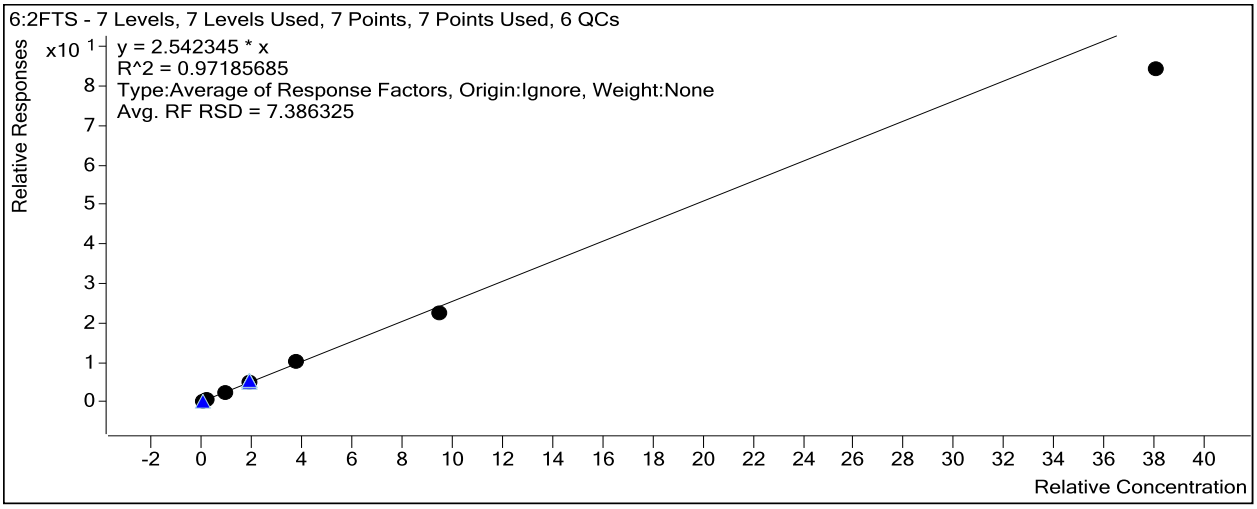
Extracted ISTD *M2 6:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	23539	5.0000	4707.7115
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	26640	5.0000	5327.9522
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	23144	5.0000	4628.8778
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	23518	5.0000	4703.5841
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	22291	5.0000	4458.1236

I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	19157	5.0000	3831.3763
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	14736	5.0000	2947.1023

Target Compound *6:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	6094	0.4755	2.7224
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	16038	1.1888	2.5321
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	59379	4.7550	2.6978
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	117241	9.5100	2.6210
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	224255	19.0200	2.6447
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	429976	47.5500	2.3601
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	1243415	190.2000	2.2183



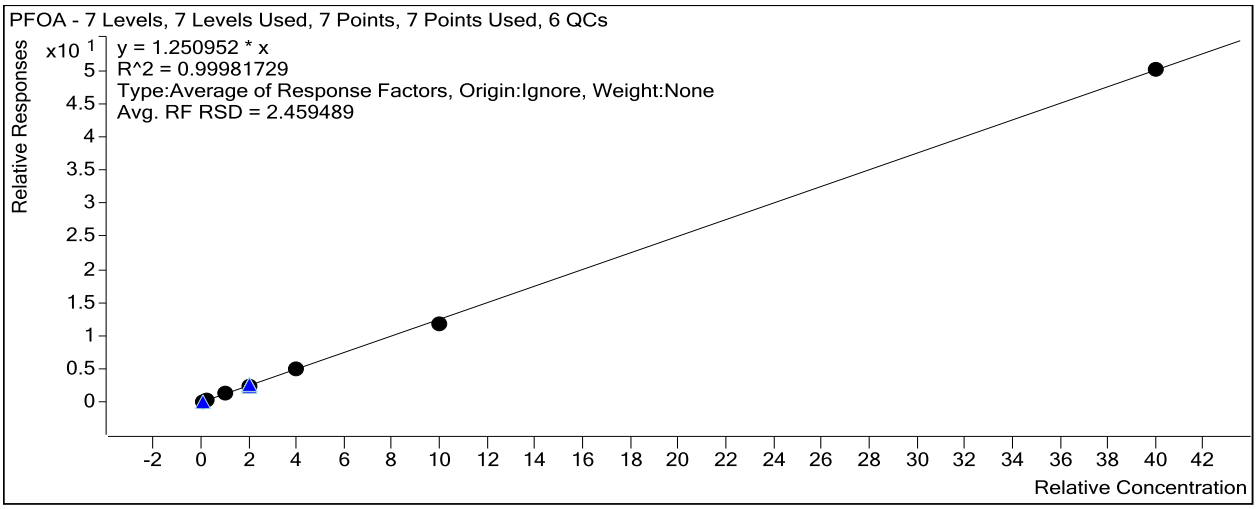
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	199812	5.0000	39962.3554
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	203121	5.0000	40624.2009
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	193492	5.0000	38698.4862
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	186149	5.0000	37229.7888
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	201399	5.0000	40279.7090
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	194818	5.0000	38963.6202
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	167254	5.0000	33450.7976

Instrument ISTD *MPFOA*

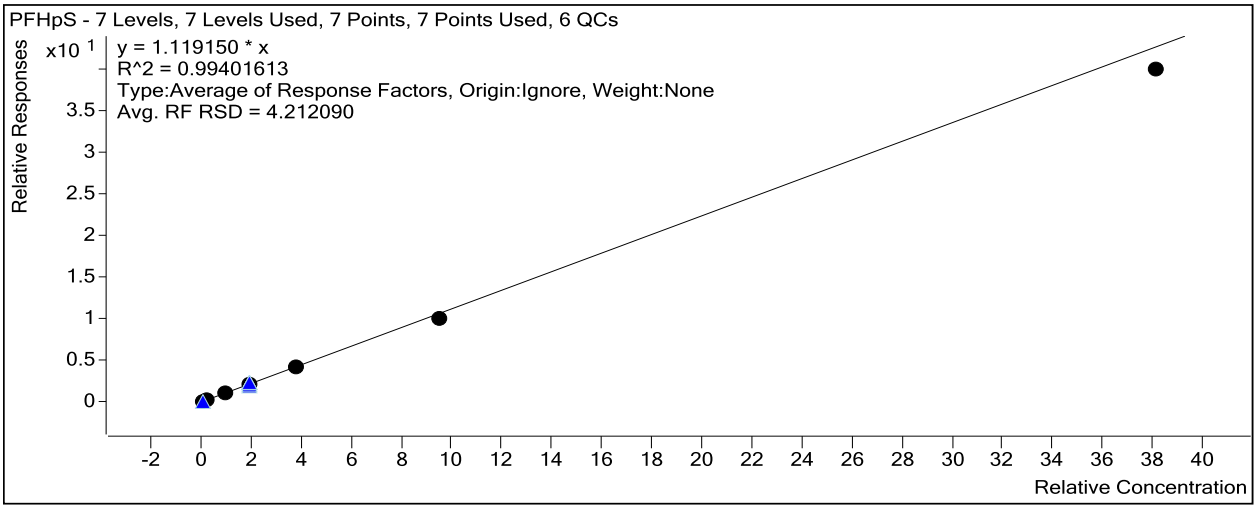
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	1233275	25.0000	49331.0176
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	1234212	25.0000	49368.4633
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	1190980	25.0000	47639.1839
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	1219470	25.0000	48778.8055
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	1175253	25.0000	47010.1175
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	1098630	25.0000	43945.1995
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	934157	25.0000	37366.2771

I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	2322041	50.0000	1.1919
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	8383596	200.0000	1.2531



Target Compound *PFHpS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	4706	0.4765	1.1763
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	11720	1.1913	1.1566
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	44934	4.7650	1.1330
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	85165	9.5300	1.1336
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	183863	19.0600	1.1240
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	424554	47.6500	1.0615
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	1449640	190.6000	1.0490



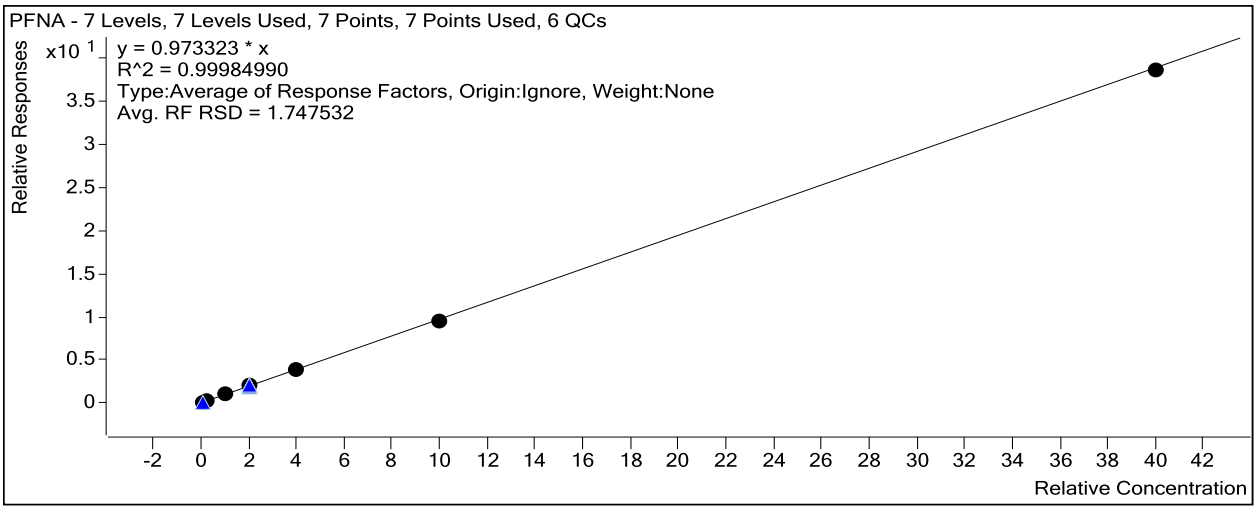
Extracted ISTD *M9PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	225951	5.0000	45190.1930
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	236827	5.0000	47365.3517
I:\2220504A_GCAL_LevelIV_Temp.xlsx	Calibration	3	☑	222622	5.0000	44524.4986

I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	210761	5.0000	42152.2809
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	231953	5.0000	46390.5947
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	221249	5.0000	44249.7970
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	186754	5.0000	37350.8836

Target Compound *PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	22397	0.5000	0.9913
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	58099	1.2500	0.9813
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	218370	5.0000	0.9809
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	416702	10.0000	0.9886
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	891904	20.0000	0.9613
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	2088460	50.0000	0.9439
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	7216313	200.0000	0.9660



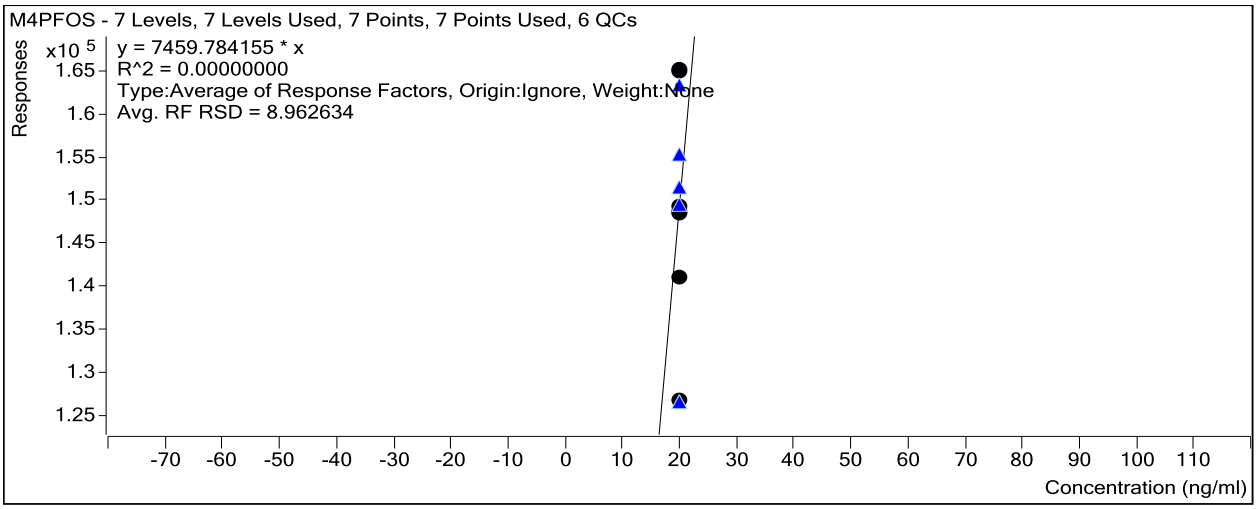
Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	39355	5.0000	7870.9644
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	39600	5.0000	7920.0171
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	37670	5.0000	7534.0402
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	36037	5.0000	7207.4477
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	39447	5.0000	7889.3423
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	38713	5.0000	7742.5692
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	31613	5.0000	6322.5857

Instrument ISTD *M4PFOS*

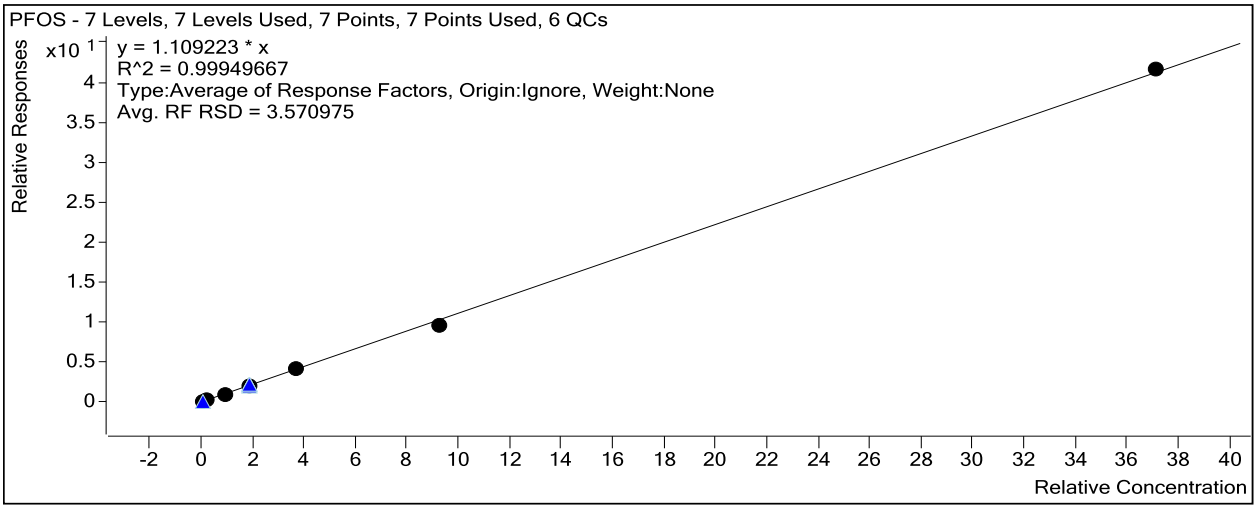
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	148708	20.0000	7435.3828
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	164961	20.0000	8248.0359
I:\2220504ACAL\2220504A_4.d	Calibration	3	☑	149313	20.0000	7465.6687
I:\2220504ACAL\2220504A_5.d	Calibration	4	☑	141128	20.0000	7056.3970
I:\2220504ACAL\2220504A_6.d	Calibration	5	☑	165125	20.0000	8256.2313

I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	148403	20.0000	7420.1591
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	126732	20.0000	6336.6143



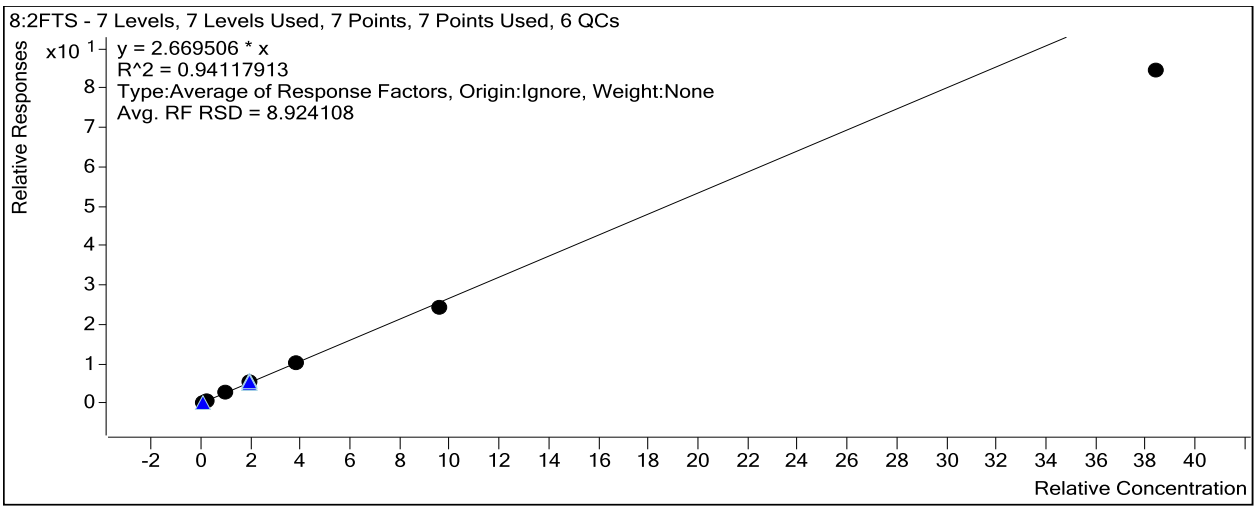
Target Compound *PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	4104	0.4640	1.1238
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	10704	1.1600	1.1651
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	38867	4.6400	1.1118
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	74085	9.2800	1.1076
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	161564	18.5600	1.1034
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	370887	46.4000	1.0324
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	1314702	185.6000	1.1204



Target Compound *9CI-PF3ONS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	20866	0.4665	5.6828
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	56139	1.1663	6.0776
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	207624	4.6650	5.9074

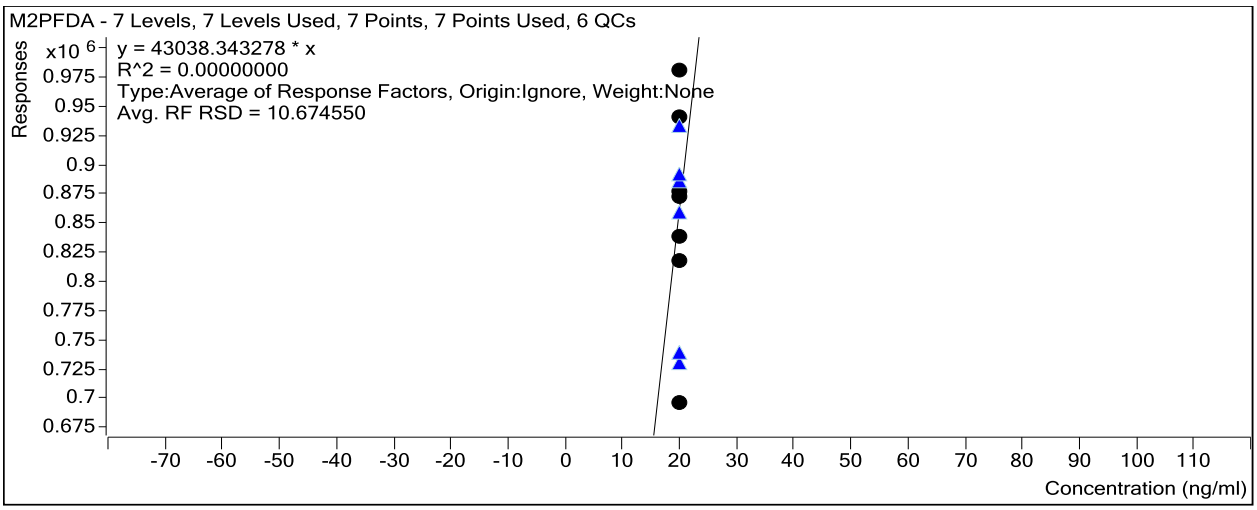


Extracted ISTD *M6PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	233706	5.0000	46741.2808
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	246144	5.0000	49228.7438
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	233651	5.0000	46730.1678
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	215567	5.0000	43113.3211
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	240575	5.0000	48115.0674
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	226987	5.0000	45397.4630
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	184673	5.0000	36934.6017

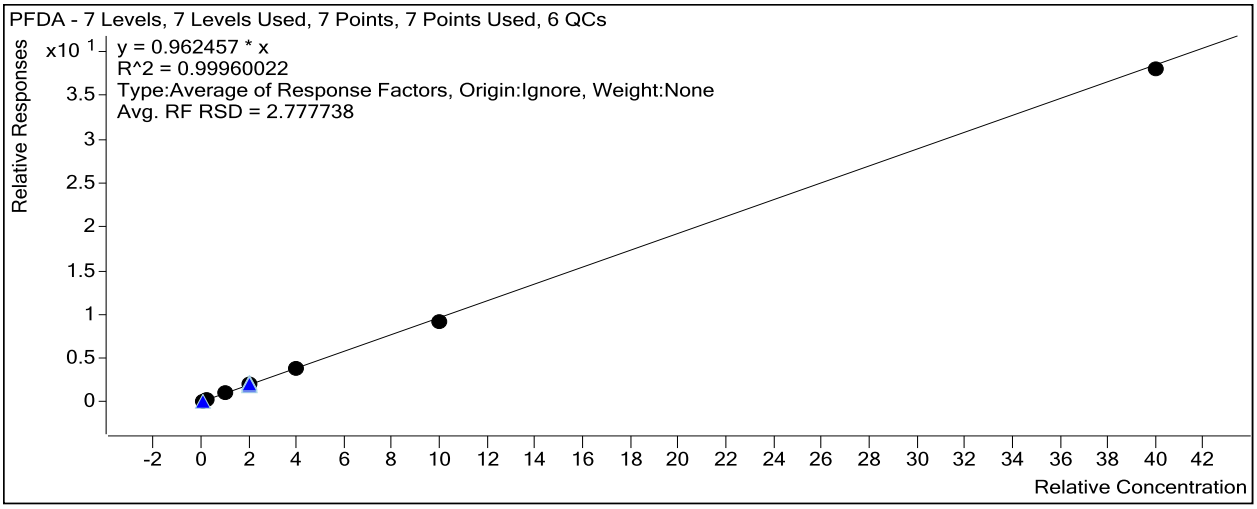
Instrument ISTD *M2PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	872556	20.0000	43627.7808
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	980734	20.0000	49036.6956
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	877727	20.0000	43886.3473
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	817952	20.0000	40897.5781
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	941319	20.0000	47065.9534
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	838717	20.0000	41935.8264
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	696364	20.0000	34818.2213



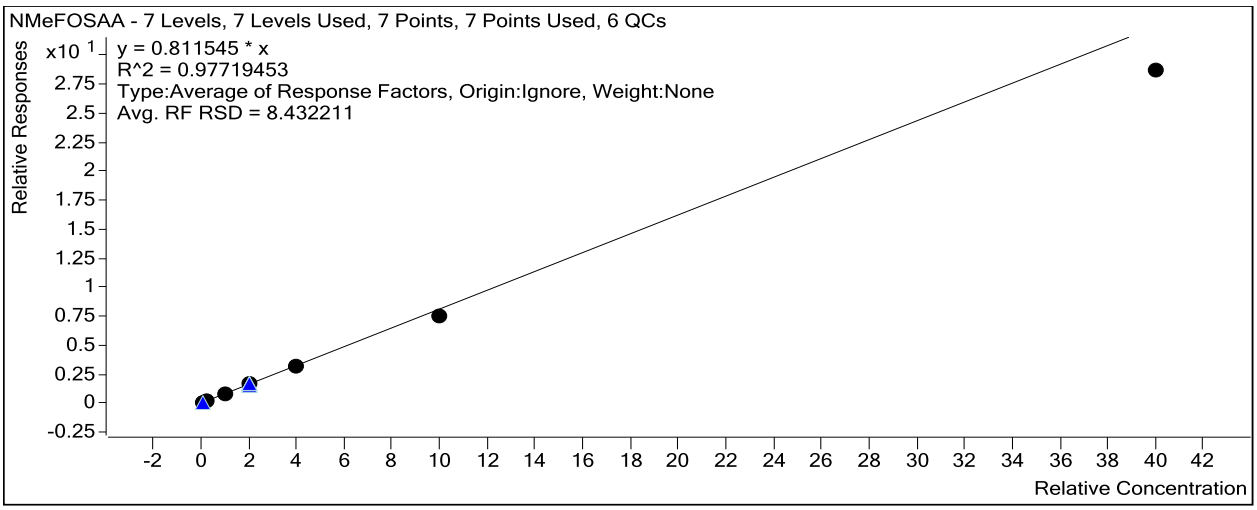
Target Compound *PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	23228	0.5000	0.9939
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	59270	1.2500	0.9632
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	228640	5.0000	0.9786
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	425341	10.0000	0.9866
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	912381	20.0000	0.9481
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	2080427	50.0000	0.9165
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	7020233	200.0000	0.9504



Target Compound *PFNS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	3882	0.4810	1.0254
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	9611	1.2025	1.0091
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	37120	4.8100	1.0243
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	71854	9.6200	1.0363
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	154160	19.2400	1.0156



Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	79112	5.0000	15822.4737
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	80274	5.0000	16054.7673
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	75839	5.0000	15167.8435
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	71932	5.0000	14386.4201
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	78801	5.0000	15760.2377
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	81199	5.0000	16239.8589
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	74722	5.0000	14944.4425

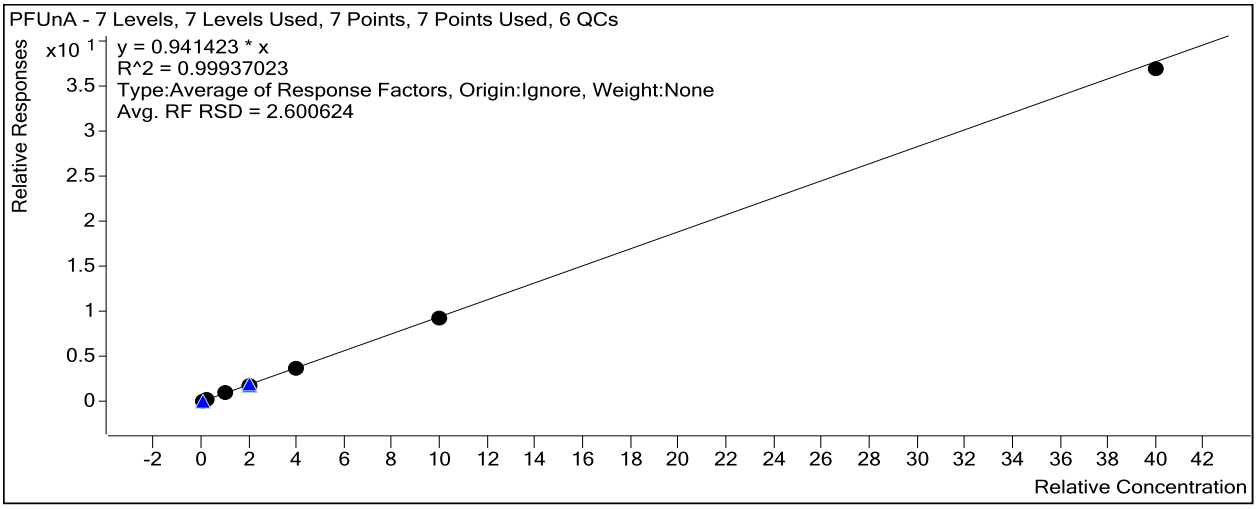
Target Compound *PFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	7946	0.5000	1.0044
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	20461	1.2500	1.0196
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	78668	5.0000	1.0373
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	145653	10.0000	1.0124
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	309217	20.0000	0.9810
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	767535	50.0000	0.9452
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	2979653	200.0000	0.9969

I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	241206	5.0000	48241.1921
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	199355	5.0000	39870.9104

Target Compound *PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	25707	0.5000	0.9784
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	65004	1.2500	0.9720
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	239981	5.0000	0.9416
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	456932	10.0000	0.9346
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	964790	20.0000	0.9190
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	2225434	50.0000	0.9226
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	7349441	200.0000	0.9217

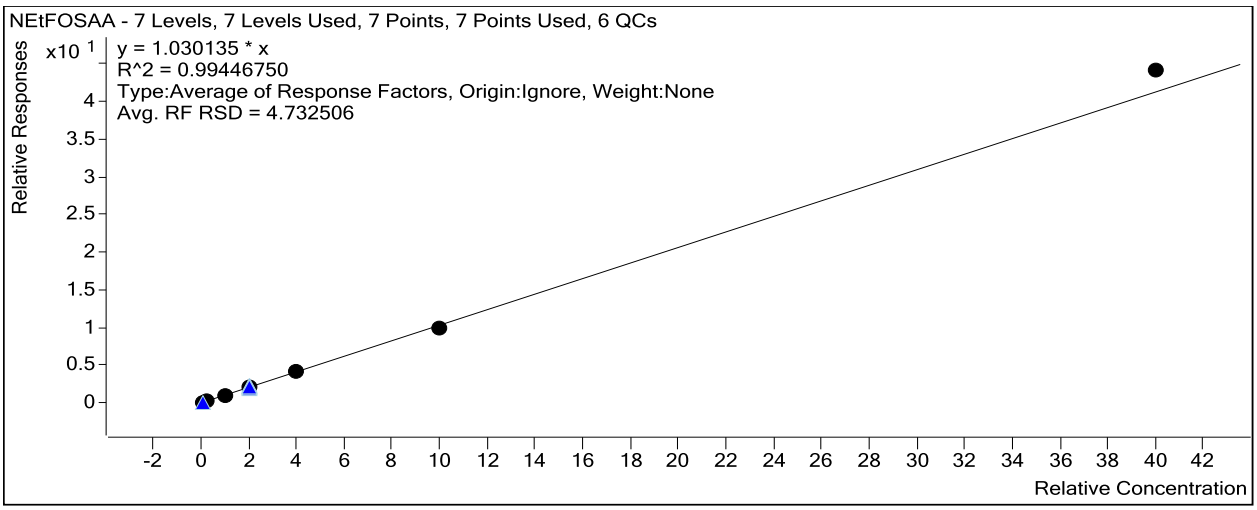


Extracted ISTD *d5-NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	41051	5.0000	8210.1966
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	39346	5.0000	7869.1670
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	36918	5.0000	7383.6075
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	35641	5.0000	7128.2360
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	37487	5.0000	7497.3461
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	35551	5.0000	7110.2045
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	25759	5.0000	5151.7240

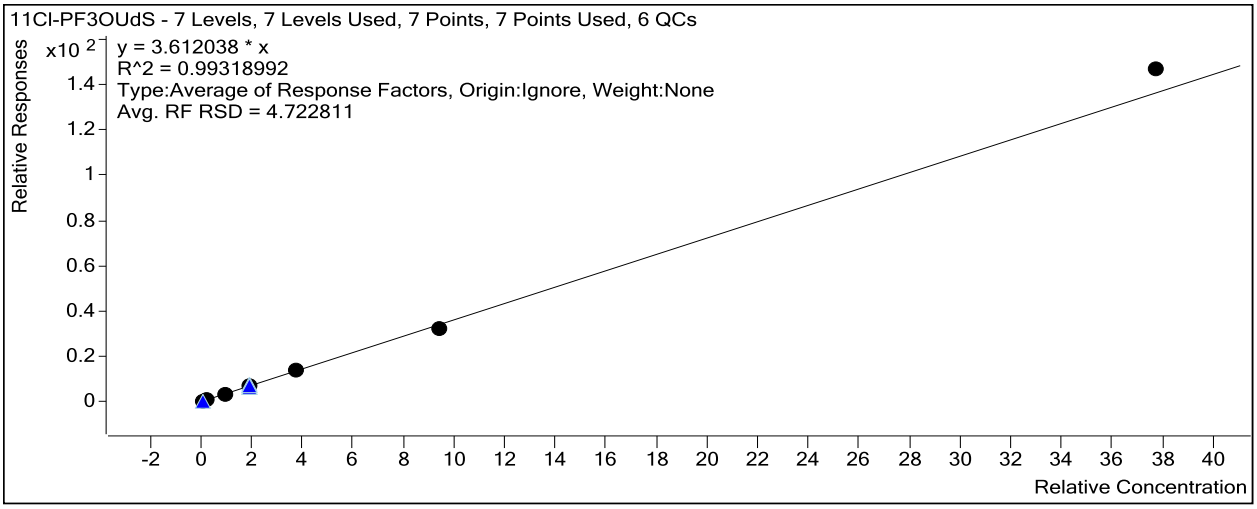
Target Compound *NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	3911	0.5000	0.9526
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	10167	1.2500	1.0336
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	39425	5.0000	1.0679
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	73593	10.0000	1.0324
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	154882	20.0000	1.0329
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	351795	50.0000	0.9896
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	1135384	200.0000	1.1019



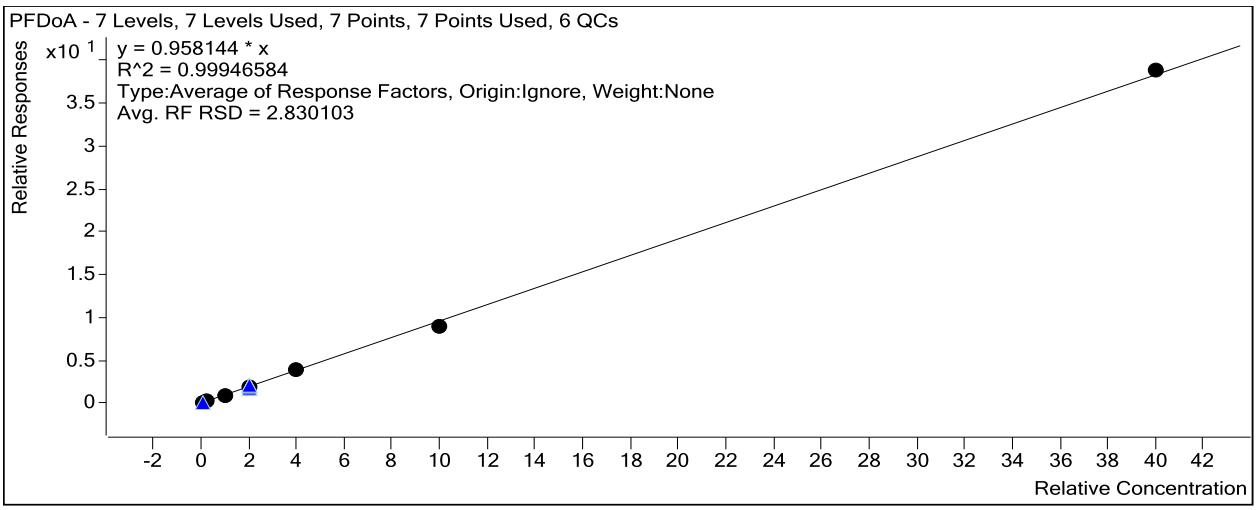
Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	12567	0.4715	3.3862
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	34382	1.1788	3.6827
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	129846	4.7150	3.6553
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	243294	9.4300	3.5796
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	544872	18.8600	3.6619
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	1250728	47.1500	3.4261
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	4641510	188.6000	3.8924



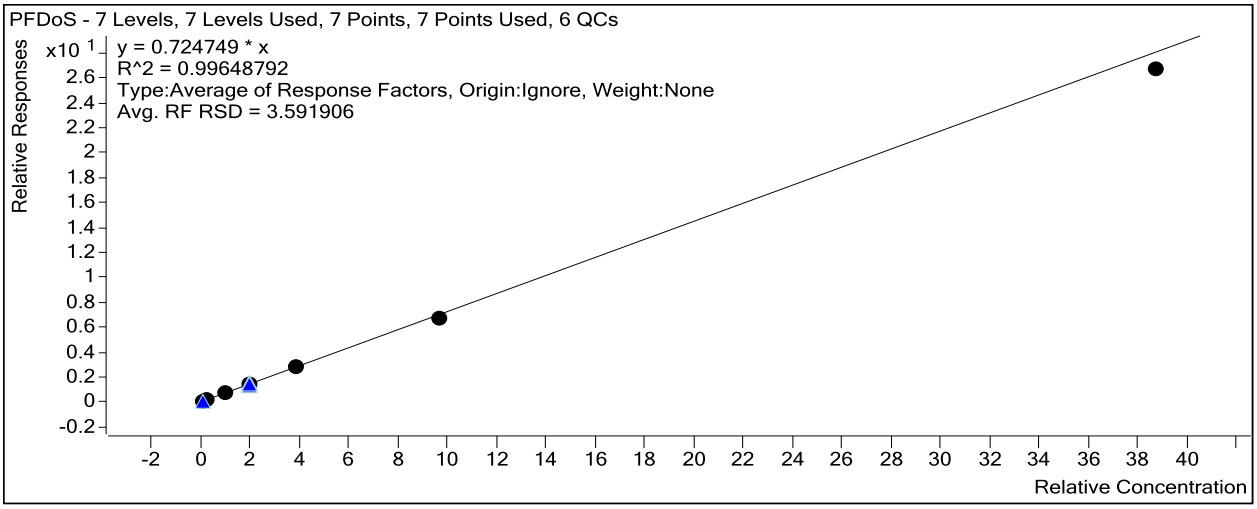
Target Compound *10:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	3549	0.4820	2.2495
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	9267	1.2050	2.3376
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	37273	4.8200	2.4203
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	69830	9.6400	2.5132
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	145911	19.2800	2.5361



Target Compound *PFDoS*

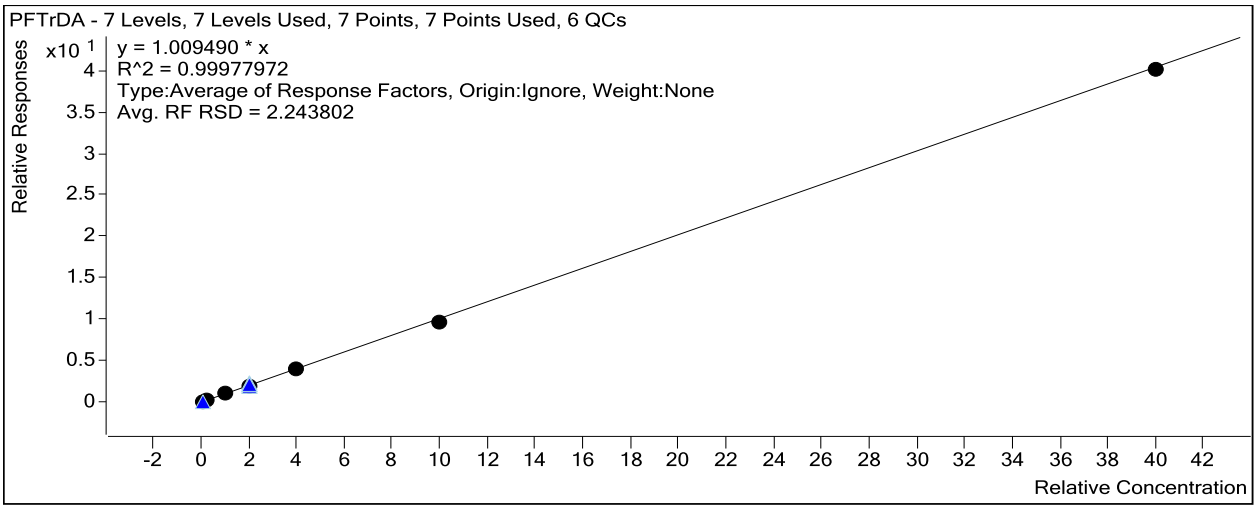
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	2755	0.4840	0.7231
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	7134	1.2100	0.7444
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	27576	4.8400	0.7562
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	51573	9.6800	0.7392
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	111605	19.3600	0.7307
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	258508	48.4000	0.6898
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	844319	193.6000	0.6898



Target Compound *PFTrDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	35234	0.5000	1.0301
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	91093	1.2500	1.0324
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	336949	5.0000	1.0215
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	635570	10.0000	1.0076
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	1362865	20.0000	1.0069

I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	3237125	50.0000	0.9657
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	11313484	200.0000	1.0022

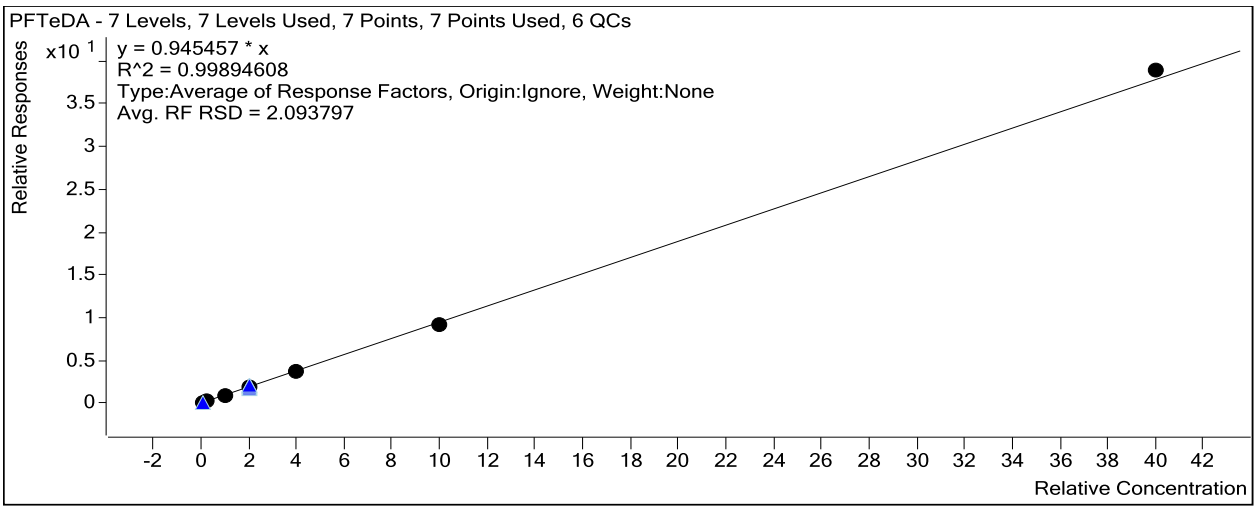


Extracted ISTD *d-NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	16356	5.0000	3271.2504
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	16908	5.0000	3381.5744
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	16541	5.0000	3308.1058
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	15336	5.0000	3067.1322
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	16561	5.0000	3312.2472
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	17423	5.0000	3484.6497
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	16574	5.0000	3314.7172

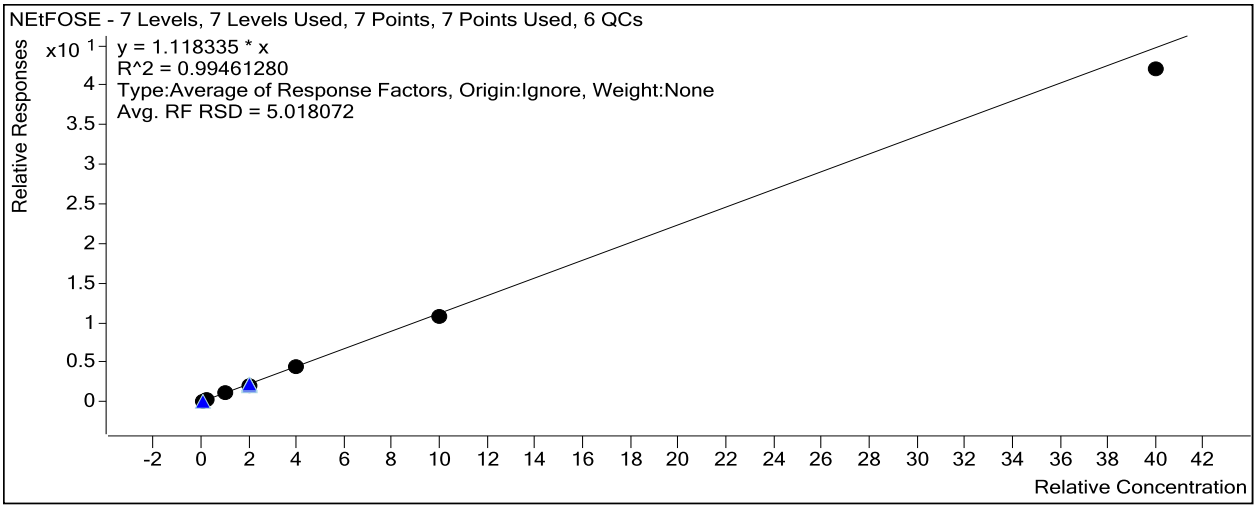
Target Compound *NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	1858	0.5000	1.1360
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	5199	1.2500	1.2299
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	18112	5.0000	1.0950
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	34864	10.0000	1.1367
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	79031	20.0000	1.1930
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	185672	50.0000	1.0657
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	668600	200.0000	1.0085



Target Compound *NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	2126	0.5000	1.2107
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	4921	1.2500	1.1570
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	19344	5.0000	1.1447
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	35154	10.0000	1.0729
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	77533	20.0000	1.1131
I:\2220502ACAL\2220502A_7.d	Calibration	6	☑	183184	50.0000	1.0790
I:\2220502ACAL\2220502A_8.d	Calibration	7	☑	667723	200.0000	1.0510



Extracted ISTD *d-NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
I:\2220502ACAL\2220502A_2.d	Calibration	1	☑	16594	5.0000	3318.8681
I:\2220502ACAL\2220502A_3.d	Calibration	2	☑	17349	5.0000	3469.7612
I:\2220502ACAL\2220502A_4.d	Calibration	3	☑	15905	5.0000	3181.0103
I:\2220502ACAL\2220502A_5.d	Calibration	4	☑	15000	5.0000	3000.0731
I:\2220502ACAL\2220502A_6.d	Calibration	5	☑	16924	5.0000	3384.8693

Quantitative Analysis Calibration Report

Batch Data Path	D:\MassHunter\Data\QQQ4\2220501ACAL\QuantResults\2220503B.batch.bin		
Analysis Time	5/4/2022 12:28 PM	**Analyst Name**	GCAL\sxa
Report Time	5/5/2022 2:46 PM	**Reporter Name**	GCAL\lcms
Last Calib Update	5/1/2022 12:14 PM	**Batch State**	Processed

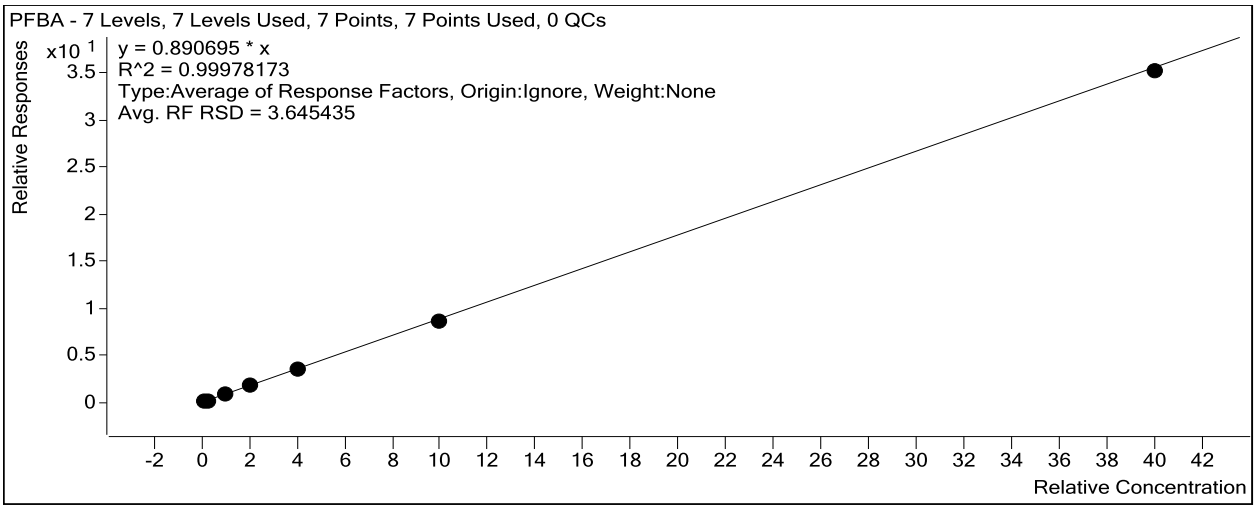
Calibration Info

Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	107930	5.0000	21586.0718
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	97956	5.0000	19591.1886
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	93242	5.0000	18648.4579
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	89001	5.0000	17800.1824
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	105303	5.0000	21060.5837
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	95014	5.0000	19002.8145
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	98053	5.0000	19610.5179

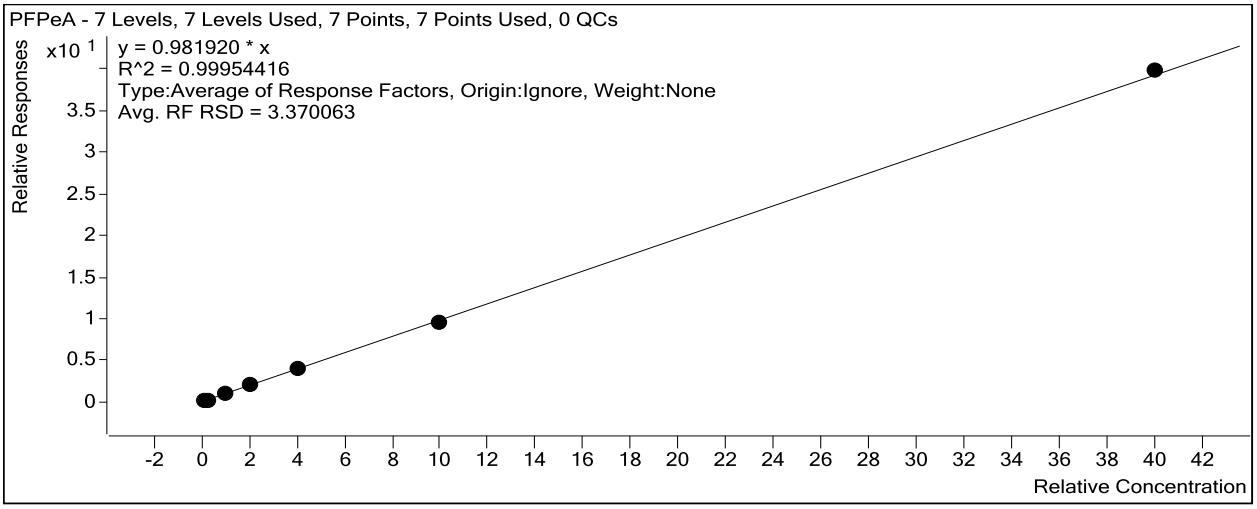
Target Compound *PFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	9079	0.5000	0.8412
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	22061	1.2500	0.9008
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	86671	5.0000	0.9295
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	164381	10.0000	0.9235
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	378623	20.0000	0.8989
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	815317	50.0000	0.8581
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	3462530	200.0000	0.8828



Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	13231	0.5000	0.9254
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	32648	1.2500	1.0007
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	126775	5.0000	1.0085
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	241190	10.0000	1.0118
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	554374	20.0000	0.9802
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1189567	50.0000	0.9482
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	5099980	200.0000	0.9987



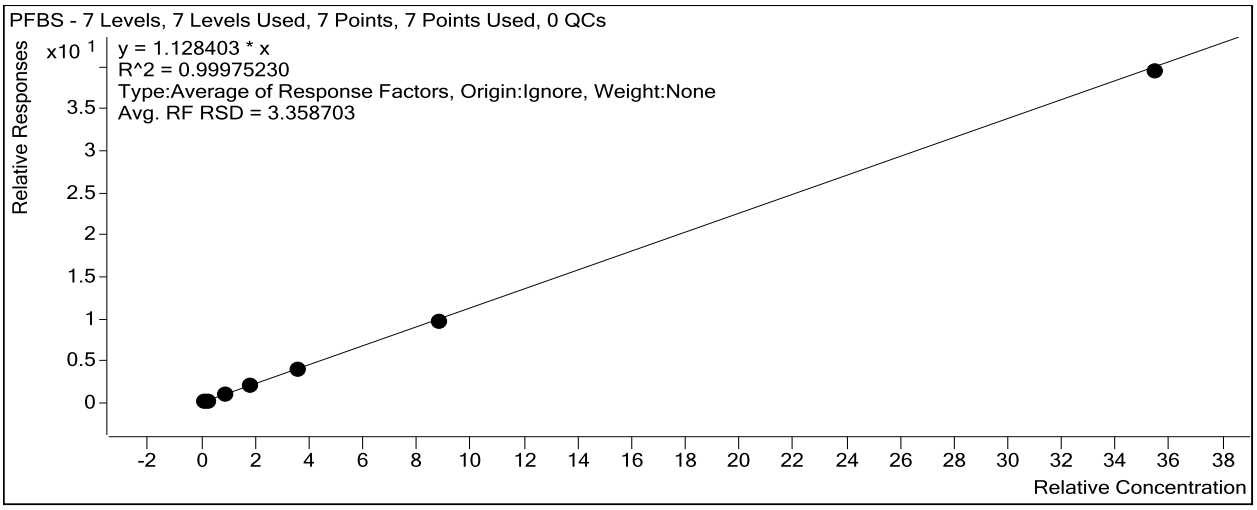
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	43978	5.0000	8795.5843
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	40206	5.0000	8041.1189
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	39009	5.0000	7801.7407
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	36769	5.0000	7353.8652
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	43149	5.0000	8629.8818
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	38489	5.0000	7697.8581
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	38297	5.0000	7659.3080

Target Compound *PFBS*

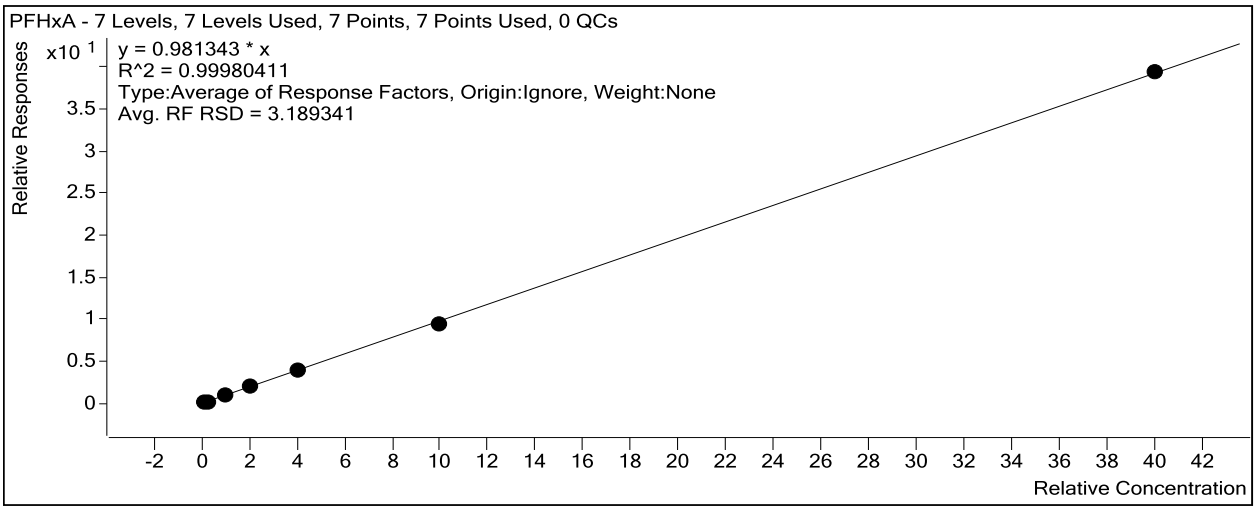
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	4178	0.4435	1.0710

D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	10340	1.1088	1.1597
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	39481	4.4350	1.1411
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	76945	8.8700	1.1796
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	174367	17.7400	1.1390
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	372952	44.3500	1.0924
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1516483	177.4000	1.1161



Target Compound *PFMBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	8343	0.5000	0.4917
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	20358	1.2500	0.5219
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	79252	5.0000	0.5188
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	150748	10.0000	0.5207
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	349711	20.0000	0.5174
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	750501	50.0000	0.4943
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	3095311	200.0000	0.5001



Extracted ISTD *M5PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	169665	5.0000	33932.9281
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	156017	5.0000	31203.3762
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	152751	5.0000	30550.1280
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	144754	5.0000	28950.7821
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	168985	5.0000	33797.0862
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	151817	5.0000	30363.3583
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	154744	5.0000	30948.7381

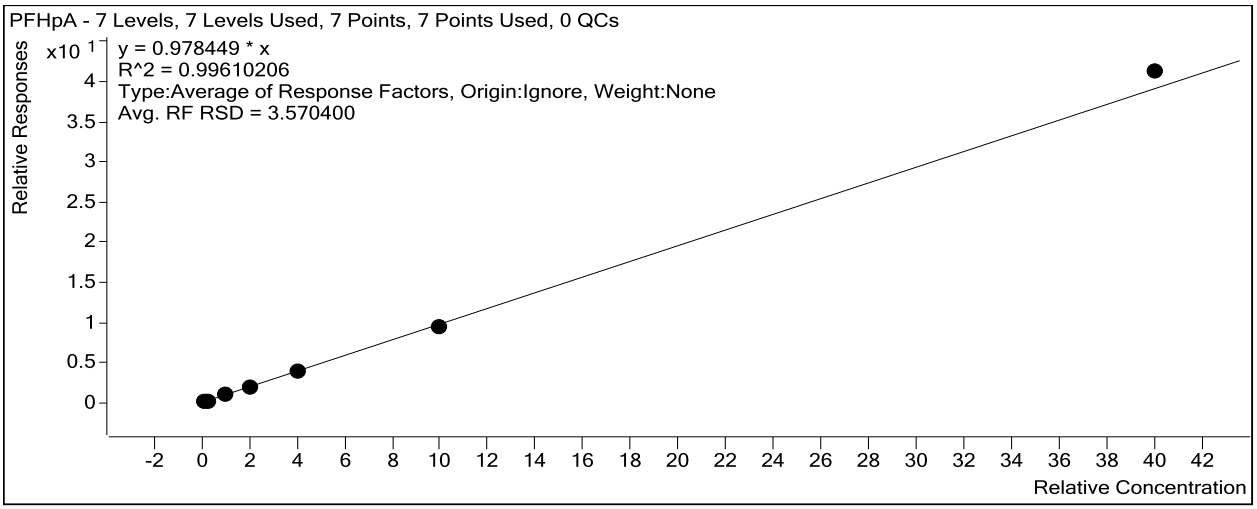
Instrument ISTD *M2PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	614049	20.0000	30702.4486
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	620073	20.0000	31003.6422
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	569346	20.0000	28467.2982
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	564103	20.0000	28205.1478
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	679254	20.0000	33962.7054
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	568352	20.0000	28417.6096
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	597970	20.0000	29898.4842

D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	232923	5.0000	46584.5272
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	268673	5.0000	53734.6098
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	240395	5.0000	48078.9252
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	245372	5.0000	49074.3088

Target Compound *PFHpA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	24954	0.5000	0.9263
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	61164	1.2500	0.9830
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	238375	5.0000	0.9988
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	457904	10.0000	0.9830
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1047813	20.0000	0.9750
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2279078	50.0000	0.9481
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10159601	200.0000	1.0351



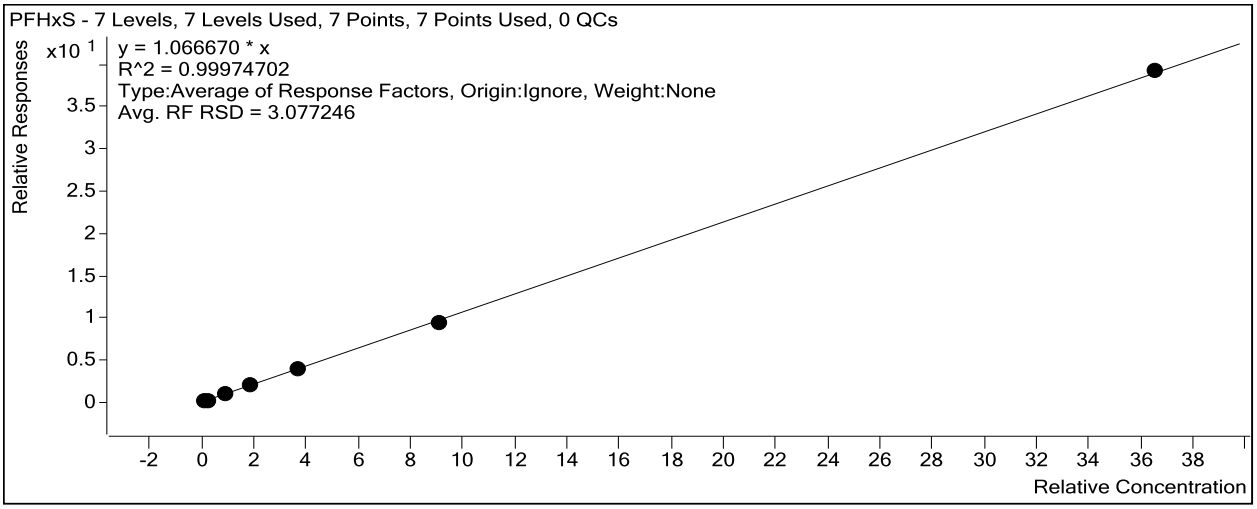
Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	35683	5.0000	7136.5035
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	32913	5.0000	6582.5272
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	31490	5.0000	6298.0861
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	30301	5.0000	6060.1735
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	35745	5.0000	7148.9662
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	31673	5.0000	6334.5689

D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	31502	5.0000	6300.4091

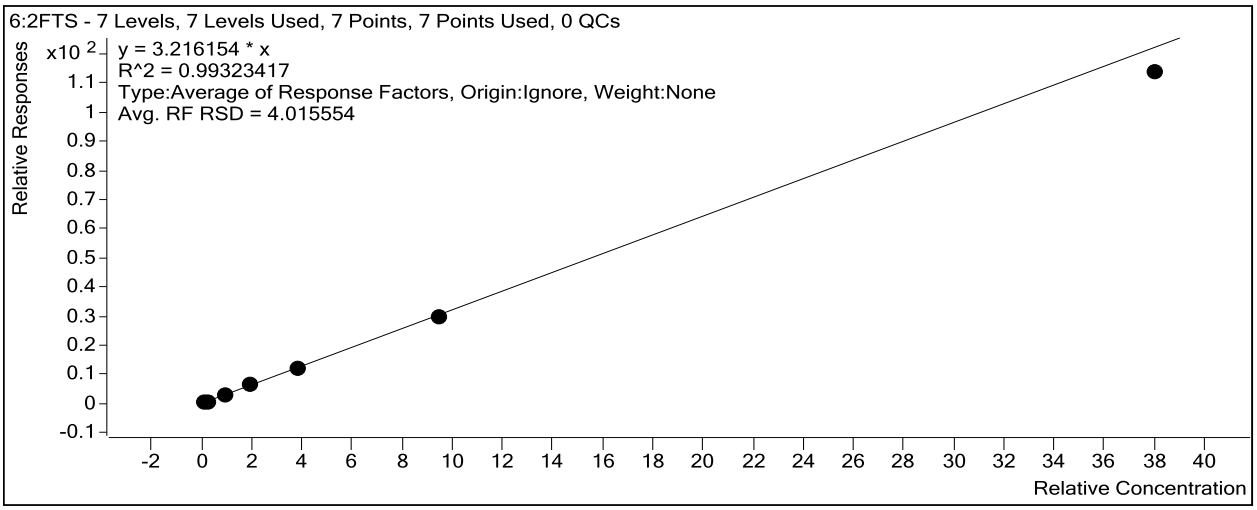
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	3340	0.4570	1.0240
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	8242	1.1425	1.0959
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	31883	4.5700	1.1077
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	59599	9.1400	1.0760
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	138870	18.2800	1.0626
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	296211	45.7000	1.0232
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1240567	182.8000	1.0771



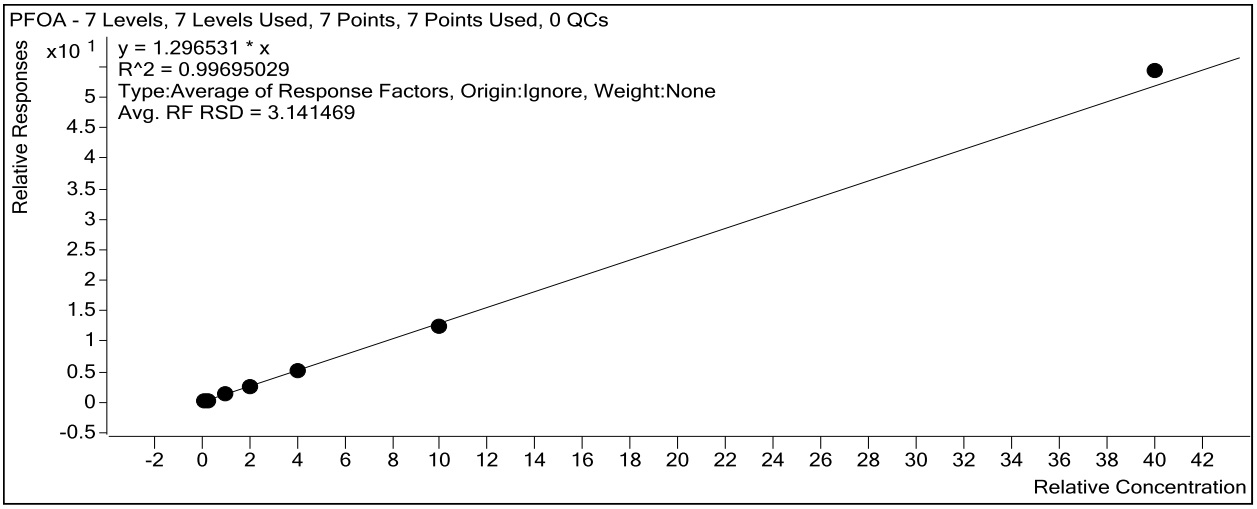
Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	28030	0.4725	1.3375
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	70755	1.1813	1.4638
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	281446	4.7250	1.5345
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	537865	9.4500	1.4939
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1233826	18.9000	1.5084
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2682158	47.2500	1.4608
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	12025261	189.0000	1.6766



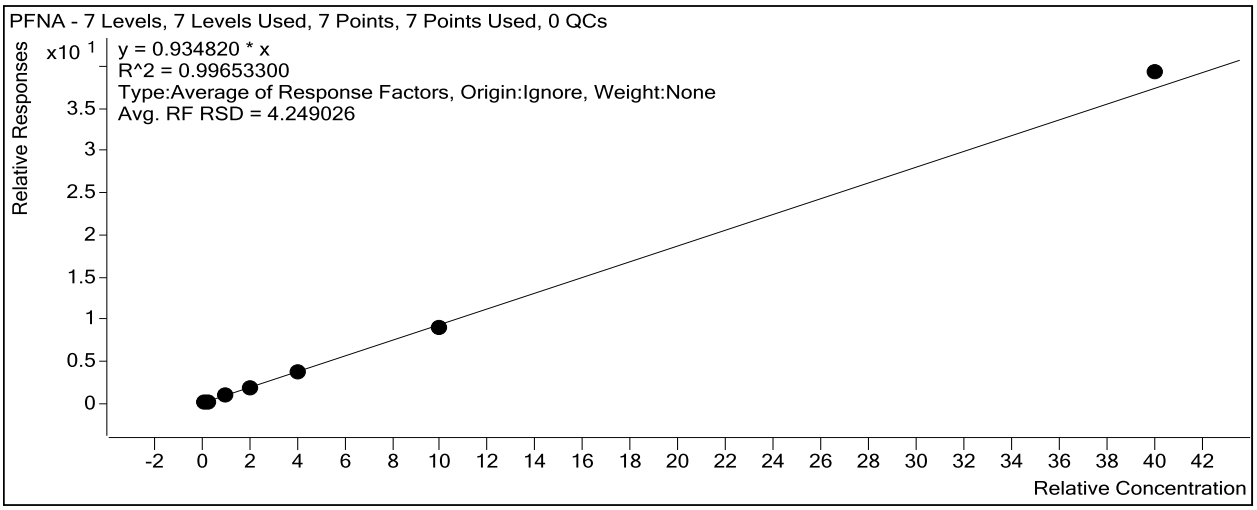
Target Compound *PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	27863	0.5000	1.2564
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	67481	1.2500	1.3194
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	256287	5.0000	1.3205
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	486520	10.0000	1.2769
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1120986	20.0000	1.2951
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2420073	50.0000	1.2456
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10336238	200.0000	1.3618



Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

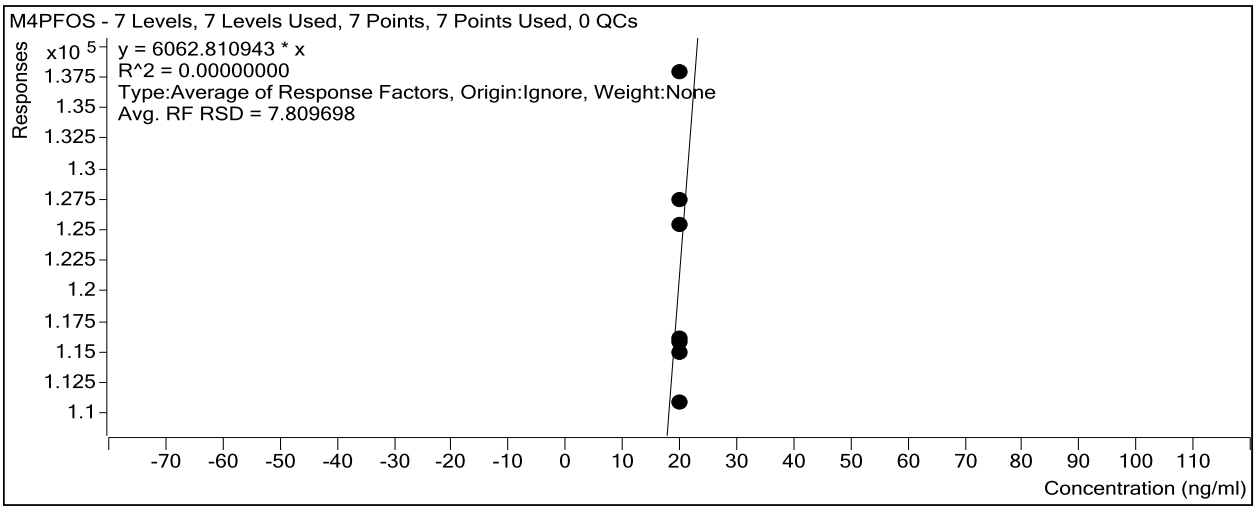


Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	33986	5.0000	6797.1104
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	31822	5.0000	6364.4671
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	30178	5.0000	6035.6381
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	28303	5.0000	5660.6126
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	34337	5.0000	6867.4774
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	29900	5.0000	5979.9313
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	28069	5.0000	5613.7610

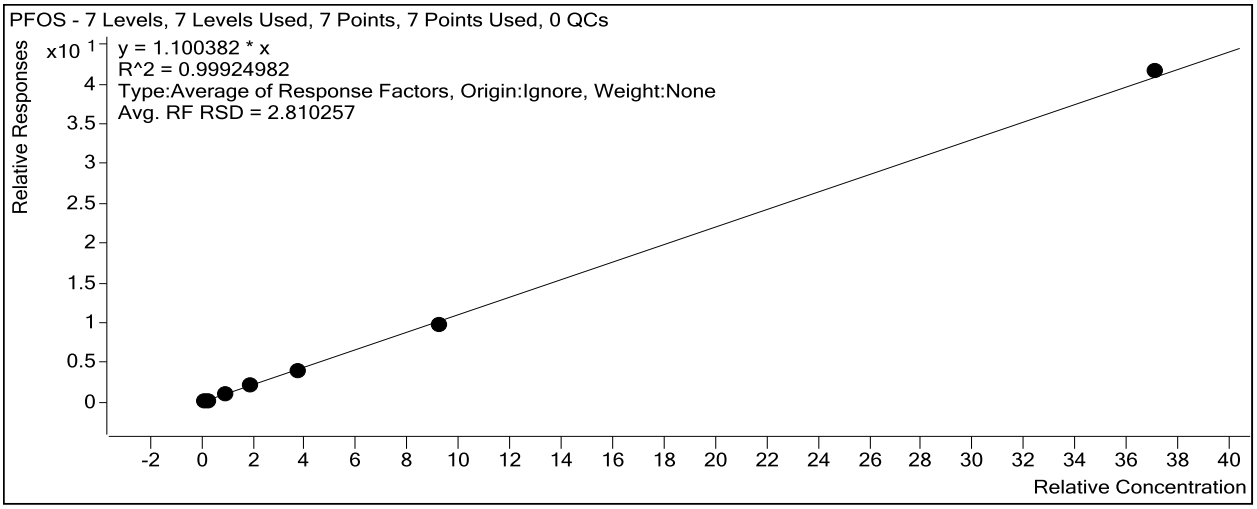
Instrument ISTD *M4PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	125462	20.0000	6273.0824
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	127483	20.0000	6374.1406
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	116167	20.0000	5808.3724
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	115814	20.0000	5790.7137
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	137973	20.0000	6898.6336
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	115018	20.0000	5750.8997
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	110877	20.0000	5543.8343



Target Compound *PFOS*

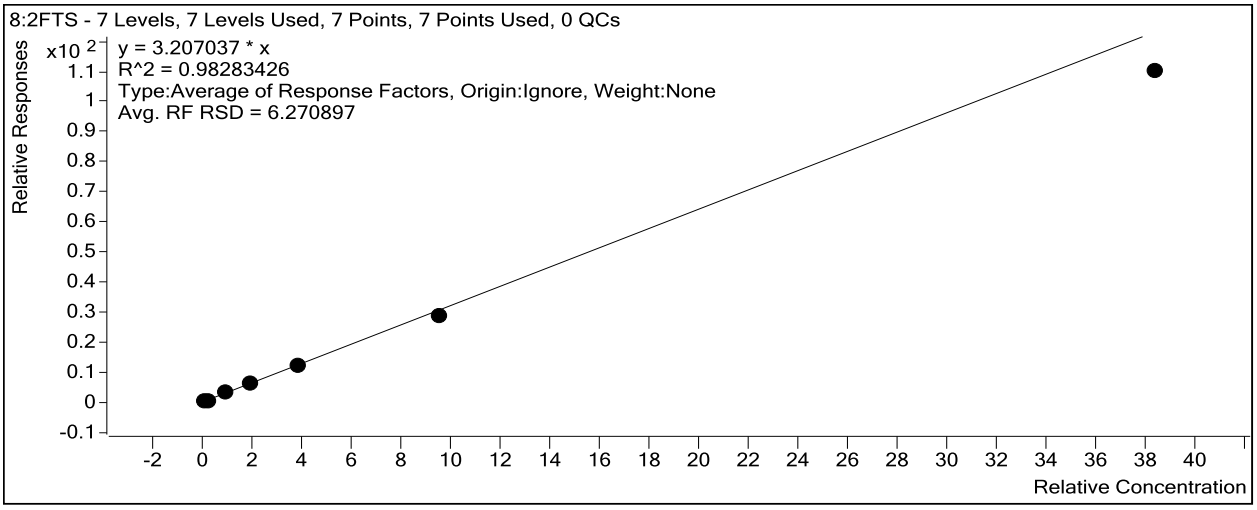
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	3393	0.4640	1.0758
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	8222	1.1600	1.1136
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	31432	4.6400	1.1224
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	59657	9.2800	1.1357
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	136670	18.5600	1.0723
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	293478	46.4000	1.0577
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1172392	185.6000	1.1252



Target Compound *9Cl-PF3ONS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	40023	9.6000	3.3205
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	88532	19.2000	3.1473
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	183950	48.0000	3.0260
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	635014	192.0000	2.8780



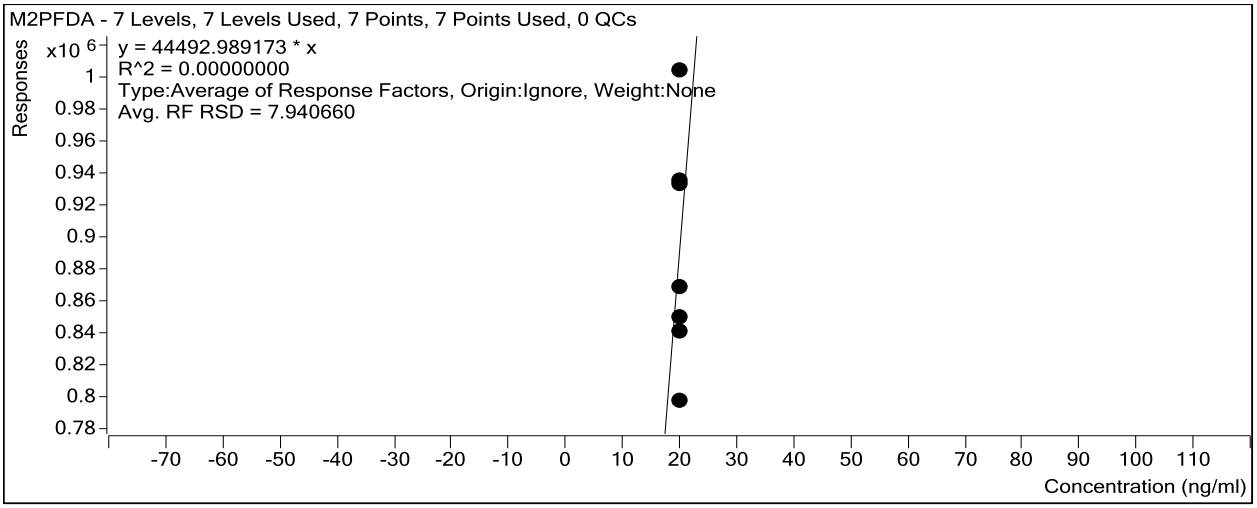
Extracted ISTD *M6PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	274033	5.0000	54806.6836
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	248779	5.0000	49755.8312
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	239982	5.0000	47996.3482
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	223015	5.0000	44602.9920
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	265231	5.0000	53046.2781
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	234054	5.0000	46810.8930
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	217772	5.0000	43554.3199

Instrument ISTD *M2PFDA*

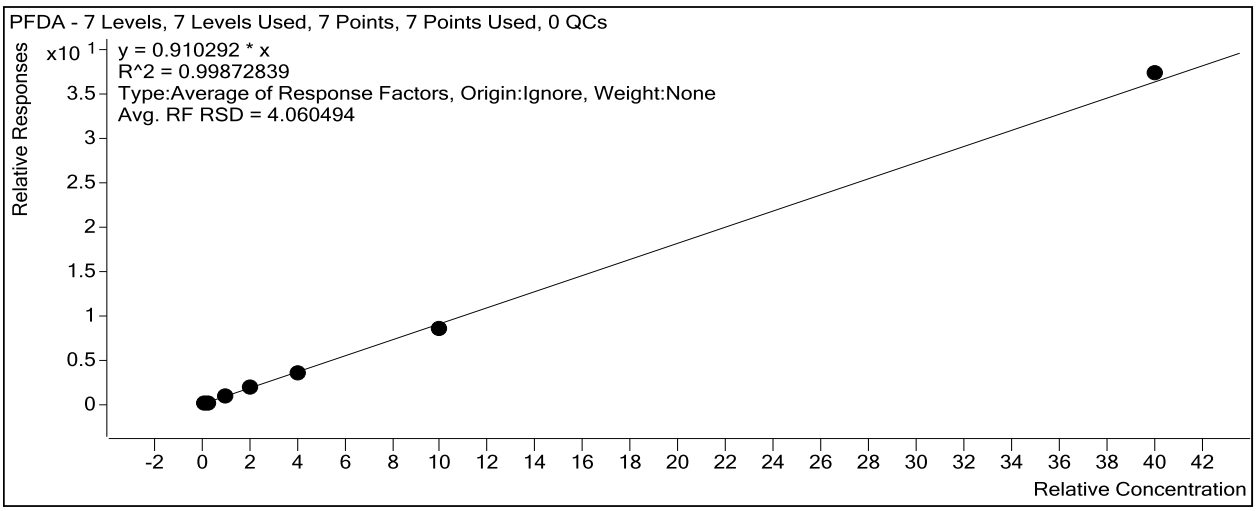
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	932560	20.0000	46628.0072
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	934916	20.0000	46745.8223
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	869116	20.0000	43455.8089
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	849971	20.0000	42498.5697
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1004386	20.0000	50219.2875
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	840646	20.0000	42032.3013

D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	797423	20.0000	39871.1273



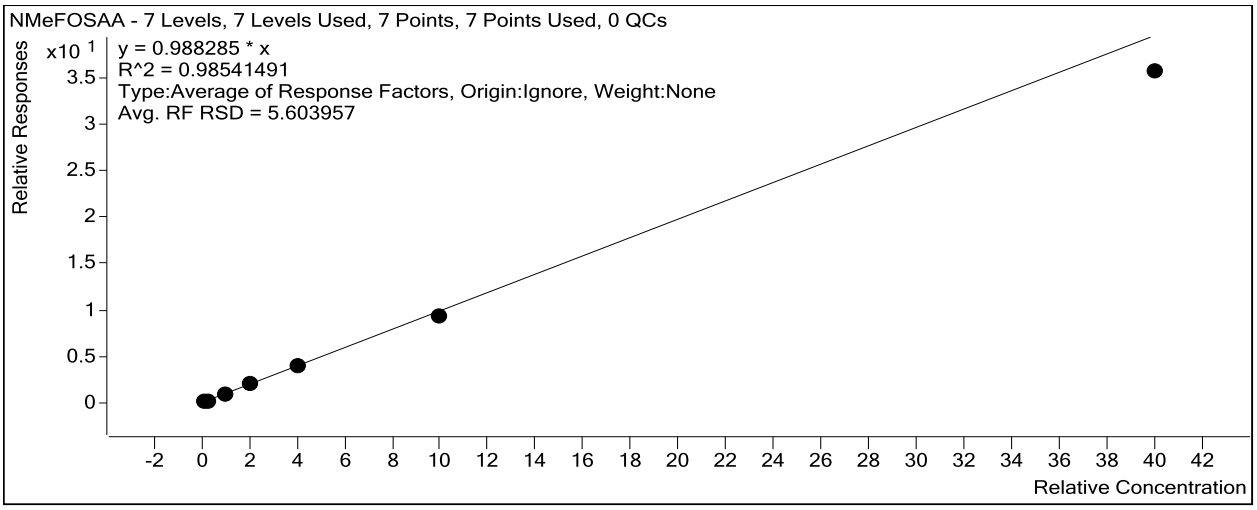
Target Compound *PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	23353	0.5000	0.8522
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	57699	1.2500	0.9277
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	221738	5.0000	0.9240
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	424539	10.0000	0.9518
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	966871	20.0000	0.9113
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2029828	50.0000	0.8672
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	8168504	200.0000	0.9377



Target Compound *PFNS*

D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	7447	1.2500	0.9976
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	29622	5.0000	1.0168
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	57756	10.0000	1.0418
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	130368	20.0000	1.0142
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	279313	50.0000	0.9271
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1151793	200.0000	0.8944

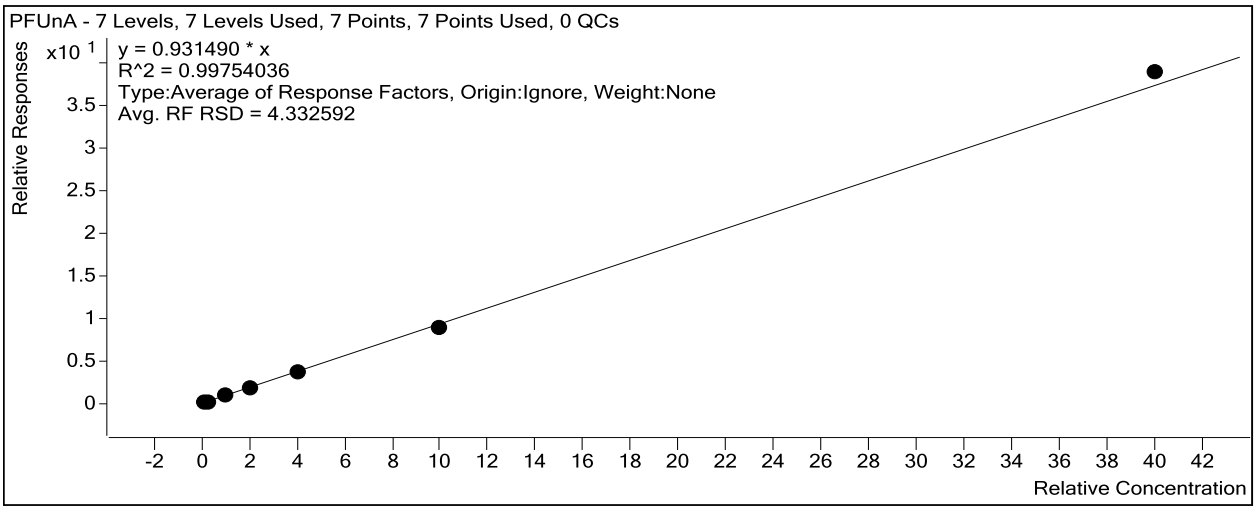


Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	76776	5.0000	15355.1982
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	71481	5.0000	14296.1376
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	66851	5.0000	13370.2486
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	64685	5.0000	12936.9889
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	76334	5.0000	15266.7658
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	67918	5.0000	13583.5598
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	73187	5.0000	14637.4027

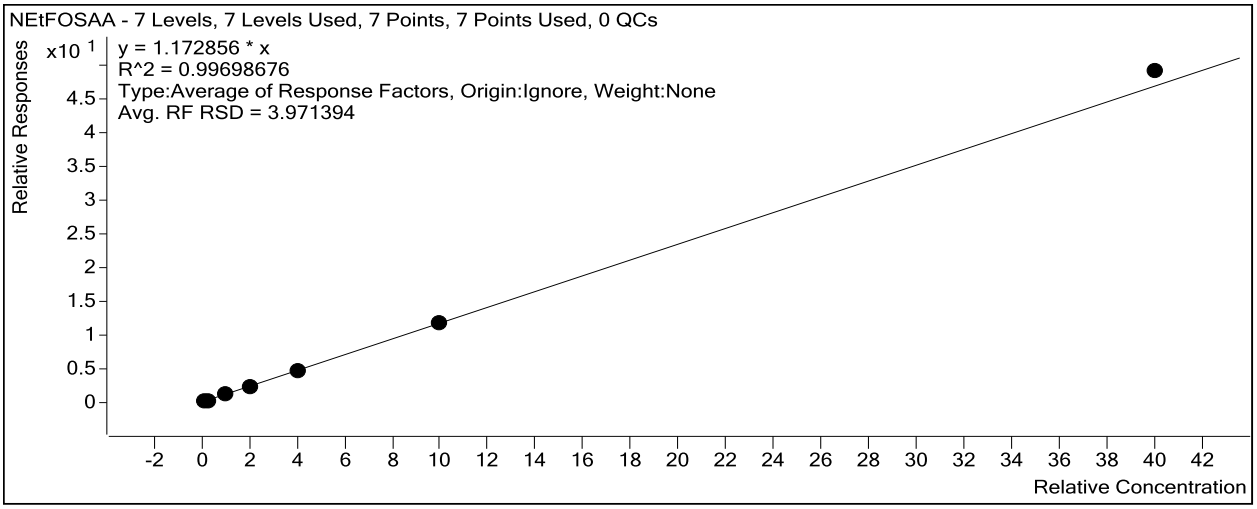
Target Compound *PFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	7588	0.5000	0.9883
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	17873	1.2500	1.0002
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	70555	5.0000	1.0554
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	136932	10.0000	1.0585



Target Compound *NEtFOSAA*

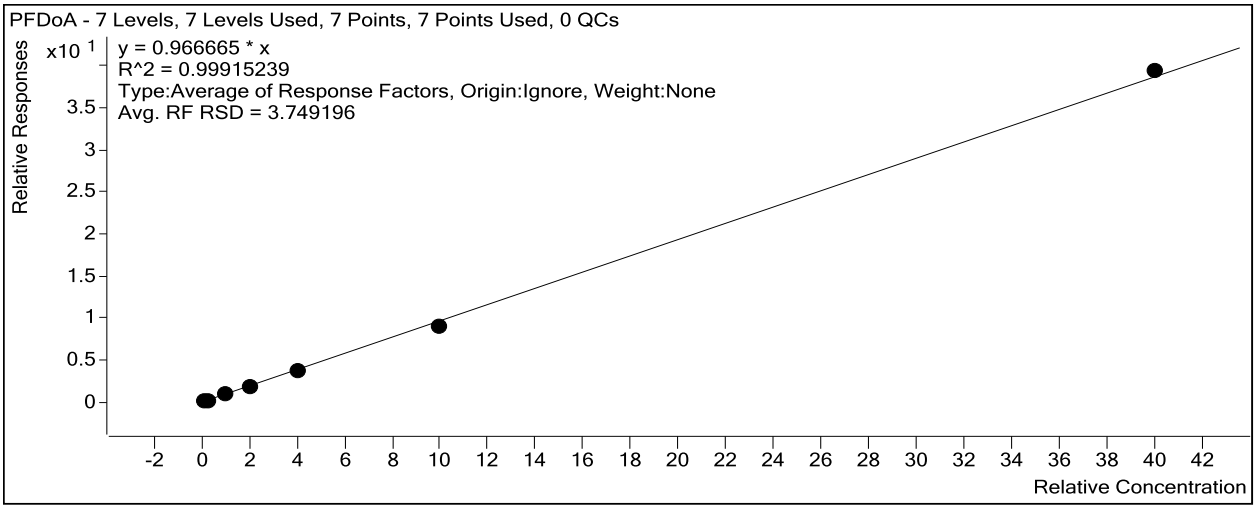
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	6103	0.5000	1.1107
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	14371	1.2500	1.1220
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	55851	5.0000	1.2062
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	108488	10.0000	1.2131
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	245285	20.0000	1.1579
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	507146	50.0000	1.1674
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1821612	200.0000	1.2327



Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

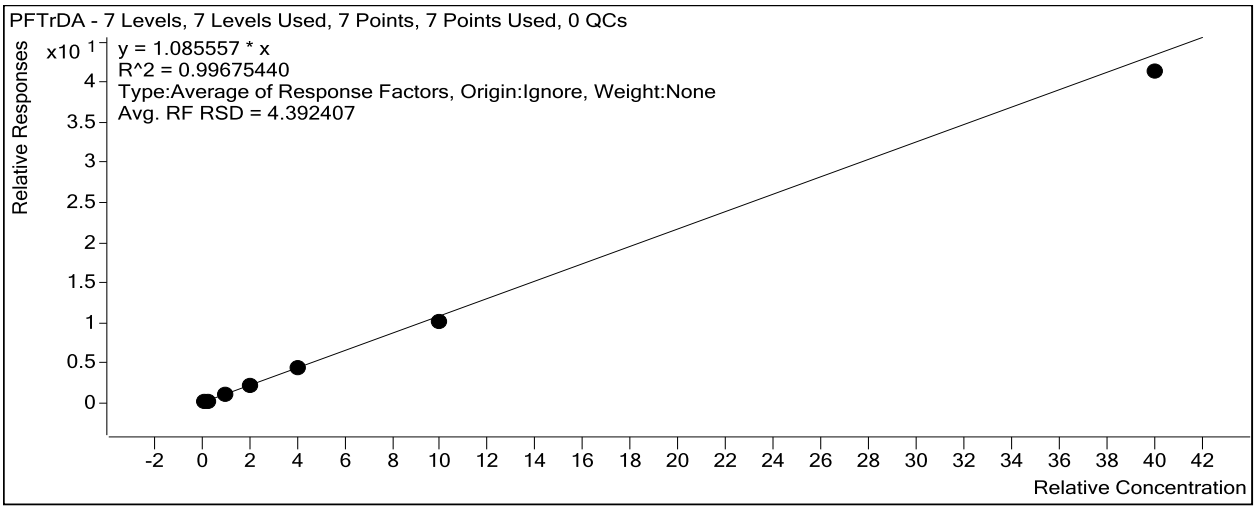
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	487035	10.0000	0.9738
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1117417	20.0000	0.9518
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2352391	50.0000	0.9063
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10315341	200.0000	0.9870



Target Compound *10:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	2197	0.4820	2.9380
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4760	1.2050	2.8960
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	18542	4.8200	2.9878
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	34495	9.6400	2.8501
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	82850	19.2800	2.9331
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	173083	48.2000	2.8354
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	622679	192.8000	2.8103

D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	31213	0.5000	1.0679
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	74590	1.2500	1.1151
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	297929	5.0000	1.1514
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	555466	10.0000	1.1106
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1293033	20.0000	1.1014
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2637030	50.0000	1.0160
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10833056	200.0000	1.0365



Extracted ISTD *d-NMeFOSA*

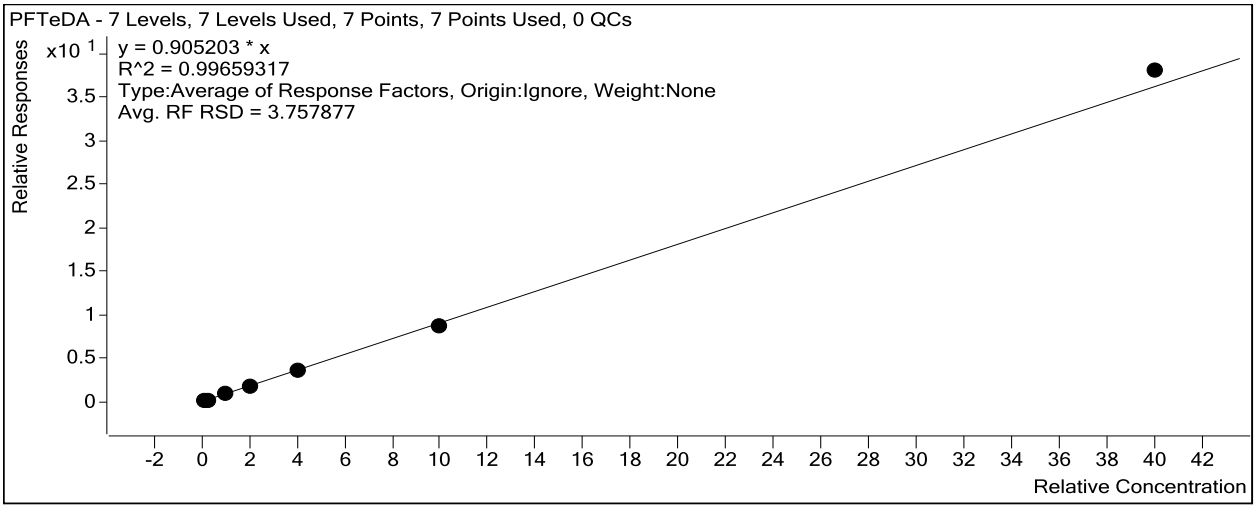
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	16318	5.0000	3263.6947
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	15488	5.0000	3097.5219
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	15143	5.0000	3028.6153
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	14815	5.0000	2963.0739
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	16484	5.0000	3296.7581
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	15358	5.0000	3071.5516
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	16111	5.0000	3222.1577

Target Compound *NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1718	0.5000	1.0529
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4220	1.2500	1.0899
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	15938	5.0000	1.0525

Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	32421	0.5000	0.8529
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	79012	1.2500	0.9257
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	315640	5.0000	0.9296
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	590775	10.0000	0.8980
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1349933	20.0000	0.8974
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2964650	50.0000	0.8788
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	13048202	200.0000	0.9540



Target Compound *NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1895	0.5000	1.1390
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4798	1.2500	1.1865
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	18779	5.0000	1.2401
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	35568	10.0000	1.1534
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	79405	20.0000	1.1889
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	176454	50.0000	1.1463
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	697912	200.0000	1.1315

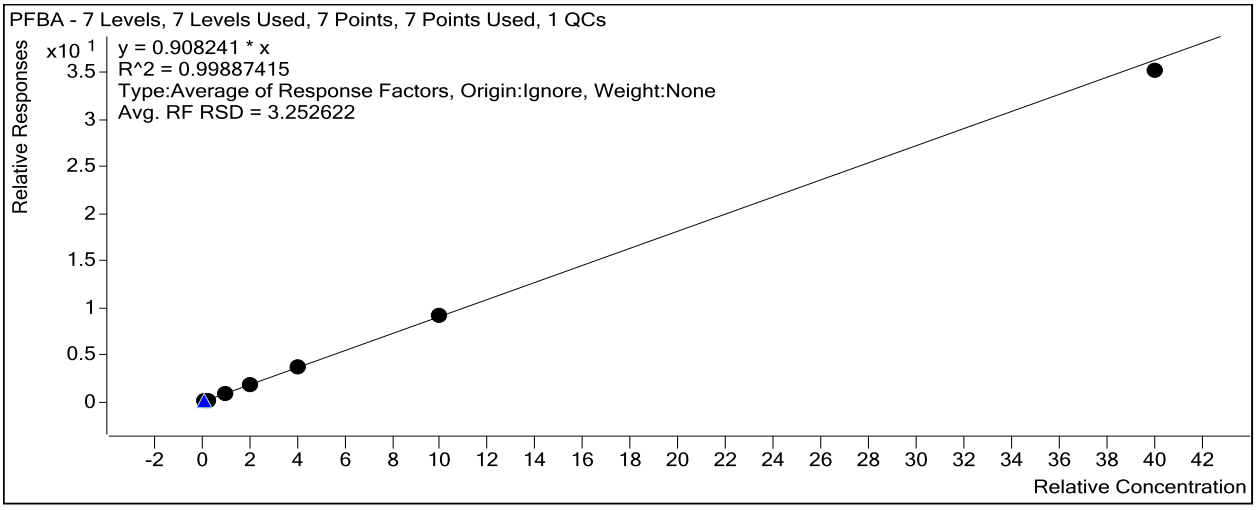
Quantitative Analysis Calibration Report

Batch Data Path	D:\MassHunter\Data\QQQ5\2220509ACAL\QuantResults\2220509B.batch.bin		
Analysis Time	5/11/2022 12:40 PM	**Analyst Name**	GCAL\lcms
Report Time	5/16/2022 1:52 PM	**Reporter Name**	GCAL\lcms
Last Calib Update	5/9/2022 12:08 PM	**Batch State**	Processed

Calibration Info

Target Compound *PFBA*

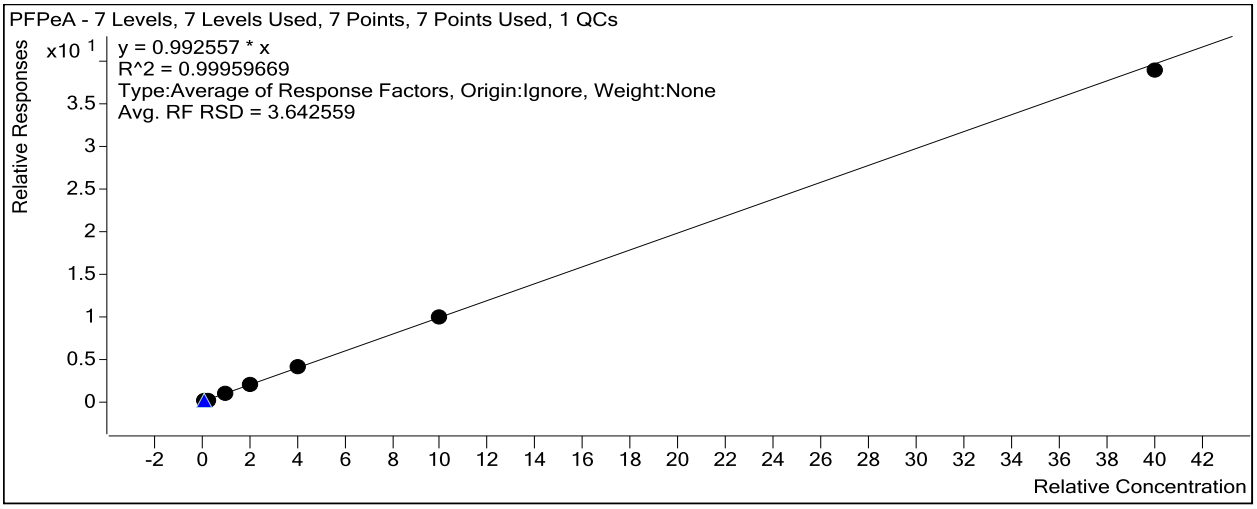
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	4574	0.5000	0.9168
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	11029	1.2500	0.8909
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	46226	5.0000	0.8643
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	96226	10.0000	0.9426
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	187702	20.0000	0.9382
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	483966	50.0000	0.9223
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	1861331	200.0000	0.8826



Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	49896	5.0000	9979.1934
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	49520	5.0000	9904.0380
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	53482	5.0000	10696.3746
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	51045	5.0000	10208.9020
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	50016	5.0000	10003.1131
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	52474	5.0000	10494.7968
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	52725	5.0000	10545.0186

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	7018	0.5000	1.0086
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	16393	1.2500	0.9563
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	70092	5.0000	0.9416
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	147091	10.0000	1.0390
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	283878	20.0000	1.0272
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	718737	50.0000	0.9992
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	2651273	200.0000	0.9759



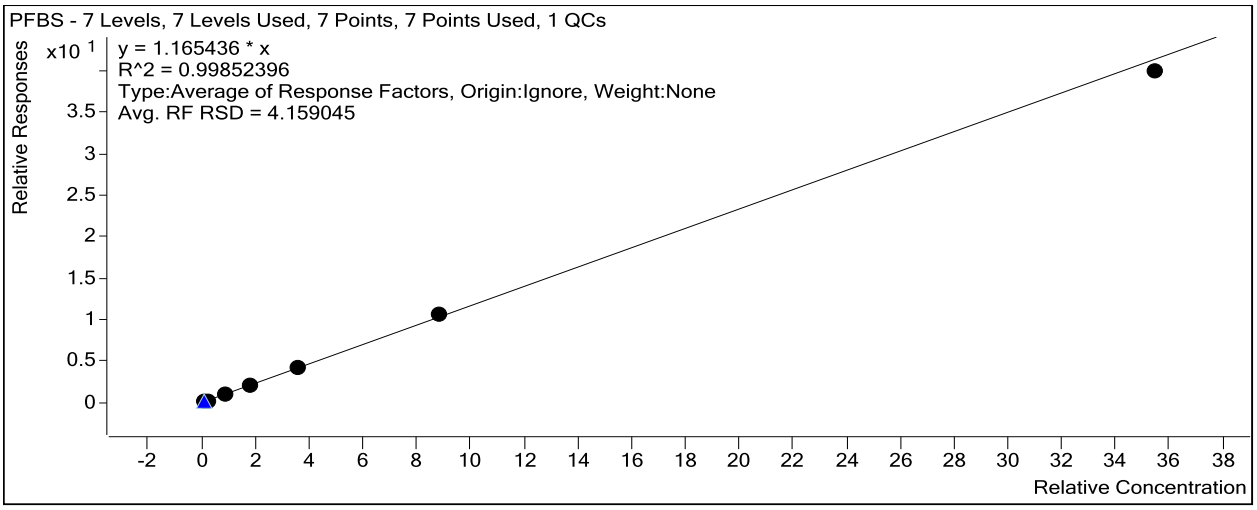
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	24275	5.0000	4855.0033
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	23361	5.0000	4672.1211
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	25559	5.0000	5111.7524
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	24170	5.0000	4833.9250
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	23222	5.0000	4644.3060
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	23596	5.0000	4719.1029
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	22483	5.0000	4496.6336

Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	2616	0.4435	1.2148

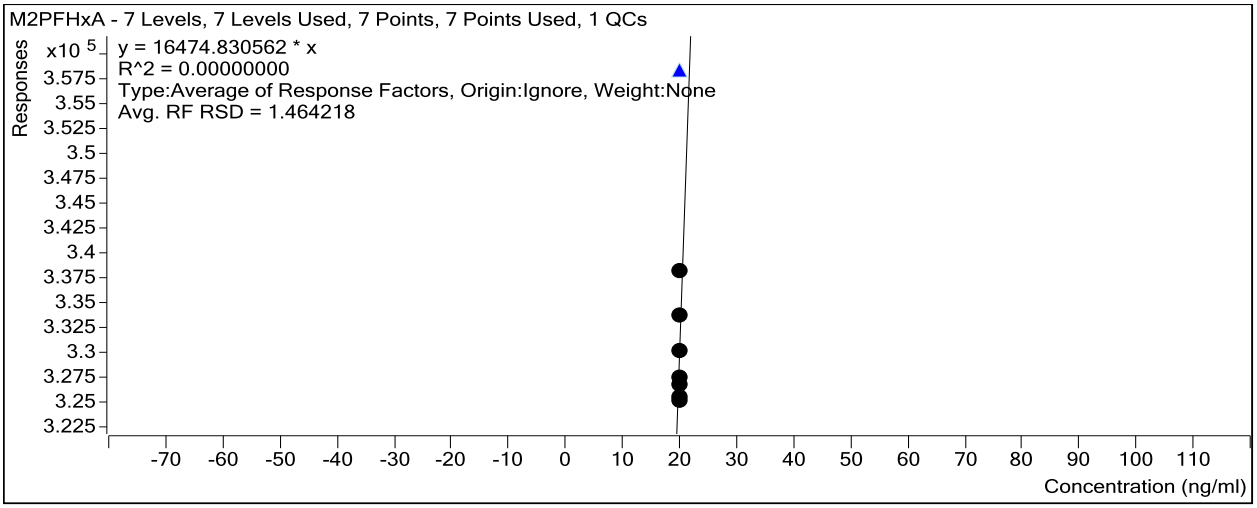
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	5866	1.1088	1.1324
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	24682	4.4350	1.0887
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	51590	8.8700	1.2032
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	98869	17.7400	1.2000
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	249266	44.3500	1.1910
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	899749	177.4000	1.1279



Target Compound *PFMBA*

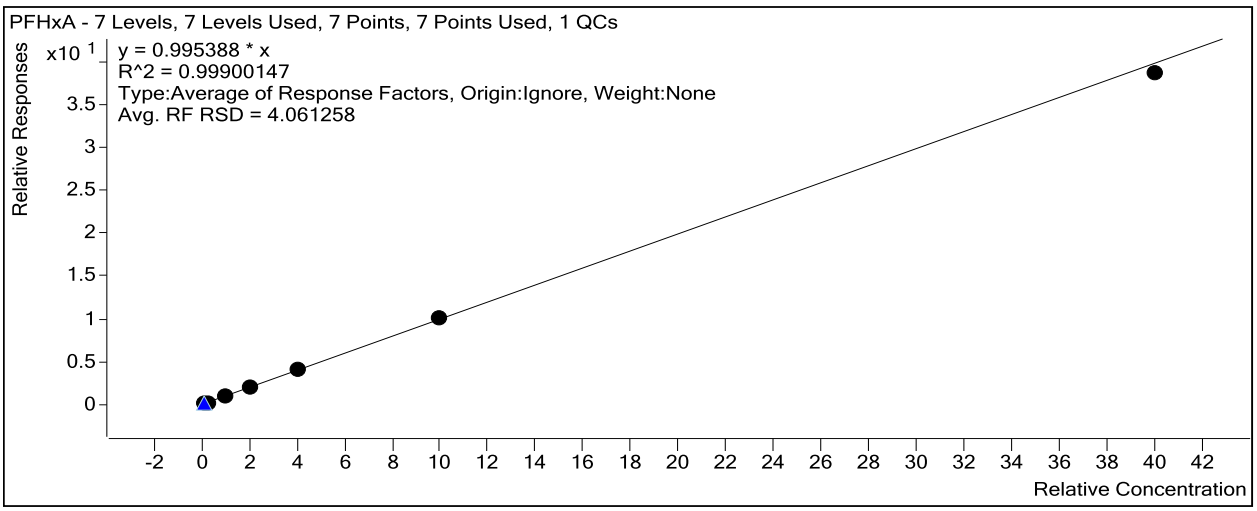
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	5551	0.5000	0.6840
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	13730	1.2500	0.6824
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	57911	5.0000	0.6541
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	122145	10.0000	0.7411
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	235860	20.0000	0.7240
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	592796	50.0000	0.7048
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	2322468	200.0000	0.7159

D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	325447	20.0000	16272.3456



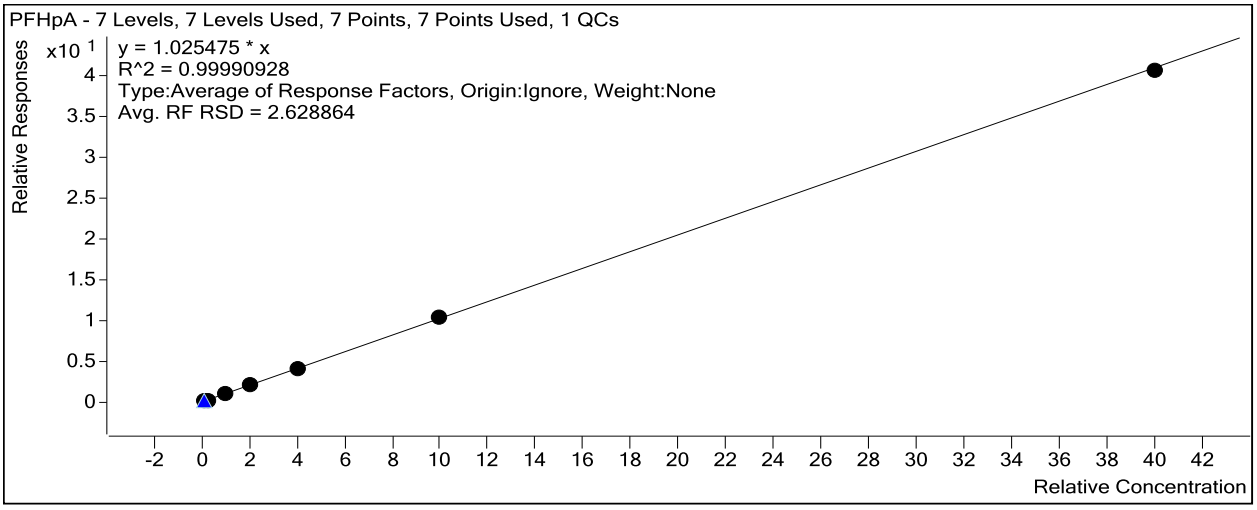
Target Compound *PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	8275	0.5000	1.0197
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	19129	1.2500	0.9507
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	83392	5.0000	0.9418
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	171764	10.0000	1.0422
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	334624	20.0000	1.0271
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	855419	50.0000	1.0170
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	3144167	200.0000	0.9692



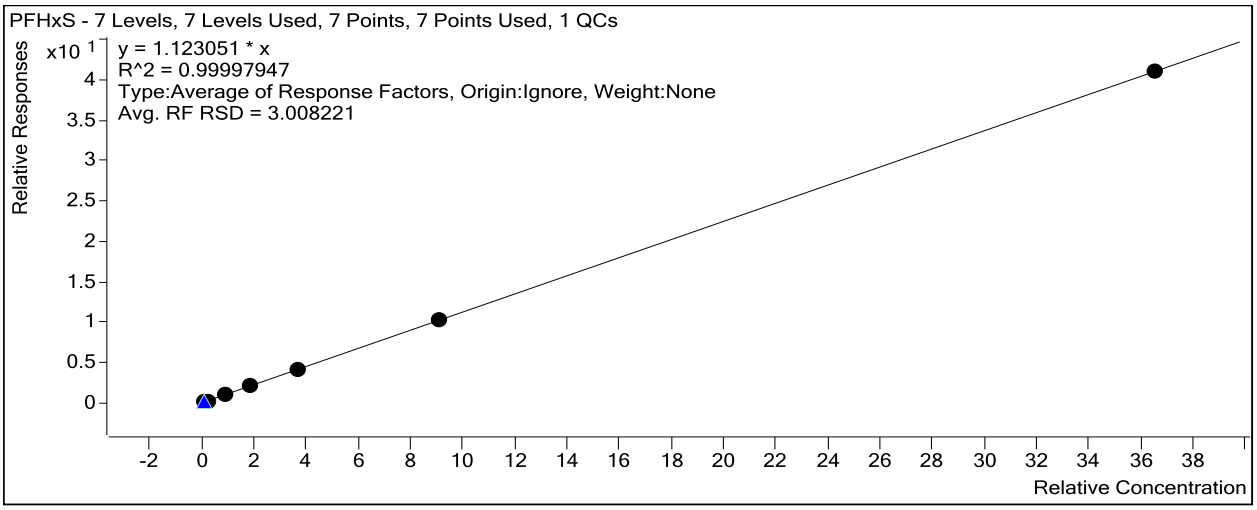
Target Compound *PFPeS*

D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	533480	20.0000	1.0482
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1362017	50.0000	1.0447
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	5107831	200.0000	1.0189



Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	2000	0.4570	1.1561
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	4728	1.1425	1.0983
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	20071	4.5700	1.0594
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	40887	9.1400	1.1494
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	79631	18.2800	1.1414
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	201001	45.7000	1.1306
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	740002	182.8000	1.1261

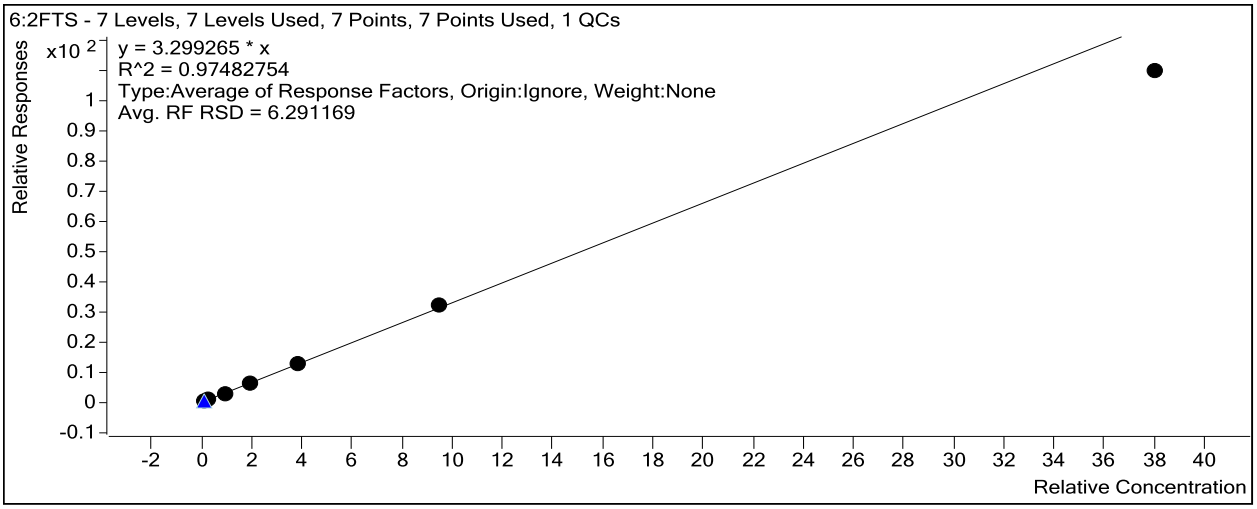


Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	6295	5.0000	1258.9506
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	6222	5.0000	1244.3687
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	6684	5.0000	1336.7027
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	6252	5.0000	1250.4497
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	6036	5.0000	1207.1442
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	5806	5.0000	1161.2900
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	5476	5.0000	1095.1793

Target Compound *6:2FTS*

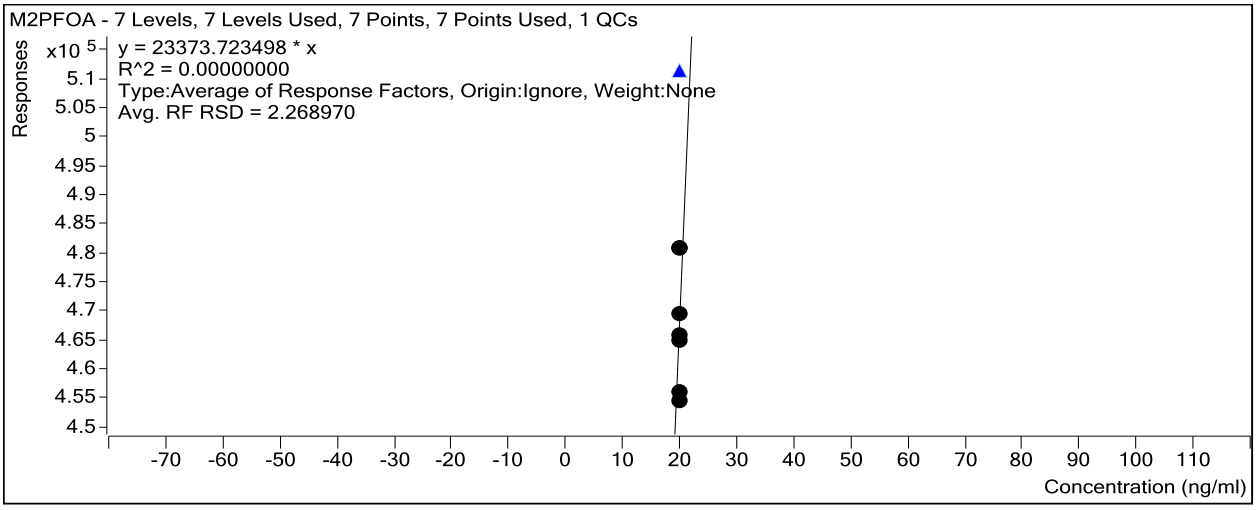
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	2065	0.4755	3.4489
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	4957	1.1888	3.3512
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	19971	4.7550	3.1421
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	41040	9.5100	3.4511
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	78428	19.0200	3.4159
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	187243	47.5500	3.3909
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	602984	190.2000	2.8947



Extracted ISTD *M8PFOA*

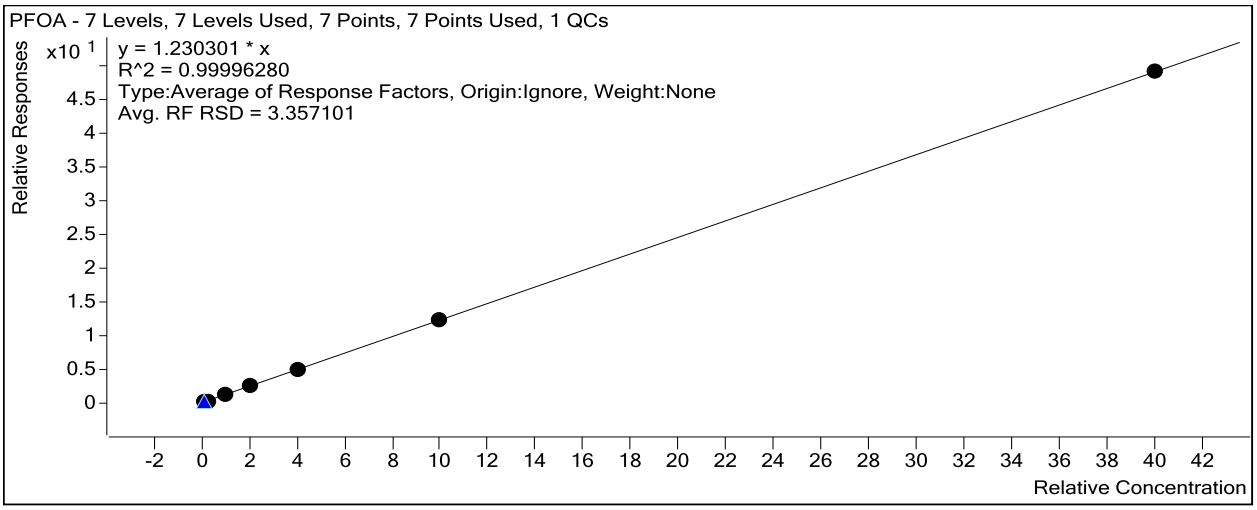
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	125500	5.0000	25099.9713

D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	464902	20.0000	23245.0826
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	480853	20.0000	24042.6529
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	456070	20.0000	22803.4890



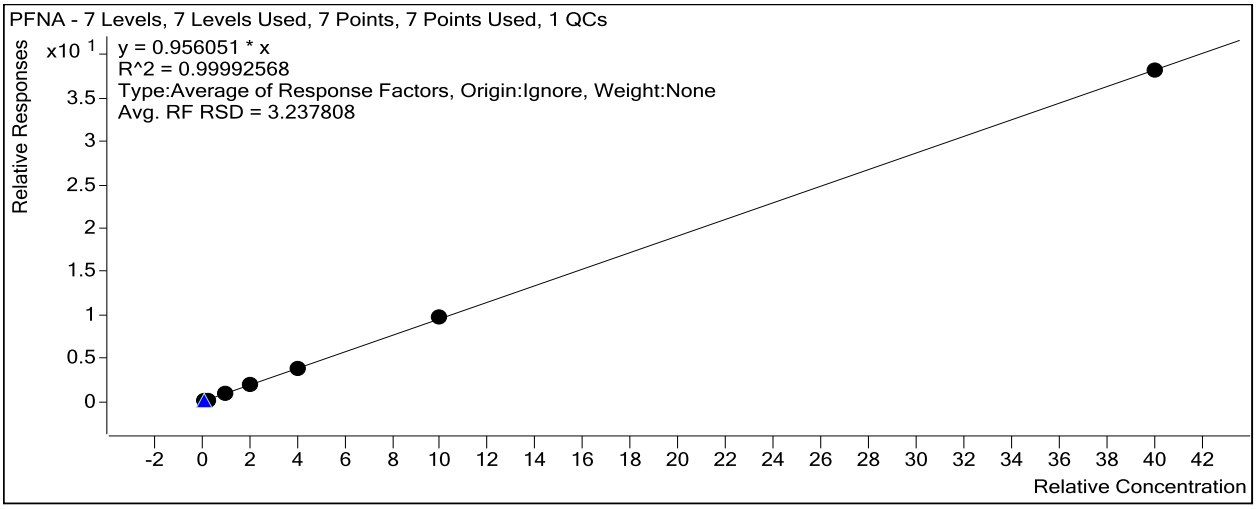
Target Compound *PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	15888	0.5000	1.2660
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	35883	1.2500	1.1556
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	159661	5.0000	1.1925
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	325377	10.0000	1.2639
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	636490	20.0000	1.2555
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1608199	50.0000	1.2434
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	6004623	200.0000	1.2351



Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	15249	0.5000	0.9479
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	36417	1.2500	0.9191
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	160386	5.0000	0.9138
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	322933	10.0000	0.9908
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	629975	20.0000	0.9818
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1625119	50.0000	0.9818
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	5874948	200.0000	0.9570

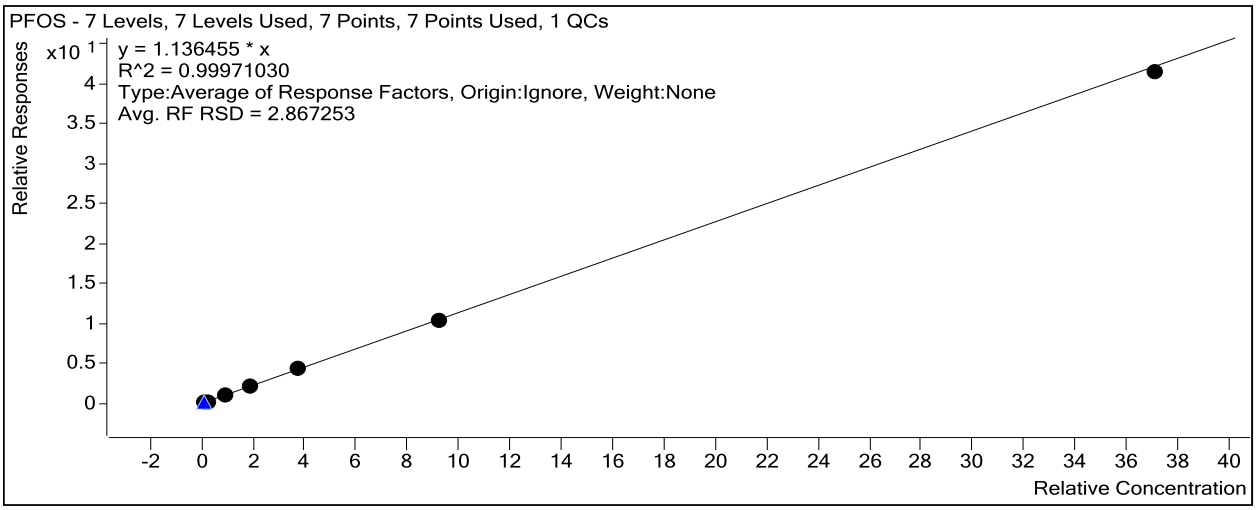


Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	15583	5.0000	3116.5453
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	15692	5.0000	3138.4053
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	16858	5.0000	3371.5422
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	15534	5.0000	3106.8928
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	15394	5.0000	3078.7869
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	16035	5.0000	3207.0619
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	14500	5.0000	2899.9789

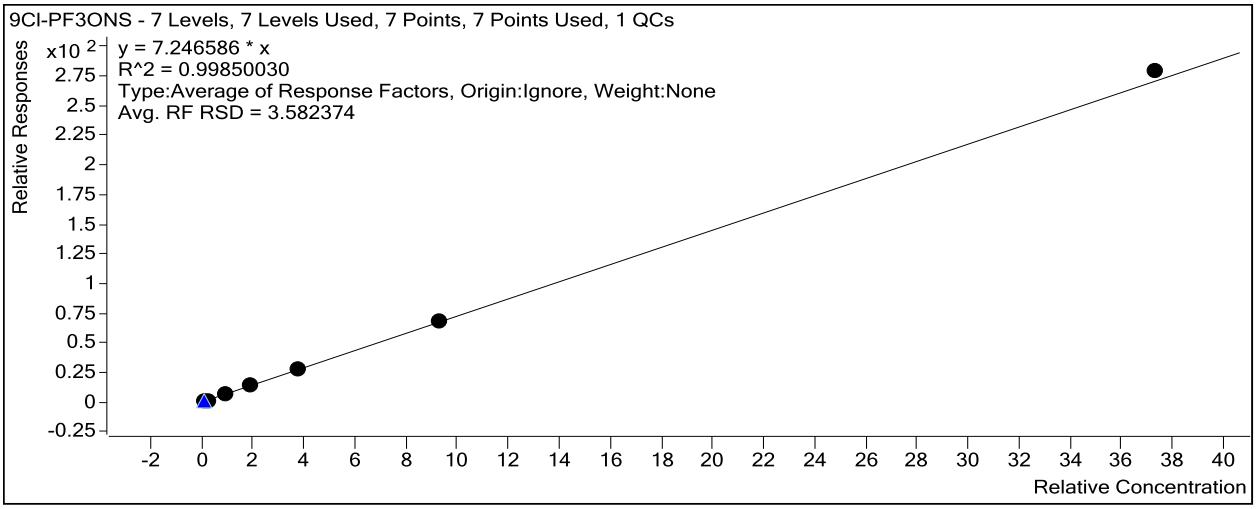
Instrument ISTD *M4PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	62128	20.0000	3106.4017



Target Compound *9Cl-PF3ONS*

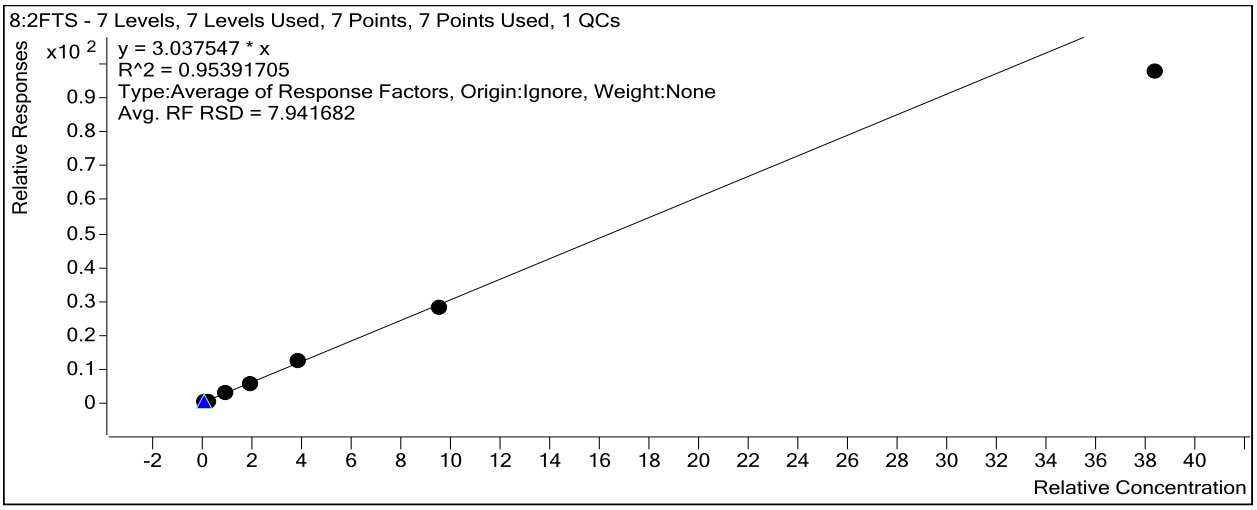
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	10200	0.4665	7.0160
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	25348	1.1663	6.9250
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	110291	4.6650	7.0123
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	218827	9.3300	7.5491
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	426925	18.6600	7.4312
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1088384	46.5500	7.2905
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	4059674	186.6000	7.5021



Target Compound *8:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	1631	0.4800	3.2370
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	3868	1.2000	3.0254
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	15737	4.8000	3.1562
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	31124	9.6000	3.1011
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	59218	19.2000	3.2562
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	135958	48.0000	2.9312
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	386905	192.0000	2.5559



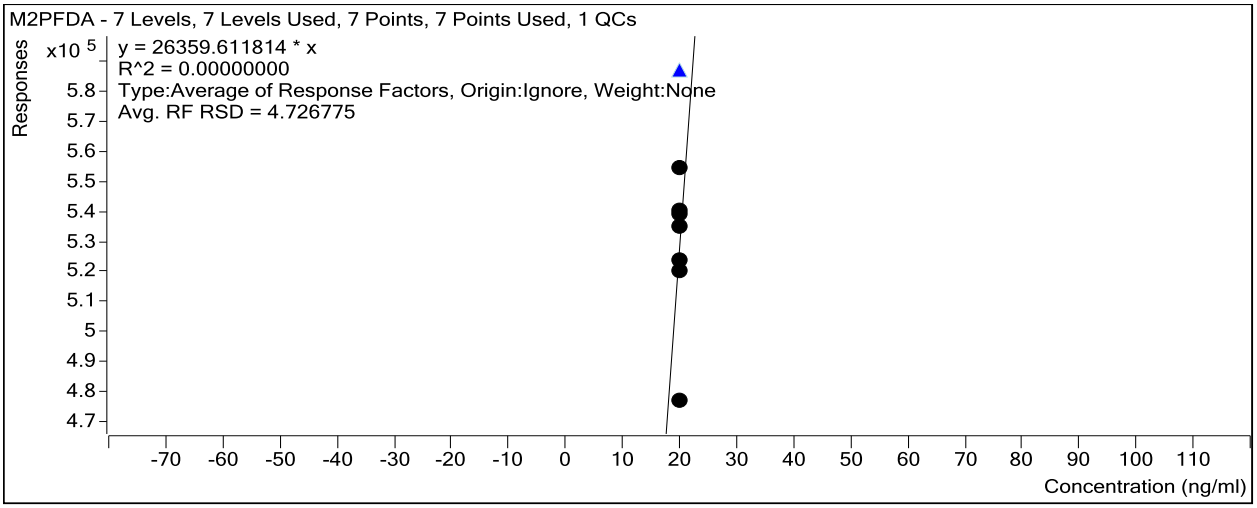
Extracted ISTD *M2 8:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	5249	5.0000	1049.7021
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	5327	5.0000	1065.3830
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	5194	5.0000	1038.7660
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	5227	5.0000	1045.4737
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	4736	5.0000	947.2032
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	4832	5.0000	966.3252
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	3942	5.0000	788.4319

Target Compound *PFNS*

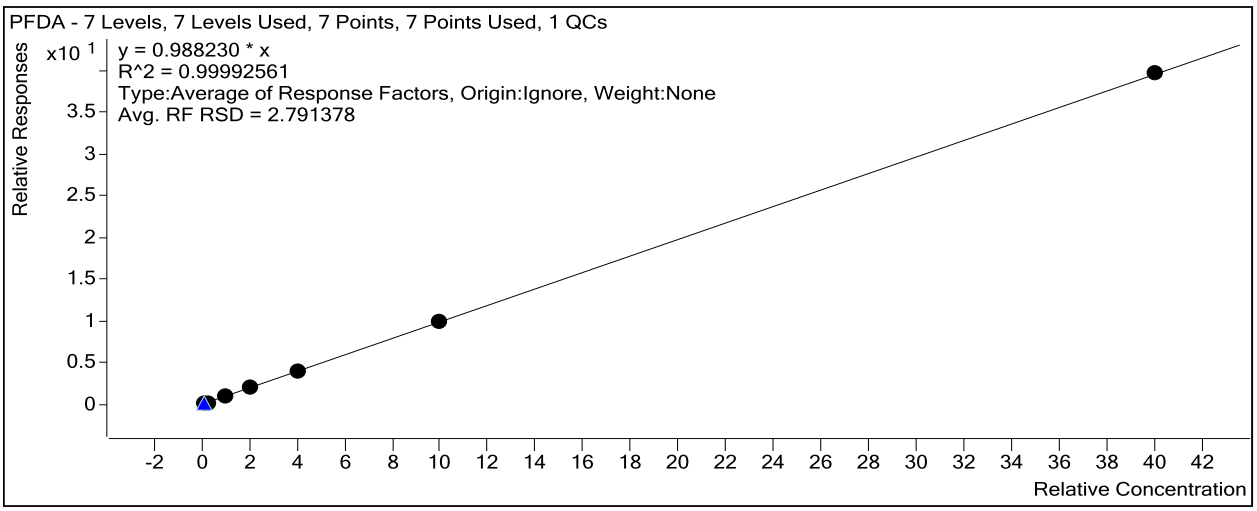
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	1387	0.4810	0.9250
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	3129	1.2025	0.8291
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	14094	4.8100	0.8691

D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	476806	20.0000	23840.2836



Target Compound *PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	14366	0.5000	1.0115
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	33118	1.2500	0.9599
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	145711	5.0000	0.9394
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	291950	10.0000	1.0075
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	566832	20.0000	1.0058
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1426702	50.0000	0.9987
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	5006512	200.0000	0.9950



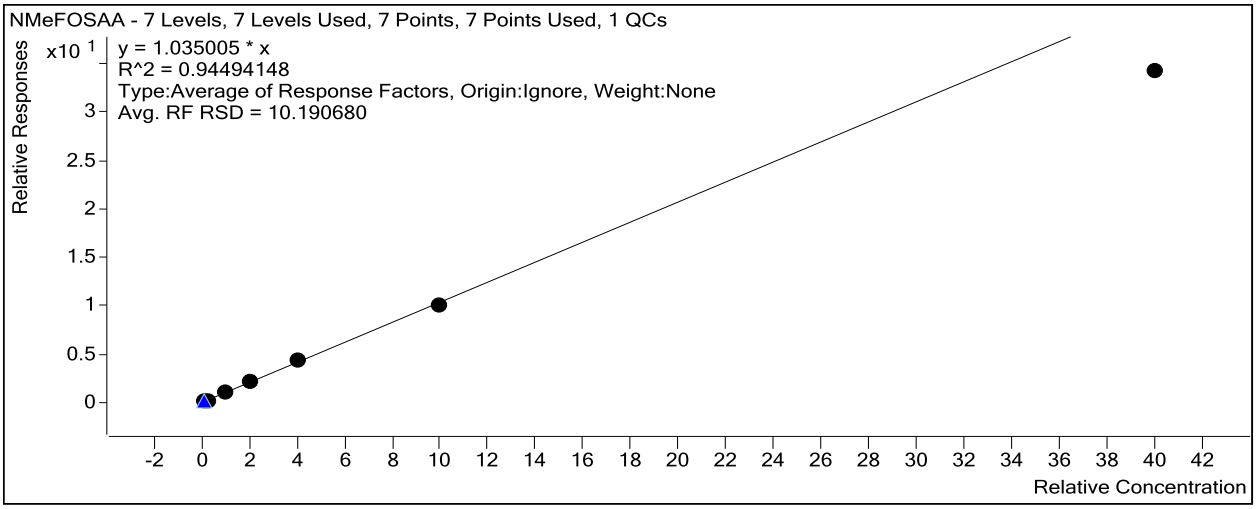
Extracted ISTD *d3-NMeFOSAA*

Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	12787	5.0000	2557.4424
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	13002	5.0000	2600.4797
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	13112	5.0000	2622.3007
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	12976	5.0000	2595.1181
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	12507	5.0000	2501.4574
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	13701	5.0000	2740.1310
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	14936	5.0000	2987.2593

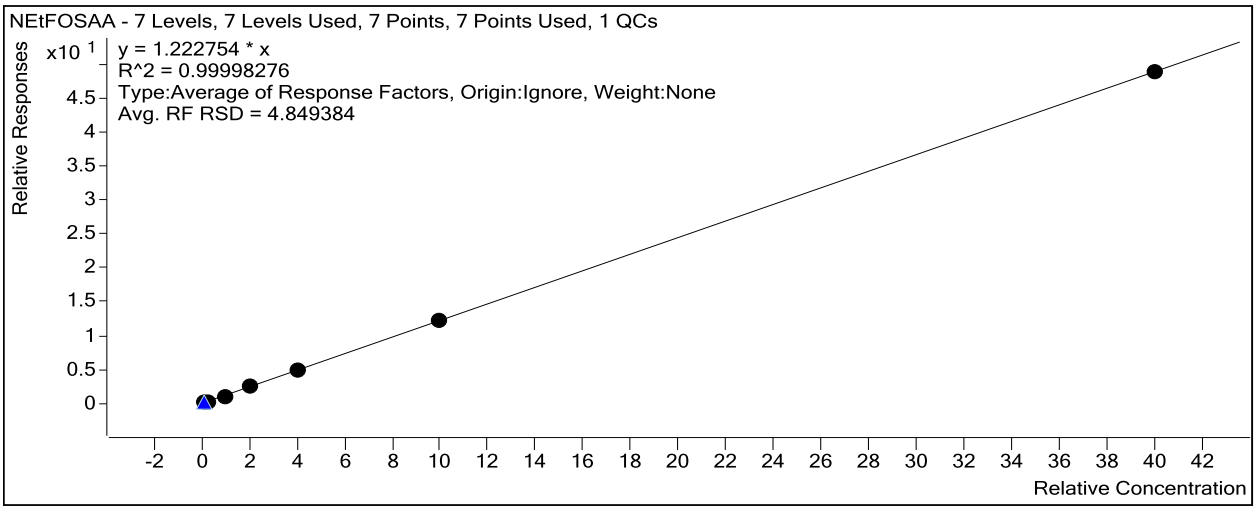
Target Compound *NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	1524	0.5000	1.1917
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	3160	1.2500	0.9720
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	13573	5.0000	1.0352
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	27764	10.0000	1.0698
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	55366	20.0000	1.1067
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	138606	50.0000	1.0117
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	512603	200.0000	0.8580



Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	42634	5.0000	8526.7859

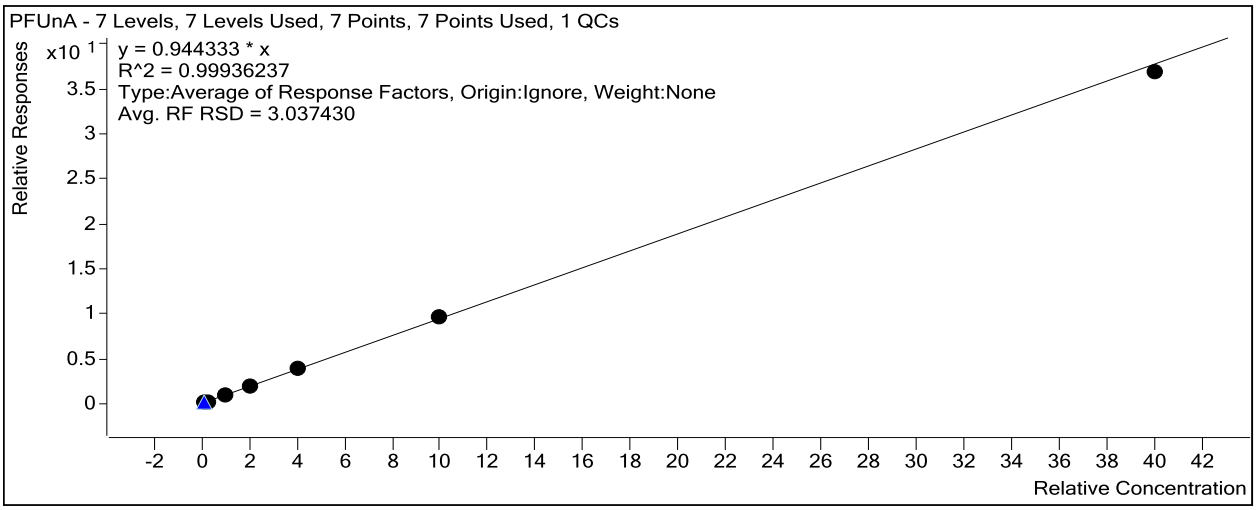


Extracted ISTD *M7PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	139528	5.0000	27905.5376
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	137398	5.0000	27479.5759
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	149016	5.0000	29803.1600
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	144589	5.0000	28917.7768
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	136317	5.0000	27263.4217
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	138307	5.0000	27661.3941
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	123562	5.0000	24712.4964

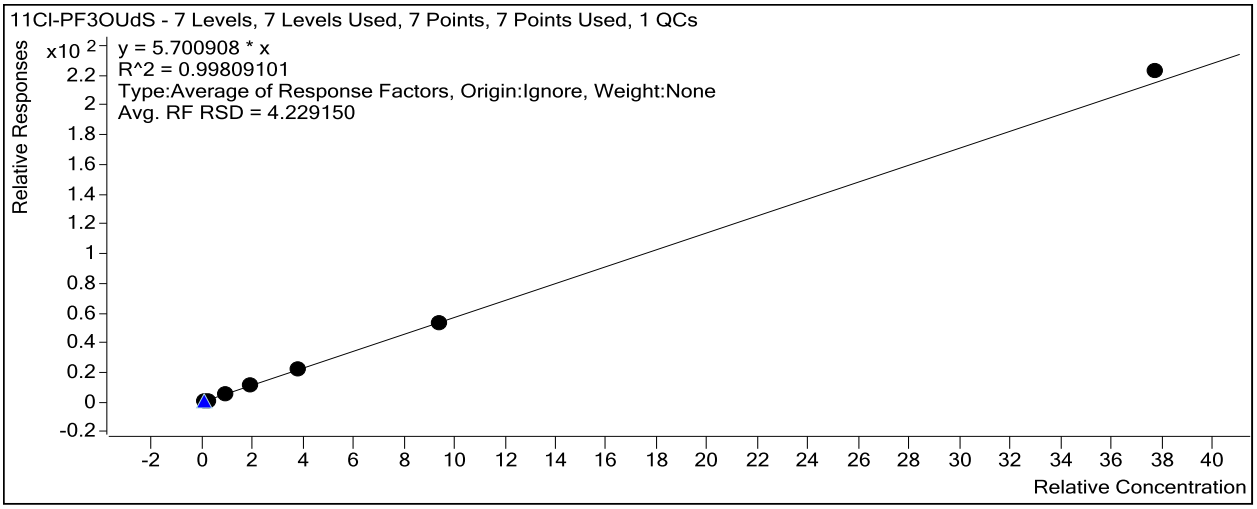
Target Compound *PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	13563	0.5000	0.9721
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	31129	1.2500	0.9063
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	136407	5.0000	0.9154
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	276424	10.0000	0.9559
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	533452	20.0000	0.9783
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1325115	50.0000	0.9581
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	4568358	200.0000	0.9243



Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	8424	0.4715	5.7330
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	19548	1.1788	5.2840
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	87161	4.7150	5.4829
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	173704	9.4300	5.9289
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	339697	18.8600	5.8502
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	861637	47.1500	5.6982
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	3242900	188.6000	5.9292



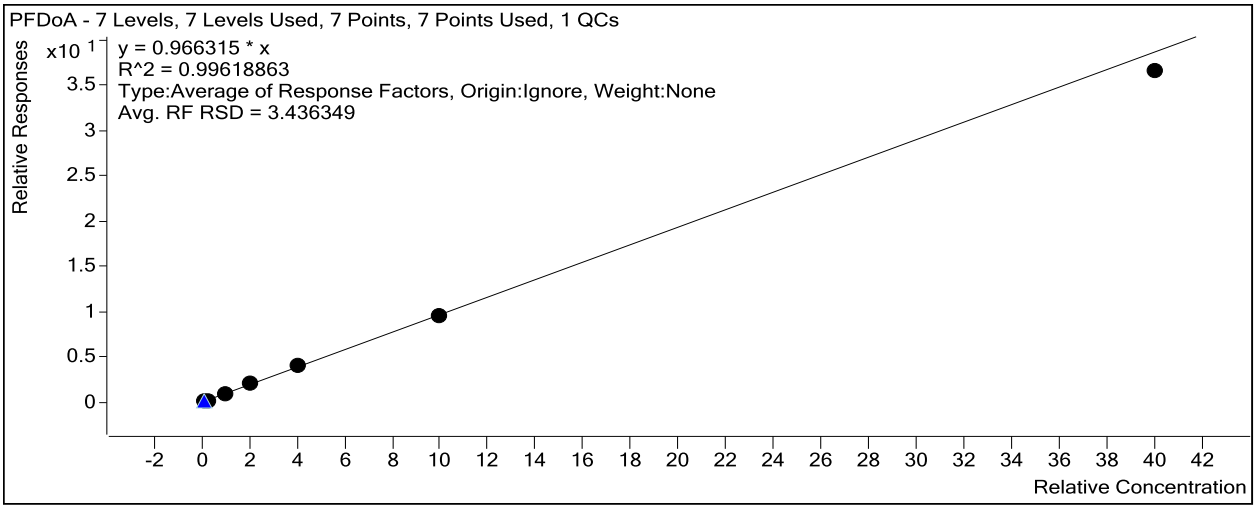
Extracted ISTD *MPFDoA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	141155	5.0000	28230.9161
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	137055	5.0000	27410.9994
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	150953	5.0000	30190.6403
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	142603	5.0000	28520.6948
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	140435	5.0000	28086.9928
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	145470	5.0000	29093.9375
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	141612	5.0000	28322.3526

Target Compound *PFDoA*

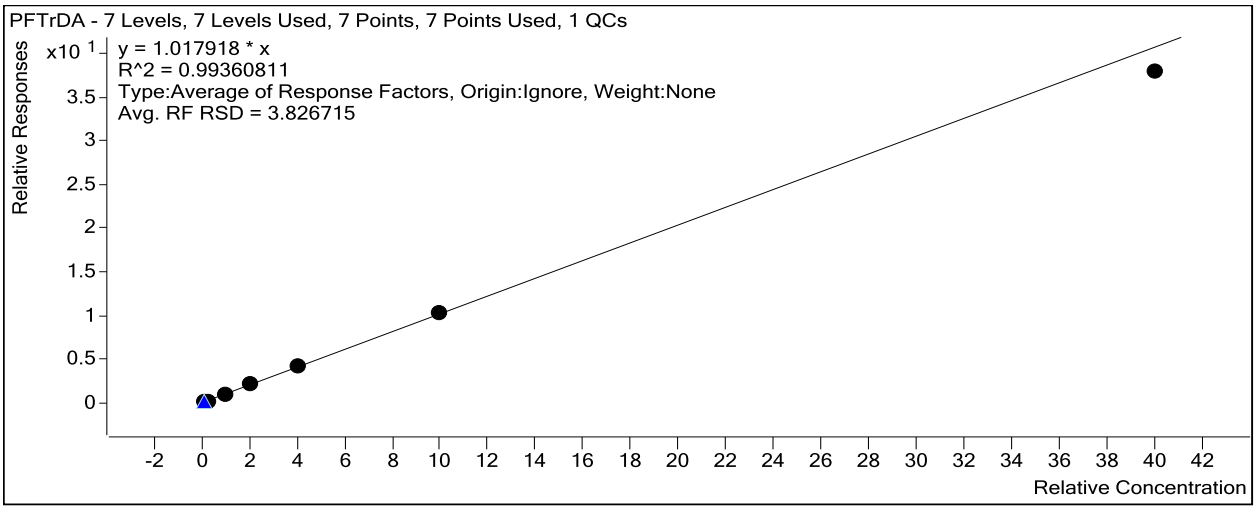
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	13783	0.5000	0.9765
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	32232	1.2500	0.9407
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	144034	5.0000	0.9542
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	289284	10.0000	1.0143
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	559909	20.0000	0.9967
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1404279	50.0000	0.9653
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	5191570	200.0000	0.9165



Target Compound *10:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	1442	0.4820	2.8507
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	3289	1.2050	2.5623
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	13637	4.8200	2.7238

D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	14472	0.5000	1.0253
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	34777	1.2500	1.0150
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	149012	5.0000	0.9871
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	304527	10.0000	1.0677
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	589432	20.0000	1.0493
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1498380	50.0000	1.0300
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	5386799	200.0000	0.9510

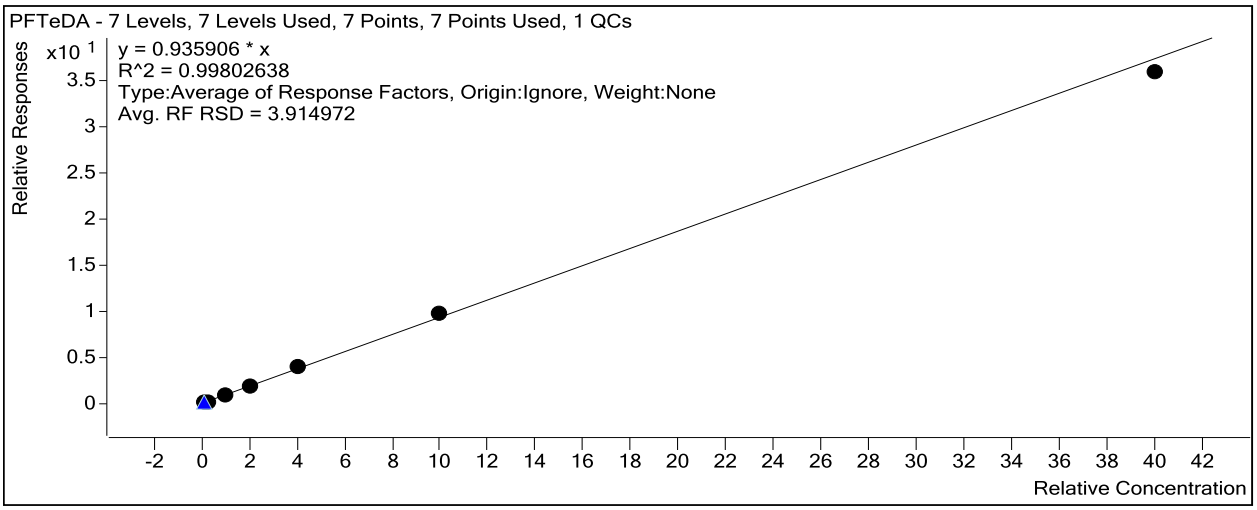


Extracted ISTD *d9-NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	13425	5.0000	2684.9360
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	12420	5.0000	2484.0267
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	13612	5.0000	2722.4568
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	13178	5.0000	2635.5726
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	13143	5.0000	2628.6243
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	13400	5.0000	2679.9918
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	13666	5.0000	2733.1534

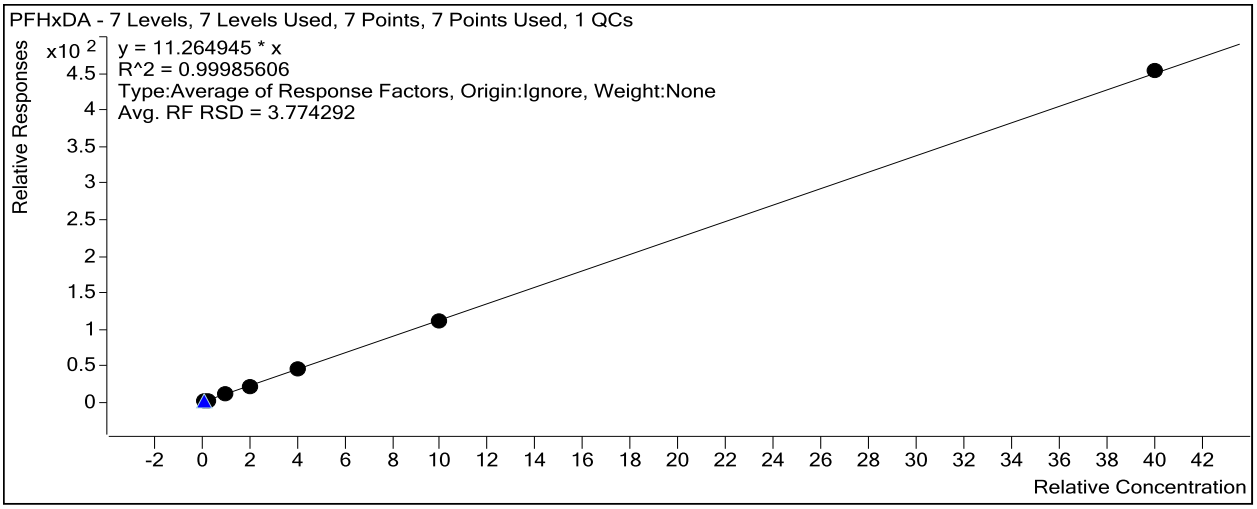
Extracted ISTD *d-NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	8533	5.0000	1706.5576
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	8646	5.0000	1729.2725
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	9413	5.0000	1882.6737



Target Compound *PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220509ACAL\2220509A_2.d	Calibration	1	☑	19261	0.5000	11.9446
D:\MassHunter\Data\2220509ACAL\2220509A_3.d	Calibration	2	☑	44647	1.2500	10.9173
D:\MassHunter\Data\2220509ACAL\2220509A_4.d	Calibration	3	☑	186192	5.0000	10.6071
D:\MassHunter\Data\2220509ACAL\2220509A_5.d	Calibration	4	☑	375576	10.0000	11.3259
D:\MassHunter\Data\2220509ACAL\2220509A_6.d	Calibration	5	☑	766621	20.0000	11.4821
D:\MassHunter\Data\2220509ACAL\2220509A_7.d	Calibration	6	☑	1952188	50.0000	11.1963
D:\MassHunter\Data\2220509ACAL\2220509A_8.d	Calibration	7	☑	7970093	200.0000	11.3813



Extracted ISTD *M2PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 19:56	Lab File ID:	2220503B_15.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9680	102	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10100	105	70	130	
NEtFOSAA	ng/L	10000	9700	97	70	130	
NMeFOSAA	ng/L	10000	10100	101	70	130	
Perfluorobutanoic acid	ng/L	10000	9860	99	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8720	98	70	130	
Perfluorodecanoic acid	ng/L	10000	9750	97	70	130	
Perfluorododecanoic acid	ng/L	10000	9670	97	70	130	
Perfluoroheptanoic acid	ng/L	10000	9670	97	70	130	
Perfluorohexanoic acid	ng/L	10000	9610	96	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8970	98	70	130	
Perfluorononanoic acid	ng/L	10000	9770	98	70	130	
Perfluorooctanoic acid	ng/L	10000	9640	96	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8840	95	70	130	
Perfluoropentanoic acid	ng/L	10000	9840	98	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9830	98	70	130	
Perfluorotridecanoic acid	ng/L	10000	9990	100	70	130	
Perfluoroundecanoic acid	ng/L	10000	9730	97	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 22:54	Lab File ID:	2220503B_27.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9750	103	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9710	101	70	130	
NEtFOSAA	ng/L	10000	9420	94	70	130	
NMeFOSAA	ng/L	10000	9760	98	70	130	
Perfluorobutanoic acid	ng/L	10000	9840	98	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8760	99	70	130	
Perfluorodecanoic acid	ng/L	10000	9810	98	70	130	
Perfluorododecanoic acid	ng/L	10000	9750	97	70	130	
Perfluoroheptanoic acid	ng/L	10000	9630	96	70	130	
Perfluorohexanoic acid	ng/L	10000	9820	98	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8940	98	70	130	
Perfluorononanoic acid	ng/L	10000	9750	98	70	130	
Perfluorooctanoic acid	ng/L	10000	9720	97	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8810	95	70	130	
Perfluoropentanoic acid	ng/L	10000	9780	98	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9580	96	70	130	
Perfluorotridecanoic acid	ng/L	10000	10200	102	70	130	
Perfluoroundecanoic acid	ng/L	10000	9810	98	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/04/2022 02:22	Lab File ID:	2220503B_41.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9590	101	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9860	103	70	130	
NEtFOSAA	ng/L	10000	9810	98	70	130	
NMeFOSAA	ng/L	10000	10000	100	70	130	
Perfluorobutanoic acid	ng/L	10000	9800	98	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8610	97	70	130	
Perfluorodecanoic acid	ng/L	10000	9830	98	70	130	
Perfluorododecanoic acid	ng/L	10000	9900	99	70	130	
Perfluoroheptanoic acid	ng/L	10000	9700	97	70	130	
Perfluorohexanoic acid	ng/L	10000	9910	99	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8810	96	70	130	
Perfluorononanoic acid	ng/L	10000	9650	96	70	130	
Perfluorooctanoic acid	ng/L	10000	9690	97	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8880	96	70	130	
Perfluoropentanoic acid	ng/L	10000	9610	96	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9630	96	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	9730	97	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/04/2022 04:07	Lab File ID:	2220503B_48.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9620	101	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10100	105	70	130	
NEtFOSAA	ng/L	10000	9750	97	70	130	
NMeFOSAA	ng/L	10000	10700	107	70	130	
Perfluorobutanoic acid	ng/L	10000	9830	98	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8670	98	70	130	
Perfluorodecanoic acid	ng/L	10000	9660	97	70	130	
Perfluorododecanoic acid	ng/L	10000	9750	97	70	130	
Perfluoroheptanoic acid	ng/L	10000	9800	98	70	130	
Perfluorohexanoic acid	ng/L	10000	9780	98	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8840	97	70	130	
Perfluorononanoic acid	ng/L	10000	9640	96	70	130	
Perfluorooctanoic acid	ng/L	10000	9700	97	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8890	96	70	130	
Perfluoropentanoic acid	ng/L	10000	9650	96	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9550	96	70	130	
Perfluorotridecanoic acid	ng/L	10000	9950	99	70	130	
Perfluoroundecanoic acid	ng/L	10000	9700	97	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ4
Analysis Date:	05/04/2022 05:21	Lab File ID:	2220503C_5.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740176

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9520	100	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10300	107	70	130	
NEtFOSAA	ng/L	10000	9490	95	70	130	
NMeFOSAA	ng/L	10000	9860	99	70	130	
Perfluorobutanoic acid	ng/L	10000	9790	98	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8570	97	70	130	
Perfluorodecanoic acid	ng/L	10000	9680	97	70	130	
Perfluorododecanoic acid	ng/L	10000	9550	96	70	130	
Perfluoroheptanoic acid	ng/L	10000	9690	97	70	130	
Perfluorohexanoic acid	ng/L	10000	9570	96	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8880	97	70	130	
Perfluorononanoic acid	ng/L	10000	9840	98	70	130	
Perfluorooctanoic acid	ng/L	10000	9670	97	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8990	97	70	130	
Perfluoropentanoic acid	ng/L	10000	9790	98	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9580	96	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	9850	99	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ3
Analysis Date:	05/04/2022 17:13	Lab File ID:	2220504A_17.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740216

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10300	108	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10200	106	70	130	
NEtFOSAA	ng/L	10000	10400	104	70	130	
NMeFOSAA	ng/L	10000	10900	109	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9600	108	70	130	
Perfluorodecanoic acid	ng/L	10000	10800	108	70	130	
Perfluorododecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroheptanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9850	108	70	130	
Perfluorononanoic acid	ng/L	10000	10700	107	70	130	
Perfluorooctanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9880	106	70	130	
Perfluoropentanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotridecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroundecanoic acid	ng/L	10000	10800	108	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ3
Analysis Date:	05/04/2022 19:39	Lab File ID:	2220504A_27.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740216

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10200	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9970	104	70	130	
NEtFOSAA	ng/L	10000	10300	103	70	130	
NMeFOSAA	ng/L	10000	10200	102	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9670	109	70	130	
Perfluorodecanoic acid	ng/L	10000	10800	108	70	130	
Perfluorododecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroheptanoic acid	ng/L	10000	10800	108	70	130	
Perfluorohexanoic acid	ng/L	10000	10600	106	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9870	108	70	130	
Perfluorononanoic acid	ng/L	10000	10700	107	70	130	
Perfluorooctanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9860	106	70	130	
Perfluoropentanoic acid	ng/L	10000	10800	108	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotridecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroundecanoic acid	ng/L	10000	10400	104	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	QQQ5
Analysis Date:	05/09/2022 22:29	Lab File ID:	2220509B_15.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740543

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10400	110	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10700	112	70	130	
NEtFOSAA	ng/L	10000	10200	102	70	130	
NMeFOSAA	ng/L	10000	10600	106	70	130	
Perfluorobutanoic acid	ng/L	10000	10500	105	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8970	101	70	130	
Perfluorodecanoic acid	ng/L	10000	10200	102	70	130	
Perfluorododecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10300	103	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9320	102	70	130	
Perfluorononanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9340	101	70	130	
Perfluoropentanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10600	106	70	130	
Perfluorotridecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroundecanoic acid	ng/L	10000	10200	102	70	130	

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	222041582	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ4
Analysis Date:	05/03/22 16:43	Lab File ID:	2220503B_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	937535	620722	789847	132259

CLIENT SAMPLE ID	*LAB SAMP ID*		#		#		#		#
AOI01-06-GW	22204158213	812497		556676		731245		111870	
AOI03-01-GW	22204158214	819537		550103		691272		115429	
AOI02-02-GW	22204158215	816167		534080		684187		113949	
AOI02-03-GW	22204158216	789996		546929		678545		113299	
AOI02-DUP-GW-02	22204158217	799357		552853		698003		115338	
AOI02-04-GW	22204158218	810541		538437		693155		114148	
AOI03-02-GW	22204158219	755387		517884		663445		110393	
AOI02-01-GW	22204158220	785288		529471		674473		110915	
EB-2-041422	22204158221	780625		522951		679494		111846	
MB2341409	2341409	815255		543230		701960		115919	
LCS2341410	2341410	807675		545224		700411		115794	
LCSD2341411	2341411	786841		530370		674100		111889	

AREA UPPER LIMIT = +50% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits
* Value outside QC limits

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	222041582	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ4
Analysis Date:	05/04/22 04:37	Lab File ID:	2220503C_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740176

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	997955	672742	856199	142708

CLIENT SAMPLE ID	*LAB SAMP ID*		#		#		#		#
EB-3-041422	22204158222	804565		535865		686046		112778	

AREA UPPER LIMIT = +50% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits
* Value outside QC limits

FORM 8I - ORG

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	222041582	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ3
Analysis Date:	05/04/22 12:45	Lab File ID:	2220504A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740216

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	793742	681689	709049	143631

CLIENT SAMPLE ID	*LAB SAMP ID*		#		#		#		#
AOI02-03-SB-00-02	22204158201	805517		695428		730792		144829	
AOI03-01-SB-00-01	22204158203	829218		688986		726073		142452	
AOI03-02-SB-00-01	22204158204	769681		642644		668772		134127	
AOI02-01-SB-03.5-04.3	22204158205	811145		704992		726330		146504	
AOI02-01-SB-03.5-04.3-MS	22204158206	789998		688533		702819		139852	
AOI02-01-SB-03.5-04.3-MSD	22204158207	810463		686992		714532		142828	
AOI02-01-SB-00.9-03.5	22204158208	834055		665232		694779		139126	
AOI02-05-SB-0-0-02	22204158209	823362		708660		729570		145230	
AOI02-SB-DUP-3	22204158210	917569		728160		769728		150349	
MB2341454	2341454	816341		687483		728374		142986	
LCS2341455	2341455	766505		662341		697283		137829	

AREA UPPER LIMIT = +50% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits

* Value outside QC limits

FORM 8I - ORG

8I - INTERNAL STANDARD AREA SUMMARY

Report No:	222041582	Standard ID:	1450 (ISC)
Analyst:	SXA	Instrument ID:	QQQ5
Analysis Date:	05/09/22 19:09	Lab File ID:	2220509B_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740543

	M2PFDA	M2PFHxA	M2PFOA	M4PFOS
	Area	*Area*	*Area*	*Area*
STANDARD	585954	352527	503286	63908

CLIENT SAMPLE ID	*LAB SAMP ID*		#		#		#		#
AOI02-03-SB-02-02.7	22204158202	550533		343395		484418		60463	
MB2343451	2343451	583948		345237		505558		61663	
LCS2343452	2343452	572086		354350		505759		62417	

AREA UPPER LIMIT = +50% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area

Column used to flag values outside QC limits
* Value outside QC limits

FORM 8I - ORG

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220501C.batch.bin
Current ICAL Batch: 2220501A
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 739843
20mM NH4OAc (ID/Exp): 022-54-7 05/02/22 11:10
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/20/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/01/22 10:10:55	2220501A_2.d	1201	Cal	1	SXA,QQQ4,ICAL#022-47-5
05/01/22 10:25:51	2220501A_3.d	1202	Cal	1	SXA,QQQ4,ICAL#022-47-6
05/01/22 10:40:40	2220501A_4.d	1203	Cal	1	SXA,QQQ4,ICAL#022-48-1
05/01/22 10:55:28	2220501A_5.d	1204	Cal	1	SXA,QQQ4,ICAL#022-48-2
05/01/22 11:10:17	2220501A_6.d	1205	Cal	1	SXA,QQQ4,ICAL#022-48-3
05/01/22 11:25:06	2220501A_7.d	1206	Cal	1	SXA,QQQ4,ICAL#022-48-4
05/01/22 11:39:55	2220501A_8.d	1207	Cal	1	SXA,QQQ4,ICAL#022-48-5
05/01/22 11:57:05	2220501A_9.d	1500	Blank	1	SXA,QQQ4,Instrument Blank#022-54-3
05/01/22 12:12:02	2220501A_10.d	1600	Sample	1	SXA,QQQ4,ICV#022-49-1
05/01/22 12:26:52	2220501A_11.d	1450	QC	1	SXA,QQQ4,CCV
05/02/22 04:10:48	2220501C_1.d	1500	Blank	1	SXA,QQQ4,Instrument Blank
05/02/22 04:25:37	2220501C_2.d	1450	QC	1	SXA,QQQ4,CCV
05/02/22 04:40:26	2220501C_3.d	2340536	Blank	1	SXA,QQQ4,739811
05/02/22 04:55:31	2220501C_4.d	2340537	QC	1	SXA,QQQ4,739811
05/02/22 05:10:21	2220501C_5.d	2340538	QC	1	SXA,QQQ4,739811
05/02/22 05:25:10	2220501C_6.d	22204134412	Sample	1	SXA,QQQ4,739811
05/02/22 05:39:59	2220501C_7.d	22204134413	Sample	1	SXA,QQQ4,739811
05/02/22 05:54:48	2220501C_8.d	22204134414	Sample	1	SXA,QQQ4,739811
05/02/22 06:09:39	2220501C_9.d	22204152602	Sample	1	SXA,QQQ4,739811
05/02/22 06:24:28	2220501C_10.d	22204152603	Sample	1	SXA,QQQ4,739811
05/02/22 06:39:17	2220501C_11.d	22204296901	Sample	1	SXA,QQQ4,739811
05/02/22 06:54:08	2220501C_12.d	22204296902	Sample	1	SXA,QQQ4,739811
05/02/22 07:08:57	2220501C_13.d	22204296903	Sample	1	SXA,QQQ4,739811
05/02/22 07:23:46	2220501C_14.d	22204296904	Sample	1	SXA,QQQ4,739811
05/02/22 07:38:35	2220501C_15.d	22204296905	Sample	1	SXA,QQQ4,739811
05/02/22 07:53:24	2220501C_16.d	1400	QC	1	SXA,QQQ4,CCV
05/02/22 08:08:30	2220501C_17.d	22204296906	Sample	1	SXA,QQQ4,739811
05/02/22 08:23:35	2220501C_18.d	22204296907	Sample	1	SXA,QQQ4,739811
05/02/22 08:38:27	2220501C_19.d	22204296908	Sample	1	SXA,QQQ4,739811
05/02/22 08:53:16	2220501C_20.d	22204296909	Sample	1	SXA,QQQ4,739811
05/02/22 09:08:05	2220501C_21.d	22204296910	Sample	1	SXA,QQQ4,739811
05/02/22 09:22:54	2220501C_22.d	22204296911	Sample	1	SXA,QQQ4,739811
05/02/22 09:37:43	2220501C_23.d	22204296912	Sample	1	SXA,QQQ4,739811
05/02/22 09:52:32	2220501C_24.d	22204296913	Sample	1	SXA,QQQ4,739811
05/02/22 10:07:22	2220501C_25.d	22204296914	Sample	1	SXA,QQQ4,739811
05/02/22 10:22:10	2220501C_26.d	22204296915	Sample	1	SXA,QQQ4,739811
05/02/22 10:47:45	2220501C_27.d	1400	QC	1	SXA,QQQ4,CCV

LC-QQQ Instrument Run Log

Instrument: QQQ5
Instrument Batch: 2220503A.batch.bin
Current ICAL Batch: 2220501ACAL
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 740023
20mM NH4OAc (ID/Exp): 022-55-7 5/5/22 10:00
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/12/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/01/22 11:16:44	2220501A_2.d	1201	Cal	1	SXA,QQQ5,ICAL#022-53-6
05/01/22 11:31:30	2220501A_3.d	1202	Cal	1	SXA,QQQ5,ICAL#022-47-6
05/01/22 12:02:46	2220501A_4.d	1203	Cal	1	SXA,QQQ5,ICAL#022-48-1
05/01/22 12:17:32	2220501A_5.d	1204	Cal	1	SXA,QQQ5,ICAL#022-48-2
05/01/22 12:32:08	2220501A_6.d	1205	Cal	1	SXA,QQQ5,ICAL#022-48-3
05/01/22 12:46:47	2220501A_7.d	1206	Cal	1	SXA,QQQ5,ICAL#022-48-4
05/01/22 13:01:23	2220501A_8.d	1207	Cal	1	SXA,QQQ5,ICAL#022-48-5
05/01/22 13:26:32	2220501A_9.d	1500	Blank	1	SXAQQQ5,Instrument blank#022-54-3
05/01/22 13:41:17	2220501A_10.d	1600	Sample	1	SXA,QQQ5,ICV#022-49-1
05/01/22 13:55:55	2220501A_11.d	1450	QC	1	SXA,QQQ5,CCV#022-53-6
05/02/22 15:39:04	2220502A_31.d	1400	QC	1	SXA,QQQ5,CCV#022-48-2
05/03/22 10:51:04	2220503A_1.d	1400 RT Test	QC	1	SXA,QQQ5,1400 rT Test
05/03/22 11:13:55	2220503A_2.d	1500	Blank	1	SXA,QQQ5,Instrument blank#022-5-8
05/03/22 12:08:42	2220503A_3.d	1450	QC	1	SXA,QQQ5,CCV#022-53-6
05/03/22 12:23:28	2220503A_4.d	2340725	Blank	1	SXA,QQQ5,739862
05/03/22 12:38:04	2220503A_5.d	2340726	QC	1	SXA,QQQ5,739862
05/03/22 12:52:40	2220503A_6.d	22204094817	QC	1	SXA,QQQ5,739862
05/03/22 13:07:18	2220503A_7.d	22204151616	Sample	1	SXA,QQQ5,739862
05/03/22 13:21:54	2220503A_8.d	22204152601	Sample	1	SXA,QQQ5,739862
05/03/22 13:36:31	2220503A_9.d	22204152613	Sample	1	SXA,QQQ5,739862
05/03/22 13:51:11	2220503A_10.d	22204152614	Sample	1	SXA,QQQ5,739862
05/03/22 14:05:48	2220503A_11.d	22204152627	Sample	1	SXA,QQQ5,739862
05/03/22 14:20:25	2220503A_12.d	22204152628	Sample	1	SXA,QQQ5,739862
05/03/22 14:35:02	2220503A_13.d	22204152629	Sample	1	SXA,QQQ5,739862
05/03/22 14:49:39	2220503A_14.d	1400	QC	1	SXA,QQQ5,CCV 022-48-2
05/03/22 15:04:16	2220503A_15.d	22204152630	Sample	1	SXA,QQQ5,739862
05/03/22 15:18:52	2220503A_16.d	22204152631MS	Sample	1	SXA,QQQ5,739862
05/03/22 15:33:29	2220503A_17.d	22204152632MSD	Sample	1	SXA,QQQ5,739862
05/03/22 15:48:06	2220503A_18.d	22204152635	Sample	1	SXA,QQQ5,739862

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220503B.batch.bin
Current ICAL Batch: 2220501A
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 740027
20mM NH4OAc (ID/Exp): 022-54--8 5/4/22 8:00AM
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/20/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/01/22 10:10:55	2220501A_2.d	1201	Cal	1	SXA,QQQ4,ICAL#022-47-5
05/01/22 10:25:51	2220501A_3.d	1202	Cal	1	SXA,QQQ4,ICAL#022-47-6
05/01/22 10:40:40	2220501A_4.d	1203	Cal	1	SXA,QQQ4,ICAL#022-48-1
05/01/22 10:55:28	2220501A_5.d	1204	Cal	1	SXA,QQQ4,ICAL#022-48-2
05/01/22 11:10:17	2220501A_6.d	1205	Cal	1	SXA,QQQ4,ICAL#022-48-3
05/01/22 11:25:06	2220501A_7.d	1206	Cal	1	SXA,QQQ4,ICAL#022-48-4
05/01/22 11:39:55	2220501A_8.d	1207	Cal	1	SXA,QQQ4,ICAL#022-48-5
05/01/22 11:57:05	2220501A_9.d	1500	Blank	1	SXA,QQQ4,Instrument Blank#022-54-3
05/01/22 12:12:02	2220501A_10.d	1600	Sample	1	SXA,QQQ4,ICV#022-49-1
05/01/22 12:26:52	2220501A_11.d	1450	QC	1	SXA,QQQ4,CCV
05/03/22 16:28:20	2220503B_1.d	1500	Blank	1	SXA,QQQ4,Instrument Blank
05/03/22 16:43:10	2220503B_2.d	1450	QC	1	SXA,QQQ4,CCV
05/03/22 16:57:58	2220503B_3.d	2340976	Blank	1	SXA,QQQ4,739931
05/03/22 17:13:03	2220503B_4.d	2340977	QC	1	SXA,QQQ4,739931
05/03/22 17:27:52	2220503B_5.d	22204152604	Sample	1	SXA,QQQ4,739931
05/03/22 17:42:43	2220503B_6.d	22204152605	Sample	1	SXA,QQQ4,739931
05/03/22 17:57:32	2220503B_7.d	22204152606	Sample	1	SXA,QQQ4,739931
05/03/22 18:12:21	2220503B_8.d	22204152607	Sample	1	SXA,QQQ4,739931
05/03/22 18:27:10	2220503B_9.d	22204152608X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 18:41:59	2220503B_10.d	22204152609	Sample	1	SXA,QQQ4,739931
05/03/22 18:56:48	2220503B_11.d	22204152610	Sample	1	SXA,QQQ4,739931
05/03/22 19:11:37	2220503B_12.d	22204152611	Sample	1	SXA,QQQ4,739931
05/03/22 19:26:26	2220503B_13.d	22204152612	Sample	1	SXA,QQQ4,739931
05/03/22 19:41:14	2220503B_14.d	22204152615	Sample	1	SXA,QQQ4,739931
05/03/22 19:56:05	2220503B_15.d	1400	QC	1	SXA,QQQ4,CCV
05/03/22 20:11:14	2220503B_16.d	22204152616	Sample	1	SXA,QQQ4,739931
05/03/22 20:26:19	2220503B_17.d	22204152617	Sample	1	SXA,QQQ4,739931
05/03/22 20:41:08	2220503B_18.d	22204152620MS	QC	1	SXA,QQQ4,739931
05/03/22 20:55:57	2220503B_19.d	22204152621MSD	QC	1	SXA,QQQ4,739931
05/03/22 21:10:46	2220503B_20.d	22204152622	Sample	1	SXA,QQQ4,739931
05/03/22 21:25:36	2220503B_21.d	22204152623	Sample	1	SXA,QQQ4,739931
05/03/22 21:40:25	2220503B_22.d	22204152624	Sample	1	SXA,QQQ4,739931
05/03/22 21:55:13	2220503B_23.d	22204152625X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 22:10:03	2220503B_24.d	22204152626X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 22:24:51	2220503B_25.d	22204152633	Sample	1	SXA,QQQ4,739931
05/03/22 22:39:42	2220503B_26.d	22204152634X5	Sample	5	SXA,QQQ4,739931,DIRTY SAMPLES
05/03/22 22:54:32	2220503B_27.d	1400	QC	1	SXA,QQQ4,CCV
05/03/22 23:09:38	2220503B_28.d	2341409	Blank	1	SXA,QQQ4,740006
05/03/22 23:24:44	2220503B_29.d	2341410	QC	1	SXA,QQQ4,740006
05/03/22 23:39:34	2220503B_30.d	2341411	QC	1	SXA,QQQ4,740006
05/03/22 23:54:23	2220503B_31.d	22204153833	Sample	1	SXA,QQQ4,740006
05/04/22 00:09:13	2220503B_32.d	22204153834	Sample	1	SXA,QQQ4,740006
05/04/22 00:24:03	2220503B_33.d	22204153835	Sample	1	SXA,QQQ4,740006
05/04/22 00:38:52	2220503B_34.d	22204153836	Sample	1	SXA,QQQ4,740006
05/04/22 00:53:42	2220503B_35.d	22204153838	Sample	1	SXA,QQQ4,740006
05/04/22 01:08:35	2220503B_36.d	22204153839	Sample	1	SXA,QQQ4,740006
05/04/22 01:23:25	2220503B_37.d	22204153840	Sample	1	SXA,QQQ4,740006
05/04/22 01:38:15	2220503B_38.d	22204158213	Sample	1	SXA,QQQ4,740006
05/04/22 01:53:06	2220503B_39.d	22204158214	Sample	1	SXA,QQQ4,740006
05/04/22 02:07:56	2220503B_40.d	22204158215	Sample	1	SXA,QQQ4,740006
05/04/22 02:22:46	2220503B_41.d	1400	QC	1	SXA,QQQ4,CCV
05/04/22 02:37:53	2220503B_42.d	22204158216	Sample	1	SXA,QQQ4,740006
05/04/22 02:52:59	2220503B_43.d	22204158217	Sample	1	SXA,QQQ4,740006
05/04/22 03:07:51	2220503B_44.d	22204158218	Sample	1	SXA,QQQ4,740006
05/04/22 03:22:41	2220503B_45.d	22204158219	Sample	1	SXA,QQQ4,740006
05/04/22 03:37:34	2220503B_46.d	22204158220	Sample	1	SXA,QQQ4,740006
05/04/22 03:52:25	2220503B_47.d	22204158221	Sample	1	SXA,QQQ4,740006
05/04/22 04:07:14	2220503B_48.d	1400	QC	1	SXA,QQQ4,CCV

LC-QQQ Instrument Run Log

Instrument: QQQ5
Instrument Batch: 2220505A.batch.bin
Current ICAL Batch: 2220501ACAL
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 740271
20mM NH4OAc (ID/Exp): 022-55-7 5/5/22 10:00
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/12/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/01/22 11:16:44	2220501A_2.d	1201	Cal	1	SXA,QQQ5,ICAL#022-53-6
05/01/22 11:31:30	2220501A_3.d	1202	Cal	1	SXA,QQQ5,ICAL#022-47-6
05/01/22 12:02:46	2220501A_4.d	1203	Cal	1	SXA,QQQ5,ICAL#022-48-1
05/01/22 12:17:32	2220501A_5.d	1204	Cal	1	SXA,QQQ5,ICAL#022-48-2
05/01/22 12:32:08	2220501A_6.d	1205	Cal	1	SXA,QQQ5,ICAL#022-48-3
05/01/22 12:46:47	2220501A_7.d	1206	Cal	1	SXA,QQQ5,ICAL#022-48-4
05/01/22 13:01:23	2220501A_8.d	1207	Cal	1	SXA,QQQ5,ICAL#022-48-5
05/01/22 13:26:32	2220501A_9.d	1500	Blank	1	SXAQQQ5,Instrument blank#022-54-3
05/01/22 13:41:17	2220501A_10.d	1600	Sample	1	SXA,QQQ5,ICV#022-49-1
05/01/22 13:55:55	2220501A_11.d	1450	QC	1	SXA,QQQ5,CCV#022-53-6
05/05/22 14:36:35	2220505A_1.d	1400	QC	1	SXA,QQQ5,CCV#022-48-2
05/05/22 14:51:21	2220505A_2.d	1500	Blank	1	SXA,QQQ5,Instrument blank#022-59-5
05/05/22 15:05:57	2220505A_3.d	1450	QC	1	SXA,QQQ5,CCV#022-53-6
05/05/22 15:33:09	2220505A_4.d	2342030	Blank	1	SXA,QQQ5,740091
05/05/22 15:47:54	2220505A_5.d	2342031	QC	1	SXA,QQQ5,740091
05/05/22 16:02:31	2220505A_6.d	22204013615	Sample	1	SXA,QQQ5,740091
05/05/22 16:17:08	2220505A_7.d	22204013611	Sample	1	SXA,QQQ5,740091
05/05/22 16:31:45	2220505A_8.d	22204225201	Sample	1	SXA,QQQ5,740091
05/05/22 16:46:21	2220505A_9.d	22204225202	Sample	1	SXA,QQQ5,740091
05/05/22 17:00:58	2220505A_10.d	22204225203	Sample	1	SXA,QQQ5,740091
05/05/22 17:15:35	2220505A_11.d	22204225204	Sample	1	SXA,QQQ5,740091
05/05/22 17:30:12	2220505A_12.d	22204225205	Sample	1	SXA,QQQ5,740091
05/05/22 17:44:49	2220505A_13.d	22204225206	Sample	1	SXA,QQQ5,740091
05/05/22 17:59:27	2220505A_14.d	22204225207	Sample	1	SXA,QQQ5,740091
05/05/22 19:21:20	2220505A_15.d	MEOH SHOT	Blank	1	SXA,QQQ5,740091
05/05/22 19:36:04	2220505A_16.d	22204225208	Sample	1	SXA,QQQ5,740091
05/05/22 19:50:50	2220505A_17.d	1400	QC	1	SXA,QQQ5,CCV#022-48-2
05/05/22 20:05:27	2220505A_18.d	22204225209	Sample	1	SXA,QQQ5,740091
05/05/22 20:20:03	2220505A_19.d	22204225210	Sample	1	SXA,QQQ5,740091
05/05/22 20:34:41	2220505A_20.d	22204225212	Sample	1	SXA,QQQ5,740091
05/05/22 20:49:17	2220505A_21.d	22204225213	Sample	1	SXA,QQQ5,740091
05/05/22 21:03:53	2220505A_22.d	22204225214	Sample	1	SXA,QQQ5,740091
05/05/22 21:18:30	2220505A_23.d	22204225215	Sample	1	SXA,QQQ5,740091
05/05/22 21:33:06	2220505A_24.d	22204225216	Sample	1	SXA,QQQ5,740091
05/05/22 21:47:42	2220505A_25.d	22204225219	Sample	1	SXA,QQQ5,740091
05/05/22 22:02:20	2220505A_26.d	22204225220	Sample	1	SXA,QQQ5,740091
05/05/22 22:16:57	2220505A_27.d	22204225221	Sample	1	SXA,QQQ5,740091
05/05/22 22:31:34	2220505A_28.d	1400	QC	1	SXA,QQQ5,CCV#022-48-2
05/05/22 22:46:10	2220505A_29.d	22204225222	Sample	1	SXA,QQQ5,740091
05/05/22 23:00:46	2220505A_30.d	22204013607	Sample	1	SXA,QQQ5,740015
05/05/22 23:15:23	2220505A_31.d	1400	QC	1	SXA,QQQ5,CCV#022-48-2
05/05/22 23:29:59	2220505A_32.d	2342710	Blank	1	SXA,QQQ5,740195
05/05/22 23:44:51	2220505A_33.d	2342711	QC	1	SXA,QQQ5,740195
05/05/22 23:59:28	2220505A_34.d	22204133807	Sample	1	SXA,QQQ5,740195
05/06/22 00:14:04	2220505A_35.d	22204133821	Sample	1	SXA,QQQ5,740195
05/06/22 00:28:43	2220505A_36.d	22204133822	Sample	1	SXA,QQQ5,740195
05/06/22 00:43:19	2220505A_37.d	22204152608	Sample	1	SXA,QQQ5,740195
05/06/22 00:57:56	2220505A_38.d	22204152612	Sample	1	SXA,QQQ5,740195
05/06/22 01:12:32	2220505A_39.d	22204152616	Sample	1	SXA,QQQ5,740195
05/06/22 01:27:08	2220505A_40.d	22204152622	Sample	1	SXA,QQQ5,740195
05/06/22 01:41:45	2220505A_41.d	1400	QC	1	SXA,QQQ5,CCV#022-48-2
05/06/22 10:36:13	2220505B_20.d	IIS Check	Sample	1	SXA,QQQ5,IIS #022-57-4

LC-QQQ Instrument Run Log

Instrument: QQQ5
Instrument Batch: 2220504B.batch.bin
Current ICAL Batch: 2220501ACAL
ICAL Std (ID/Exp): 022-47-1 10/21/22
ICV Std (ID/Exp): 022-49-1 7/19/22

LIMS Batch (HBN): 740280
20mM NH4OAc (ID/Exp): 022-55-7 5/5/22 10:00
Methanol (ID/Exp): 2131526 11/30/26
EIS Mix (ID/Exp): 022-45-2 10/12/22
IIS Mix (ID/Exp): 022-45-3 10/12/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/01/22 11:16:44	2220501A_2.d	1201	Cal	1	SXA,QQQ5,ICAL#022-53-6
05/01/22 11:31:30	2220501A_3.d	1202	Cal	1	SXA,QQQ5,ICAL#022-47-6
05/01/22 12:02:46	2220501A_4.d	1203	Cal	1	SXA,QQQ5,ICAL#022-48-1
05/01/22 12:17:32	2220501A_5.d	1204	Cal	1	SXA,QQQ5,ICAL#022-48-2
05/01/22 12:32:08	2220501A_6.d	1205	Cal	1	SXA,QQQ5,ICAL#022-48-3
05/01/22 12:46:47	2220501A_7.d	1206	Cal	1	SXA,QQQ5,ICAL#022-48-4
05/01/22 13:01:23	2220501A_8.d	1207	Cal	1	SXA,QQQ5,ICAL#022-48-5
05/01/22 13:26:32	2220501A_9.d	1500	Blank	1	SXAQQQ5,Instrument blank#022-54-3
05/01/22 13:41:17	2220501A_10.d	1600	Sample	1	SXA,QQQ5,ICV#022-49-1
05/01/22 13:55:55	2220501A_11.d	1450	QC	1	SXA,QQQ5,CCV#022-53-6
05/04/22 23:17:01	2220504B_1.d	1500	Blank	1	SXA,QQQ5,Instrument Blank
05/04/22 23:31:54	2220504B_2.d	1500	Blank	1	SXA,QQQ5,Instrument Blank
05/04/22 23:46:31	2220504B_3.d	1450	QC	1	SXA,QQQ5,CCV
05/05/22 00:01:07	2220504B_4.d	22204152629X20	Sample	20	SXA,QQQ5,739862
05/05/22 00:15:42	2220504B_5.d	22204152631X20	Sample	20	SXA,QQQ5,739862
05/05/22 00:30:19	2220504B_6.d	22204152632X20	Sample	20	SXA,QQQ5,739862
05/05/22 00:44:55	2220504B_7.d	22204152635X20	Sample	20	SXA,QQQ5,739862
05/05/22 00:59:33	2220504B_8.d	22204152629	Sample	1	SXA,QQQ5,739862
05/05/22 01:14:09	2220504B_9.d	22204152631	Sample	1	SXA,QQQ5,739862
05/05/22 01:28:45	2220504B_10.d	22204152632	Sample	1	SXA,QQQ5,739862
05/05/22 01:43:24	2220504B_11.d	22204152635	Sample	1	SXA,QQQ5,739862
05/05/22 01:58:01	2220504B_12.d	22204131311X10	Sample	10	SXA,QQQ5,739334
05/05/22 02:12:38	2220504B_13.d	22204131317X10	Sample	10	SXA,QQQ5,739334
05/05/22 02:27:15	2220504B_14.d	22204131318X10	Sample	10	SXA,QQQ5,739334
05/05/22 02:41:51	2220504B_15.d	1400	QC	1	SXA,QQQ5,CCV

LC-QQQ Instrument Run Log

Instrument: QQQ5
Instrument Batch: 2220506B.batch.bin
Current ICAL Batch: 2220506BCAL
ICAL Std (ID/Exp): 022-56-2 10/21/22
ICV Std (ID/Exp): 022-59-4 7/19/22

LIMS Batch (HBN): 740290
20mM NH4OAc (ID/Exp): 022-65-6 5/8/22 8:00
Methanol (ID/Exp): 2131409 10/31/26
EIS Mix (ID/Exp): 022-55-3 10/12/22
IIS Mix (ID/Exp): 022-57-4 11/4/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/06/22 17:43:19	2220506B_1.d	1400 rt test	QC	1	SXA,QQQ5,CCV#022-57-7
05/06/22 17:58:03	2220506B_2.d	1201	Cal	1	SXA,QQQ5,ICAL 022-57-7
05/06/22 18:12:39	2220506B_3.d	1202	Cal	1	SXA,QQQ5,ICAL#022-58-1
05/06/22 18:27:15	2220506B_4.d	1203	Cal	1	SXA,QQQ5,ICAL#022-58-2
05/06/22 18:41:51	2220506B_5.d	1204	Cal	1	SXA,QQQ5,ICAL#022-58-3
05/06/22 18:56:29	2220506B_6.d	1205	Cal	1	SXA,QQQ5,ICAL#022-58-4
05/06/22 19:11:05	2220506B_7.d	1206	Cal	1	SXA,QQQ5,ICAL#022-59-2
05/06/22 19:25:41	2220506B_8.d	1207	Cal	1	SXA,QQQ5,ICAL#022-59-3
05/06/22 19:43:53	2220506B_9.d	1500	Blank	1	SXA,QQQ5,Instrument Blank#022-59-5
05/06/22 19:58:38	2220506B_10.d	1600	Sample	1	SXA,QQQ5,ICV#022-59-4,RR accuracy failure
05/06/22 20:13:15	2220506B_11.d	1450	QC	1	SXA,QQQ5,CCV#022-57-7
05/06/22 20:36:23	2220506B_12.d	1600	Sample	1	SXA,QQQ5,ICV#022-49-1
05/06/22 21:07:03	2220506B_13.d	22204152623	Sample	1	SXA,QQQ5,740195
05/06/22 21:21:48	2220506B_14.d	22204152625	Sample	1	SXA,QQQ5,740195
05/06/22 21:36:24	2220506B_15.d	22204152626	Sample	1	SXA,QQQ5,740195
05/06/22 21:51:03	2220506B_16.d	22204152634	Sample	1	SXA,QQQ5,740195
05/06/22 22:05:39	2220506B_17.d	22204263713	Sample	1	SXA,QQQ5,740195
05/06/22 22:20:16	2220506B_18.d	22204263714	Sample	1	SXA,QQQ5,740195
05/06/22 22:34:52	2220506B_19.d	22204263715	Sample	1	SXA,QQQ5,740195
05/06/22 22:49:29	2220506B_20.d	22204263716	Sample	1	SXA,QQQ5,740195
05/06/22 23:04:05	2220506B_21.d	22204263717	Sample	1	SXA,QQQ5,740195
05/06/22 23:18:42	2220506B_22.d	22204263718	Sample	1	SXA,QQQ5,740195
05/06/22 23:33:19	2220506B_23.d	1400	QC	1	SXA,QQQ5,CCV#022-58-3
05/06/22 23:48:12	2220506B_24.d	22204263719	Sample	1	SXA,QQQ5,740195
05/07/22 00:03:04	2220506B_25.d	22204263720	Sample	1	SXA,QQQ5,740195
05/07/22 00:17:44	2220506B_26.d	22204263721	Sample	1	SXA,QQQ5,740195
05/07/22 00:32:20	2220506B_27.d	22204263722	Sample	1	SXA,QQQ5,740195
05/07/22 00:46:56	2220506B_28.d	22204263723	Sample	1	SXA,QQQ5,740195
05/07/22 01:01:34	2220506B_29.d	1400	QC	1	SXA,QQQ5,CCV#022-58-3
05/08/22 10:31:34	2220508A_1.d	1400 rt test	QC	1	SXA,QQQ5,CCV#022-58-3
05/08/22 10:53:39	2220508A_1.d	1400 rt test	QC	1	SXA,QQQ5,CCV#022-58-3

LC-QQQ Instrument Run Log

Instrument: QQQ5
Instrument Batch: 2220506C.batch.bin
Current ICAL Batch: 2220506BCAL
ICAL Std (ID/Exp): 022-56-2 10/21/22
ICV Std (ID/Exp): 022-59-4 7/19/22

LIMS Batch (HBN): 740405
20mM NH4OAc (ID/Exp): 022-65-6 5/8/22 8:00
Methanol (ID/Exp): 2131409 10/31/26
EIS Mix (ID/Exp): 022-55-3 10/12/22
IIS Mix (ID/Exp): 022-57-4 11/4/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/06/22 17:43:19	2220506B_1.d	1400 rt test	QC	1	SXA,QQQ5,CCV#022-57-7
05/06/22 17:58:03	2220506B_2.d	1201	Cal	1	SXA,QQQ5,ICAL 022-57-7
05/06/22 18:12:39	2220506B_3.d	1202	Cal	1	SXA,QQQ5,ICAL#022-58-1
05/06/22 18:27:15	2220506B_4.d	1203	Cal	1	SXA,QQQ5,ICAL#022-58-2
05/06/22 18:41:51	2220506B_5.d	1204	Cal	1	SXA,QQQ5,ICAL#022-58-3
05/06/22 18:56:29	2220506B_6.d	1205	Cal	1	SXA,QQQ5,ICAL#022-58-4
05/06/22 19:11:05	2220506B_7.d	1206	Cal	1	SXA,QQQ5,ICAL#022-59-2
05/06/22 19:25:41	2220506B_8.d	1207	Cal	1	SXA,QQQ5,ICAL#022-59-3
05/06/22 19:43:53	2220506B_9.d	1500	Blank	1	SXA,QQQ5,Instrument Blank#022-59-5
05/06/22 19:58:38	2220506B_10.d	1600	QC	1	SXA,QQQ5,ICV#022-59-4
05/06/22 20:13:15	2220506B_11.d	1450	QC	1	SXA,QQQ5,CCV#022-57-7
05/06/22 20:36:23	2220506B_12.d	1600	QC	1	SXA,QQQ5,ICV#022-49-1
05/07/22 01:16:27	2220506C_1.d	1500	Blank	1	SXA,QQQ5,Instrument Blank#022-59-5
05/07/22 01:31:07	2220506C_2.d	1450	QC	1	SXA,QQQ5,CCV#022-57-7
05/07/22 01:45:48	2220506C_3.d	2342605	Sample	1	SXA,QQQ5,740175
05/07/22 02:00:25	2220506C_4.d	2342606	QC	1	SXA,QQQ5,740175
05/07/22 02:15:03	2220506C_5.d	2342607	QC	1	SXA,QQQ5,740175
05/07/22 02:29:44	2220506C_6.d	22204151304	Sample	1	SXA,QQQ5,740175
05/07/22 02:44:26	2220506C_7.d	22204151402	Sample	1	SXA,QQQ5,740175
05/07/22 02:59:04	2220506C_8.d	22204151604	Sample	1	SXA,QQQ5,740175
05/07/22 03:13:42	2220506C_9.d	22204151613	Sample	1	SXA,QQQ5,740175
05/07/22 03:28:19	2220506C_10.d	22204151614	Sample	1	SXA,QQQ5,740175
05/07/22 03:42:56	2220506C_11.d	22204151615	Sample	1	SXA,QQQ5,740175
05/07/22 03:57:32	2220506C_12.d	22204151616	Sample	1	SXA,QQQ5,740175
05/07/22 04:12:09	2220506C_13.d	22204152601	Sample	1	SXA,QQQ5,740175
05/07/22 04:26:46	2220506C_14.d	22204152614	Sample	1	SXA,QQQ5,740175
05/07/22 04:41:22	2220506C_15.d	22204153832	Sample	1	SXA,QQQ5,740175
05/07/22 04:55:59	2220506C_16.d	1400	QC	1	SXA,QQQ5,CCV#022-58-3
05/07/22 05:10:37	2220506C_17.d	22204152630	Sample	1	SXA,QQQ5,740175
05/07/22 05:25:13	2220506C_18.d	22204208508	Sample	1	SXA,QQQ5,740175
05/07/22 05:39:50	2220506C_19.d	22204208509	Sample	1	SXA,QQQ5,740175
05/07/22 05:54:27	2220506C_20.d	22204152628	Sample	1	SXA,QQQ5,740175
05/07/22 06:09:04	2220506C_21.d	22204153837	Sample	1	SXA,QQQ5,740175
05/07/22 06:23:42	2220506C_22.d	22204180202	Sample	1	SXA,QQQ5,740175
05/07/22 06:38:18	2220506C_23.d	22204208510	Sample	1	SXA,QQQ5,740175
05/07/22 06:52:55	2220506C_24.d	22204208511	Sample	1	SXA,QQQ5,740175
05/07/22 07:07:31	2220506C_25.d	22204208512	Sample	1	SXA,QQQ5,740175
05/07/22 07:22:08	2220506C_26.d	22204208513	Sample	1	SXA,QQQ5,740175
05/07/22 07:36:47	2220506C_27.d	1400	QC	1	SXA,QQQ5,CCV#022-58-3

LC-QQQ Instrument Run Log

Instrument: QQQ 4
Instrument Batch: 2220518A.batch.bin
Current ICAL Batch: 2220515BCAL
ICAL Std (ID/Exp): 022-70-2 11/13/22
ICV Std (ID/Exp): 022-73-3 9/29/22

LIMS Batch (HBN): 741201
20mM NH4OAc (ID/Exp): 022-75-1 5/19/22 8:00
Methanol (ID/Exp): 2131656 12/31/26
EIS Mix (ID/Exp): 022-69-1 11/6/22
IIS Mix (ID/Exp): 022-68-8 5/12/22

Acquisition time	Data File	Name	Type	Dilution	Comment
05/15/22 11:02:25	2220515B_2.d	1201	Cal	1	SXA,QQQ4,ICAL#022-71-6
05/15/22 11:17:22	2220515B_3.d	1202	Cal	1	SXA,QQQ4,ICAL#022-72-1
05/15/22 11:32:11	2220515B_4.d	1203	Cal	1	SXA,QQQ4,ICAL#022-72-2
05/15/22 11:47:03	2220515B_5.d	1204	Cal	1	SXA,QQQ4,ICAL#022-72-3
05/15/22 12:01:54	2220515B_6.d	1205	Cal	1	SXA,QQQ4,ICAL#022-72-4
05/15/22 12:16:43	2220515B_7.d	1206	Cal	1	SXA,QQQ4,ICAL#022-72-5
05/15/22 12:31:32	2220515B_8.d	1207	Cal	1	SXA,QQQ4,ICAL#022-73-1
05/15/22 12:53:48	2220515B_9.d	1500	Blank	1	SXA,QQQ4,Instrument Blank#022-73-2
05/15/22 13:08:46	2220515B_10.d	1600	QC	1	SXA,QQQ4,ICV#022-73-3
05/15/22 13:23:35	2220515B_11.d	1450	QC	1	SXA,QQQ4,CCV#022-71-6
05/18/22 12:00:53	2220518A_1.d	1500	Blank	1	SXA,QQQ4,Instrument Blank#022-73-2
05/18/22 12:15:42	2220518A_2.d	1450	QC	1	SXA,QQQ4,CCV#022-71-6
05/18/22 12:30:30	2220518A_3.d	22204134204X5	Sample	5	SXA,QQQ4,739295
05/18/22 12:45:18	2220518A_4.d	22204152610X5	Sample	5	SXA,QQQ4,739931
05/18/22 13:00:07	2220518A_5.d	2345141	Blank	1	SXA,QQQ4,740660
05/18/22 13:15:14	2220518A_6.d	2345142	QC	1	SXA,QQQ4,740660
05/18/22 13:30:03	2220518A_7.d	2345143	QC	1	SXA,QQQ4,740660
05/18/22 13:44:51	2220518A_8.d	22204228907	Sample	1	SXA,QQQ4,740660
05/18/22 13:59:41	2220518A_9.d	22204228908	Sample	1	SXA,QQQ4,740660
05/18/22 14:14:29	2220518A_10.d	22204228909	Sample	1	SXA,QQQ4,740660
05/18/22 14:29:18	2220518A_11.d	22204272401	Sample	1	SXA,QQQ4,740660
05/18/22 14:44:07	2220518A_12.d	22204272402	Sample	1	SXA,QQQ4,740660
05/18/22 14:58:55	2220518A_13.d	22204272403	Sample	1	SXA,QQQ4,740660
05/18/22 15:13:44	2220518A_14.d	22204284801	Sample	1	SXA,QQQ4,740660
05/18/22 15:28:33	2220518A_15.d	22204302307	Sample	1	SXA,QQQ4,740660
05/18/22 15:43:23	2220518A_16.d	1400	QC	1	SXA,QQQ4,CCV#022-72-3
05/18/22 15:58:28	2220518A_17.d	22204302318	Sample	1	SXA,QQQ4,740660
05/18/22 16:13:33	2220518A_18.d	22204302319	Sample	1	SXA,QQQ4,740660
05/18/22 16:28:23	2220518A_19.d	22204302320	Sample	1	SXA,QQQ4,740660
05/18/22 16:43:11	2220518A_20.d	22204299501	Sample	1	SXA,QQQ4,740660
05/18/22 16:58:00	2220518A_21.d	22204299502	Sample	1	SXA,QQQ4,740660
05/18/22 17:12:49	2220518A_22.d	1400	QC	1	SXA,QQQ4,CCV#022-72-3

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/02/2022 04:25	Lab File ID:	2220501C_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	739843

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	4.22	111	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.95	103	70	130	
NEtFOSAA	ng/L	4.00	3.90	97	70	130	
NMeFOSAA	ng/L	4.00	3.69	92	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.91	98	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.50	99	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.66	92	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.76	94	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.99	100	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.30	107	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	4.58	125	70	130	
Perfluorononanoic acid	ng/L	4.00	3.68	92	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.78	95	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.66	98	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.95	99	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.92	98	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.70	92	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.90	98	70	130	

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ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/03/2022 12:08	Lab File ID:	2220503A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740023

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.86	101	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.67	96	70	130	
NEtFOSAA	ng/L	4.00	4.03	101	70	130	
NMeFOSAA	ng/L	4.00	4.67	117	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.26	106	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.58	101	70	130	
Perfluorodecanoic acid	ng/L	4.00	4.27	107	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.99	100	70	130	
Perfluoroheptanoic acid	ng/L	4.00	4.04	101	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.10	102	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.92	107	70	130	
Perfluorononanoic acid	ng/L	4.00	4.05	101	70	130	
Perfluorooctanoic acid	ng/L	4.00	4.10	103	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	4.46	120	70	130	
Perfluoropentanoic acid	ng/L	4.00	4.38	109	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.98	99	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.26	106	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.90	97	70	130	

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ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 16:43	Lab File ID:	2220503B_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.86	101	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.80	99	70	130	
NEtFOSAA	ng/L	4.00	3.82	96	70	130	
NMeFOSAA	ng/L	4.00	3.92	98	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.78	95	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.49	98	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.66	92	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.66	91	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.76	94	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.85	96	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.65	100	70	130	
Perfluorononanoic acid	ng/L	4.00	3.73	93	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.75	94	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.78	102	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.73	93	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.79	95	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.04	101	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.78	94	70	130	

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ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/05/2022 15:05	Lab File ID:	2220505A_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740271

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	4.50	118	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	4.22	110	70	130	
NEtFOSAA	ng/L	4.00	4.34	109	70	130	
NMeFOSAA	ng/L	4.00	4.38	109	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.34	109	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.82	108	70	130	
Perfluorodecanoic acid	ng/L	4.00	4.56	114	70	130	
Perfluorododecanoic acid	ng/L	4.00	4.31	108	70	130	
Perfluoroheptanoic acid	ng/L	4.00	4.27	107	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.51	113	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	4.02	110	70	130	
Perfluorononanoic acid	ng/L	4.00	4.34	108	70	130	
Perfluorooctanoic acid	ng/L	4.00	4.41	110	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.99	107	70	130	
Perfluoropentanoic acid	ng/L	4.00	4.31	108	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	4.30	107	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.42	111	70	130	
Perfluoroundecanoic acid	ng/L	4.00	4.21	105	70	130	

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ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/04/2022 23:46	Lab File ID:	2220504B_3.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740280

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	4.14	109	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	4.80	125	70	130	
NEtFOSAA	ng/L	4.00	4.58	114	70	130	
NMeFOSAA	ng/L	4.00	5.03	126	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.30	108	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.89	110	70	130	
Perfluorodecanoic acid	ng/L	4.00	4.10	102	70	130	
Perfluorododecanoic acid	ng/L	4.00	4.22	105	70	130	
Perfluoroheptanoic acid	ng/L	4.00	4.18	104	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.38	110	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	4.26	117	70	130	
Perfluorononanoic acid	ng/L	4.00	4.20	105	70	130	
Perfluorooctanoic acid	ng/L	4.00	4.16	104	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	4.18	113	70	130	
Perfluoropentanoic acid	ng/L	4.00	4.34	109	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	4.10	102	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.49	112	70	130	
Perfluoroundecanoic acid	ng/L	4.00	4.26	107	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/06/2022 20:13	Lab File ID:	2220506B_11.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740290

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.82	100	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.94	103	70	130	
NEtFOSAA	ng/L	4.00	3.78	94	70	130	
NMeFOSAA	ng/L	4.00	3.66	91	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.08	102	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.86	109	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.90	98	70	130	
Perfluorododecanoic acid	ng/L	4.00	4.10	103	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.97	99	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.04	101	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.89	106	70	130	
Perfluorononanoic acid	ng/L	4.00	3.94	99	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.98	100	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.66	99	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.97	99	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	4.03	101	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.99	100	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.82	95	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/07/2022 01:31	Lab File ID:	2220506C_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740405

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.79	100	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	4.71	123	70	130	
NEtFOSAA	ng/L	4.00	4.14	103	70	130	
NMeFOSAA	ng/L	4.00	4.47	112	70	130	
Perfluorobutanoic acid	ng/L	4.00	4.00	100	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.64	103	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.74	94	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.85	96	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.93	98	70	130	
Perfluorohexanoic acid	ng/L	4.00	4.15	104	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.75	103	70	130	
Perfluorononanoic acid	ng/L	4.00	3.96	99	70	130	
Perfluorooctanoic acid	ng/L	4.00	4.04	101	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.98	107	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.97	99	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.97	99	70	130	
Perfluorotridecanoic acid	ng/L	4.00	4.08	102	70	130	
Perfluoroundecanoic acid	ng/L	4.00	4.04	101	70	130	

7S

ORGANICS INSTRUMENT SENSITIVITY CHECK

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/18/2022 12:15	Lab File ID:	2220518A_2.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	741201

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	3.81	3.71	98	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	3.84	3.62	94	70	130	
NEtFOSAA	ng/L	4.00	3.59	90	70	130	
NMeFOSAA	ng/L	4.00	4.13	103	70	130	
Perfluorobutanoic acid	ng/L	4.00	3.67	92	70	130	
Perfluorobutanesulfonic acid	ng/L	3.55	3.22	91	70	130	
Perfluorodecanoic acid	ng/L	4.00	3.46	87	70	130	
Perfluorododecanoic acid	ng/L	4.00	3.59	90	70	130	
Perfluoroheptanoic acid	ng/L	4.00	3.66	91	70	130	
Perfluorohexanoic acid	ng/L	4.00	3.72	93	70	130	
Perfluorohexanesulfonic acid	ng/L	3.66	3.39	93	70	130	
Perfluorononanoic acid	ng/L	4.00	3.58	90	70	130	
Perfluorooctanoic acid	ng/L	4.00	3.67	92	70	130	
Perfluorooctanesulfonic acid	ng/L	3.71	3.46	93	70	130	
Perfluoropentanoic acid	ng/L	4.00	3.70	92	70	130	
Perfluorotetradecanoic acid	ng/L	4.00	3.60	90	70	130	
Perfluorotridecanoic acid	ng/L	4.00	3.82	96	70	130	
Perfluoroundecanoic acid	ng/L	4.00	3.59	90	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/06/2022 20:36	Lab File ID:	2220506B_12.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740290

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	10500	105	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	10400	103	70	130	
NEtFOSAA	ng/L	10000	10000	100	70	130	
NMeFOSAA	ng/L	10000	9800	98	70	130	
Perfluorobutanoic acid	ng/L	10000	9740	97	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	10400	104	70	130	
Perfluorodecanoic acid	ng/L	10000	9770	98	70	130	
Perfluorododecanoic acid	ng/L	10000	9080	91	70	130	
Perfluoroheptanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanoic acid	ng/L	10100	10300	102	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	10500	105	70	130	
Perfluorononanoic acid	ng/L	10000	10100	101	70	130	
Perfluorooctanoic acid	ng/L	10100	9570	95	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	8470	85	70	130	
Perfluoropentanoic acid	ng/L	10100	10100	100	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotridecanoic acid	ng/L	10000	9400	94	70	130	
Perfluoroundecanoic acid	ng/L	10000	9240	92	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/01/2022 12:12	Lab File ID:	2220501A_10.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	739818

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	10700	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	10200	101	70	130	
NEtFOSAA	ng/L	10000	10400	104	70	130	
NMeFOSAA	ng/L	10000	10200	102	70	130	
Perfluorobutanoic acid	ng/L	10000	10200	102	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	10800	108	70	130	
Perfluorodecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorododecanoic acid	ng/L	10000	9390	94	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10100	10800	107	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	10900	109	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10100	9690	96	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	9120	91	70	130	
Perfluoropentanoic acid	ng/L	10100	10200	101	70	130	
Perfluorotetradecanoic acid	ng/L	10000	11000	110	70	130	
Perfluorotridecanoic acid	ng/L	10000	9310	93	70	130	
Perfluoroundecanoic acid	ng/L	10000	9750	98	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/15/2022 13:08	Lab File ID:	2220515B_10.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740999

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	11300	113	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	11000	109	70	130	
NEtFOSAA	ng/L	10000	10900	109	70	130	
NMeFOSAA	ng/L	10000	11000	110	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	11700	117	70	130	
Perfluorodecanoic acid	ng/L	10000	11100	111	70	130	
Perfluorododecanoic acid	ng/L	10000	10300	103	70	130	
Perfluoroheptanoic acid	ng/L	10000	11100	111	70	130	
Perfluorohexanoic acid	ng/L	10100	11800	117	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	11200	112	70	130	
Perfluorononanoic acid	ng/L	10000	11300	113	70	130	
Perfluorooctanoic acid	ng/L	10100	10500	104	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	9570	96	70	130	
Perfluoropentanoic acid	ng/L	10100	11200	111	70	130	
Perfluorotetradecanoic acid	ng/L	10000	11500	115	70	130	
Perfluorotridecanoic acid	ng/L	10000	10200	102	70	130	
Perfluoroundecanoic acid	ng/L	10000	10400	104	70	130	

6I

ORGANICS INITIAL CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/01/2022 13:41	Lab File ID:	2220501A_10.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	739837

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	10000	10700	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	10100	10600	105	70	130	
NEtFOSAA	ng/L	10000	9740	97	70	130	
NMeFOSAA	ng/L	10000	10400	104	70	130	
Perfluorobutanoic acid	ng/L	10000	9910	99	70	130	
Perfluorobutanesulfonic acid	ng/L	10000	10800	108	70	130	
Perfluorodecanoic acid	ng/L	10000	10100	101	70	130	
Perfluorododecanoic acid	ng/L	10000	9290	93	70	130	
Perfluoroheptanoic acid	ng/L	10000	10100	101	70	130	
Perfluorohexanoic acid	ng/L	10100	10700	106	70	130	
Perfluorohexanesulfonic acid	ng/L	10000	10900	109	70	130	
Perfluorononanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanoic acid	ng/L	10100	9680	96	70	130	
Perfluorooctanesulfonic acid	ng/L	10000	8610	86	70	130	
Perfluoropentanoic acid	ng/L	10100	10300	102	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotridecanoic acid	ng/L	10000	9390	94	70	130	
Perfluoroundecanoic acid	ng/L	10000	9590	96	70	130	

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/02/2022 04:10	Lab File ID:	2220501C_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	739843

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	1.37	J	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/03/2022 11:13	Lab File ID:	2220503A_2.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740023

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 16:28	Lab File ID:	2220503B_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740027

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/05/2022 14:51	Lab File ID:	2220505A_2.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740271

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/04/2022 23:31	Lab File ID:	2220504B_2.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740280

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/06/2022 19:43	Lab File ID:	2220506B_9.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740290

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/07/2022 01:16	Lab File ID:	2220506C_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	740405

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

4I - ORGANICS INSTRUMENT BLANK

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/18/2022 12:00	Lab File ID:	2220518A_1.d
Analytical Method:	EPA 537 Mod Isotope Dilution	Analytical Batch:	741201

ANALYTE	*UNITS*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*	*#*
6:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.50	3.00	4.00	
8:2 Fluorotelomersulfonic acid	ng/L	3.00	U	1.06	3.00	4.00	
NEtFOSAA	ng/L	4.00	U	1.58	4.00	8.00	
NMeFOSAA	ng/L	4.00	U	0.90	4.00	8.00	
Perfluorobutanesulfonic acid	ng/L	2.00	U	0.62	2.00	4.00	
Perfluorobutanoic acid	ng/L	3.50	U	1.52	3.50	4.00	
Perfluorodecanoic acid	ng/L	3.00	U	1.44	3.00	4.00	
Perfluorododecanoic acid	ng/L	3.00	U	1.30	3.00	4.00	
Perfluoroheptanoic acid	ng/L	3.00	U	1.16	3.00	4.00	
Perfluorohexanesulfonic acid	ng/L	3.00	U	1.24	3.00	4.00	
Perfluorohexanoic acid	ng/L	2.00	U	0.94	2.00	4.00	
Perfluorononanoic acid	ng/L	2.00	U	0.98	2.00	4.00	
Perfluorooctanesulfonic acid	ng/L	2.00	U	0.76	2.00	4.00	
Perfluorooctanoic acid	ng/L	2.00	U	0.84	2.00	4.00	
Perfluoropentanoic acid	ng/L	2.00	U	0.88	2.00	4.00	
Perfluorotetradecanoic acid	ng/L	3.00	U	1.14	3.00	4.00	
Perfluorotridecanoic acid	ng/L	3.00	U	1.23	3.00	4.00	
Perfluoroundecanoic acid	ng/L	3.00	U	1.24	3.00	4.00	

* - Result greater than 1/2 LOQ

Quantitative Analysis Calibration Report

Batch Data Path	C:\MassHunter\Data\QQQ4\2220501ACAL\QuantResults\2220501B.batch.bin		
Analysis Time	5/2/2022 3:50 PM	**Analyst Name**	GCAL\lcms
Report Time	5/3/2022 3:45 PM	**Reporter Name**	GCAL\lcms
Last Calib Update	5/1/2022 12:14 PM	**Batch State**	Processed

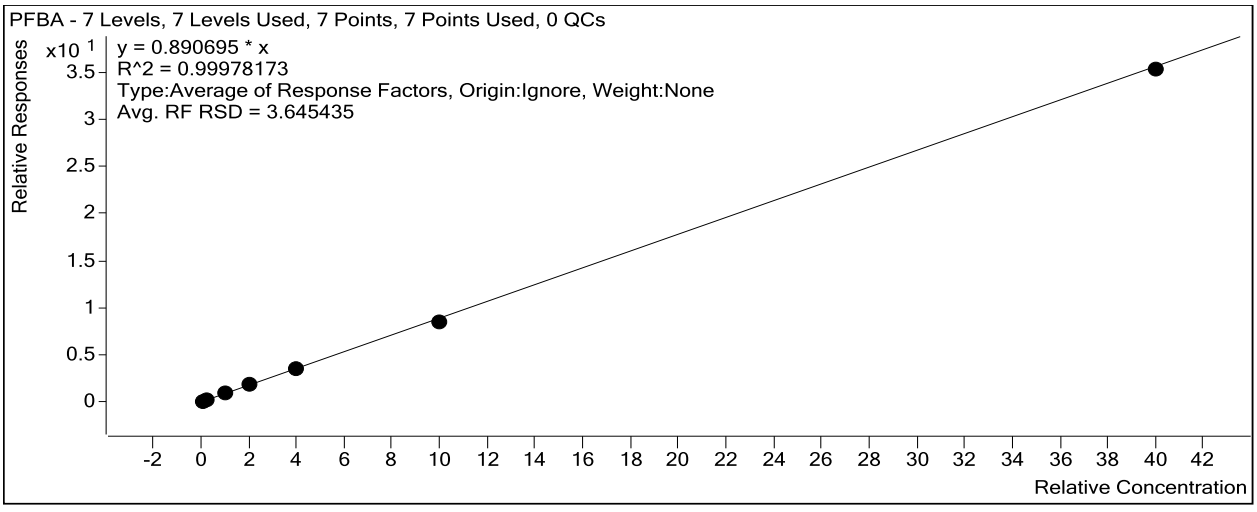
Calibration Info

Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	107930	5.0000	21586.0718
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	97956	5.0000	19591.1886
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	93242	5.0000	18648.4579
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	89001	5.0000	17800.1824
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	105303	5.0000	21060.5837
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	95014	5.0000	19002.8145
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	98053	5.0000	19610.5179

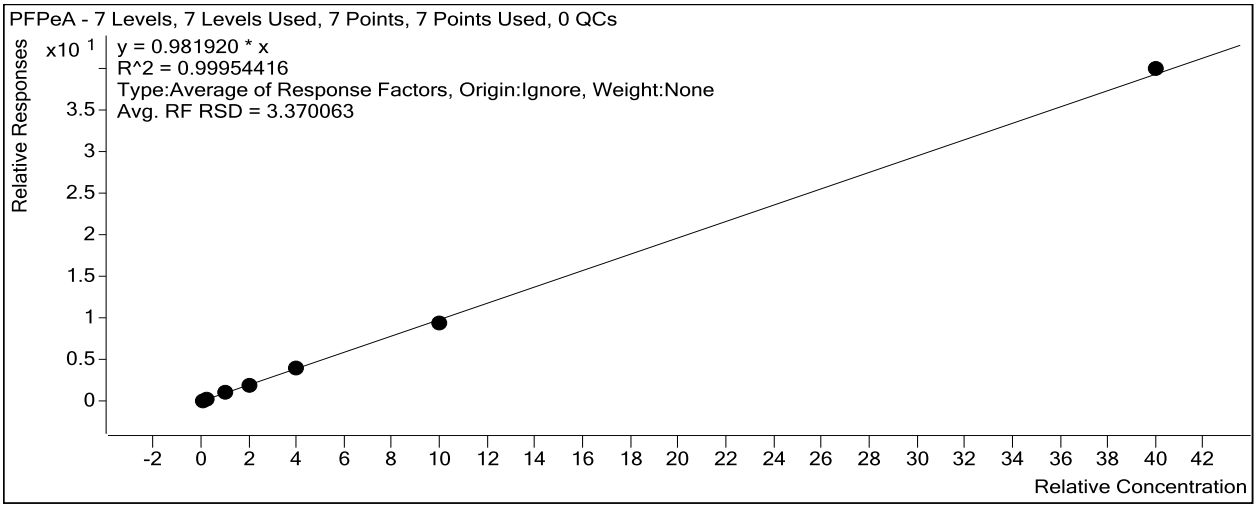
Target Compound *PFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	9079	0.5000	0.8412
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	22061	1.2500	0.9008
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	86671	5.0000	0.9295
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	164381	10.0000	0.9235
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	378623	20.0000	0.8989
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	815317	50.0000	0.8581
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	3462530	200.0000	0.8828



Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	13231	0.5000	0.9254
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	32648	1.2500	1.0007
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	126775	5.0000	1.0085
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	241190	10.0000	1.0118
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	554374	20.0000	0.9802
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1189567	50.0000	0.9482
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	5099980	200.0000	0.9987



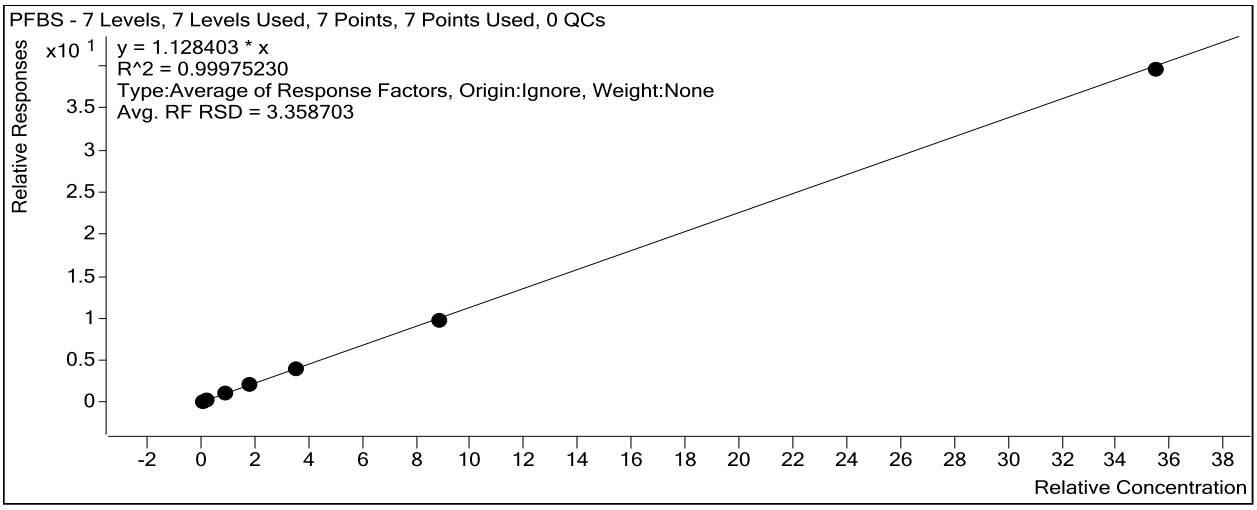
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	43978	5.0000	8795.5843
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	40206	5.0000	8041.1189
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	39009	5.0000	7801.7407
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	36769	5.0000	7353.8652
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	43149	5.0000	8629.8818
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	38489	5.0000	7697.8581
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	38297	5.0000	7659.3080

Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	4178	0.4435	1.0710

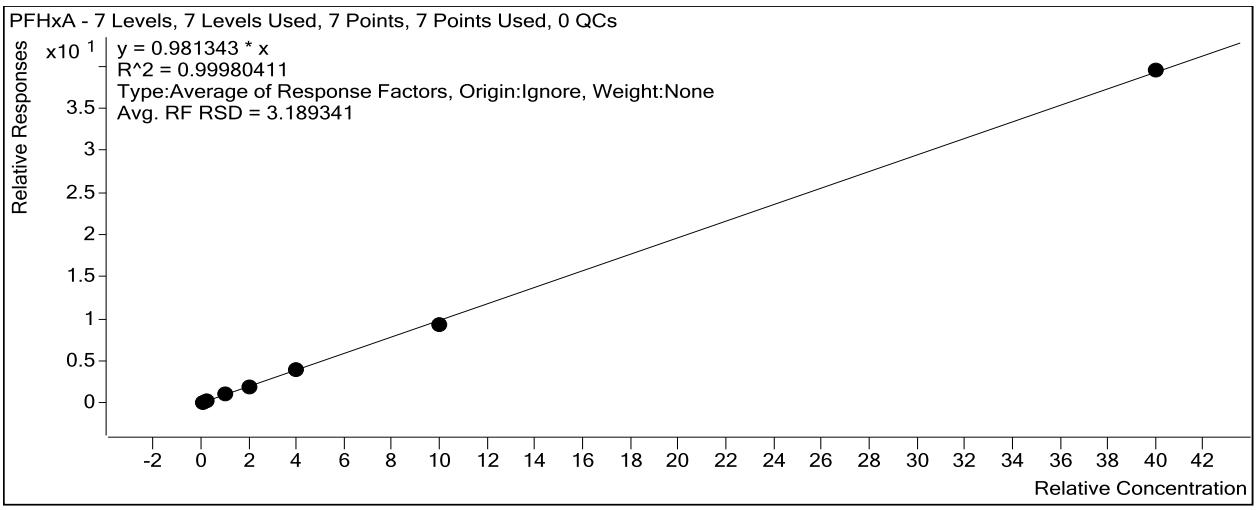
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	10340	1.1088	1.1597
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	39481	4.4350	1.1411
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	76945	8.8700	1.1796
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	174367	17.7400	1.1390
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	372952	44.3500	1.0924
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1516483	177.4000	1.1161



Target Compound *PFMBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	8343	0.5000	0.4917
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	20358	1.2500	0.5219
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	79252	5.0000	0.5188
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	150748	10.0000	0.5207
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	349711	20.0000	0.5174
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	750501	50.0000	0.4943
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	3095311	200.0000	0.5001

Quantitative Analysis Calibration Report



Extracted ISTD *M5PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	169665	5.0000	33932.9281
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	156017	5.0000	31203.3762
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	152751	5.0000	30550.1280
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	144754	5.0000	28950.7821
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	168985	5.0000	33797.0862
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	151817	5.0000	30363.3583
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	154744	5.0000	30948.7381

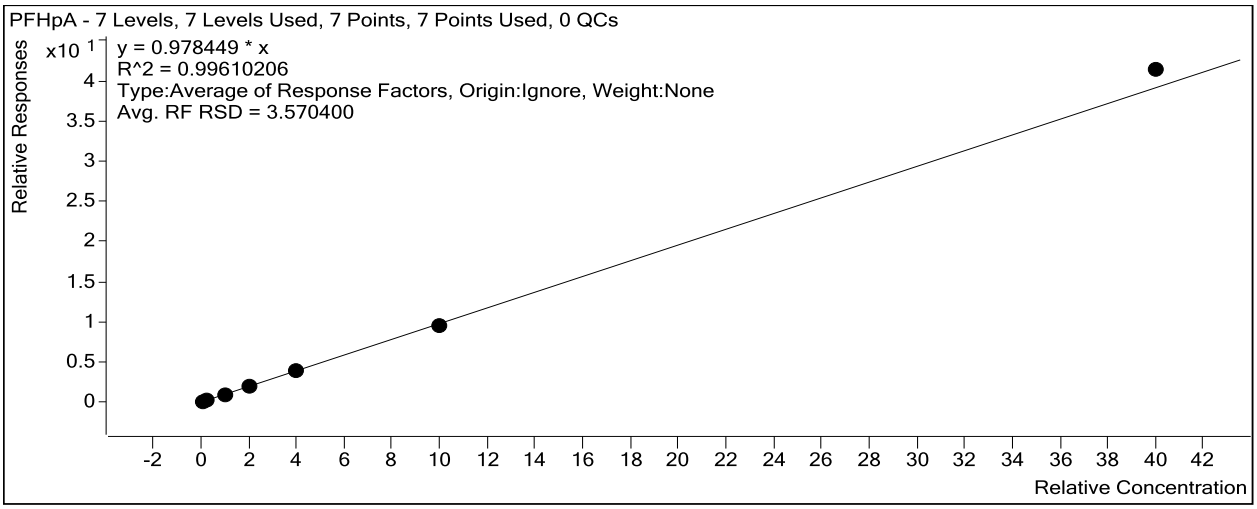
Instrument ISTD *M2PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	614049	20.0000	30702.4486
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	620073	20.0000	31003.6422
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	569346	20.0000	28467.2982
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	564103	20.0000	28205.1478
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	679254	20.0000	33962.7054
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	568352	20.0000	28417.6096
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	597970	20.0000	29898.4842

D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	232923	5.0000	46584.5272
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	268673	5.0000	53734.6098
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	240395	5.0000	48078.9252
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	245372	5.0000	49074.3088

Target Compound *PFHpA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	24954	0.5000	0.9263
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	61164	1.2500	0.9830
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	238375	5.0000	0.9988
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	457904	10.0000	0.9830
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1047813	20.0000	0.9750
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2279078	50.0000	0.9481
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10159601	200.0000	1.0351



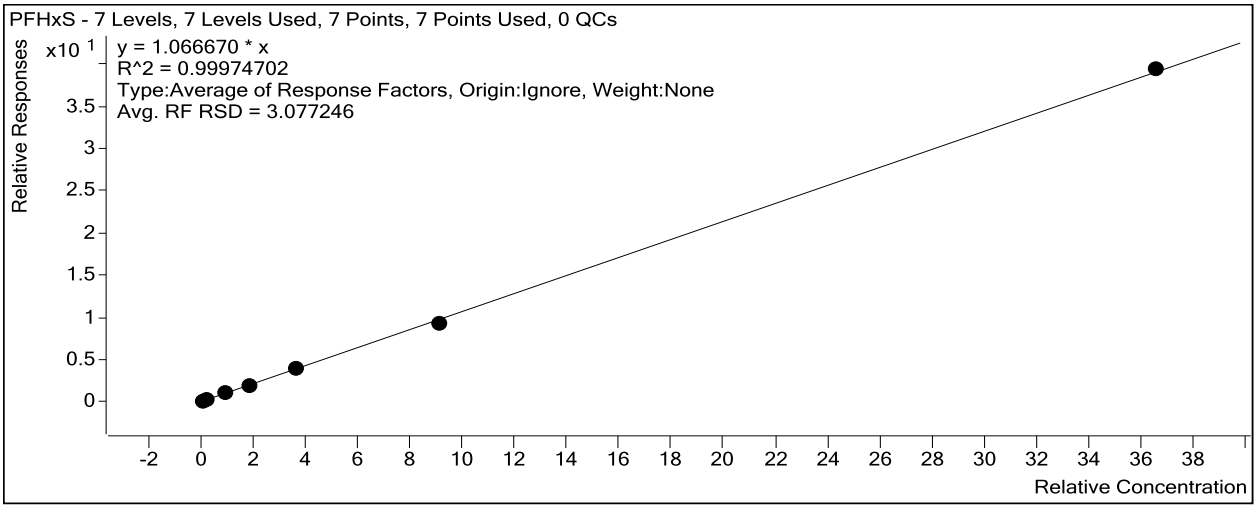
Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	35683	5.0000	7136.5035
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	32913	5.0000	6582.5272
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	31490	5.0000	6298.0861
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	30301	5.0000	6060.1735
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	35745	5.0000	7148.9662
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	31673	5.0000	6334.5689

D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	31502	5.0000	6300.4091

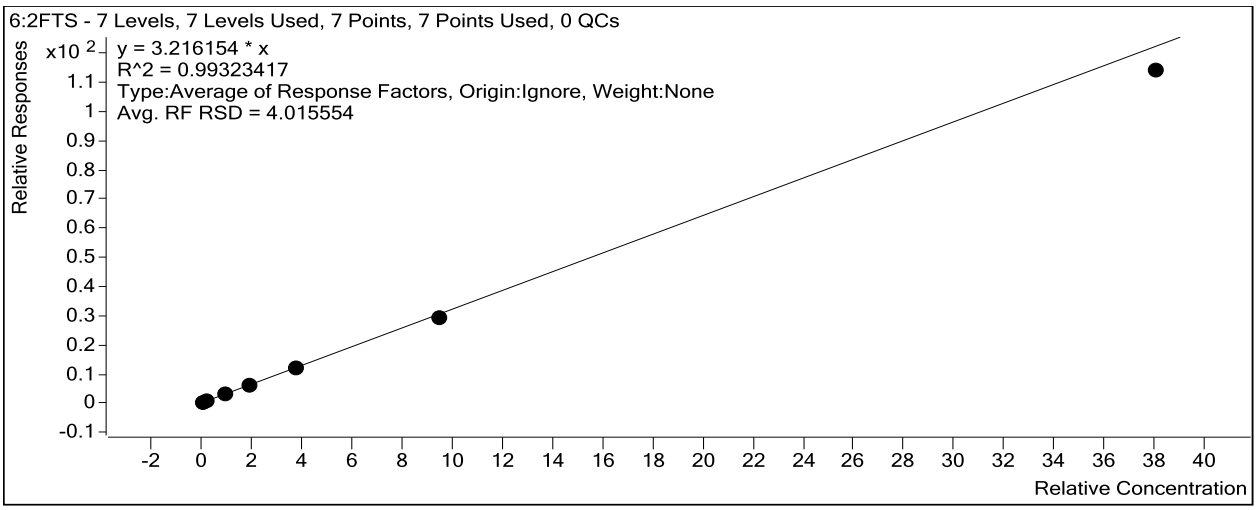
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	3340	0.4570	1.0240
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	8242	1.1425	1.0959
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	31883	4.5700	1.1077
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	59599	9.1400	1.0760
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	138870	18.2800	1.0626
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	296211	45.7000	1.0232
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1240567	182.8000	1.0771



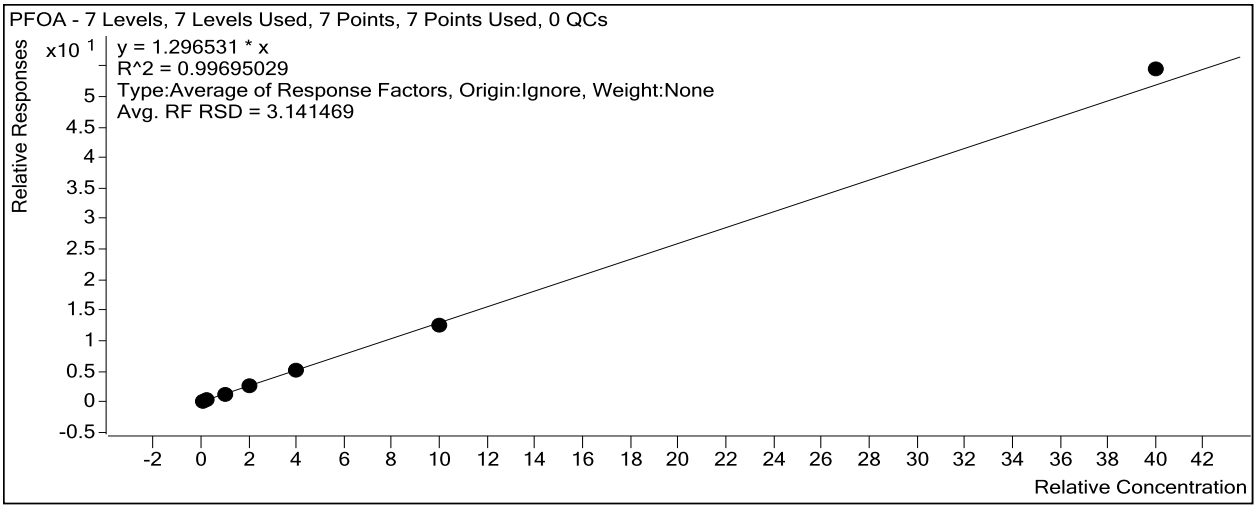
Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	28030	0.4725	1.3375
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	70755	1.1813	1.4638
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	281446	4.7250	1.5345
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	537865	9.4500	1.4939
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1233826	18.9000	1.5084
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2682158	47.2500	1.4608
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	12025261	189.0000	1.6766



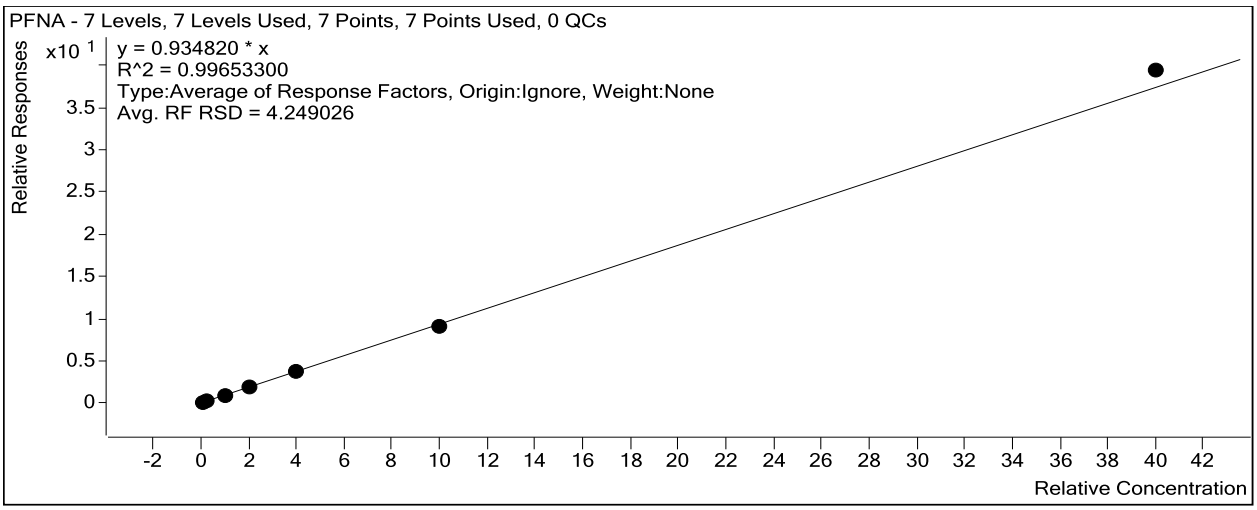
Target Compound *PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	27863	0.5000	1.2564
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	67481	1.2500	1.3194
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	256287	5.0000	1.3205
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	486520	10.0000	1.2769
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1120986	20.0000	1.2951
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2420073	50.0000	1.2456
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10336238	200.0000	1.3618



Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

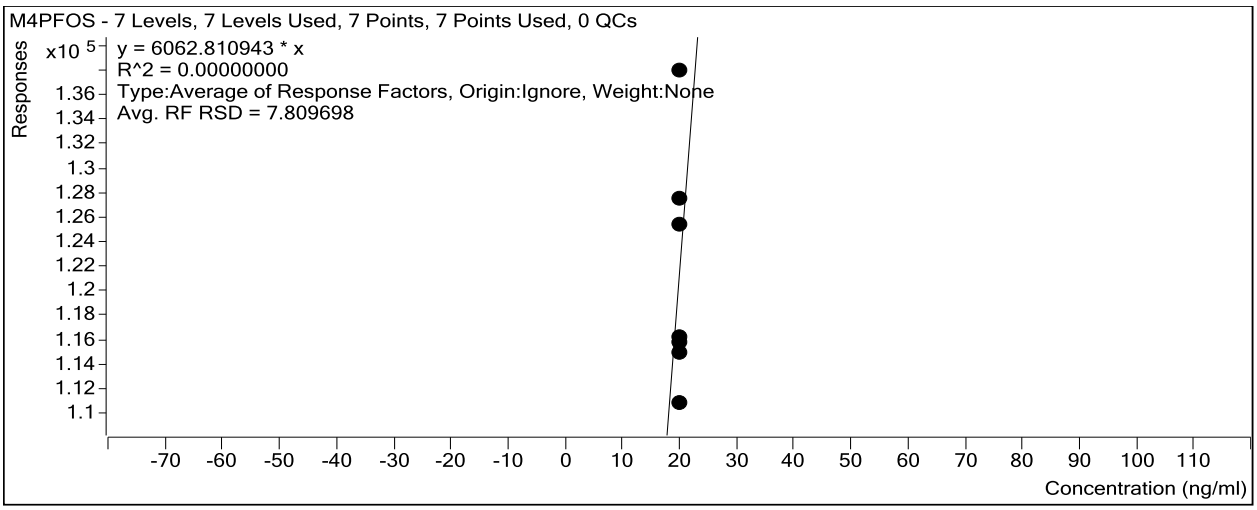


Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	33986	5.0000	6797.1104
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	31822	5.0000	6364.4671
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	30178	5.0000	6035.6381
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	28303	5.0000	5660.6126
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	34337	5.0000	6867.4774
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	29900	5.0000	5979.9313
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	28069	5.0000	5613.7610

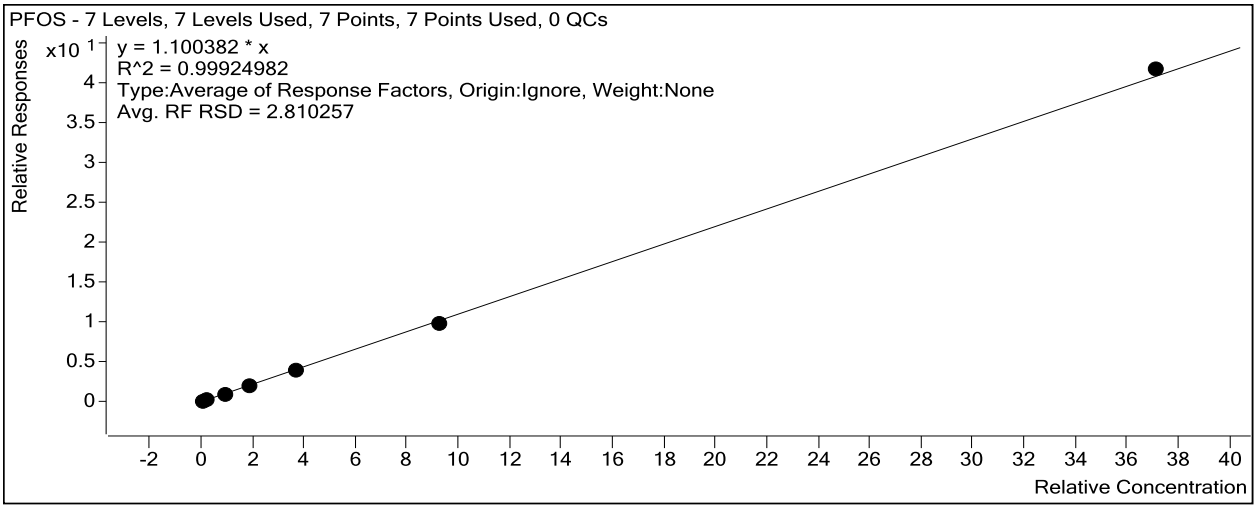
Instrument ISTD *M4PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	125462	20.0000	6273.0824
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	127483	20.0000	6374.1406
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	116167	20.0000	5808.3724
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	115814	20.0000	5790.7137
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	137973	20.0000	6898.6336
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	115018	20.0000	5750.8997
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	110877	20.0000	5543.8343



Target Compound *PFOS*

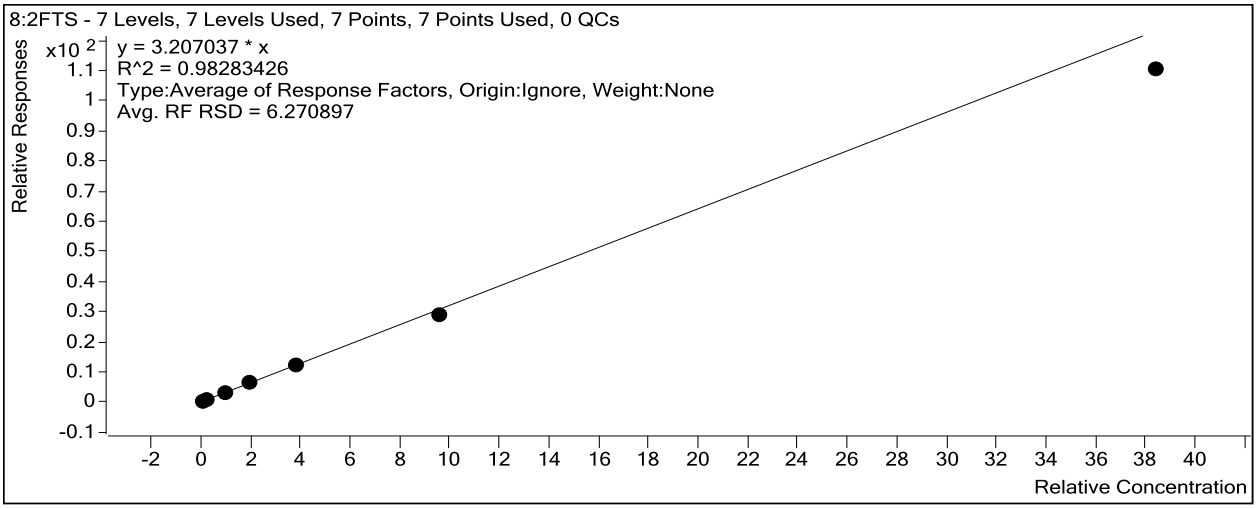
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	3393	0.4640	1.0758
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	8222	1.1600	1.1136
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	31432	4.6400	1.1224
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	59657	9.2800	1.1357
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	136670	18.5600	1.0723
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	293478	46.4000	1.0577
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1172392	185.6000	1.1252



Target Compound *9Cl-PF3ONS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	40023	9.6000	3.3205
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	88532	19.2000	3.1473
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	183950	48.0000	3.0260
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	635014	192.0000	2.8780



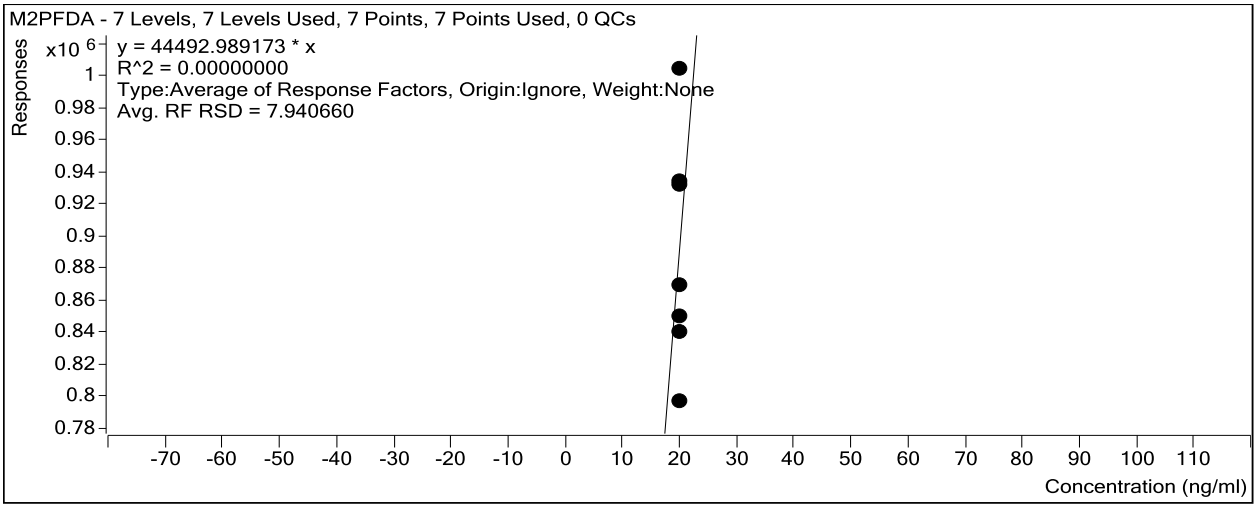
Extracted ISTD *M6PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	274033	5.0000	54806.6836
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	248779	5.0000	49755.8312
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	239982	5.0000	47996.3482
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	223015	5.0000	44602.9920
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	265231	5.0000	53046.2781
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	234054	5.0000	46810.8930
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	217772	5.0000	43554.3199

Instrument ISTD *M2PFDA*

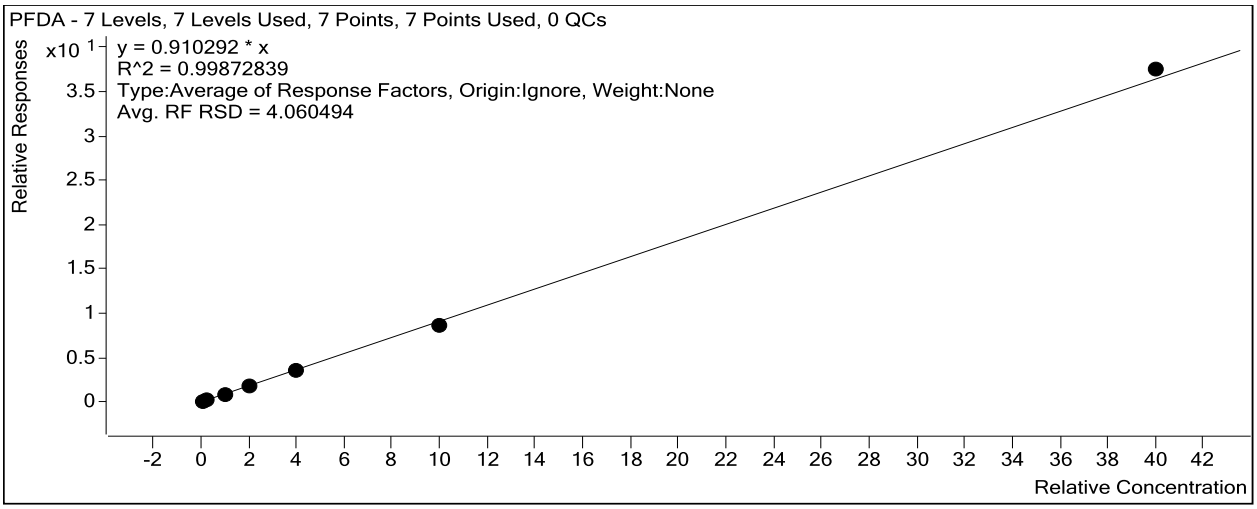
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	932560	20.0000	46628.0072
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	934916	20.0000	46745.8223
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	869116	20.0000	43455.8089
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	849971	20.0000	42498.5697
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1004386	20.0000	50219.2875
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	840646	20.0000	42032.3013

D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	797423	20.0000	39871.1273



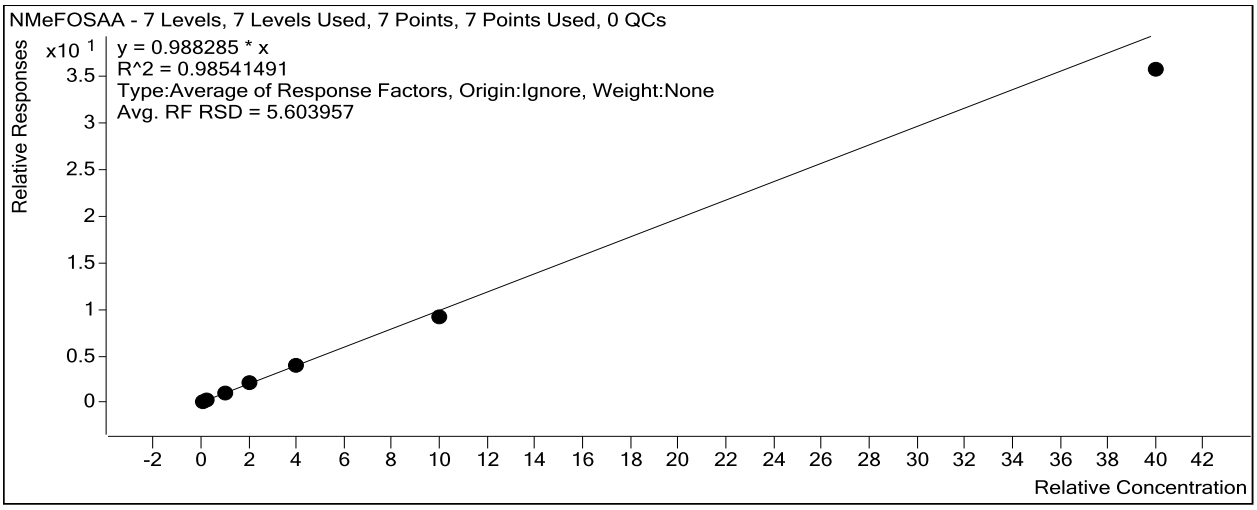
Target Compound *PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	23353	0.5000	0.8522
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	57699	1.2500	0.9277
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	221738	5.0000	0.9240
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	424539	10.0000	0.9518
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	966871	20.0000	0.9113
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2029828	50.0000	0.8672
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	8168504	200.0000	0.9377



Target Compound *PFNS*

D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	7447	1.2500	0.9976
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	29622	5.0000	1.0168
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	57756	10.0000	1.0418
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	130368	20.0000	1.0142
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	279313	50.0000	0.9271
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1151793	200.0000	0.8944

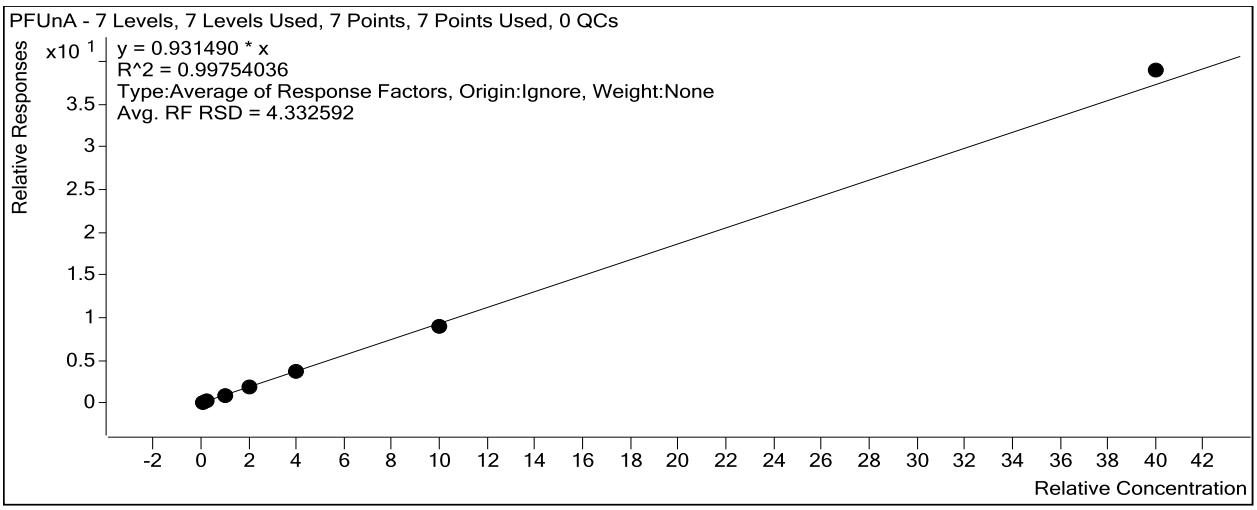


Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	76776	5.0000	15355.1982
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	71481	5.0000	14296.1376
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	66851	5.0000	13370.2486
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	64685	5.0000	12936.9889
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	76334	5.0000	15266.7658
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	67918	5.0000	13583.5598
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	73187	5.0000	14637.4027

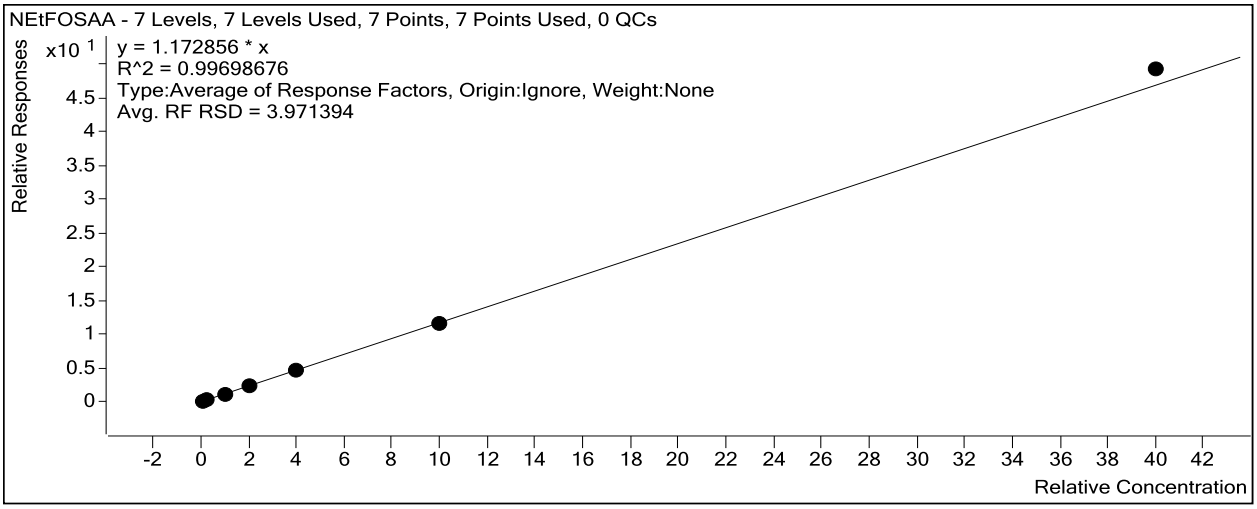
Target Compound *PFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	7588	0.5000	0.9883
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	17873	1.2500	1.0002
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	70555	5.0000	1.0554
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	136932	10.0000	1.0585



Target Compound *NEtFOSAA*

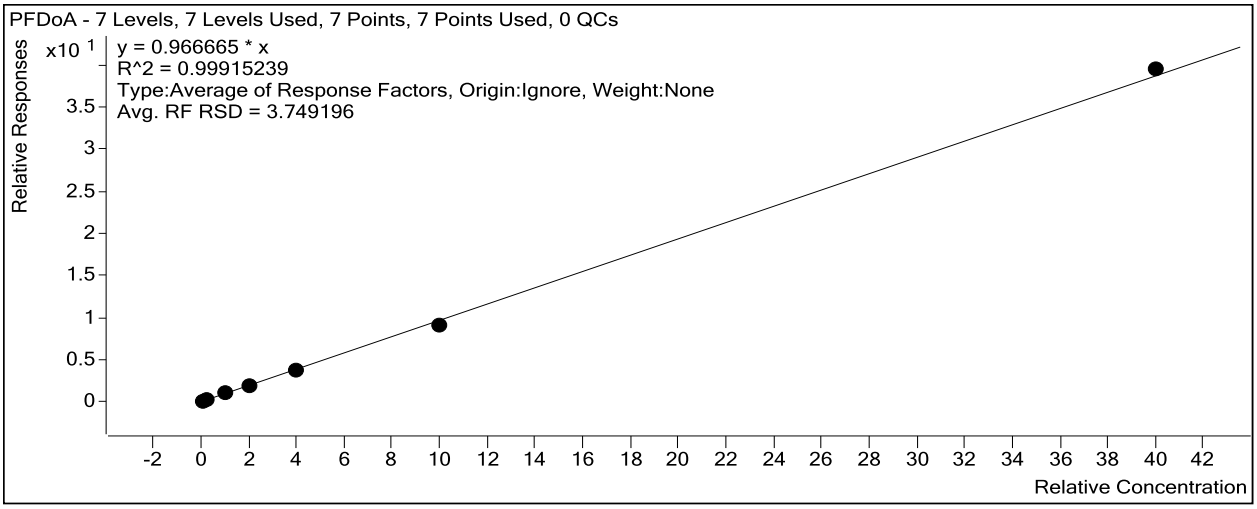
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	6103	0.5000	1.1107
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	14371	1.2500	1.1220
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	55851	5.0000	1.2062
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	108488	10.0000	1.2131
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	245285	20.0000	1.1579
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	507146	50.0000	1.1674
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1821612	200.0000	1.2327



Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF

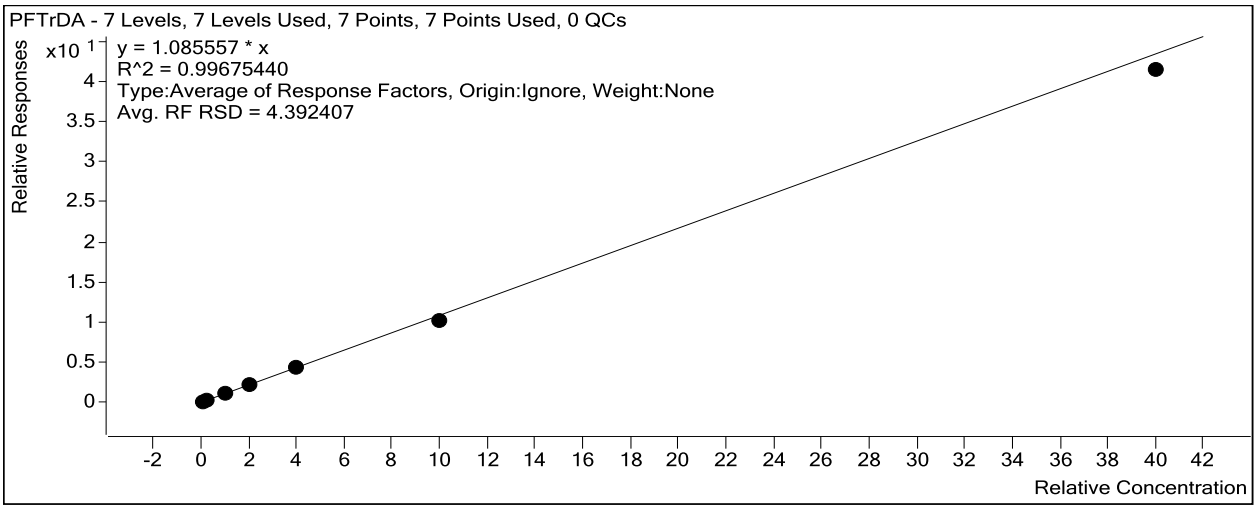
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	487035	10.0000	0.9738
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1117417	20.0000	0.9518
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2352391	50.0000	0.9063
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10315341	200.0000	0.9870



Target Compound *10:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	2197	0.4820	2.9380
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4760	1.2050	2.8960
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	18542	4.8200	2.9878
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	34495	9.6400	2.8501
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	82850	19.2800	2.9331
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	173083	48.2000	2.8354
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	622679	192.8000	2.8103

D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	31213	0.5000	1.0679
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	74590	1.2500	1.1151
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	297929	5.0000	1.1514
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	555466	10.0000	1.1106
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1293033	20.0000	1.1014
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2637030	50.0000	1.0160
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	10833056	200.0000	1.0365



Extracted ISTD *d-NMeFOSA*

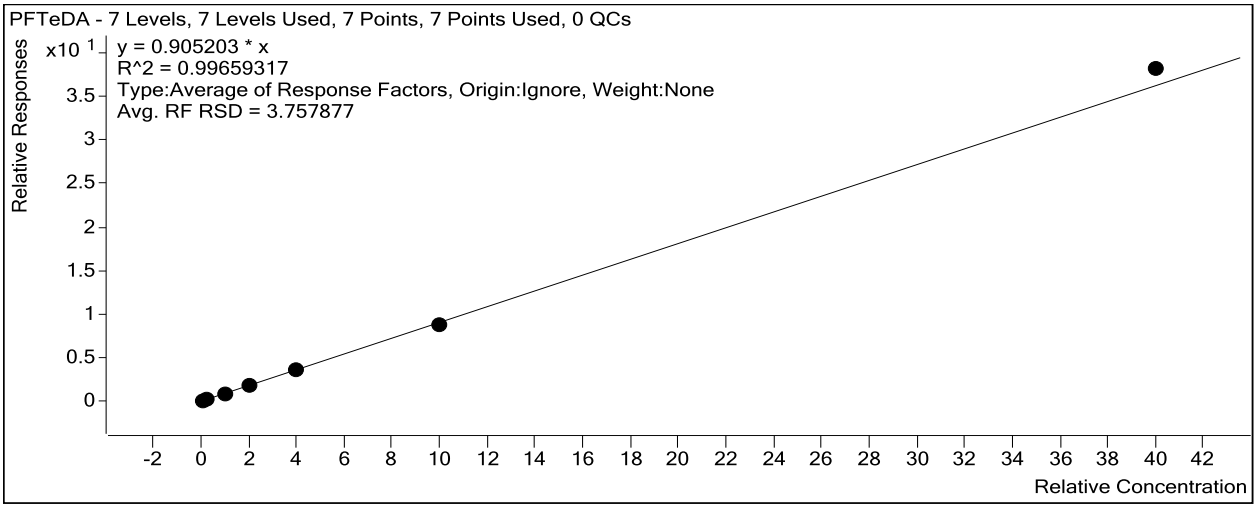
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	16318	5.0000	3263.6947
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	15488	5.0000	3097.5219
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	15143	5.0000	3028.6153
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	14815	5.0000	2963.0739
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	16484	5.0000	3296.7581
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	15358	5.0000	3071.5516
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	16111	5.0000	3222.1577

Target Compound *NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1718	0.5000	1.0529
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4220	1.2500	1.0899
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	15938	5.0000	1.0525

Quantitative Analysis Calibration Report

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	32421	0.5000	0.8529
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	79012	1.2500	0.9257
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	315640	5.0000	0.9296
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	590775	10.0000	0.8980
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	1349933	20.0000	0.8974
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	2964650	50.0000	0.8788
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	13048202	200.0000	0.9540



Target Compound *NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1895	0.5000	1.1390
D:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4798	1.2500	1.1865
D:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	18779	5.0000	1.2401
D:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	35568	10.0000	1.1534
D:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	79405	20.0000	1.1889
D:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	176454	50.0000	1.1463
D:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	697912	200.0000	1.1315

Quantitative Analysis Calibration Report

Batch Data Path	C:\MassHunter\Data\QQQ4\2220515BCAL\QuantResults\2220518B.batch.bin		
Analysis Time	5/27/2022 8:54 AM	**Analyst Name**	GCAL\lcms
Report Time	5/27/2022 9:01 AM	**Reporter Name**	GCAL\lcms
Last Calib Update	5/15/2022 1:09 PM	**Batch State**	Processed

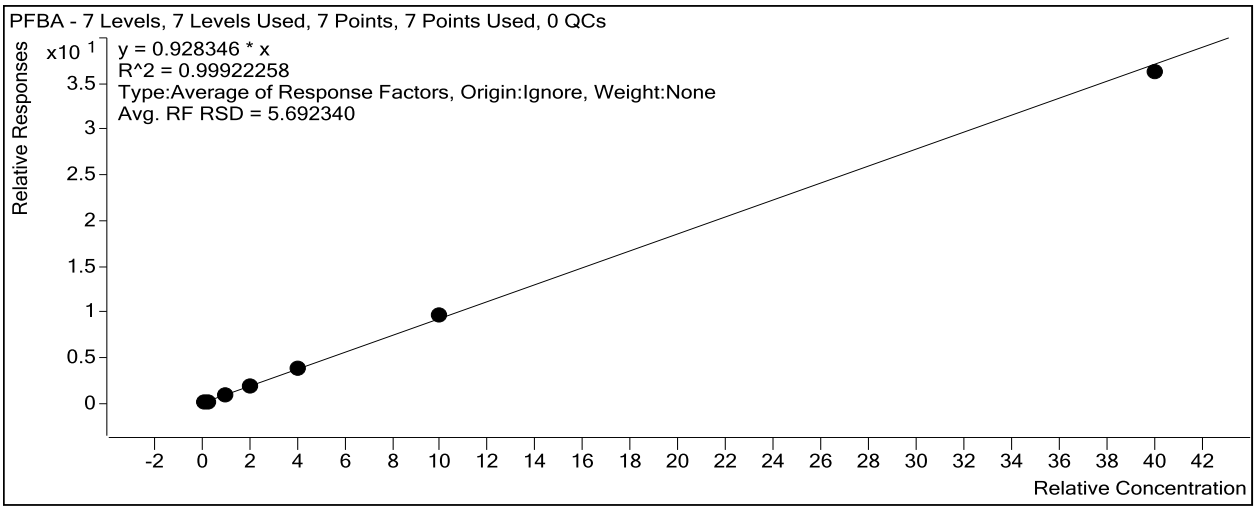
Calibration Info

Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	86325	5.0000	17265.0336
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	85467	5.0000	17093.4806
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	86826	5.0000	17365.1456
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	83497	5.0000	16699.4844
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	86240	5.0000	17248.0803
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	84206	5.0000	16841.2778
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	84267	5.0000	16853.4873

Target Compound *PFBA*

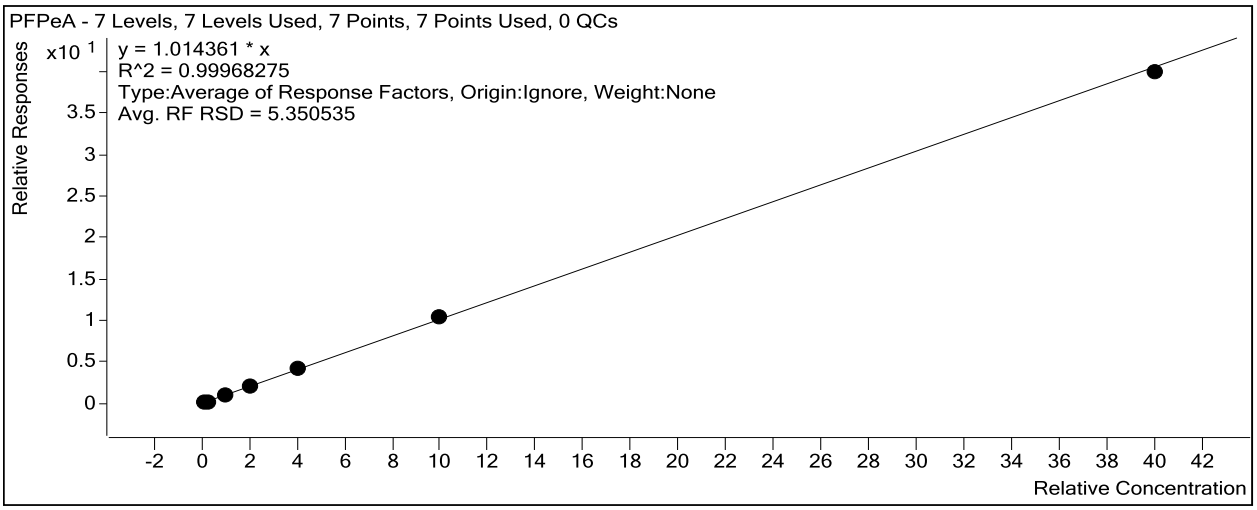
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	7330	0.5000	0.8491
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	18754	1.2500	0.8777
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	81151	5.0000	0.9346
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	166407	10.0000	0.9965
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	330751	20.0000	0.9588
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	818786	50.0000	0.9724
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	3065215	200.0000	0.9094



Target Compound *PFMPA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	1319	0.5000	0.1145
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	3232	1.2500	0.1136
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	13717	5.0000	0.1181
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	28660	10.0000	0.1283

Quantitative Analysis Calibration Report

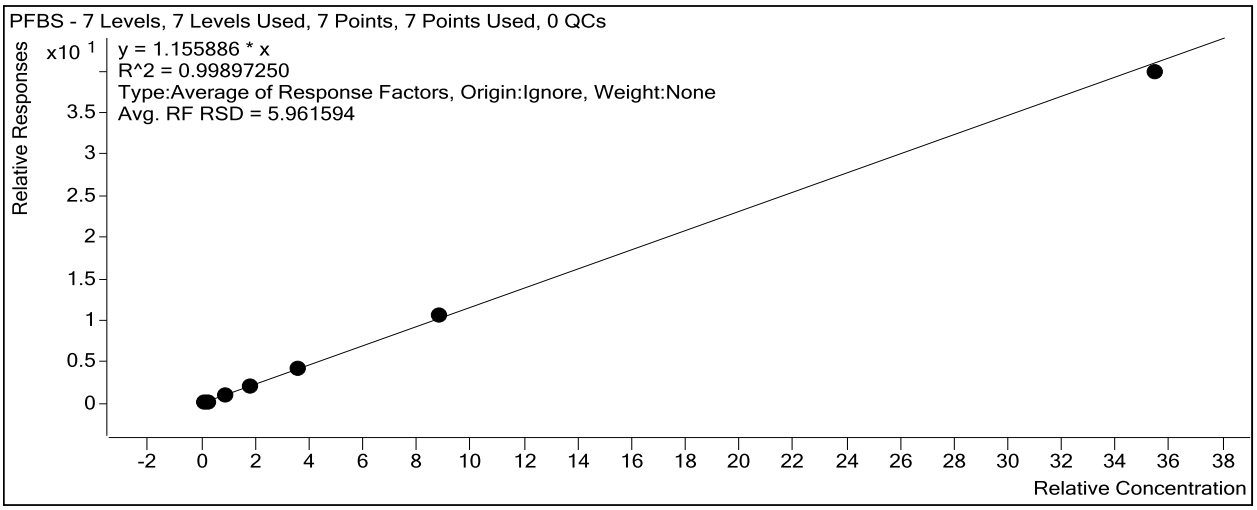


Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	37682	5.0000	7536.4213
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	37005	5.0000	7401.0920
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	36880	5.0000	7375.9911
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	35466	5.0000	7093.1777
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	36263	5.0000	7252.6948
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	35081	5.0000	7016.1478
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	33199	5.0000	6639.8220

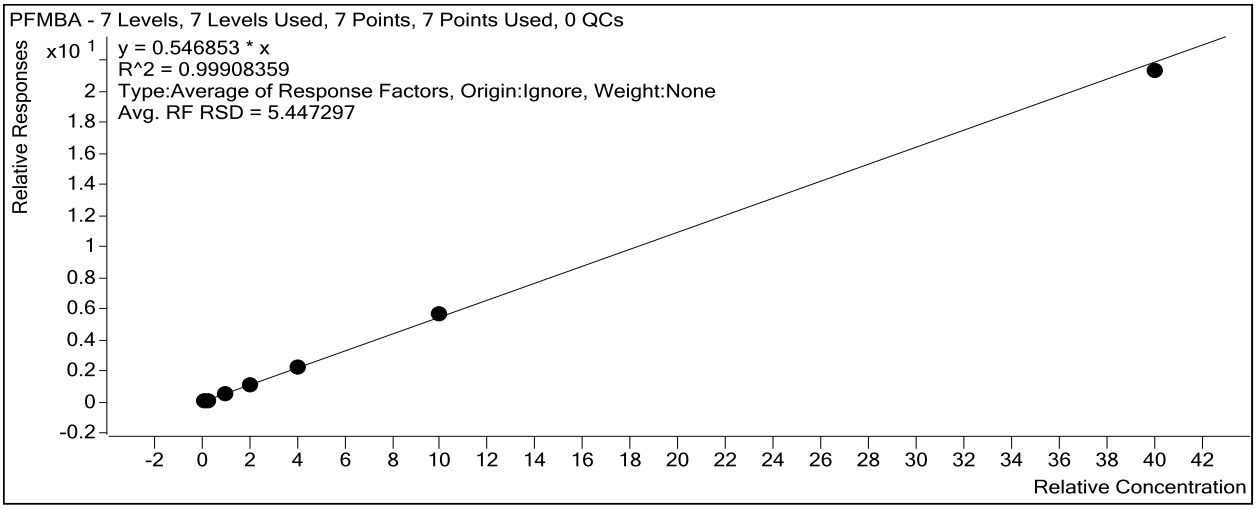
Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	3502	0.4435	1.0478
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	8958	1.1088	1.0916
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	38402	4.4350	1.1739
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	77641	8.8700	1.2340
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	154980	17.7400	1.2045
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	376975	44.3500	1.2115
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	1328460	177.4000	1.1278



Target Compound *PFMBA*

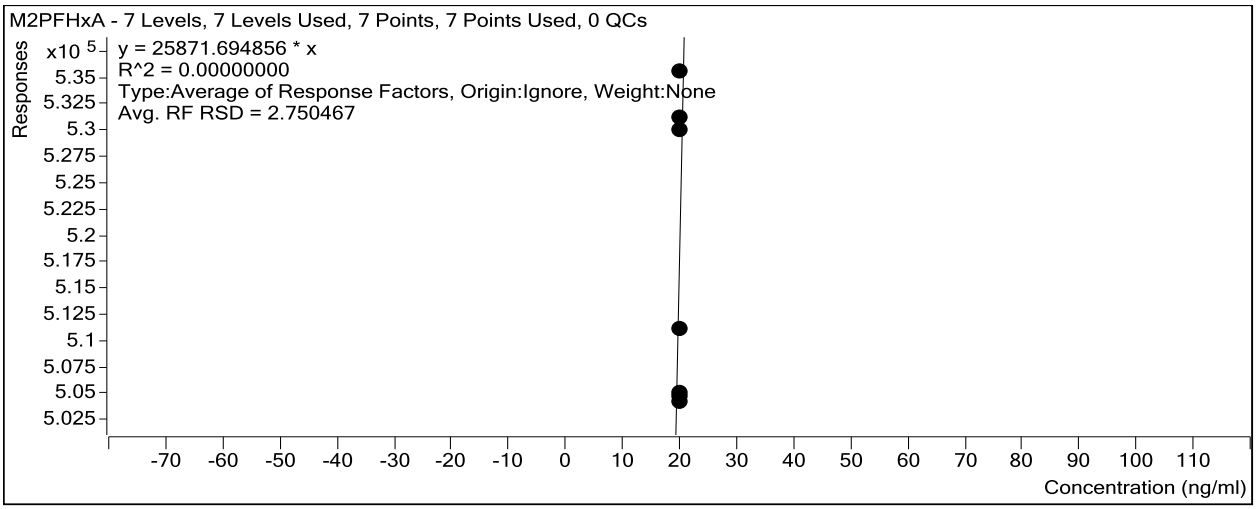
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	7184	0.5000	0.5054
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	18064	1.2500	0.5151
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	78607	5.0000	0.5517
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	159888	10.0000	0.5856
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	319135	20.0000	0.5654
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	775269	50.0000	0.5706
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	2824049	200.0000	0.5341



Target Compound *PFEESA*

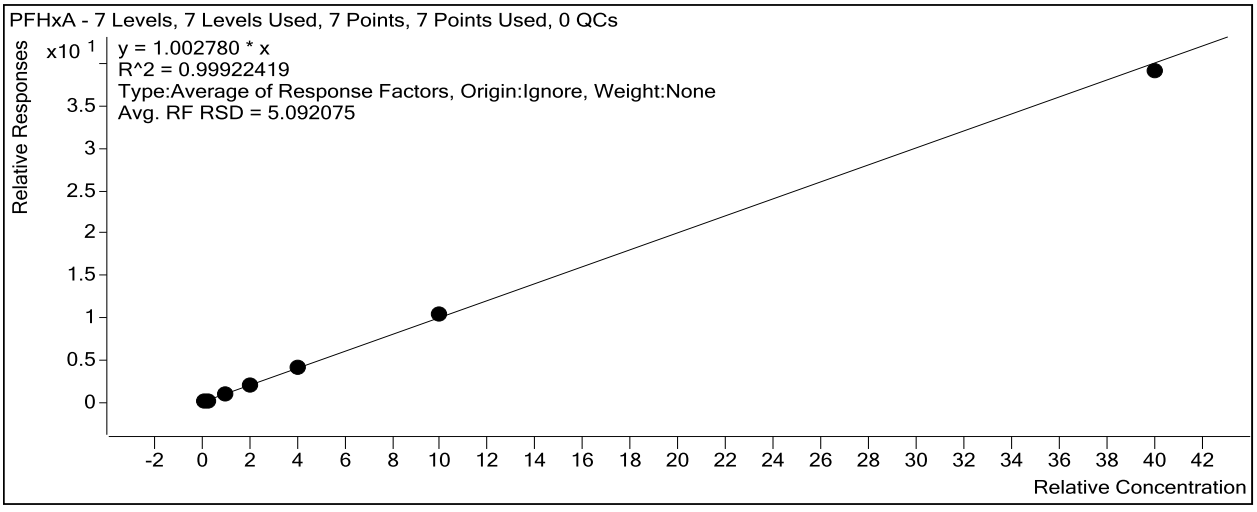
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	10359	0.4450	3.8623
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	25498	1.1125	3.7915
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	110115	4.4500	4.0464
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	225459	8.9000	4.3704
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	447341	17.8000	4.1873

D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	505080	20.0000	25254.0016
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	504688	20.0000	25234.4158



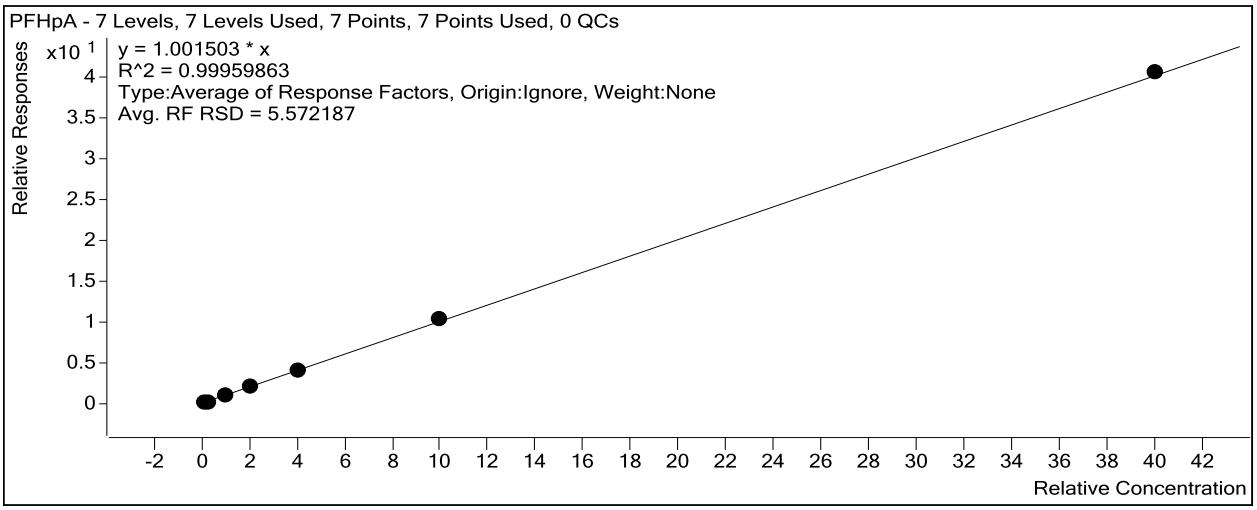
Target Compound *PFHxA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	13214	0.5000	0.9296
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	33609	1.2500	0.9584
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	142659	5.0000	1.0013
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	294168	10.0000	1.0774
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	580195	20.0000	1.0279
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	1417731	50.0000	1.0435
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	5188439	200.0000	0.9813



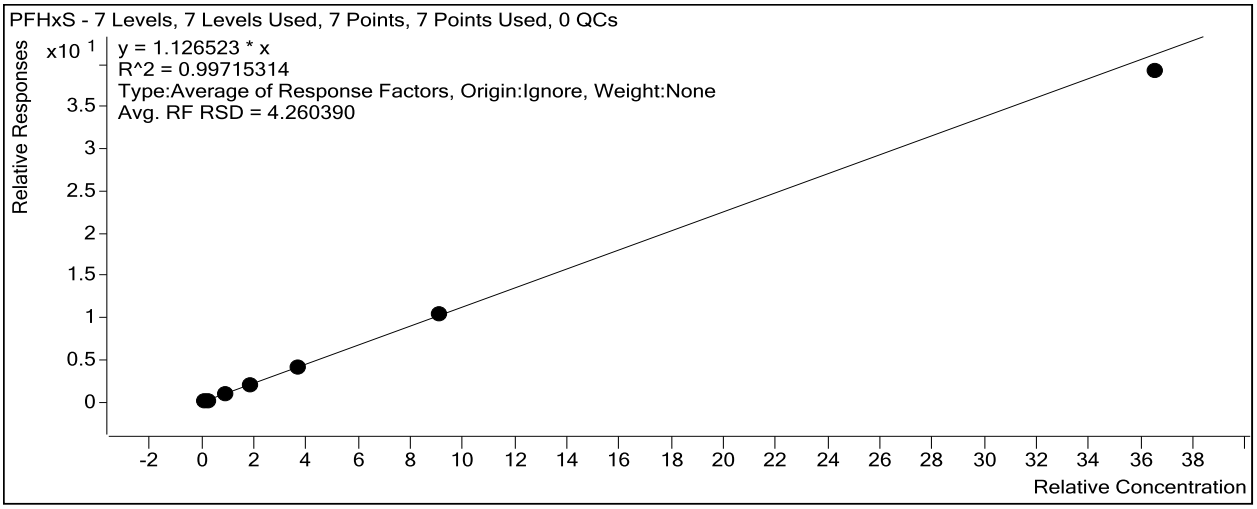
Target Compound *PFPeS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	3030	0.4705	0.8544
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	8000	1.1763	0.9189
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	35160	4.7050	1.0131



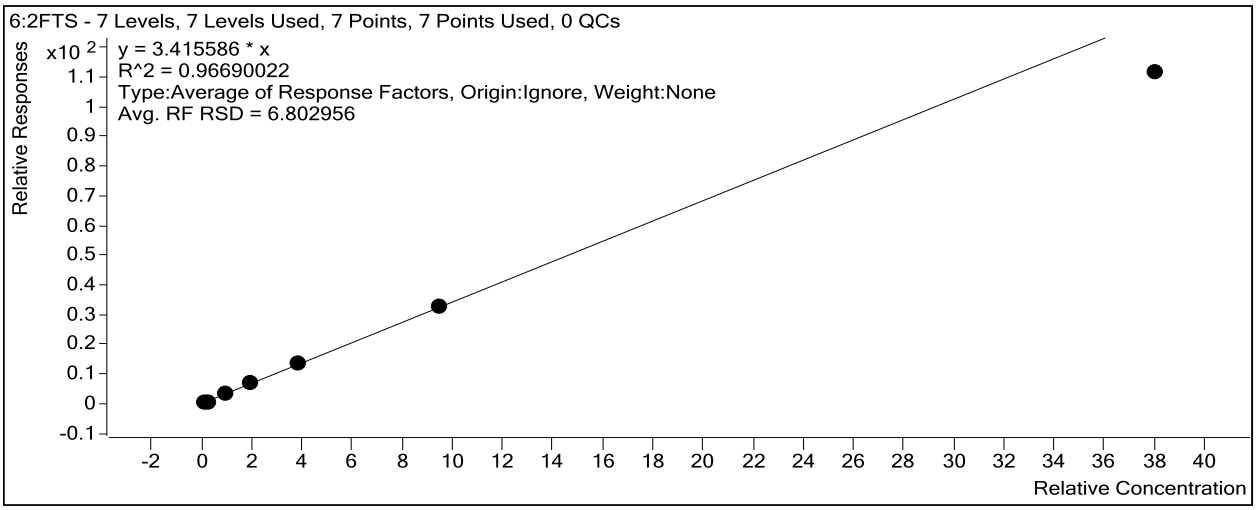
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	3242	0.4570	1.1772
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	7388	1.1425	1.0698
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	30436	4.5700	1.0891
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	62757	9.1400	1.1846
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	124784	18.2800	1.1374
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	303767	45.7000	1.1514
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	1088643	182.8000	1.0763



Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	30136	5.0000	6027.1470
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	30225	5.0000	6044.9896
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	30577	5.0000	6115.3017
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	28982	5.0000	5796.3448
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	30009	5.0000	6001.7746



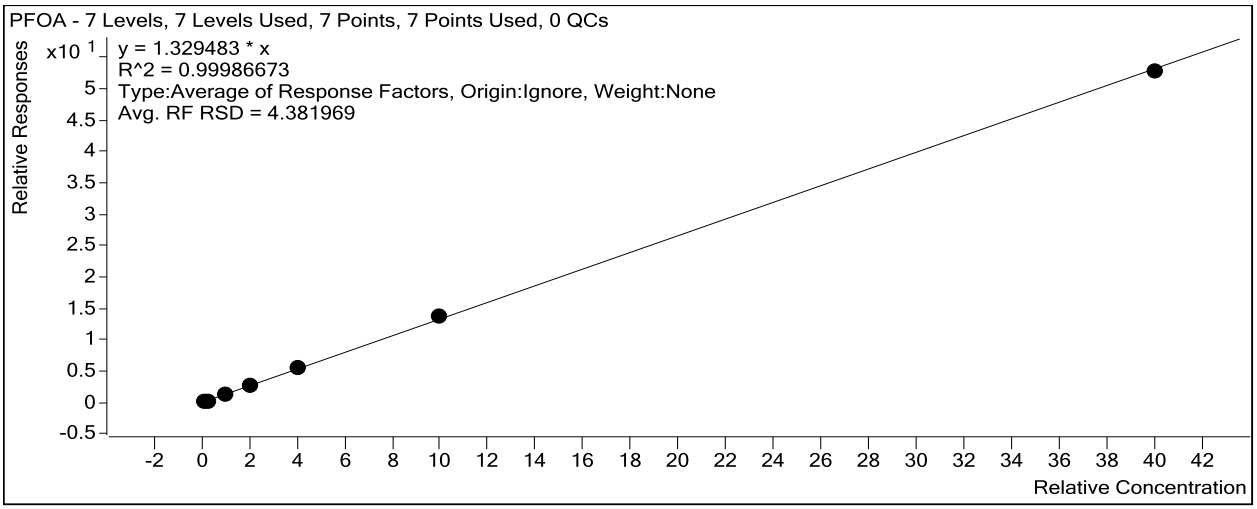
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	176390	5.0000	35278.0383
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	174486	5.0000	34897.1669
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	177734	5.0000	35546.8587
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	171555	5.0000	34310.9465
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	173579	5.0000	34715.7846
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	169980	5.0000	33996.0108
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	162572	5.0000	32514.3691

Instrument ISTD *MPFOA*

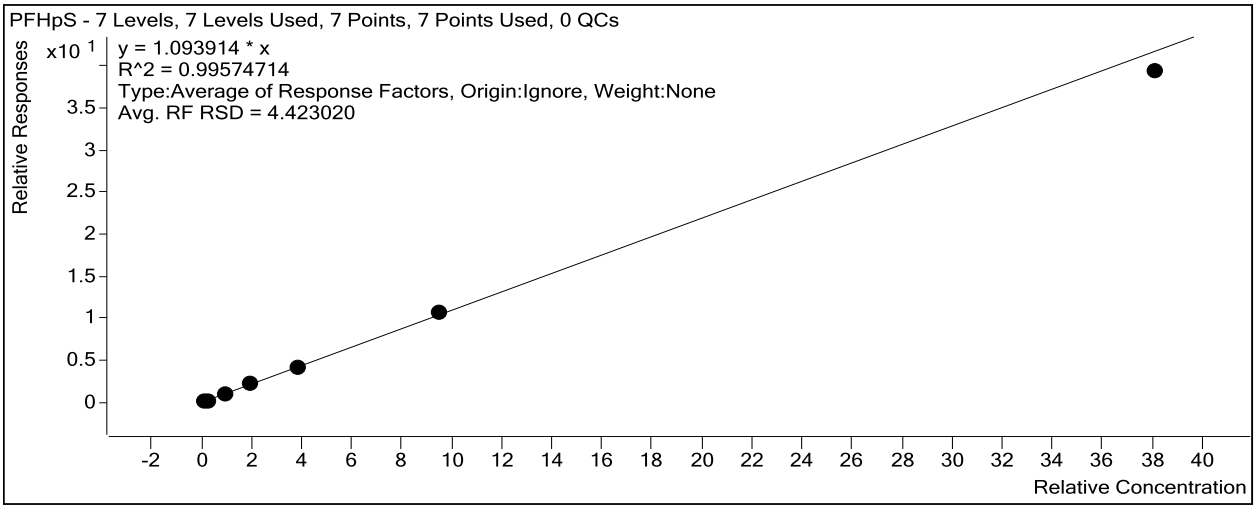
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	1166698	25.0000	46667.9130
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	1102981	25.0000	44119.2282
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	1133567	25.0000	45342.6665
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	1133359	25.0000	45334.3468
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	1140342	25.0000	45613.6846
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	1069874	25.0000	42794.9626
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	1051581	25.0000	42063.2419

D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	2330248	50.0000	1.3709
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	8601387	200.0000	1.3227



Target Compound *PFHpS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	3003	0.4765	1.0455
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	7677	1.1913	1.0660
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	31789	4.7650	1.0909
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	64448	9.5300	1.1667
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	128314	19.0600	1.1217
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	311200	47.6500	1.1313
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	1091783	190.6000	1.0352



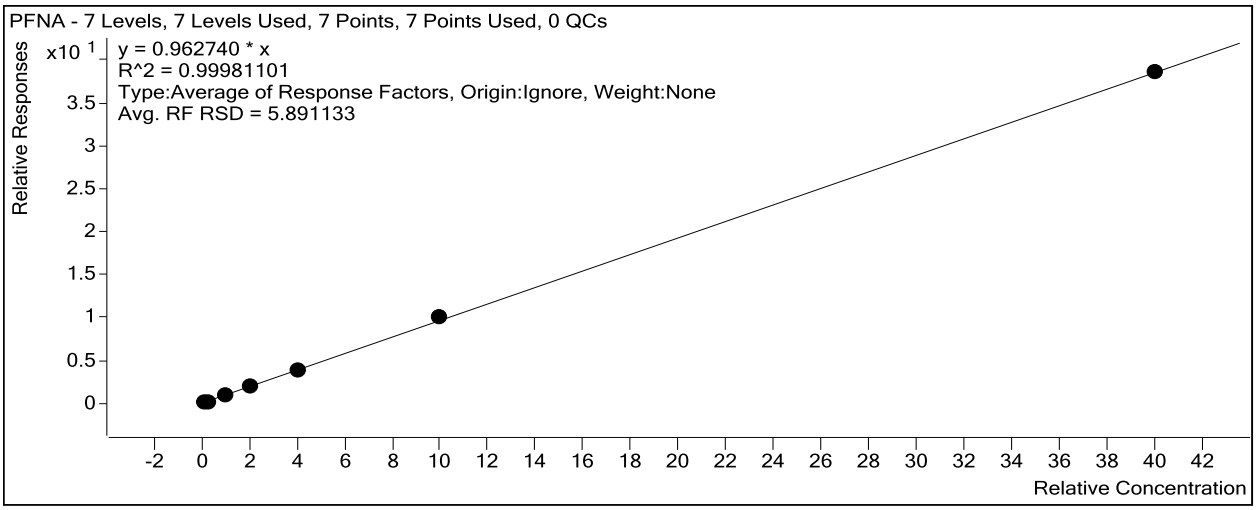
Extracted ISTD *M9PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	220404	5.0000	44080.8293
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	213364	5.0000	42672.8114
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	216944	5.0000	43388.8171

D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	208950	5.0000	41789.9329
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	214443	5.0000	42888.5969
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	206746	5.0000	41349.1896
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	197923	5.0000	39584.5216

Target Compound *PFNA*

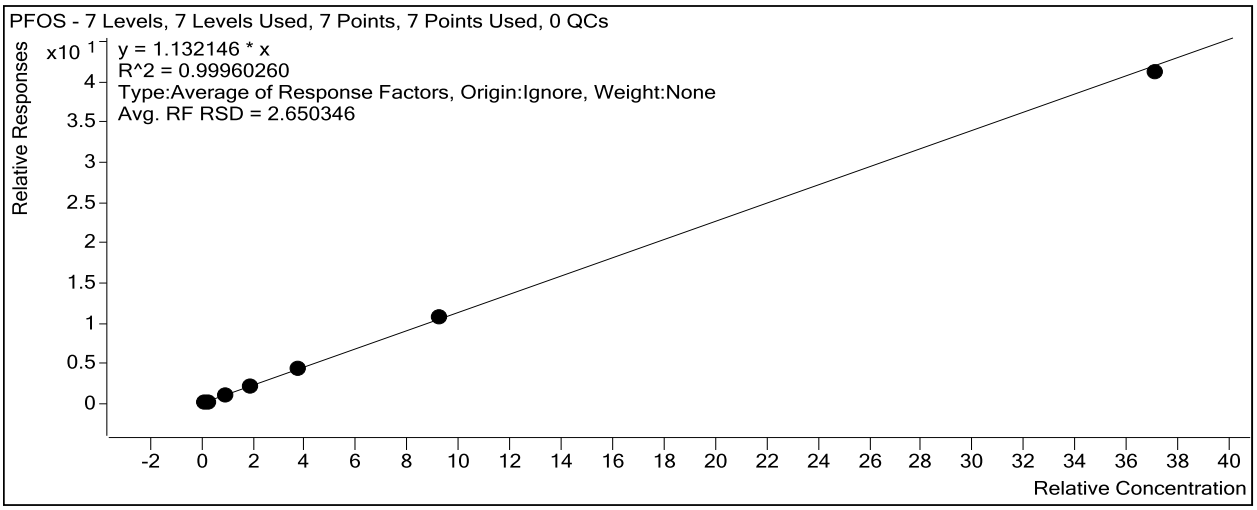
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	19028	0.5000	0.8633
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	48732	1.2500	0.9136
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	210480	5.0000	0.9702
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	430188	10.0000	1.0294
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	852007	20.0000	0.9933
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	2071739	50.0000	1.0021
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	7658123	200.0000	0.9673



Target Compound *PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	2915	0.4640	1.1064
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	7201	1.1600	1.1045
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	29409	4.6400	1.1129
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	59714	9.2800	1.1805
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	119315	18.5600	1.1539
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	290121	46.4000	1.1533
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	1044536	185.6000	1.1135

Quantitative Analysis Calibration Report



Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	28394	5.0000	5678.7773
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	28103	5.0000	5620.6328
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	28477	5.0000	5695.3213
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	27254	5.0000	5450.8654
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	27857	5.0000	5571.3021
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	27107	5.0000	5421.3173
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	25270	5.0000	5054.0358

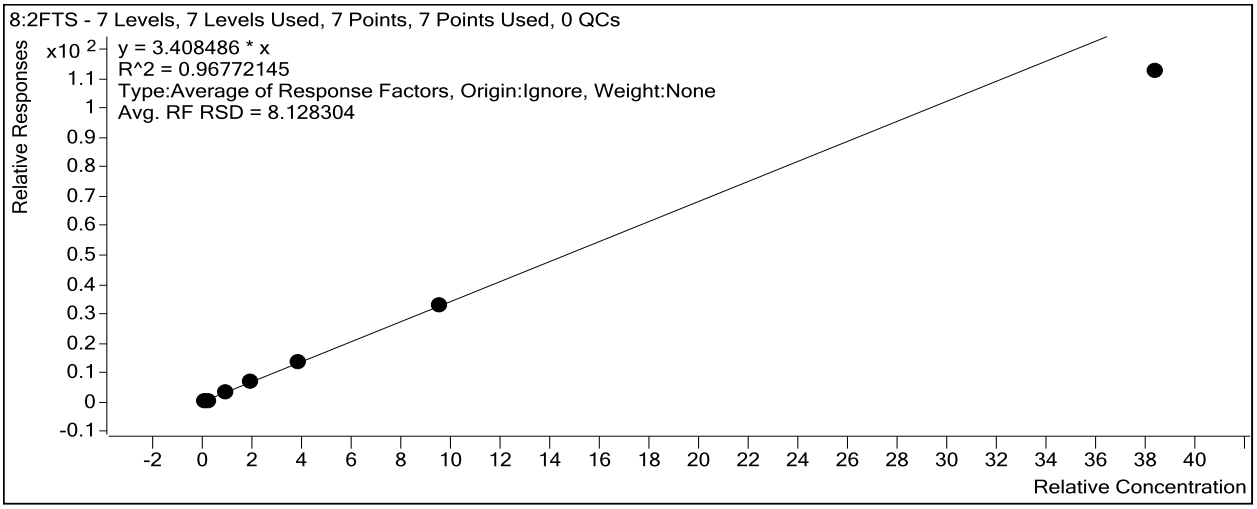
Instrument ISTD *M4PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	110804	20.0000	5540.1814
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	106049	20.0000	5302.4261
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	109402	20.0000	5470.0810
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	104594	20.0000	5229.7123
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	109012	20.0000	5450.5763
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	102307	20.0000	5115.3712
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	99925	20.0000	4996.2630

D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	6550	5.0000	1309.9980
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	5575	5.0000	1115.0343

Target Compound *8:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	2486	0.4800	3.1887
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	6013	1.2000	3.3263
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	25511	4.8000	3.6861
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	50510	9.6000	3.6982
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	94420	19.2000	3.5720
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	216615	48.0000	3.4449
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	630113	192.0000	2.9433

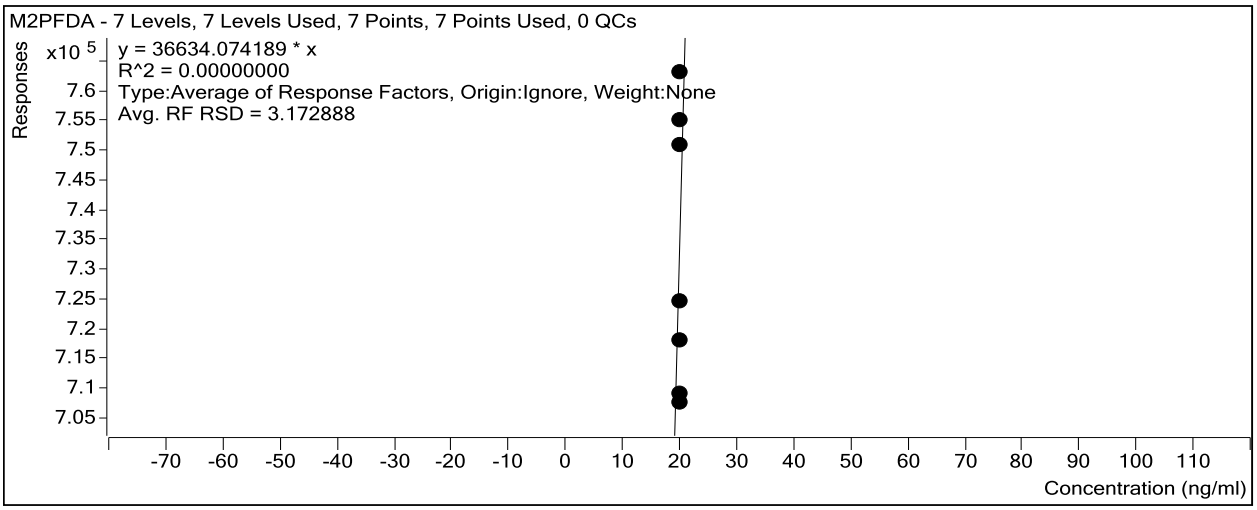


Extracted ISTD *M6PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	221881	5.0000	44376.1556
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	215081	5.0000	43016.2758
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	218007	5.0000	43601.3933
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	208496	5.0000	41699.1533
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	213193	5.0000	42638.5276
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	201818	5.0000	40363.5728
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	196494	5.0000	39298.8087

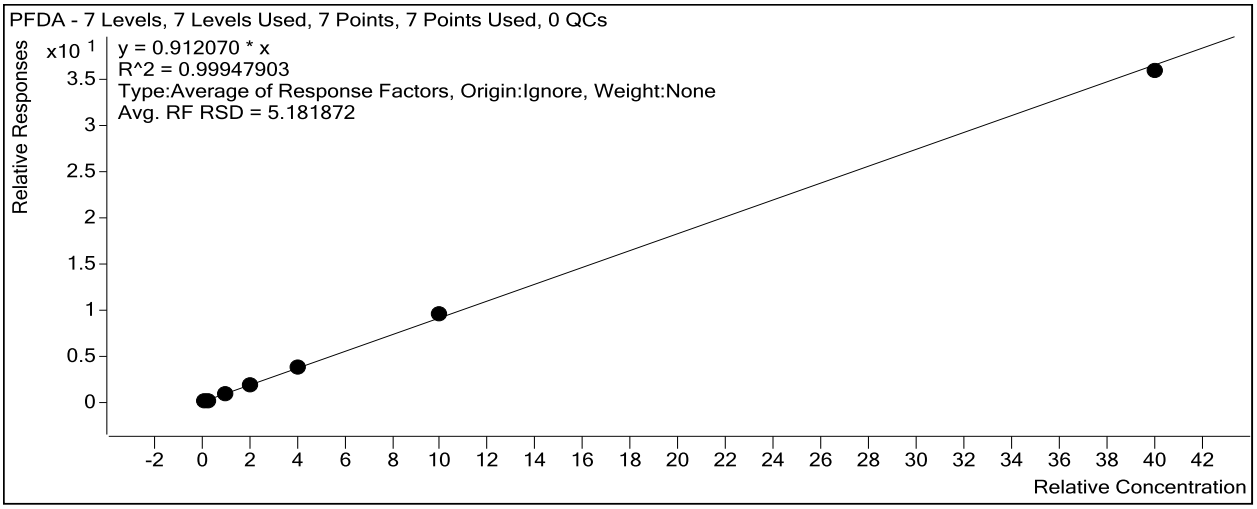
Instrument ISTD *M2PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	763254	20.0000	38162.6935
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	724702	20.0000	36235.0945
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	755242	20.0000	37762.1028
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	718036	20.0000	35901.7981
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	750908	20.0000	37545.3963
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	707590	20.0000	35379.4868
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	709039	20.0000	35451.9474



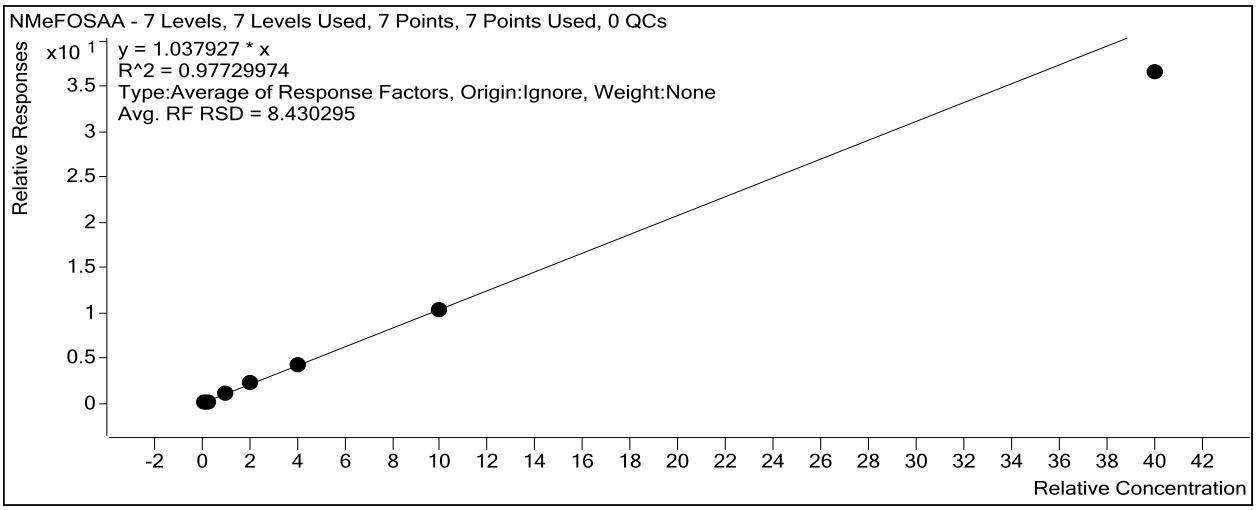
Target Compound *PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	18594	0.5000	0.8380
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	46636	1.2500	0.8673
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	201372	5.0000	0.9237
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	403673	10.0000	0.9681
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	794016	20.0000	0.9311
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	1933139	50.0000	0.9579
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	7061462	200.0000	0.8984



Target Compound *PFNS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	2614	0.4810	0.9571
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	6377	1.2025	0.9434
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	27180	4.8100	0.9922
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	55137	9.6200	1.0515
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	111253	19.2400	1.0379



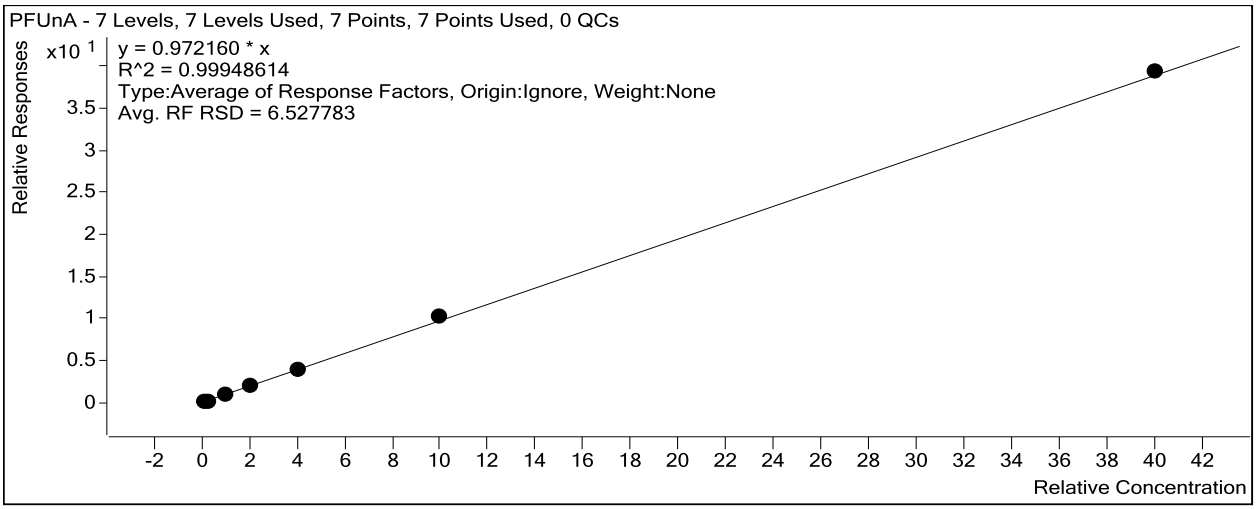
Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	60341	5.0000	12068.1004
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	59579	5.0000	11915.7316
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	59738	5.0000	11947.6113
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	58416	5.0000	11683.2255
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	58757	5.0000	11751.4780
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	58143	5.0000	11628.5602
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	60778	5.0000	12155.6487

Target Compound *PFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	5842	0.5000	0.9681
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	14824	1.2500	0.9953
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	62877	5.0000	1.0525
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	131396	10.0000	1.1247
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	259906	20.0000	1.1058
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	642043	50.0000	1.1043
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	2412336	200.0000	0.9923

D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	1919902	50.0000	1.0192
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	6898891	200.0000	0.9872



Extracted ISTD *d5-NEtFOSAA*

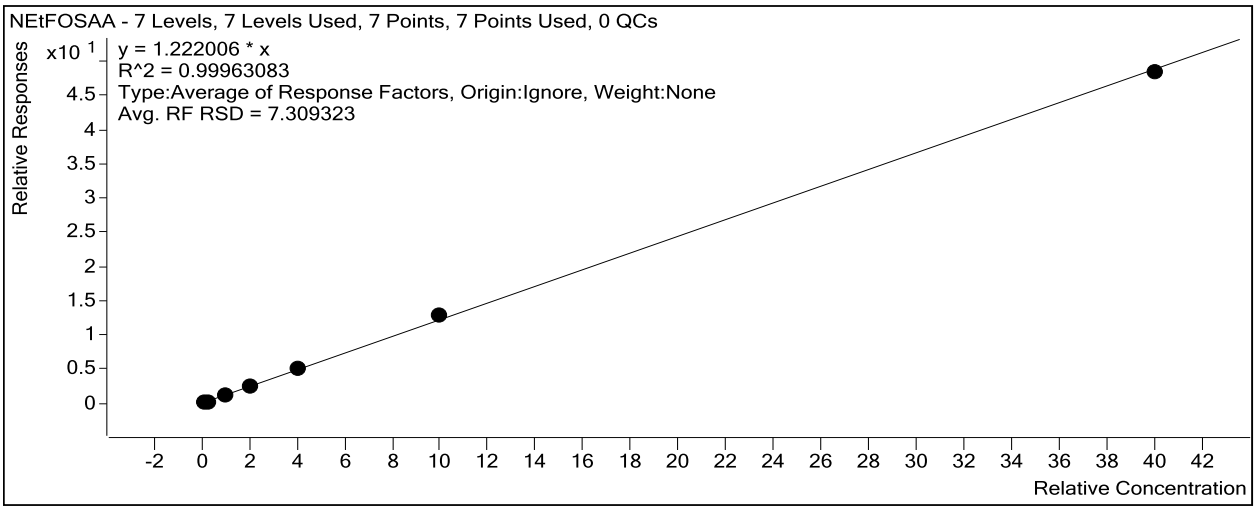
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	32770	5.0000	6553.9625
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	31540	5.0000	6308.0308
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	31644	5.0000	6328.7855
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	29693	5.0000	5938.5401
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	31394	5.0000	6278.7680
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	29702	5.0000	5940.4322
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	27343	5.0000	5468.6179

Extracted ISTD *M7PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	203221	5.0000	40644.2747
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	199004	5.0000	39800.8245
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	199763	5.0000	39952.5213
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	190752	5.0000	38150.4752
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	195725	5.0000	39144.9479
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	188374	5.0000	37674.7126
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	174702	5.0000	34940.4111

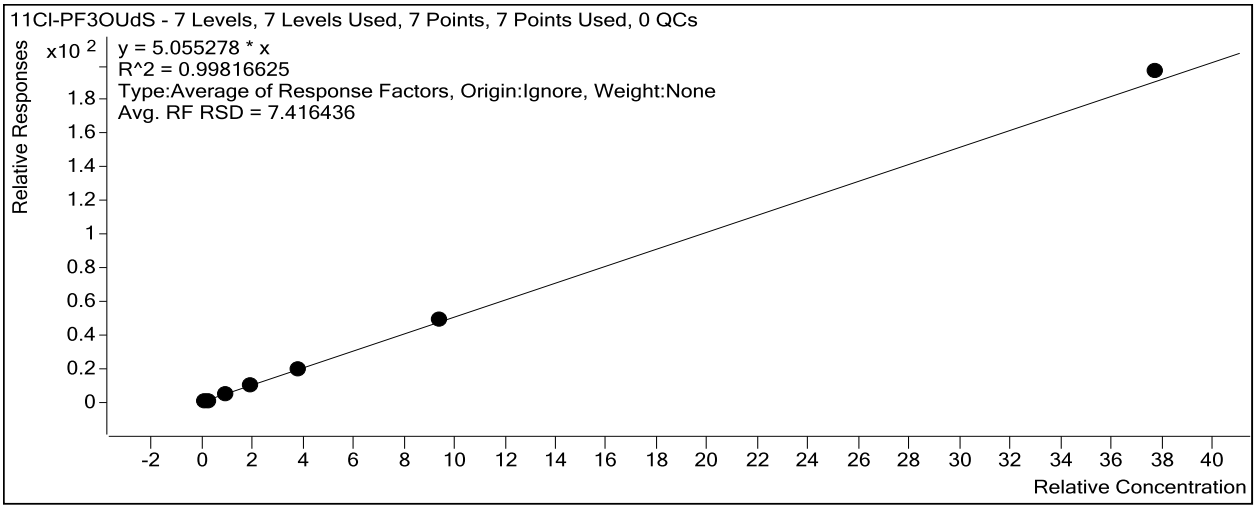
Target Compound *NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	3519	0.5000	1.0739
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	9003	1.2500	1.1418
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	38797	5.0000	1.2260
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	78969	10.0000	1.3298
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	160160	20.0000	1.2754
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	383915	50.0000	1.2925
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	1328317	200.0000	1.2145



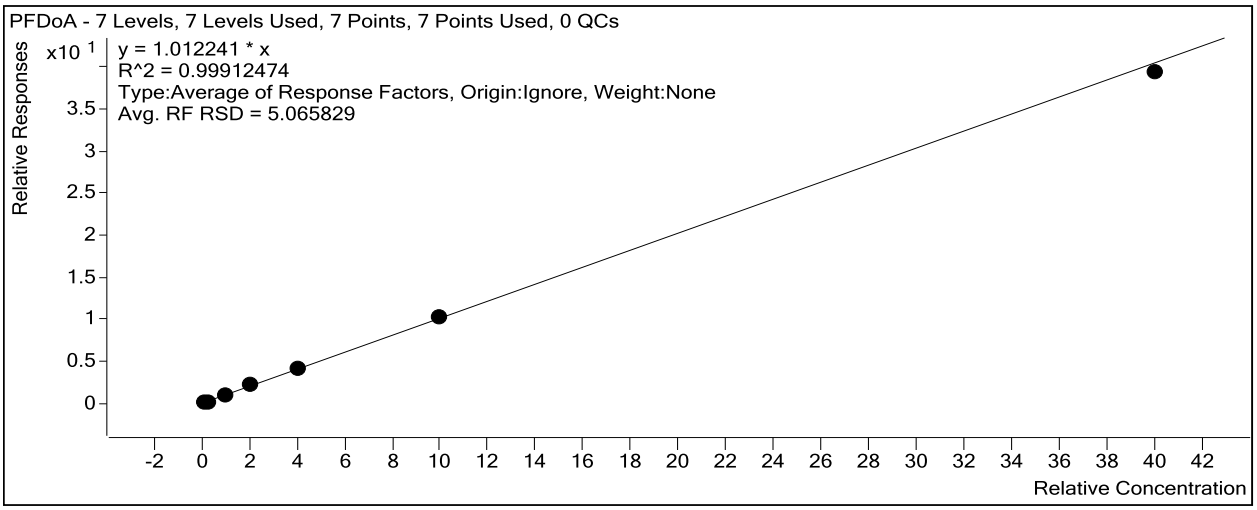
Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	11741	0.4715	4.3851
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	31211	1.1788	4.7106
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	135621	4.7150	5.0504
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	278166	9.4300	5.4116
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	556715	18.8600	5.2983
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	1351758	47.1500	5.2883
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	4997274	188.6000	5.2427



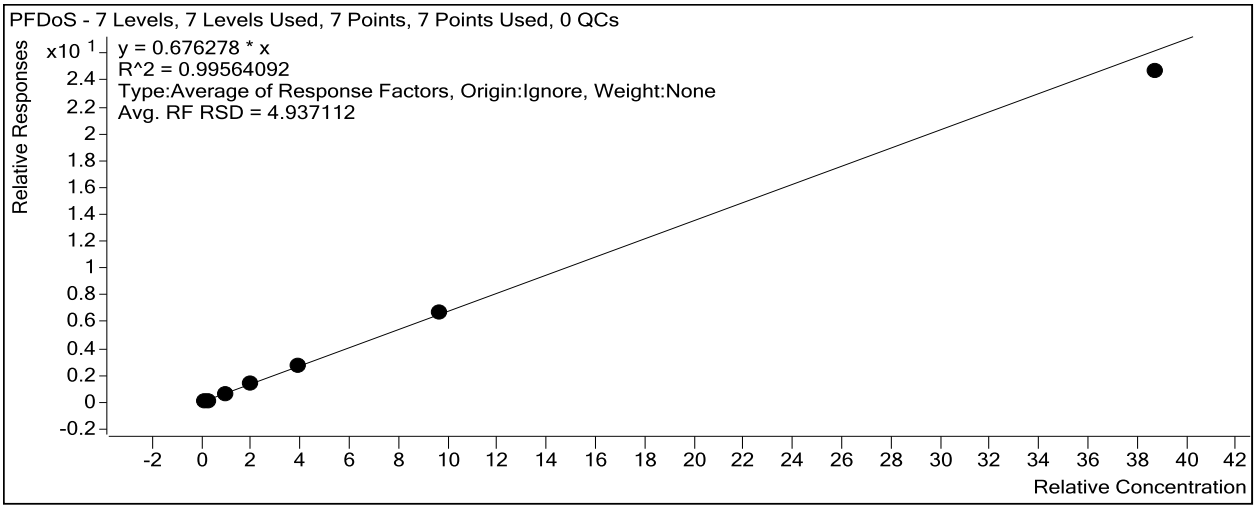
Target Compound *10:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	2242	0.4820	2.8641
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	5482	1.2050	3.0204
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	23186	4.8200	3.3362
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	47514	9.6400	3.4643
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	92526	19.2800	3.4858



Target Compound *PFDoS*

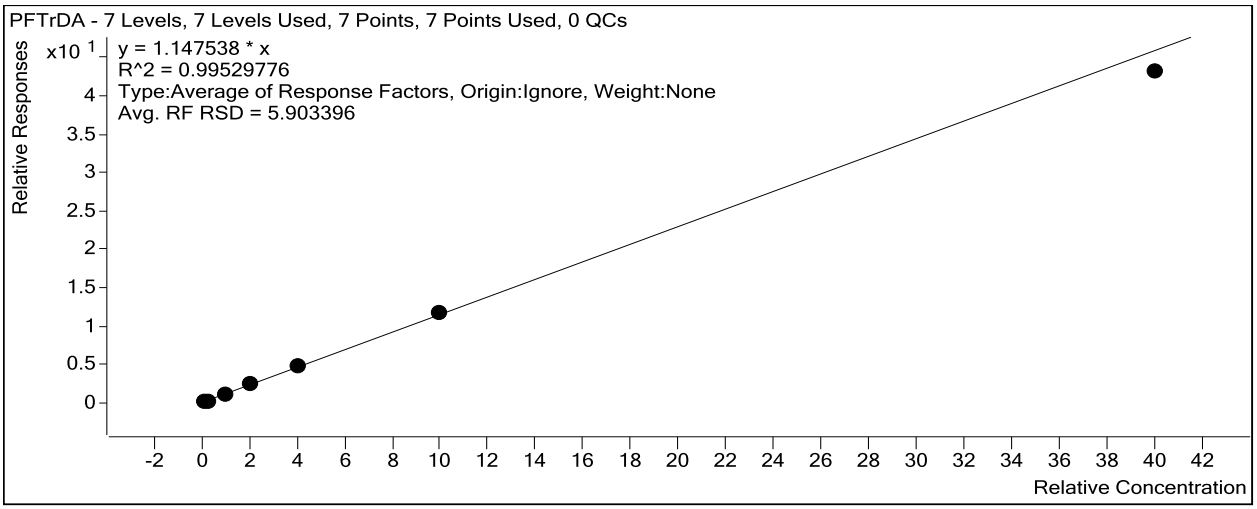
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	1751	0.4840	0.6370
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	4496	1.2100	0.6611
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	18528	4.8400	0.6721
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	38246	9.6800	0.7248
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	76160	19.3600	0.7061
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	181937	48.4000	0.6934
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	625677	193.6000	0.6395



Target Compound *PFTrDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	23438	0.5000	1.0524
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	60199	1.2500	1.1044
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	263297	5.0000	1.1804
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	532149	10.0000	1.2356
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	1054029	20.0000	1.1995

D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	2560021	50.0000	1.1778
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	9360459	200.0000	1.0828

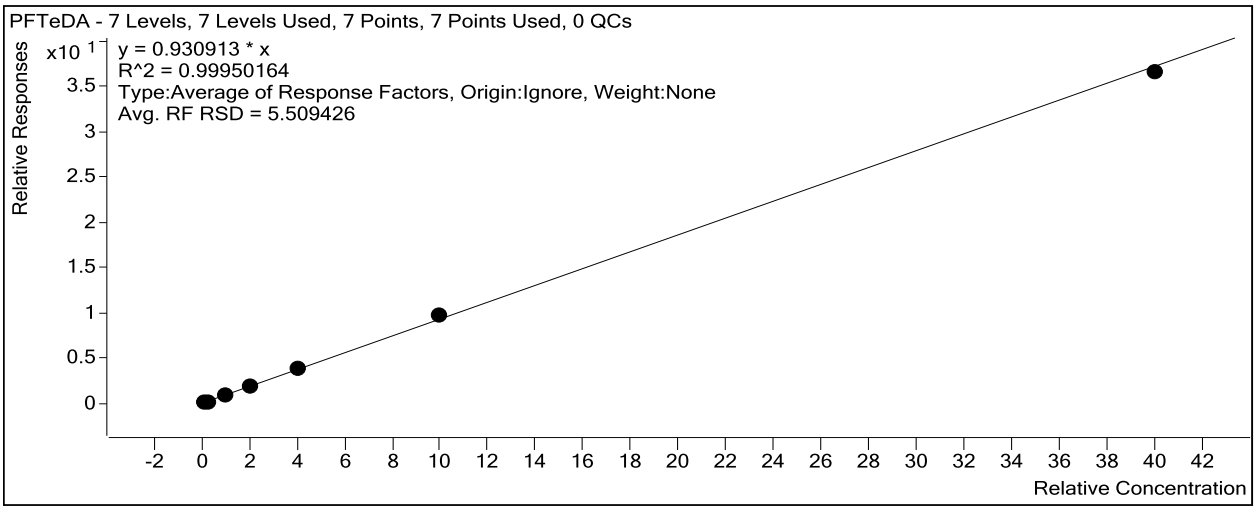


Extracted ISTD *d-NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	14807	5.0000	2961.3335
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	13589	5.0000	2717.8783
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	15076	5.0000	3015.1318
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	14439	5.0000	2887.7250
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	14482	5.0000	2896.4296
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	14970	5.0000	2994.0458
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	16046	5.0000	3209.1746

Target Compound *NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	1532	0.5000	1.0350
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	3398	1.2500	1.0001
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	15634	5.0000	1.0371
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	32370	10.0000	1.1209
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	65105	20.0000	1.1239
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	159036	50.0000	1.0623
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	581218	200.0000	0.9056



Extracted ISTD *d9-NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	16597	5.0000	3319.3578
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	16426	5.0000	3285.2878
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	16217	5.0000	3243.3208
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	16146	5.0000	3229.2479
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	16211	5.0000	3242.1351
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	15607	5.0000	3121.4568
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	15678	5.0000	3135.6973

Extracted ISTD *d-NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	16054	5.0000	3210.7893
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	15822	5.0000	3164.4991
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	15563	5.0000	3112.5980
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	15256	5.0000	3051.1849
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	15387	5.0000	3077.3051
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	15672	5.0000	3134.3961
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	14968	5.0000	2993.6460

Target Compound *NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
D:\MassHunter\Data\2220515BCAL\2220515B_2.d	Calibration	1	☑	1807	0.5000	1.1255
D:\MassHunter\Data\2220515BCAL\2220515B_3.d	Calibration	2	☑	4277	1.2500	1.0813
D:\MassHunter\Data\2220515BCAL\2220515B_4.d	Calibration	3	☑	18090	5.0000	1.1624
D:\MassHunter\Data\2220515BCAL\2220515B_5.d	Calibration	4	☑	37607	10.0000	1.2325
D:\MassHunter\Data\2220515BCAL\2220515B_6.d	Calibration	5	☑	73772	20.0000	1.1986
D:\MassHunter\Data\2220515BCAL\2220515B_7.d	Calibration	6	☑	184565	50.0000	1.1777
D:\MassHunter\Data\2220515BCAL\2220515B_8.d	Calibration	7	☑	692702	200.0000	1.1570

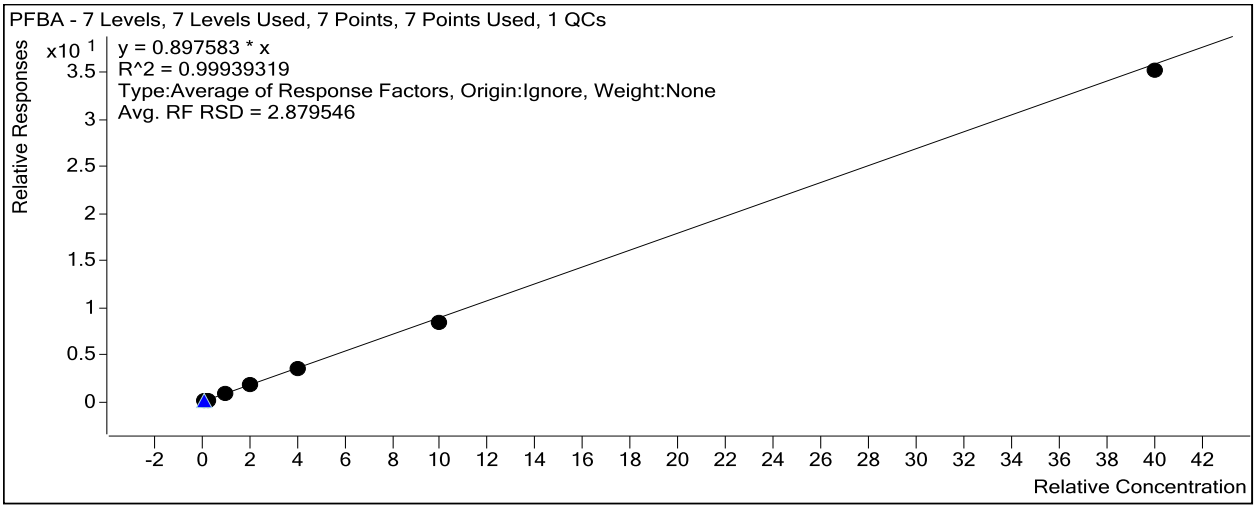
Quantitative Analysis Calibration Report

Batch Data Path	I:\MassHunter\Data\2220501ACAL\QuantResults\2220505A.batch.bin		
Analysis Time	5/24/2022 8:36 AM	**Analyst Name**	GCAL\lcms
Report Time	5/26/2022 3:57 PM	**Reporter Name**	GCAL\lcms
Last Calib Update	5/1/2022 2:38 PM	**Batch State**	Processed

Calibration Info

Target Compound *PFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	3181	0.5000	0.9285
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	7996	1.2500	0.9057
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	33284	5.0000	0.9137
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	62543	10.0000	0.9098
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	134435	20.0000	0.8935
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	342885	50.0000	0.8492
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1319149	200.0000	0.8827

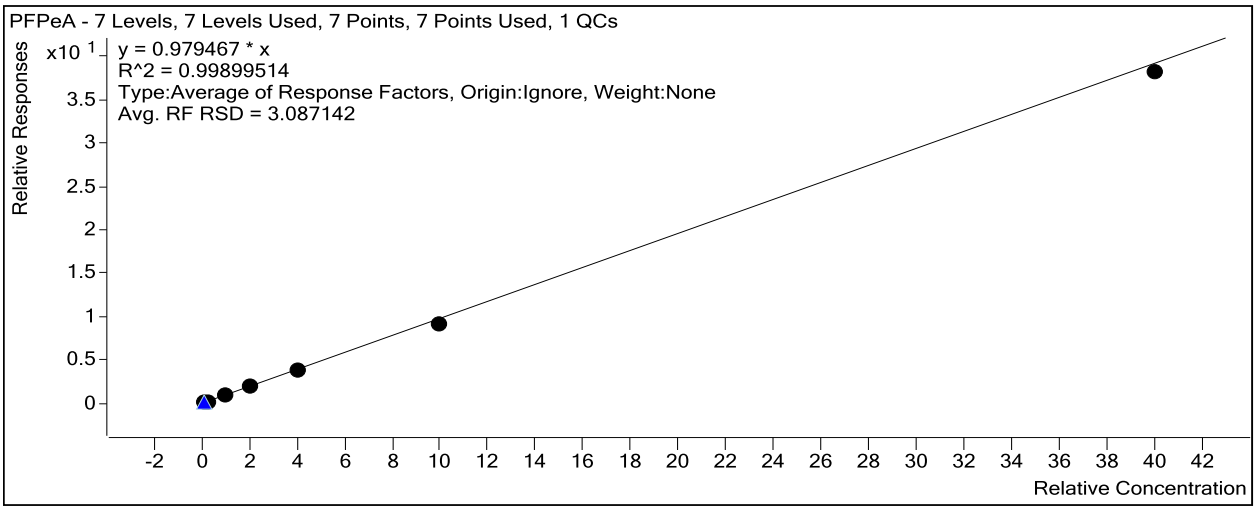


Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	34256	5.0000	6851.1691
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	35316	5.0000	7063.1247
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	36426	5.0000	7285.2596
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	34373	5.0000	6874.5289
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	37616	5.0000	7523.1874
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	40376	5.0000	8075.2151
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	37362	5.0000	7472.3694

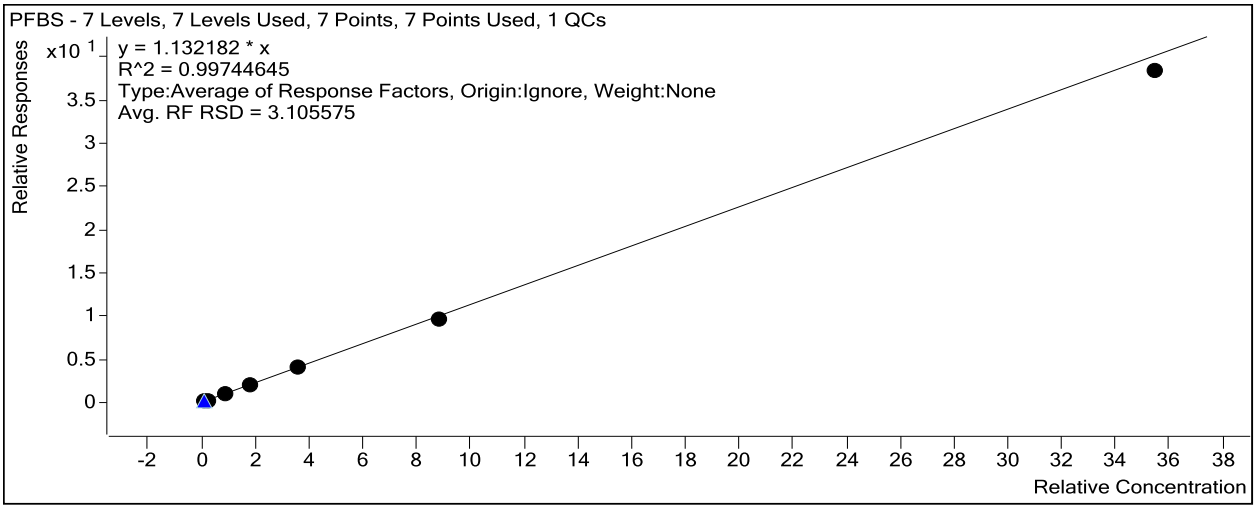
Target Compound *PFMPA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	658	0.5000	0.1303
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	1672	1.2500	0.1269
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	7035	5.0000	0.1298
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	12616	10.0000	0.1266



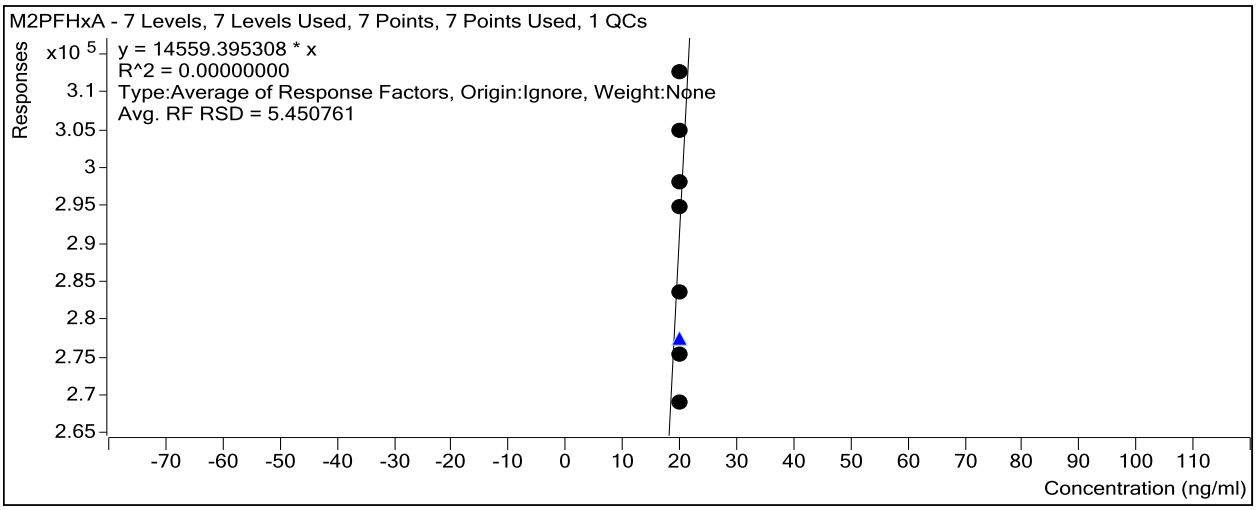
Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1903	0.4435	1.1426
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4867	1.1088	1.1546
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	20261	4.4350	1.1386
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	37460	8.8700	1.1715
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	79795	17.7400	1.1518
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	196933	44.3500	1.0805
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	713983	177.4000	1.0856



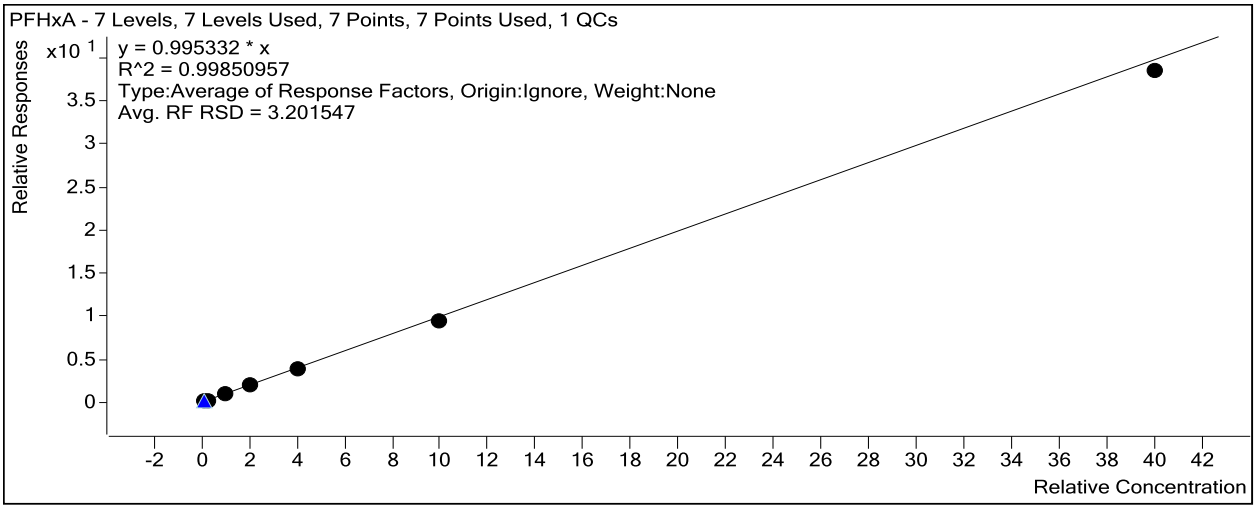
Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	18774	5.0000	3754.7391
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	19007	5.0000	3801.3596
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	20061	5.0000	4012.2069
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	18025	5.0000	3605.0513
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	19527	5.0000	3905.3557



Target Compound *PFHxA*

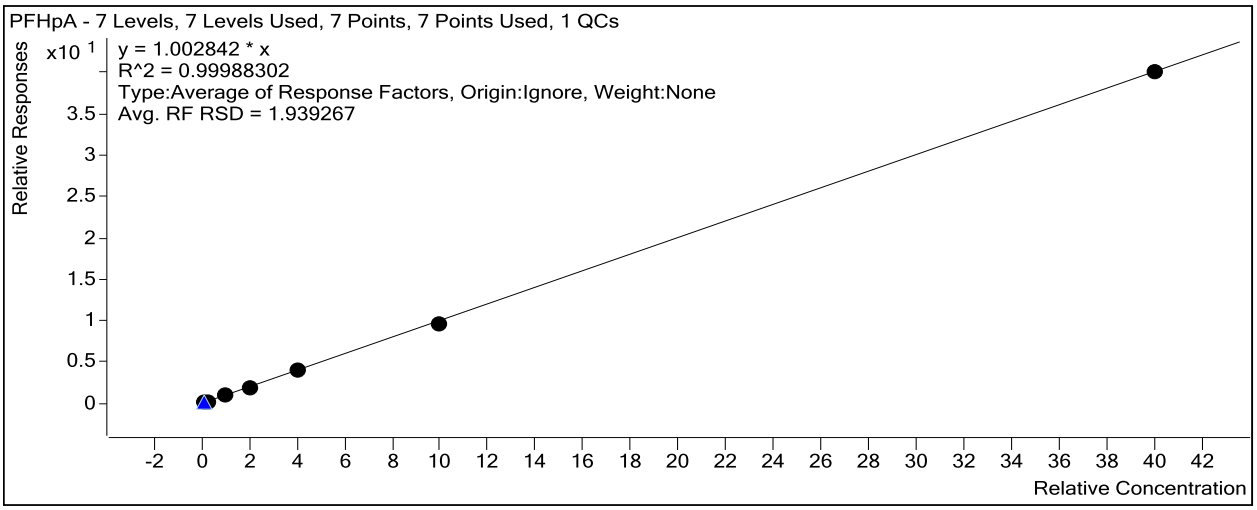
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	7067	0.5000	1.0335
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	17052	1.2500	1.0141
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	71661	5.0000	1.0126
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	131712	10.0000	1.0071
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	277149	20.0000	0.9937
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	696475	50.0000	0.9410
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	2611459	200.0000	0.9654



Target Compound *PFPeS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1645	0.4705	0.9313
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4284	1.1763	0.9580
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	17651	4.7050	0.9350
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	32247	9.4100	0.9506
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	68974	18.8200	0.9384

Quantitative Analysis Calibration Report

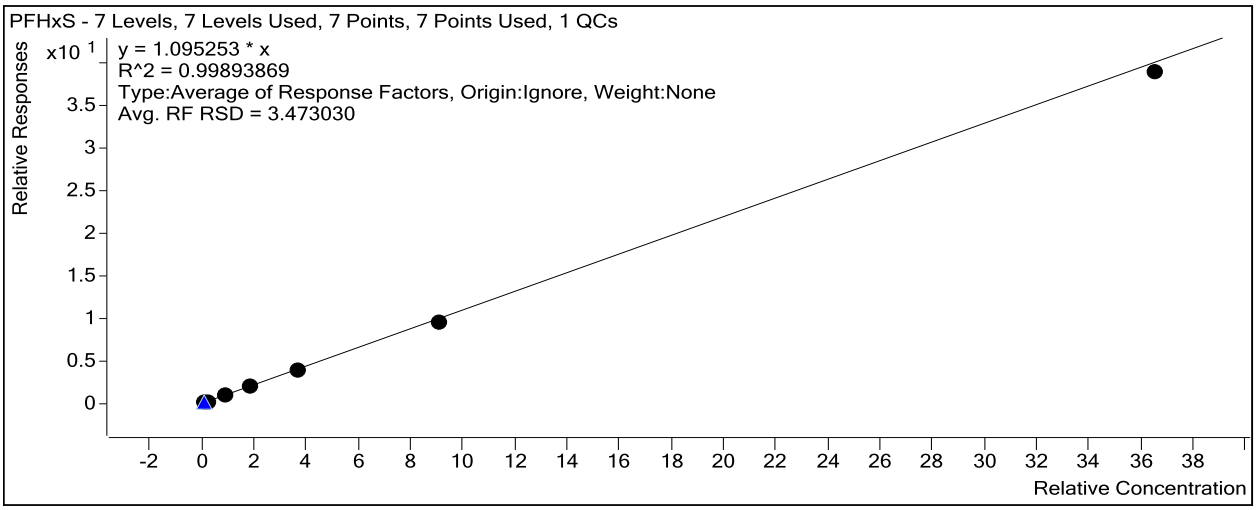


Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	14389	5.0000	2877.8498
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	14564	5.0000	2912.8314
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	15130	5.0000	3026.0145
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	14270	5.0000	2854.0485
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	15143	5.0000	3028.5993
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	15818	5.0000	3163.5444
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	14622	5.0000	2924.3585

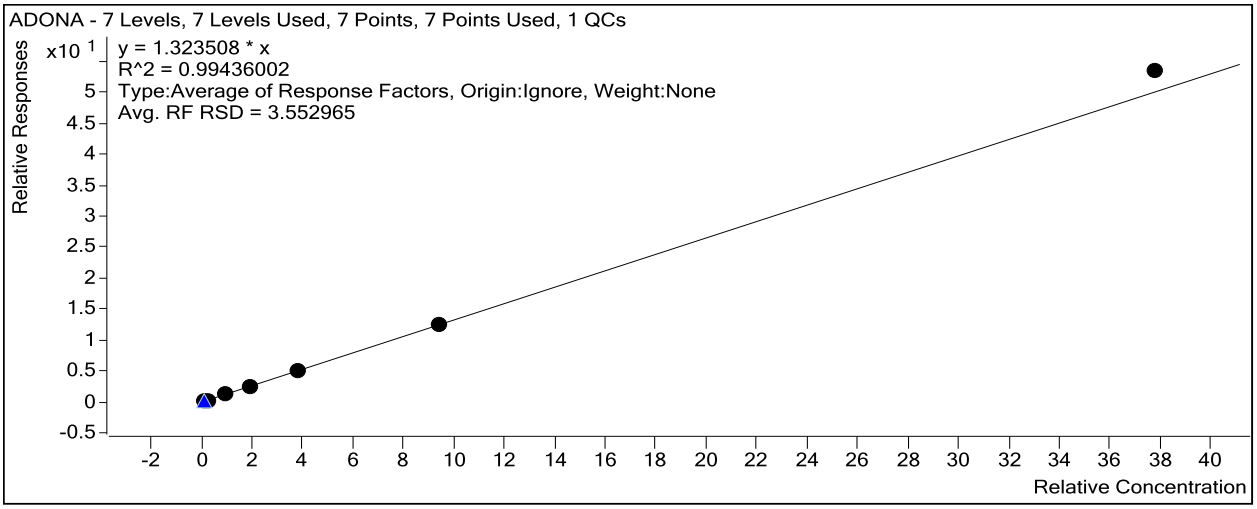
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1506	0.4570	1.1450
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	3820	1.1425	1.1478
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	15195	4.5700	1.0988
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	27844	9.1400	1.0674
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	60260	18.2800	1.0885
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	152229	45.7000	1.0529
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	570109	182.8000	1.0665



Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	12072	0.4725	1.2754
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	31008	1.1813	1.3104
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	132770	4.7250	1.3383
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	240246	9.4500	1.2833
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	521775	18.9000	1.3239
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1348063	47.2500	1.3155
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	5259983	189.0000	1.4178



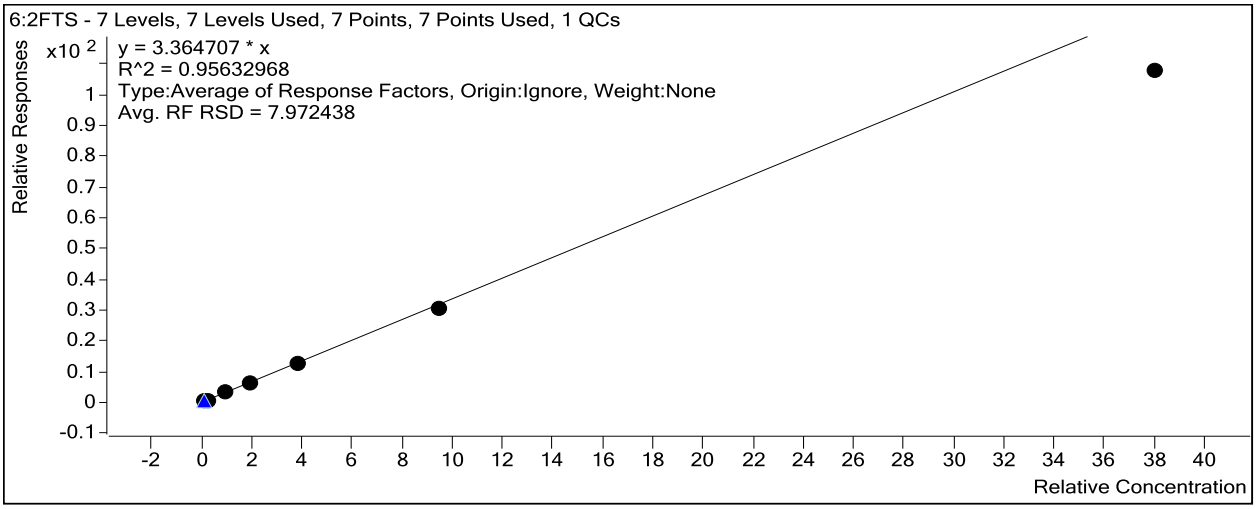
Extracted ISTD *M2 6:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	5223	5.0000	1044.6047
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	5080	5.0000	1016.0400
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	5311	5.0000	1062.2223
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	4599	5.0000	919.7325
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	4901	5.0000	980.2748

Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	4780	5.0000	956.0581
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	4326	5.0000	865.1621

Target Compound *6:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1790	0.4755	3.6035
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	4147	1.1888	3.4334
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	18309	4.7550	3.6250
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	30243	9.5100	3.4576
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	62865	19.0200	3.3717
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	146327	47.5500	3.2188
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	467812	190.2000	2.8429



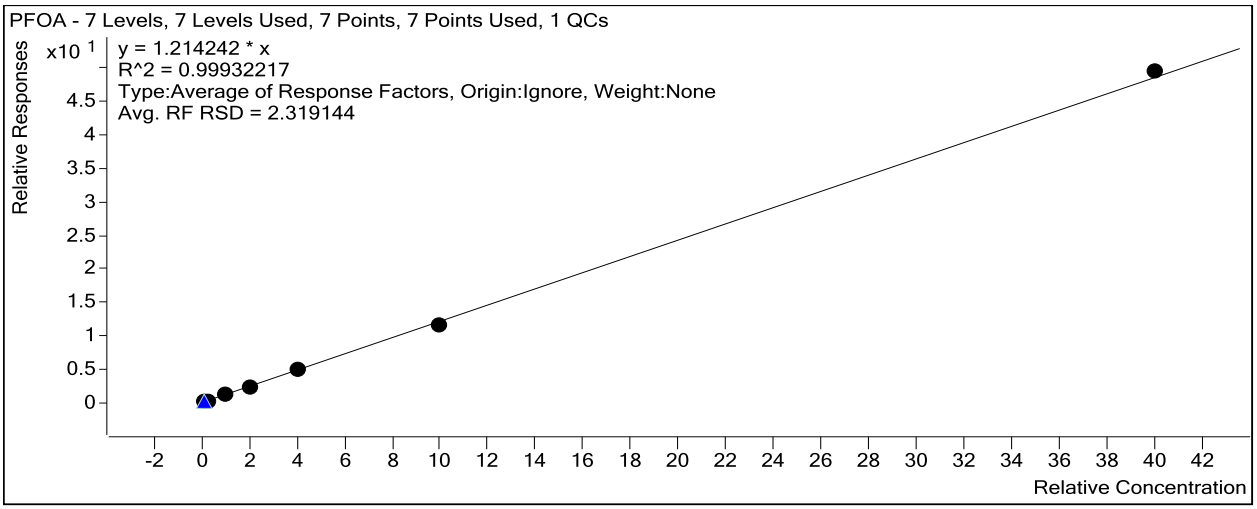
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	100163	5.0000	20032.6120
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	100158	5.0000	20031.5659
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	104986	5.0000	20997.1878
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	99051	5.0000	19810.2162
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	104261	5.0000	20852.1743
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	108440	5.0000	21687.9656
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	98150	5.0000	19630.0190

Instrument ISTD *MPFOA*

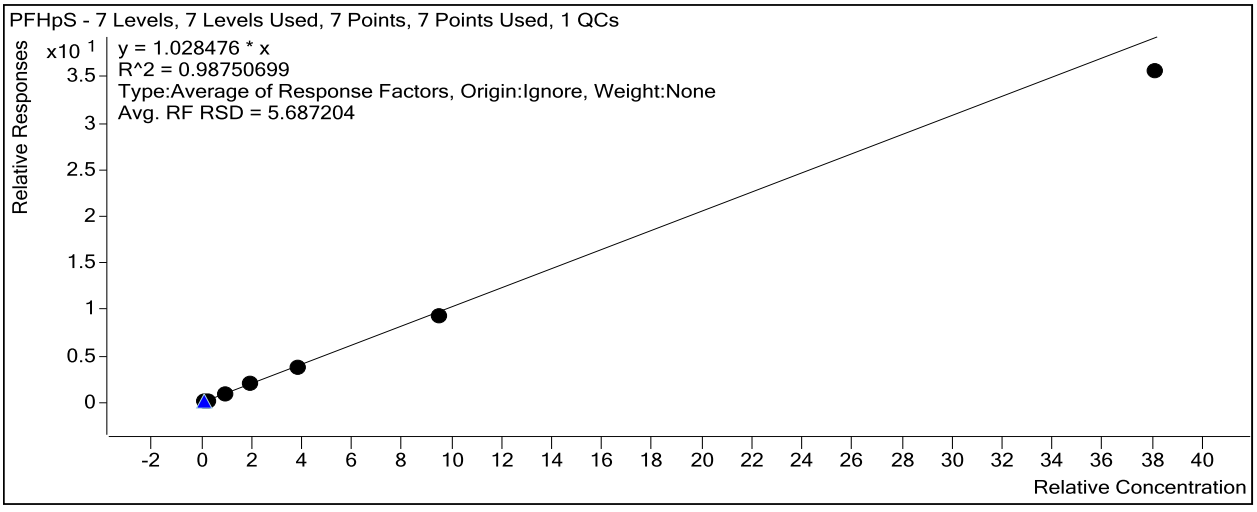
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	605900	25.0000	24236.0175
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	606543	25.0000	24261.7388
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	628742	25.0000	25149.6864
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	631071	25.0000	25242.8304
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	596817	25.0000	23872.6643
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	621152	25.0000	24846.0681
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	565731	25.0000	22629.2233

Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1271416	50.0000	1.1725
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	4871225	200.0000	1.2408



Target Compound *PFHpS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1518	0.4765	1.1072
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	3686	1.1913	1.0623
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	15310	4.7650	1.0618
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	28363	9.5300	1.0428
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	58776	19.0600	1.0182
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	146183	47.6500	0.9698
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	522424	190.6000	0.9373



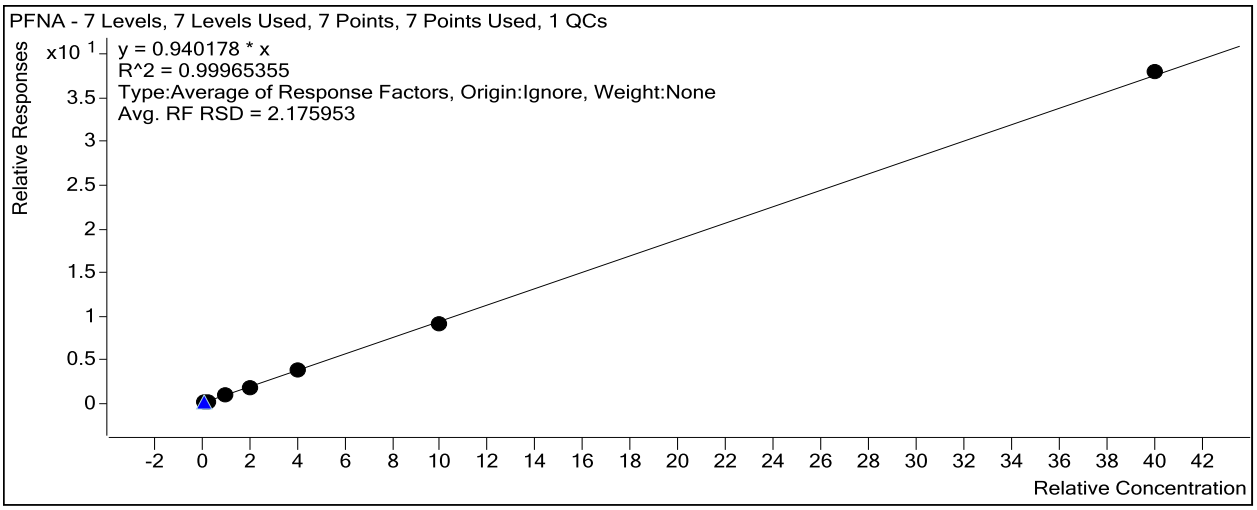
Extracted ISTD *M9PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	129155	5.0000	25830.9354
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	133261	5.0000	26652.1439
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	136525	5.0000	27305.0175

Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	125499	5.0000	25099.8320
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	136845	5.0000	27369.0123
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	141987	5.0000	28397.3435
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	124496	5.0000	24899.2462

Target Compound *PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	12092	0.5000	0.9362
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	31341	1.2500	0.9407
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	132440	5.0000	0.9701
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	236353	10.0000	0.9417
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	513262	20.0000	0.9377
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1281092	50.0000	0.9023
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	4743978	200.0000	0.9526



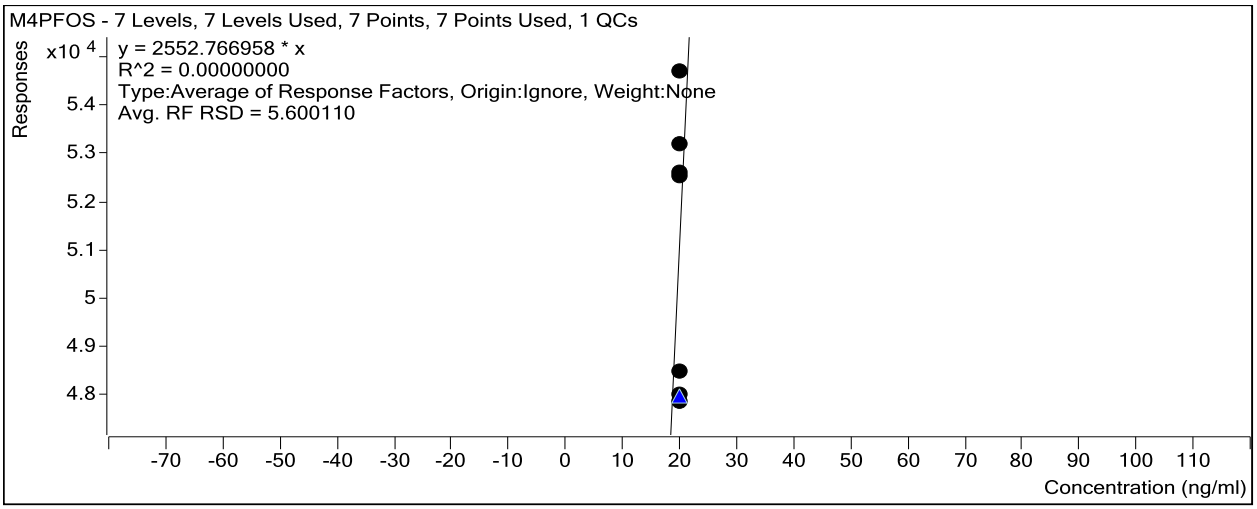
Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	12849	5.0000	2569.7252
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	12993	5.0000	2598.6401
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	13452	5.0000	2690.3632
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	12377	5.0000	2475.4381
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	13462	5.0000	2692.3033
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	13523	5.0000	2704.5589
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	11732	5.0000	2346.4654

Instrument ISTD *M4PFOS*

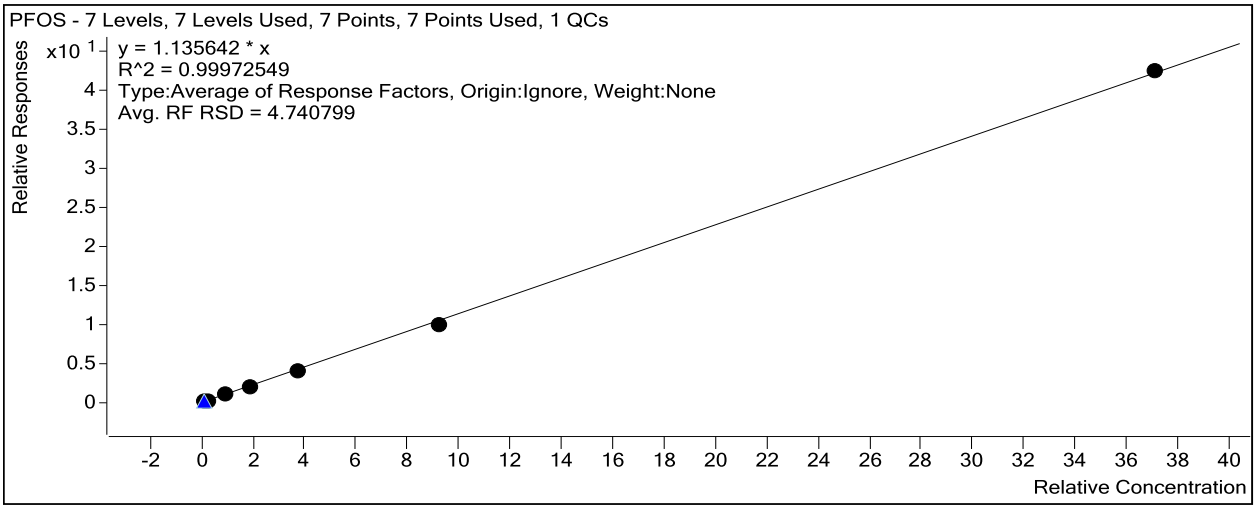
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	48004	20.0000	2400.2179
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	53212	20.0000	2660.6229
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	52603	20.0000	2630.1382
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	48471	20.0000	2423.5394
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	54727	20.0000	2736.3472

Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	52532	20.0000	2626.6025
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	47838	20.0000	2391.9007



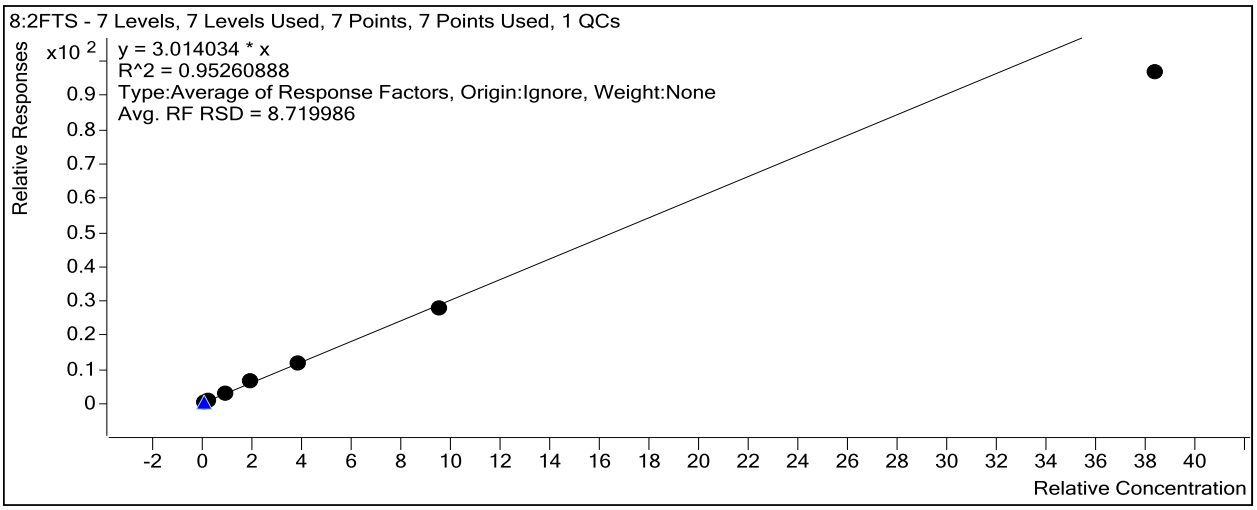
Target Compound *PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1479	0.4640	1.2408
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	3503	1.1600	1.1622
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	13919	4.6400	1.1150
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	25399	9.2800	1.1056
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	54873	18.5600	1.0981
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	135861	46.4000	1.0826
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	498692	185.6000	1.1451



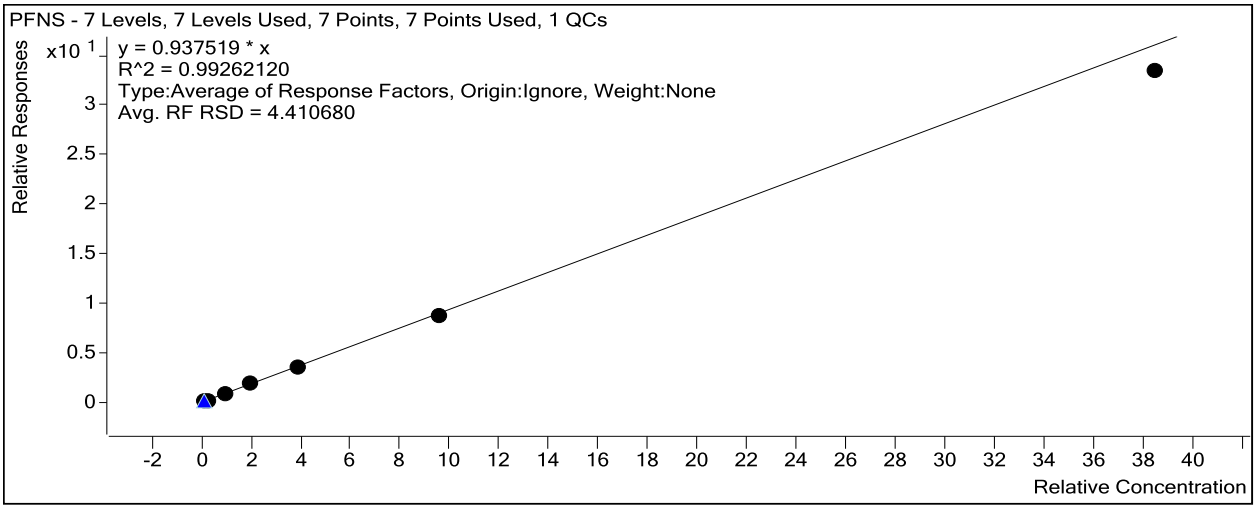
Target Compound *9Cl-PF3ONS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	8924	0.4665	7.4439
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	22830	1.1663	7.5326
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	97511	4.6650	7.7694



Target Compound *PFNS*

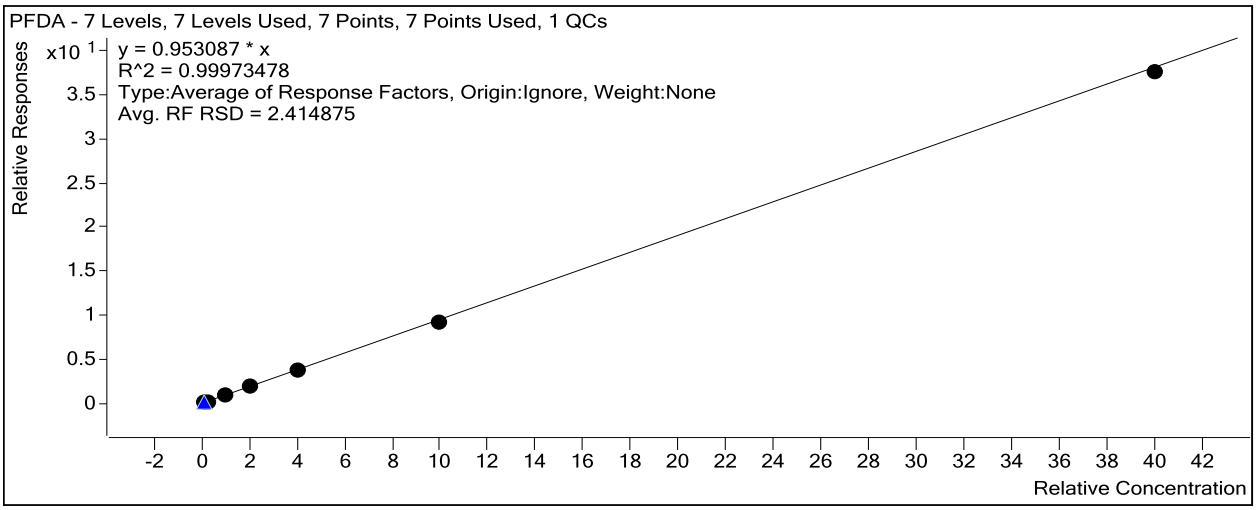
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1213	0.4810	0.9815
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	2912	1.2025	0.9319
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	12361	4.8100	0.9552
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	23546	9.6200	0.9887
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	47981	19.2400	0.9263
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	117997	48.1000	0.9070
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	393644	192.4000	0.8719



Extracted ISTD *M6PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	119053	5.0000	23810.5427
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	128121	5.0000	25624.2411
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	129342	5.0000	25868.4632
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	115269	5.0000	23053.7232
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	128483	5.0000	25696.5571

Quantitative Analysis Calibration Report



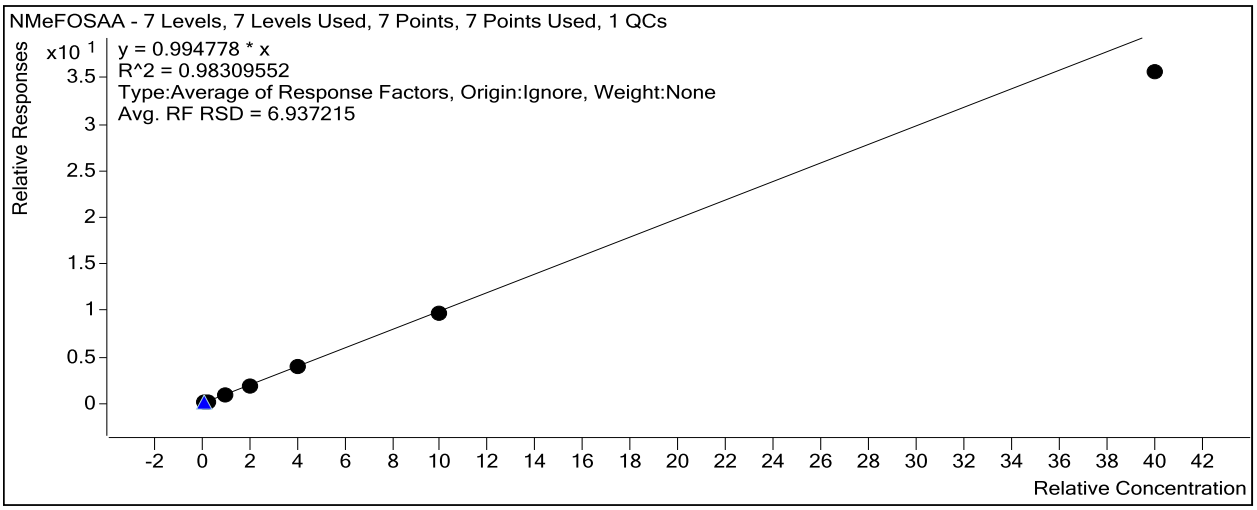
Extracted ISTD *d3-NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	11114	5.0000	2222.7263
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	10931	5.0000	2186.1080
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	11927	5.0000	2385.3890
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	11200	5.0000	2239.9620
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	11676	5.0000	2335.1069
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	12064	5.0000	2412.7725
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	12342	5.0000	2468.4861

Target Compound *NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1245	0.5000	1.1200
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	2754	1.2500	1.0076
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	11857	5.0000	0.9941
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	21416	10.0000	0.9561
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	47454	20.0000	1.0161
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	117866	50.0000	0.9770
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	440623	200.0000	0.8925

Quantitative Analysis Calibration Report



Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	33788	5.0000	6757.6375
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	35003	5.0000	7000.5924
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	35867	5.0000	7173.4083
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	31270	5.0000	6253.9294
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	35590	5.0000	7117.9117
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	37783	5.0000	7556.5054
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	34136	5.0000	6827.1033

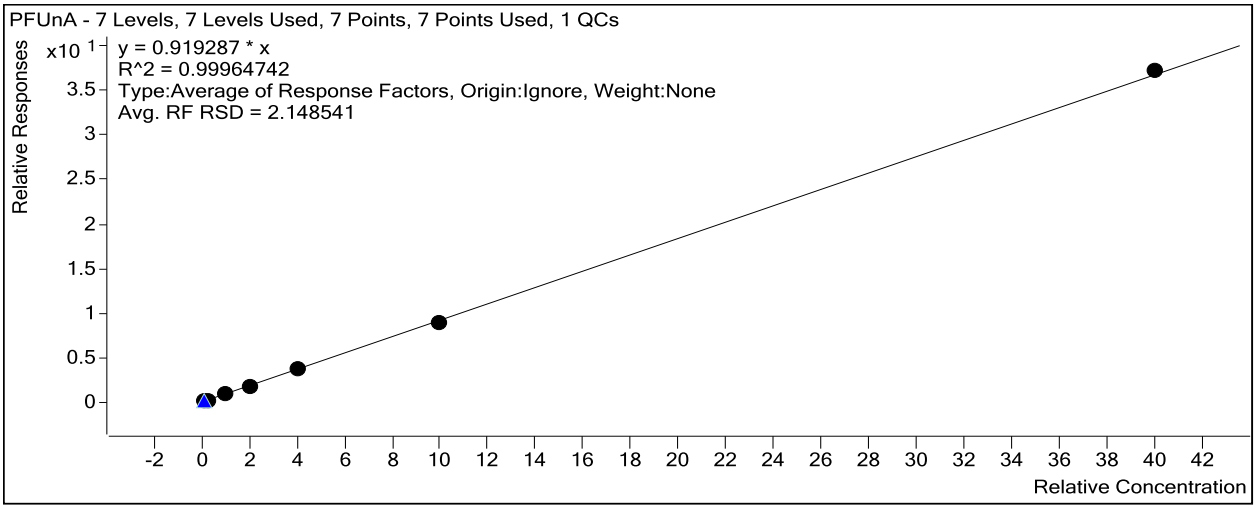
Target Compound *PFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	3527	0.5000	1.0437
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	8699	1.2500	0.9941
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	36598	5.0000	1.0204
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	65367	10.0000	1.0452
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	142214	20.0000	0.9990
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	359979	50.0000	0.9528
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	1357723	200.0000	0.9944

Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	24030	5.0000	4805.9889
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	18875	5.0000	3775.0730

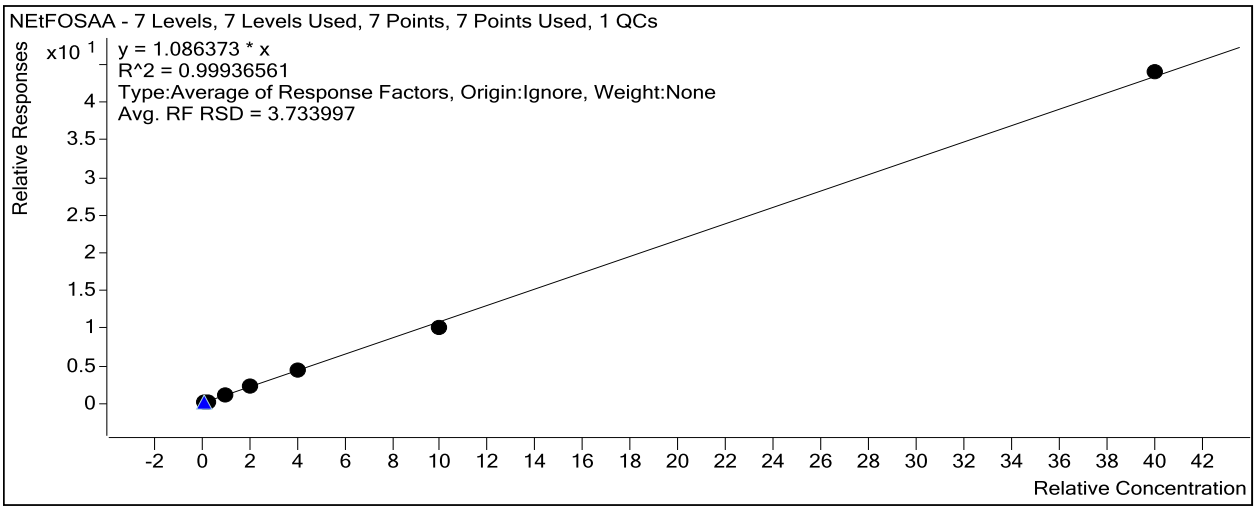
Target Compound *PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	11032	0.5000	0.9147
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	28567	1.2500	0.9302
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	121239	5.0000	0.9460
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	211865	10.0000	0.8951
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	464825	20.0000	0.9230
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1112941	50.0000	0.8929
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	3944501	200.0000	0.9332



Target Compound *NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	2657	0.5000	1.1215
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	6294	1.2500	1.0756
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	25826	5.0000	1.0464
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	48104	10.0000	1.1087
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	103262	20.0000	1.1282
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	245176	50.0000	1.0203
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	833540	200.0000	1.1040

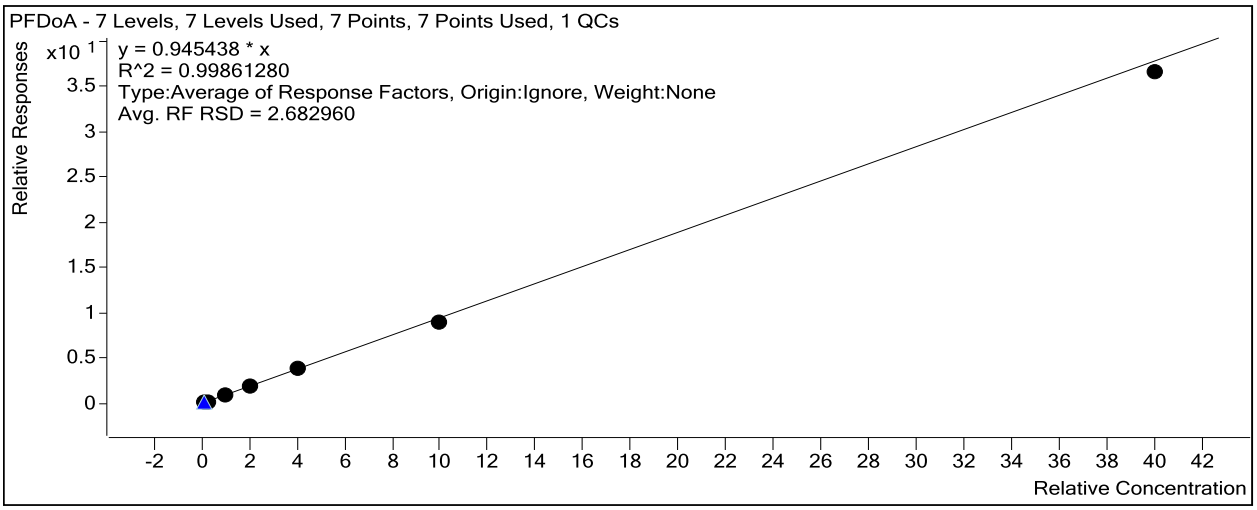


Extracted ISTD *M7PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	120611	5.0000	24122.2622
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	122848	5.0000	24569.6272
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	128165	5.0000	25632.9193
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	118347	5.0000	23669.4535
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	125901	5.0000	25180.2809
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	124643	5.0000	24928.5712
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	105667	5.0000	21133.4909

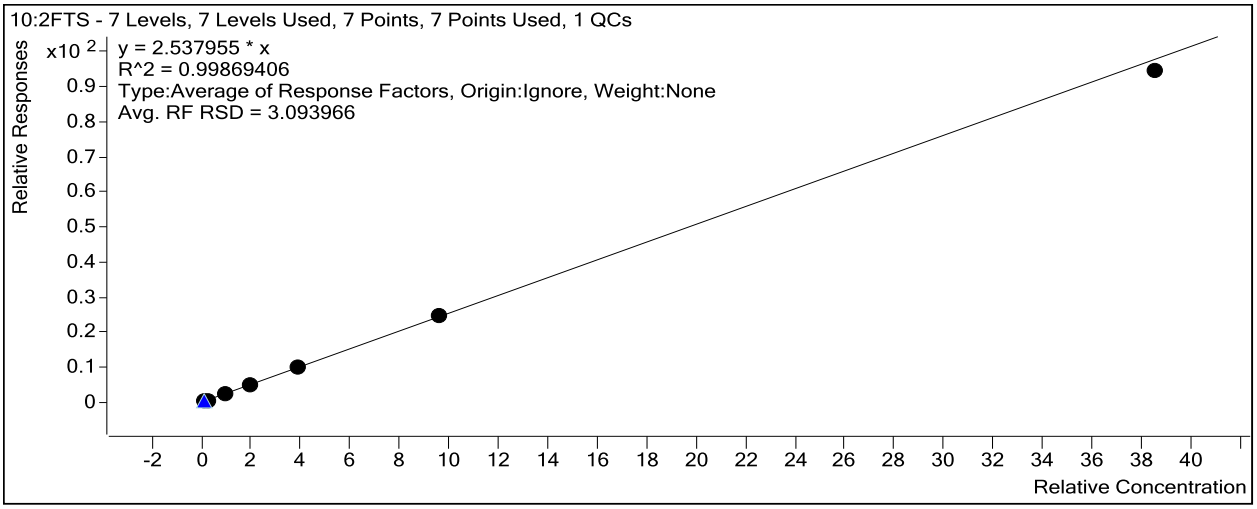
Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	7376	0.4715	6.0881
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	19420	1.1788	6.3396
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	79683	4.7150	6.2817
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	146005	9.4300	6.2546
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	307762	18.8600	6.0611
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	782259	47.1500	6.1344
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	2941984	188.6000	6.6479



Target Compound *10:2FTS*

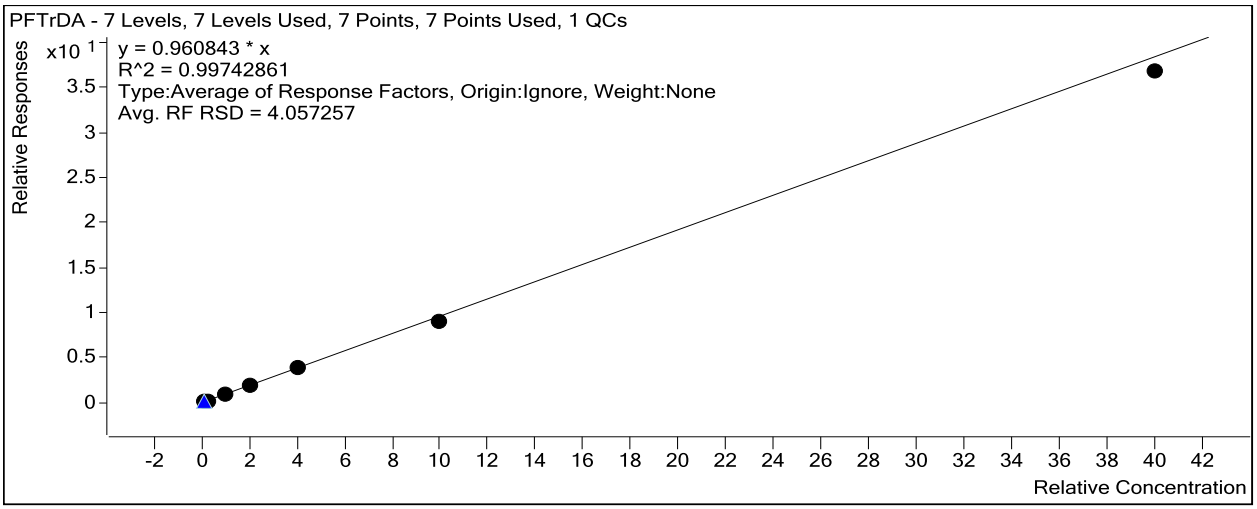
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1161	0.4820	2.6349
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	2554	1.2050	2.4650
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	10928	4.8200	2.4613
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	18932	9.6400	2.6362
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	41130	19.2800	2.5606
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	96443	48.2000	2.5482
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	302491	192.8000	2.4597



Extracted ISTD *d-NMeFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	6519	5.0000	1303.7187
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	6790	5.0000	1357.9479
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	6674	5.0000	1334.8931
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	6111	5.0000	1222.1134
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	7036	5.0000	1407.2373

Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1239587	50.0000	0.8968
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	4651032	200.0000	0.9228



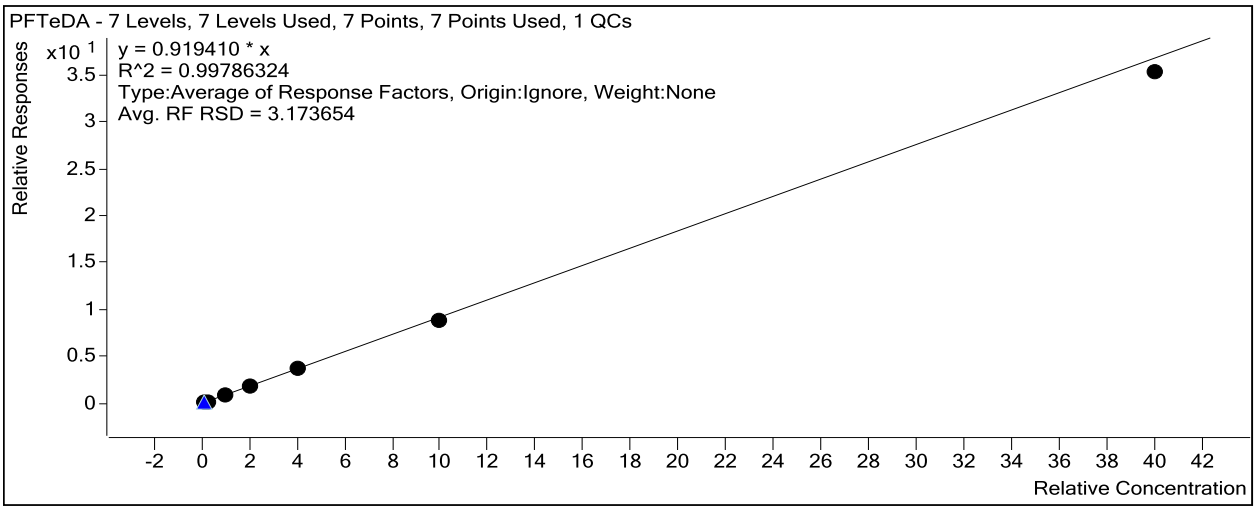
Extracted ISTD *d9-NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	9815	5.0000	1962.9610
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	9498	5.0000	1899.5678
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	9854	5.0000	1970.8447
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	9347	5.0000	1869.3424
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	9983	5.0000	1996.5445
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	10084	5.0000	2016.7286
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	9795	5.0000	1958.9794

Target Compound *NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	1050	0.5000	1.0703
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	3037	1.2500	1.2790
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	10887	5.0000	1.1048
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	20292	10.0000	1.0855
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	44933	20.0000	1.1253
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	110548	50.0000	1.0963
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	408162	200.0000	1.0418

Quantitative Analysis Calibration Report



Extracted ISTD *M2PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	14557	5.0000	2911.3327
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	14133	5.0000	2826.5934
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	14730	5.0000	2946.0905
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	14084	5.0000	2816.7179
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	14508	5.0000	2901.6036
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	15053	5.0000	3010.6903
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	14535	5.0000	2907.0263

Target Compound *PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
Z:\MassHunter\Data\2220501ACAL\2220501A_2.d	Calibration	1	☑	16965	0.5000	11.6545
Z:\MassHunter\Data\2220501ACAL\2220501A_3.d	Calibration	2	☑	40972	1.2500	11.5963
Z:\MassHunter\Data\2220501ACAL\2220501A_4.d	Calibration	3	☑	171592	5.0000	11.6488
Z:\MassHunter\Data\2220501ACAL\2220501A_5.d	Calibration	4	☑	303794	10.0000	10.7854
Z:\MassHunter\Data\2220501ACAL\2220501A_6.d	Calibration	5	☑	647179	20.0000	11.1521
Z:\MassHunter\Data\2220501ACAL\2220501A_7.d	Calibration	6	☑	1623895	50.0000	10.7875
Z:\MassHunter\Data\2220501ACAL\2220501A_8.d	Calibration	7	☑	6292955	200.0000	10.8237

Quantitative Analysis Calibration Report

Batch Data Path	D:\MassHunter\Data\QQQ5\2220506BCAL\QuantResults\2220506B.batch.bin		
Analysis Time	5/9/2022 1:44 PM	**Analyst Name**	GCAL\lcms
Report Time	5/9/2022 3:12 PM	**Reporter Name**	GCAL\lcms
Last Calib Update	5/8/2022 9:52 AM	**Batch State**	Processed

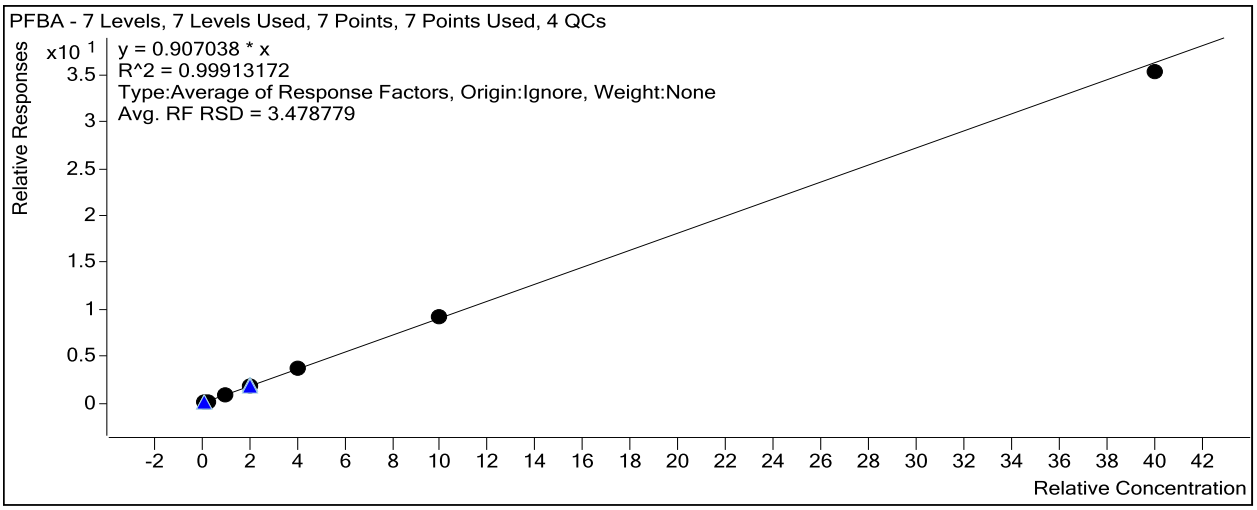
Calibration Info

Extracted ISTD *MPFBA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	48498	5.0000	9699.5087
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	49436	5.0000	9887.1005
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	51058	5.0000	10211.5437
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	49174	5.0000	9834.7534
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	48142	5.0000	9628.4626
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	50087	5.0000	10017.4420
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	48144	5.0000	9628.8700

Target Compound *PFBA*

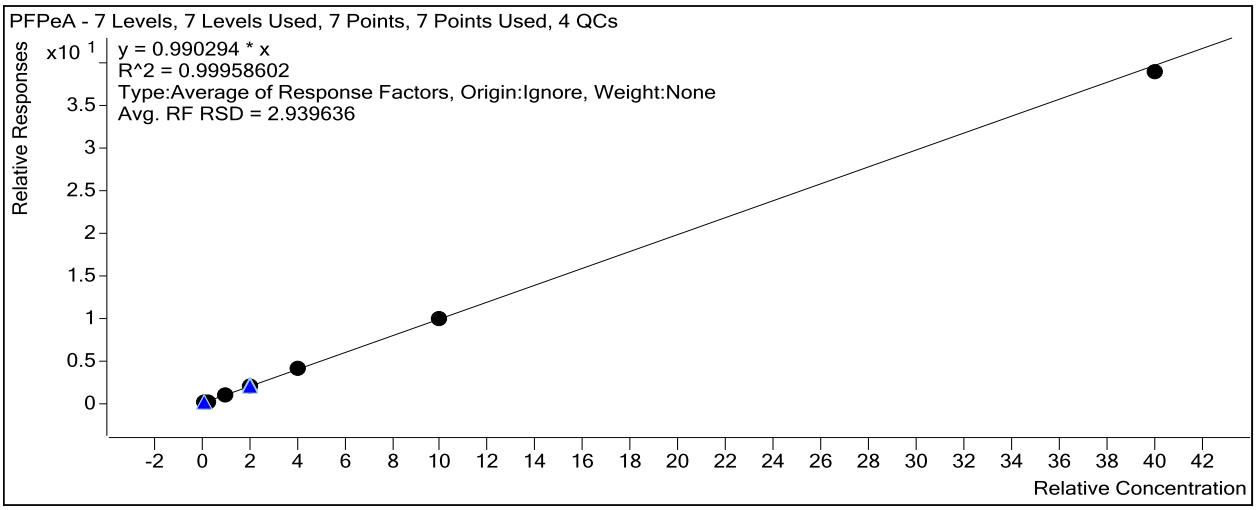
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	4510	0.5000	0.9300
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	10879	1.2500	0.8802
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	43945	5.0000	0.8607
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	91970	10.0000	0.9351
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	181274	20.0000	0.9413
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	459494	50.0000	0.9174
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	1703319	200.0000	0.8845



Target Compound *PFMPA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	896	0.5000	0.1283
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	2183	1.2500	0.1221
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	8636	5.0000	0.1182
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	17757	10.0000	0.1266

Quantitative Analysis Calibration Report

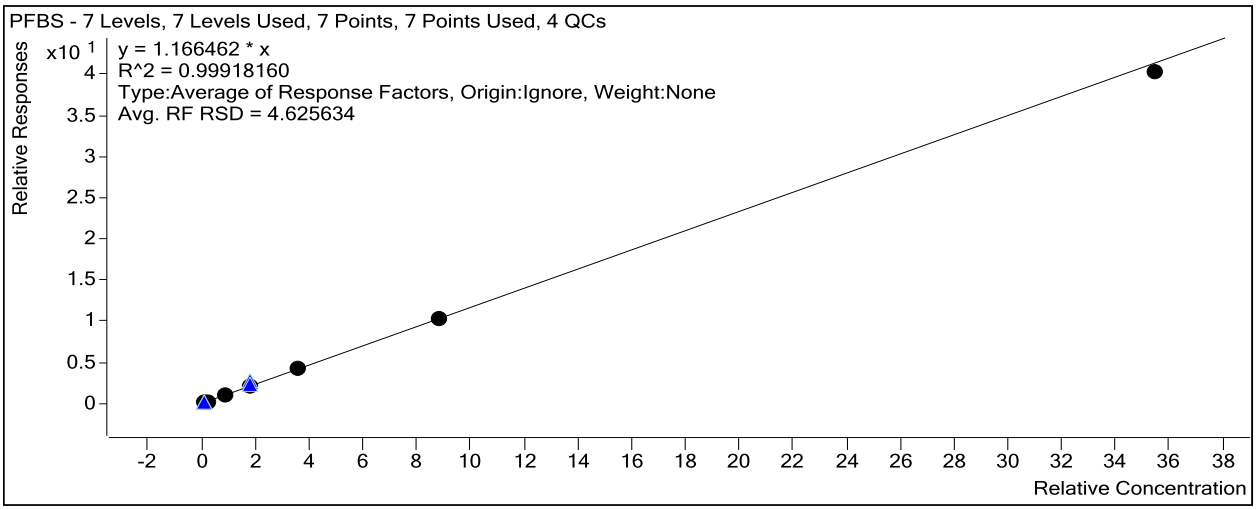


Extracted ISTD *M3PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	23831	5.0000	4766.2230
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	23678	5.0000	4735.6883
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	24269	5.0000	4853.7435
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	23426	5.0000	4685.2584
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	22001	5.0000	4400.1435
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	22766	5.0000	4553.2437
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	20543	5.0000	4108.5370

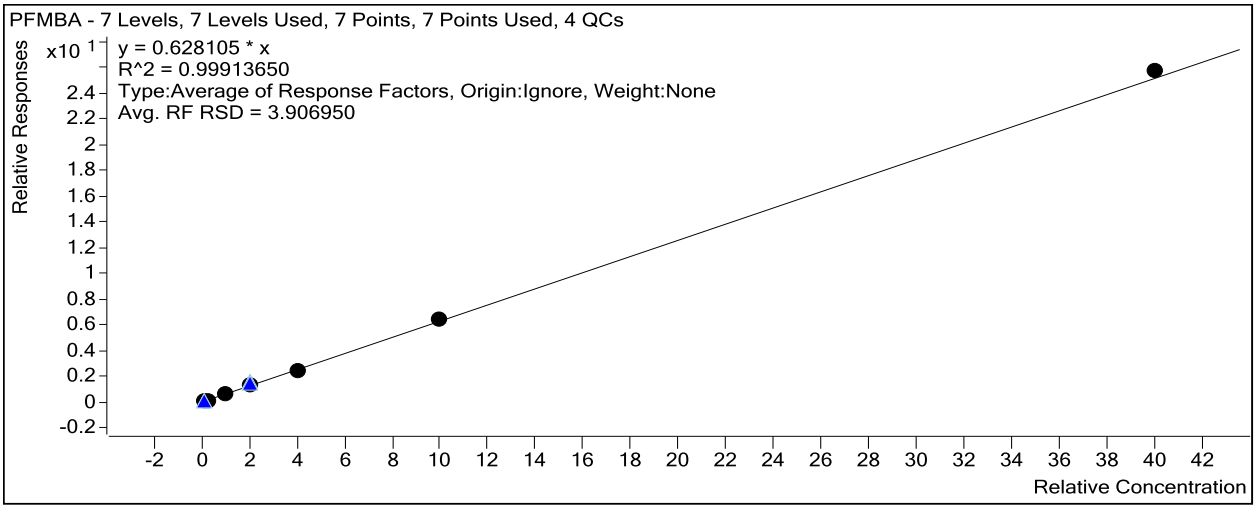
Target Compound *PFBS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	2576	0.4435	1.2185
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	5805	1.1088	1.1055
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	23630	4.4350	1.0977
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	50126	8.8700	1.2062
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	95960	17.7400	1.2293
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	236163	44.3500	1.1695
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	829816	177.4000	1.1385



Target Compound *PFMBA*

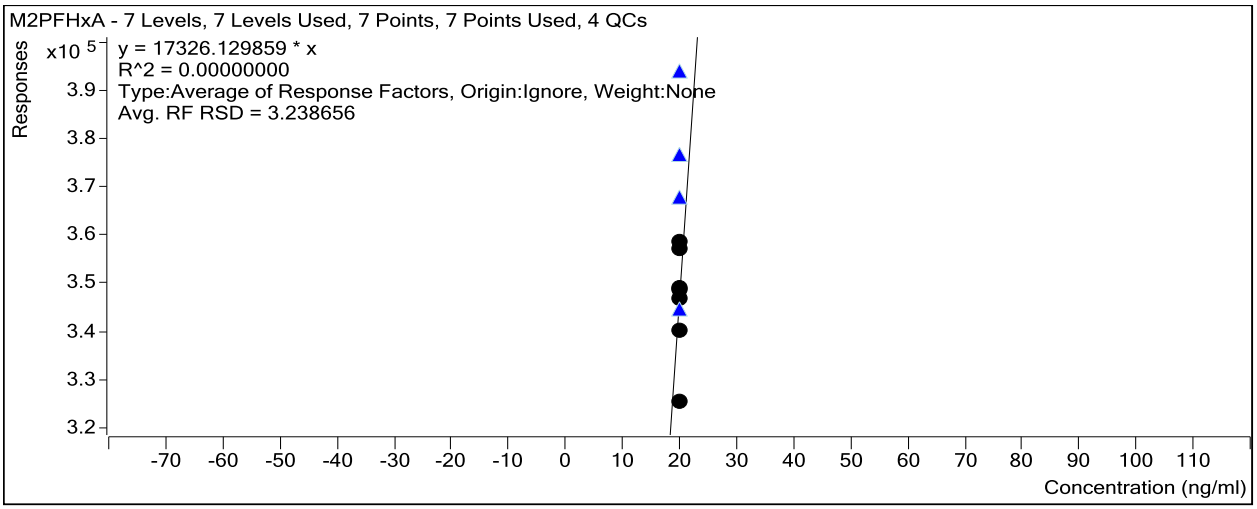
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	5531	0.5000	0.6411
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	13053	1.2500	0.5927
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	54660	5.0000	0.5976
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	114389	10.0000	0.6566
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	212450	20.0000	0.6238
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	552765	50.0000	0.6405
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	2064143	200.0000	0.6445



Target Compound *PFEESA*

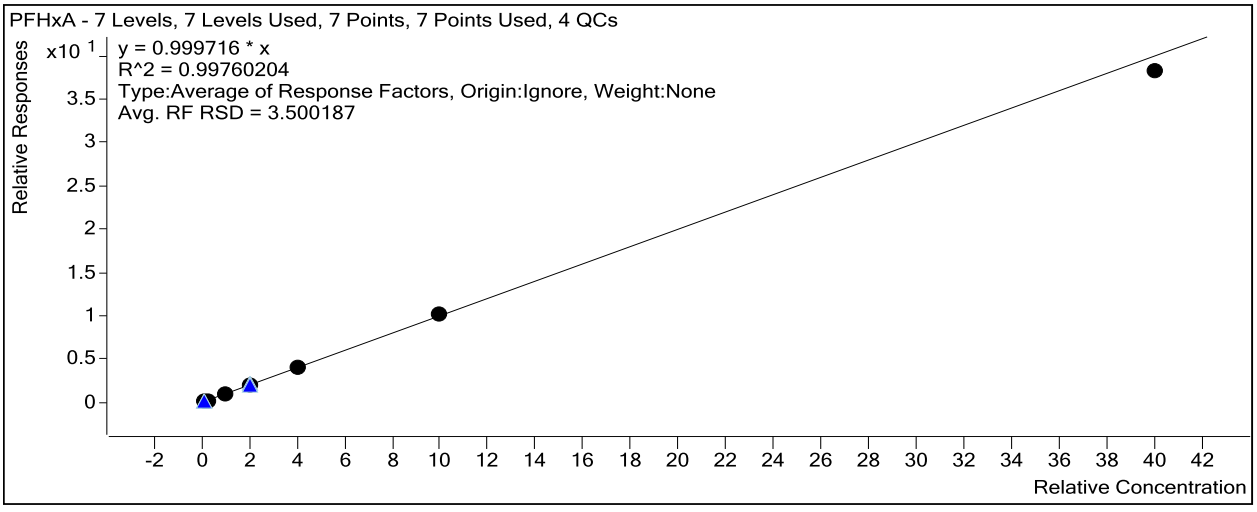
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	6023	0.4450	3.8629
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	14929	1.1125	3.7021
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	59880	4.4500	3.6768
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	125319	8.9000	3.8933
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	239414	17.8000	3.9164

J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	349118	20.0000	17455.9154
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	325321	20.0000	16266.0511



Target Compound *PFHxA*

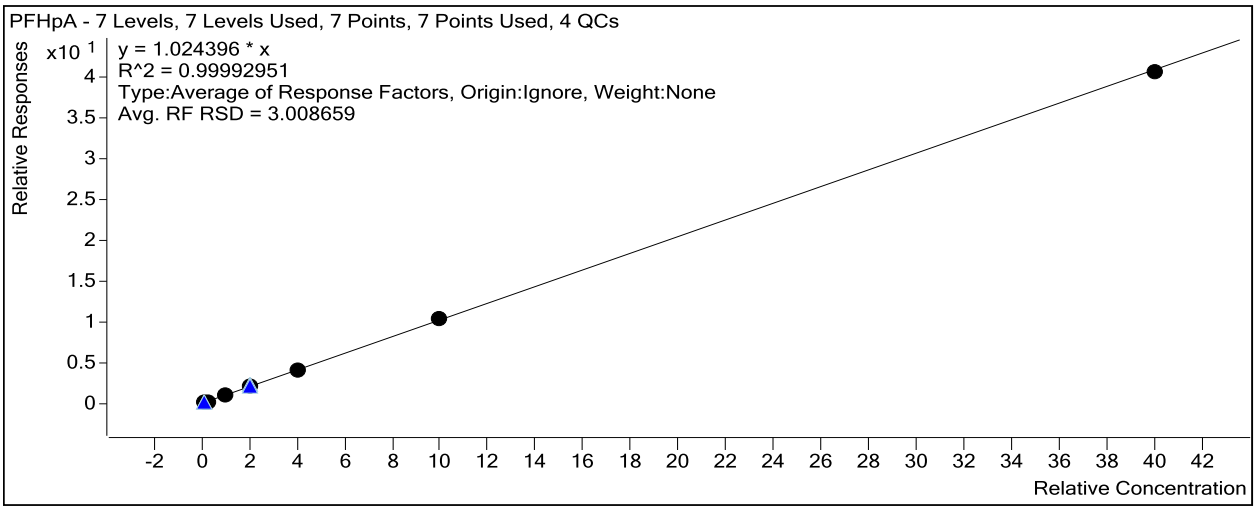
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	8729	0.5000	1.0119
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	21431	1.2500	0.9731
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	87940	5.0000	0.9614
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	182153	10.0000	1.0456
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	350857	20.0000	1.0301
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	877862	50.0000	1.0172
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	3070363	200.0000	0.9587



Target Compound *PFPeS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1974	0.4705	0.8805
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	4874	1.1763	0.8749
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	20021	4.7050	0.8767

Quantitative Analysis Calibration Report

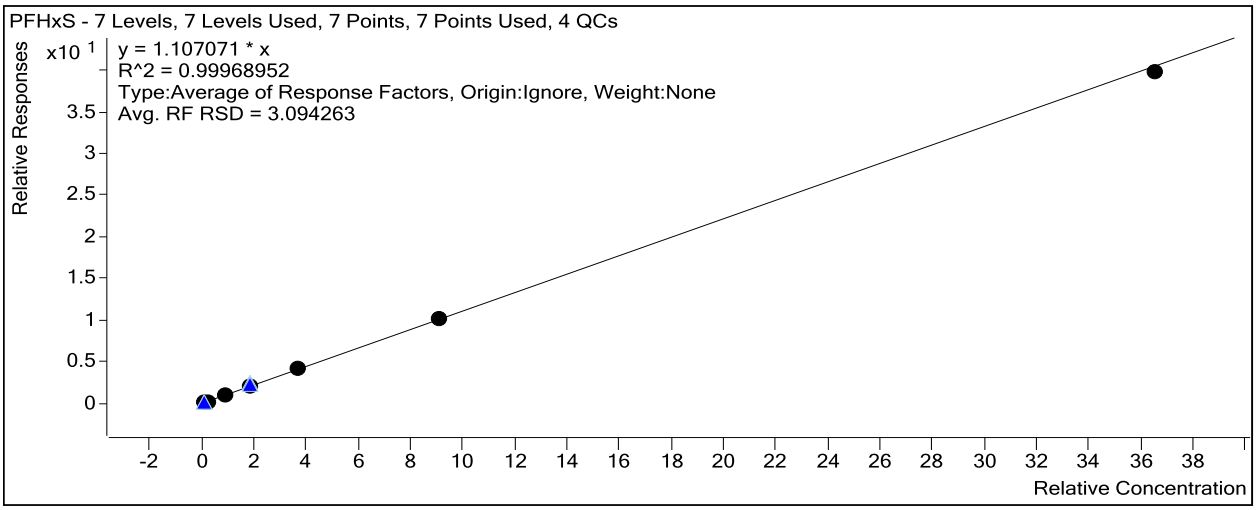


Extracted ISTD *M3PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	17518	5.0000	3503.5564
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	18124	5.0000	3624.7268
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	18299	5.0000	3659.7750
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	18083	5.0000	3616.6897
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	17171	5.0000	3434.2942
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	17937	5.0000	3587.4248
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	16351	5.0000	3270.2564

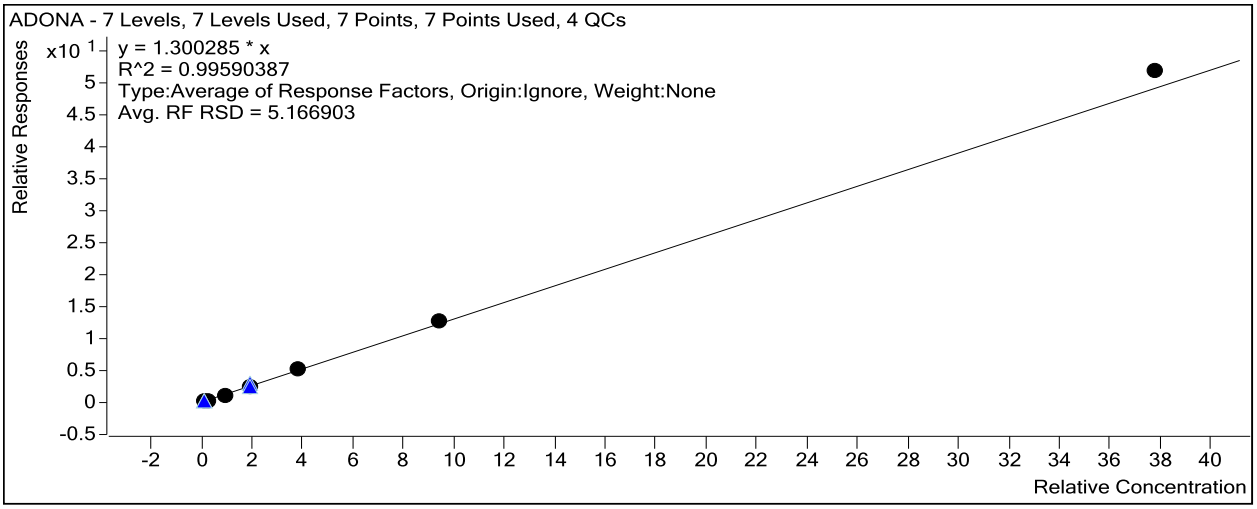
Target Compound *PFHxS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1852	0.4570	1.1567
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	4488	1.1425	1.0838
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	17647	4.5700	1.0551
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	36860	9.1400	1.1151
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	71480	18.2800	1.1386
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	181950	45.7000	1.1098
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	651875	182.8000	1.0905



Target Compound *ADONA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	15224	0.4725	1.2463
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	37843	1.1813	1.2132
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	157379	4.7250	1.2343
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	325456	9.4500	1.3221
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	639915	18.9000	1.3530
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	1642229	47.2500	1.3562
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	6097326	189.0000	1.3768



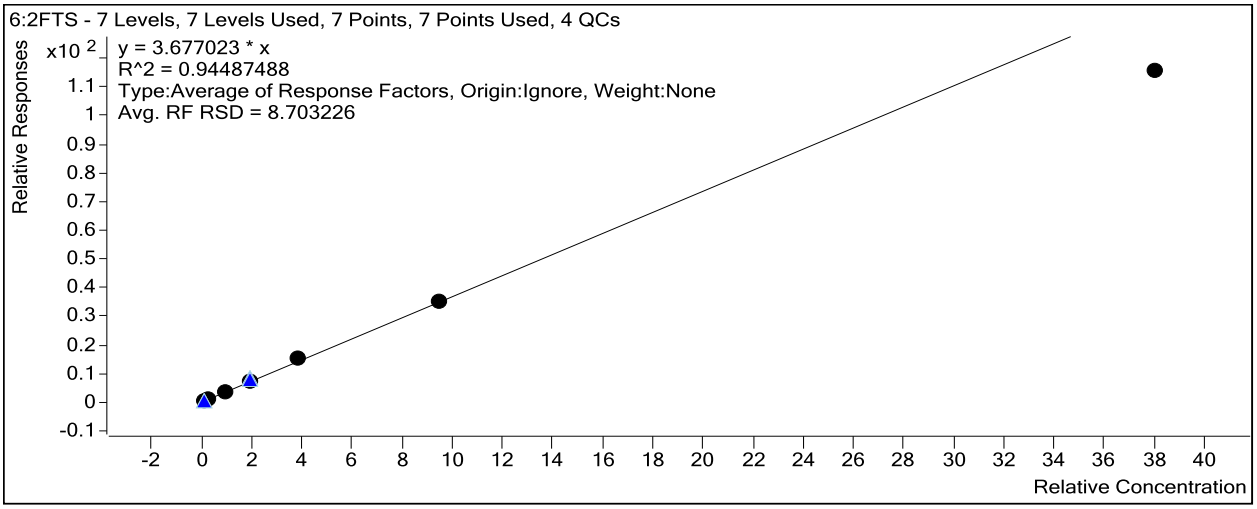
Extracted ISTD *M2 6:2 FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	5979	5.0000	1195.7484
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	5929	5.0000	1185.8229
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	5958	5.0000	1191.5907
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	5812	5.0000	1162.4080
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	5425	5.0000	1084.9664

J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	5447	5.0000	1089.4714
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	5138	5.0000	1027.6865

Target Compound *6:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	2199	0.4755	3.8678
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	5102	1.1888	3.6193
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	20362	4.7550	3.5938
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	43643	9.5100	3.9480
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	82354	19.0200	3.9908
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	190214	47.5500	3.6718
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	595739	190.2000	3.0478



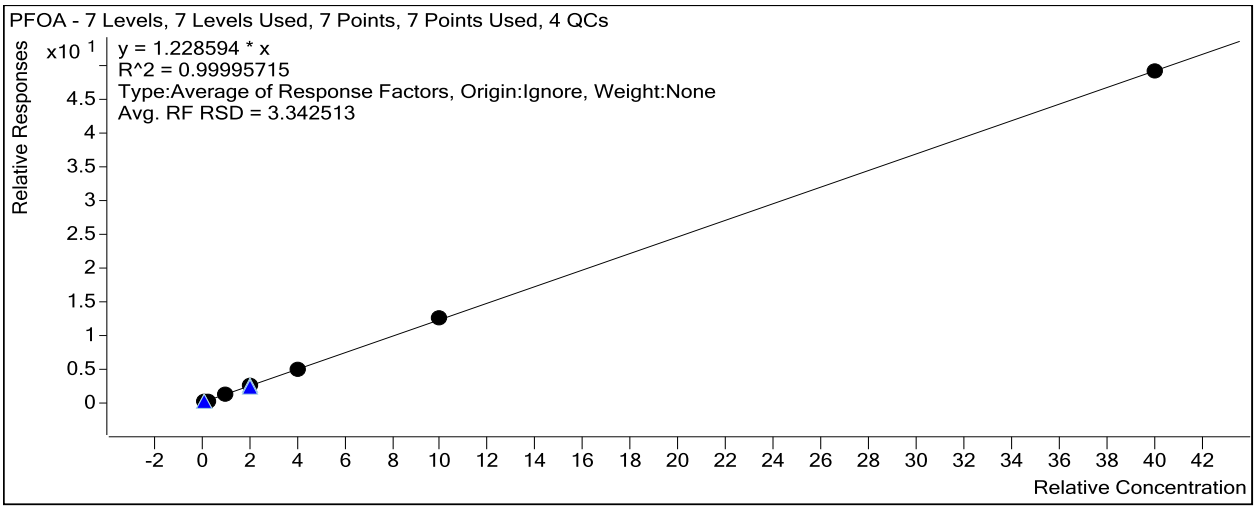
Extracted ISTD *M8PFOA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	129262	5.0000	25852.4681
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	132024	5.0000	26404.7026
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	134924	5.0000	26984.8634
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	130247	5.0000	26049.4024
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	125126	5.0000	25025.2033
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	128135	5.0000	25626.9464
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	117156	5.0000	23431.2639

Instrument ISTD *MPFOA*

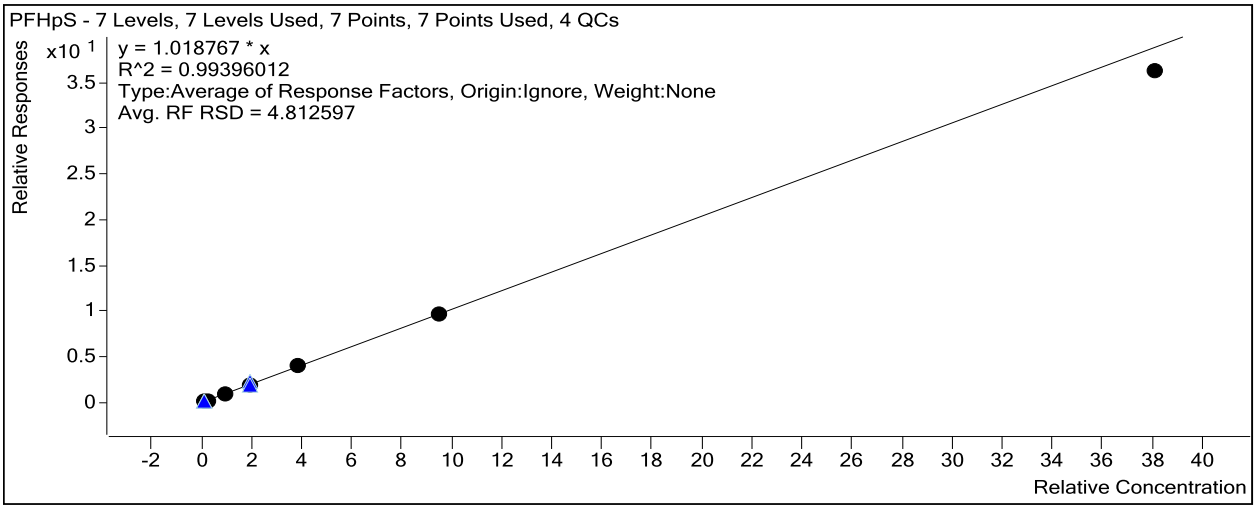
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	827837	25.0000	33113.4642
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	823972	25.0000	32958.8985
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	800743	25.0000	32029.7360
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	825655	25.0000	33026.1903
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	784559	25.0000	31382.3498
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	812374	25.0000	32494.9748
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	753613	25.0000	30144.5093

J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	1601626	50.0000	1.2500
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	5765341	200.0000	1.2303



Target Compound *PFHpS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1842	0.4765	1.1035
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	4328	1.1913	1.0024
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	17049	4.7650	0.9776
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	35531	9.5300	1.0309
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	68596	19.0600	1.0479
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	173608	47.6500	1.0156
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	594273	190.6000	0.9534



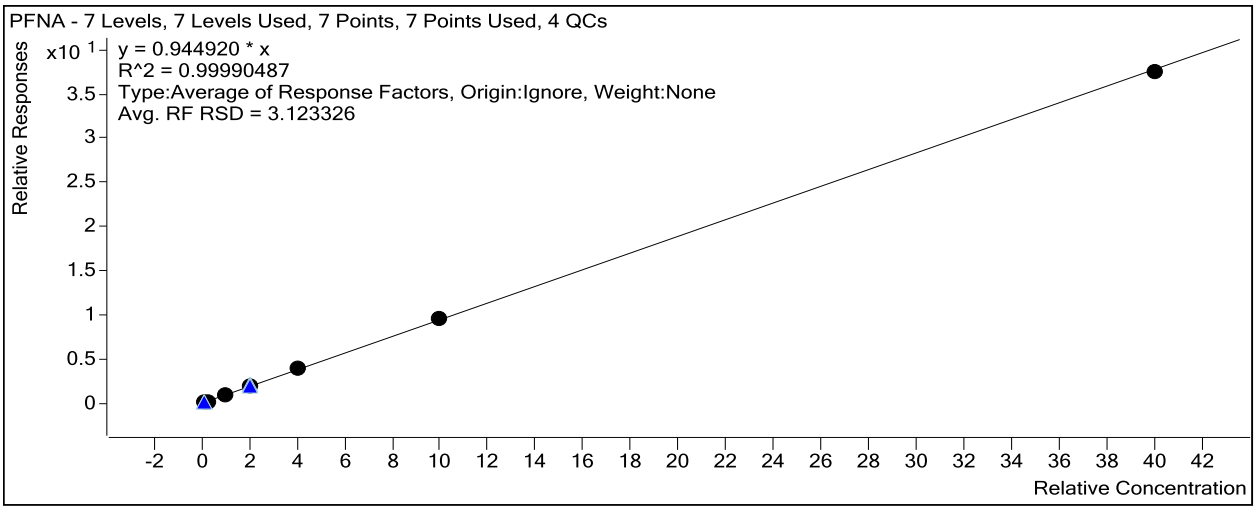
Extracted ISTD *M9PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	166062	5.0000	33212.4067
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	172670	5.0000	34533.9296
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	176077	5.0000	35215.3447

J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	168628	5.0000	33725.6739
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	161165	5.0000	32232.9171
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	165162	5.0000	33032.4380
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	147488	5.0000	29497.5528

Target Compound *PFNA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	15672	0.5000	0.9437
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	39552	1.2500	0.9163
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	158342	5.0000	0.8993
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	327151	10.0000	0.9700
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	632154	20.0000	0.9806
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	1593277	50.0000	0.9647
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	5544684	200.0000	0.9399



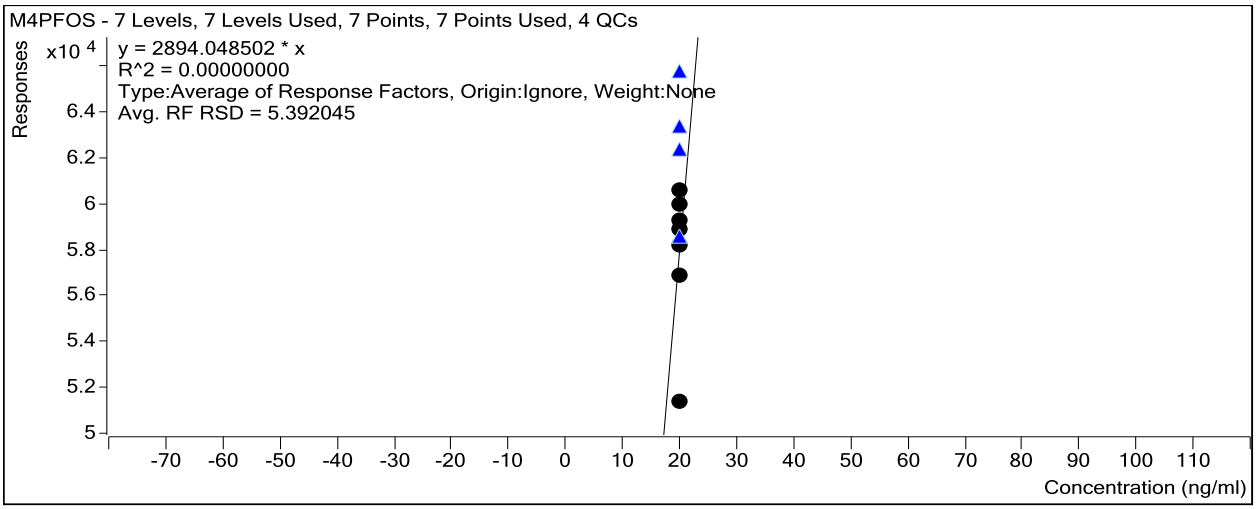
Extracted ISTD *M8PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	14851	5.0000	2970.1313
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	15652	5.0000	3130.4308
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	15823	5.0000	3164.5214
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	15689	5.0000	3137.8064
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	14982	5.0000	2996.4696
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	15068	5.0000	3013.5583
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	13680	5.0000	2736.0674

Instrument ISTD *M4PFOS*

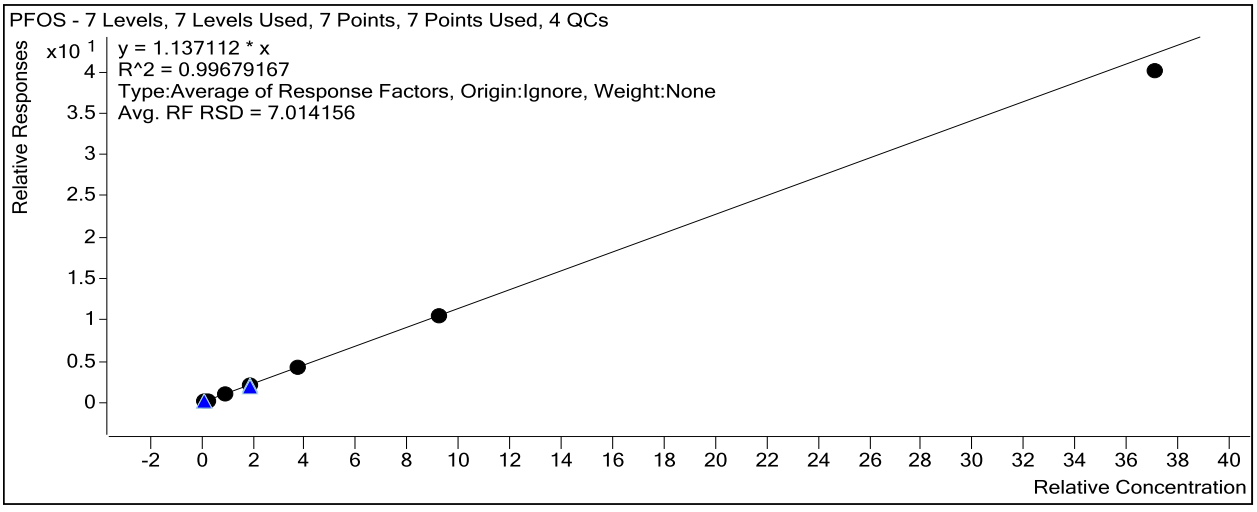
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	60585	20.0000	3029.2351
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	59974	20.0000	2998.7149
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	58171	20.0000	2908.5469
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	58915	20.0000	2945.7525
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	56859	20.0000	2842.9497

J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	59303	20.0000	2965.1654
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	51359	20.0000	2567.9750



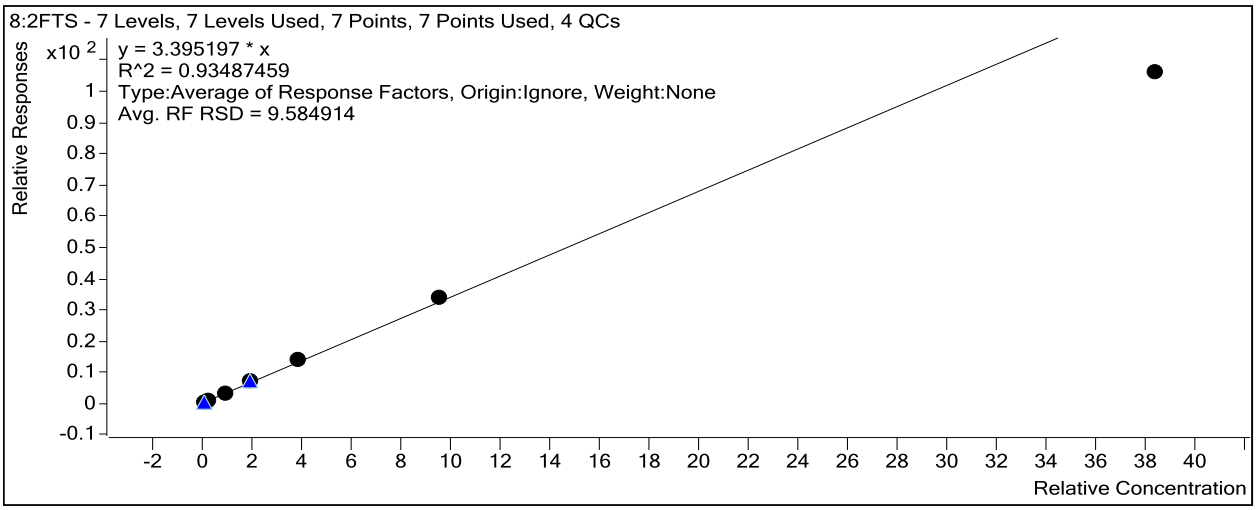
Target Compound *PFOS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1807	0.4640	1.3111
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	3942	1.1600	1.0856
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	16017	4.6400	1.0908
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	32912	9.2800	1.1303
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	62819	18.5600	1.1295
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	157931	46.4000	1.1295
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	549937	185.6000	1.0830



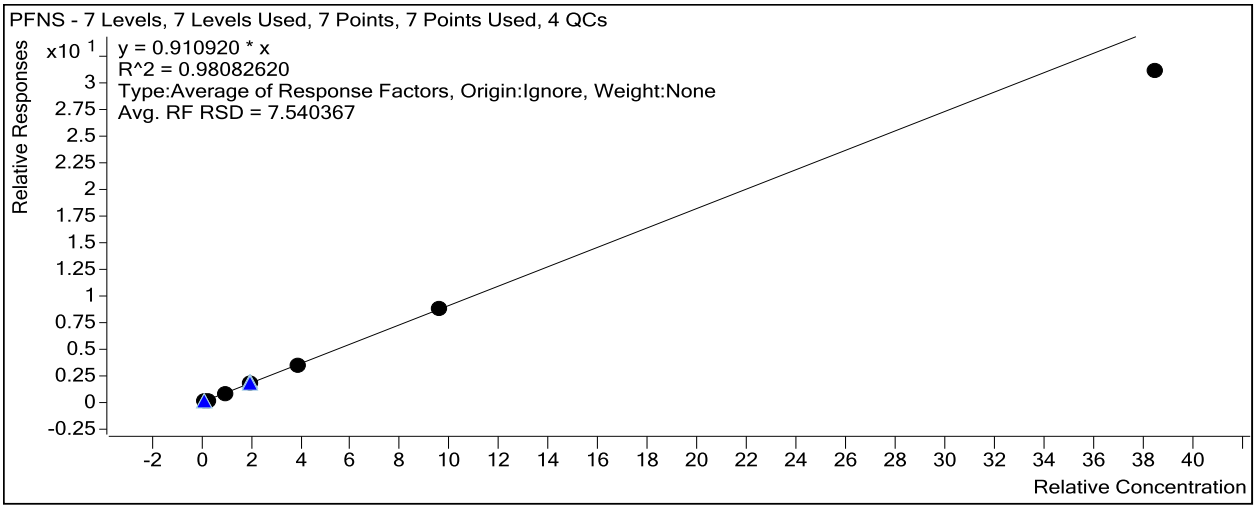
Target Compound *9Cl-PF3ONS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	11281	0.4665	8.1418
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	28314	1.1663	7.7550
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	117037	4.6650	7.9280



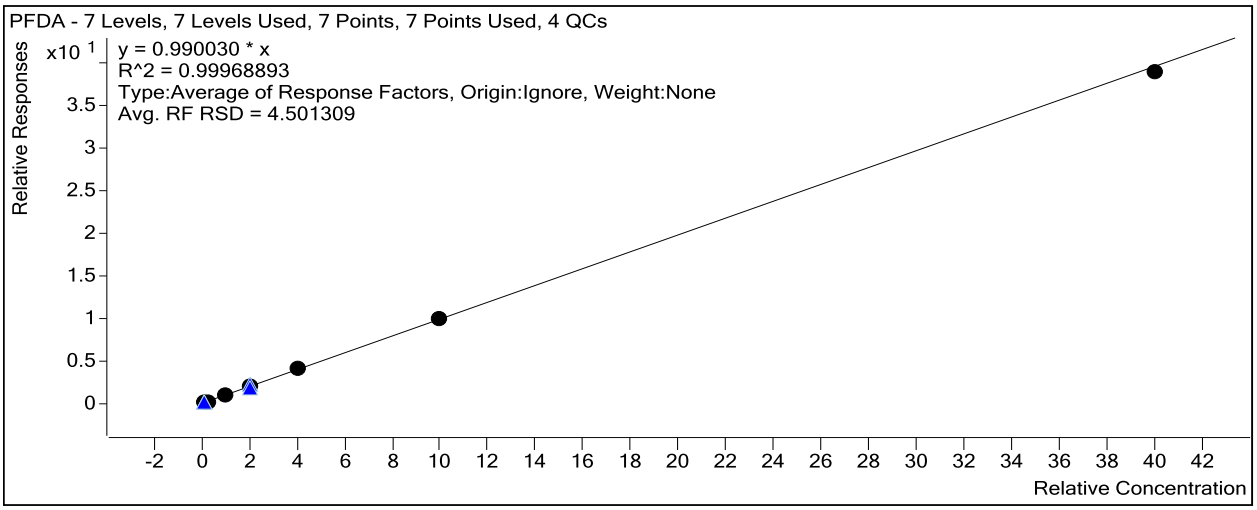
Target Compound *PFNS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1483	0.4810	1.0383
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	3497	1.2025	0.9289
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	13216	4.8100	0.8683
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	27608	9.6200	0.9146
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	52049	19.2400	0.9028
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	132165	48.1000	0.9118
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	427280	192.4000	0.8117



Extracted ISTD *M6PFDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	149874	5.0000	29974.7309
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	154649	5.0000	30929.8648
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	158057	5.0000	31611.3093
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	150418	5.0000	30083.5776
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	141706	5.0000	28341.2469

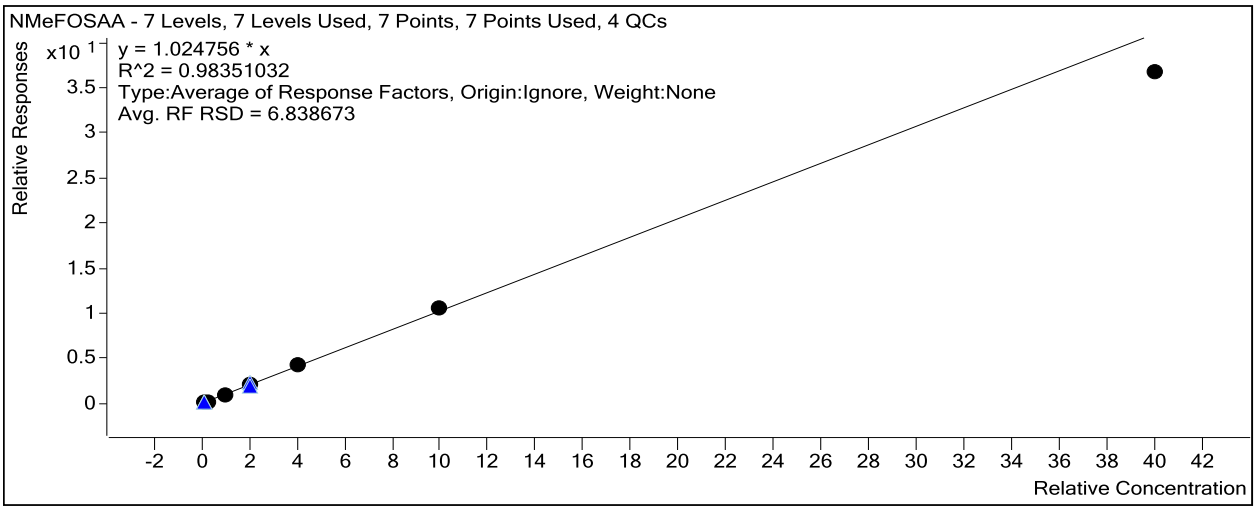


Extracted ISTD *d3-NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	13041	5.0000	2608.2898
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	13302	5.0000	2660.4911
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	13884	5.0000	2776.7682
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	13179	5.0000	2635.8542
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	12607	5.0000	2521.4630
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	13431	5.0000	2686.2224
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	13317	5.0000	2663.3479

Target Compound *NMeFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1383	0.5000	1.0607
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	3185	1.2500	0.9578
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	13658	5.0000	0.9837
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	29196	10.0000	1.1076
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	54341	20.0000	1.0776
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	143003	50.0000	1.0647
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	490617	200.0000	0.9211



Extracted ISTD *M8FOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	40688	5.0000	8137.6003
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	41324	5.0000	8264.7884
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	43060	5.0000	8612.0468
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	42313	5.0000	8462.5747
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	39250	5.0000	7849.9981
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	40916	5.0000	8183.2488
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	38479	5.0000	7695.7996

Target Compound *PFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	4361	0.5000	1.0718
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	10380	1.2500	1.0047
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	42870	5.0000	0.9956
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	91722	10.0000	1.0838
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	171612	20.0000	1.0931
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	435856	50.0000	1.0652
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	1590265	200.0000	1.0332

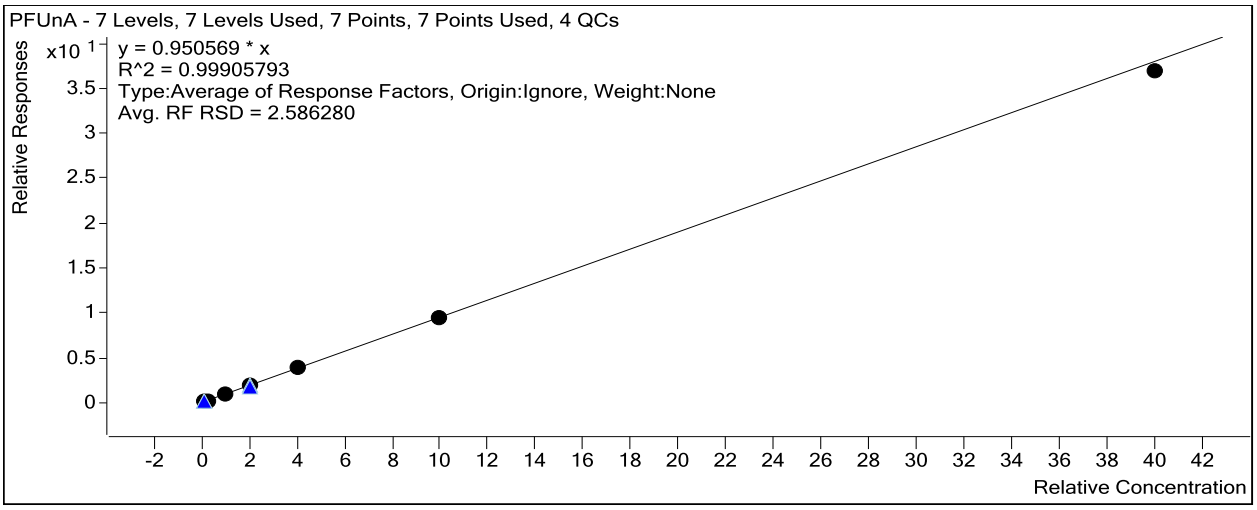
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	24154	5.0000	4830.7090
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	19461	5.0000	3892.1748

Extracted ISTD *M7PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	153850	5.0000	30770.0023
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	155219	5.0000	31043.8850
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	154252	5.0000	30850.4405
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	151719	5.0000	30343.8398
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	143748	5.0000	28749.6093
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	146907	5.0000	29381.4548
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	124362	5.0000	24872.3585

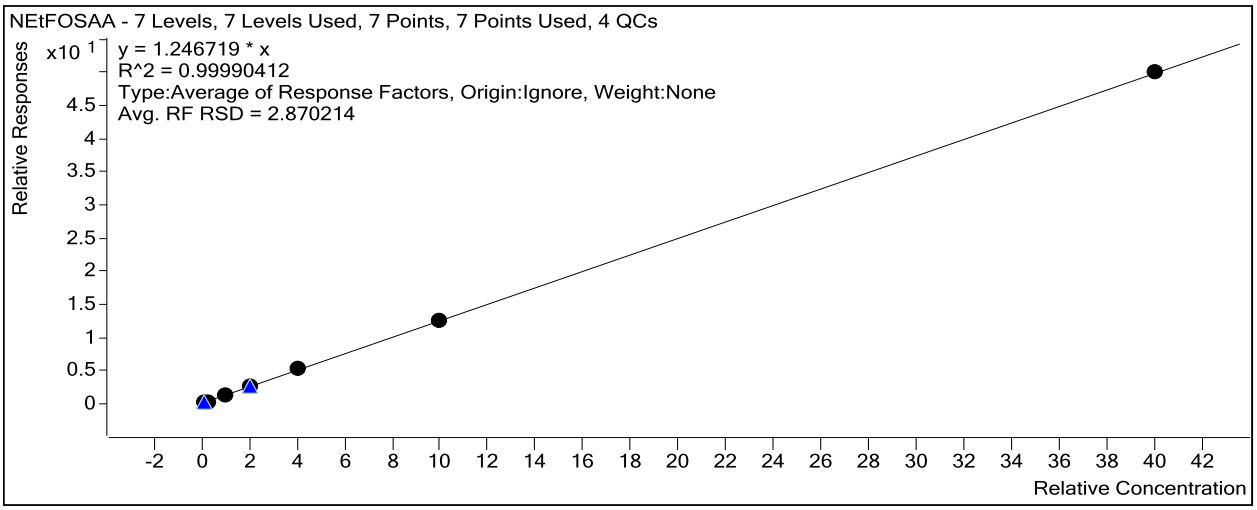
Target Compound *PFUnA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	14717	0.5000	0.9566
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	36184	1.2500	0.9325
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	142893	5.0000	0.9264
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	297345	10.0000	0.9799
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	566425	20.0000	0.9851
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	1392379	50.0000	0.9478
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	4605209	200.0000	0.9258



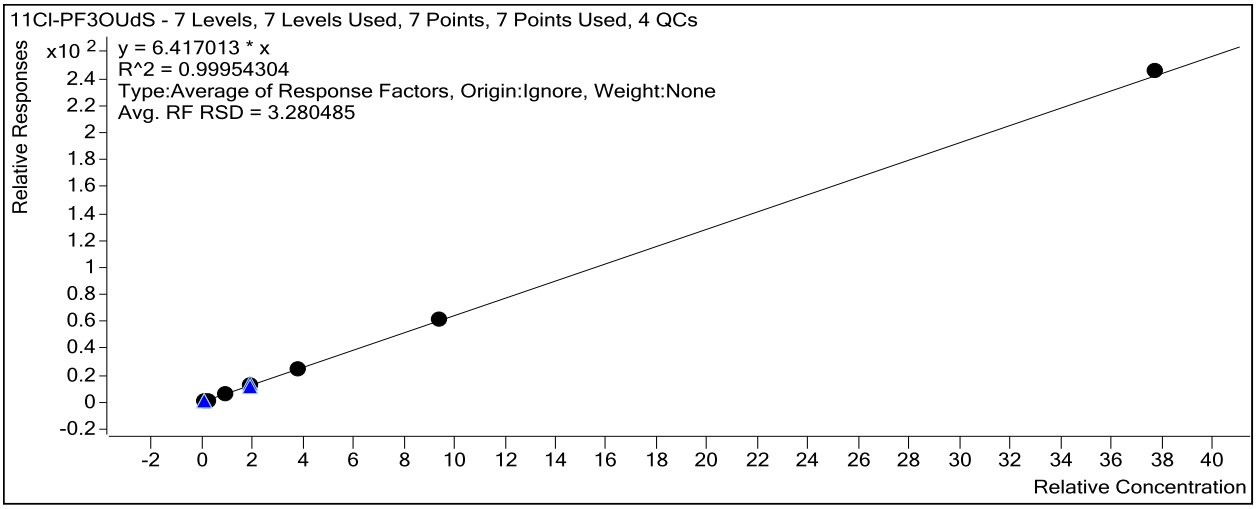
Target Compound *NEtFOSAA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	3308	0.5000	1.2389
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	8051	1.2500	1.2174
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	31371	5.0000	1.1905
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	66191	10.0000	1.2617
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	125651	20.0000	1.3025
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	304533	50.0000	1.2608
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	977095	200.0000	1.2552



Target Compound *11Cl-PF3OUdS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	8982	0.4715	6.4141
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	22302	1.1788	6.0437
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	92769	4.7150	6.2175
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	195159	9.4300	6.5955
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	372283	18.8600	6.5875
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	927103	47.1500	6.5248
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	3372692	188.6000	6.5359



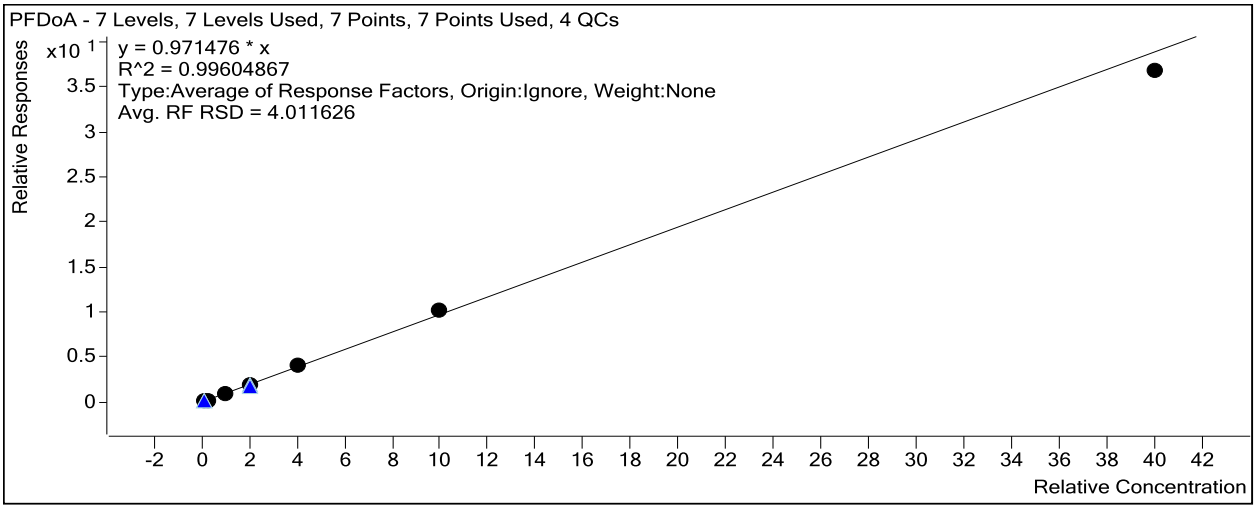
Extracted ISTD *MPFDoA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	156724	5.0000	31344.7704
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	157347	5.0000	31469.3055
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	159665	5.0000	31932.9080
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	153773	5.0000	30754.5654
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	148914	5.0000	29782.7263

J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	149455	5.0000	29891.0278
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	143603	5.0000	28720.5850

Target Compound *PFDoA*

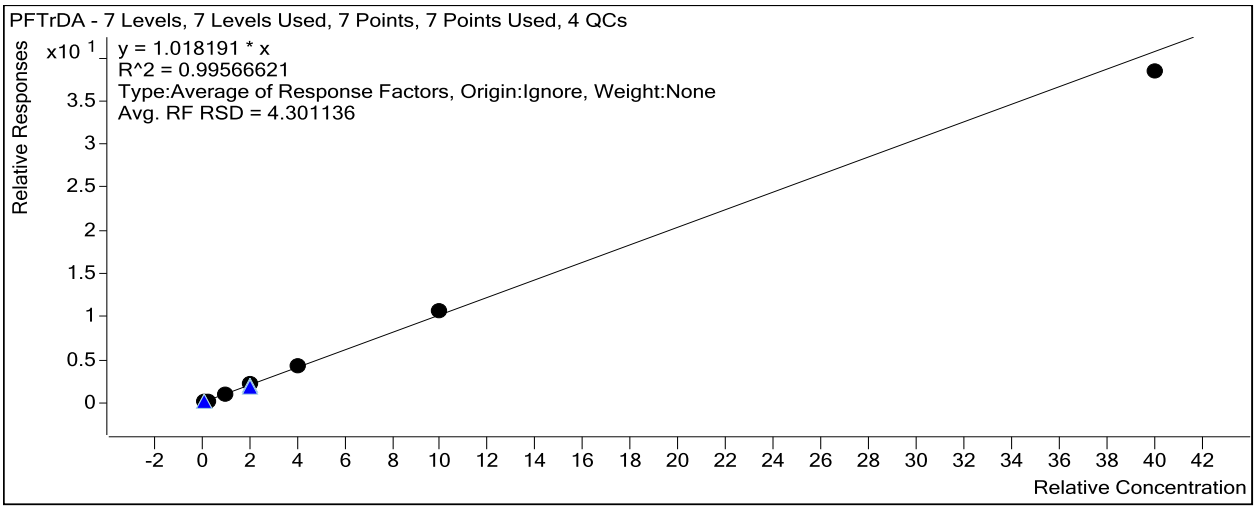
Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	15234	0.5000	0.9720
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	36778	1.2500	0.9350
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	150465	5.0000	0.9424
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	309101	10.0000	1.0051
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	601670	20.0000	1.0101
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	1515764	50.0000	1.0142
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	5293702	200.0000	0.9216



Target Compound *10:2FTS*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1692	0.4820	3.1558
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	3826	1.2050	3.0249
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	15730	4.8200	3.2219
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	32984	9.6400	3.3301
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	61526	19.2800	3.4498
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	147098	48.2000	3.4319
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	463756	192.8000	3.0795

J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	1582720	50.0000	1.0590
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	5533077	200.0000	0.9633



Extracted ISTD *d9-NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	13728	5.0000	2745.5992
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	14248	5.0000	2849.5144
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	14256	5.0000	2851.1991
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	14623	5.0000	2924.6668
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	13875	5.0000	2775.0384
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	14366	5.0000	2873.1792
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	13637	5.0000	2727.3961

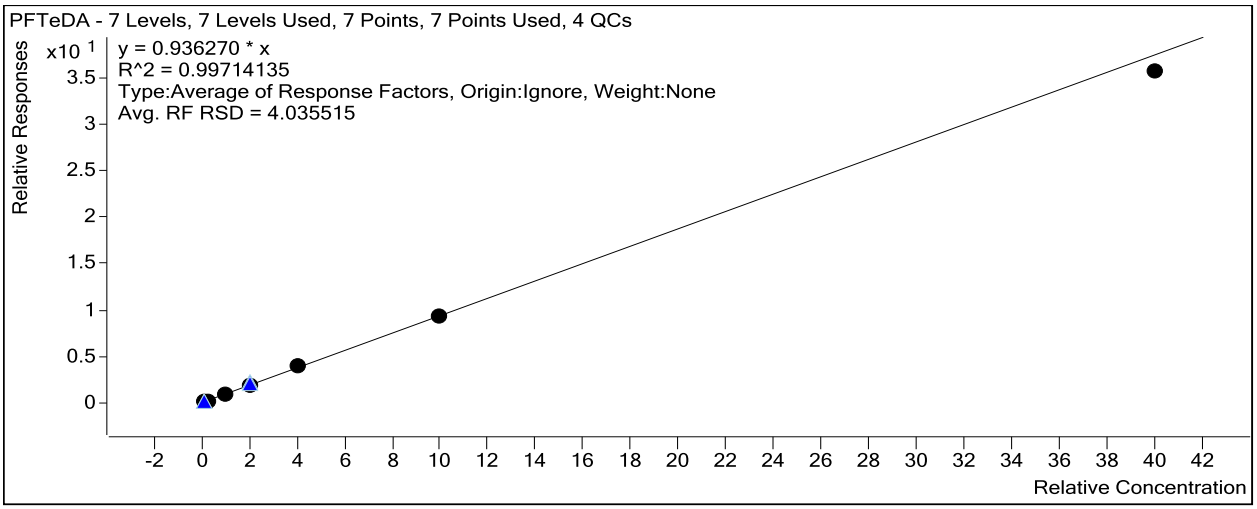
Extracted ISTD *d-NEtFOSA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	9962	5.0000	1992.4811
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	9959	5.0000	1991.7119
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	10295	5.0000	2059.0063
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	9882	5.0000	1976.3111
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	9695	5.0000	1938.9820
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	9421	5.0000	1884.2854
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	9491	5.0000	1898.2272

Target Compound *NEtFOSE*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	1658	0.5000	1.2078
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	3962	1.2500	1.1124
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	15711	5.0000	1.1020
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	34193	10.0000	1.1691
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	64473	20.0000	1.1617
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	161566	50.0000	1.1246
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	616665	200.0000	1.1305

J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	1629083	50.0000	0.9419
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	5927071	200.0000	0.8945



Extracted ISTD *M2PFTA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	172278	5.0000	34455.6938
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	175362	5.0000	35072.3643
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	176233	5.0000	35246.6884
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	174416	5.0000	34883.1622
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	165507	5.0000	33101.4350
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	172951	5.0000	34590.2444
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	165659	5.0000	33131.8645

Extracted ISTD *M2PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	17612	5.0000	3522.4571
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	17560	5.0000	3512.0466
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	18317	5.0000	3663.4736
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	17983	5.0000	3596.5973
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	16992	5.0000	3398.3713
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	17584	5.0000	3516.7099
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	17525	5.0000	3505.0116

Target Compound *PFHxDA*

Calibration STD	Cal Type	Level	Enabled	Response	Exp Conc (ng/mL)	RF
J:\MassHunter\Data\2220506BCAL\2220506B_2.d	Calibration	1	☑	21257	0.5000	12.0697
J:\MassHunter\Data\2220506BCAL\2220506B_3.d	Calibration	2	☑	49031	1.2500	11.1686
J:\MassHunter\Data\2220506BCAL\2220506B_4.d	Calibration	3	☑	194441	5.0000	10.6151
J:\MassHunter\Data\2220506BCAL\2220506B_5.d	Calibration	4	☑	414263	10.0000	11.5182
J:\MassHunter\Data\2220506BCAL\2220506B_6.d	Calibration	5	☑	787046	20.0000	11.5797
J:\MassHunter\Data\2220506BCAL\2220506B_7.d	Calibration	6	☑	2036893	50.0000	11.5841
J:\MassHunter\Data\2220506BCAL\2220506B_8.d	Calibration	7	☑	7942572	200.0000	11.3303

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ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/02/2022 07:53	Lab File ID:	2220501C_16.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	739843

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10200	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10200	106	70	130	
NEtFOSAA	ng/L	10000	10100	101	70	130	
NMeFOSAA	ng/L	10000	10200	102	70	130	
Perfluorobutanoic acid	ng/L	10000	10400	104	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9190	104	70	130	
Perfluorodecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorododecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroheptanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9610	105	70	130	
Perfluorononanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanoic acid	ng/L	10000	9990	100	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9570	103	70	130	
Perfluoropentanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9980	100	70	130	
Perfluorotridecanoic acid	ng/L	10000	10000	100	70	130	
Perfluoroundecanoic acid	ng/L	10000	10500	105	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/03/2022 14:49	Lab File ID:	2220503A_14.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740023

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9500	100	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10300	107	70	130	
NEtFOSAA	ng/L	10000	10200	102	70	130	
NMeFOSAA	ng/L	10000	9900	99	70	130	
Perfluorobutanoic acid	ng/L	10000	10000	100	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8730	98	70	130	
Perfluorodecanoic acid	ng/L	10000	10100	101	70	130	
Perfluorododecanoic acid	ng/L	10000	10000	100	70	130	
Perfluoroheptanoic acid	ng/L	10000	9930	99	70	130	
Perfluorohexanoic acid	ng/L	10000	9620	96	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8940	98	70	130	
Perfluorononanoic acid	ng/L	10000	10100	101	70	130	
Perfluorooctanoic acid	ng/L	10000	10000	100	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9170	99	70	130	
Perfluoropentanoic acid	ng/L	10000	10100	101	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9960	100	70	130	
Perfluorotridecanoic acid	ng/L	10000	10000	100	70	130	
Perfluoroundecanoic acid	ng/L	10000	10200	102	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 19:56	Lab File ID:	2220503B_15.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9680	102	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10100	105	70	130	
NEtFOSAA	ng/L	10000	9700	97	70	130	
NMeFOSAA	ng/L	10000	10100	101	70	130	
Perfluorobutanoic acid	ng/L	10000	9860	99	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8720	98	70	130	
Perfluorodecanoic acid	ng/L	10000	9750	97	70	130	
Perfluorododecanoic acid	ng/L	10000	9670	97	70	130	
Perfluoroheptanoic acid	ng/L	10000	9670	97	70	130	
Perfluorohexanoic acid	ng/L	10000	9610	96	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8970	98	70	130	
Perfluorononanoic acid	ng/L	10000	9770	98	70	130	
Perfluorooctanoic acid	ng/L	10000	9640	96	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8840	95	70	130	
Perfluoropentanoic acid	ng/L	10000	9840	98	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9830	98	70	130	
Perfluorotridecanoic acid	ng/L	10000	9990	100	70	130	
Perfluoroundecanoic acid	ng/L	10000	9730	97	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/03/2022 22:54	Lab File ID:	2220503B_27.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9750	103	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9710	101	70	130	
NEtFOSAA	ng/L	10000	9420	94	70	130	
NMeFOSAA	ng/L	10000	9760	98	70	130	
Perfluorobutanoic acid	ng/L	10000	9840	98	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8760	99	70	130	
Perfluorodecanoic acid	ng/L	10000	9810	98	70	130	
Perfluorododecanoic acid	ng/L	10000	9750	97	70	130	
Perfluoroheptanoic acid	ng/L	10000	9630	96	70	130	
Perfluorohexanoic acid	ng/L	10000	9820	98	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8940	98	70	130	
Perfluorononanoic acid	ng/L	10000	9750	98	70	130	
Perfluorooctanoic acid	ng/L	10000	9720	97	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8810	95	70	130	
Perfluoropentanoic acid	ng/L	10000	9780	98	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9580	96	70	130	
Perfluorotridecanoic acid	ng/L	10000	10200	102	70	130	
Perfluoroundecanoic acid	ng/L	10000	9810	98	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/04/2022 02:22	Lab File ID:	2220503B_41.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9590	101	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9860	103	70	130	
NEtFOSAA	ng/L	10000	9810	98	70	130	
NMeFOSAA	ng/L	10000	10000	100	70	130	
Perfluorobutanoic acid	ng/L	10000	9800	98	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8610	97	70	130	
Perfluorodecanoic acid	ng/L	10000	9830	98	70	130	
Perfluorododecanoic acid	ng/L	10000	9900	99	70	130	
Perfluoroheptanoic acid	ng/L	10000	9700	97	70	130	
Perfluorohexanoic acid	ng/L	10000	9910	99	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8810	96	70	130	
Perfluorononanoic acid	ng/L	10000	9650	96	70	130	
Perfluorooctanoic acid	ng/L	10000	9690	97	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8880	96	70	130	
Perfluoropentanoic acid	ng/L	10000	9610	96	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9630	96	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	9730	97	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/04/2022 04:07	Lab File ID:	2220503B_48.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9620	101	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10100	105	70	130	
NEtFOSAA	ng/L	10000	9750	97	70	130	
NMeFOSAA	ng/L	10000	10700	107	70	130	
Perfluorobutanoic acid	ng/L	10000	9830	98	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8670	98	70	130	
Perfluorodecanoic acid	ng/L	10000	9660	97	70	130	
Perfluorododecanoic acid	ng/L	10000	9750	97	70	130	
Perfluoroheptanoic acid	ng/L	10000	9800	98	70	130	
Perfluorohexanoic acid	ng/L	10000	9780	98	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8840	97	70	130	
Perfluorononanoic acid	ng/L	10000	9640	96	70	130	
Perfluorooctanoic acid	ng/L	10000	9700	97	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8890	96	70	130	
Perfluoropentanoic acid	ng/L	10000	9650	96	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9550	96	70	130	
Perfluorotridecanoic acid	ng/L	10000	9950	99	70	130	
Perfluoroundecanoic acid	ng/L	10000	9700	97	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/05/2022 19:50	Lab File ID:	2220505A_17.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740271

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9660	102	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10700	111	70	130	
NEtFOSAA	ng/L	10000	11200	112	70	130	
NMeFOSAA	ng/L	10000	11300	113	70	130	
Perfluorobutanoic acid	ng/L	10000	10200	102	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8820	99	70	130	
Perfluorodecanoic acid	ng/L	10000	10100	101	70	130	
Perfluorododecanoic acid	ng/L	10000	9950	99	70	130	
Perfluoroheptanoic acid	ng/L	10000	9830	98	70	130	
Perfluorohexanoic acid	ng/L	10000	10000	100	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9100	100	70	130	
Perfluorononanoic acid	ng/L	10000	9840	98	70	130	
Perfluorooctanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8940	96	70	130	
Perfluoropentanoic acid	ng/L	10000	9970	100	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9790	98	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	10100	101	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/05/2022 22:31	Lab File ID:	2220505A_28.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740271

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9770	103	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10600	111	70	130	
NEtFOSAA	ng/L	10000	11400	114	70	130	
NMeFOSAA	ng/L	10000	10200	102	70	130	
Perfluorobutanoic acid	ng/L	10000	10000	100	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8950	101	70	130	
Perfluorodecanoic acid	ng/L	10000	10100	101	70	130	
Perfluorododecanoic acid	ng/L	10000	9850	98	70	130	
Perfluoroheptanoic acid	ng/L	10000	9970	100	70	130	
Perfluorohexanoic acid	ng/L	10000	10000	100	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8870	97	70	130	
Perfluorononanoic acid	ng/L	10000	9770	98	70	130	
Perfluorooctanoic acid	ng/L	10000	9940	99	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8840	95	70	130	
Perfluoropentanoic acid	ng/L	10000	10100	101	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10100	101	70	130	
Perfluorotridecanoic acid	ng/L	10000	9930	99	70	130	
Perfluoroundecanoic acid	ng/L	10000	9960	100	70	130	

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ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/05/2022 23:15	Lab File ID:	2220505A_31.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740271

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9850	104	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10600	110	70	130	
NEtFOSAA	ng/L	10000	11200	112	70	130	
NMeFOSAA	ng/L	10000	10600	106	70	130	
Perfluorobutanoic acid	ng/L	10000	9940	99	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8940	101	70	130	
Perfluorodecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorododecanoic acid	ng/L	10000	9960	100	70	130	
Perfluoroheptanoic acid	ng/L	10000	10000	100	70	130	
Perfluorohexanoic acid	ng/L	10000	10000	100	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9090	99	70	130	
Perfluorononanoic acid	ng/L	10000	9790	98	70	130	
Perfluorooctanoic acid	ng/L	10000	9980	100	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8820	95	70	130	
Perfluoropentanoic acid	ng/L	10000	10100	101	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9960	100	70	130	
Perfluorotridecanoic acid	ng/L	10000	10100	101	70	130	
Perfluoroundecanoic acid	ng/L	10000	9930	99	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/06/2022 01:41	Lab File ID:	2220505A_41.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740271

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10200	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10900	113	70	130	
NEtFOSAA	ng/L	10000	11200	112	70	130	
NMeFOSAA	ng/L	10000	10400	104	70	130	
Perfluorobutanoic acid	ng/L	10000	9950	99	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9020	102	70	130	
Perfluorodecanoic acid	ng/L	10000	10300	103	70	130	
Perfluorododecanoic acid	ng/L	10000	9870	99	70	130	
Perfluoroheptanoic acid	ng/L	10000	9940	99	70	130	
Perfluorohexanoic acid	ng/L	10000	10000	100	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8910	98	70	130	
Perfluorononanoic acid	ng/L	10000	9710	97	70	130	
Perfluorooctanoic acid	ng/L	10000	9850	99	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8840	95	70	130	
Perfluoropentanoic acid	ng/L	10000	9940	99	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9940	99	70	130	
Perfluorotridecanoic acid	ng/L	10000	9980	100	70	130	
Perfluoroundecanoic acid	ng/L	10000	9930	99	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/05/2022 02:41	Lab File ID:	2220504B_15.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740280

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9870	104	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10500	109	70	130	
NEtFOSAA	ng/L	10000	9640	96	70	130	
NMeFOSAA	ng/L	10000	9880	99	70	130	
Perfluorobutanoic acid	ng/L	10000	10300	103	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	8780	99	70	130	
Perfluorodecanoic acid	ng/L	10000	10200	102	70	130	
Perfluorododecanoic acid	ng/L	10000	9990	100	70	130	
Perfluoroheptanoic acid	ng/L	10000	9990	100	70	130	
Perfluorohexanoic acid	ng/L	10000	9910	99	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	8960	98	70	130	
Perfluorononanoic acid	ng/L	10000	10000	100	70	130	
Perfluorooctanoic acid	ng/L	10000	9920	99	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	8760	94	70	130	
Perfluoropentanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotetradecanoic acid	ng/L	10000	9890	99	70	130	
Perfluorotridecanoic acid	ng/L	10000	10300	103	70	130	
Perfluoroundecanoic acid	ng/L	10000	9950	100	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/06/2022 23:33	Lab File ID:	2220506B_23.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740290

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9890	104	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10600	110	70	130	
NEtFOSAA	ng/L	10000	10100	101	70	130	
NMeFOSAA	ng/L	10000	10200	102	70	130	
Perfluorobutanoic acid	ng/L	10000	10400	104	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9180	104	70	130	
Perfluorodecanoic acid	ng/L	10000	10400	104	70	130	
Perfluorododecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroheptanoic acid	ng/L	10000	10300	103	70	130	
Perfluorohexanoic acid	ng/L	10000	10500	105	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9560	105	70	130	
Perfluorononanoic acid	ng/L	10000	10300	103	70	130	
Perfluorooctanoic acid	ng/L	10000	10200	102	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9140	98	70	130	
Perfluoropentanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotridecanoic acid	ng/L	10000	10600	106	70	130	
Perfluoroundecanoic acid	ng/L	10000	10400	104	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/07/2022 01:01	Lab File ID:	2220506B_29.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740290

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10400	109	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9880	103	70	130	
NEtFOSAA	ng/L	10000	10000	100	70	130	
NMeFOSAA	ng/L	10000	10700	107	70	130	
Perfluorobutanoic acid	ng/L	10000	10500	105	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9210	104	70	130	
Perfluorodecanoic acid	ng/L	10000	10300	103	70	130	
Perfluorododecanoic acid	ng/L	10000	10200	102	70	130	
Perfluoroheptanoic acid	ng/L	10000	10200	102	70	130	
Perfluorohexanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9480	104	70	130	
Perfluorononanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanoic acid	ng/L	10000	10400	104	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9330	101	70	130	
Perfluoropentanoic acid	ng/L	10000	10400	104	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10100	101	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/07/2022 04:55	Lab File ID:	2220506C_16.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740405

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10000	105	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9570	100	70	130	
NEtFOSAA	ng/L	10000	10000	100	70	130	
NMeFOSAA	ng/L	10000	11100	111	70	130	
Perfluorobutanoic acid	ng/L	10000	10300	103	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9390	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10600	106	70	130	
Perfluorododecanoic acid	ng/L	10000	10200	102	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10300	103	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9370	103	70	130	
Perfluorononanoic acid	ng/L	10000	10200	102	70	130	
Perfluorooctanoic acid	ng/L	10000	10200	102	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9410	101	70	130	
Perfluoropentanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotridecanoic acid	ng/L	10000	10400	104	70	130	
Perfluoroundecanoic acid	ng/L	10000	10400	104	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ5
Analysis Date:	05/07/2022 07:36	Lab File ID:	2220506C_27.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740405

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	9970	105	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10200	106	70	130	
NEtFOSAA	ng/L	10000	10200	102	70	130	
NMeFOSAA	ng/L	10000	10500	105	70	130	
Perfluorobutanoic acid	ng/L	10000	10500	105	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9010	102	70	130	
Perfluorodecanoic acid	ng/L	10000	10100	101	70	130	
Perfluorododecanoic acid	ng/L	10000	10200	102	70	130	
Perfluoroheptanoic acid	ng/L	10000	10400	104	70	130	
Perfluorohexanoic acid	ng/L	10000	10300	103	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9390	103	70	130	
Perfluorononanoic acid	ng/L	10000	10100	101	70	130	
Perfluorooctanoic acid	ng/L	10000	10200	102	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9520	103	70	130	
Perfluoropentanoic acid	ng/L	10000	10300	103	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10200	102	70	130	
Perfluorotridecanoic acid	ng/L	10000	10500	105	70	130	
Perfluoroundecanoic acid	ng/L	10000	10100	101	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/18/2022 15:43	Lab File ID:	2220518A_16.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	741201

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10500	110	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	9800	102	70	130	
NEtFOSAA	ng/L	10000	10800	108	70	130	
NMeFOSAA	ng/L	10000	10800	108	70	130	
Perfluorobutanoic acid	ng/L	10000	10800	108	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9370	106	70	130	
Perfluorodecanoic acid	ng/L	10000	10600	106	70	130	
Perfluorododecanoic acid	ng/L	10000	10800	108	70	130	
Perfluoroheptanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanoic acid	ng/L	10000	10700	107	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9490	104	70	130	
Perfluorononanoic acid	ng/L	10000	10700	107	70	130	
Perfluorooctanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9700	104	70	130	
Perfluoropentanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10500	105	70	130	
Perfluorotridecanoic acid	ng/L	10000	11200	112	70	130	
Perfluoroundecanoic acid	ng/L	10000	10800	108	70	130	

7E

ORGANICS CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	QQQ4
Analysis Date:	05/18/2022 17:12	Lab File ID:	2220518A_22.d
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	741201

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*LCL*	*UCL*	*Q*
6:2 Fluorotelomersulfonic acid	ng/L	9510	10200	107	70	130	
8:2 Fluorotelomersulfonic acid	ng/L	9600	10800	113	70	130	
NEtFOSAA	ng/L	10000	10900	109	70	130	
NMeFOSAA	ng/L	10000	10800	108	70	130	
Perfluorobutanoic acid	ng/L	10000	10700	107	70	130	
Perfluorobutanesulfonic acid	ng/L	8870	9570	108	70	130	
Perfluorodecanoic acid	ng/L	10000	10600	106	70	130	
Perfluorododecanoic acid	ng/L	10000	10700	107	70	130	
Perfluoroheptanoic acid	ng/L	10000	10600	106	70	130	
Perfluorohexanoic acid	ng/L	10000	10800	108	70	130	
Perfluorohexanesulfonic acid	ng/L	9140	9290	102	70	130	
Perfluorononanoic acid	ng/L	10000	10600	106	70	130	
Perfluorooctanoic acid	ng/L	10000	10500	105	70	130	
Perfluorooctanesulfonic acid	ng/L	9280	9470	102	70	130	
Perfluoropentanoic acid	ng/L	10000	10800	108	70	130	
Perfluorotetradecanoic acid	ng/L	10000	10700	107	70	130	
Perfluorotridecanoic acid	ng/L	10000	11200	112	70	130	
Perfluoroundecanoic acid	ng/L	10000	10700	107	70	130	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	221112126	Method Blank ID:	2278878
Matrix:	Water	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2211130A_9.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	11/29/21	Analysis Date:	11/30/21 Time: 1226
Prep Batch:	727989	Analytical Batch:	728084
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2278879	2278879	2211130A_10.d	11/30/21	1240
2.	LCSD2278880	2278880	2211130A_11.d	11/30/21	1255
3.	ALB-DECON-01	22111212601	2211207A_37.d	12/07/21	1910

FORM IV SV

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	221112126	Client Sample ID:	MB2278878
Collect Date:	NA Time: NA	GCAL Sample ID:	2278878
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2211130A_9.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	11/29/21	Analysis Date:	11/30/21 Time: 1226
Prep Batch:	727989	Analytical Batch:	728084
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	*ANALYTE*	*RESULT*	*Q*	*DL*	*LOD*	*LOQ*
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.00	U	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.50	U	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	2.00	U	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	2.00	U	0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.00	U	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	2.00	U	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

FORM I SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 221112126

Prep Method: PFAS ID QSM B15 Prep Prep Batch: 727989

Analytical Method: PFAS Isotope Dilution QSM B15 Analytical Batch: 728084

GCAL QC ID: 2278879

ANALYTE	***UNITS***	***SPIKE ADDED***	***SAMPLE RESULT***	***LCS RESULT***	***LCS % REC***	#	***QC LIMITS***
6:2 Fluorotelomersulfonic acid	ng/L	76.1	0	71.2	94		64 - 140
8:2 Fluorotelomersulfonic acid	ng/L	76.8	0	73.3	95		67 - 138
NEtFOSAA	ng/L	80	0	70.5	88		61 - 135
NMeFOSAA	ng/L	80	0	74.8	94		65 - 136
Perfluorobutanesulfonic acid	ng/L	71	0	64.1	90		72 - 130
Perfluorobutanoic acid	ng/L	80	0	71.8	90		73 - 129
Perfluorodecanoic acid	ng/L	80	0	72.7	91		71 - 129
Perfluorododecanoic acid	ng/L	80	0	71.8	90		72 - 134
Perfluoroheptanoic acid	ng/L	80	0	71.4	89		72 - 130
Perfluorohexanesulfonic acid	ng/L	73.1	0	66.2	90		68 - 131
Perfluorohexanoic acid	ng/L	80	0	71.9	90		72 - 129
Perfluorononanoic acid	ng/L	80	0	71.1	89		69 - 130
Perfluorooctanesulfonic acid	ng/L	74.2	0	67.2	90		65 - 140
Perfluorooctanoic acid	ng/L	80	0	71.8	90		71 - 133
Perfluoropentanoic acid	ng/L	80	0	72	90		72 - 129
Perfluorotetradecanoic acid	ng/L	80	0	71.4	89		71 - 132
Perfluorotridecanoic acid	ng/L	80	0	74	92		65 - 144
Perfluoroundecanoic acid	ng/L	80	0	72.9	91		69 - 133

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 221112126

Prep Method: PFAS ID QSM B15 Prep

Prep Batch: 727989

Analytical Method: PFAS Isotope Dilution QSM B15

Analytical Batch: 728084

GCAL QC ID: 2278880

ANALYTE	***UNITS***	***SPIKE ADDED***	***LCSD RESULT***	***LCSD % REC***	#	***% RPD***	#	***QC LIMITS REC***	***QC LIMITS RPD***
6:2 Fluorotelomersulfonic acid	ng/L	76.1	74.8	98		5		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ng/L	76.8	72.3	94		1		67 - 138	0 - 30
NEtFOSAA	ng/L	80	75.5	94		7		61 - 135	0 - 30
NMeFOSAA	ng/L	80	74.4	93		.5		65 - 136	0 - 30
Perfluorobutanesulfonic acid	ng/L	71	64.7	91		1		72 - 130	0 - 30
Perfluorobutanoic acid	ng/L	80	74.4	93		4		73 - 129	0 - 30
Perfluorodecanoic acid	ng/L	80	76.7	96		5		71 - 129	0 - 30
Perfluorododecanoic acid	ng/L	80	74.6	93		4		72 - 134	0 - 30
Perfluoroheptanoic acid	ng/L	80	73.5	92		3		72 - 130	0 - 30
Perfluorohexanesulfonic acid	ng/L	73.1	67.3	92		2		68 - 131	0 - 30
Perfluorohexanoic acid	ng/L	80	74.5	93		3		72 - 129	0 - 30
Perfluorononanoic acid	ng/L	80	74.1	93		4		69 - 130	0 - 30
Perfluorooctanesulfonic acid	ng/L	74.2	68.6	92		2		65 - 140	0 - 30
Perfluorooctanoic acid	ng/L	80	74.6	93		4		71 - 133	0 - 30
Perfluoropentanoic acid	ng/L	80	73.9	92		3		72 - 129	0 - 30
Perfluorotetradecanoic acid	ng/L	80	74.2	93		4		71 - 132	0 - 30
Perfluorotridecanoic acid	ng/L	80	73.3	92		1		65 - 144	0 - 30
Perfluoroundecanoic acid	ng/L	80	72.4	91		.6		69 - 133	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222010612	Method Blank ID:	2294956
Matrix:	Water	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220110A_34.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: ADA
Prep Date:	01/10/22	Analysis Date:	01/10/22 Time: 2020
Prep Batch:	731277	Analytical Batch:	731351
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2294957	2294957	2220110A_35.d	01/10/22	2034
2.	LCSD2294958	2294958	2220110A_36.d	01/10/22	2049
3.	ALB-ERB-01	22201061214	2220110A_43.d	01/10/22	2233

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222010612	Method Blank ID:	2296552
Matrix:	Solid	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220116B_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 1820
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2296553	2296553	2220116B_4.d	01/16/22	1835
2.	LCSD2296554	2296554	2220116B_5.d	01/16/22	1850
3.	AOI03-04-SB-00-02	22201061201	2220116B_14.d	01/16/22	2104
4.	AOI03-04-SB-02-04	22201061202	2220116B_15.d	01/16/22	2118
5.	AOI03-05-SB-00-02	22201061203	2220116B_17.d	01/16/22	2148
6.	AOI03-05-SB-00-02-MS	22201061204	2220116B_18.d	01/16/22	2203
7.	AOI03-05-SB-00-02-MSD	22201061205	2220116B_19.d	01/16/22	2218
8.	AOI03-05-SB-02-04	22201061206	2220116B_20.d	01/16/22	2233
9.	AOI03-07-SB-00-02	22201061207	2220116B_21.d	01/16/22	2248
10.	AOI03-07-SB-02-04	22201061208	2220116B_22.d	01/16/22	2303
11.	AOI03-06-SB-00-02	22201061209	2220116B_23.d	01/16/22	2318
12.	AOI03-06-SB-02-04	22201061210	2220116B_24.d	01/16/22	2332
13.	AOI03-03-SB-00-02	22201061211	2220116B_25.d	01/16/22	2347

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222010612	Method Blank ID:	2297103
Matrix:	Solid	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220117A_11.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/17/22 Time: 1404
Prep Batch:	731655	Analytical Batch:	731768
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2297104	2297104	2220117A_12.d	01/17/22	1419
2.	LCSD2297105	2297105	2220117A_13.d	01/17/22	1434
3.	AOI03-04-SB-00-02-DUP	22201061213	2220117A_14.d	01/17/22	1448
4.	AOI03-03-SB-02-04	22201061212	2220117A_16.d	01/17/22	1518

FORM IV SV

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	MB2294956
Collect Date:	NA Time: NA	GCAL Sample ID:	2294956
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220110A_34.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: ADA
Prep Date:	01/10/22	Analysis Date:	01/10/22 Time: 2020
Prep Batch:	731277	Analytical Batch:	731351
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.00	U	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.50	U	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	2.00	U	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	2.00	U	0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.00	U	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	2.00	U	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	MB2296552
Collect Date:	NA Time: NA	GCAL Sample ID:	2296552
Matrix:	Solid % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220116B_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/16/22 Time: 1820
Prep Batch:	731572	Analytical Batch:	731694
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.200	U	0.060	0.200	1.00
39108-34-4	8:2 Fluorotelomersulfonic acid	0.100	U	0.030	0.100	1.00
2991-50-6	NEtFOSAA	0.100	U	0.030	0.100	1.00
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	1.00
375-73-5	Perfluorobutanesulfonic acid	0.050	U	0.020	0.050	1.00
375-22-4	Perfluorobutanoic acid	0.100	U	0.040	0.100	1.00
335-76-2	Perfluorodecanoic acid	0.100	U	0.040	0.100	1.00
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	1.00
375-85-9	Perfluoroheptanoic acid	0.050	U	0.020	0.050	1.00
355-46-4	Perfluorohexanesulfonic acid	0.100	U	0.030	0.100	1.00
307-24-4	Perfluorohexanoic acid	0.050	U	0.020	0.050	1.00
375-95-1	Perfluorononanoic acid	0.050	U	0.020	0.050	1.00
1763-23-1	Perfluorooctanesulfonic acid	0.200	U	0.050	0.200	1.00
335-67-1	Perfluorooctanoic acid	0.200	U	0.080	0.200	1.00
2706-90-3	Perfluoropentanoic acid	0.050	U	0.020	0.050	1.00
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	1.00
72629-94-8	Perfluorotridecanoic acid	0.100	U	0.030	0.100	1.00
2058-94-8	Perfluoroundecanoic acid	0.050	U	0.020	0.050	1.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222010612	Client Sample ID:	MB2297103
Collect Date:	NA Time: NA	GCAL Sample ID:	2297103
Matrix:	Solid % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220117A_11.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	01/14/22	Analysis Date:	01/17/22 Time: 1404
Prep Batch:	731655	Analytical Batch:	731768
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.200	U	0.060	0.200	1.00
39108-34-4	8:2 Fluorotelomersulfonic acid	0.100	U	0.030	0.100	1.00
2991-50-6	NEtFOSAA	0.100	U	0.030	0.100	1.00
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	1.00
375-73-5	Perfluorobutanesulfonic acid	0.050	U	0.020	0.050	1.00
375-22-4	Perfluorobutanoic acid	0.100	U	0.040	0.100	1.00
335-76-2	Perfluorodecanoic acid	0.100	U	0.040	0.100	1.00
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	1.00
375-85-9	Perfluoroheptanoic acid	0.050	U	0.020	0.050	1.00
355-46-4	Perfluorohexanesulfonic acid	0.100	U	0.030	0.100	1.00
307-24-4	Perfluorohexanoic acid	0.050	U	0.020	0.050	1.00
375-95-1	Perfluorononanoic acid	0.050	U	0.020	0.050	1.00
1763-23-1	Perfluorooctanesulfonic acid	0.200	U	0.050	0.200	1.00
335-67-1	Perfluorooctanoic acid	0.200	U	0.080	0.200	1.00
2706-90-3	Perfluoropentanoic acid	0.050	U	0.020	0.050	1.00
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	1.00
72629-94-8	Perfluorotridecanoic acid	0.100	U	0.030	0.100	1.00
2058-94-8	Perfluoroundecanoic acid	0.050	U	0.020	0.050	1.00

FORM I SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222010612

Prep Method: PFAS ID QSM B15 Prep Prep Batch: 731277

Analytical Method: PFAS Isotope Dilution QSM B15 Analytical Batch: 731351

GCAL QC ID: 2294957

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ng/L	76.1	0	76.1	100		64 - 140
8:2 Fluorotelomersulfonic acid	ng/L	76.8	0	78.9	103		67 - 138
NEtFOSAA	ng/L	80	0	74.6	93		61 - 135
NMeFOSAA	ng/L	80	0	79	99		65 - 136
Perfluorobutanesulfonic acid	ng/L	71	0	68.2	96		72 - 130
Perfluorobutanoic acid	ng/L	80	0	76.8	96		73 - 129
Perfluorodecanoic acid	ng/L	80	0	74	93		71 - 129
Perfluorododecanoic acid	ng/L	80	0	73.4	92		72 - 134
Perfluoroheptanoic acid	ng/L	80	0	74	93		72 - 130
Perfluorohexanesulfonic acid	ng/L	73.1	0	68.8	94		68 - 131
Perfluorohexanoic acid	ng/L	80	0	77.1	96		72 - 129
Perfluorononanoic acid	ng/L	80	0	75.1	94		69 - 130
Perfluorooctanesulfonic acid	ng/L	74.2	0	71.2	96		65 - 140
Perfluorooctanoic acid	ng/L	80	0	75.4	94		71 - 133
Perfluoropentanoic acid	ng/L	80	0	76.6	96		72 - 129
Perfluorotetradecanoic acid	ng/L	80	0	73.9	92		71 - 132
Perfluorotridecanoic acid	ng/L	80	0	72.1	90		65 - 144
Perfluoroundecanoic acid	ng/L	80	0	73.1	91		69 - 133

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222010612

Prep Method: PFAS ID QSM B15 Prep

Prep Batch: 731277

Analytical Method: PFAS Isotope Dilution QSM B15

Analytical Batch: 731351

GCAL QC ID: 2294958

ANALYTE	***UNITS***	***SPIKE ADDED***	***LCSD RESULT***	***LCSD % REC***	#	***% RPD***	#	***QC LIMITS REC***	***QC LIMITS RPD***
6:2 Fluorotelomersulfonic acid	ng/L	76.1	76.1	100		.08		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ng/L	76.8	77.4	101		2		67 - 138	0 - 30
NEtFOSAA	ng/L	80	75.7	95		2		61 - 135	0 - 30
NMeFOSAA	ng/L	80	77	96		3		65 - 136	0 - 30
Perfluorobutanesulfonic acid	ng/L	71	69	97		1		72 - 130	0 - 30
Perfluorobutanoic acid	ng/L	80	78.9	99		3		73 - 129	0 - 30
Perfluorodecanoic acid	ng/L	80	77.7	97		5		71 - 129	0 - 30
Perfluorododecanoic acid	ng/L	80	77.3	97		5		72 - 134	0 - 30
Perfluoroheptanoic acid	ng/L	80	75.9	95		2		72 - 130	0 - 30
Perfluorohexanesulfonic acid	ng/L	73.1	72.9	100		6		68 - 131	0 - 30
Perfluorohexanoic acid	ng/L	80	78.6	98		2		72 - 129	0 - 30
Perfluorononanoic acid	ng/L	80	77.8	97		4		69 - 130	0 - 30
Perfluorooctanesulfonic acid	ng/L	74.2	87.4	118		20		65 - 140	0 - 30
Perfluorooctanoic acid	ng/L	80	77.5	97		3		71 - 133	0 - 30
Perfluoropentanoic acid	ng/L	80	79.8	100		4		72 - 129	0 - 30
Perfluorotetradecanoic acid	ng/L	80	74.3	93		.5		71 - 132	0 - 30
Perfluorotridecanoic acid	ng/L	80	73.7	92		2		65 - 144	0 - 30
Perfluoroundecanoic acid	ng/L	80	78	97		6		69 - 133	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3D

SOIL SEMIVOLATILE MS/MSD RECOVERY

Report No:	222010612	Parent Sample ID:	AOI03-05-SB-00-02
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	731572
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731694

GCAL QC ID: 22201061204

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*MS RESULT*	*MS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	2.17	.38	4.53	192	*	64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	2.19	.083	3.03	135		65 - 137
NEtFOSAA	ug/kg	2.27	.00641	2.24	98		61 - 139
NMeFOSAA	ug/kg	2.27	.00624	2.36	103		63 - 144
Perfluorobutanesulfonic acid	ug/kg	2.02	.00954	2.05	101		72 - 128
Perfluorobutanoic acid	ug/kg	2.27	.082	2.4	102		71 - 135
Perfluorodecanoic acid	ug/kg	2.27	.04	2.27	98		69 - 133
Perfluorododecanoic acid	ug/kg	2.27	.02	2.24	97		69 - 135
Perfluoroheptanoic acid	ug/kg	2.27	.05	2.29	98		71 - 131
Perfluorohexanesulfonic acid	ug/kg	2.08	.083	2.2	102		67 - 130
Perfluorohexanoic acid	ug/kg	2.27	.079	2.41	103		70 - 132
Perfluorononanoic acid	ug/kg	2.27	.064	2.32	99		72 - 129
Perfluorooctanesulfonic acid	ug/kg	2.11	1.32	3.58	107		68 - 136
Perfluorooctanoic acid	ug/kg	2.27	.128	2.35	98		69 - 133
Perfluoropentanoic acid	ug/kg	2.27	.069	2.38	102		69 - 132
Perfluorotetradecanoic acid	ug/kg	2.27	.00893	2.24	98		69 - 133
Perfluorotridecanoic acid	ug/kg	2.27	.017	2.39	104		66 - 139
Perfluoroundecanoic acid	ug/kg	2.27	.038	2.29	99		64 - 136

RPD : 1 out of 18 outside limits

Spike Recovery: 1 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

SOIL SEMIVOLATILE MS/MSD RECOVERY

Report No:	222010612	Parent Sample ID:	AOI03-05-SB-00-02
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	731572
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731694

GCAL QC ID: 22201061205

ANALYTE	*UNITS*	*SPIKE ADDED*	*MSD RESULT*	*MSD % REC*	#	*% RPD*	#	*QC LIMITS REC*	*QC LIMITS RPD*
6:2 Fluorotelomersulfonic acid	ug/kg	2.12	2.41	96		61	*	64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ug/kg	2.14	2.42	109		22		65 - 137	0 - 30
NEtFOSAA	ug/kg	2.22	2.28	102		2		61 - 139	0 - 30
NMeFOSAA	ug/kg	2.22	2.35	106		.1		63 - 144	0 - 30
Perfluorobutanesulfonic acid	ug/kg	1.98	2.06	104		.5		72 - 128	0 - 30
Perfluorobutanoic acid	ug/kg	2.22	2.47	107		3		71 - 135	0 - 30
Perfluorodecanoic acid	ug/kg	2.22	2.34	103		3		69 - 133	0 - 30
Perfluorododecanoic acid	ug/kg	2.22	2.32	103		4		69 - 135	0 - 30
Perfluoroheptanoic acid	ug/kg	2.22	2.34	103		2		71 - 131	0 - 30
Perfluorohexanesulfonic acid	ug/kg	2.04	2.24	106		2		67 - 130	0 - 30
Perfluorohexanoic acid	ug/kg	2.22	2.39	104		1		70 - 132	0 - 30
Perfluorononanoic acid	ug/kg	2.22	2.38	104		3		72 - 129	0 - 30
Perfluorooctanesulfonic acid	ug/kg	2.06	3.81	121		7		68 - 136	0 - 30
Perfluorooctanoic acid	ug/kg	2.22	2.42	103		3		69 - 133	0 - 30
Perfluoropentanoic acid	ug/kg	2.22	2.39	104		.4		69 - 132	0 - 30
Perfluorotetradecanoic acid	ug/kg	2.22	2.35	105		5		69 - 133	0 - 30
Perfluorotridecanoic acid	ug/kg	2.22	2.4	107		.3		66 - 139	0 - 30
Perfluoroundecanoic acid	ug/kg	2.22	2.34	103		2		64 - 136	0 - 30

RPD : 1 out of 18 outside limits

Spike Recovery: 1 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No:	222010612		
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	731572
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731694

GCAL QC ID: 2296553

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	0	2.16	113		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	0	2.04	106		65 - 137
NEtFOSAA	ug/kg	2	0	2	100		61 - 139
NMeFOSAA	ug/kg	2	0	2.12	106		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.77	0	1.88	106		72 - 128
Perfluorobutanoic acid	ug/kg	2	0	2.14	107		71 - 135
Perfluorodecanoic acid	ug/kg	2	0	2.08	104		69 - 133
Perfluorododecanoic acid	ug/kg	2	0	2.03	102		69 - 135
Perfluoroheptanoic acid	ug/kg	2	0	2.04	102		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.83	0	1.98	108		67 - 130
Perfluorohexanoic acid	ug/kg	2	0	2.12	106		70 - 132
Perfluorononanoic acid	ug/kg	2	0	2.06	103		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.86	0	1.93	104		68 - 136
Perfluorooctanoic acid	ug/kg	2	0	2.07	104		69 - 133
Perfluoropentanoic acid	ug/kg	2	0	2.15	108		69 - 132
Perfluorotetradecanoic acid	ug/kg	2	0	2.05	103		69 - 133
Perfluorotridecanoic acid	ug/kg	2	0	2.1	105		66 - 139
Perfluoroundecanoic acid	ug/kg	2	0	2.1	105		64 - 136

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222010612

Prep Method: PFAS ID QSM B15 Prep

Prep Batch: 731572

Analytical Method: PFAS Isotope Dilution QSM B15

Analytical Batch: 731694

GCAL QC ID: 2296554

ANALYTE	UNITS	SPIKE ADDED	LCSD RESULT	LCSD % REC	#	% RPD	#	QC LIMITS REC	QC LIMITS RPD
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	2.11	111		2		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	2.05	107		.2		65 - 137	0 - 30
NEtFOSAA	ug/kg	2	1.94	97		3		61 - 139	0 - 30
NMeFOSAA	ug/kg	2	2.14	107		.8		63 - 144	0 - 30
Perfluorobutanesulfonic acid	ug/kg	1.77	1.82	103		3		72 - 128	0 - 30
Perfluorobutanoic acid	ug/kg	2	2.09	104		3		71 - 135	0 - 30
Perfluorodecanoic acid	ug/kg	2	2.05	102		1		69 - 133	0 - 30
Perfluorododecanoic acid	ug/kg	2	2.02	101		.3		69 - 135	0 - 30
Perfluoroheptanoic acid	ug/kg	2	2.03	101		.9		71 - 131	0 - 30
Perfluorohexanesulfonic acid	ug/kg	1.83	1.97	108		.3		67 - 130	0 - 30
Perfluorohexanoic acid	ug/kg	2	2.14	107		.9		70 - 132	0 - 30
Perfluorononanoic acid	ug/kg	2	2.01	100		3		72 - 129	0 - 30
Perfluorooctanesulfonic acid	ug/kg	1.86	1.93	104		.4		68 - 136	0 - 30
Perfluorooctanoic acid	ug/kg	2	2.01	101		3		69 - 133	0 - 30
Perfluoropentanoic acid	ug/kg	2	2.11	105		2		69 - 132	0 - 30
Perfluorotetradecanoic acid	ug/kg	2	1.96	98		5		69 - 133	0 - 30
Perfluorotridecanoic acid	ug/kg	2	2.09	104		.9		66 - 139	0 - 30
Perfluoroundecanoic acid	ug/kg	2	2.04	102		3		64 - 136	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No:	222010612		
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	731655
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	731768

GCAL QC ID: 2297104

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	0	1.88	99		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	0	1.91	100		65 - 137
NEtFOSAA	ug/kg	2	0	1.86	93		61 - 139
NMeFOSAA	ug/kg	2	0	2.03	101		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.77	0	1.71	96		72 - 128
Perfluorobutanoic acid	ug/kg	2	0	1.93	97		71 - 135
Perfluorodecanoic acid	ug/kg	2	0	1.89	95		69 - 133
Perfluorododecanoic acid	ug/kg	2	0	1.89	94		69 - 135
Perfluoroheptanoic acid	ug/kg	2	0	1.87	93		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.83	0	1.74	95		67 - 130
Perfluorohexanoic acid	ug/kg	2	0	1.91	96		70 - 132
Perfluorononanoic acid	ug/kg	2	0	1.88	94		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.86	0	1.76	95		68 - 136
Perfluorooctanoic acid	ug/kg	2	0	1.87	93		69 - 133
Perfluoropentanoic acid	ug/kg	2	0	1.92	96		69 - 132
Perfluorotetradecanoic acid	ug/kg	2	0	1.87	93		69 - 133
Perfluorotridecanoic acid	ug/kg	2	0	1.93	97		66 - 139
Perfluoroundecanoic acid	ug/kg	2	0	1.87	94		64 - 136

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222010612

Prep Method: PFAS ID QSM B15 Prep

Prep Batch: 731655

Analytical Method: PFAS Isotope Dilution QSM B15

Analytical Batch: 731768

GCAL QC ID: 2297105

ANALYTE	*UNITS*	*SPIKE ADDED*	*LCSD RESULT*	*LCSD % REC*	#	*% RPD*	#	*QC LIMITS REC*	*RPD*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	1.99	105		6		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	1.97	103		3		65 - 137	0 - 30
NEtFOSAA	ug/kg	2	1.94	97		4		61 - 139	0 - 30
NMeFOSAA	ug/kg	2	1.97	99		3		63 - 144	0 - 30
Perfluorobutanesulfonic acid	ug/kg	1.77	1.76	99		3		72 - 128	0 - 30
Perfluorobutanoic acid	ug/kg	2	1.98	99		3		71 - 135	0 - 30
Perfluorodecanoic acid	ug/kg	2	1.91	95		.7		69 - 133	0 - 30
Perfluorododecanoic acid	ug/kg	2	1.93	97		2		69 - 135	0 - 30
Perfluoroheptanoic acid	ug/kg	2	1.91	95		2		71 - 131	0 - 30
Perfluorohexanesulfonic acid	ug/kg	1.83	1.81	99		4		67 - 130	0 - 30
Perfluorohexanoic acid	ug/kg	2	1.95	97		2		70 - 132	0 - 30
Perfluorononanoic acid	ug/kg	2	1.93	96		2		72 - 129	0 - 30
Perfluorooctanesulfonic acid	ug/kg	1.86	1.8	97		2		68 - 136	0 - 30
Perfluorooctanoic acid	ug/kg	2	1.96	98		5		69 - 133	0 - 30
Perfluoropentanoic acid	ug/kg	2	1.96	98		2		69 - 132	0 - 30
Perfluorotetradecanoic acid	ug/kg	2	1.93	97		3		69 - 133	0 - 30
Perfluorotridecanoic acid	ug/kg	2	1.96	98		1		66 - 139	0 - 30
Perfluoroundecanoic acid	ug/kg	2	1.92	96		2		64 - 136	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041582	Method Blank ID:	2341409
Matrix:	Water	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220503B_28.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/03/22 Time: 2309
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	GCAL SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS2341410	2341410	2220503B_29.d	05/03/22	2324
2.	LCSD2341411	2341411	2220503B_30.d	05/03/22	2339
3.	AOI01-06-GW	22204158213	2220503B_38.d	05/04/22	0138
4.	AOI03-01-GW	22204158214	2220503B_39.d	05/04/22	0153
5.	AOI02-02-GW	22204158215	2220503B_40.d	05/04/22	0207
6.	AOI02-03-GW	22204158216	2220503B_42.d	05/04/22	0237
7.	AOI02-DUP-GW-02	22204158217	2220503B_43.d	05/04/22	0252
8.	AOI02-04-GW	22204158218	2220503B_44.d	05/04/22	0307
9.	AOI03-02-GW	22204158219	2220503B_45.d	05/04/22	0322
10.	AOI02-01-GW	22204158220	2220503B_46.d	05/04/22	0337
11.	EB-2-041422	22204158221	2220503B_47.d	05/04/22	0352
12.	EB-3-041422	22204158222	2220503C_3.d	05/04/22	0452

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041582	Method Blank ID:	2341454
Matrix:	Solid	Instrument ID:	QQQ3
Sample Amt:	5 g	Lab File ID:	2220504A_4.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1402
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2341455	2341455	2220504A_5.d	05/04/22	1417
2.	AOI02-03-SB-00-02	22204158201	2220504A_11.d	05/04/22	1545
3.	AOI03-01-SB-00-01	22204158203	2220504A_13.d	05/04/22	1614
4.	AOI03-02-SB-00-01	22204158204	2220504A_15.d	05/04/22	1644
5.	AOI02-01-SB-03.5-04.3	22204158205	2220504A_16.d	05/04/22	1658
6.	AOI02-01-SB-03.5-04.3-MS	22204158206	2220504A_18.d	05/04/22	1727
7.	AOI02-01-SB-03.5-04.3-MSD	22204158207	2220504A_19.d	05/04/22	1742
8.	AOI02-01-SB-00.9-03.5	22204158208	2220504A_20.d	05/04/22	1757
9.	AOI02-05-SB-0-0-02	22204158209	2220504A_21.d	05/04/22	1811
10.	AOI02-SB-DUP-3	22204158210	2220504A_22.d	05/04/22	1826

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041582	Method Blank ID:	2343451
Matrix:	Solid	Instrument ID:	QQQ5
Sample Amt:	5 g	Lab File ID:	2220509B_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/08/22	Analysis Date:	05/09/22 Time: 1933
Prep Batch:	740324	Analytical Batch:	740543
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2343452	2343452	2220509B_4.d	05/09/22	1948
2.	AOI02-03-SB-02-02.7	22204158202	2220509B_5.d	05/09/22	2002

FORM IV SV

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	MB2341409
Collect Date:	NA Time: NA	GCAL Sample ID:	2341409
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	125 mL	Lab File ID:	2220503B_28.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/03/22 Time: 2309
Prep Batch:	740006	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.00	U	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.50	U	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	2.00	U	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	2.00	U	0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.00	U	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	2.00	U	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	MB2341454
Collect Date:	NA Time: NA	GCAL Sample ID:	2341454
Matrix:	Solid % Moisture: NA	Instrument ID:	QQQ3
Sample Amt:	5 g	Lab File ID:	2220504A_4.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/03/22	Analysis Date:	05/04/22 Time: 1402
Prep Batch:	740025	Analytical Batch:	740216
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.200	U	0.060	0.200	1.00
39108-34-4	8:2 Fluorotelomersulfonic acid	0.100	U	0.030	0.100	1.00
2991-50-6	NEtFOSAA	0.100	U	0.030	0.100	1.00
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	1.00
375-73-5	Perfluorobutanesulfonic acid	0.050	U	0.020	0.050	1.00
375-22-4	Perfluorobutanoic acid	0.100	U	0.040	0.100	1.00
335-76-2	Perfluorodecanoic acid	0.100	U	0.040	0.100	1.00
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	1.00
375-85-9	Perfluoroheptanoic acid	0.050	U	0.020	0.050	1.00
355-46-4	Perfluorohexanesulfonic acid	0.100	U	0.030	0.100	1.00
307-24-4	Perfluorohexanoic acid	0.050	U	0.020	0.050	1.00
375-95-1	Perfluorononanoic acid	0.050	U	0.020	0.050	1.00
1763-23-1	Perfluorooctanesulfonic acid	0.200	U	0.050	0.200	1.00
335-67-1	Perfluorooctanoic acid	0.200	U	0.080	0.200	1.00
2706-90-3	Perfluoropentanoic acid	0.050	U	0.020	0.050	1.00
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	1.00
72629-94-8	Perfluorotridecanoic acid	0.100	U	0.030	0.100	1.00
2058-94-8	Perfluoroundecanoic acid	0.050	U	0.020	0.050	1.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041582	Client Sample ID:	MB2343451
Collect Date:	NA Time: NA	GCAL Sample ID:	2343451
Matrix:	Solid % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	5 g	Lab File ID:	2220509B_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/08/22	Analysis Date:	05/09/22 Time: 1933
Prep Batch:	740324	Analytical Batch:	740543
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.200	U	0.060	0.200	1.00
39108-34-4	8:2 Fluorotelomersulfonic acid	0.100	U	0.030	0.100	1.00
2991-50-6	NEtFOSAA	0.100	U	0.030	0.100	1.00
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	1.00
375-73-5	Perfluorobutanesulfonic acid	0.050	U	0.020	0.050	1.00
375-22-4	Perfluorobutanoic acid	0.100	U	0.040	0.100	1.00
335-76-2	Perfluorodecanoic acid	0.100	U	0.040	0.100	1.00
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	1.00
375-85-9	Perfluoroheptanoic acid	0.050	U	0.020	0.050	1.00
355-46-4	Perfluorohexanesulfonic acid	0.100	U	0.030	0.100	1.00
307-24-4	Perfluorohexanoic acid	0.050	U	0.020	0.050	1.00
375-95-1	Perfluorononanoic acid	0.050	U	0.020	0.050	1.00
1763-23-1	Perfluorooctanesulfonic acid	0.200	U	0.050	0.200	1.00
335-67-1	Perfluorooctanoic acid	0.200	U	0.080	0.200	1.00
2706-90-3	Perfluoropentanoic acid	0.050	U	0.020	0.050	1.00
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	1.00
72629-94-8	Perfluorotridecanoic acid	0.100	U	0.030	0.100	1.00
2058-94-8	Perfluoroundecanoic acid	0.050	U	0.020	0.050	1.00

FORM I SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222041582

Prep Method: PFAS ID QSM B15 Prep Prep Batch: 740006

Analytical Method: PFAS Isotope Dilution QSM B15 Analytical Batch: 740027

GCAL QC ID: 2341410

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ng/L	76.1	0	73.8	97		64 - 140
8:2 Fluorotelomersulfonic acid	ng/L	76.8	0	71.9	94		67 - 138
NEtFOSAA	ng/L	80	0	74.6	93		61 - 135
NMeFOSAA	ng/L	80	0	76.6	96		65 - 136
Perfluorobutanesulfonic acid	ng/L	71	0	65.1	92		72 - 130
Perfluorobutanoic acid	ng/L	80	0	74.6	93		73 - 129
Perfluorodecanoic acid	ng/L	80	0	75.7	95		71 - 129
Perfluorododecanoic acid	ng/L	80	0	76.1	95		72 - 134
Perfluoroheptanoic acid	ng/L	80	0	72.9	91		72 - 130
Perfluorohexanesulfonic acid	ng/L	73.1	0	68.1	93		68 - 131
Perfluorohexanoic acid	ng/L	80	0	75.4	94		72 - 129
Perfluorononanoic acid	ng/L	80	0	74	92		69 - 130
Perfluorooctanesulfonic acid	ng/L	74.2	0	69.1	93		65 - 140
Perfluorooctanoic acid	ng/L	80	0	71.7	90		71 - 133
Perfluoropentanoic acid	ng/L	80	0	73.9	92		72 - 129
Perfluorotetradecanoic acid	ng/L	80	0	73.2	92		71 - 132
Perfluorotridecanoic acid	ng/L	80	0	75.4	94		65 - 144
Perfluoroundecanoic acid	ng/L	80	0	74.6	93		69 - 133

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222041582

Prep Method: PFAS ID QSM B15 Prep

Prep Batch: 740006

Analytical Method: PFAS Isotope Dilution QSM B15

Analytical Batch: 740027

GCAL QC ID: 2341411

ANALYTE	***UNITS***	***SPIKE ADDED***	***LCSD RESULT***	***LCSD % REC***	#	***% RPD***	#	***QC LIMITS REC***	***QC LIMITS RPD***
6:2 Fluorotelomersulfonic acid	ng/L	76.1	71.8	94		3		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ng/L	76.8	72.5	94		.8		67 - 138	0 - 30
NEtFOSAA	ng/L	80	71.4	89		4		61 - 135	0 - 30
NMeFOSAA	ng/L	80	77.6	97		1		65 - 136	0 - 30
Perfluorobutanesulfonic acid	ng/L	71	67.6	95		4		72 - 130	0 - 30
Perfluorobutanoic acid	ng/L	80	74.4	93		.4		73 - 129	0 - 30
Perfluorodecanoic acid	ng/L	80	75.3	94		.5		71 - 129	0 - 30
Perfluorododecanoic acid	ng/L	80	71.9	90		6		72 - 134	0 - 30
Perfluoroheptanoic acid	ng/L	80	71.4	89		2		72 - 130	0 - 30
Perfluorohexanesulfonic acid	ng/L	73.1	66.9	92		2		68 - 131	0 - 30
Perfluorohexanoic acid	ng/L	80	72.7	91		4		72 - 129	0 - 30
Perfluorononanoic acid	ng/L	80	75.1	94		1		69 - 130	0 - 30
Perfluorooctanesulfonic acid	ng/L	74.2	68.2	92		1		65 - 140	0 - 30
Perfluorooctanoic acid	ng/L	80	72.8	91		2		71 - 133	0 - 30
Perfluoropentanoic acid	ng/L	80	74.7	93		1		72 - 129	0 - 30
Perfluorotetradecanoic acid	ng/L	80	73.5	92		.4		71 - 132	0 - 30
Perfluorotridecanoic acid	ng/L	80	74.7	93		1		65 - 144	0 - 30
Perfluoroundecanoic acid	ng/L	80	74.1	93		.6		69 - 133	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3D

SOIL SEMIVOLATILE MS/MSD RECOVERY

Report No:	222041582	Parent Sample ID:	AOI02-01-SB-03.5-04.3
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	740025
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740216

GCAL QC ID: 22204158206

ANALYTE	UNITS	SPIKE ADDED	SAMPLE RESULT	MS RESULT	MS % REC	#	QC LIMITS
6:2 Fluorotelomersulfonic acid	ug/kg	2.02	.00349	2.15	106		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	2.04	.00165	2.07	101		65 - 137
NEtFOSAA	ug/kg	2.12	.00157	2.24	106		61 - 139
NMeFOSAA	ug/kg	2.12	.00304	2.08	98		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.88	.00349	2.05	109		72 - 128
Perfluorobutanoic acid	ug/kg	2.12	.011	2.36	110		71 - 135
Perfluorodecanoic acid	ug/kg	2.12	.00317	2.22	104		69 - 133
Perfluorododecanoic acid	ug/kg	2.12	.0019	2.25	106		69 - 135
Perfluoroheptanoic acid	ug/kg	2.12	.011	2.17	102		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.94	.0066	2.04	105		67 - 130
Perfluorohexanoic acid	ug/kg	2.12	.017	2.21	103		70 - 132
Perfluorononanoic acid	ug/kg	2.12	.012	2.14	100		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.97	.398	2.83	124		68 - 136
Perfluorooctanoic acid	ug/kg	2.12	.012	2.08	97		69 - 133
Perfluoropentanoic acid	ug/kg	2.12	.028	2.33	109		69 - 132
Perfluorotetradecanoic acid	ug/kg	2.12	.00204	2.24	105		69 - 133
Perfluorotridecanoic acid	ug/kg	2.12	.00146	2.26	107		66 - 139
Perfluoroundecanoic acid	ug/kg	2.12	.00197	2.18	102		64 - 136

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE MS/MSD RECOVERY

Report No:	222041582	Parent Sample ID:	AOI02-01-SB-03.5-04.3
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	740025
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740216

GCAL QC ID: 22204158207

ANALYTE	*UNITS*	*SPIKE ADDED*	*MSD RESULT*	*MSD % REC*	#	*% RPD*	#	*QC LIMITS REC*	*RPD*
6:2 Fluorotelomersulfonic acid	ug/kg	2.09	2.53	121		17		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ug/kg	2.11	2.41	114		16		65 - 137	0 - 30
NEtFOSAA	ug/kg	2.21	2.63	120		16		61 - 139	0 - 30
NMeFOSAA	ug/kg	2.21	2.58	117		21		63 - 144	0 - 30
Perfluorobutanesulfonic acid	ug/kg	1.95	2.36	121		14		72 - 128	0 - 30
Perfluorobutanoic acid	ug/kg	2.21	2.66	120		12		71 - 135	0 - 30
Perfluorodecanoic acid	ug/kg	2.21	2.67	121		18		69 - 133	0 - 30
Perfluorododecanoic acid	ug/kg	2.21	2.7	123		18		69 - 135	0 - 30
Perfluoroheptanoic acid	ug/kg	2.21	2.57	116		17		71 - 131	0 - 30
Perfluorohexanesulfonic acid	ug/kg	2.01	2.41	120		17		67 - 130	0 - 30
Perfluorohexanoic acid	ug/kg	2.21	2.59	117		16		70 - 132	0 - 30
Perfluorononanoic acid	ug/kg	2.21	2.62	119		20		72 - 129	0 - 30
Perfluorooctanesulfonic acid	ug/kg	2.04	3.11	133		9		68 - 136	0 - 30
Perfluorooctanoic acid	ug/kg	2.21	2.51	113		19		69 - 133	0 - 30
Perfluoropentanoic acid	ug/kg	2.21	2.67	120		13		69 - 132	0 - 30
Perfluorotetradecanoic acid	ug/kg	2.21	2.62	119		16		69 - 133	0 - 30
Perfluorotridecanoic acid	ug/kg	2.21	2.7	123		18		66 - 139	0 - 30
Perfluoroundecanoic acid	ug/kg	2.21	2.6	118		18		64 - 136	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No:	222041582		
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	740025
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740216

GCAL QC ID: 2341455

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	0	1.79	94		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	0	1.8	94		65 - 137
NEtFOSAA	ug/kg	2	0	1.87	94		61 - 139
NMeFOSAA	ug/kg	2	0	1.84	92		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.77	0	1.68	95		72 - 128
Perfluorobutanoic acid	ug/kg	2	0	1.88	94		71 - 135
Perfluorodecanoic acid	ug/kg	2	0	1.9	95		69 - 133
Perfluorododecanoic acid	ug/kg	2	0	1.86	93		69 - 135
Perfluoroheptanoic acid	ug/kg	2	0	1.85	93		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.83	0	1.73	95		67 - 130
Perfluorohexanoic acid	ug/kg	2	0	1.82	91		70 - 132
Perfluorononanoic acid	ug/kg	2	0	1.85	92		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.86	0	1.77	95		68 - 136
Perfluorooctanoic acid	ug/kg	2	0	1.83	92		69 - 133
Perfluoropentanoic acid	ug/kg	2	0	1.87	94		69 - 132
Perfluorotetradecanoic acid	ug/kg	2	0	1.88	94		69 - 133
Perfluorotridecanoic acid	ug/kg	2	0	1.87	94		66 - 139
Perfluoroundecanoic acid	ug/kg	2	0	1.82	91		64 - 136

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 18 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No:	222041582		
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	740324
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740543

GCAL QC ID: 2343452

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	0	1.63	86		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	0	1.7	88		65 - 137
NEtFOSAA	ug/kg	2	0	1.56	78		61 - 139
NMeFOSAA	ug/kg	2	0	1.53	77		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.77	0	1.45	82		72 - 128
Perfluorobutanoic acid	ug/kg	2	0	1.64	82		71 - 135
Perfluorodecanoic acid	ug/kg	2	0	1.66	83		69 - 133
Perfluorododecanoic acid	ug/kg	2	0	1.65	82		69 - 135
Perfluoroheptanoic acid	ug/kg	2	0	1.63	81		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.83	0	1.47	80		67 - 130
Perfluorohexanoic acid	ug/kg	2	0	1.63	81		70 - 132
Perfluorononanoic acid	ug/kg	2	0	1.63	81		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.86	0	1.5	81		68 - 136
Perfluorooctanoic acid	ug/kg	2	0	1.64	82		69 - 133
Perfluoropentanoic acid	ug/kg	2	0	1.64	82		69 - 132
Perfluorotetradecanoic acid	ug/kg	2	0	1.7	85		69 - 133
Perfluorotridecanoic acid	ug/kg	2	0	1.61	81		66 - 139
Perfluoroundecanoic acid	ug/kg	2	0	1.65	83		64 - 136

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 18 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041526	Method Blank ID:	2340536
Matrix:	Solid	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220501C_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	04/30/22	Analysis Date:	05/02/22 Time: 0440
Prep Batch:	739811	Analytical Batch:	739843
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2340537	2340537	2220501C_4.d	05/02/22	0455
2.	LCSD2340538	2340538	2220501C_5.d	05/02/22	0510
3.	AOI01-01-SB-05.6-06.2	22204152602	2220501C_9.d	05/02/22	0609
4.	AOI01-01-SB-00-02	22204152603	2220501C_10.d	05/02/22	0624

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041526	Method Blank ID:	2340725
Matrix:	Water	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220503A_4.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1223
Prep Batch:	739862	Analytical Batch:	740023
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	GCAL SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS2340726	2340726	2220503A_5.d	05/03/22	1238
2.	AOI01-01-GW	22204152613	2220503A_9.d	05/03/22	1336
3.	AOI01-03-GW	22204152627	2220503A_11.d	05/03/22	1405
4.	AOI01-04-GWDL	22204152629DL	2220504B_4.d	05/05/22	0001
5.	AOI01-04-GW-MSDL	22204152631DL	2220504B_5.d	05/05/22	0015
6.	AOI01-04-GW-MSDDL	22204152632DL	2220504B_6.d	05/05/22	0030
7.	DUP-GW-01DL	22204152635DL	2220504B_7.d	05/05/22	0044
8.	AOI01-04-GW	22204152629	2220504B_8.d	05/05/22	0059
9.	AOI01-04-GW-MS	22204152631	2220504B_9.d	05/05/22	0114
10.	AOI01-04-GW-MSD	22204152632	2220504B_10.d	05/05/22	0128
11.	DUP-GW-01	22204152635	2220504B_11.d	05/05/22	0143

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041526	Method Blank ID:	2340976
Matrix:	Solid	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220503B_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1657
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	GCAL SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1.	LCS2340977	2340977	2220503B_4.d	05/03/22	1713
2.	AOI01-01-SB-03-04	22204152604	2220503B_5.d	05/03/22	1727
3.	AOI01-02-SB-00-02	22204152605	2220503B_6.d	05/03/22	1742
4.	AOI01-02-SB-03-04	22204152606	2220503B_7.d	05/03/22	1757
5.	AOI01-03-SB-00-02	22204152607	2220503B_8.d	05/03/22	1812
6.	AOI01-08-SB-00-02	22204152609	2220503B_10.d	05/03/22	1841
7.	AOI01-04-SB-00-02	22204152610	2220503B_11.d	05/03/22	1856
8.	AOI01-04-SB-03-04	22204152611	2220503B_12.d	05/03/22	1911
9.	AOI01-07-SB-00-02	22204152615	2220503B_14.d	05/03/22	1941
10.	AOI01-06-SB-02-02.7	22204152617	2220503B_17.d	05/03/22	2026
11.	AOI01-07-SB-00-02-MS	22204152620	2220503B_18.d	05/03/22	2041
12.	AOI01-07-SB-00-02-MD	22204152621	2220503B_19.d	05/03/22	2055
13.	AOI02-04-SB-05-05.5	22204152624	2220503B_22.d	05/03/22	2140
14.	AOI01-SB-DUP-1	22204152633	2220503B_25.d	05/03/22	2224
15.	AOI01-04-SB-00-02DL	22204152610DL	2220518A_4.d	05/18/22	1245

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041526	Method Blank ID:	2342710
Matrix:	Solid	Instrument ID:	QQQ5
Sample Amt:	5 g	Lab File ID:	2220505A_32.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/05/22 Time: 2329
Prep Batch:	740195	Analytical Batch:	740271
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2342711	2342711	2220505A_33.d	05/05/22	2344
2.	AOI01-03-SB-02-03	22204152608	2220505A_37.d	05/06/22	0043
3.	AOI01-09-SB-00-02	22204152612	2220505A_38.d	05/06/22	0057
4.	AOI01-06-SB-00-02	22204152616	2220505A_39.d	05/06/22	0112
5.	AOI01-05-SB-00-02	22204152622	2220505A_40.d	05/06/22	0127
6.	AOI01-05-SB-03-04	22204152623	2220506B_13.d	05/06/22	2107
7.	AOI02-02-SB-00-02	22204152625	2220506B_14.d	05/06/22	2121
8.	AOI02-02-SB-03-03.7	22204152626	2220506B_15.d	05/06/22	2136
9.	AOI01-SB-DUP-2	22204152634	2220506B_16.d	05/06/22	2151

FORM IV SV

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Report No:	222041526	Method Blank ID:	2342605
Matrix:	Water	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220506C_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/07/22 Time: 0145
Prep Batch:	740175	Analytical Batch:	740405
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	CLIENT SAMPLE ID	*GCAL SAMPLE ID*	*LAB FILE ID*	*DATE ANALYZED*	*TIME ANALYZED*
1.	LCS2342606	2342606	2220506C_4.d	05/07/22	0200
2.	LCSD2342607	2342607	2220506C_5.d	05/07/22	0215
3.	EB-1 041122	22204152601	2220506C_13.d	05/07/22	0412
4.	AOI01-02-GW	22204152614	2220506C_14.d	05/07/22	0426
5.	AOI01-05-GW	22204152630	2220506C_17.d	05/07/22	0510
6.	AOI01-07-GW	22204152628	2220506C_20.d	05/07/22	0554

FORM IV SV

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	MB2340536
Collect Date:	NA Time: NA	GCAL Sample ID:	2340536
Matrix:	Solid % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220501C_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	04/30/22	Analysis Date:	05/02/22 Time: 0440
Prep Batch:	739811	Analytical Batch:	739843
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.200	U	0.060	0.200	1.00
39108-34-4	8:2 Fluorotelomersulfonic acid	0.100	U	0.030	0.100	1.00
2991-50-6	NEtFOSAA	0.100	U	0.030	0.100	1.00
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	1.00
375-73-5	Perfluorobutanesulfonic acid	0.050	U	0.020	0.050	1.00
375-22-4	Perfluorobutanoic acid	0.100	U	0.040	0.100	1.00
335-76-2	Perfluorodecanoic acid	0.100	U	0.040	0.100	1.00
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	1.00
375-85-9	Perfluoroheptanoic acid	0.050	U	0.020	0.050	1.00
355-46-4	Perfluorohexanesulfonic acid	0.032	J	0.030	0.100	1.00
307-24-4	Perfluorohexanoic acid	0.050	U	0.020	0.050	1.00
375-95-1	Perfluorononanoic acid	0.050	U	0.020	0.050	1.00
1763-23-1	Perfluorooctanesulfonic acid	0.200	U	0.050	0.200	1.00
335-67-1	Perfluorooctanoic acid	0.200	U	0.080	0.200	1.00
2706-90-3	Perfluoropentanoic acid	0.050	U	0.020	0.050	1.00
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	1.00
72629-94-8	Perfluorotridecanoic acid	0.100	U	0.030	0.100	1.00
2058-94-8	Perfluoroundecanoic acid	0.050	U	0.020	0.050	1.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	MB2340725
Collect Date:	NA Time: NA	GCAL Sample ID:	2340725
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220503A_4.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1223
Prep Batch:	739862	Analytical Batch:	740023
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.00	U	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.50	U	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	2.00	U	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	7.94		0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.00	U	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	2.00	U	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	MB2340976
Collect Date:	NA Time: NA	GCAL Sample ID:	2340976
Matrix:	Solid % Moisture: NA	Instrument ID:	QQQ4
Sample Amt:	5 g	Lab File ID:	2220503B_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/02/22	Analysis Date:	05/03/22 Time: 1657
Prep Batch:	739931	Analytical Batch:	740027
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.200	U	0.060	0.200	1.00
39108-34-4	8:2 Fluorotelomersulfonic acid	0.100	U	0.030	0.100	1.00
2991-50-6	NEtFOSAA	0.100	U	0.030	0.100	1.00
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	1.00
375-73-5	Perfluorobutanesulfonic acid	0.050	U	0.020	0.050	1.00
375-22-4	Perfluorobutanoic acid	0.100	U	0.040	0.100	1.00
335-76-2	Perfluorodecanoic acid	0.100	U	0.040	0.100	1.00
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	1.00
375-85-9	Perfluoroheptanoic acid	0.050	U	0.020	0.050	1.00
355-46-4	Perfluorohexanesulfonic acid	0.100	U	0.030	0.100	1.00
307-24-4	Perfluorohexanoic acid	0.050	U	0.020	0.050	1.00
375-95-1	Perfluorononanoic acid	0.050	U	0.020	0.050	1.00
1763-23-1	Perfluorooctanesulfonic acid	0.200	U	0.050	0.200	1.00
335-67-1	Perfluorooctanoic acid	0.200	U	0.080	0.200	1.00
2706-90-3	Perfluoropentanoic acid	0.050	U	0.020	0.050	1.00
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	1.00
72629-94-8	Perfluorotridecanoic acid	0.100	U	0.030	0.100	1.00
2058-94-8	Perfluoroundecanoic acid	0.050	U	0.020	0.050	1.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	MB2342605
Collect Date:	NA Time: NA	GCAL Sample ID:	2342605
Matrix:	Water % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	125 mL	Lab File ID:	2220506C_3.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/07/22 Time: 0145
Prep Batch:	740175	Analytical Batch:	740405
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ng/L

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	3.00	U	1.50	3.00	4.00
39108-34-4	8:2 Fluorotelomersulfonic acid	3.00	U	1.06	3.00	4.00
2991-50-6	NEtFOSAA	4.00	U	1.58	4.00	8.00
2355-31-9	NMeFOSAA	4.00	U	0.900	4.00	8.00
375-73-5	Perfluorobutanesulfonic acid	2.00	U	0.620	2.00	4.00
375-22-4	Perfluorobutanoic acid	3.50	U	1.52	3.50	4.00
335-76-2	Perfluorodecanoic acid	3.00	U	1.44	3.00	4.00
307-55-1	Perfluorododecanoic acid	3.00	U	1.30	3.00	4.00
375-85-9	Perfluoroheptanoic acid	3.00	U	1.16	3.00	4.00
355-46-4	Perfluorohexanesulfonic acid	3.00	U	1.24	3.00	4.00
307-24-4	Perfluorohexanoic acid	2.00	U	0.940	2.00	4.00
375-95-1	Perfluorononanoic acid	2.00	U	0.980	2.00	4.00
1763-23-1	Perfluorooctanesulfonic acid	2.00	U	0.760	2.00	4.00
335-67-1	Perfluorooctanoic acid	2.00	U	0.840	2.00	4.00
2706-90-3	Perfluoropentanoic acid	2.00	U	0.880	2.00	4.00
376-06-7	Perfluorotetradecanoic acid	3.00	U	1.14	3.00	4.00
72629-94-8	Perfluorotridecanoic acid	3.00	U	1.23	3.00	4.00
2058-94-8	Perfluoroundecanoic acid	3.00	U	1.24	3.00	4.00

FORM I SV-1

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Report No:	222041526	Client Sample ID:	MB2342710
Collect Date:	NA Time: NA	GCAL Sample ID:	2342710
Matrix:	Solid % Moisture: NA	Instrument ID:	QQQ5
Sample Amt:	5 g	Lab File ID:	2220505A_32.d
Injection Vol.:	2 (µL)	GC Column:	ECLIPSE+C18 ID: 2.1 (mm)
Prep Final Vol.:	1000 (µL)	Dilution Factor:	1 Analyst: SXA
Prep Date:	05/05/22	Analysis Date:	05/05/22 Time: 2329
Prep Batch:	740195	Analytical Batch:	740271
Prep Method:	PFAS ID QSM B15 Prep	Analytical Method:	PFAS Isotope Dilution QSM B15

CONCENTRATION UNITS: ug/kg

CAS	ANALYTE	RESULT	Q	DL	LOD	LOQ
27619-97-2	6:2 Fluorotelomersulfonic acid	0.200	U	0.060	0.200	1.00
39108-34-4	8:2 Fluorotelomersulfonic acid	0.100	U	0.030	0.100	1.00
2991-50-6	NEtFOSAA	0.100	U	0.030	0.100	1.00
2355-31-9	NMeFOSAA	0.050	U	0.020	0.050	1.00
375-73-5	Perfluorobutanesulfonic acid	0.050	U	0.020	0.050	1.00
375-22-4	Perfluorobutanoic acid	0.100	U	0.040	0.100	1.00
335-76-2	Perfluorodecanoic acid	0.100	U	0.040	0.100	1.00
307-55-1	Perfluorododecanoic acid	0.050	U	0.020	0.050	1.00
375-85-9	Perfluoroheptanoic acid	0.050	U	0.020	0.050	1.00
355-46-4	Perfluorohexanesulfonic acid	0.100	U	0.030	0.100	1.00
307-24-4	Perfluorohexanoic acid	0.050	U	0.020	0.050	1.00
375-95-1	Perfluorononanoic acid	0.050	U	0.020	0.050	1.00
1763-23-1	Perfluorooctanesulfonic acid	0.200	U	0.050	0.200	1.00
335-67-1	Perfluorooctanoic acid	0.200	U	0.080	0.200	1.00
2706-90-3	Perfluoropentanoic acid	0.050	U	0.020	0.050	1.00
376-06-7	Perfluorotetradecanoic acid	0.050	U	0.020	0.050	1.00
72629-94-8	Perfluorotridecanoic acid	0.100	U	0.030	0.100	1.00
2058-94-8	Perfluoroundecanoic acid	0.050	U	0.020	0.050	1.00

FORM I SV-1

3C

WATER SEMIVOLATILE MS/MSD RECOVERY

Report No:	222041526	Parent Sample ID:	AOI01-04-GW
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	739862
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740280

GCAL QC ID: 22204152631

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*MS RESULT*	*MS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ng/L	76.1	5.48	74.1	90		64 - 140
8:2 Fluorotelomersulfonic acid	ng/L	76.8	.055	74.2	97		67 - 138
NEtFOSAA	ng/L	80	.199	69.1	86		61 - 135
NMeFOSAA	ng/L	80	.184	72.5	90		65 - 136
Perfluorobutanesulfonic acid	ng/L	71	48.5	114	92		72 - 130
Perfluorobutanoic acid	ng/L	80	49.2	124	93		73 - 129
Perfluorodecanoic acid	ng/L	80	2.94	76	91		71 - 129
Perfluorododecanoic acid	ng/L	80	.098	72.5	90		72 - 134
Perfluoroheptanoic acid	ng/L	80	33.9	105	89		72 - 130
Perfluorohexanesulfonic acid	ng/L	73.1	1120	1210	120		68 - 131
Perfluorohexanoic acid	ng/L	80	152	233	100		72 - 129
Perfluorononanoic acid	ng/L	80	4.9	75.2	88		69 - 130
Perfluorooctanoic acid	ng/L	80	58.7	130	89		71 - 133
Perfluoropentanoic acid	ng/L	80	78.6	151	91		72 - 129
Perfluorotetradecanoic acid	ng/L	80	.046	70.3	88		71 - 132
Perfluorotridecanoic acid	ng/L	80	.161	72.3	90		65 - 144
Perfluoroundecanoic acid	ng/L	80	.273	71	88		69 - 133

RPD : 0 out of 17 outside limits

Spike Recovery: 1 out of 34 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE MS/MSD RECOVERY

Report No:	222041526	Parent Sample ID:	AOI01-04-GW
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	739862
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740280

GCAL QC ID: 22204152632

ANALYTE	*UNITS*	*SPIKE ADDED*	*MSD RESULT*	*MSD % REC*	#	*% RPD*	#	*QC LIMITS REC*	*QC LIMITS RPD*
6:2 Fluorotelomersulfonic acid	ng/L	76.1	72.2	88		3		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ng/L	76.8	69.9	91		6		67 - 138	0 - 30
NEtFOSAA	ng/L	80	69.8	87		1		61 - 135	0 - 30
NMeFOSAA	ng/L	80	69.1	86		5		65 - 136	0 - 30
Perfluorobutanesulfonic acid	ng/L	71	111	88		2		72 - 130	0 - 30
Perfluorobutanoic acid	ng/L	80	111	77		10		73 - 129	0 - 30
Perfluorodecanoic acid	ng/L	80	73.2	88		4		71 - 129	0 - 30
Perfluorododecanoic acid	ng/L	80	70.5	88		3		72 - 134	0 - 30
Perfluoroheptanoic acid	ng/L	80	99.8	82		5		72 - 130	0 - 30
Perfluorohexanesulfonic acid	ng/L	73.1	1160	58	*	4		68 - 131	0 - 30
Perfluorohexanoic acid	ng/L	80	215	78		8		72 - 129	0 - 30
Perfluorononanoic acid	ng/L	80	73.4	86		2		69 - 130	0 - 30
Perfluorooctanoic acid	ng/L	80	127	86		2		71 - 133	0 - 30
Perfluoropentanoic acid	ng/L	80	138	74		9		72 - 129	0 - 30
Perfluorotetradecanoic acid	ng/L	80	68.8	86		2		71 - 132	0 - 30
Perfluorotridecanoic acid	ng/L	80	72.2	90		.1		65 - 144	0 - 30
Perfluoroundecanoic acid	ng/L	80	69	86		3		69 - 133	0 - 30

RPD : 0 out of 17 outside limits

Spike Recovery: 1 out of 34 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE MS/MSD RECOVERY

Report No:	222041526	Parent Sample ID:	AOI01-04-GWDL
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	739862
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740280

GCAL QC ID: 22204152631

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*MS RESULT*	*MS % REC*	#	*QC LIMITS*
Perfluorooctanesulfonic acid	ng/L	74.2	14100	12800	-1840	*	65 - 140

GCAL QC ID: 22204152632

ANALYTE	*UNITS*	*SPIKE ADDED*	*MSD RESULT*	*MSD % REC*	#	*% RPD*	#	*QC LIMITS REC*	*QC LIMITS RPD*
Perfluorooctanesulfonic acid	ng/L	74.2	12300	-2540	*	4		65 - 140	0 - 30

RPD : 0 out of 1 outside limits

Spike Recovery: 2 out of 2 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222041526

Prep Method: PFAS ID QSM B15 Prep Prep Batch: 739862

Analytical Method: PFAS Isotope Dilution QSM B15 Analytical Batch: 740023

GCAL QC ID: 2340726

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ng/L	76.1	0	65.2	86		64 - 140
8:2 Fluorotelomersulfonic acid	ng/L	76.8	0	70.2	91		67 - 138
NEtFOSAA	ng/L	80	0	69.5	87		61 - 135
NMeFOSAA	ng/L	80	0	72.7	91		65 - 136
Perfluorobutanesulfonic acid	ng/L	71	0	64.9	91		72 - 130
Perfluorobutanoic acid	ng/L	80	0	68.9	86		73 - 129
Perfluorodecanoic acid	ng/L	80	0	71.9	90		71 - 129
Perfluorododecanoic acid	ng/L	80	0	71	89		72 - 134
Perfluoroheptanoic acid	ng/L	80	0	70.4	88		72 - 130
Perfluorohexanesulfonic acid	ng/L	73.1	0	63.2	86		68 - 131
Perfluorohexanoic acid	ng/L	80	0	67.9	85		72 - 129
Perfluorononanoic acid	ng/L	80	0	70.3	88		69 - 130
Perfluorooctanesulfonic acid	ng/L	74.2	0	63.2	85		65 - 140
Perfluorooctanoic acid	ng/L	80	0	68.4	85		71 - 133
Perfluoropentanoic acid	ng/L	80	0	71.4	89		72 - 129
Perfluorotetradecanoic acid	ng/L	80	0	67.8	85		71 - 132
Perfluorotridecanoic acid	ng/L	80	0	67.4	84		65 - 144
Perfluoroundecanoic acid	ng/L	80	0	69.8	87		69 - 133

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 18 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222041526

Prep Method: PFAS ID QSM B15 Prep Prep Batch: 740175

Analytical Method: PFAS Isotope Dilution QSM B15 Analytical Batch: 740405

GCAL QC ID: 2342606

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ng/L	76.1	0	70	92		64 - 140
8:2 Fluorotelomersulfonic acid	ng/L	76.8	0	71.9	94		67 - 138
NEtFOSAA	ng/L	80	0	75	94		61 - 135
NMeFOSAA	ng/L	80	0	76.6	96		65 - 136
Perfluorobutanesulfonic acid	ng/L	71	0	63	89		72 - 130
Perfluorobutanoic acid	ng/L	80	0	73.1	91		73 - 129
Perfluorodecanoic acid	ng/L	80	0	71.3	89		71 - 129
Perfluorododecanoic acid	ng/L	80	0	73.4	92		72 - 134
Perfluoroheptanoic acid	ng/L	80	0	73.1	91		72 - 130
Perfluorohexanesulfonic acid	ng/L	73.1	0	66.9	92		68 - 131
Perfluorohexanoic acid	ng/L	80	0	73.5	92		72 - 129
Perfluorononanoic acid	ng/L	80	0	72.7	91		69 - 130
Perfluorooctanesulfonic acid	ng/L	74.2	0	63.8	86		65 - 140
Perfluorooctanoic acid	ng/L	80	0	72.3	90		71 - 133
Perfluoropentanoic acid	ng/L	80	0	72.6	91		72 - 129
Perfluorotetradecanoic acid	ng/L	80	0	69.7	87		71 - 132
Perfluorotridecanoic acid	ng/L	80	0	74.3	93		65 - 144
Perfluoroundecanoic acid	ng/L	80	0	71.2	89		69 - 133

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3C

WATER SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222041526

Prep Method: PFAS ID QSM B15 Prep

Prep Batch: 740175

Analytical Method: PFAS Isotope Dilution QSM B15

Analytical Batch: 740405

GCAL QC ID: 2342607

ANALYTE	***UNITS***	***SPIKE ADDED***	***LCSD RESULT***	***LCSD % REC***	#	***% RPD***	#	***QC LIMITS REC***	***QC LIMITS RPD***
6:2 Fluorotelomersulfonic acid	ng/L	76.1	68.2	90		3		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ng/L	76.8	71.6	93		.4		67 - 138	0 - 30
NEtFOSAA	ng/L	80	70.6	88		6		61 - 135	0 - 30
NMeFOSAA	ng/L	80	68.7	86		11		65 - 136	0 - 30
Perfluorobutanesulfonic acid	ng/L	71	62.3	88		1		72 - 130	0 - 30
Perfluorobutanoic acid	ng/L	80	70.9	89		3		73 - 129	0 - 30
Perfluorodecanoic acid	ng/L	80	70.8	88		.8		71 - 129	0 - 30
Perfluorododecanoic acid	ng/L	80	70.5	88		4		72 - 134	0 - 30
Perfluoroheptanoic acid	ng/L	80	70	87		4		72 - 130	0 - 30
Perfluorohexanesulfonic acid	ng/L	73.1	63.8	87		5		68 - 131	0 - 30
Perfluorohexanoic acid	ng/L	80	70.8	88		4		72 - 129	0 - 30
Perfluorononanoic acid	ng/L	80	69.8	87		4		69 - 130	0 - 30
Perfluorooctanesulfonic acid	ng/L	74.2	63.6	86		.4		65 - 140	0 - 30
Perfluorooctanoic acid	ng/L	80	69.4	87		4		71 - 133	0 - 30
Perfluoropentanoic acid	ng/L	80	71.6	90		1		72 - 129	0 - 30
Perfluorotetradecanoic acid	ng/L	80	71.9	90		3		71 - 132	0 - 30
Perfluorotridecanoic acid	ng/L	80	71.8	90		3		65 - 144	0 - 30
Perfluoroundecanoic acid	ng/L	80	68.8	86		3		69 - 133	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-1

3D

SOIL SEMIVOLATILE MS/MSD RECOVERY

Report No:	222041526	Parent Sample ID:	AOI01-07-SB-00-02
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	739931
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

GCAL QC ID: 22204152620

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*MS RESULT*	*MS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	2.49	.013	3.12	125		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	2.51	.00319	2.33	92		65 - 137
NEtFOSAA	ug/kg	2.62	.00218	2.33	89		61 - 139
NMeFOSAA	ug/kg	2.62	.00549	2.39	91		63 - 144
Perfluorobutanesulfonic acid	ug/kg	2.33	.028	2.15	91		72 - 128
Perfluorobutanoic acid	ug/kg	2.62	.247	2.61	90		71 - 135
Perfluorodecanoic acid	ug/kg	2.62	.03	2.47	93		69 - 133
Perfluorododecanoic acid	ug/kg	2.62	.00953	2.37	90		69 - 135
Perfluoroheptanoic acid	ug/kg	2.62	.107	2.45	89		71 - 131
Perfluorohexanesulfonic acid	ug/kg	2.39	.088	2.31	93		67 - 130
Perfluorohexanoic acid	ug/kg	2.62	.096	2.42	89		70 - 132
Perfluorononanoic acid	ug/kg	2.62	.078	2.47	92		72 - 129
Perfluorooctanesulfonic acid	ug/kg	2.43	.31	2.6	94		68 - 136
Perfluorooctanoic acid	ug/kg	2.62	.242	2.53	87		69 - 133
Perfluoropentanoic acid	ug/kg	2.62	.155	2.5	90		69 - 132
Perfluorotetradecanoic acid	ug/kg	2.62	.00704	2.37	90		69 - 133
Perfluorotridecanoic acid	ug/kg	2.62	.00877	2.14	81		66 - 139
Perfluoroundecanoic acid	ug/kg	2.62	.02	2.37	89		64 - 136

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE MS/MSD RECOVERY

Report No:	222041526	Parent Sample ID:	AOI01-07-SB-00-02
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	739931
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

GCAL QC ID: 22204152621

ANALYTE	*UNITS*	*SPIKE ADDED*	*MSD RESULT*	*MSD % REC*	#	*% RPD*	#	*QC LIMITS REC*	*QC LIMITS RPD*
6:2 Fluorotelomersulfonic acid	ug/kg	2.43	2.35	96		28		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ug/kg	2.46	2.3	93		2		65 - 137	0 - 30
NEtFOSAA	ug/kg	2.55	2.43	95		5		61 - 139	0 - 30
NMeFOSAA	ug/kg	2.55	2.47	97		3		63 - 144	0 - 30
Perfluorobutanesulfonic acid	ug/kg	2.27	2.16	94		.7		72 - 128	0 - 30
Perfluorobutanoic acid	ug/kg	2.55	2.55	90		2		71 - 135	0 - 30
Perfluorodecanoic acid	ug/kg	2.55	2.51	97		1		69 - 133	0 - 30
Perfluorododecanoic acid	ug/kg	2.55	2.37	92		.04		69 - 135	0 - 30
Perfluoroheptanoic acid	ug/kg	2.55	2.43	91		.5		71 - 131	0 - 30
Perfluorohexanesulfonic acid	ug/kg	2.34	2.22	91		4		67 - 130	0 - 30
Perfluorohexanoic acid	ug/kg	2.55	2.41	90		.5		70 - 132	0 - 30
Perfluorononanoic acid	ug/kg	2.55	2.47	93		.4		72 - 129	0 - 30
Perfluorooctanesulfonic acid	ug/kg	2.38	2.35	86		10		68 - 136	0 - 30
Perfluorooctanoic acid	ug/kg	2.55	2.51	89		.6		69 - 133	0 - 30
Perfluoropentanoic acid	ug/kg	2.55	2.41	88		4		69 - 132	0 - 30
Perfluorotetradecanoic acid	ug/kg	2.55	2.33	90		2		69 - 133	0 - 30
Perfluorotridecanoic acid	ug/kg	2.55	1.76	68		20		66 - 139	0 - 30
Perfluoroundecanoic acid	ug/kg	2.55	2.45	95		4		64 - 136	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No:	222041526		
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	739811
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	739843

GCAL QC ID: 2340537

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	0	1.99	104		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	0	2.05	107		65 - 137
NEtFOSAA	ug/kg	2	0	1.94	97		61 - 139
NMeFOSAA	ug/kg	2	0	1.97	98		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.77	0	1.74	98		72 - 128
Perfluorobutanoic acid	ug/kg	2	0	1.98	99		71 - 135
Perfluorodecanoic acid	ug/kg	2	0	2.02	101		69 - 133
Perfluorododecanoic acid	ug/kg	2	0	1.94	97		69 - 135
Perfluoroheptanoic acid	ug/kg	2	0	1.94	97		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.83	0	1.87	102		67 - 130
Perfluorohexanoic acid	ug/kg	2	0	1.95	98		70 - 132
Perfluorononanoic acid	ug/kg	2	0	2	100		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.86	0	1.8	97		68 - 136
Perfluorooctanoic acid	ug/kg	2	0	1.92	96		69 - 133
Perfluoropentanoic acid	ug/kg	2	0	1.96	98		69 - 132
Perfluorotetradecanoic acid	ug/kg	2	0	1.95	97		69 - 133
Perfluorotridecanoic acid	ug/kg	2	0	1.95	98		66 - 139
Perfluoroundecanoic acid	ug/kg	2	0	1.98	99		64 - 136

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No: 222041526

Prep Method: PFAS ID QSM B15 Prep Prep Batch: 739811

Analytical Method: PFAS Isotope Dilution QSM B15 Analytical Batch: 739843

GCAL QC ID: 2340538

ANALYTE	UNITS	SPIKE ADDED	LCSD RESULT	LCSD % REC	#	% RPD	#	QC LIMITS REC	QC LIMITS RPD
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	1.94	102		2		64 - 140	0 - 30
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	1.88	98		9		65 - 137	0 - 30
NEtFOSAA	ug/kg	2	1.94	97		.1		61 - 139	0 - 30
NMeFOSAA	ug/kg	2	1.93	97		2		63 - 144	0 - 30
Perfluorobutanesulfonic acid	ug/kg	1.77	1.73	97		.8		72 - 128	0 - 30
Perfluorobutanoic acid	ug/kg	2	1.97	99		.6		71 - 135	0 - 30
Perfluorodecanoic acid	ug/kg	2	1.99	100		2		69 - 133	0 - 30
Perfluorododecanoic acid	ug/kg	2	2	100		3		69 - 135	0 - 30
Perfluoroheptanoic acid	ug/kg	2	1.92	96		1		71 - 131	0 - 30
Perfluorohexanesulfonic acid	ug/kg	1.83	1.81	99		3		67 - 130	0 - 30
Perfluorohexanoic acid	ug/kg	2	1.95	98		.1		70 - 132	0 - 30
Perfluorononanoic acid	ug/kg	2	1.97	98		2		72 - 129	0 - 30
Perfluorooctanesulfonic acid	ug/kg	1.86	1.79	97		.2		68 - 136	0 - 30
Perfluorooctanoic acid	ug/kg	2	1.92	96		.1		69 - 133	0 - 30
Perfluoropentanoic acid	ug/kg	2	1.96	98		.5		69 - 132	0 - 30
Perfluorotetradecanoic acid	ug/kg	2	1.94	97		.5		69 - 133	0 - 30
Perfluorotridecanoic acid	ug/kg	2	1.97	98		.8		66 - 139	0 - 30
Perfluoroundecanoic acid	ug/kg	2	1.97	99		.4		64 - 136	0 - 30

RPD : 0 out of 18 outside limits

Spike Recovery: 0 out of 36 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No:	222041526		
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	739931
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740027

GCAL QC ID: 2340977

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	0	1.7	89		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	0	1.8	94		65 - 137
NEtFOSAA	ug/kg	2	0	1.8	90		61 - 139
NMeFOSAA	ug/kg	2	0	1.83	91		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.77	0	1.63	92		72 - 128
Perfluorobutanoic acid	ug/kg	2	0	1.85	92		71 - 135
Perfluorodecanoic acid	ug/kg	2	0	1.88	94		69 - 133
Perfluorododecanoic acid	ug/kg	2	0	1.8	90		69 - 135
Perfluoroheptanoic acid	ug/kg	2	0	1.8	90		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.83	0	1.67	91		67 - 130
Perfluorohexanoic acid	ug/kg	2	0	1.8	90		70 - 132
Perfluorononanoic acid	ug/kg	2	0	1.84	92		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.86	0	1.67	90		68 - 136
Perfluorooctanoic acid	ug/kg	2	0	1.78	89		69 - 133
Perfluoropentanoic acid	ug/kg	2	0	1.83	92		69 - 132
Perfluorotetradecanoic acid	ug/kg	2	0	1.8	90		69 - 133
Perfluorotridecanoic acid	ug/kg	2	0	1.84	92		66 - 139
Perfluoroundecanoic acid	ug/kg	2	0	1.84	92		64 - 136

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 18 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

3D

SOIL SEMIVOLATILE LCS/LCSD RECOVERY

Report No:	222041526		
Prep Method:	PFAS ID QSM B15 Prep	Prep Batch:	740195
Analytical Method:	PFAS Isotope Dilution QSM B15	Analytical Batch:	740271

GCAL QC ID: 2342711

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*LCS RESULT*	*LCS % REC*	#	*QC LIMITS*
6:2 Fluorotelomersulfonic acid	ug/kg	1.9	0	1.92	101		64 - 140
8:2 Fluorotelomersulfonic acid	ug/kg	1.92	0	1.97	102		65 - 137
NEtFOSAA	ug/kg	2	0	2.17	108		61 - 139
NMeFOSAA	ug/kg	2	0	2.04	102		63 - 144
Perfluorobutanesulfonic acid	ug/kg	1.77	0	1.74	98		72 - 128
Perfluorobutanoic acid	ug/kg	2	0	1.89	94		71 - 135
Perfluorodecanoic acid	ug/kg	2	0	1.94	97		69 - 133
Perfluorododecanoic acid	ug/kg	2	0	1.9	95		69 - 135
Perfluoroheptanoic acid	ug/kg	2	0	1.89	94		71 - 131
Perfluorohexanesulfonic acid	ug/kg	1.83	0	1.76	96		67 - 130
Perfluorohexanoic acid	ug/kg	2	0	1.88	94		70 - 132
Perfluorononanoic acid	ug/kg	2	0	1.85	93		72 - 129
Perfluorooctanesulfonic acid	ug/kg	1.86	0	1.71	92		68 - 136
Perfluorooctanoic acid	ug/kg	2	0	1.93	96		69 - 133
Perfluoropentanoic acid	ug/kg	2	0	1.89	95		69 - 132
Perfluorotetradecanoic acid	ug/kg	2	0	1.87	93		69 - 133
Perfluorotridecanoic acid	ug/kg	2	0	1.93	97		66 - 139
Perfluoroundecanoic acid	ug/kg	2	0	1.91	95		64 - 136

RPD : 0 out of 0 outside limits

Spike Recovery: 0 out of 18 outside limits

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III SV-2

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 221112126 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
ALB-DECON-01	22111212601	117	103	90	106	107	106	106	108	105	101
MB2278878	2278878	97	99	96	106	106	110	108	110	109	106
LCS2278879	2278879	95	97	94	101	100	105	107	108	103	101
LCSD2278880	2278880	87	96	94	100	100	100	100	101	101	104

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17			
ALB-DECON-01	22111212601	108	102	105	101	98	102	109	NA	NA	NA
MB2278878	2278878	111	102	111	106	99	94	103	NA	NA	NA
LCS2278879	2278879	109	98	107	103	93	95	101	NA	NA	NA
LCSD2278880	2278880	104	100	103	98	95	95	98	NA	NA	NA

EIS1) M2 6:2 FTS **EIS2)** M2 8:2 FTS **EIS3)** M2PFTA **EIS4)** M3PFBS **EIS5)** M3PFHxS
EIS6) M4PFHpA **EIS7)** M5PFHxA **EIS8)** M5PFPeA **EIS9)** M6PFDA **EIS10)** M7PFUnA
EIS11) M8PFOA **EIS12)** M8PFOS **EIS13)** M9PFNA **EIS14)** MPFBA **EIS15)** MPFDoA
EIS16) d3-NMeFOSAA **EIS17)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222010612 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
AOI03-04-SB-00-02	22201061201	87	92	99	80	81	79	79	76	84	87
AOI03-04-SB-02-04	22201061202	83	85	94	74	76	75	76	74	80	85
AOI03-05-SB-00-02	22201061203	86	97	97	81	81	78	76	73	83	87
AOI03-05-SB-00-02-MS	22201061204	77	82	94	76	77	81	81	78	85	87
AOI03-05-SB-00-02-MSD	22201061205	73	82	89	72	73	76	77	74	80	83
AOI03-05-SB-02-04	22201061206	85	90	97	76	78	80	78	76	85	91
AOI03-07-SB-00-02	22201061207	78	83	93	74	76	77	76	74	82	85
AOI03-07-SB-02-04	22201061208	81	88	93	74	78	76	76	74	82	84
AOI03-06-SB-00-02	22201061209	78	89	95	77	77	77	77	74	83	86
AOI03-06-SB-02-04	22201061210	75	82	94	74	77	76	76	73	79	84
AOI03-03-SB-00-02	22201061211	85	97	95	76	78	79	79	77	84	90
AOI03-03-SB-02-04	22201061212	76	86	88	71	75	76	75	72	79	83
AOI03-04-SB-00-02-DUP	22201061213	72	82	92	73	75	77	76	74	80	83
ALB-ERB-01	22201061214	107	102	97	107	107	106	108	108	106	103
MB2294956	2294956	92	94	77	87	87	93	93	93	93	94
LCS2294957	2294957	101	95	88	96	97	102	100	100	103	103

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17			
AOI03-04-SB-00-02	22201061201	83	84	81	74	87	80	84	NA	NA	NA
AOI03-04-SB-02-04	22201061202	78	77	77	71	84	73	83	NA	NA	NA
AOI03-05-SB-00-02	22201061203	81	83	80	70	88	77	86	NA	NA	NA
AOI03-05-SB-00-02-MS	22201061204	83	80	82	76	88	78	83	NA	NA	NA
AOI03-05-SB-00-02-MSD	22201061205	78	76	77	72	84	75	80	NA	NA	NA
AOI03-05-SB-02-04	22201061206	83	79	82	72	92	79	89	NA	NA	NA
AOI03-07-SB-00-02	22201061207	79	76	78	71	85	72	82	NA	NA	NA
AOI03-07-SB-02-04	22201061208	79	79	79	71	86	77	85	NA	NA	NA
AOI03-06-SB-00-02	22201061209	80	80	80	72	88	74	84	NA	NA	NA
AOI03-06-SB-02-04	22201061210	78	78	77	71	84	77	79	NA	NA	NA
AOI03-03-SB-00-02	22201061211	82	82	82	72	93	79	92	NA	NA	NA
AOI03-03-SB-02-04	22201061212	78	76	77	70	84	78	87	NA	NA	NA
AOI03-04-SB-00-02-DUP	22201061213	78	76	76	71	85	75	80	NA	NA	NA
ALB-ERB-01	22201061214	112	104	107	106	99	89	97	NA	NA	NA
MB2294956	2294956	95	87	93	93	85	83	87	NA	NA	NA
LCS2294957	2294957	104	99	102	99	95	92	93	NA	NA	NA

EIS1) M2 6:2 FTS **EIS2)** M2 8:2 FTS **EIS3)** M2PFTA **EIS4)** M3PFBS **EIS5)** M3PFHxS
EIS6) M4PFHpA **EIS7)** M5PFHxA **EIS8)** M5PFPeA **EIS9)** M6PFDA **EIS10)** M7PFUnA
EIS11) M8PFOA **EIS12)** M8PFOS **EIS13)** M9PFNA **EIS14)** MPFBA **EIS15)** MPFDoA
EIS16) d3-NMeFOSAA **EIS17)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222010612 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
LCSD2294958	2294958	96	96	85	97	97	101	100	99	100	100
MB2296552	2296552	73	85	81	72	75	63	58	53	77	77
LCS2296553	2296553	76	87	86	77	79	64	63	61	77	80
LCSD2296554	2296554	75	86	87	77	80	74	71	69	81	83
MB2297103	2297103	74	82	87	79	79	84	83	80	87	85
LCS2297104	2297104	73	82	88	79	82	88	88	86	87	86
LCSD2297105	2297105	70	79	85	77	80	85	86	83	87	83

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17			
LCSD2294958	2294958	104	97	101	99	93	92	93	NA	NA	NA
MB2296552	2296552	69	75	73	50	78	73	77	NA	NA	NA
LCS2296553	2296553	69	82	73	60	84	76	81	NA	NA	NA
LCSD2296554	2296554	79	81	80	68	83	76	82	NA	NA	NA
MB2297103	2297103	85	81	84	78	85	83	89	NA	NA	NA
LCS2297104	2297104	90	83	87	85	84	82	88	NA	NA	NA
LCSD2297105	2297105	86	81	85	81	84	82	81	NA	NA	NA

EIS1) M2 6:2 FTS **EIS2)** M2 8:2 FTS **EIS3)** M2PFTA **EIS4)** M3PFBS **EIS5)** M3PFHxS
EIS6) M4PFHpA **EIS7)** M5PFHxA **EIS8)** M5PFPeA **EIS9)** M6PFDA **EIS10)** M7PFUnA
EIS11) M8PFOA **EIS12)** M8PFOS **EIS13)** M9PFNA **EIS14)** MPFBA **EIS15)** MPFDoA
EIS16) d3-NMeFOSAA **EIS17)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222041582 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
AOI02-03-SB-00-02	22204158201	59	58	71	81	81	78	78	80	77	78
AOI02-03-SB-02-02.7	22204158202	90	86	98	88	90	90	89	91	89	103
AOI03-01-SB-00-01	22204158203	71	60	74	87	85	81	80	81	77	79
AOI03-02-SB-00-01	22204158204	67	58	71	75	80	77	74	74	71	74
AOI02-01-SB-03.5-04.3	22204158205	57	55	66	74	82	81	79	80	76	78
AOI02-01-SB-03.5-04.3-MS	22204158206	52	50	61	71	74	71	72	72	68	73
AOI02-01-SB-03.5-04.3-MSD	22204158207	47*	46*	56	63	67	65	67	67	63	66
AOI02-01-SB-00.9-03.5	22204158208	63	60	78	101	91	88	86	88	83	91
AOI02-05-SB-0-0-02	22204158209	57	61	70	86	86	82	77	78	75	79
AOI02-SB-DUP-3	22204158210	55	56	67	87	79	77	78	79	73	78
AOI01-06-GW	22204158213	NA	133	132	94	104	106	106	103	100	93
AOI03-01-GW	22204158214	NA	113	98	71	85	87	84	84	82	72
AOI02-02-GW	22204158215	NA	128	123	81	103	103	102	102	99	94
AOI02-03-GW	22204158216	NA	106	100	73	92	89	89	89	89	76
AOI02-DUP-GW-02	22204158217	NA	115	108	79	95	95	93	95	94	79
AOI02-04-GW	22204158218	NA	132	127	94	103	106	104	103	101	95

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17	EIS18	EIS19	
AOI02-03-SB-00-02	22204158201	82	73	79	80	78	73	77	67	77	NA
AOI02-03-SB-02-02.7	22204158202	95	NA	91	94	97	89	88	79	82	NA
AOI03-01-SB-00-01	22204158203	82	67	82	82	79	72	81	69	79	NA
AOI03-02-SB-00-01	22204158204	74	51	74	77	73	67	72	61	66	NA
AOI02-01-SB-03.5-04.3	22204158205	79	64	81	82	78	72	76	67	74	NA
AOI02-01-SB-03.5-04.3-MS	22204158206	74	69	74	73	73	65	71	65	65	NA
AOI02-01-SB-03.5-04.3-MSD	22204158207	67	63	68	67	65	60	63	58	61	NA
AOI02-01-SB-00.9-03.5	22204158208	95	82	88	88	88	78	97	72	90	NA
AOI02-05-SB-0-0-02	22204158209	81	66	79	85	77	71	78	68	71	NA
AOI02-SB-DUP-3	22204158210	82	71	79	79	77	68	80	66	75	NA
AOI01-06-GW	22204158213	91	NA	111	101	100	97	90	65	71	NA
AOI03-01-GW	22204158214	70	NA	86	79	80	82	70	51	57	NA
AOI02-02-GW	22204158215	90	NA	102	101	97	102	89	61	71	NA
AOI02-03-GW	22204158216	76	NA	89	86	84	79	74	52	62	NA
AOI02-DUP-GW-02	22204158217	77	NA	93	89	86	87	75	53	59	NA
AOI02-04-GW	22204158218	90	NA	106	102	102	103	86	61	70	NA

EIS1) M2 4:2 FTS **EIS2)** M2 6:2 FTS **EIS3)** M2 8:2 FTS **EIS4)** M2PFTA **EIS5)** M3PFBS
EIS6) M3PFHxS **EIS7)** M4PFHpA **EIS8)** M5PFHxA **EIS9)** M5PFPeA **EIS10)** M6PFDA
EIS11) M7PFUnA **EIS12)** M8FOSA **EIS13)** M8PFOA **EIS14)** M8PFOS **EIS15)** M9PFNA
EIS16) MPFBA **EIS17)** MPFDoA **EIS18)** d3-NMeFOSAA **EIS19)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222041582 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
AOI03-02-GW	22204158219	NA	135	131	72	107	108	106	107	104	92
AOI02-01-GW	22204158220	NA	114	104	79	88	90	90	90	88	81
EB-2-041422	22204158221	NA	113	107	86	88	90	88	90	86	83
EB-3-041422	22204158222	NA	128	120	95	101	105	103	104	100	94
MB2341409	2341409	NA	160*	130	99	102	104	102	102	99	99
LCS2341410	2341410	NA	132	130	101	101	104	102	100	99	98
LCSD2341411	2341411	NA	130	126	103	97	102	101	99	96	97
MB2341454	2341454	78	68	73	80	89	87	59	59	55	72
LCS2341455	2341455	61	57	64	77	92	88	77	77	74	78
MB2343451	2343451	126	126	131	117	117	117	121	118	120	126
LCS2343452	2343452	128	120	122	117	119	121	124	125	124	127

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17	EIS18	EIS19	
AOI03-02-GW	22204158219	89	NA	108	103	101	106	85	66	70	NA
AOI02-01-GW	22204158220	78	NA	91	88	86	87	76	54	61	NA
EB-2-041422	22204158221	81	NA	90	88	86	89	80	60	67	NA
EB-3-041422	22204158222	86	NA	105	102	100	103	86	62	71	NA
MB2341409	2341409	100	NA	106	105	100	101	97	74	82	NA
LCS2341410	2341410	100	NA	105	105	101	101	96	72	78	NA
LCSD2341411	2341411	100	NA	102	104	99	99	99	69	81	NA
MB2341454	2341454	78	54	63	88	67	52	78	63	70	NA
LCS2341455	2341455	80	69	78	86	78	71	80	68	76	NA
MB2343451	2343451	125	NA	123	118	122	117	119	110	118	NA
LCS2343452	2343452	124	NA	125	119	128	120	122	120	124	NA

EIS1) M2 4:2 FTS **EIS2)** M2 6:2 FTS **EIS3)** M2 8:2 FTS **EIS4)** M2PFTA **EIS5)** M3PFBS
EIS6) M3PFHxS **EIS7)** M4PFHpA **EIS8)** M5PFHxA **EIS9)** M5PFPeA **EIS10)** M6PFDA
EIS11) M7PFUnA **EIS12)** M8FOSA **EIS13)** M8PFOA **EIS14)** M8PFOS **EIS15)** M9PFNA
EIS16) MPFBA **EIS17)** MPFDoA **EIS18)** d3-NMeFOSAA **EIS19)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222041526 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
EB-1 041122	22204152601	NA	99	97	84	98	97	98	101	99	98
AOI01-01-SB-05.6-06.2	22204152602	82	85	95	82	87	87	89	89	88	92
AOI01-01-SB-00-02	22204152603	82	88	101	98	88	88	84	85	83	88
AOI01-01-SB-03-04	22204152604	103	122	130	91	90	90	87	89	87	85
AOI01-02-SB-00-02	22204152605	103	114	123	101	83	85	76	77	75	79
AOI01-02-SB-03-04	22204152606	99	113	116	53	88	89	84	86	84	81
AOI01-03-SB-00-02	22204152607	97	106	114	77	81	81	75	74	73	74
AOI01-03-SB-02-03	22204152608	78	79	79	78	84	84	83	89	93	91
AOI01-08-SB-00-02	22204152609	94	108	116	82	84	86	74	74	72	76
AOI01-04-SB-00-02	22204152610	88	92	98	74	76	76	68	68	66	70
AOI01-04-SB-00-02DL	22204152610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AOI01-04-SB-03-04	22204152611	79	86	96	71	76	75	71	75	73	69
AOI01-09-SB-00-02	22204152612	69	74	70	81	78	78	73	77	83	86
AOI01-01-GW	22204152613	NA	103	101	90	98	98	101	100	100	97
AOI01-02-GW	22204152614	NA	109	104	95	103	100	100	101	100	103
AOI01-07-SB-00-02	22204152615	103	113	130	69	76	81	75	74	70	79

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17	EIS18	EIS19	
EB-1 041122	22204152601	95	NA	99	94	98	98	87	92	92	NA
AOI01-01-SB-05.6-06.2	22204152602	94	84	93	90	92	85	91	84	93	NA
AOI01-01-SB-00-02	22204152603	92	84	88	91	87	81	98	86	92	NA
AOI01-01-SB-03-04	22204152604	87	NA	89	90	86	88	87	58	70	NA
AOI01-02-SB-00-02	22204152605	85	NA	79	91	80	76	87	57	67	NA
AOI01-02-SB-03-04	22204152606	82	NA	87	90	83	85	77	58	66	NA
AOI01-03-SB-00-02	22204152607	76	NA	77	82	76	73	75	54	60	NA
AOI01-03-SB-02-03	22204152608	90	NA	90	86	93	92	81	74	74	NA
AOI01-08-SB-00-02	22204152609	81	NA	77	85	75	72	82	54	64	NA
AOI01-04-SB-00-02	22204152610	72	NA	70	NA	66	66	73	51	56	NA
AOI01-04-SB-00-02DL	22204152610	NA	NA	NA	88	NA	NA	NA	NA	NA	NA
AOI01-04-SB-03-04	22204152611	72	NA	72	73	68	74	71	50	56	NA
AOI01-09-SB-00-02	22204152612	86	NA	81	82	84	82	80	77	71	NA
AOI01-01-GW	22204152613	96	NA	104	91	97	105	90	89	94	NA
AOI01-02-GW	22204152614	102	NA	101	96	100	101	95	91	100	NA
AOI01-07-SB-00-02	22204152615	83	NA	81	86	80	69	81	58	69	NA

EIS1) M2 4:2 FTS **EIS2)** M2 6:2 FTS **EIS3)** M2 8:2 FTS **EIS4)** M2PFTA **EIS5)** M3PFBS
EIS6) M3PFHxS **EIS7)** M4PFHpA **EIS8)** M5PFHxA **EIS9)** M5PFPeA **EIS10)** M6PFDA
EIS11) M7PFUnA **EIS12)** M8FOSA **EIS13)** M8PFOA **EIS14)** M8PFOS **EIS15)** M9PFNA
EIS16) MPFBA **EIS17)** MPFDoA **EIS18)** d3-NMeFOSAA **EIS19)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222041526 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
AOI01-06-SB-00-02	22204152616	85	92	89	106	95	93	79	82	89	93
AOI01-06-SB-02-02.7	22204152617	116	110	108	69	86	90	85	83	79	79
AOI01-07-SB-00-02-MS	22204152620	101	101	105	51	83	85	81	79	74	74
AOI01-07-SB-00-02-MD	22204152621	109	106	115	32*	83	84	78	80	76	74
AOI01-05-SB-00-02	22204152622	84	87	85	94	90	89	77	81	86	89
AOI01-05-SB-03-04	22204152623	90	88	98	82	73	72	65	61	61	81
AOI02-04-SB-05-05.5	22204152624	92	100	109	56	83	85	80	81	78	78
AOI02-02-SB-00-02	22204152625	74	76	93	79	68	71	65	62	63	84
AOI02-02-SB-03-03.7	22204152626	98	96	99	85	95	95	90	91	91	96
AOI01-03-GW	22204152627	NA	106	99	89	106	105	108	107	107	101
AOI01-07-GW	22204152628	NA	109	113	84	97	99	100	102	102	102
AOI01-04-GW	22204152629	NA	96	96	85	102	93	103	104	106	96
AOI01-04-GWDL	22204152629	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AOI01-05-GW	22204152630	NA	113	117	74	100	99	106	109	97	102
AOI01-04-GW-MS	22204152631	NA	102	90	89	104	98	107	106	108	97
AOI01-04-GW-MSDL	22204152631	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17	EIS18	EIS19	
AOI01-06-SB-00-02	22204152616	97	NA	88	90	91	88	101	80	78	NA
AOI01-06-SB-02-02.7	22204152617	82	NA	85	86	81	78	80	55	67	NA
AOI01-07-SB-00-02-MS	22204152620	78	NA	80	81	76	74	73	53	63	NA
AOI01-07-SB-00-02-MD	22204152621	75	NA	80	82	77	76	66	54	59	NA
AOI01-05-SB-00-02	22204152622	93	NA	84	92	89	86	94	80	80	NA
AOI01-05-SB-03-04	22204152623	86	NA	70	79	73	58	83	67	74	NA
AOI02-04-SB-05-05.5	22204152624	78	NA	82	85	79	80	70	54	63	NA
AOI02-02-SB-00-02	22204152625	84	NA	72	81	79	63	79	70	72	NA
AOI02-02-SB-03-03.7	22204152626	93	NA	95	99	94	88	89	84	91	NA
AOI01-03-GW	22204152627	98	NA	108	98	104	115	93	92	96	NA
AOI01-07-GW	22204152628	102	NA	104	100	105	101	98	93	104	NA
AOI01-04-GW	22204152629	99	NA	110	NA	72	107	90	91	98	NA
AOI01-04-GWDL	22204152629	NA	NA	NA	91	NA	NA	NA	NA	NA	NA
AOI01-05-GW	22204152630	89	NA	107	97	103	102	75	84	79	NA
AOI01-04-GW-MS	22204152631	95	NA	113	NA	73	109	88	89	99	NA
AOI01-04-GW-MSDL	22204152631	NA	NA	NA	102	NA	NA	NA	NA	NA	NA

EIS1) M2 4:2 FTS **EIS2)** M2 6:2 FTS **EIS3)** M2 8:2 FTS **EIS4)** M2PFTA **EIS5)** M3PFBS
EIS6) M3PFHxS **EIS7)** M4PFHpA **EIS8)** M5PFHxA **EIS9)** M5PFPeA **EIS10)** M6PFDA
EIS11) M7PFUnA **EIS12)** M8FOSA **EIS13)** M8PFOA **EIS14)** M8PFOS **EIS15)** M9PFNA
EIS16) MPFBA **EIS17)** MPFDoA **EIS18)** d3-NMeFOSAA **EIS19)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222041526 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
AOI01-04-GW-MSD	22204152632	NA	103	94	92	105	95	107	108	112	97
AOI01-04-GW-MSDDL	22204152632	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AOI01-SB-DUP-1	22204152633	93	106	119	95	84	86	78	76	75	85
AOI01-SB-DUP-2	22204152634	84	82	102	95	70	71	67	65	64	82
DUP-GW-01	22204152635	NA	98	87	87	105	94	106	103	108	96
DUP-GW-01DL	22204152635	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MB2340536	2340536	96	91	100	102	99	98	100	100	100	101
LCS2340537	2340537	92	95	91	99	96	94	98	99	98	97
LCSD2340538	2340538	94	89	96	97	96	95	97	97	97	96
MB2340725	2340725	NA	86	84	79	85	86	84	85	85	85
LCS2340726	2340726	NA	84	81	82	83	88	85	88	85	86
MB2340976	2340976	109	130	137	98	98	101	95	96	94	94
LCS2340977	2340977	101	125	123	90	92	94	89	91	89	87
MB2342605	2342605	NA	110	117	93	103	102	100	100	99	105
LCS2342606	2342606	NA	101	99	92	101	97	96	94	94	100
LCSD2342607	2342607	NA	107	100	95	102	104	102	101	100	101

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17	EIS18	EIS19	
AOI01-04-GW-MSD	22204152632	94	NA	116	NA	75	114	88	91	92	NA
AOI01-04-GW-MSDDL	22204152632	NA	NA	NA	100	NA	NA	NA	NA	NA	NA
AOI01-SB-DUP-1	22204152633	89	NA	83	90	82	76	86	60	69	NA
AOI01-SB-DUP-2	22204152634	89	NA	71	78	75	61	95	68	81	NA
DUP-GW-01	22204152635	96	NA	112	NA	72	111	89	85	97	NA
DUP-GW-01DL	22204152635	NA	NA	NA	84	NA	NA	NA	NA	NA	NA
MB2340536	2340536	104	97	104	101	102	98	101	96	103	NA
LCS2340537	2340537	99	93	101	98	98	96	98	92	96	NA
LCSD2340538	2340538	99	91	99	98	98	95	95	92	96	NA
MB2340725	2340725	84	NA	87	84	85	88	81	80	78	NA
LCS2340726	2340726	85	NA	90	84	88	90	82	82	81	NA
MB2340976	2340976	95	NA	97	102	95	97	94	69	77	NA
LCS2340977	2340977	88	NA	92	96	89	91	90	64	73	NA
MB2342605	2342605	104	NA	104	100	103	96	99	96	100	NA
LCS2342606	2342606	99	NA	99	98	98	88	93	91	93	NA
LCSD2342607	2342607	102	NA	105	101	104	100	95	98	98	NA

EIS1) M2 4:2 FTS **EIS2)** M2 6:2 FTS **EIS3)** M2 8:2 FTS **EIS4)** M2PFTA **EIS5)** M3PFBS
EIS6) M3PFHxS **EIS7)** M4PFHpA **EIS8)** M5PFHxA **EIS9)** M5PFPeA **EIS10)** M6PFDA
EIS11) M7PFUnA **EIS12)** M8FOSA **EIS13)** M8PFOA **EIS14)** M8PFOS **EIS15)** M9PFNA
EIS16) MPFBA **EIS17)** MPFDoA **EIS18)** d3-NMeFOSAA **EIS19)** d5-NEtFOSAA

8E - EXTRACTED INTERNAL STANDARD RECOVERY

Report No 222041526 %Rec Limits 50 - 150 * Value outside QC limits

CLIENT SAMPLE ID	LAB ID	EIS1	EIS2	EIS3	EIS4	EIS5	EIS6	EIS7	EIS8	EIS9	EIS10
MB2342710	2342710	105	94	91	105	112	107	111	122	130	114
LCS2342711	2342711	96	97	93	105	112	108	111	119	126	110

CLIENT SAMPLE ID	LAB ID	EIS11	EIS12	EIS13	EIS14	EIS15	EIS16	EIS17	EIS18	EIS19	
MB2342710	2342710	109	NA	119	108	120	129	99	95	92	NA
LCS2342711	2342711	109	NA	116	106	117	127	102	95	90	NA

EIS1) M2 4:2 FTS **EIS2)** M2 6:2 FTS **EIS3)** M2 8:2 FTS **EIS4)** M2PFTA **EIS5)** M3PFBS
EIS6) M3PFHxS **EIS7)** M4PFHpA **EIS8)** M5PFHxA **EIS9)** M5PFPeA **EIS10)** M6PFDA
EIS11) M7PFUnA **EIS12)** M8FOSA **EIS13)** M8PFOA **EIS14)** M8PFOS **EIS15)** M9PFNA
EIS16) MPFBA **EIS17)** MPFDoA **EIS18)** d3-NMeFOSAA **EIS19)** d5-NEtFOSAA

VI - DUPLICATES

Report No:	222041582	Parent Sample ID:	AOI02-01-SB-03.5-04.3
Prep Method:	NA	Parent LAB ID:	22204158211
Prep Date:	NA	Prep Batch:	NA
Analytical Method:	EPA 9045D	Analytical Batch:	738774

LAB QC ID:	**2334544 DUP**	Instrument ID:	PH01
Analyst:	LMH	Lab File ID:	NA
Analysis Date:	04/19/22 1424	Dilution:	1

ANALYTE	*UNITS*	*SAMPLE RESULT*	*Q*	*DUP RESULT*	*Q*	*RPD*	*#*	*RPD LIMITS*
pH	pH UNITS	7.97		7.98		0		0 - 6

FORM VI - GENCHEM

XIV - ANALYSIS RUN LOG

Report No:	222041582	Analytical Batch:	738774	Start Date:	04/19/22
Instrument ID:	PH METER WATERS	Analytical Method:	EPA 9045D	End Date:	04/19/22

				ANALYTES
CLIENT SAMPLE ID	LAB SAMPLE ID	DILUTION	TIME	pH
AOI02-01-SB-03.5-04.3	22204158211	1	1424	X
ICV	1600	1	1424	X
AOI02-01-SB-03....DUP	2334544	1	1424	X
CCV	1800	1	1425	X
AOI02-SB-DUP-4	22204158212	1	1425	X

FORM XIV - GENCHEM

II - CONTINUING CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	TOC7
Analysis Date:	04/22/22 1213	Lab File ID:	9607
Analytical Method:	EPA 9060A Solid (DOD)	Analytical Batch:	739144

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% REC*	*LCL*	*UCL*	*Q*
Total Organic Carbon	mg/kg	2000	2080	104	90	110	

II - CONTINUING CALIBRATION VERIFICATION

Report No:	222041582	Instrument ID:	TOC7
Analysis Date:	04/22/22 1457	Lab File ID:	9607
Analytical Method:	EPA 9060A Solid (DOD)	Analytical Batch:	739144

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% REC*	*LCL*	*UCL*	*Q*
Total Organic Carbon	mg/kg	10000	9200	92	90	110	

III - METHOD BLANK

Report No:	222041582	Blank ID:	MB2336697
Matrix:	Solid	Instrument ID:	TOC7
Analysis Date:	04/22/22 1159	Lab File ID:	9607
Analytical Method:	EPA 9060A	Analytical Batch:	739144

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	350	mg/kg	U	153	350	500

FORM III - GENCHEM

III - CONTINUING CALIBRATION BLANK

Report No:	222041582	Blank ID:	CCB for HBN 739144
Matrix:	Solid	Instrument ID:	TOC7
Analysis Date:	04/22/22 1504	Lab File ID:	9607
Analytical Method:	EPA 9060A	Analytical Batch:	739144

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	350	mg/kg	U	153	350	500

FORM III - GENCHEM

VI - DUPLICATES

Report No:	222041582	Parent Sample ID:	AOI02-01-SB-03.5-04.3
Prep Method:	NA	Parent LAB ID:	22204158211
Prep Date:	NA	Prep Batch:	NA
Analytical Method:	EPA 9060A Solid (DOD)	Analytical Batch:	739144

LAB QC ID:	**2336699 DUP**	Instrument ID:	TOC7
Analyst:	JGD	Lab File ID:	NA
Analysis Date:	04/22/22 1232	Dilution:	1

ANALYTE	*UNITS*	*SAMPLE RESULT*	*Q*	*DUP RESULT*	*Q*	*RPD*	*#*	*RPD LIMITS*
Total Organic Carbon	mg/kg	2830		1930		38	*	0 - 20

FORM VI - GENCHEM

Report No:	222041582	Parent Sample ID:	AOI02-01-SB-03.5-04.3
Prep Method:	NA	Parent LAB ID:	22204158211
Prep Date:	NA	Prep Batch:	NA
Analytical Method:	EPA 9060A Solid (DOD)	Analytical Batch:	739144

LAB QC ID:	**2336701 DUP**	Instrument ID:	TOC7
Analyst:	JGD	Lab File ID:	NA
Analysis Date:	04/22/22 1317	Dilution:	1

ANALYTE	*UNITS*	*SAMPLE RESULT*	*Q*	*DUP RESULT*	*Q*	*RPD*	*#*	*RPD LIMITS*
Total Organic Carbon	mg/kg	2830		2470		13		0 - 20

VII - LABORATORY CONTROL SPIKE

Report No:	222041582	LAB ID:	LCS2336698
Matrix:	Solid	Instrument ID:	TOC7
Analyst:	JGD	Lab File ID:	9607
Prep Date:	NA	Analysis Date:	04/22/22 1139
Prep Batch:	NA	Analytical Batch:	739144
Prep Method:	NA	Analytical Method:	EPA 9060A Solid (DOD)

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*Q*	*% REC LIMITS*
Total Organic Carbon	mg/kg	10000	9170	92		69 - 128

FORM VII - GENCHEM

XIV - ANALYSIS RUN LOG

Report No:	222041582	Analytical Batch:	739144	Start Date:	04/22/22
Instrument ID:	TOC7	Analytical Method:	EPA 9060A Solid (DOD)	End Date:	04/22/22

				ANALYTES
CLIENT SAMPLE ID	LAB SAMPLE ID	DILUTION	TIME	TOC
LCS2336698	2336698	1	1139	X
MB2336697	2336697	1	1159	X
CCV	1800	1	1213	X
AOI02-01-SB-03.5-04.3	22204158211	1	1224	X
AOI02-01-SB-03....DUP	2336699	1	1232	X
AOI02-01-SB-03....DUP	2336701	1	1317	X
AOI02-SB-DUP-4	22204158212	1	1324	X
CCV	1800	1	1457	X
CCB	1900	1	1504	X

Cal. Curve

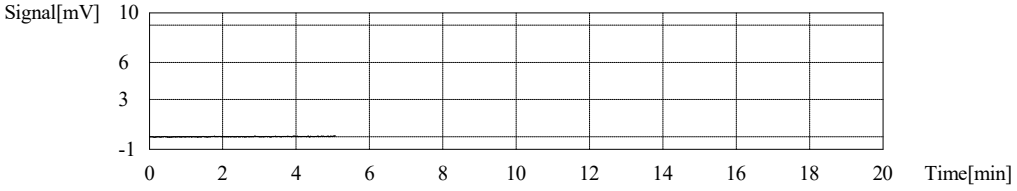
Sample Name: ICAL
Sample ID: TOC7,SSM,ICAL
Cal. Curve: SSM ICAL 7.2022_03_23_10_35_34.cal
Status Completed

Type	Anal.
Standard	SSM-TC

AbsC: 0.000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	0.000	0.000	0.000ug	1000mg	*******		3/23/2022 10:41:27 AM

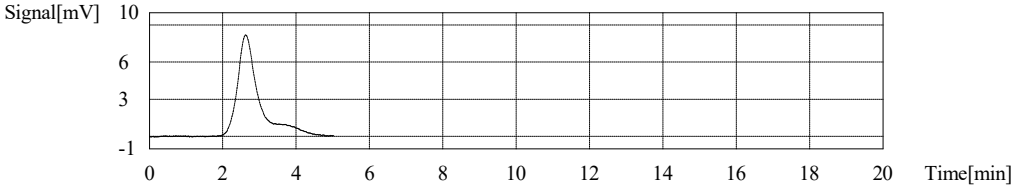
Mean Area 0.000
Mean CNV 0.000



AbsC: 200.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	32.76	32.76	200.0ug	1000mg	*******		3/23/2022 10:52:55 AM

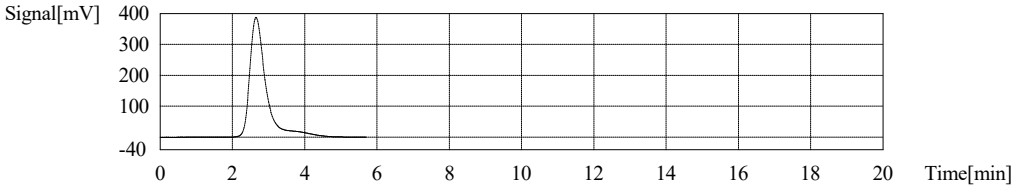
Mean Area 32.76
Mean CNV 32.76



AbsC: 10000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	1222	1222	10000ug	1000mg	*******		3/23/2022 11:03:46 AM

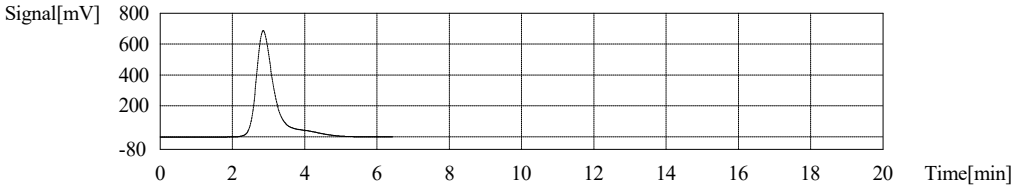
Mean Area 1222
Mean CNV 1222



AbsC: 20000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	2489	2489	20000ug	1000mg	*******		3/23/2022 11:29:08 AM

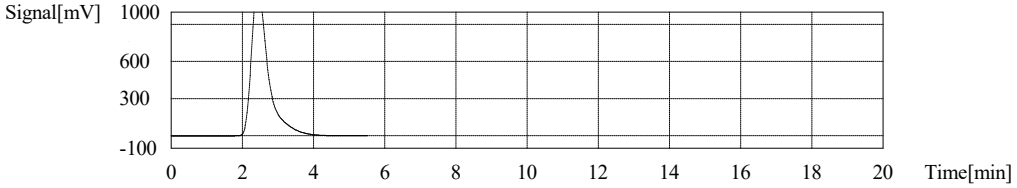
Mean Area	2489
Mean CNV	2489



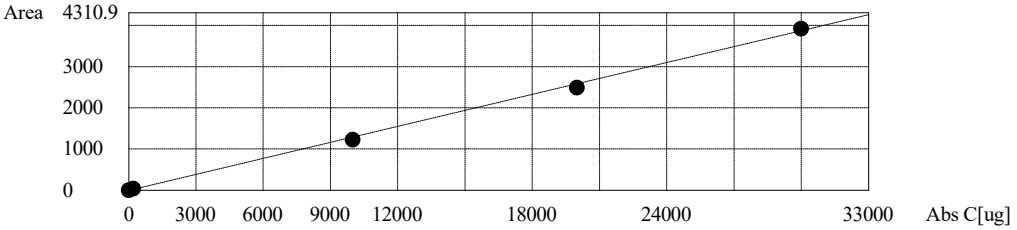
AbsC: 30000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	3919	3919	30000ug	1000mg	*H*****		3/23/2022 11:54:54 AM

Mean Area	3919
Mean CNV	3919



Slope:	0.1293
Intercept	0.000
r^2	0.9988
r	0.9994
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name: CCB
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

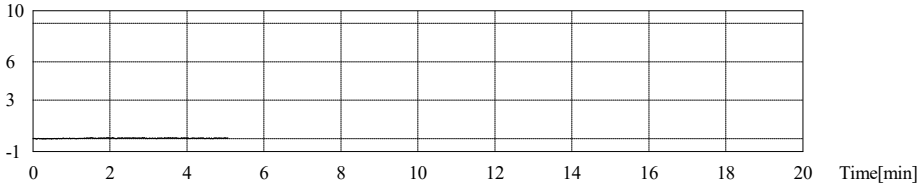
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:0.000ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	0.000ug	0.000ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:07:03 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. 0.000ppm



Sample

Sample Name: LOQ
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

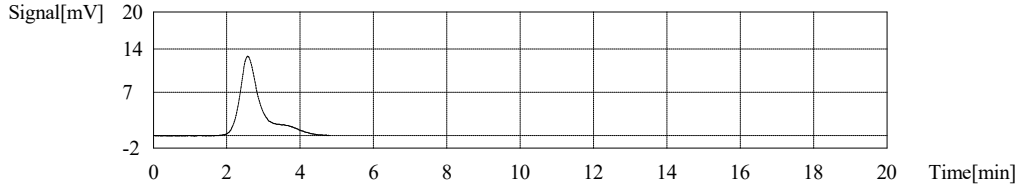
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:426.5ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	51.82	51.82	426.5ug	426.5ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:17:05 PM

Mean Area 51.82
Mean CNV 51.82
Mean Conc. 426.5ppm



Sample

Sample Name: ICV10
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

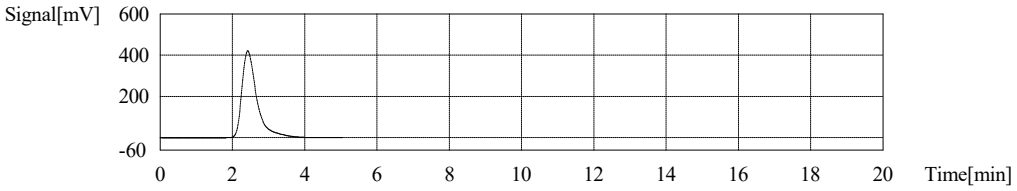
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:9984ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1213	1213	9984ug	9984ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:30:56 PM

Mean Area 1213
Mean CNV 1213
Mean Conc. 9984ppm



Sample

Sample Name: ICV20
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

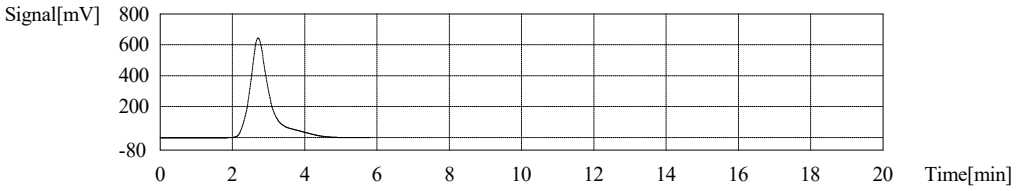
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:20208ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2455	2455	20208ug	20208ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:44:22 PM

Mean Area 2455
Mean CNV 2455
Mean Conc. 20208ppm



XIV - ANALYSIS RUN LOG

Report No:	222041526	Analytical Batch:	738599	Start Date:	04/15/22
Instrument ID:	PH METER WATERS	Analytical Method:	EPA 9045D	End Date:	04/15/22

				ANALYTES
CLIENT SAMPLE ID	LAB SAMPLE ID	DILUTION	TIME	pH
ICV	1600	1	1610	X
AOI01-06-SB-02-02.7	22204152617	1	1616	X
CCV	1800	1	1621	

FORM XIV - GENCHEM

II - CONTINUING CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	TOC7
Analysis Date:	04/21/22 1013	Lab File ID:	9599
Analytical Method:	EPA 9060A Solid (DOD)	Analytical Batch:	738945

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% REC*	*LCL*	*UCL*	*Q*
Total Organic Carbon	mg/kg	2000	2070	104	90	110	

II - CONTINUING CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	TOC7
Analysis Date:	04/21/22 1347	Lab File ID:	9599
Analytical Method:	EPA 9060A Solid (DOD)	Analytical Batch:	738945

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% REC*	*LCL*	*UCL*	*Q*
Total Organic Carbon	mg/kg	10000	9160	92	90	110	

II - CONTINUING CALIBRATION VERIFICATION

Report No:	222041526	Instrument ID:	TOC7
Analysis Date:	04/21/22 1647	Lab File ID:	9599
Analytical Method:	EPA 9060A Solid (DOD)	Analytical Batch:	738945

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% REC*	*LCL*	*UCL*	*Q*
Total Organic Carbon	mg/kg	10000	9180	92	90	110	

III - METHOD BLANK

Report No:	222041526	Blank ID:	MB2335439
Matrix:	Solid	Instrument ID:	TOC7
Analysis Date:	04/21/22 1004	Lab File ID:	9599
Analytical Method:	EPA 9060A	Analytical Batch:	738945

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	350	mg/kg	U	153	350	500

FORM III - GENCHEM

III - CONTINUING CALIBRATION BLANK

Report No:	222041526	Blank ID:	CCB for HBN 738945
Matrix:	Solid	Instrument ID:	TOC7
Analysis Date:	04/21/22 1357	Lab File ID:	9599
Analytical Method:	EPA 9060A	Analytical Batch:	738945

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	350	mg/kg	U	153	350	500

FORM III - GENCHEM

III - CONTINUING CALIBRATION BLANK

Report No:	222041526	Blank ID:	CCB for HBN 738945
Matrix:	Solid	Instrument ID:	TOC7
Analysis Date:	04/21/22 1654	Lab File ID:	9599
Analytical Method:	EPA 9060A	Analytical Batch:	738945

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Total Organic Carbon	350	mg/kg	U	153	350	500

FORM III - GENCHEM

V - MS/MSD RECOVERY

Report No:	222041526	Parent Sample ID:	AOI01-06-SB-02-02.7
Prep Date:	NA	Parent LAB ID:	22204152617
Prep Batch:	NA	Analytical Batch:	738945
Prep Method:	NA	Analytical Method:	EPA 9060A Solid (DOD)

LAB QC ID:	**22204152618 MS**	Instrument ID:	TOC7
Analyst:	JGD	Lab File ID:	9599
Analysis Date:	04/21/22 1611	Dilution:	1

ANALYTE	*UNITS*	*SPIKE ADDED*	*SAMPLE RESULT*	*MS RESULT*	*MS % REC*	*#*	*QC LIMITS*
Total Organic Carbon	mg/kg	13000	5950	18600	140	*	69 - 128

LAB QC ID:	**22204152619 MSD**	Instrument ID:	TOC7
Analyst:	JGD	Lab File ID:	9599
Analysis Date:	04/21/22 1627	Dilution:	1

ANALYTE	*UNITS*	*SPIKE ADDED*	*MSD RESULT*	*MSD % REC*	*#*	*% RPD*	*#*	*%REC LIMITS*	*RPD LIMITS*
Total Organic Carbon	mg/kg	13000	15200	106		21	*	69 - 128	0 - 20

FORM V - GENCHEM

VII - LABORATORY CONTROL SPIKE

Report No:	222041526	LAB ID:	LCS2335440
Matrix:	Solid	Instrument ID:	TOC7
Analyst:	JGD	Lab File ID:	9599
Prep Date:	NA	Analysis Date:	04/21/22 0946
Prep Batch:	NA	Analytical Batch:	738945
Prep Method:	NA	Analytical Method:	EPA 9060A Solid (DOD)

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*%REC*	*Q*	*% REC LIMITS*
Total Organic Carbon	mg/kg	10000	9240	92		69 - 128

FORM VII - GENCHEM

XIV - ANALYSIS RUN LOG

Report No:	222041526	Analytical Batch:	738945	Start Date:	04/21/22
Instrument ID:	TOC7	Analytical Method:	EPA 9060A Solid (DOD)	End Date:	04/21/22

				ANALYTES
CLIENT SAMPLE ID	LAB SAMPLE ID	DILUTION	TIME	TOC
LCS2335440	2335440	1	0946	X
MB2335439	2335439	1	1004	X
CCV	1800	1	1013	X
CCV	1800	1	1347	X
CCB	1900	1	1357	X
AOI01-06-SB-02-02.7	22204152617	1	1600	X
AOI01-06-SB-02-02.7-MS	22204152618	1	1611	X
AOI01-06-SB-02-02.7-MSD	22204152619	1	1627	X
CCV	1800	1	1647	X
CCB	1900	1	1654	X

FORM XIV - GENCHEM

Cal. Curve

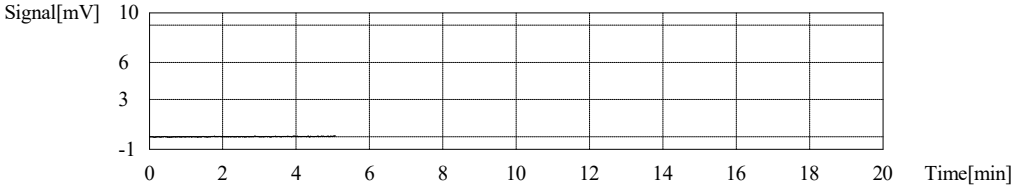
Sample Name: ICAL
Sample ID: TOC7,SSM,ICAL
Cal. Curve: SSM ICAL 7.2022_03_23_10_35_34.cal
Status Completed

Type	Anal.
Standard	SSM-TC

AbsC: 0.000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	0.000	0.000	0.000ug	1000mg	*******		3/23/2022 10:41:27 AM

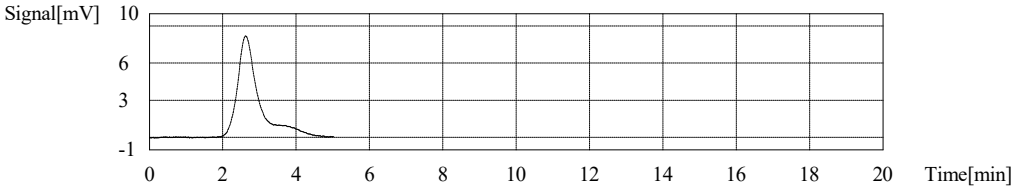
Mean Area 0.000
Mean CNV 0.000



AbsC: 200.0ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	32.76	32.76	200.0ug	1000mg	*******		3/23/2022 10:52:55 AM

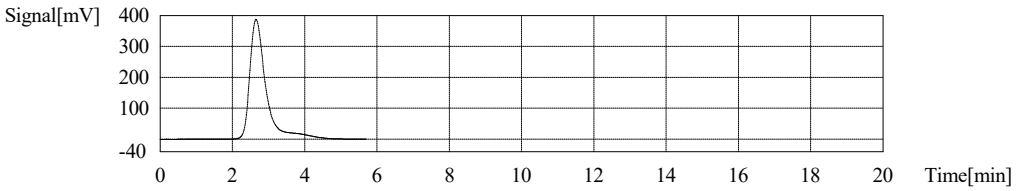
Mean Area 32.76
Mean CNV 32.76



AbsC: 10000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	1222	1222	10000ug	1000mg	*******		3/23/2022 11:03:46 AM

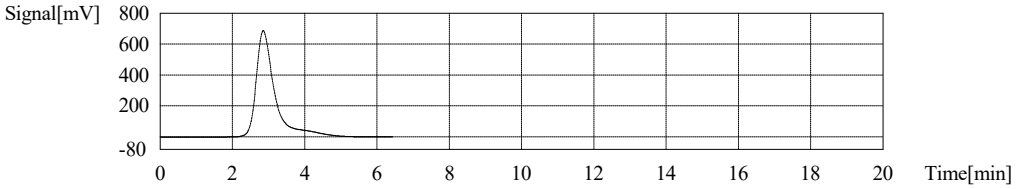
Mean Area 1222
Mean CNV 1222



AbsC: 20000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	2489	2489	20000ug	1000mg	*******		3/23/2022 11:29:08 AM

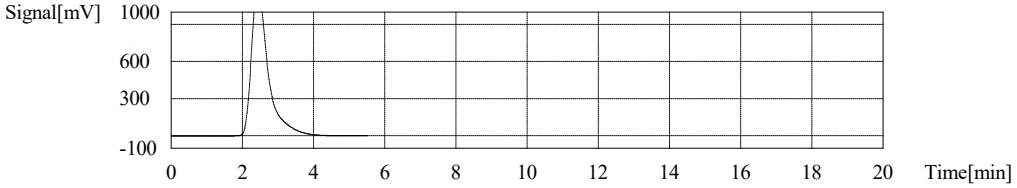
Mean Area	2489
Mean CNV	2489



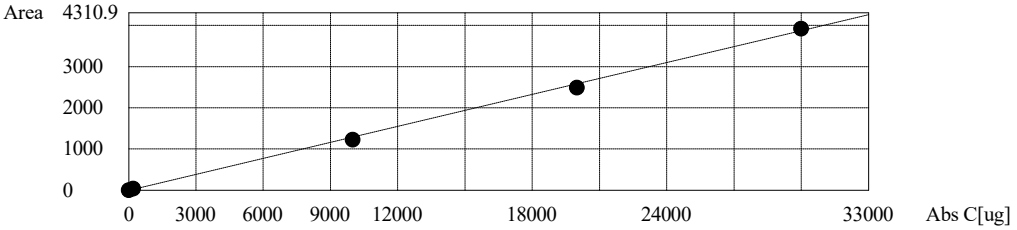
AbsC: 30000ug

No.	Area	CNV	Abs C	Weight	Rem.	Ex.	Date / Time
1	3919	3919	30000ug	1000mg	*H*****		3/23/2022 11:54:54 AM

Mean Area	3919
Mean CNV	3919



Slope:	0.1293
Intercept	0.000
r^2	0.9988
r	0.9994
RSE(%)	N/A
Zero Shift	Yes



Sample

Sample Name: CCB
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

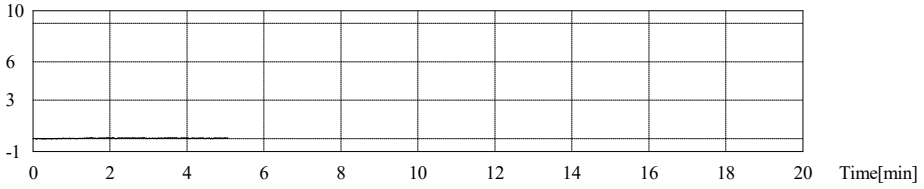
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:0.000ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	0.000	0.000	0.000ug	0.000ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:07:03 PM

Mean Area 0.000
Mean CNV 0.000
Mean Conc. 0.000ppm



Sample

Sample Name: LOQ
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

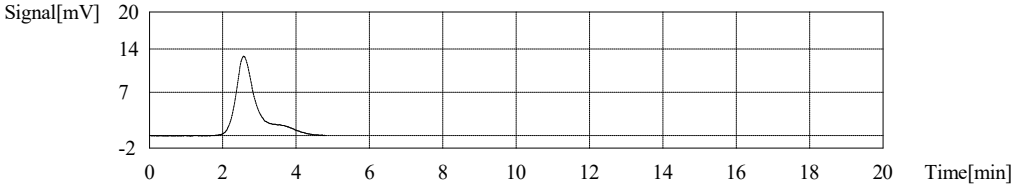
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:426.5ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	51.82	51.82	426.5ug	426.5ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:17:05 PM

Mean Area 51.82
Mean CNV 51.82
Mean Conc. 426.5ppm



Sample

Sample Name: ICV10
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

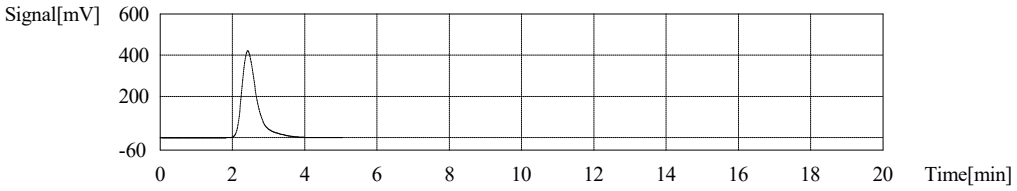
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:9984ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	1213	1213	9984ug	9984ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:30:56 PM

Mean Area 1213
Mean CNV 1213
Mean Conc. 9984ppm



Sample

Sample Name: ICV20
Sample ID: SSM
Origin: SSM7.met
Status Completed
Chk. Result

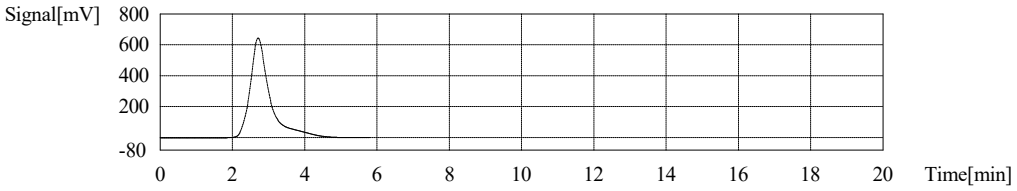
Type	Anal.	Manual Dilution	Density	Result
Unknown	SSM-TC	1.000	1.000mg/uL	SSM-TC:20208ppm

1. Det

Anal.: SSM-TC

No.	Area	CNV	Abs C	Conc.	Weight	Volume	Ex.	Cal. Curve	Date / Time
1	2455	2455	20208ug	20208ppm	1000mg	1000uL		SSM ICAL 7.2021_10_11_11_02_35.cal	3/23/2022 12:44:22 PM

Mean Area 2455
Mean CNV 2455
Mean Conc. 20208ppm



Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22111212601	ALB-DECON-01	Water	11/19/21 08:20	11/20/21 11:46

Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22201061201	AOI03-04-SB-00-02	Solid	1/04/22 09:50	1/06/22 10:00
22201061202	AOI03-04-SB-02-04	Solid	1/04/22 10:10	1/06/22 10:00
22201061203	AOI03-05-SB-00-02	Solid	1/04/22 10:40	1/06/22 10:00
22201061204	AOI03-05-SB-00-02-MS	Solid	1/04/22 10:40	1/06/22 10:00
22201061205	AOI03-05-SB-00-02-MSD	Solid	1/04/22 10:40	1/06/22 10:00
22201061206	AOI03-05-SB-02-04	Solid	1/04/22 11:00	1/06/22 10:00
22201061207	AOI03-07-SB-00-02	Solid	1/04/22 11:20	1/06/22 10:00
22201061208	AOI03-07-SB-02-04	Solid	1/04/22 11:40	1/06/22 10:00
22201061209	AOI03-06-SB-00-02	Solid	1/04/22 12:00	1/06/22 10:00
22201061210	AOI03-06-SB-02-04	Solid	1/04/22 12:15	1/06/22 10:00
22201061211	AOI03-03-SB-00-02	Solid	1/04/22 12:35	1/06/22 10:00
22201061212	AOI03-03-SB-02-04	Solid	1/04/22 12:50	1/06/22 10:00
22201061213	AOI03-04-SB-00-02-DUP	Solid	1/04/22 00:01	1/06/22 10:00
22201061214	ALB-ERB-01	Water	1/04/22 13:10	1/06/22 10:00

Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22204158201	AOI02-03-SB-00-02	Solid	4/13/22 09:35	4/15/22 09:41
22204158202	AOI02-03-SB-02-02.7	Solid	4/13/22 09:40	4/15/22 09:41
22204158203	AOI03-01-SB-00-01	Solid	4/13/22 11:00	4/15/22 09:41
22204158204	AOI03-02-SB-00-01	Solid	4/13/22 11:50	4/15/22 09:41
22204158205	AOI02-01-SB-03.5-04.3	Solid	4/14/22 09:55	4/15/22 09:41
22204158206	AOI02-01-SB-03.5-04.3-MS	Solid	4/14/22 09:55	4/15/22 09:41
22204158207	AOI02-01-SB-03.5-04.3-MSD	Solid	4/14/22 09:55	4/15/22 09:41
22204158208	AOI02-01-SB-00.9-03.5	Solid	4/14/22 09:45	4/15/22 09:41
22204158209	AOI02-05-SB-0-0-02	Solid	4/14/22 10:45	4/15/22 09:41
22204158210	AOI02-SB-DUP-3	Solid	4/14/22 00:01	4/15/22 09:41
22204158211	AOI02-01-SB-03.5-04.3	Solid	4/14/22 09:55	4/15/22 09:41
22204158212	AOI02-SB-DUP-4	Solid	4/14/22 00:01	4/15/22 09:41
22204158213	AOI01-06-GW	Water	4/13/22 09:20	4/15/22 09:41
22204158214	AOI03-01-GW	Water	4/14/22 11:00	4/15/22 09:41
22204158215	AOI02-02-GW	Water	4/13/22 11:30	4/15/22 09:41
22204158216	AOI02-03-GW	Water	4/13/22 12:55	4/15/22 09:41
22204158217	AOI02-DUP-GW-02	Water	4/13/22 13:00	4/15/22 09:41
22204158218	AOI02-04-GW	Water	4/13/22 14:30	4/15/22 09:41
22204158219	AOI03-02-GW	Water	4/14/22 09:50	4/15/22 09:41
22204158220	AOI02-01-GW	Water	4/14/22 13:05	4/15/22 09:41
22204158221	EB-2-041422	Water	4/14/22 11:20	4/15/22 09:41
22204158222	EB-3-041422	Water	4/14/22 11:35	4/15/22 09:41

Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22204152601	EB-1 041122	Water	4/11/22 09:25	4/14/22 10:10
22204152602	AOI01-01-SB-05.6-06.2	Solid	4/11/22 09:45	4/14/22 10:10
22204152603	AOI01-01-SB-00-02	Solid	4/11/22 10:55	4/14/22 10:10
22204152604	AOI01-01-SB-03-04	Solid	4/11/22 11:00	4/14/22 10:10
22204152605	AOI01-02-SB-00-02	Solid	4/11/22 12:45	4/14/22 10:10
22204152606	AOI01-02-SB-03-04	Solid	4/11/22 12:50	4/14/22 10:10
22204152607	AOI01-03-SB-00-02	Solid	4/11/22 13:35	4/14/22 10:10
22204152608	AOI01-03-SB-02-03	Solid	4/11/22 13:40	4/14/22 10:10
22204152609	AOI01-08-SB-00-02	Solid	4/11/22 14:20	4/14/22 10:10
22204152610	AOI01-04-SB-00-02	Solid	4/11/22 15:10	4/14/22 10:10
22204152611	AOI01-04-SB-03-04	Solid	4/11/22 15:15	4/14/22 10:10
22204152612	AOI01-09-SB-00-02	Solid	4/11/22 16:15	4/14/22 10:10
22204152613	AOI01-01-GW	Water	4/11/22 13:00	4/14/22 10:10
22204152614	AOI01-02-GW	Water	4/11/22 14:45	4/14/22 10:10
22204152615	AOI01-07-SB-00-02	Solid	4/12/22 09:30	4/14/22 10:10
22204152616	AOI01-06-SB-00-02	Solid	4/12/22 11:15	4/14/22 10:10
22204152617	AOI01-06-SB-02-02.7	Solid	4/12/22 11:20	4/14/22 10:10
22204152618	AOI01-06-SB-02-02.7-MS	Solid	4/12/22 11:20	4/14/22 10:10
22204152619	AOI01-06-SB-02-02.7-MSD	Solid	4/12/22 11:20	4/14/22 10:10
22204152620	AOI01-07-SB-00-02-MS	Solid	4/12/22 09:30	4/14/22 10:10
22204152621	AOI01-07-SB-00-02-MD	Solid	4/12/22 09:30	4/14/22 10:10
22204152622	AOI01-05-SB-00-02	Solid	4/12/22 12:30	4/14/22 10:10
22204152623	AOI01-05-SB-03-04	Solid	4/12/22 12:40	4/14/22 10:10
22204152624	AOI02-04-SB-05-05.5	Solid	4/12/22 14:25	4/14/22 10:10
22204152625	AOI02-02-SB-00-02	Solid	4/12/22 16:05	4/14/22 10:10
22204152626	AOI02-02-SB-03-03.7	Solid	4/12/22 16:10	4/14/22 10:10
22204152627	AOI01-03-GW	Water	4/12/22 10:05	4/14/22 10:10
22204152628	AOI01-07-GW	Water	4/12/22 12:10	4/14/22 10:10
22204152629	AOI01-04-GW	Water	4/12/22 13:55	4/14/22 10:10
22204152630	AOI01-05-GW	Water	4/12/22 15:40	4/14/22 10:10
22204152631	AOI01-04-GW-MS	Water	4/12/22 13:55	4/14/22 10:10
22204152632	AOI01-04-GW-MSD	Water	4/12/22 13:55	4/14/22 10:10
22204152633	AOI01-SB-DUP-1	Solid	4/12/22 00:01	4/14/22 10:10
22204152634	AOI01-SB-DUP-2	Solid	4/12/22 00:01	4/14/22 10:10
22204152635	DUP-GW-01	Water	4/12/22 00:01	4/14/22 10:10

Case Narrative

Client: AECOM **Report:** 221112126

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

This report was completed in accordance with DOD QSM 5.3 as specified in the contract.

No anomalies were found for the analyzed sample(s).

Case Narrative

Client: AECOM **Report:** 222010612

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

This report was completed in accordance with DOD QSM 5.3 as specified in the contract.

SEMI-VOLATILES MASS SPECTROMETRY

In the PFAS Isotope Dilution QSM B15 analysis for prep batch 731572, the MS/MSD exhibited recovery and RPD failures. All LCS/LCSD recoveries and RPDs are acceptable.

Case Narrative

Client: AECOM **Report:** 222041582

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

This report was completed in accordance with DOD QSM 5.3 as specified in the contract.

PROJECT MANAGER COMMENTS

Only TOC/pH containers received for samples AOI02-01-SB-03.5-04.3 and AOI02-SB-DUP-4 (Carolyn Dicharry 04/18/2022 07:27)

SEMI-VOLATILES MASS SPECTROMETRY

In the PFAS Isotope Dilution QSM B15 analysis, the recovery for the extracted internal standard M2 6:2 FTS is above the upper control limits for sample 2341409 (MB for HBN 740006 [LCMS/5588]) . There are no target hits for the associated compounds.

In the PFAS Isotope Dilution QSM B15 analysis, the recovery for the extracted internal standard M2 6:2 FTS is above the upper control limits for sample 2341409 (MB for HBN 740006 [LCMS/5588]) . There are no target hits for the associated compounds.

In the PFAS Isotope Dilution QSM B15 analysis, the recovery for the extracted internal standard M2 6:2 FTS is outside the control limits for sample 22204158207 (AOI02-01-SB-03.5-04.3-MSD) . The recovery of the associated compounds is within control limits.

GENERAL CHEMISTRY

In the EPA 9060A Solid analysis for batch 739144 ,the Sample/Duplicate RPD for 22204158211 is above the control limit. The heterogeneous nature of the QC sample is believed to be responsible for this.

Case Narrative

Client: AECOM **Report:** 222041526

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

This report was completed in accordance with DOD QSM 5.3 as specified in the contract.

SEMI-VOLATILES MASS SPECTROMETRY

In the PFAS Isotope Dilution QSM B15 analysis, the recovery for the extracted internal standard M2PFTA is outside the control limits for sample 22204152621 (AOI01-07-SB-00-02-MD) . The recovery of the associated compounds is within control limits.

In the PFAS Isotope Dilution QSM B15 analysis for prep batch 739862, the MS/MSD exhibited recovery failures.

In the PFAS Isotope Dilution QSM B15 analysis for prep batch 739862, PFOS was detected at an estimated concentration in the method blank. This is due to laboratory contamination. The concentration is < 10% the concentration in the associated samples.

GENERAL CHEMISTRY

In the EPA 9060A Solid analysis for batch 738945, the Sample/Duplicate RPD for 22204152619 (AOI01-06-SB-02-02.7-MSD) is above the control limit. The heterogeneous nature of the sample is believed to be responsible for this.

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221112126	
Client **PM** EPM 4838 - AECOM	**Transport Method** FEDEX
Profile Number 290377	**Received By** Roberts, George S.
Line Item(s) 2 - GW - 18 compounds	**Receive Date(s)** 11/20/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E34	Temp °C
775262076061		1.2

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.6

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 222010612	
Client **PM** CAD 4838 - AECOM	**Transport Method** FEDEX
Profile Number 290377	**Received By** McCune, Dodie N.
Line Item(s) 1 - Soil - 18 compounds 2 - GW - 18 compounds	**Receive Date(s)** 01/06/22

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E34	Temp °C
548411978351		2.0

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.6

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 222041582	
Client **PM** CAD 4838 - AECOM	**Transport Method** FEDEX
Profile Number 290377	**Received By** Henderson, Jacob R.
Line Item(s) 1 - Soil - 18 compounds 2 - GW - 18 compounds	**Receive Date(s)** 04/15/22

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E34	Temp °C
5484 1197 8340		1.2

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 222041526	
Client **PM** CAD 4838 - AECOM	**Transport Method** FEDEX
Profile Number 290377	**Received By** McCune, Dodie N.
Line Item(s) 1 - Soil - 18 compounds 2 - GW - 18 compounds	**Receive Date(s)** 04/14/22

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E34	Temp °C
548411978330		4.7

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.6

Pace Analytical
www.pacelabs.com

7979 Innovation Park Drive | Baton Rouge, LA 70820-7402
225.769.4900 | www.gcal.com

CHAIN OF CUSTODY RECOR

Client ID: 4838 - AECOM
SDG: 221112126
PM: EPM

Report To:	Bill To:
Client: AECOM	Client: AECOM
Address: 12420 Milestone Center Dr. Germantown, MD 20876	Address: 12420 Milestone Center Dr. Germantown, MD 20876
Contact: Naoum Tavantzis	Contact: Claire Mitchell
Phone: 919-461-1178	Phone: 703-682-9098
Email: naoum.tavantzis@aecom.com	Email: claire.mitchell@aecom.com

Analytical Requests & Method

Custody Seal:
Used: ☐ Yes ☐ No
Intact: ☐ Yes ☐ No

Temperature: _____

P.O. Number	Project Name/Number
104397	Albany AASF#3: 60552172.0006-SI 59-SI-NY Albany AASF

Sampled By: Chris French

☐ Dissolved Analysis Requested
☐ Field Filtered
☐ Lab Filtered

Matrix[1]	Date	Time (2400)	Comp	Grab	Sample Description	No. of Containers	PFAS (LC/MS/MS QSM 5.3 Table B-15)	TOC + pH (EPA 9060A/9045D)	Grain size (ASTM D422/CA-551)	← Preservative / Notes ↓	GCAL ID
WG	11/19/21	0820		X	ALB-DECON-01	2	X				1

Airbill Number:

Turn Around Time(Business Days): ☐ RUSH* ____ Day ☑ Standard (per contract/quote)

Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
[signature]	1000 11/19/21		
Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:
FedEx	11/20/21 1146 CM 11/20/21	Connor Kalon	11/20/21 1146
Relinquished by: (Signature)	Date/Time:	Received by: (Signature)	Date/Time:

Notes:
1.2 E34
7752 6207 6061

[1]Matrix: W = Water, S=Solid, L=Liquid, T=Tissue.

*- Requires prior approval, Rush charges may apply. We cannot accept verbal changes. Please email written changes to your PAGC Project Manager.

CHAIN-OF-CUSTODY Analytical Request Document

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LAB USE ONLY- Affix Wo

ALL SHA

Client ID: 4838 - AECOM
SDG: 222010612
PM: CAD

Company: AECOM	Billing Information: AECOM/Claire Mitchell 12420 Milestone Center Dr. Germantown, MD 20876
Address: 12420 Milestone Center Dr. Germantown, MD 20876	
Report To: Naoum Tawantzis	Email To: Claire.mitchell@aecom.com
Copy To:	Site Collection Info/Address: 330 old Nisky Lane Road
Customer Project Name/Number: 60552172 0006 SI 59 Albany AASF	State: NY County/City: Latham Time Zone Collected: [ ]PT [ ]MT [ ]CT [✓]ET
Phone: 919-461-1178 Email: naoum.tawantzis@aecom.com	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Chris French	Purchase Order #: 104397 Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: Standard. Immediately Packed on Ice: [✓] Yes [ ] No
Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative T

** Preservative Types: (1) nitric acid, (2) sul
(6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PEAS								Lab Profile/Line:
A0-103-04-00-02 010422	SL	Comp.	1/4/22	0950				1	X								1
A0-103-04-02-04 010422				1010				1									2
A0-103-05-00-02 010422				1090				3									Extra Volume collected for MS/MSD 3,4,5
A0-103-05-02-04 010422				1100				1									6
A0-103-07-00-02 010422				1120													7
A0-103-07-02-04 010422				1140													8
A0-103-06-00-02 010422				1200													9
A0-103-06-02-04 010422				1215													10
A0-103-03-00-02 010422				1235													11
A0-103-03-02-04 010422				1250													12

Customer Remarks / Special Conditions / Possible Hazards:	Type of Ice Used: Wet Blue Dry None Packing Material Used: 5484 1197 8351 Radchem sample(s) screened (<500 cpm): Y N NA	SHORT HOLDS PRESENT (<72 hours): Y N N/A Lab Tracking #: 2723429 Samples received via: FEDEX UPS Client Courier Pace Courier

Relinquished by/Company: (Signature) AECOM	Date/Time: 1/4/22 1600	Received by/Company: (Signature)	Date/Time:	MTJL LAB USE ONLY Table #: Acctnum: Template: Prelogin: PM: PB:
Relinquished by/Company: (Signature) FedEx	Date/Time: 10:00 1-6-22	Received by/Company: (Signature) DocieMcClene	Date/Time: 10:00 1-6-22	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments:
2054

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

CHAIN-OF-CUSTODY Analytical Request Document

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LAB USE ONLY- Affix Work

Client ID: 4838 - AECOM

SDG: 222010612

PM: CAD

ALL SHAD

Company: AECOM	Billing Information: AECOM / Claire Mitchell 12420 Milestone Center Dr. Germantown, MD 20876
Address: 12420 Milestone Center Dr. Germantown, MD 20876	
Report To: Naoum Tsoutsis	Email To: claire.mitchell@aecom.com
Copy To:	Site Collection Info/Address: 330 Old Niskayuna Road
Customer Project Name/Number: 60552177 0006 SI 59 Albany AASF	State: NY / County/City: Latham / Time Zone Collected: [ ]PT [ ]MT [ ]CT [✓]ET
Phone: 919-461-1178 Email: naoum.tsoutsis@aecom.com	Site/Facility ID#:
Collected By (print): Chris French	Purchase Order #: 104397 / Quote #:
Collected By (signature):	Turnaround Date Required: Standard
Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
	Compliance Monitoring? [ ] Yes [ ] No
	DW PWS ID #: / DW Location Code:
	Immediately Packed on Ice: [✓] Yes [ ] No
	Field Filtered (if applicable): [ ] Yes [ ] No / Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative T

** Preservative Types: (1) nitric acid, (2) sul
(6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PFAS	Analyses	Lab Profile/Line:
Dup-1 010422	SL	Comp.	1/4/22	-				1	X		13
EB-1 010422	Water	-	1/4/22	1310				2	X		14

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: _____	
Sample pH Acceptable	Y N NA
pH Strips: _____	
Sulfide Present	Y N NA
Lead Acetate Strips: _____	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2723428

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: _____oC
Cooler 1 Therm Corr. Factor: _____oC
Cooler 1 Corrected Temp: _____oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
AECOM	1/4/22 1600		
FedEx	1-6-22 10:00	Doc McCann	1-6-22 10:00

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Client ID: 4838 - AECOM
SDG: 222010612
PM: CAD

CHAIN-OF-CUSTODY Analytical Request Document

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Company: AECOM
Billing Information: AECOM/Chris Mitchell 12420 Milestone Center Dr. Germantown MD 20876
Address: 12420 Milestone Center Dr. Germantown MD 20876
Report To: Nora Tuvalds
Email To: Chris.Mitchell@aecom.com
Copy To:
Site Collection Info/Address: 333 old New York Rd
Customer Project Name/Number: Lose 22 Ooo St 5th Ni..., NAGS
State: NY County/City: L... Time Zone Collected: [ ]PT [ ]MT [ ]CT [✓]ET
Phone: 919-461-1178
Email:
Site/Facility ID #:
Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Chris French
Purchase Order #: 104397
Quote #:
DW PWS ID #:
DW Location Code:
Collected By (signature):
Turnaround Date Required:
Immediately Packed on Ice: [✓] Yes [ ] No
Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____
Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
Field Filtered (if applicable): [ ] Yes [ ] No
Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Ty...

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

Lab Project Manager:

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips: _____			
Sample pH Acceptable	Y	N	NA
...Strips: _____			
...fide Present	Y	N	NA
...l Acetate Strips: _____			

USE ONLY:
Sample # / Comments:

This sample has the MS/MSD - the extra 2 bottles should be labeled:
AOI03-05-SB-00-02-MS
AOI03-05-SB-00-02-MSD

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PFAS	Comments
AOI03-04-SB-00-02	SO	Comp.	1/4/22	0950				1	X	
AOI03-04-SB-02-04				1010				1		
AOI03-05-SB-00-02				1040				3		Extra Volume collected for MS/MSD
AOI03-05-SB-02-04				1100				1		
AOI03-07-SB-00-02				1120						
AOI03-07-SB-02-04				1140						
AOI03-06-SB-00-02				1200						
AOI03-06-SB-02-04				1215						
AOI03-03-SB-00-02				1235						
AOI03-03-SB-02-04				1250						

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2723429

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: _____oC
Cooler 1 Therm Corr. Factor: _____oC
Cooler 1 Corrected Temp: _____oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Chris French AECOM	1/4/22 1600		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Client ID: 4838 - AECOM
SDG: 222010612
PM: CAD

CHAIN-OF-CUSTODY Analytical Request Document

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Company: AECOM	Billing Information: AECOM / Claire Mitchell 12420 Milestone Center Dr. Germantown, MD 20876
Address: 12420 Milestone Center Dr. Germantown, MD 20876	
Report To: Nauvin T. Ventura	Email To: claire.mitchell@aecom.com
Copy To:	Site Collection Info/Address: 330 Old Nyack Turnpike Rd
Customer Project Name/Number: 60552172 000 Cl 59 Au AMCE	State: NY / County/City: Lathom / Time Zone Collected: [ ]PT [ ]MT [ ]CT [✓]ET
Phone: 919-461-1178 Email: nauvin.ventura@aecom.com	Site/Facility ID#: aecom.com / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Claire Franklin	Purchase Order #: 104397 Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature):	Turnaround Date Required: Standard / Immediately Packed on Ice: [✓] Yes [ ] No
Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No / Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PFAS
AOI03-04-SB-00-02-DUP	SO	G	1/4/22	-				1	X
ALB-ERB-01	WQ	-	1/4/22	1310				2	X

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: _____	
Sample pH Acceptable	Y N NA
pH Strips: _____	
Sulfide Present	Y N NA
Lead Acetate Strips: _____	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2723428

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: _____oC
Cooler 1 Therm Corr. Factor: _____oC
Cooler 1 Corrected Temp: _____oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Claire Mitchell AECOM	1/4/22 1600		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Chain of Custody Record 452125

eurofins | Environment Testing TestAmerica

Address:

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Claire Mitchell	Site Contact:	Date: 4/14/2022	COC No:
Company Name: AECOM	Tel/Email: 703-682-9098	Lab Contact:	Carrier:	2 of 2 COCs
Address: 12420 Milestone Center Dr.	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20876	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 919-461-1178	TAT if different from Below Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Albany AAFB #3	☐ 1 week			
Site: 60552172.006-SI59	☐ 2 days			Job / SDG No.:
PO# 104397	☐ 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 (Lc/Ms/Ms 537.3)	TOC + pH																Sample Specific Notes:
AOI01-06-GW	4/13/22	0920	G	WG	2	N	N	X											13						
AOI03-01-GW	4/14/22	1100	G	WG	2	N	N	X											14						
AOI02-02-GW	4/13/22	1130	G	WG	2	N	N	X											15						
AOI02-03-GW	4/13/22	1255	G	WG	2	N	N	X											16						
AOI02-DUP-GW-02	4/13/22	1300	G	WG	2	N	N	X											17						
AOI02-04-GW	4/13/22	1430	G	WG	2	N	N	X											18						
AOI03-02-GW	4/14/22	0950	G	WG	2	N	N	X											19						
AOI02-01-GW	4/14/22	1305	G	WG	2	N	N	X											20						
EB-2-041422	4/14/22	1120	G	AQ	2	N	N	X											21						
EB-3-041422	4/14/22	1135	G	AQ	2	N	N	X																	

Client ID: 4838 - AECOM
SDG: 222041582
PM: CAD

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

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments: report to Naoum Tavantzis 919-461-1178, naoum.tavantzis@aecom.com
Bill to Claire Mitchell 703-682-9098, claire.mitchell@aecom.com

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:
John Thomas to FedEx	AECOM	4/14/22 1630			
Relinquished by: Fed Ex	Company:	Date/Time: 4/15/22 0941	Received by: Brennan Perkins	Company:	Date/Time: 4/15/22 0941
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

57484 1197 83410

E34 1.2

Chain of Custody Record 452296

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Claire Mitchell	Site Contact:	Date: 4/13/22	COC No:
Company Name: AECOM	Tel/Email: 703-682-9098	Lab Contact:	Carrier: FedEx	1 of 3 COCs
Address: 12420 Milestone Center Dr.	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20876	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 919-461-1178	TAT if different from Below Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: 60552172.0006 SI Albany AASF #3	☐ 1 week			
Site: Albany AASF #3	☐ 2 days			Job / SDG No.:
PO# 104337	☐ 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 (LC/MS/MS ISM 537)	Tot+pH (EPA 9060A/9045D)	Sample Specific Notes:
EB-1 041122	4/11/22	0925	—	AQ	2			X		1
A0I01-01-SB-05.6-06.2	↓	0945	C	Soil	1			↓		2
A0I01-01-SB-00-02		1055	↓	↓	↓					3
A0I01-01-SB-03-04		1100								4
A0I01-02-SB-00-02		1245								5
A0I01-02-SB-03-04		1250								6
A0I01-03-SB-00-02		1335								7
A0I01-03-SB-02-03		1340								8
A0I01-08-SB-00-02		1420								9
A0I01-04-SB-00-02		1510								10
A0I01-04-SB-03-04		1515								11
A0I01-09-SB-00-02	↓	1615	↓	↓	↓			↓		12

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Client ID: 4838 - AECOM
SDG: 222041526
PM: CAD

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)

5184 1497 8330

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Report to: Naoum Tsoutsis 919-461-1178 naoum.tsoutsis@aecom.com
Bill to: Claire Mitchell 703-682-9098 claire.mitchell@aecom.com

4.7E3V

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:
John Shannon to FedEx	AECOM	4-13-22 1700			
Relinquished by: FedEx	Company:	Date/Time: 4-14-22 1010	Received by:	Company:	Date/Time: 4-14-22 1018
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 452294

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Claire Mitchell	Site Contact:	Date: 4/13/22	COC No:
Company Name: AECOM	Tel/Email: 703-682-9098	Lab Contact:	Carrier: FedEx	2 of 3 COCs
Address: 12420 Milestone Center Dr	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD 20876	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: ~~240~~ (301) 919-461-1178	TAT if different from Below Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: 60552172.0006 SI Albany AASF #3	☐ 1 week			
Site: Albany AASF #3	☐ 2 days			Job / SDG No.:
PO# 109297	☐ 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 (LC/MS/MS QSM 5.3)	TOC + pH/EPA 9060A/9045D	Sample Specific Notes:
A0I01-01-GW	4/11/22	1300	G	WG	2			X		B
A0I01-02-GW	4/11/22	1445	G	WG	2					14
A0I01-07-SB-00-02	4/12/22	0930	C	SO	1					15
A0I01-06-SB-00-02		1115								16
A0I01-06-SB-02-02.7		1120							X	17
A0I01-06-SB-02-02.7-MS		1120							X	MS/MSD for TOC+pH only 18
A0I01-06-SB-02-02.7-MSD		1120							X	MS/MSD for TOC+pH only 19
A0I01-07-SB-00-02-MS		0930								MS/MSD 20
A0I01-07-SB-00-02-MSD		0930								MS/MSD 21
A0I01-05-SB-00-02		1230								22
A0I01-05-SB-03-04		1240								23
A0I02-04-SB-05-05.5		1425								24

Client ID: 4838 - AECOM
SDG: 222041526
PM: CAD

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: Report to: Naoum Tavantzis 919-461-1178 naoum.tavantzis@aecom.com
Bill to: Claire Mitchell 703-682-9098 claire.mitchell@aecom.com

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:
Johnathan to FedEx	AECOM	4-13-22 1700			
Relinquished by: FedEx	Company:	Date/Time: 1010 4-14-22	Received by:	Company:	Date/Time: 1010 4-14-22
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 452295

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-8210

Client Contact	Project Manager: Claire Mitchell	Site Contact:	Date: 4/13/22	COC No:
Company Name: AECOM	Tel/Email: 703-682-9098	Lab Contact:	Carrier: FedEx	3 of 3 COCs
Address: 12420 Milestone Center Dr.	Analysis Turnaround Time			Sampler:
City/State/Zip: Germantown, MD, 20876	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 919-461-1178	TAT if different from Below Standard			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: 60552172.0006 SI Albany AASF#3	☐ 1 week			
Site: Albany AASF#3	☐ 2 days			
PO# 104397	☐ 1 day			

Client ID: 4838 – AECOM
SDG: 222041526
PM: CAD

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 (Ls/Isms asm 5.3)	Tot pH (EPA 9060A/9045D)	Notes:	
AOI02-02-SB-00-02	4/12/22	1605	C	SO	1			X			25
AOI02-02-SB-03-03.7		1610	C	SO	1						26
AOI01-03-GW		1005	G	WG	2					foaming	27
AOI01-07-GW		1210									28
AOI01-04-GW		1355								slight foaming	29
AOI01-05-GW		1540									30
AOI01-04-GW-MS		1355					X			slight foaming MS/MSD	31
AOI01-04-GW-MSD		1355					X			slight foaming MS/MSD	32
AOI01-SB-Dup-1	–	–	C	SO	1						33
AOI01-SB-Dup-2	–	–	C	SO							34
Dup-GW-01	–	–								slight foaming	35

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: Report to: Naoum Tsoutsis 919-461-1178 naoum.tsoutsis@aecom.com
Bill to: Claire Mitchell 703-682-9098 claire.mitchell@aecom.com

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:
To Shipper to FedEx	AECOM	4-13-22 1700			
Relinquished by: FedEx	Company:	Date/Time: 4-14-22 1010	Received by:	Company:	Date/Time: 4-14-22 1010
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Data Qualifying Codes

Two types of data qualifying codes or flags are applied in the course of the data review: (1) Data Validation Flags and (2) Reason Codes. The data validation flags could indicate data that are not usable for decision-making, more than normally biased and/or variable, or not representative of field conditions. These codes and their definitions are presented below in the hierarchy stipulated in the National Functional Guidelines for Organic/Inorganic Data Review (November 2020) and Department of Defense General Data Validation Guidelines (November 2019).

Data Validation Flags

Flag	Interpretation
R	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample. *
B	The analyte was analyzed for, but not detected at a level greater than or equal to the level of the adjusted detection limits for sample and method.*
J+	Reported value may not be accurate or precise, but the result may be biased high.
J-	Reported value may not be accurate or precise, but the result may be biased low.
J	The analyte was positively identified, and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the Limit of Detection (LOD).
N	The analysis indicates the presence of an analyte for which there was 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 concentration.
UJ	The analyte was not detected at a level greater than or equal to the adjusted DL. However, the reported adjusted DL is approximate and may be inaccurate or imprecise.
C	This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by gas Chromatograph/Mass Spectrometer (GC/MS)
X **	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

* B or U flag will be used for blank qualification based on regional/state and project requirements

** DoD Flag, “R” flag only applied by project team to replace X-flag on DoD projects in a final decision

The other type of code used by AECOM is a "Reason Code". The reason code indicates the type of quality control failure that led to the application of the data validation flag.

Reason Codes

Code	*Description*	*Code*	*Description*
a	Tracer recovery (radiochemical data only)	**ld**	Laboratory duplicate RPDs (matrix duplicate, MSD, LCSD)
be	Equipment blank contamination	**lp**	Laboratory control sample/laboratory control sample duplicate RPDs
bf	Field blank contamination	**m**	Matrix spike recovery
bi	Bias indeterminate	**md**	Matrix spike/matrix spike duplicate RPD
bl	Laboratory blank contamination	**nb**	Negative laboratory blank contamination
bm	Missing Blank Information	**p**	Chemical preservation issue
bt	Trip Blank	**pe**	Post Extraction Spike
c	Calibration issue	**ps**	Performance Evaluation Sample
cl	Clean-up standard recovery	**q**	Quantitation issue
cp	Insufficient in growth (radiochemical data only)	**r**	Dual column RPD
cr	Chromatographic resolution	**rp**	Re-extraction precision issue [PAHs only]
d	Reporting limit raised due to chromatographic interference	**rt**	SIM ions not within + 2 seconds
dt	Dissolved result > total over limit	**s**	Surrogate recovery
e	Ether interference	**sc**	Sample collection issues
fd	Field duplicate RPDs	**sp**	Sample preparation issue
g	Chromatographic pattern match issue	**su**	Evidence of ion suppression
h	Holding times	**t**	Temperature Preservation Issue
i	Internal standard areas	**u**	High combined sample result uncertainty (radiochemical data only)
ii	Injection internal standard area or retention time exceedance	**v**	Compound identification issue
k	Estimated Maximum Possible Concentrations	**x**	Low % solids
l	LCS recoveries	**y**	Serial dilution results
lc	Labeled compound recovery	**z**	ICS results

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Appendix B
Field Documentation

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Appendix B1
Logs of Daily Notice of Field Activities

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Log of Daily Notice of Field Activity
ARNG PFAS, Site Inspection
Albany AASF#3

Date	AECOM Personnel	Weather	Summary Daily Activities	Issues	Progress to Date	Subcontractor(s)/ Visitors
4/14/2022	- Chris French - John Shannon (SSHO)	Increasing clouds, possible thunderstorms in the afternoon, high of 79°F, low 41°F, winds 6-12 mph	- AECOM arrived onsite at 0700 and met with Roger Buley and Brian Wnuk (Cascade). AECOM performed daily safety meeting prior to the start of work. The team signed in and met with Glenn Galloway (NYARNG). - AECOM and Cascade entered AOI 2 and completed the final soil boring (AOI02-01) and temporary well installation in the road - John Shannon entered AOI 3 and completed collecting groundwater samples. John Shannon entered AOI 2 and completed groundwater sample collection. All temporary wells sampled for groundwater. - M.J. Engineering arrived on site and conducted tail gate safety meeting with Chris French. M.J. Engineering surveyed the location of and leveled all 13 installed temporary monitoring wells. - Cascade decommissioned all 13 temporary monitoring wells, backfilling them with bentonite chips. AOI02-01 was repaired with cold patch over the bentonite. - AECOM shipped one cooler for overnight delivery to the lab via FedEx. - M.J. Engineering offsite at 1215. - AECOM and Cascade offsite at 1500.	**Note: groundwater was encountered at 6 feet bgs or less in AOI02-01. As a result, only two soil samples were collected from these borings, per the SI QAPP.**	- Soil DPT Borings: 13/13 - Soil HA Borings: 8/8 - Soil Samples: 36/36 - Temporary Monitoring Wells: 13/13 - Groundwater Samples: 13/13	- Roger Buley and Brian Wnuk (Cascade) - David Vay and Michael Morrow (M.J. Engineering)
4/13/2022	- Chris French - John Shannon (SSHO)	Mixed sun and clouds, high of 72°F, low 57°F, winds south at 10 to 15 mph	- AECOM arrived onsite at 0700 and met with Roger Buley and Brian Wnuk (Cascade). AECOM performed daily safety meeting prior to the start of work. The team signed in and met with John Bogardus (NYARNG) to get access to AOI 1. - John Shannon entered AOI 1 and started collecting remaining groundwater samples. Sample collection at AOI 1 completed at 0930. John Shannon entered AOI 2 and started groundwater collection. - AECOM and Cascade entered AOI 2 and completed all accessible soil borings and well installations before entering AOI 3 and completing all soil borings and temporary monitoring well installations. - AECOM shipped one cooler for overnight delivery to the lab via FedEx. - Cascade offsite at 1400. - AECOM offsite at 1600.	**Note: groundwater was encountered at 1 foot bgs in AOI03-01 and AOI03-02. As a result, only one soil sample was collected from these borings, per the SI QAPP.** **Note: groundwater was encountered at 6 feet bgs or less in AOI02-03. As a result, only two soil samples were collected from these borings, per the SI QAPP.** - NYSDEC request for additional surface soil sample to be collected just south of AOI02-01 has been approved by all relevant parties. Total HA borings increased to 8. New boring ID is AOI02-05.	- Soil DPT Borings: 12/13 - Soil HA Borings: 7/8 - Soil Samples: 32/36 - Temporary Monitoring Wells: 12/13 - Groundwater Samples: 10/13	- Roger Buley and Brian Wnuk (Cascade)
4/12/2022	- Chris French - John Shannon (SSHO)	Rain early, a mix of sun and clouds by afternoon. High 67°F, low 40°F, winds W at 10 to 20 mph. Chance of rain 90%	- AECOM arrived onsite at 0700 and met with Roger Buley and Brian Wnuk (Cascade) and Jennifer Li (ARNG G9). AECOM performed Daily Safety Meeting prior to the start of work. The team signed-in and met with Jon Bogardus (NYARNG) to get access to AOI 1. - The team entered AOI 1 and started advancing soil borings, installing temporary monitoring wells, and collecting groundwater samples - borings and surface soil locations completed in AOI 1 at 1300, drill team entered AOI 2 and started advancing soil borings & installing temporary monitoring wells - The team installed five temporary borings and collected four grab groundwater samples. - AECOM, ARNG G9, and Cascade offsite at 1700.	**Note: groundwater was encountered at 2.2 feet bgs in AOI01-07. As a result, only one soil sample was collected from this boring, per the SI QAPP.** **Note: groundwater was encountered at 6 feet bgs or less in AOI01-05, AOI01-06, & AOI02-02. As a result, only two soil samples were collected from these borings, per the SI QAPP.**	- Soil DPT Borings: 9/13 - Soil HA Borings: 7/7 - Soil Samples: 29/39 - Temporary Monitoring Wells: 9/13 - Groundwater Samples: 6/13	- Roger Buley and Brian Wnuk (Cascade) - Jennifer Li (ARNG G9)

Log of Daily Notice of Field Activity
ARNG PFAS, Site Inspection
Albany AASF#3

Date	AECOM Personnel	Weather	Summary Daily Activities	Issues	Progress to Date	Subcontractor(s)/ Visitors
4/12/2022	- Chris French - John Shannon (SSHO)	Sunny, high 60°F, low 35°F, light NW winds 5-10 mph	- AECOM arrived onsite at 0700 and met with Roger Buley and Brian Wnuk (Cascade) and Jennifer Li (ARNG G9). AECOM performed Daily Safety Meeting prior to the start of work. The team signed-in and met with Jon Bogardus (NYARNG) to discuss access to AOI 1. - The team entered AOI 1 and started advancing soil borings, installing temporary monitoring wells, and collecting groundwater samples - NYSDEC arrived onsite for site visit (Brian Jankauskas, Robert V. Bellotti, John Swartwout, and Rick Mustico). - The team installed four temporary borings, collected two surface soil locations (via hand auger), and collected two grab groundwater samples. - NYSDEC offsite at 1600. - AECOM, ARNG G9, and Cascade offsite at 1700.	- NYSDEC requested an additional surface soil sample be collected just to the south of AOI02-01 to determine potential impacts from the release which may have entered the wooded area just off the access road (area not accessible to a drill rig due to guard rail and slope). Field change request pending. **Note: groundwater was encountered at 6 feet bgs or less in AOI01-02, AOI01-03, and AOI01-04. As a result, only two soil samples were collected from these borings, per the SI QAPP.**	- Soil DPT Borings: 4/13 - Soil HA Borings: 7/7 - Soil Samples: 21/44 - Temporary Monitoring Wells: 4/13 - Groundwater Samples: 2/14	- Roger Buley and Brian Wnuk (Cascade) - Jennifer Li (ARNG G9) - Brian Jankauskas, Robert V. Bellotti, John Swartwout, and Rick Mustico (NYSDEC)
4/8/2022	- Chris French	Mostly cloudy, high 57°F, low 45°F, light NW winds 5-10 mph	- AECOM arrived onsite at 0800 and met with Jake Connally (GPRS) to perform the subsurface utility clearing. - GPRS scanned the area around the remaining 13 boring locations and 2 surface soil locations and confirmed the areas to be clear of utilities. - AECOM and GPRS offsite at 1430.	- None	- Soil DPT Borings: 0/13 - Soil HA Borings: 5/7 - Soil Samples: 10/47 - Temporary Monitoring Wells: 0/13 - Groundwater Samples: 0/14	-Jake Connally (GPRS)
1/4/2022	- Chris French	Partly sunny, high 28°F, low 21°F, light NW winds 5-10 mph	- AECOM arrived onsite at 0800 and met with Robert Olsen (NYARNG) to get access to the facility. Proceeded to AOI 3 for hand auger soil sampling of the stockpile locations. - AECOM performed a H&S meeting and discussed the planned activities for the day and associated hazards of hand augering/subsurface work. - Collected ten (10) soil samples (0-2 ft bgs, 2-4 ft bgs) from AOI03-03 through AOI03-07. - Shipped one cooler via FedEx for overnight delivery to the laboratory. - AECOM offsite at 1400.	- None	- Soil DPT Borings: 0/13 - Soil HA Borings: 5/7 - Soil Samples: 10/47 - Temporary Monitoring Wells: 0/13 - Groundwater Samples: 0/13	-None

Notes
AASF = Army Aviation Support Facility
AOI = area of interest
ARNG = Army National Guard
bgs = below ground surface
DPT = direct push technology
ft = feet
GPRS = Ground Penetrating Radar Systems, LLC
HA = hand auger
H&S = health any safety
mph = miles per hour
NW = northwest
NYARNG = New York Army National Guard
NYSDEC = New York State Department of Environmental Conservation
SSHO = Site Safety and Health Officer

Appendix B2
Sampling Forms

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AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI 01-01	Date: 04/11/2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: JShanon Checked By:

EQUIPMENT	Sampling Equipment - Pump: Geotech GeoPump (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19M1000446	Handset ID: 19A104300
	PID Type/ID#: MiniRAE 3000A	Equipment Decon: Alconox & DI Water	

WELL & SAMPLING INFO	Description: AOI 01-01	Screen Interval (BTOC): ~~4-14'~~ 5'-15' bg	Initial Depth to Water (BTOC): 6.40	Ambient PID (ppm): 0.0
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 8.0 ft	Well Head PID (ppm): 0.1
	Condition of Well/Comments: New/temporary		Height of stick-up (ft): 1.0 ft	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/11/22	1200	6.59	start	0.300	8.8	0.409	2.24	8.24	11.5	HIGH	—	—	brown
04/11/22	1205	6.58	1.5 L	0.300	9.2	0.389	0.16	8.97	-55.2	HIGH	—	—	"
04/11/22	1210	6.60	3.0 L	0.300	8.9	0.379	0.12	8.99	-84.3	109	—	—	"
04/11/22	1215	6.60	4.5 L	0.300	9.0	0.378	0.14	6.86	-96.9	167	—	—	lt brown
04/11/22	1220	6.60	6.0 L	0.300	9.0	0.381	0.10	6.93	-104.1	190	—	—	"
04/11/22	1225	6.60	7.5 L	0.300	9.0	0.397	0.12	6.96	-107.9	270	—	—	"
04/11/22	1230	6.60	9.0 L	0.300	9.1	0.392	0.12	6.99	-112.3	425	—	—	"
04/11/22	1235	6.60	10.5	0.3	9.1	0.398	0.12	7.02	-117.8	807	—	—	brown
04/11/22	1240	6.60	12.0	0.3	9.1	0.393	0.16	7.04	-122.9	678	—	—	"
04/11/22	1245	6.60	13.5	0.3	9.1	0.396	0.16	7.06	-125.5	670	—	—	"
04/11/22	1250	6.60	15.0	0.3	9.2	0.401	0.16	7.07	-127.7	400	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI-01-01-GW @ 1300	Two, 250ml HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI 01-01	Date: 4-11-22
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. Shannon Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/11/22	1255	6.60	16.5	0.300	9.1	0.395	0.16	7.08	-130.2	203	—	—	
04/11/22	1300	6.60	18.0	0.300	9.2	0.396	0.20	7.08	-130.4	182	—	—	sampled no foaming after shake test

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI 01-02	Date: 04-11-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J.SHAW/M Checked By:

EQUIPMENT	Sampling Equipment - Pump: Geotech, Geopump (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19M100046	Handset ID: 19A104300
	PID Type/ID#: MiniRAE ~~3000~~ PGP 3000	Equipment Decon: Alconox & DI water	

WELL & SAMPLING INFO	Description: AOI 01-02	Screen Interval (BTOC): ~~3-13 ft~~ 4.9 - 9.9 ft	Initial Depth to Water (BTOC): 3.68	Ambient PID (ppm): 0.0
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 5.50	Well Head PID (ppm): 0.0
	Condition of Well/Comments: New / temporary		Height of stick-up (ft): 1.90 ft	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/11/22	1345	3.68	—	.250	9.0	0.352	1.46	7.11	35.3	—	—	—	dark brown
	1350	4.00	1.25	0.250	8.7	0.366	1.05	6.97	11.6	189	—	—	"
	1355	4.00	2.50	0.250	8.4	0.376	1.05	6.80	-10.6	406	—	—	"
	1400	4.00	3.75	0.250	8.0	0.379	0.49	6.80	-25.6	958	—	—	"
	1405	4.00	5.00	0.250	8.1	0.380	0.40	6.82	-34.0	890	—	—	"
	1410	3.99	6.25	0.250	8.1	0.380	0.29	6.84	-43.6	372	—	—	H. brown
	1415	3.99	7.50	0.250	8.0	0.381	0.27	6.86	-48.0	240	—	—	"
	1420	3.99	8.75	0.250	8.1	0.383	0.27	6.86	-49.9	195	—	—	H. brown
	1425	3.99	10.00	0.250	7.9	0.384	0.32	6.87	-51.4	150	—	—	"
	1430	3.99	11.25	0.250	8.1	0.382	0.36	6.87	-48.9	117	—	—	"
	1435	3.99	12.50	0.250	8.0	0.383	0.38	6.87	-49.5	87.4			"

Pumping Rate: ≤0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI01-02-GW @1445	Two 250mL HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI 01-02	Date: 04/11/2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. Shannon Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-11-22	1440	3.99	13.75	0.250	8.0	0.383	0.37	6.87	-52.3	81.1	—	—	clear
04-11-22	1445	3.99	15.00	0.250	8.0	0.383	0.38	6.87	-52.0	91.7	—	—	sampled - no foaming after Mgte test

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI 01-03	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. Thamm Checked By:

EQUIPMENT	Sampling Equipment - Pump: Geotech Geopump (peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM/6361	Water Quality Meter Type: YSI Sonde ID: 19M100046	Handset ID: 19A104950
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI Water	

WELL & SAMPLING INFO	Description: AOI-01-03	Screen Interval (BTOC): ~~3-8'~~ 6-11' bg	Initial Depth to Water (BTOC): 5.44	Ambient PID (ppm): 0.0
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 8.5	Well Head PID (ppm): 0.0
	Condition of Well/Comments: New/temp		Height of stick-up (ft): 3.0	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~ L	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-12-2022	0905	5.44	—	0.200	7.2	0.312	2.56	7.18	28.4	410	—	—	dark brown
	0910	5.62	1.0	0.2	7.1	0.281	2.21	6.70	22.2	222	—	—	"
	0915	5.61	2.0	0.2	7.0	0.281	2.50	6.72	28.9	324	—	—	"
	0920	5.61	3.0	0.2	7.1	0.261	2.61	6.75	34.4	959	—	—	"
	0925	5.60	4.0	0.2	7.0	0.211	2.66	6.72	42.3	902	—	—	"
	0930	5.60	5.0	0.2	7.0	0.201	2.63	6.74	47.8	972	—	—	"
	0935	5.60	6.0	0.2	7.1	0.145	2.61	6.76	52.3	989	—	—	"
	0940	5.60	7.0	0.2	7.1	0.132	2.60	6.76	55.4	909	—	—	"
	0945	5.60	8.0	0.2	7.2	0.123	2.59	6.76	57.2	854	—	—	"
	0950	5.60	9.0	0.2	7.2	0.127	2.54	6.78	60.0	609	—	—	"
	0955	5.60	10.0	0.2	7.2	0.130	2.69	6.78	65.1	571	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI01-03-GW @ 1005	Two, 250 mL, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI 01-03	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. Shannon Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-12-22	1000	5.60	11.0	0.2	7.3	0.130	2.71	6.70	69.0	527	—	—	H. brown
04-12-22	1005	5.60	12.0	0.2	7.3	0.131	2.72	6.78	70.1	563	—	—	H. brown sampled @ 1005 - two 250ml HDPE bottles - Sulfide test negative for foaming - Foaming when purge bucket dumped into an empty bucket for containment.

Pumping Rate: ≤0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI01-04	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. SHANNON Checked By:

EQUIPMENT	Sampling Equipment - Pump: Geotech, GeoPump (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19M100046	Handset ID: 19A104300
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI water	

WELL & SAMPLING INFO	Description: AOI01-04	Screen Interval (BTOC): 5.5 - 10.5	Initial Depth to Water (BTOC): 3.75 ft	Ambient PID (ppm): 0.1
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): ~~8.0 ft~~ 6.0	Well Head PID (ppm): 0.1
	Condition of Well/Comments: New/temporary		Height of stick-up (ft): 2.5 ft.	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed ~~(gallons)~~ L	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/12/22	1255	6.05	—	0.25	8.7	0.374	7.71	6.46	151.7	791	—	—	brown
	1300	4.99	~~0.50~~	0.25	8.8	0.376	6.87	6.42	153.0	623	—	—	"
	1305	5.07	~~0.75~~ x5	0.25	8.5	0.379	6.60	6.48	140.7	943	—	—	"
	1310	5.32	~~1.00~~ x5	0.25	8.6	0.385	6.22	6.50	136.9	862	—	—	"
	1315	5.51	~~1.25~~ x5	0.25	8.7	0.388	5.51	6.52	121.1	793	—	—	"
	1320	5.38	~~1.50~~ x5	0.25	8.9	0.391	6.40	6.53	111.9	781	—	—	"
	1325	5.33	~~1.75~~ x5	0.25	9.1	0.394	6.56	6.54	106.5	654	—	—	"
	1330	5.28	~~2.00~~ x5	0.25	9.1	0.398	6.43	6.56	96.3	569	—	—	"
	1335	5.30	~~2.25~~ x5	0.25	9.3	0.399	6.39	6.57	88.2	510	—	—	"
	1340	5.34	~~2.50~~ x5	0.25	9.2	0.399	6.35	6.55	87.7	441	—	—	"
	1345	5.37	~~2.75~~ x5	0.25	9.4	0.401	6.18	6.54	85.8	354	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI01-04-GW-~~MS~~ @ 1355	Two, 250 ml, HDPE	None	PFAS
AOI01-04-GW-MS @ 1355	Two, 250 ml, HDPE	None	PFAS
AOI01-04-GW-MSD @ 1355	Two, 250 ml, HDPE	None	PFAS
AOI01-DUP-GW-01 @ 1400	Two, 250 ml, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI01-04	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. SHANNON Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-12-22	1350	5.40	13.75	0.25	9.3	0.405	6.11	6.55	82.1	303	—	—	—
04-12-22	1355	5.43	15.00	0.25	9.3	0.407	6.02	6.56	81.0	300	—	—	—
													slight foaming when filtering buckets
													Dupe & MS/MSD
04-12-22	1255		—										
	1300		1.25										
	1305		2.50										
	1310		3.75										
	1315		5.00										
	1320		6.25										
	1325		7.50										
	1330		8.75										
	1335		10.00										
	1340		11.25										
	1345		12.50										

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI01-05	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. SHANNON Checked By:

EQUIPMENT	Sampling Equipment - Pump: Geotech GeoSlug (peristaltic) / 7202	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 8761	Water Quality Meter Type: YSI Sonde ID: 19M100046	Handset ID: 19A104300
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI Water	

WELL & SAMPLING INFO	Description: AOI01-05	Screen Interval (BTOC): 5-10 ft	Initial Depth to Water (BTOC): 4.31	Ambient PID (ppm): 0.1
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 6.0 ft	Well Head PID (ppm): 0.1
	Condition of Well/Comments: New / temporary		Height of stick-up (ft): 2.0 ft	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/12/22	1440	4.55	—	0.2	9.6	0.310	3.70	6.36	47.7	420	—	—	brown
	1445	4.71	1.0	0.2	9.4	0.327	1.63	6.61	47.5	527	—	—	"
	1450	4.77	2.0	0.2	9.3	0.339	1.41	6.02	43.2	629	—	—	"
	1455	4.77	3.0	0.2	9.2	0.353	1.12	6.03	32.4	1100	—	—	dk. brown
	1500	4.78	4.0	0.2	9.2	0.368	0.91	6.15	22.1	827	—	—	brown
	1505	4.79	5.0	0.2	9.3	0.373	0.81	6.15	19.5	599	—	—	"
	1510	4.79	6.0	0.2	9.1	0.374	0.90	6.14	20.9	479	—	—	"
	1515	4.80	7.0	0.2	9.3	0.371	0.86	6.11	22.2	306	—	—	lt. brown
	1520	4.80	8.0	0.2	9.2	0.370	0.81	6.16	23.0	241	—	—	"
	1525	4.80	9.0	0.2	9.5	0.373	0.78	6.14	21.5	178	—	—	"
	1530	4.80	10.0	0.2	9.3	0.370	0.78	6.17	22.2	179	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI01-05-GW @ 1540	Two, 250mL, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI01-05	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. Shaw Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (~~gallons~~) L	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/12/22	0535	4.80	11.0	0.2	9.4	0.370	0.84	6.17	22.2	142	—	—	clear/dg
04/12/22	1540	4.80	12.0	0.2	9.6	0.373	0.87	6.17	22.1	119	—	—	"
													No foaming after Quake test

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI01-06	Date: 04-13-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. SHANNON Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geotech Geopump (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19A100046	Handset ID: 19A104350
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI water	
WELL & SAMPLING INFO	Description: ADI01-06	Screen Interval (BTOC): 5-10'	Initial Depth to Water (BTOC): 4.22' Ambient PID (ppm): 0.1
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 6.0' Well Head PID (ppm): 0.1
	Condition of Well/Comments: New / Temporary		Height of stick-up (ft): 3.0 ft
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-13-22	0820	4.62	1.0	0.2	7.0	0.441	0.64	6.91	-69.7	805	—	—	lt. brown
	0825	4.62	2.0	0.2	6.9	0.474	0.33	6.82	-86.1	514	—	—	"
	0830	4.62	3.0	0.2	7.1	0.482	0.30	6.82	-91.5	336	—	—	"
	0835	4.62	4.0	0.2	7.1	0.495	0.24	6.88	-100.2	249	—	—	"
	0840	4.62	5.0	0.2	7.2	0.495	0.20	6.89	-102.5	293	—	—	v. lt. brown
	0845	4.60	6.0	0.2	7.4	0.497	0.18	6.92	-105.9	389	—	—	"
	0850	4.57	7.0	0.2	7.6	0.500	0.13	6.95	-107.8	657	—	—	"
	0855	4.55	8.0	0.2	7.6	0.501	0.14	6.95	-108.8	479	—	—	"
	0900	4.52	9.0	0.2	7.6	0.502	0.15	6.96	-109.6	557	—	—	"
	0905	4.50	10.0	0.2	7.6	0.503	0.15	6.96	-110.2	402	—	—	"
	0910	4.48	11.0	0.2	7.9	0.502	0.15	6.98	-112.8	376	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
ADI01-06-GW @0920	Two, 250ml, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI-01-06	Date: 4-13-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. Nolan Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-13-22	0915	4.50	12.0	0.2	7.8	0.499	0.15	6.98	-112.7	262	—	—	lt. brown
04-13-22	0920	4.53	13.0	0.2	7.8	0.497	~~0.17~~ ~~0.09~~ 0.15	6.99	-113.4	117	—	—	lt. brown No foaming

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI01-07	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. SHANNON Checked By:

EQUIPMENT	Sampling Equipment - Pump: Geotech GeoPump (Peristaltic) / 7282	Controller: NA	Compressor: NA	
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI	Sonde ID: 19A / 20046	Handset ID: 19A104300
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI Water		

WELL & SAMPLING INFO	Description: ADI01-07	Screen Interval (BTOC): 2.3-7.3	Initial Depth to Water (BTOC): 2.08	Ambient PID (ppm): 0.1
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): ~~2.3-7.3 ft~~ 4.8 ft	Well Head PID (ppm): 0.2
	Condition of Well/Comments: New / Temporary		Height of stick-up (ft): 1.3	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons) L	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-12-22	1110	2.31	1.0	0.200	7.4	0.105	3.64	6.61	97.7	HIGH	—	—	Purging
04-12-22	1115	2.31	2.0	0.2	7.7	0.105	1.08	6.62	123.6	289	—	—	"
	1120	2.31	3.0	0.2	7.6	0.101	0.99	6.61	134.3	393	—	—	"
	1125	2.31	4.0	0.2	7.4	0.100	0.87	6.60	135.9	469	—	—	"
	1130	2.31	5.0	0.2	7.3	0.099	0.80	6.60	137.6	609	—	—	"
	1135	2.31	6.0	0.2	7.2	0.098	0.76	6.61	137.6	532	—	—	"
	1140	2.34	7.0	0.2	7.1	0.099	0.72	6.63	137.5	807	—	—	"
	1145	2.36	8.0	0.2	6.9	0.099	0.70	6.59	138.6	960	—	—	"
	1150	2.38	9.0	0.2	6.8	0.099	0.67	6.56	141.3	1030	—	—	"
	1155	2.40	10.0	0.2	6.8	0.100	0.65	6.60	136.9	1097	—	—	"
	1200	2.42	11.0	0.2	6.8	0.101	0.60	6.62	133.5	1120	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
ADI01-07-GW @1210	TWO, 250 mL, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI01-07	Date: 04-12-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: JJ Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (~~gallons~~) L	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-12-22	1205	2.44	12.0	0.2	6.9	0.101	0.50	6.63	129.7	991	—	—	
	1210	2.46	13.0	0.2	6.9	0.101	0.49	6.63	131.0	987	—	—	
													no fogging after shake test

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI02-01	Date: 04-14-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. Shannon Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geotech GeoSub (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19A/100046	Handset ID: 19A/8430
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI water	
WELL & SAMPLING INFO	Description: ADI02-01	Screen Interval (BTOC): 5.3 - 10.3	Initial Depth to Water (BTOC): 6.31 ft. Ambient PID (ppm): 0.0
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 7.0 ft. Well Head PID (ppm): 0.1
	Condition of Well/Comments: New / temporary		Height of stick-up (ft): 2.3 ft
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/14/22	1205	6.59	—	0.20	10.3	2.50	2.01	7.49	122.2	656	—	—	clear/gray w/ brown
	1210	6.60	+1.0	0.2	10.3	2.06	1.12	7.41	68.0	168	—	—	brown
	1215	6.59	2.0	0.2	10.4	2.00	1.08	7.34	28.1	1100	—	—	brown
	1220	6.57	3.0	0.2	10.5	2.00	1.06	7.34	20.9	987	—	—	"
	1225	6.55	4.0	0.2	10.7	1.99	1.05	7.33	12.8	710	—	—	"
	1230	6.62	5.0	0.2	11.2	1.97	1.22	7.36	2.0	280	—	—	lt. brown
	1235	6.67	6.0	0.2	9.4	1.86	1.07	7.31	2.5	232	—	—	"
	1240	6.60	7.0	0.2	9.9	1.92	1.01	7.31	0.2	166	—	—	lt. brown
	1245	6.59	8.0	0.2	10.1	1.89	1.06	7.35	-3.4	117	—	—	v. lt. brown
	1250	6.58	9.0	0.2	10.1	1.87	1.02	7.35	-5.9	86.1	—	—	"
	1255	6.57	10.0	0.2	10.4	1.88	1.00	7.35	-8.5	65.0	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
ADI02-01-GW @ 1305	Two, 250ml, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI02-01	Date: 04-14-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. Sheehan Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/14/22	1300	6.57	11.0	0.2	10.5	1.92	0.97	7.34	-10.5	44.0	—	—	clear
04/14/22	1305	6.57	12.0	0.2	10.1	1.88	0.96	7.36	-11.1	39.0	—	/	clear
													no foaming after shake test

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, +3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI02-02	Date: 4-13-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. Shann Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geotech Geopump (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19M100946	Handset ID: 19A 104387
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox / DI water	
WELL & SAMPLING INFO	Description: ADI02-02	Screen Interval (BTOC): 5.5 - 10.5	Initial Depth to Water (BTOC): 5.69
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): ~~6.50~~ 7.5
	Condition of Well/Comments: New / temporary		Height of stick-up (ft): 2.57.
	NOTE:		Ambient PID (ppm): 0.0
			Well Head PID (ppm): 0.0

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/13/22	1030	6.60	—	0.20	9.4	3.92	12.02	6.88	114.7	997	—	—	brown
	1035	6.70	1.0	0.2	8.8	3.98	10.33	6.90	110.2	943	—	—	"
	1040	6.31	2.0	0.2	9.5	4.00	9.29	6.91	63.2	391	—	—	"
	1045	6.70	3.0	0.2	8.9	3.97	9.66	6.92	52.4	939	—	—	"
	1050	6.35	4.0	0.2	9.1	4.20	7.97	6.87	45.1	1030	—	—	dark brown
	1055	6.35	5.0	0.2	9.1	4.28	8.59	6.87	47.5	689	—	—	"
	1100	6.49	6.0	0.2	9.0	4.30	8.69	6.87	47.5	951	—	—	"
	1105	6.57	7.0	0.2	8.2	4.31	8.93	6.88	47.3	987	—	—	"
	1110	6.90	8.0	0.2	8.5	4.37	8.42	6.82	56.7	872	—	—	"
	1115	7.09	9.0	0.2	8.3	2.42	8.92	6.86	56.0	510	—	—	brown
	1120	7.02	10.0	0.2	8.5	1.79	8.97	6.81	61.1	131	—	—	lt. brown

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
ADI02-02-GW @ 1130	Two, 250ml, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI02-02	Date: 4-13-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-13-22	1125	7.20 ~~8~~	11.0	0.2	8.5	1.67	9.23	6.76	65.2	46.5	—	—	clear
04-13-22	1130	↓ ~~8.0~~	12.0	0.2	8.4	1.72	11.01	6.73	70.8	38.0	—	—	"
		7.26 ~~8~~											no foaming

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI02-03	Date: 04-13-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. SHANNON Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geotech Geopump (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19M1000440	Handset ID: 19A 104300
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox / DI Water	
WELL & SAMPLING INFO	Description: AOI-02-03	Screen Interval (BTOC): 5.5-10.5	Initial Depth to Water (BTOC): 4.95 ft
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 6.5 ft
	Condition of Well/Comments: New/temporary		Height of stick-up (ft): 3.5 ft
	NOTE:		Ambient PID (ppm): 0.1
			Well Head PID (ppm): 0.1

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/13/22	1155	5.20	—	0.2	9.4	6.73	9.18	6.88	137.5	439	—	—	Lt. Brown
	1200	5.38	1.0	0.2	9.1	6.38	9.55	6.93	133.8	566	—	—	"
	1205	5.50	2.0	0.2	9.1	6.05	9.24	6.95	132.5	529	—	—	"
	1210	5.68	3.0	0.2	9.2	5.81	9.32	6.93	133.9	323	—	—	"
	1215	5.71	4.0	0.2	9.2	5.82	9.18	6.92	134.0	399	—	—	"
	1220	5.72	5.0	0.2	9.1	5.89	9.21	6.90	135.2	309	—	—	"
	1225	5.74	6.0	0.2	9.3	5.93	9.24	6.87	136.5	213	—	—	"
	1230	5.80	7.0	0.2	9.2	6.10	9.93	6.85	137.0	196	—	—	"
	1235	5.81	8.0	0.2	9.3	6.14	9.20	6.83	138.3	154	—	—	"
	1240	5.87	9.0	0.2	9.3	6.27	9.00	6.80	138.7	147	—	—	"
	1245	5.82	10.0	0.2	9.4	6.33	8.32	6.79	139.0	125	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI02-03-GW @1255	Two, 250ml HDPE	None	PFAS
AOI02-DUP-GW-02 @1300	Two, 250ml HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI 02-03	Date: 04-13-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. SHANNON Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/13/22	1250	5.83	11.0	0.2	9.6	6.35	9.30	6.77	142.9	111	—	—	clear
04/13/22	1255	5.83	12.0	0.2	9.6	6.35	9.35	6.74	144.3	106	—	—	clear
													No foaming

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: AOI02-04	Date: 04-13-2022	
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: JS Checked By:	
EQUIPMENT	Sampling Equipment - Pump: Geotech Geopump (peristaltic) / 72.82	Controller: NA	Compressor: NA	
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19M100046	Handset ID: 19A104350	
	PID Type/ID#: MINIRAE 3000	Equipment Decon: Alconox / DI water		
WELL & SAMPLING INFO	Description: AOI02-04	Screen Interval (BTOC): 5.25-10.25	Initial Depth to Water (BTOC): 6.47	Ambient PID (ppm): 0.1
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 8.0 ft	Well Head PID (ppm): 0.1
	Condition of Well/Comments: New/temporary		Height of stick-up (ft): 0.75 ft	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04-13-22	1410	7.00	—	0.2	9.2	0.071	11.23	7.30	149.5	134	—	—	lt. clear
04-13-22	1415	6.90	1.0	0.2	9.8	0.059	10.63	6.99	199.7	25.8	—	—	clear
04-13-22	1420	6.90	2.0	0.2	9.5	0.050	10.68	6.52	268.3	10.9	—	—	clear
04-13-22	1425	6.89	3.0	0.2	9.4	0.048	10.97	6.39	225.6	5.69	—	—	clear
04-13-22	1430	6.88	3.0	0.2	9.4	0.045	10.92	6.50	221.7	6.41	—	—	clear
													No foaming (shake test)

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
AOI02-04-GW @ 1430	Two, 250 ml, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI03-01	Date: 04-14-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: T. SHANNON Checked By:

EQUIPMENT	Sampling Equipment - Pump: Geotech GeoSub (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6961	Water Quality Meter Type: YSI Sonde ID: 19A/00046	Handset ID: 19A/04300
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI water	

WELL & SAMPLING INFO	Description: ADI03-01	Screen Interval (BTOC): 1.25-6.25	Initial Depth to Water (BTOC): 2.10	Ambient PID (ppm): 0.0
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): 3.0	Well Head PID (ppm): 0.0
	Condition of Well/Comments: New/ temporary		Height of stick-up (ft): 1.25 ft	
	NOTE:			

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/14/22	1015	2.22	—	0.2	11.0	0.465	2.32	7.16	137.9	121	—	—	clear
	1020	2.28	1.0	0.2	10.6	0.467	1.48	7.04	128.4	102	—	—	"
	1025	2.30	2.0	0.2	10.2	0.466	1.34	7.00	122.9	106	—	—	"
	1030	2.32	3.0	0.2	10.1	0.465	1.21	6.99	118.0	71.7	—	—	"
	1035	2.32	4.0	0.2	9.9	0.469	1.15	7.00	114.8	55.3	—	—	"
	1040	2.33	5.0	0.2	9.7	0.468	1.09	6.99	113.4	41.7	—	—	"
	1045	2.34	6.0	0.2	9.9	0.466	0.99	6.98	111.8	32.4	—	—	"
	1050	2.34	7.0	0.2	9.8	0.467	0.97	6.98	110.2	23.3	—	—	"
	1055	2.35	8.0	0.2	9.7	0.467	0.94	6.97	108.9	19.2	—	—	"
↓	1100	2.35	9.0	0.2	10.1	0.465	0.90	6.97	107.4	14.9	—	—	"
													No foaming

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
ADI03-01-GW @1100	Two, 250 ml, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ADI03-02	Date: 04-14-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: JJ HANNA Checked By:
EQUIPMENT	Sampling Equipment - Pump: Geotech Geopump (Peristaltic) / 7282	Controller: NA	Compressor: NA
	Water Level Indicator Type/ID#: Geotech WLM / 6361	Water Quality Meter Type: YSI Sonde ID: 19M100046	Handset ID: 19A104300
	PID Type/ID#: MiniRAE 3000	Equipment Decon: Alconox & DI water	
WELL & SAMPLING INFO	Description: ADI03-02	Screen Interval (BTOC): 1.6 - 6.6	Initial Depth to Water (BTOC): 2.55
	Historic Pump Settings: NA		Pump Inlet Depth (BTOC): ~~3~~ 3.5
	Condition of Well/Comments: New / temporary		Height of stick-up (ft): 1.6 ft
	NOTE:		

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/14/22	0850	2.65	—	0.20	9.0	0.715	5.38	7.56	163.9	119	—	—	clear
	0855	2.65	1.0	0.20	9.2	0.714	4.80	7.05	160.9	400	—	—	clear
	0900	2.68	2.0	0.20	9.1	0.730	4.61	6.89	156.4	452	—	—	clear
	0905	2.69	3.0	0.20	9.4	0.750	4.34	6.90	148.5	328	—	—	clear
	0910	2.68	4.0	0.20	10.4	0.770	4.27	6.91	143.4	295	—	—	clear
	0915	2.68	5.0	0.2	9.4	0.770	4.20	6.90	142.3	263	—	—	"
	0920	2.70	6.0	0.2	9.4	0.790	4.16	6.87	142.2	253	—	—	"
	0925	2.71	7.0	0.2	9.4	0.810	4.02	6.90	139.2	227	—	—	"
	0930	2.72	8.0	0.2	9.6	0.810	4.06	6.87	142.4	209	—	—	"
	0935	2.72	9.0	0.2	9.4	0.830	4.03	6.89	138.4	237	—	—	"
	0940	2.73	10.0	0.2	9.3	0.830	3.94	6.88	138.1	184	—	—	"

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, ± 3% Conductivity; + 10% DO; ± 0.1 pH; ± 10mV ORP; 10% Turb

Sample ID Numbers and Sample Time	Container Count, Volume & Type	Preservative	Parameter(s)
ADI03-02-GW @ 0950	TWO, 250ml, HDPE	None	PFAS

AECOM

Monitoring Well Sample Collection Form

LOCATION	Site: Army Aviation Support Facility #3, Latham, NY	LocID: ASF03-02	Date: 04-14-2022
	Project Name: Albany AASF#3 SI Field Effort	Project Number: 60552172 / 006-SI 59	Recorded By: J. Shaw Checked By:

Date (MM/DD/YY)	Time (24 hr)	Depth to Water (BTOC)	Volume Removed (gallons)	Pumping Rate (Lpm)	Temp (°C)	Specific Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Pump Refill/ Discharge (seconds)	Pump Pressure (PSI)	Comment
04/14/22	0945	2.73	11.0	0.2	09.3	0.84	3.81	6.89	136.9	90.9	—	—	clear
04/14/22	0950	2.73	12.0	0.2	9.4	0.84	3.84	6.89	135.7	58.0	—	—	clear
													No foaming during shake test.

Pumping Rate: ≤ 0.5L/min; **Measurements:** every 3 - 5 minutes; **Stabilization is defined as the following for three consecutive readings:** ± 3% Temp, + 3% Conductivity; + 10% DO; + 0.1 pH; + 10mV ORP; 10% Turb

Appendix B3
Field Change Request Forms

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Date: 08 April 2022

AECOM Technical Services Inc.
Field Change Request Form

Report Number: FCR01 **Location:** Latham, New York

Document Title: Albany AASF #3 SI QAPP Addendum, Final **Contract Number:** W912DR-12-D-0014 DO: W912DR17F0192

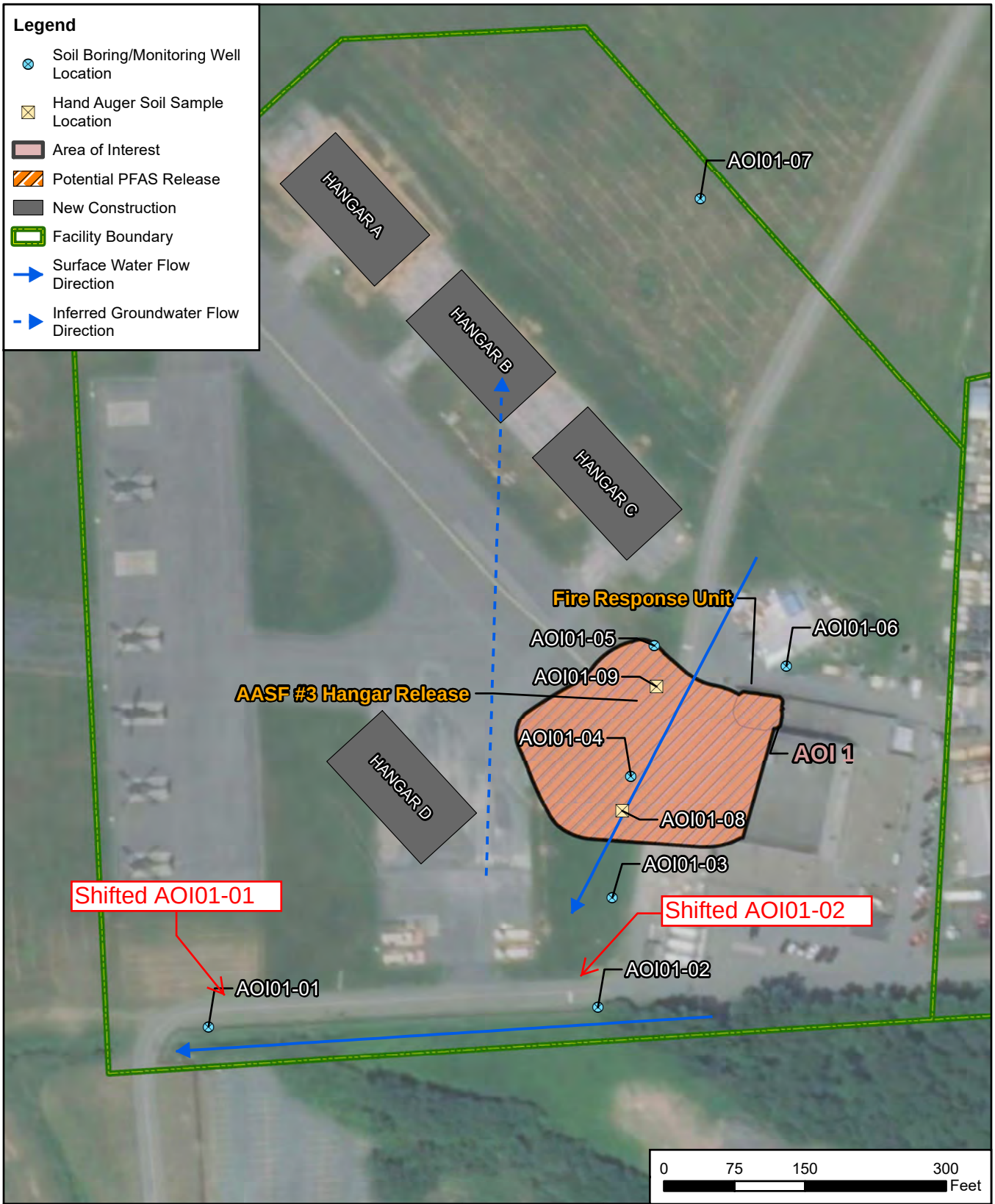
Description of Field Change:	After discussion with the AECOM drilling subcontractor, it was determined that AOI01-01 and AOI01-02 were located too close to an existing electrical line and would have to be relocated. To accommodate this health and safety concern, the team proposes the boring locations be moved to the north side of the access road (will be confirmed during utility clearing).
Proposed Disposition:	Please see the attached figure showing the new proposed locations for AOI01-01 and AOI01-02.

Submitted by: Andrew Borden **Date:** April 12, 2022

Approved by (Project Manager): Claire Mitchell

Completed by: Chris French **Date:** April 8, 2022

Verified by (SI Task Manager): Andrew Borden **Date:** April 12, 2022



CLIENT	ARNG			
NOTES	Site Inspection for PFAS at Albany AASF #3, NY			
REVISED	5/14/2021	GIS BY	MS	5/14/2021
SCALE	1:1,800	CHK BY	AM	5/14/2021
Base Map: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,		PM	CM	5/14/2021

N

Site Inspection
Sample Locations - AOI 1

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 17-2

Q:\Projects\ENV\GEARS\GEO\MAES 2012 Unrestricted\Fort Meade\E. Data Management\GIS\MXDs\Chisholm_6th\March2017\ Fig_17-2_Albany_AASF_SI_Sample_Locations - AOI 1.mxd

Date: 08 April 2022

AECOM Technical Services Inc.
Field Change Request Form

Report Number: FCR02 **Location:** Latham, New York

Document Title: Albany AASF #3 SI QAPP Addendum, Final **Contract Number:** W912DR-12-D-0014 DO: W912DR17F0192

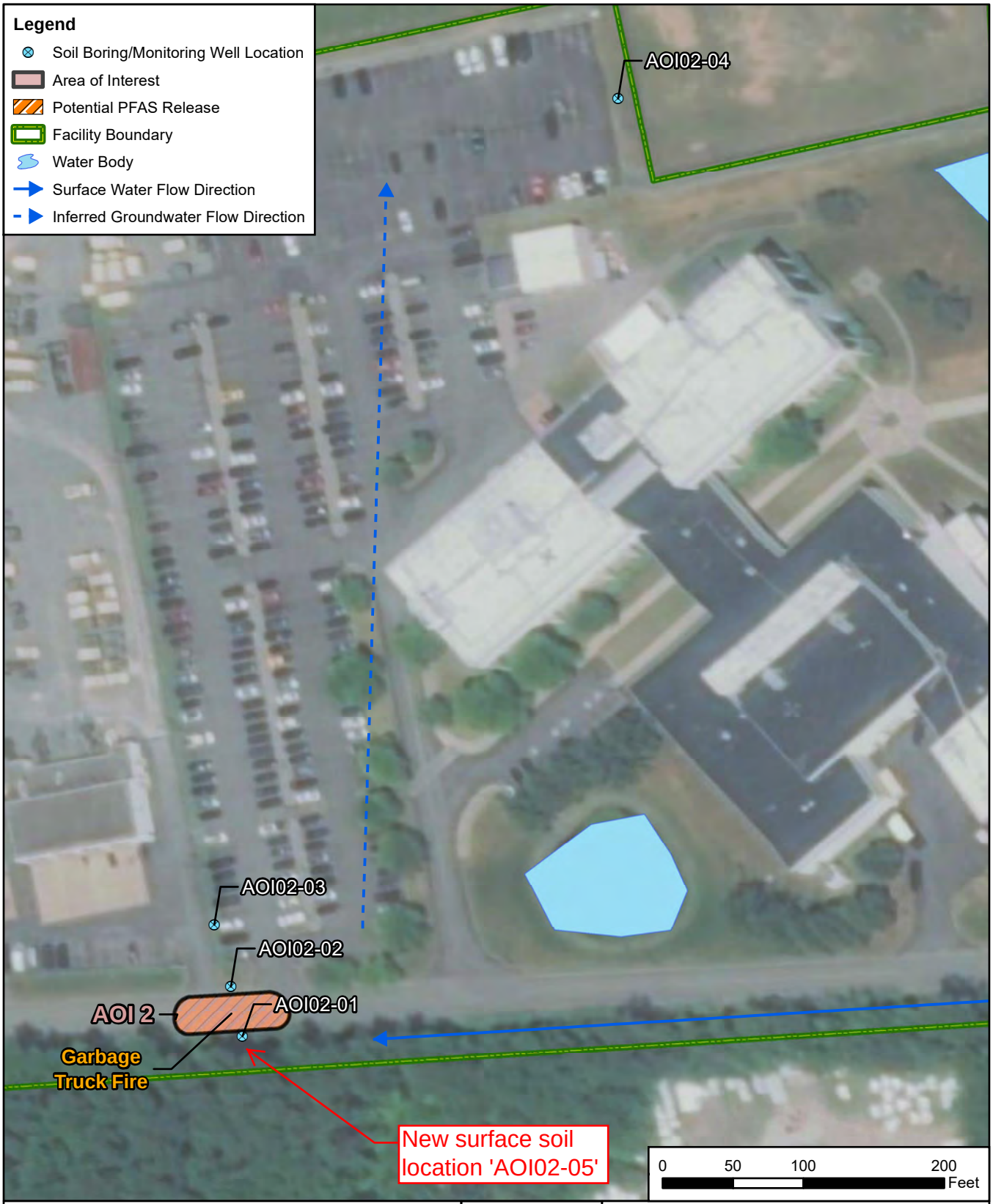
Description of Field Change:	During the sitewalk, NYSDEC requested an additional surface soil sample (AOI02-05) be collected from the upgradient side (south) of AOI02-01 via hand auger. This was the originally proposed location for AOI02-01, but couldn't be advanced in that location due to the guardrail and slope.
Proposed Disposition:	Please see the attached figure showing the proposed location for AOI02-05.

Submitted by: Chris French **Date:** April 11, 2022

Approved by (Project Manager): Claire Mitchell

Completed by: Chris French **Date:** April 11, 2022

Verified by (SI Task Manager): Andrew Borden **Date:** April 12, 2022



CLIENT	ARNG			
NOTES	Site Inspection for PFAS at Albany AASF #3, NY			
REVISED	6/23/2021	GIS BY	MS	6/23/2021
SCALE	1:1,200	CHK BY	AM	6/23/2021
Base Map: NYS Digital Ortho-imagery Program (NYSDOP), 2016		PM	CM	6/23/2021

N

Site Inspection Sample Locations - AOI 2

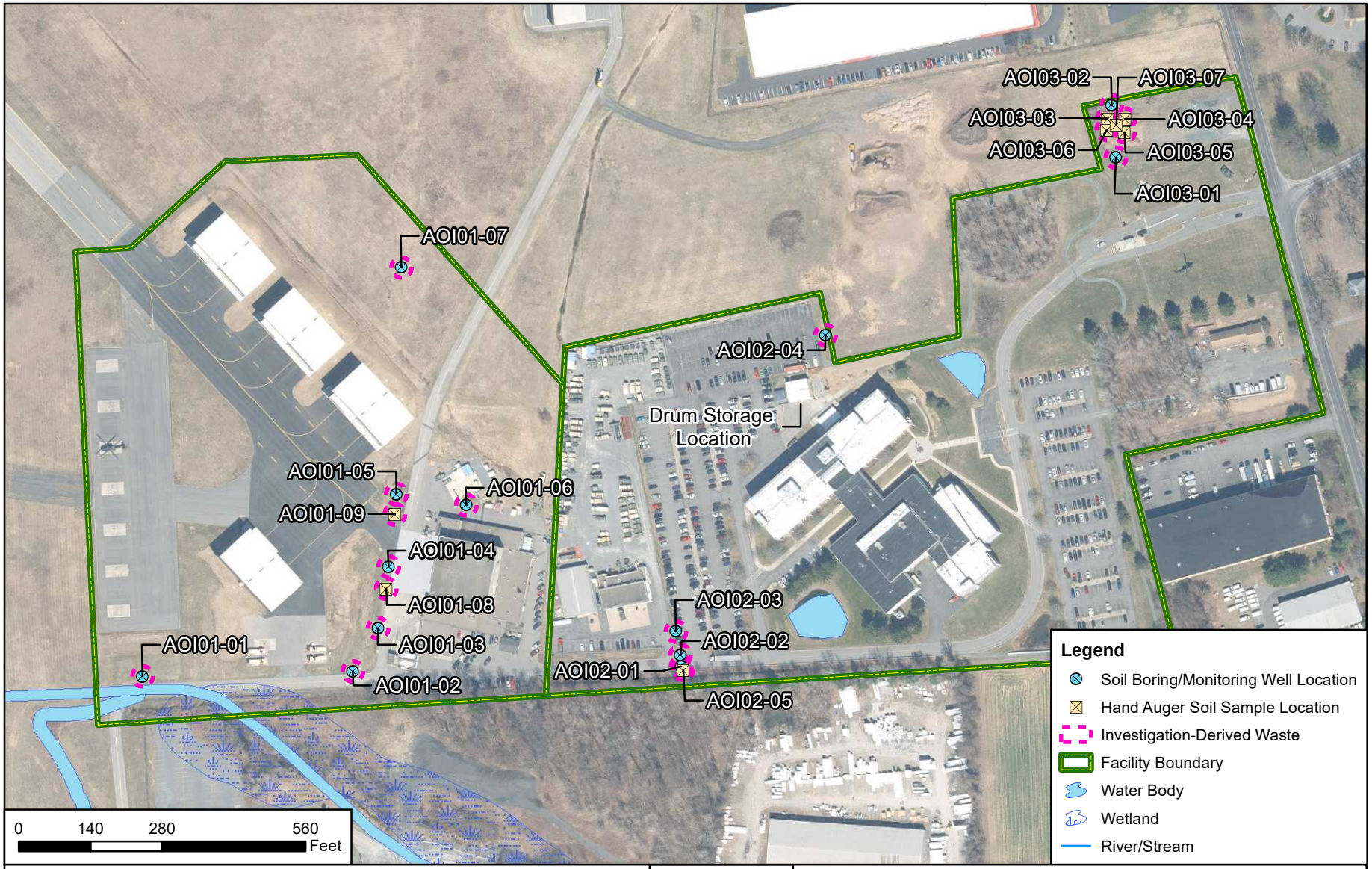
AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Figure 17-3

Q:\Projects\ENV\GEARS\GEO\MAES 2012 Unrestricted\Fort Meade\E. Data Management\GIS\MXDs\Chisholm_6th\March2017\ Fig_17-3_Albany_AASF_SI_Sample_Locations - AOI 2.mxd

Appendix B4
Investigation-Derived Waste Polygons

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CLIENT	ARNG			
PROJECT	Site Inspection at Albany AASF #3, NY			
REVISED	7/27/2022	GIS BY	MS	7/27/2022
SCALE	1:3,360	CHK BY	AM	7/27/2022
Base Map: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community		PM	CM	7/27/2022

Investigation-Derived Waste Polygons

AECOM
12420 Milestone Center Drive
Germantown, MD 20876

Appendix B4

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Appendix B5
Survey Data

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Albany Air National Guard- AECOM Site
Inspection Sample Locations

MJ Project #1259.03

Boring Locations

Boring well position and elevation determined by Base rover GPS survey on April 14th, 2022,

Horizontal Datum: NYSPC System of 1983, East Zone (NAD 83)
Vertical Datum: North American Vertical Datum of 1988 (NAVD 88)
Units – U.S. Survey Feet

Well ID	NORTHING	EASTING	CASING ELEV.	GROUND ELEV.
AOI01-01	1424618.9103	679700.7911	281.92	280.98
AOI01-02	1424626.0939	680111.6735	282.36	280.40
AOI01-03	1424710.0370	680161.7894	284.40	281.39
AOI01-04	1424830.0464	680182.8996	283.35	280.68
AOI01-05	1424971.3927	680198.7670	283.30	281.29
AOI01-06	1424948.9898	680335.1460	284.47	281.51
AOI01-07	1425413.6361	680211.2961	280.94	279.50
AOI01-08*	1424787.4549	680178.1332	N/A	281.04
AOI01-09*	1424932.1244	680195.6605	N/A	280.42
AOI02-01	1424632.0044	680753.0643	288.10	285.72
AOI02-02	1424653.8584	680751.8417	287.77	285.07
AOI02-03	1424700.0917	680743.2067	287.83	284.34
AOI02-04	1425277.1145	681038.6528	290.05	289.30
AOI03-01	1425620.0816	681607.8837	286.61	285.26
AOI03-02	1425722.1356	681600.0582	286.30	284.63
	* Denotes- Soil Sample Locations			

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Appendix C
Photographic Log

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APPENDIX C – Photographic Log

Site Inspection for PFAS	Albany AASF#3	Latham, New York

Photograph No. 1	
Date: 08-19-2021 **Time:** Unknown	
Description: Photograph depicting the extent of HEF from an accidental release of the fire suppression system from AASF#3. The HEF covered the tarmac immediately west of the hangar, reaching the grassy area by AOI01-03, AOI01-04, and AOI01-08.	
Orientation: East	

Photograph No. 2	
Date: 08-19-2021 **Time:** Unknown	
Description: Second photo showing 2021 HEF release. A contractor arrived at the facility 8/20/21 to perform clean-up. It is estimated approximately 75-100 gallons of HEF concentrate was released.	
Orientation: East	

APPENDIX C – Photographic Log

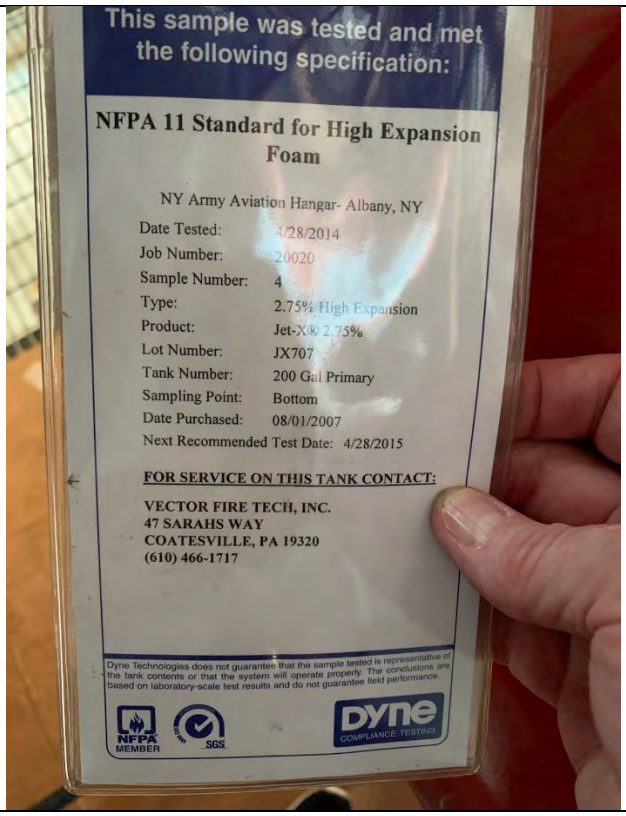
Site Inspection for PFAS	Albany AASF#3	Latham, New York

Photograph No. 3 **Date:** 08-19-2021 **Time:** Unknown **Description:** Two foam storage tanks located at AASF#3. **Orientation:** NA	

Photograph No. 4 **Date:** 08-19-2021 **Time:** Unknown **Description:** Sample confirmation tag located on the Ansul tank (tank on the right in Photograph #3 shown above). **Orientation:** NA	

APPENDIX C – Photographic Log

Site Inspection for PFAS	Albany AASF#3	Latham, New York

Photograph No. 5	
Date: 08-19-2021 **Time:** Unknown	
Description: Close up of the sample confirmation from Ansul tank. Tag confirms foam is Jet-X HEF.	
Orientation: NA	

Photograph No. 6	
Date: 08-19-2021 **Time:** Unknown	
Description: Ansul HEF tank.	
Orientation: NA	

APPENDIX C – Photographic Log

Site Inspection for PFAS	Albany AASF#3	Latham, New York

Photograph No. 7

Date: 04-12-2022

Time: 1030

Description:

Foamy purge water from AOI01-03. All liquid IDW generated was containerized in 55-gallon drums.

Orientation:

NA



Photograph No. 8

Date: 06-08-2021

Time: 1125

Description:

Liquid IDW storage area. Drums staged outside Maintenance Shop at AOI 2.

Orientation:

East



APPENDIX C – Photographic Log

Site Inspection for PFAS	Albany AASF#3	Latham, New York

Photograph No. 9 **Date:** 06-08-2021 **Time:** 1125 **Description:** Drum #1 with drum label. Approximately 42 gallons of liquid IDW stored in Drum #1. **Orientation:** East	

Photograph No. 10 **Date:** 06-08-2021 **Time:** 1125 **Description:** Drum #2 with drum label. Approximately 15 gallons of liquid IDW stored in Drum #2. **Orientation:** East	

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Appendix D
TPP Meeting Minutes

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Meeting Minutes
Albany Army Aviation Support (AASF) Facility #3 – Site Inspection (SI)
Technical Project Planning (TPP) – Meeting 3
Preliminary Assessments and Site Inspections (PA/SIs) for Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) Impacted Sites
Contract No. W912DR-12-D-0014, DO W912DR17F0192
Tuesday, 7 February 2023
1500-1630 EST

Participants			
Name	**Affiliation***	**Phone**	**E-Mail**
Jennifer Li	ARNG G-9	301-717-6939	jennifer.j.li2.ctr@army.mil
Emily Cline	USACE	410-962-7966	emily.j.cline@usace.army.mil
Kimberly Berg	USACE	410-962-3656	kimberly.a.berg@usace.army.mil
James Williamson	NYARNG	-	james.l.williamson133.nfg@army.mil
Greg Austin	NYARNG	-	gregory.t.austin.nfg@army.mil
Brian Jankauskas	NYSDEC	518-391-4565	brian.jankauskas@dec.ny.gov
Rick Mustico	NYSDEC	-	richard.mustico@dec.ny.gov
Renata Ockerby	NYDOH	-	renata.ockerby@health.ny.gov
Justin Deming	NYDOH	-	justin.deming@health.ny.gov
Connor Haskin	Albany International Airport	-	chaskin@albanyairport.com
Andrew Borden	AECOM	978-905-2405	andrew.borden@aecom.com
Stephanie Tjan	AECOM	317-379-6792	stephanie.tjan@aecom.com

**ARNG G-9 – Army National Guard G-9; NYARNG – New York Army National Guard; NYSDOH – New York State Department of Health; NYSDEC – New York State Department of Environmental Conservation; USACE – United States Army Corps of Engineers*

Mr. Andrew Borden (AECOM) welcomed participants and reviewed the purpose of the meeting, outlined the agenda, and led a roundtable of introductions for everyone on the virtual Technical Project Planning (TPP) 3 meeting. The meeting purpose was to discuss the Army National Guard (ARNG) Per- and Polyfluoroalkyl Substance (PFAS) Preliminary Assessment (PA)/Site Inspection (SI) program and the results of the SI for PFAS at the Albany Army Aviation Support Facility #3 in Albany, New York.

Briefing slides are included as **Attachment A.** Key points discussed during the presentation are provided below. Additionally, a safety moment that discussed carbon monoxide safety was shared with the participants. Common household sources and preventative measures were reviewed.

Programmatic Discussion (Slides 5-7):

- The meeting goals for the TPP meetings included in the ARNG PFAS program were presented.
  - The combined TPP 1 and 2 provided an overview of the ARNG PA/SI program, reviewed the PA findings, and discussed the approach of the SI at the facility.
  - TPP 3 presented the SI results, resolved comments/concerns to gain concurrence on the SI Report, and discussed future actions at the facility.
- The program follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) progress. The CERCLA process was reviewed, and a CERCLA status overview of the facility was provided:
  - The Final PA Report for the facility was completed by ARNG.
  - The SI fieldwork was completed in January and April 2022.
  - The Draft Final SI Report was transmitted to the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH).

PA Summary of Findings (Slides 8-10):

- A brief overview of the PA findings was presented. During the PA, four potential source areas were identified and grouped into three Areas of Interest (AOIs). The identified release areas included:
  - AASF #3 Hangar Release (AOI 1)

  - Fire Response Unit (AOI 1)
  - Garbage Truck Fire (AOI 2)
  - Soil Stockpile (AOI 3)
- The AASF #3 Hangar is equipped with a fire suppression system containing High Expansion Foam (HEF). Foam was released during an initial test of the system in 2012 after installation. The foam filled the inside of the hangar and spilled out onto the tarmac and grass immediately west of the hangar. There was an additional accidental release that occurred in August 2021 in approximately the same footprint as the 2012 release. It is unknown if an aqueous film forming foam (AFFF)-primed system existed prior to this HEF system, but two 36-gallon AFFF tanks were observed inside the hangar during document review and site walk in August 2021. The two AFFF tanks are not meant to be connected to the overhead deluge system but rather are meant to be used manually.
- The Fire Response Unit is also located within AOI 1. The Fire Response Unit was active during the 1980s but was disbanded in the early-1990s. While active, the Fire Response Unit housed a fire truck which stored 150-gallons of AFFF and 400-gallons of Purple K.
- AOI 2 encompasses an emergency response area. In May 2017, a fire started in the back of a garbage truck southeast of the AASF #3. The Colonie Fire Department responded to the incident and while no AFFF use was documented during the event, there appears to be foam on the ground in photographs of the incident.
- Four new cold storage hangars were built between May and November 2020, and excavated soils from associated construction activities (e.g.: utility excavation and trenching) were stockpiled on the northeastern side of facility. The soil stockpile was conservatively identified as AOI 3 since soils from the potential release area of AOI 1 were excavated.
- Several adjacent sources were identified in proximity of the facility and were not investigated as part of the SI. Adjacent sources at the facility include the Town of Colonie Fire Department Training Area and the Crushed Stone Area where live-fire training exercises have occurred using AFFF. These two adjacent sources are up-gradient and cross-gradient of the facility. Additional downgradient adjacent sources are also present.

Conceptual Site Model (Slides 11-12):

- Mr. Borden provided a summary of the conceptual site model (CSM), including geology, hydrogeology, and hydrology of the facility.
  - An unconfined sand aquifer is present underlying the facility because of the depositional environment. However, it should be noted that deeper portions of the aquifer can be semi- to fully confined.
  - Depth to groundwater measured during the SI ranged from 0.56 to 5.72 feet below ground surface (bgs).
  - The facility is in the Shakers Creek-Mohawk River Watershed which is part of the larger Mohawk River Basin.
  - The existing stormwater system at the facility routes runoff to a drainage ditch on the southwestern boundary of the facility. From there, the runoff travels south around the southern runway and then northwest before converging with Ann Lee Pond.

SI Data Quality Objectives and Screening Levels (Slides 13-14):

- The primary data quality objectives (DQOs) established for the SI included confirming the presence or absence of a release at the potential PFAS release areas, as well as gathering data to refine the CSM.
  - Enhanced DQOs for the SI included determining the presence/absence of PFAS at the facility boundary, checking for alternate sources, and measuring PFAS at/near receptors, if warranted.
- The Department of Defense (DoD) has adopted a policy to retain facilities in the CERCLA process based on risk-based screening levels (SLs) for soil and groundwater. Programmatically, the SLs used were established in a memorandum from the Office of the Secretary of Defense (OSD), dated 6 July 2022, and apply to five compounds: PFOA, PFOS, PFBS, PFHxS, and PFNA.

  - If the maximum concentration for sampled media were to exceed the SLs established in the OSD memorandum, the AOI would proceed to the next phase under CERCLA, which is the Remedial Investigation (RI).

SI Summary of Approach (Slides 15-16):

- Fieldwork included the installation of temporary monitoring wells for the collection of grab groundwater samples.
- Soil samples were collected from each boring location at the surface, above the water table, and at the mid-point between, where applicable. Due to the shallow groundwater depth, many borings only had one or two soil samples collected.
- In total, 36 soil samples were collected from 15 boring locations and 8 hand auger locations, and 13 grab groundwater samples were collected from 13 temporary wells.

SI Summary of Findings (Slides 17-28):

- Depths to water measured in April 2022 during the SI ranged from 0.56 to 5.72 feet bgs. The groundwater flow direction is generally to the west.
- Mr. Brian Jankauskas (NYSDEC) noted that when the SI sampling approach was developed, the regional groundwater flow direction was assumed to be north. However, the actual groundwater flow direction was determined to be west. Therefore, some SI sample locations that were intended to be downgradient locations, based on the assumed regional groundwater flow direction, were cross-gradient to the AOIs.
- In the soil, PFOS exceeded the residential SL of 13 micrograms per kilogram (µg/kg) at AOI 1 with a maximum concentration of 60.1 µg/kg. Other relevant compounds were also detected in soil below SLs.
- In groundwater, PFOA and PFOS exceeded the groundwater SLs at all three AOIs.
  - The maximum concentration of PFOA was 61.9 nanograms per liter (ng/L) at AOI 1.
  - The maximum concentration of PFOS was 15,000 ng/L at AOI 1.
  - AOI 1 also had groundwater exceedances of PFHxS and PFNA at 1,180 ng/L and 13.3 ng/L, respectively.
- The revised CSM figures were presented for AOI 1, AOI 2, and AOI 3. The sources of the releases may have resulted in PFAS releases to surface soil. Through human activities, precipitation and runoff, or leaching and infiltration, the exposure pathways may be potentially complete for the following:
  - The inhalation of dust by site workers and construction workers.
  - Ingestion of surface soil by site workers and construction workers.
  - The ingestion of surface water or sediment by site workers, construction workers, and trespassers or recreational users.
  - The ingestion of subsurface soil by construction workers.
  - The potential ingestion of downgradient groundwater by site workers, construction workers, and off-facility residents.
- Potable wells are in a 4-mile radius from the facility, and based on the measured groundwater flow direction, the groundwater ingestion pathway was assumed potentially complete for off-facility residents. The facility receives potable water from surface water intakes; however, the groundwater was encountered at such shallow depths that the site worker groundwater ingestion pathway was conservatively assumed to be potentially complete.
- The potable well information on the displayed figures came from a state well registry. The geospatial data attributes did not specify if the potable wells were private or public.
- Mr. Rick Mustico (NYSDEC) stated that based on his understanding, the Latham Water District used to rely on potable wells and have the authority to do so again. There was also a local water bottling company that had a potable well in the region too.

Next Steps (Slide 29):

- Based on the results of the SI, further action under CERCLA is recommended for all three AOIs

- The group reviewed the schedule. Once comments are received from the NYSDEC and NYSDOH, AECOM will generate responses and issue a Backcheck Draft Final SI Report for review and concurrence. Once concurrence is received, a Final version of the SI Report will be issued.

Relative Risk Site Evaluation (RRSE):

- Ms. Jennifer Li (ARNG G-9) presented the DoD's approach for using the Relative Risk Site Evaluation (RRSE) methodology to sequence environmental restoration work. The goal is to evaluate the magnitude of detections and associated risk factors at each facility, so that RI funding can be prioritized.
- The RRSE method is not meant to be a risk assessment, but it uses a screening tool with SI data to determine relative risk.
- The RRSE method was presented with respect to Albany AASF #3 SI results to solicit stakeholder feedback.
- Three evaluation factors were presented:
    - The Contaminant Hazard Factor (CHF) was scored based on the ratio of maximum concentration to SL.
    - The Migration Pathway Factor (MPF) was determined based on the likelihood of contamination migrating to a point of exposure.
    - The Receptor Factor (RF) was determined based on the potential receptor exposure within 4-miles.
- Overall AOI ratings scored high for the facility, and the score was primarily driven by groundwater and the potential receptor exposure for off-facility drinking water.
- About two-thirds of ARNG facilities scored high, so ARNG G-9 also factored in how close drinking water receptors were to the facilities. ARNG G-9 is hoping to award funding for the RI at this facility in fiscal year 2023, pending the availability of funding.
- Mr. Borden remarked that a well survey is currently being performed, and he is targeting to have this well survey completed in March 2023.
- The project team did not have any feedback regarding the RRSE.

Open Discussion (Slide 30):

- Ms. Renata Ockerby (NYSDOH) observed that NYSDOH typically looks at dermal exposure for soil from the 0 to 2 inches bgs rather than 0 to 2 feet bgs. Ms. Li stated that this soil exposure depth can be revisited during the RI.
- Mr. Jankauskas summarized the comments from NYSDEC on the SI Report:
    - DR10 should be incorporated into further investigations at the facility.
    - The discussion of AFFF and its use or non-use in the fire suppression system should be expanded.
    - Based on the aerial imagery at AOI 3, some sampling points appear to be placed outside of the soil stockpile.
    - The DoD does not utilize protection of groundwater levels that USEPA developed.
    - The relative size of each AOI and changing understanding of groundwater flow direction should be mentioned in the report.
- Mr. Jankauskas requested that the report be submitted as an electronic data deliverable into the State's database system.
- Mr. Jankauskas asked if the RI will be performed under Defense Environmental Restoration Program (DERP) or operational funding? Ms. Li stated that ARNG G-9 is seeking eligibility under DERP funding for the RI.

Attachment A – TPP 3 Briefing Slides

Albany Army Aviation Support Facility #3
Site Inspection
New York Army National Guard

Technical Project Planning (TPP) Meeting 3

Site Inspection for Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorohexanesulfonic acid (PFHxS), Perfluorononanoic acid (PFNA), Hexafluoropropylene oxide dimer acid (HFPO-DA), and Perfluorobutanesulfonic acid (PFBS) at ARNG Installations, Nationwide

7 February 2023

Agenda

- Introductions
- Safety Moment
- TPP Meeting Goals
- ARNG CERCLA Process Overview
- Preliminary Assessment (PA) Overview
- SI Results
- Next Steps
- Questions and Open Discussion

Introductions

ARNG G-9

- Bonnie Packer, Nationwide Project Manager
- Jennifer Li, ARNG Project Manager

USACE

- Emily Cline, Nationwide Program Manager
- Kim Berg, Project Engineer

New York Army National Guard (NYARNG)

- James Williamson, Environmental Branch Chief
- 1LT Steves Vanderpool, Deputy Branch Chief
- Gregory Austin, Environmental Compliance

New York Department of Environmental Conservation (NYSDEC)

- Brian Jankauskas
- Rick Mustico

New York State Department of Health (DOH)

- Renata Ockerby

Albany International Airport

- Connor Haskin

AECOM Technical Services, Inc.

- Claire Mitchell, SI Senior Lead
- Andrew Borden, SI Task Manager
- Stephanie Tjan, Environmental Engineer

Safety Moment
Carbon Monoxide Safety

- According to the CDC, approximately 50,000 people visit the ER each year due to CO poisoning.
- Common household sources include:
  - Gas or coal burning appliances (furnace, water heater, etc.)
  - Small engines (generators, snow blowers, etc.)
  - Cars
- CO poisoning preventative measures:
  - Have your appliances serviced annually
  - Leaving running cars/engines in well ventilated areas – never warm your car in the garage
  - Install CO detectors in basement and near bedrooms, check batteries twice a year.
- If you think you are experiencing symptoms of CO poisoning, go outside and get fresh air immediately – call emergencies services.

Meeting Goals

TPP 1/2 Review (held 3 September 2020)

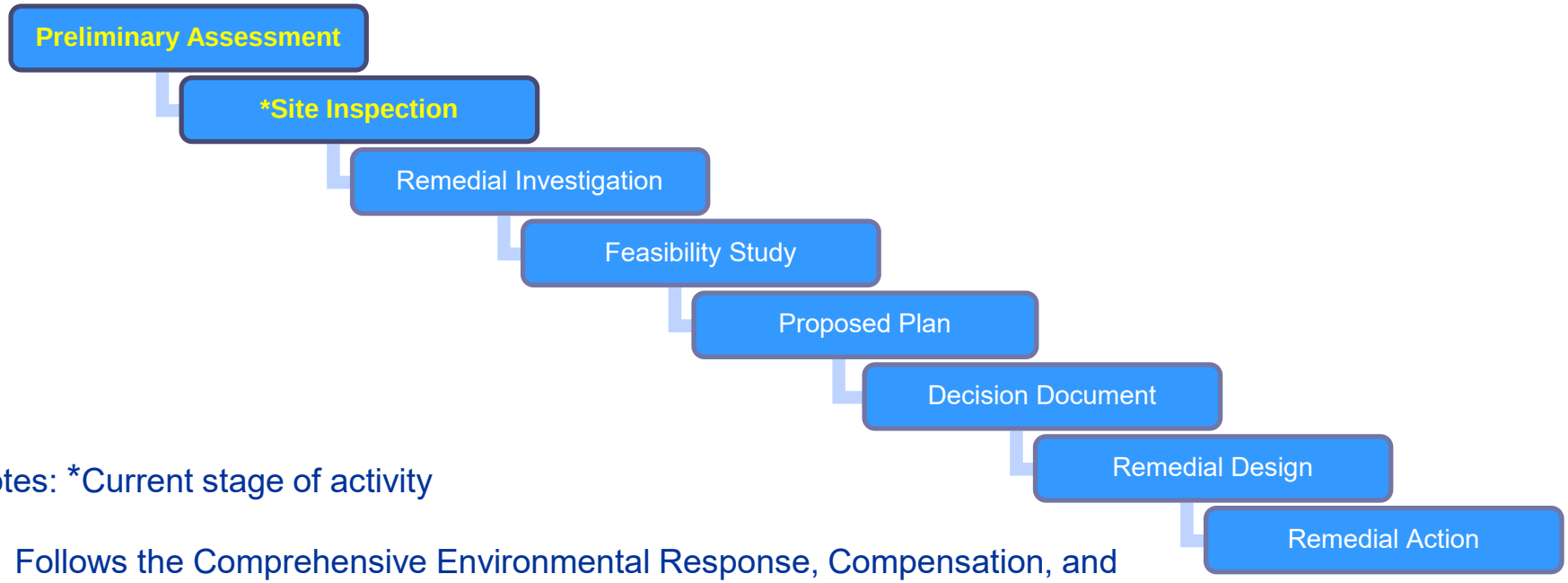
- Provided an overview of ARNG PA/SI Program
- Defined objectives for SI data collection
- Encouraged stakeholder involvement
- Reviewed project schedule
- Captured action items
- Discussed proposed SI approach

TPP 3

- ARNG CERCLA program overview
- Revisit the PA findings
- Present SI Results and revised conceptual site model (CSM)
- Resolve comments/concerns and gain concurrence on presentation of findings in Draft Final SI Report
- Discuss future actions at the site

ARNG PA/SI Overview

Work Phases



Notes: *Current stage of activity

- Follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Process
- An interim removal action can be conducted or a No Further Action determination can be made at any phase

ARNG CERCLA Status Overview

- PA for Albany AASF #3 has been completed by ARNG
- SI fieldwork completed in January and April 2022
- Draft Final SI Report provided to NYSDEC; results presented today

PA – Summary of Findings

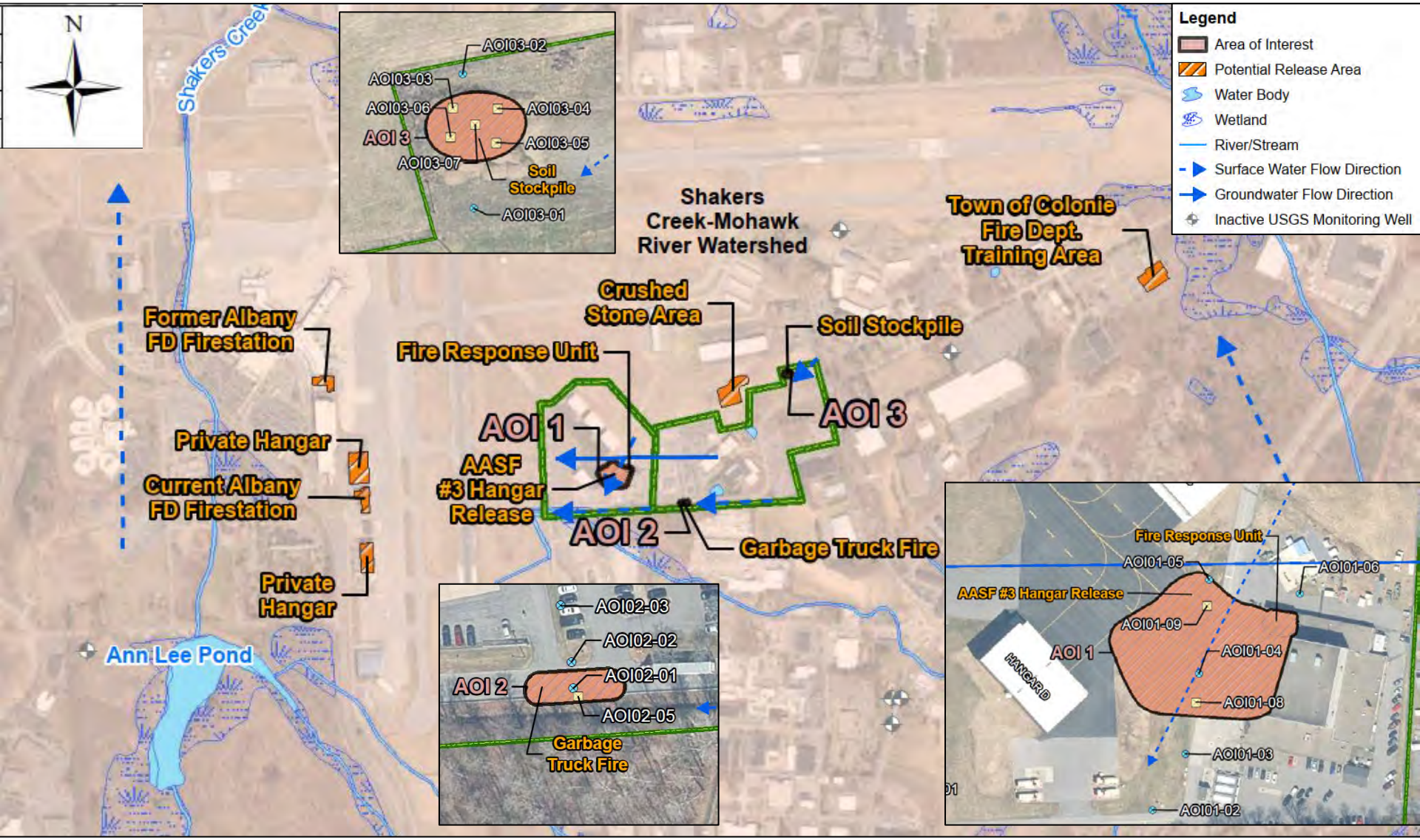
- Potential Source Areas: 4 identified during the PA and grouped into 3 Areas of Interest (AOIs)

- PFAS releases attributed to fire suppression systems, fire equipment training/AFFF storage, and emergency response.

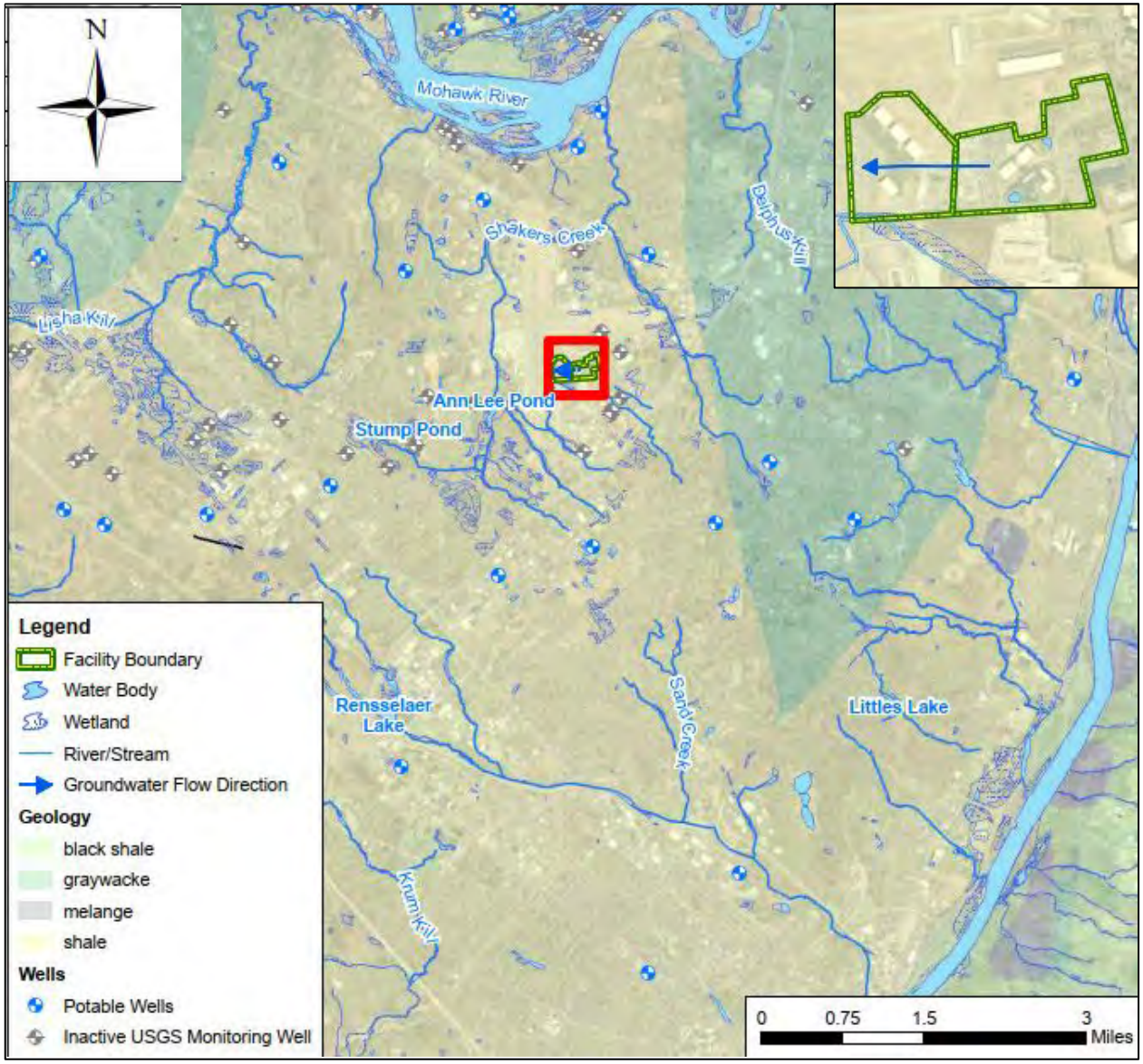
PA – Summary of Findings

- AOI1 – Army Aviation Support Facility (AASF) #3 Hanger Release Area / Fire Response Unit
  - AASF #3 Hangar Release
  - Fire Response Unit
- AOI2 – Garbage Truck Fire
- AOI3 – AOI 1 Soil Stockpile

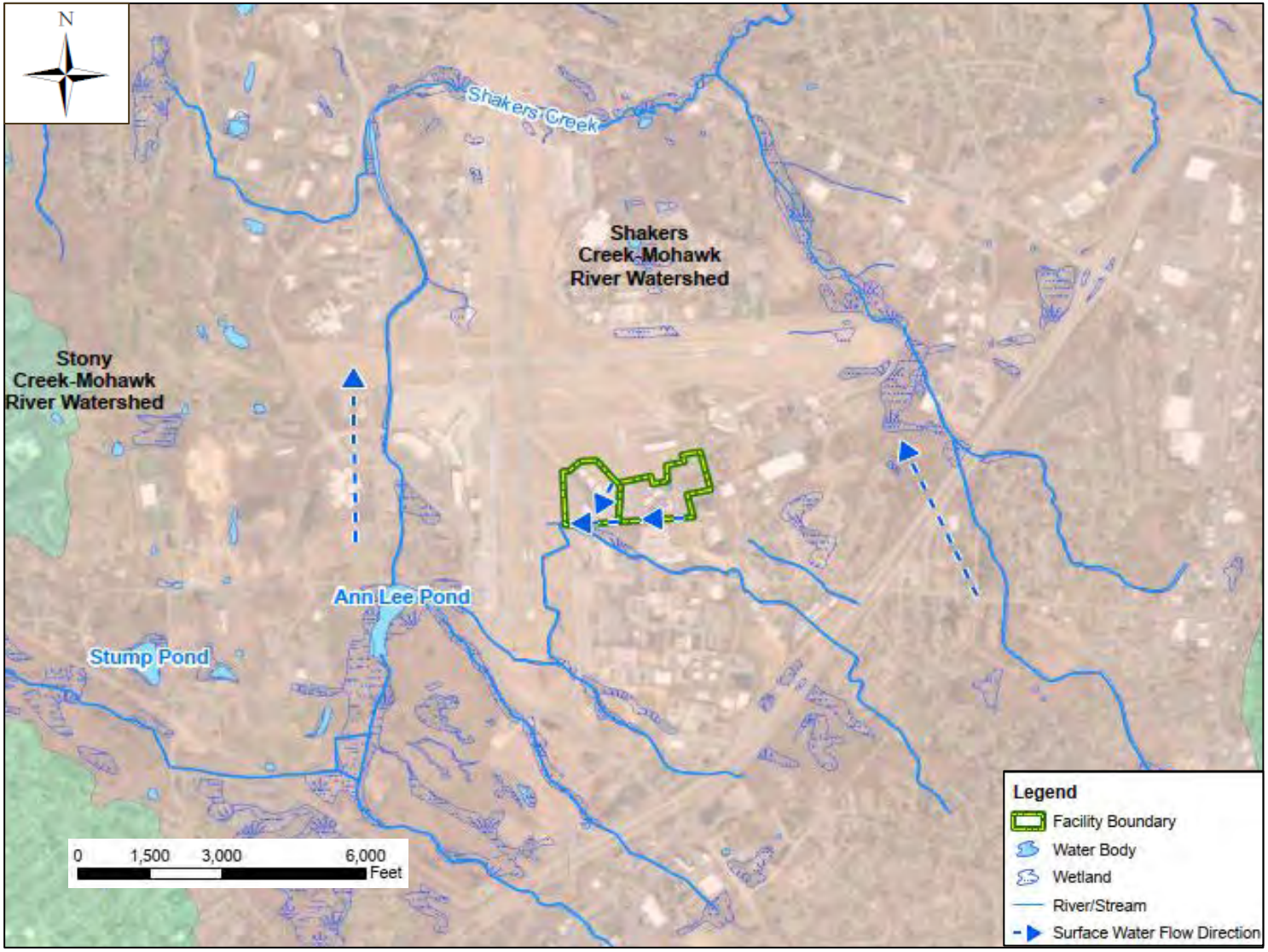
PA – Summary of Findings



CSM – Groundwater Features



CSM – Surface Water Features



SI – Data Quality Objectives

- Primary SI DQOs
  - Confirm the presence/absence of a release at a potential source area
  - Gather data for refinement of conceptual site model (CSM):
    - Source-Pathway-Receptor relationships
- Extended SI DQOs
  - Determine the presence/absence at facility boundary
  - Check for alternate sources
  - Measure PFAS at/near receptor, if warranted

SI – Screening Levels

- Results compared to Office of the Secretary of Defense (OSD) Screening Levels (SLs) for soil and groundwater
  - Memorandum from the OSD dated 6 July 2022
  - SLs for groundwater based on direct ingestion
  - SLs for soil based on incidental ingestion; 0-2 ft compared to Residential SL, 2-15 ft compared to Industrial SL, >15 ft not compared to either SL
- AOIs exceeding OSD SLs are recommended for further investigation, such as a CERCLA Remedial Investigation

Analyte[b]	Residential (Soil) (µg/kg)[a] 0-2 feet bgs	Industrial/ Commercial Composite Worker (Soil) (µg/kg)[a] 2-15 feet bgs	Tap Water (Groundwater) (ng/L)[a]
PFOA	19	250	6
PFOS	13	160	4
PFBS	1,900	25,000	601
PFHxS	130	1,600	39
PFNA	19	250	6

Notes:

bgs = below ground surface; µg/kg = micrograms per kilogram; ng/L = nanograms per liter

a.) Assistant Secretary of Defense, 2022. Risk Based Screening Levels in Groundwater and Soil using United States Environmental Protection Agency's (USEPA's) Regional Screening Level Calculator. Hazard Quotient (HQ) = 0.1. 6 July 2022.

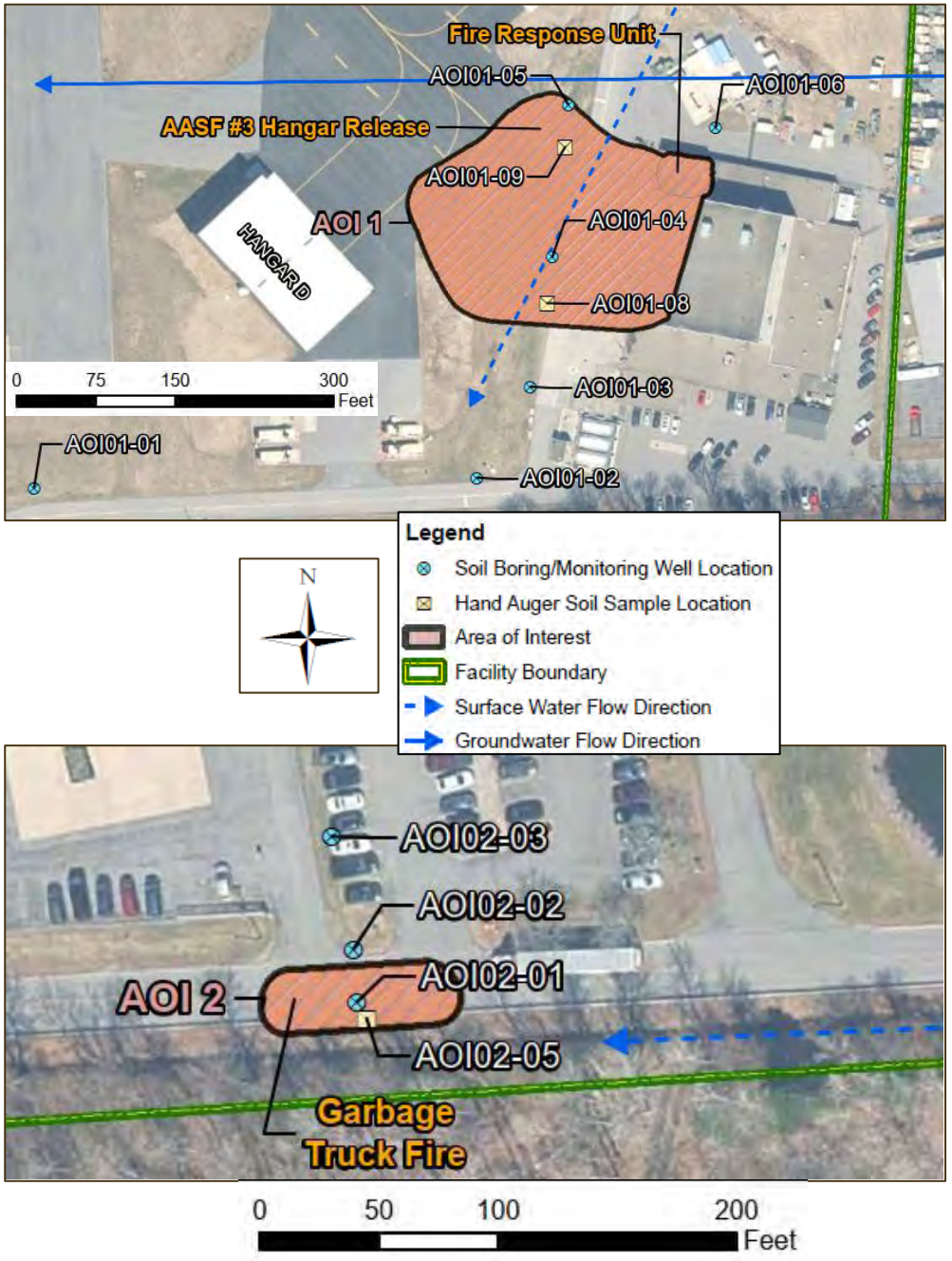
b.) Screening values for HFPO-DA were established after SI planning and execution and thus not included as an analyte. Future CERCLA phases will include HFPO-DA if warranted.

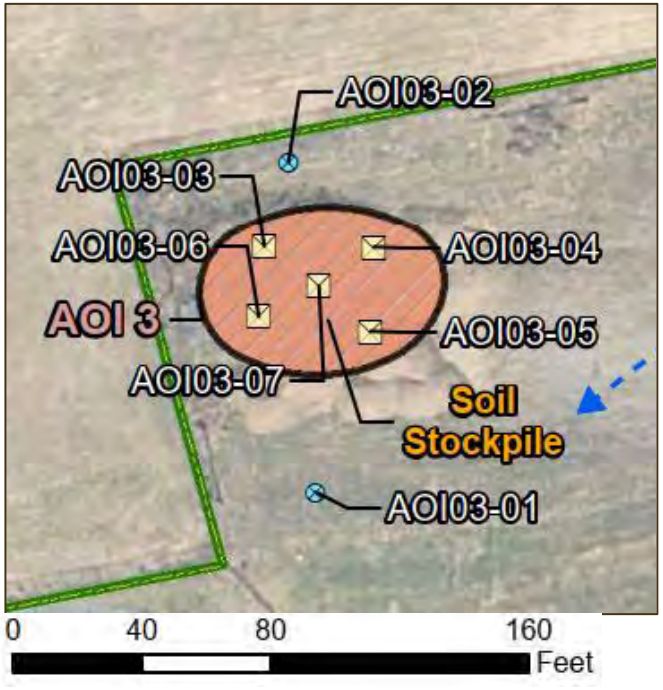
SI – Summary of Approach

- Approach
  - Soil samples from each location: at source (0 to 2 ft), above the water table (approximately 2 ft above), and at mid-point, where practicable
  - Temporary monitoring wells for grab groundwater samples (ranging from 5 to 15 ft bgs)
- Total Samples
  - 36 soil grab samples from 15 boring locations and 8 hand auger locations
  - 13 groundwater grab samples from 13 temporary well locations

SI – Summary of Approach

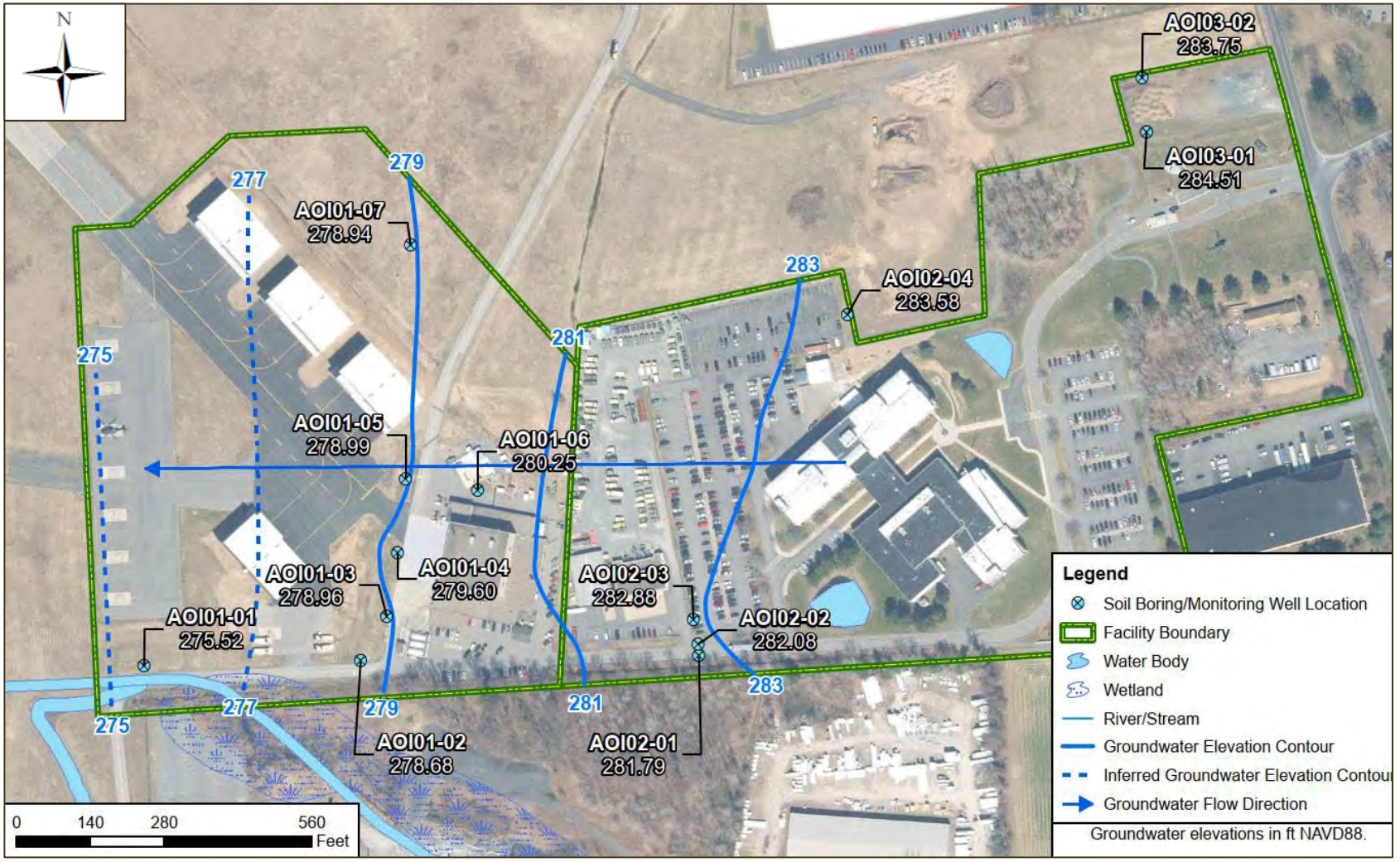
SI Investigation Locations





SI – Summary of Findings

Groundwater Contours

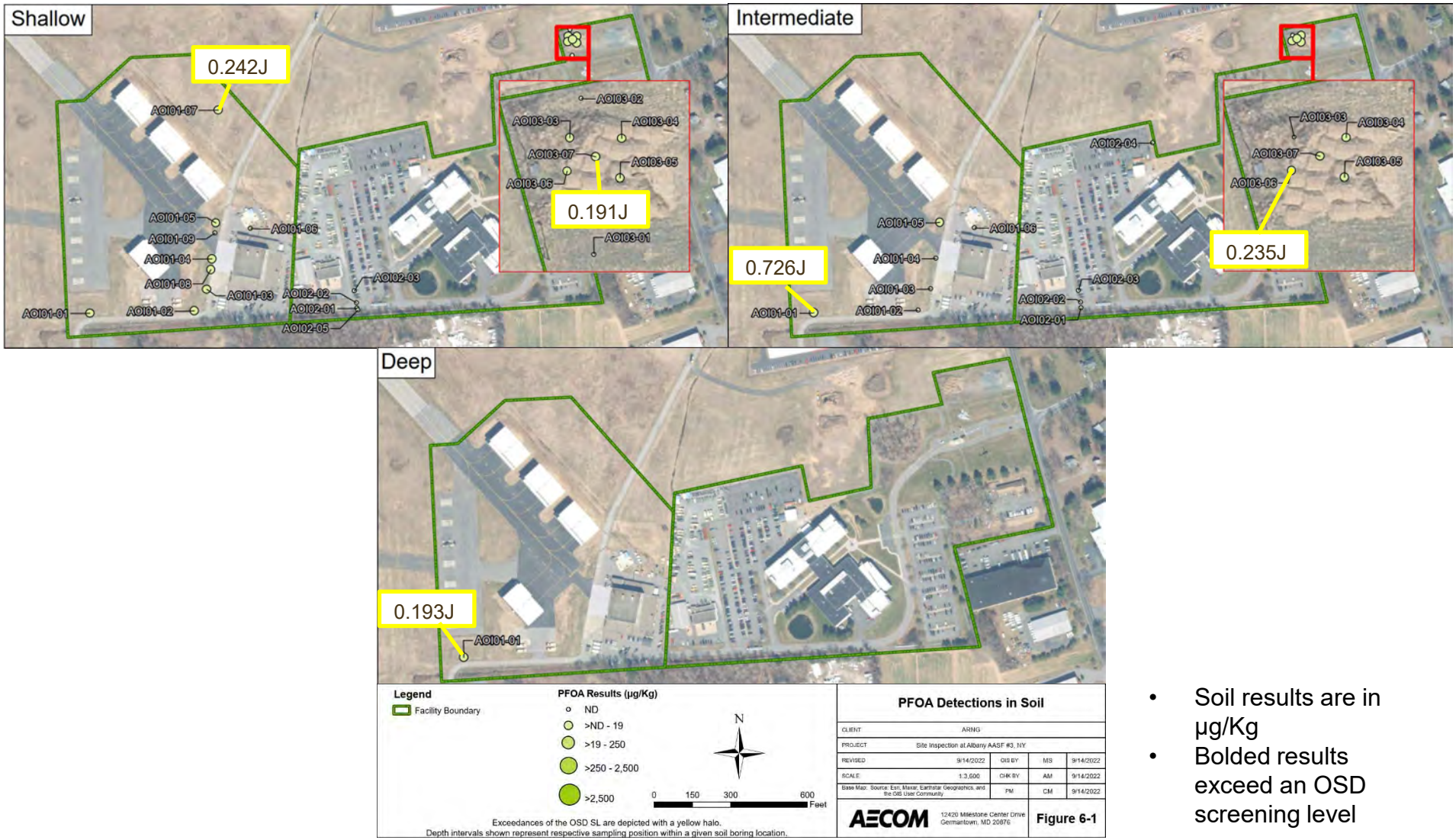


SI – Summary of Findings

- PFOS exceeded the residential SL of 13 µg/kg in surface soil at AOI 1
  - Maximum concentration of PFOS was 60.1 µg/kg
  - Other relevant compounds detected in soil at concentrations below SLs
- PFOA and PFOS exceeded the groundwater SLs at all three AOIs
  - Maximum concentration of PFOA was 61.9 ng/L
  - Maximum concentration of PFOS was 15,000 ng/L
- AOI 1 generally measured the highest concentrations in groundwater and had additional SL exceedances for PFHxS (1180 ng/L) and PFNA (13.3 ng/L)

SI – Summary of Findings

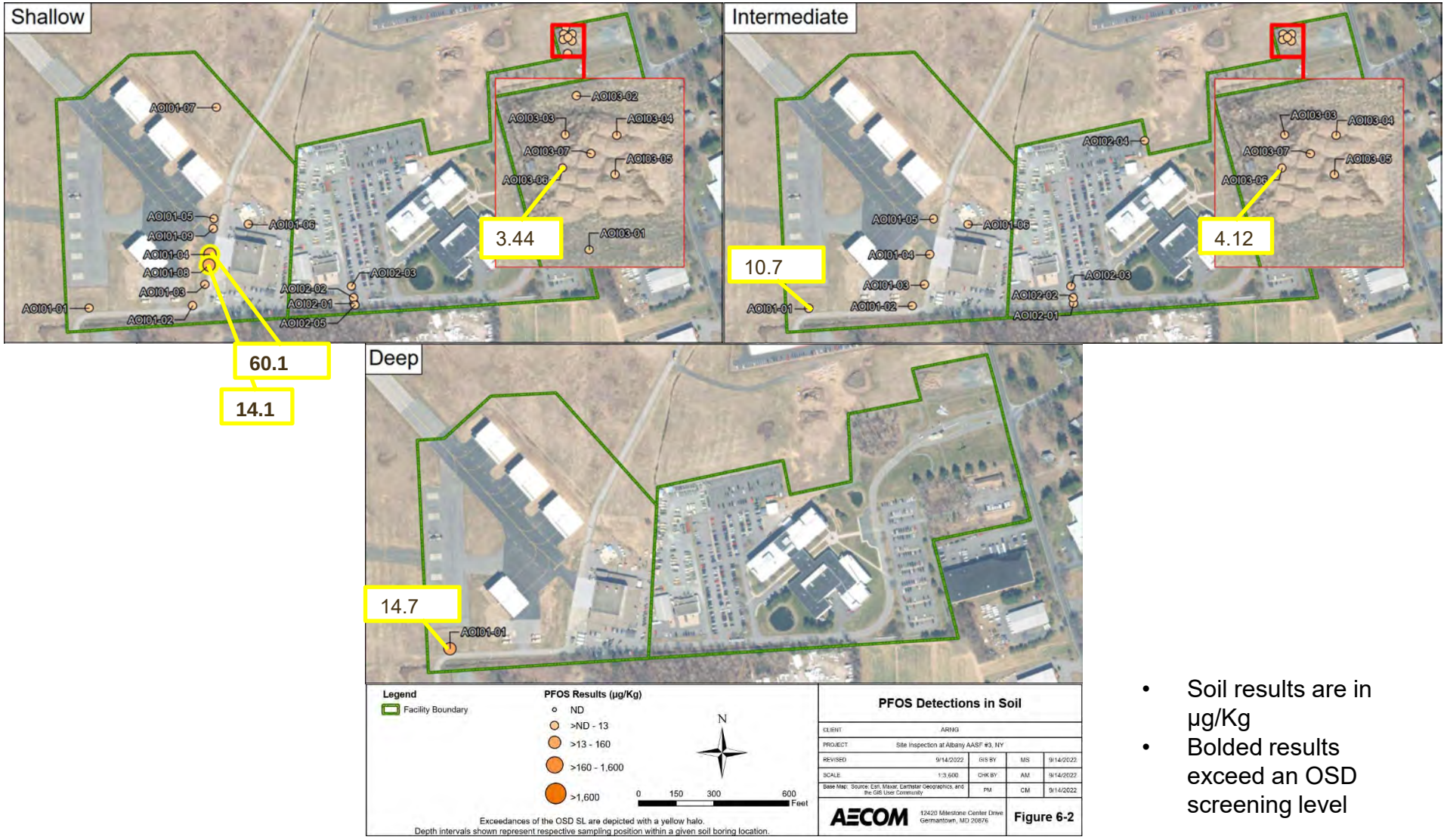
PFOA in Soil



- Soil results are in µg/Kg
- Bolded results exceed an OSD screening level

SI – Summary of Findings

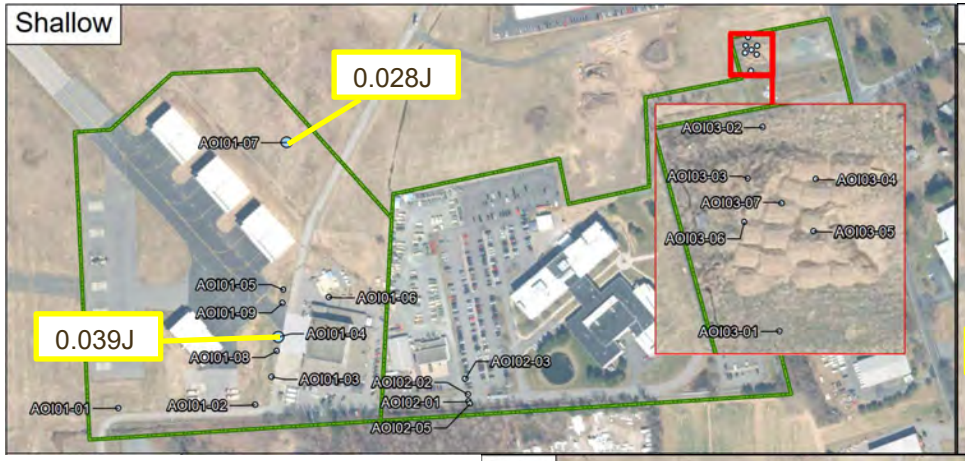
PFOS in Soil

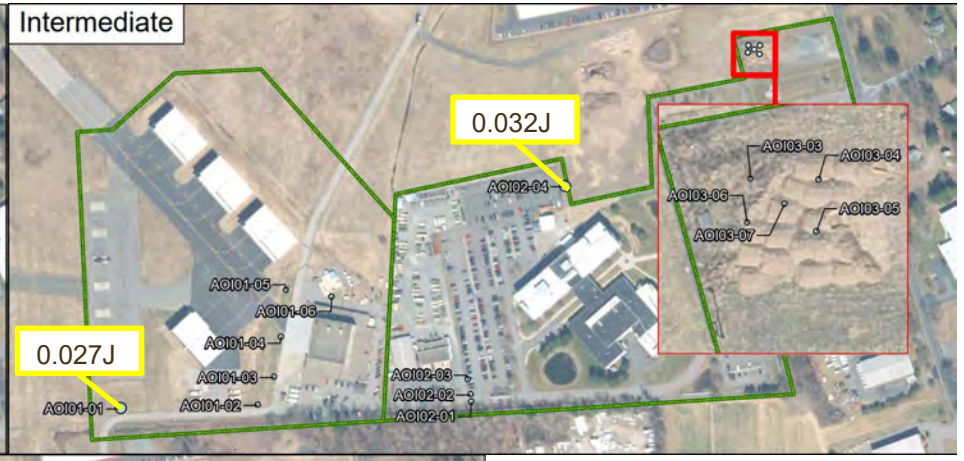


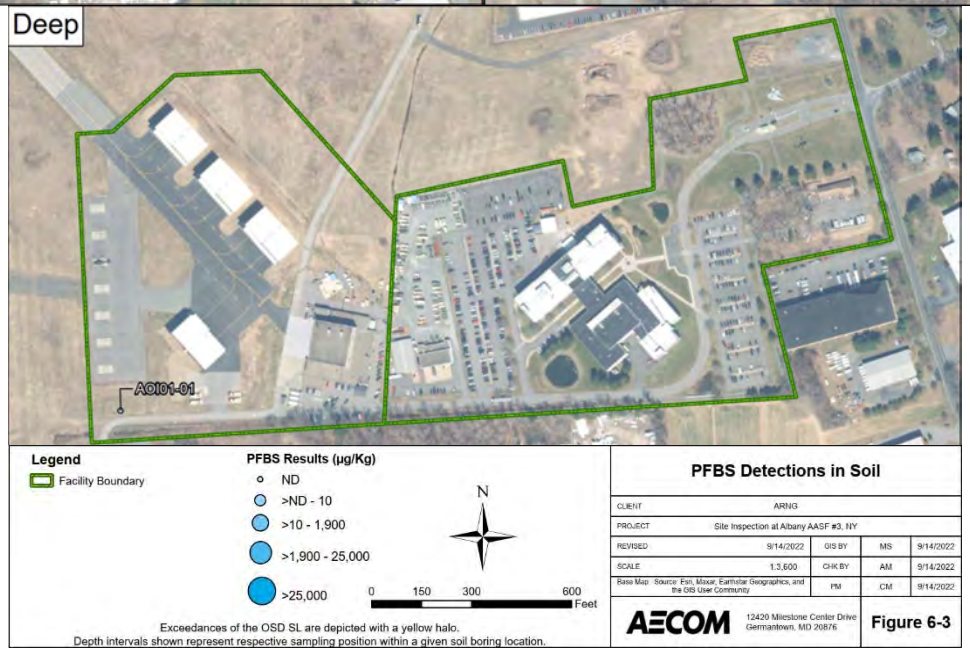
- Soil results are in µg/Kg
- Bolded results exceed an OSD screening level

SI – Summary of Findings

PFBS in Soil



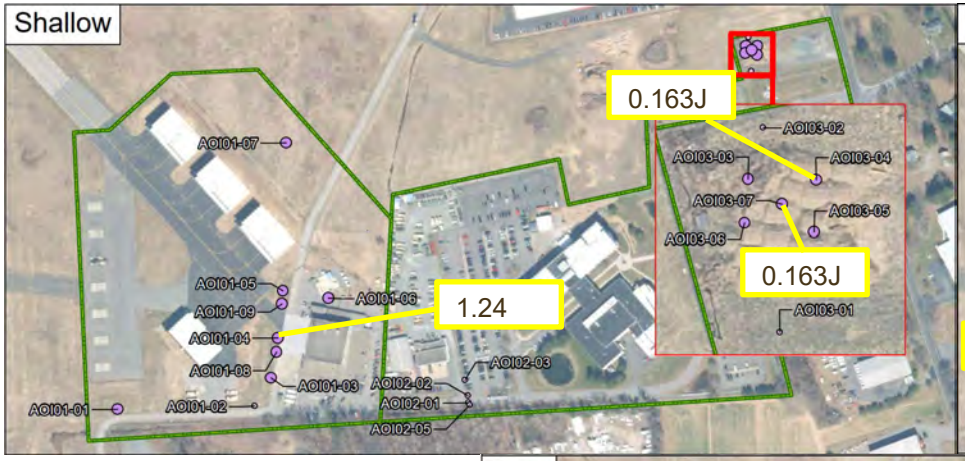




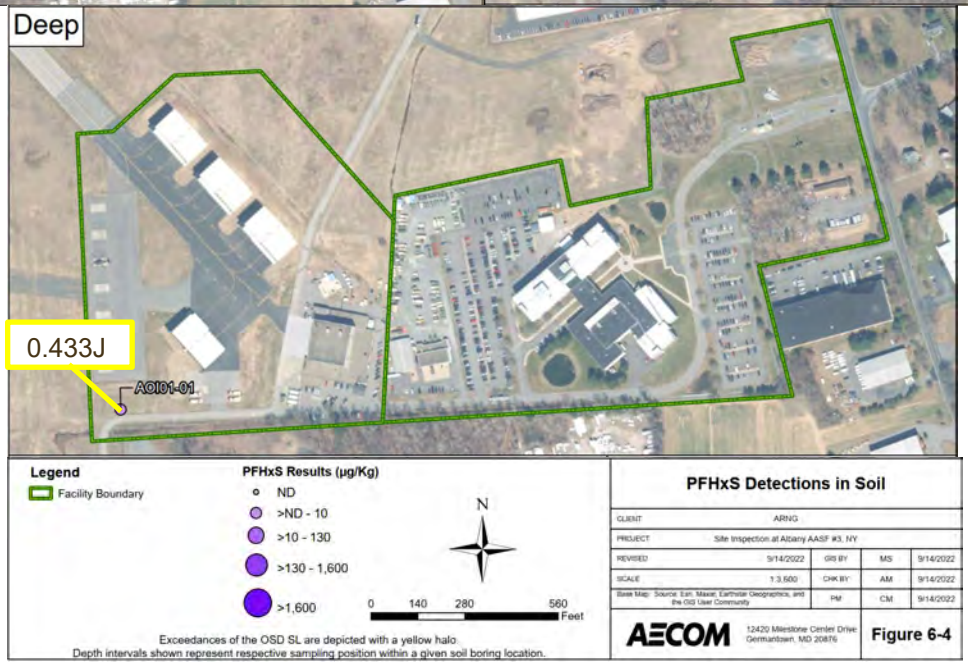
- Soil results are in µg/Kg
- Bolded results exceed an OSD screening level

SI – Summary of Findings

PFHxS in Soil



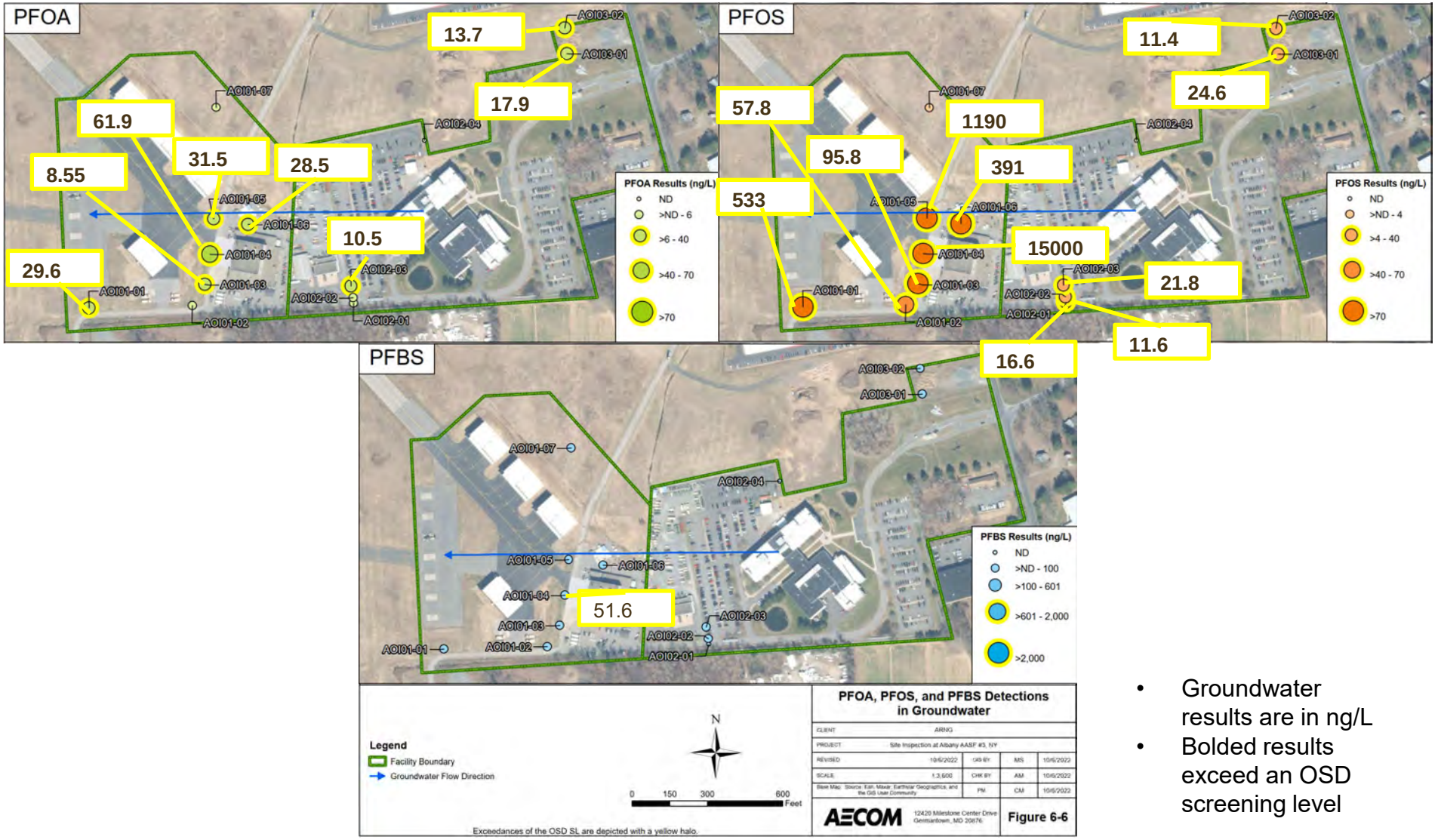




- Soil results are in µg/Kg
- Bolded results exceed an OSD screening level

SI – Summary of Findings

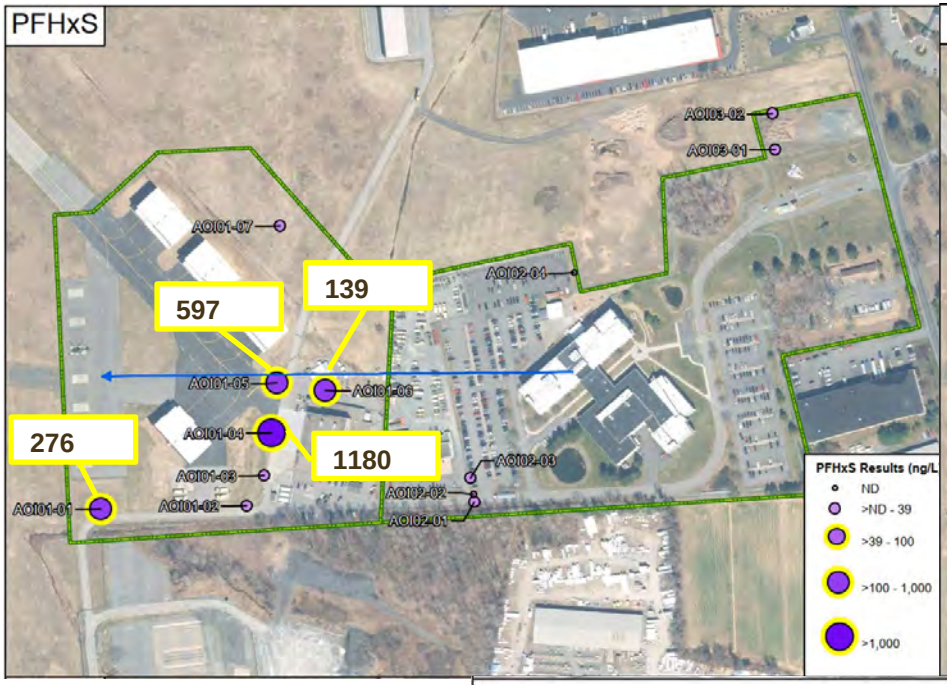
PFOA, PFOS, and PFBS in Groundwater

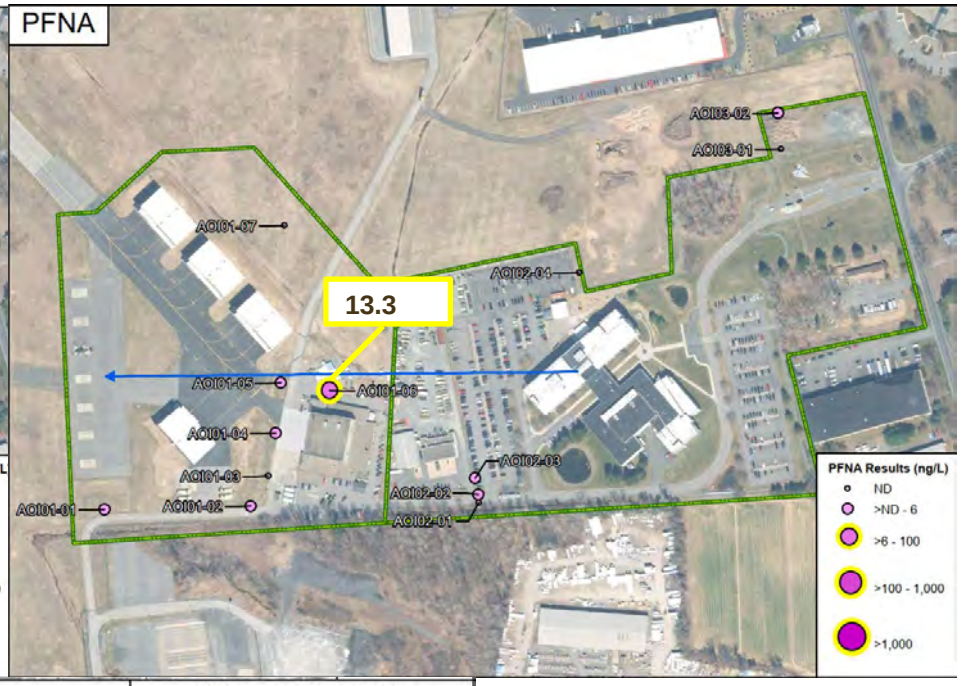


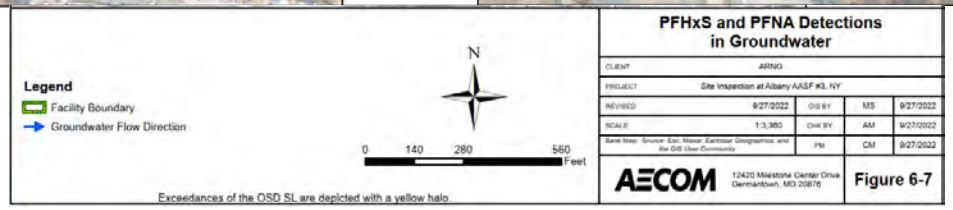
- Groundwater results are in ng/L
- Bolded results exceed an OSD screening level

SI – Summary of Findings

PFHxS and PFNA in Groundwater

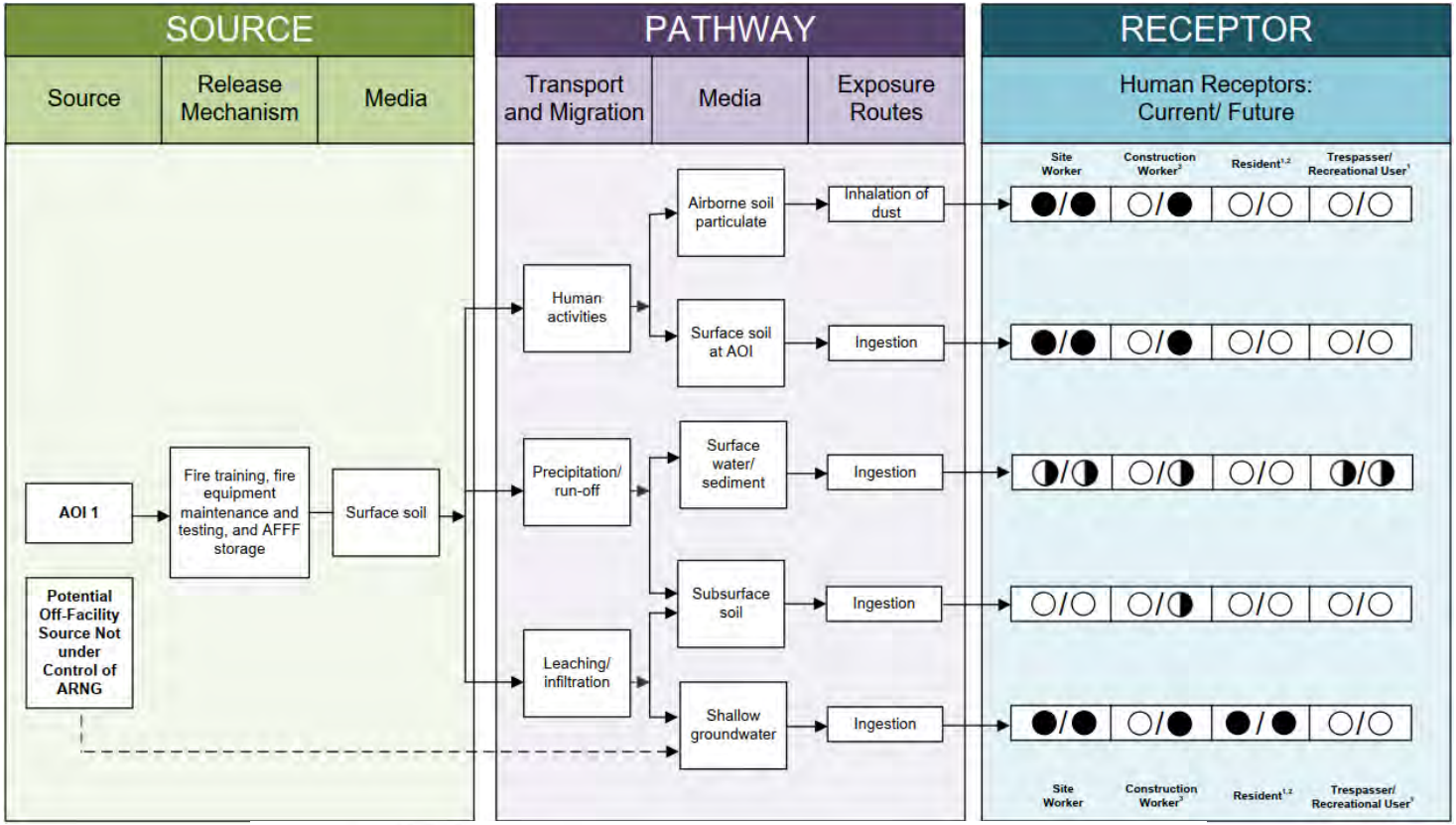






- Groundwater results are in ng/L
- Bolded results exceed an OSD screening level

SI – Summary of Findings



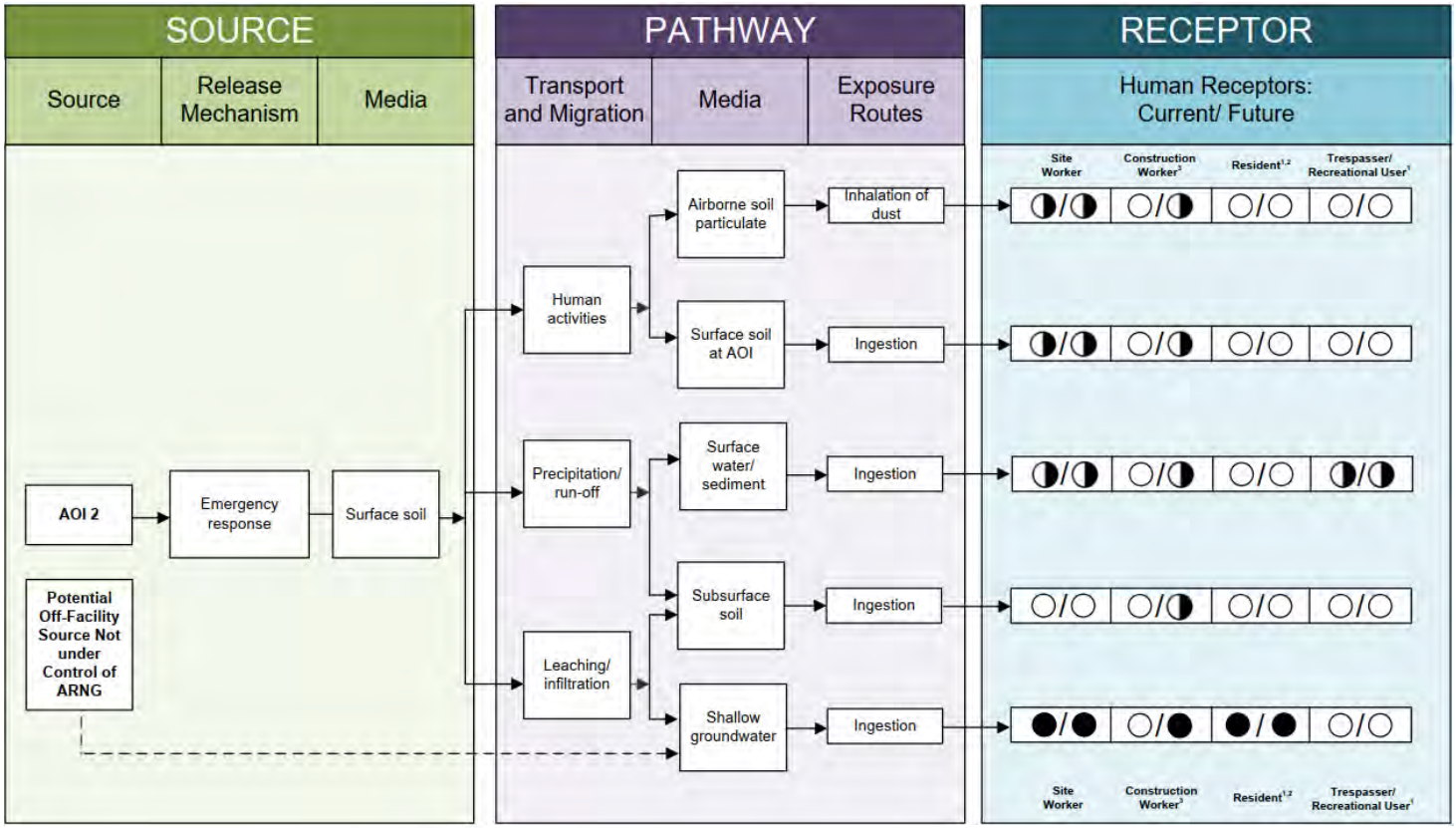
LEGEND

- Flow-Chart Stops
- Flow-Chart Continues
- Partial/ Possible Flow
- Incomplete Pathway
- Potentially Complete Pathway
- Potentially Complete Pathway with Exceedance of SL

Notes:

1. The resident and recreational users refer to off-site receptors.
2. Inhalation of dust for off-site receptors is likely insignificant.
3. No current active construction at the facility.

SI – Summary of Findings



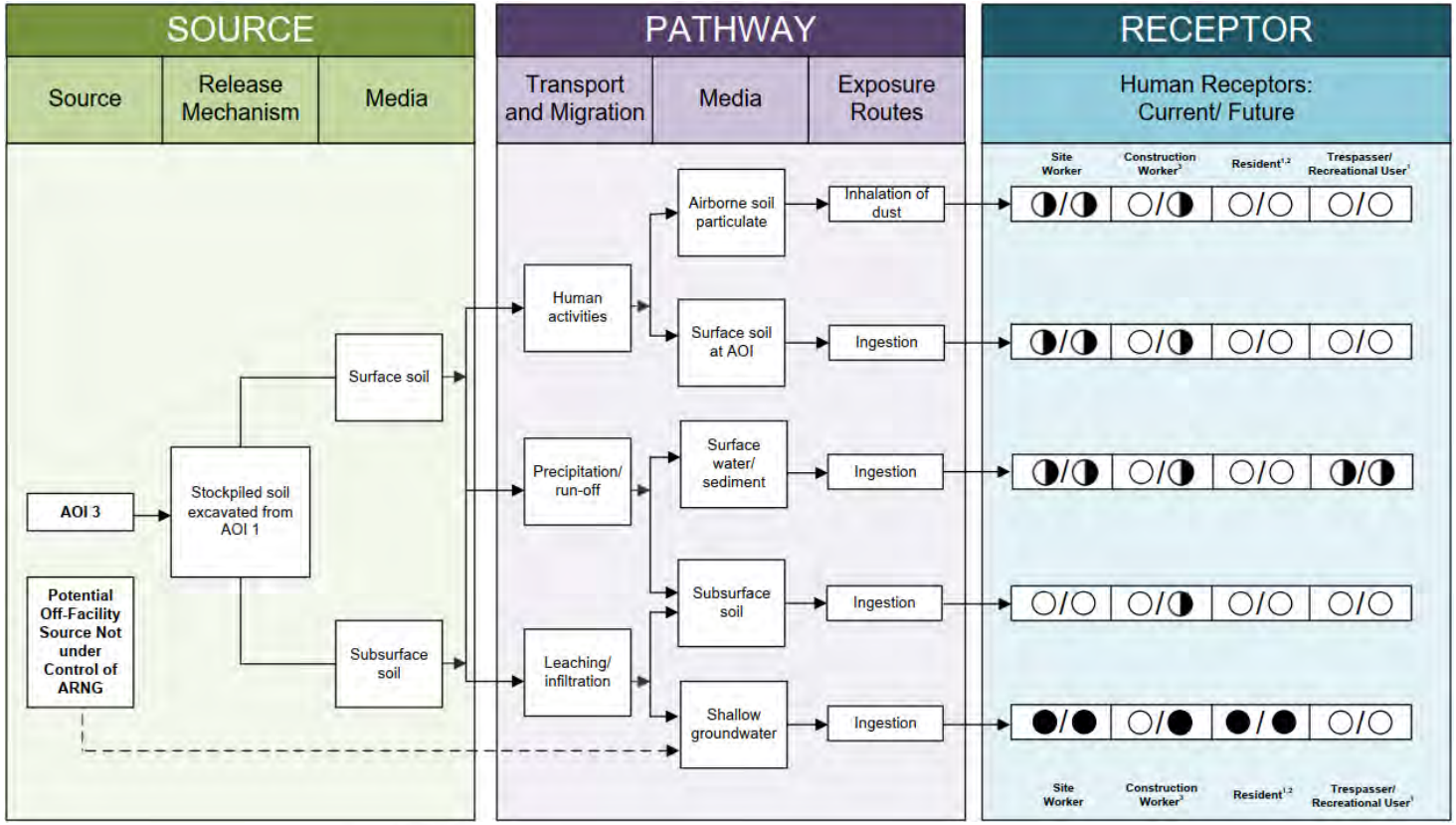
LEGEND

- Flow-Chart Stops
- Flow-Chart Continues
- Partial/ Possible Flow
- ○ Incomplete Pathway
- ◑ Potentially Complete Pathway
- ● Potentially Complete Pathway with Exceedance of SL

Notes:

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SI – Summary of Findings



Notes:

1. The resident and recreational users refer to off-site receptors.
2. Inhalation of dust for off-site receptors is likely insignificant.
3. No current active construction at the facility.

SI – Summary of Findings

AOI	Potential Release Area	Soil – Source Area	Groundwater – Source Area	Groundwater – Facility Boundary	Future Action
1	AASF #3 Hangar Release/ Fire Response Unit	●	●	●	Proceed to RI
2	Garbage Truck Fire	◐	●	◐	Proceed to RI
3	Stockpiled Soil	◐	●	N/A	Proceed to RI

Legend:

N/A = not applicable

● = detected; exceedance of the screening levels

◐ = detected; no exceedance of the screening levels

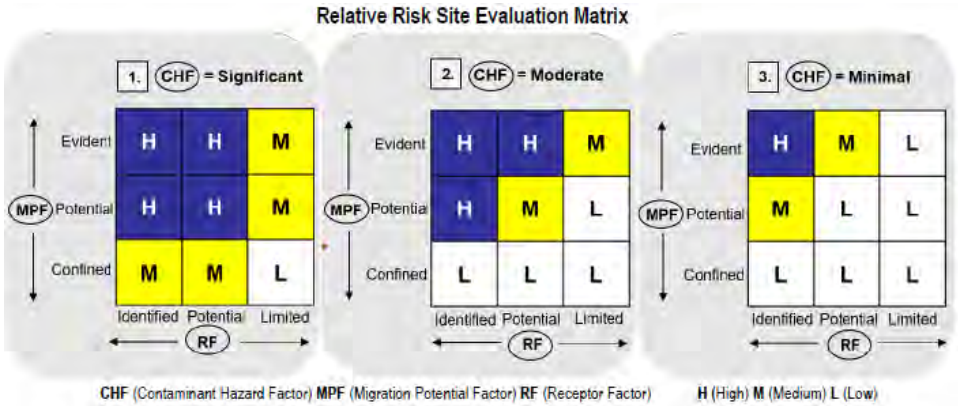
○ = not detected

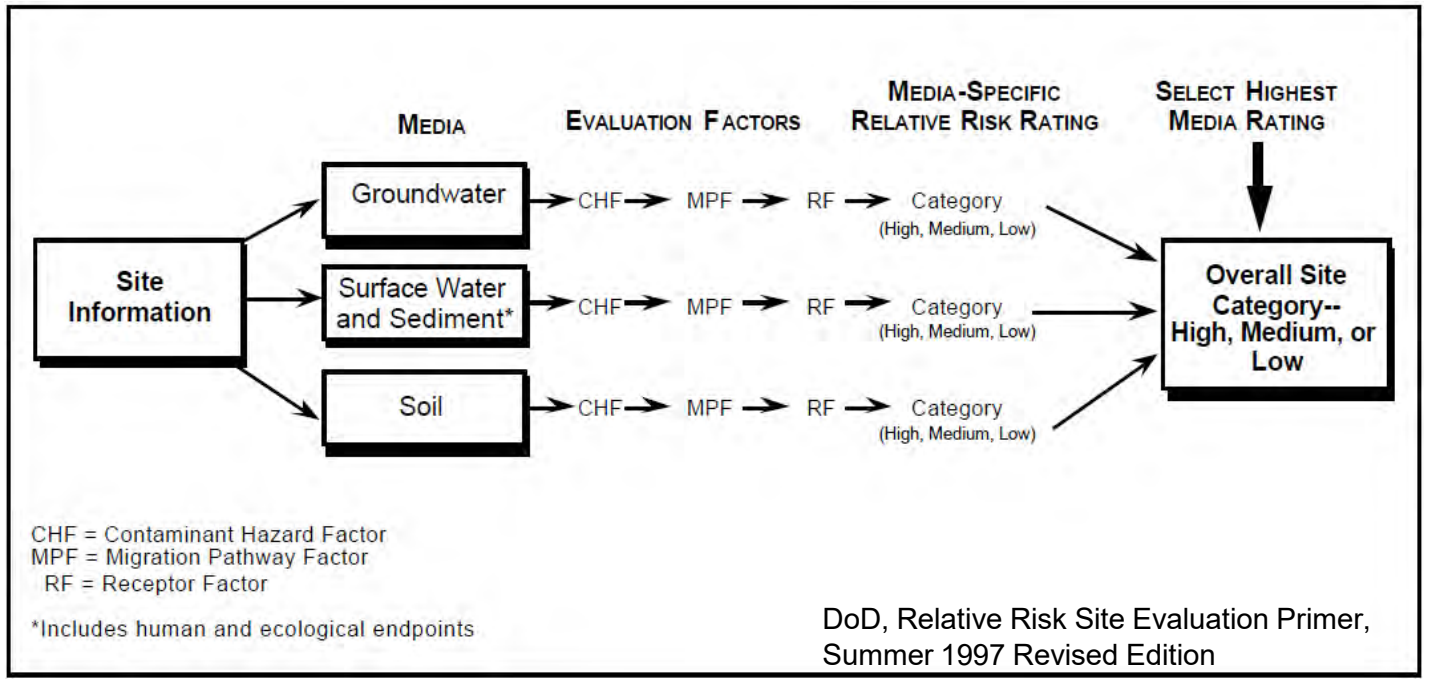
Next Steps

- Finalize SI Report
  - Address comments from NYSDEC and NYSDOH, requested by 10 February 2023
  - Schedule
- Initiate the next step in the CERCLA process: Remedial Investigation

Relative Risk Site Evaluation (RRSE)

- Used by the DoD as methodology to sequence environmental restoration work – Goal to address "worst first" – Used for RI funding order
- Based on information fundamental to risk assessment: sources, pathways, and receptors
- **NOT a risk assessment**
- Media: groundwater, surface soil
- SI data put into a screening tool to determine relative risk (ratio to SLs)
- Sum of ratios (highest groundwater/ soil) compared to a specific cut off value
- Stakeholder feedback requested





DoD, Relative Risk Site Evaluation Primer, Summer 1997 Revised Edition

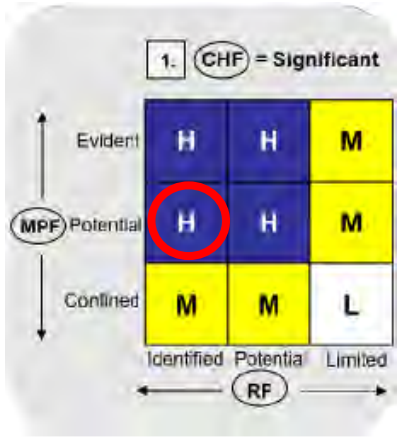
Groundwater – Highest Ranking (AOI 1)

Contaminant	Maximum Conc. (µg/L)	Comparison Value (µg/L; DoD 2022 for PFOA, PFOS, PFBS, PFNA, PFHxS, & HFPO-DA)	Ratio Maximum Conc./ Comparison Value
PFOS	15	0.004	3750.00
PFOA	0.0619	0.006	10.32
PFBS	0.0516	0.6	0.09
PFNA	0.0133	0.006	2.22
PFHxS	1.18	0.039	30.26
HFPO-DA	NA	0.006	--
		Sum of all ratios ->	3,793

Sum of All Ratios Check One Below

- Significant (>100) ☑
- Moderate (2–100) ☐
- Minimal (<2) ☐

<- Contaminant Hazard Factor (CHF)



Migration Pathway Factor (MPF) ->

☐ ***Evident***
- ☐ *Analytical data or direct observation indicates that contamination in the groundwater has moved to a point of exposure, such as a drinking water source.*

☑ ***Potential***
- ☑ *Contamination in the groundwater has moved beyond the source,* ***OR***
- ☐ *There is insufficient information available to make a determination of Evident or Confined.*

☐ ***Confined***
- ☐ *Analytical data or direct observation indicates that the potential for contaminant migration from the source via groundwater is limited, possibly due to geological structures or physical controls;* ***OR***
- ☐ *Is non-detect.*

☑ ***Identified***
- ☐ *Impacted drinking water well with detected contaminants,* ***OR***
- ☑ *Existing downgradient water supply well within 4 miles and groundwater is current source of drinking water (EPA Class I or IIa groundwater).*

☐ ***Potential***
- ☐ *Existing downgradient drinking water well beyond 4 miles with no contaminant detection(s)* ***OR***
- ☐ *No known drinking water wells downgradient and groundwater is currently or potentially usable for drinking water (i.e., EPA Class I or IIa groundwater)* ***OR***
- ☐ *Is a source of water for other beneficial use (e.g., agricultural).*

☐ ***Limited***
- ☐ *No known water supply wells downgradient* ***OR***
- ☐ *Groundwater is not considered a potential drinking water source and is of limited beneficial use (EPA Class III).*

<- Receptor Factor (RF)

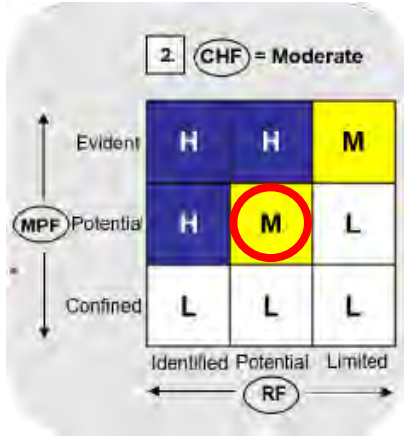
Surface Soil – Highest Ranking (AOI 1)

Contaminant	Maximum Conc. (mg/kg)	Comparison Value (mg/kg; DoD 2022 for PFOA, PFOS, PFBS, PFNA, PFHxS, & HFPO-DA)	Ratio Maximum Conc./ Comparison Value
PFOS	0.0601	0.013	4.62
PFOA	0.000242	0.019	0.01
PFBS	0.000039	1.9	0.00
PFNA	0.000079	0.019	0.00
PFHxS	0.00124	0.13	0.01
HFPO-DA	NA	0.023	--
		Sum of all ratios ->	5

Sum of All Ratios Check One Below

- Significant (>100) ☐
- Moderate (2–100) ☑
- Minimal (<2) ☐

<- Contaminant Hazard Factor (CHF)



Migration Pathway Factor (MPF) ->

☑ ***Evident***
- ☑ *Analytical data or observable evidence that contamination above the comparison value is present at a point of exposure.*

☐ ***Potential***
- ☐ *Contamination is above the detection limit but below the comparison value and has either moved beyond the source or could move but is not moving appreciably,* ***OR***
- ☐ *Information is not sufficient to make a determination of Evident or Confined.*

☐ ***Confined***
- ☐ *Low possibility for contamination to be present at or migrate to a point of exposure due to barriers such as buildings, maintained berms, pavement, or caps;* ***OR***
- ☐ *Is non-detect.*

☐ ***Identified***
- ☐ *Receptors with unrestricted access to contaminated soil.*

☐ ***Potential***
- ☐ *Receptors with controlled or restricted frequency of access to contaminated soil, such as commercial/industrial areas;* ***OR***
- ☐ *Insufficient data exists to make a determination of Identified or Limited.*

☑ ***Limited***
- ☑ *Receptors with limited access to contaminated soil, such as restricted access areas, fenced areas, or other controlled access areas; or migration pathway is Confined;* ***OR***
- ☐ *Surface soil samples are non-detect.*

<- Receptor Factor (RF)

Draft RRSE for Albany AASF #3, NY

Evaluation Factors:

CHF: Contaminant Hazard Factor
- ratio of maximum concentration/SL

MPF: Migration Pathway Factor
- likelihood of contamination migrating to a point of exposure

RF: Receptor Factor
- potential receptor exposure (within 4-miles)

Scores:

H: High
M: Medium
L: Low

Feedback?

Media	Evaluation Factor	Score	Reletive Risk Evaluation	Overall AOI Rating
AOI 1: AASF #3 Hangar Release/ Fire Response Unit				
Groundwater	**CHF**	H	H	**H**
	MPF	M		
	RF	H		
Soil	**CHF**	M	M	
	MPF	H		
	RF	L		
AOI 2: Garbage Truck Fire				
Groundwater	**CHF**	M	H	**H**
	MPF	M		
	RF	H		
Soil	**CHF**	L	L	
	MPF	L		
	RF	M		
AOI 3: Stockpiled Soil				
Groundwater	**CHF**	M	H	**H**
	MPF	M		
	RF	H		
Soil	**CHF**	L	M	
	MPF	M		
	RF	H		

Open Discussion

Acronyms

- µg/kg – micrograms per kilogram
- AASF – Army Aviation Support Facility
- AFFF – aqueous film forming foam
- AOI – area of interest
- ARNG – Army National Guard
- bgs – below ground surface
- CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
- CSM – conceptual site model
- DoD – US Department of Defense
- DQO – data quality objective
- ft – feet
- GW – groundwater
- HFPO-DA – hexafluoropropylene oxide dimer acid
- OSD – Office of the Secretary of Defense
- NA – not applicable
- ng/L – nanograms per liter
- NYSDEC – New York State Department of Environmental Conservation
- NYSDOH – New York State Health Department
- PA – Preliminary Assessment
- PFAS – per- and polyfluoroalkyl substances
- PFBS – perfluorobutanesulfonic acid
- PFOA – perfluorooctanoic acid
- PFOS – perfluorooctanesulfonic acid
- PFHxS – perfluorohexanesulfonic acid
- PFNA – perfluorononanoic acid
- RI – Remedial Investigation
- SI – Site Inspection
- SL – screening level
- TBD – to be determined
- TPP – Technical Project Planning
- US – United States
- UFP-QAPP – Uniform Federal Policy- Quality Assurance Project Plan
- USACE – U.S. Army Corp of Engineers

Appendix E
Boring Logs

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AECOM
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876
Telephone: 301-944-5915

WELL NUMBER AOI01-01

TOTAL DEPTH 15 FT BGS

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 1
DATE STARTED 4/11/22 **COMPLETED** 4/11/22
EASTING 1424618.9103 **NORTHING** 679700.7911
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 280.98 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 6.25 ft / Elev 274.73 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			ML		0.0 **SANDY SILT (ML)** moist, black, soft, little (15-25%)	281.0		
			SM		0.2 sand, little (15-25%) organics.	280.8		
					SILTY SAND with GRAVEL (SM) moist, brown, firm, fine-grained sand, little (15-25%) silt, little (15-25%) subangular gravel.		AOI01-01-SB-00-02	
			SP		1.7 **POORLY GRADED SAND (SP)** moist, brown, firm, fine-grained sand, trace (<5%) silt.	279.3		**Well Casing** Type: Schedule 40 PVC Diameter: 1 in Top: 0 ft bgs Bottom: 5 ft bgs
2.5	AU	100						
					3.0 Changes to moist to wet, dark brown, medium to coarse-grained sand with little (15-25%) fine-grained sand.	278.0	AOI-01-01-SB-03-04	
5.0			SW		5.0 **WELL-GRADED SAND (SW)** moist, brown, loose,	276.0		
			SP		5.1 medium to coarse-grained sand with some (30-45%) fine-grained sand.	275.9		
					5.5 **POORLY GRADED SAND (SP)** moist, brown, loose, fine-grained sand with little (15-25%) medium to coarse-grained sand, trace (<5%) subangular gravel.	275.5	AOI01-01-05.6-06.2	
					▽ 6.3 Changes to contain trace (<5%) silt and no gravel, firm, fine-grained sand.	274.7		
7.5	GMAC	80			Changes to saturated.			**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 5 ft bgs Bottom: 15 ft bgs
					8.1 Changes to dark brown.	272.9		
					9.0 No recovery from 9.0 to 10.0 feet bgs.	272.0		
10.0								

(Continued Next Page)

ARNG SMART LOG 8.5X11_V2 - - 5/4/22 09:44 - C:\USERS\GOLUBOVICV\DESKTOP\REVIEW\ALBANY\ALBANY AASF #3_ARNG.GPJ

AECOM
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Telephone: 301-944-5915

WELL NUMBER AOI01-01

TOTAL DEPTH 15 FT BGS

CLIENT ARNG, USACE Baltimore District **PROJECT NAME** ARNG PFAS - Albany AASF #3, Latham, New York

PROJECT NUMBER 60552172 **SITE NAME** AOI 1

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
10.0			SP		10.0 **POORLY GRADED SAND (SP)** saturated, dark brown, firm, fine-grained sand, trace (<5%) silt, with thin lenses of black sand at 11.0 feet bgs and 11.4 feet bgs. 271.0	AOI01-01-GW	
12.5	GMAC	58			12.9 No recovery from 12.9 to 15.0 feet bgs. 268.1		**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 5 ft bgs Bottom: 15 ft bgs
15.0							

Bottom of borehole at 15.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

ARNG SMART LOG 8.5X11_V2 - - 5/4/22 09:44 - C:\USERS\GOLUBOVIC\DESKTOP\REVIEW\ALBANY\ALBANY AASF #3_ARNG.GPJ

AECOM
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Telephone: 301-944-5915

WELL NUMBER AOI01-02

TOTAL DEPTH 8 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 1
DATE STARTED 4/11/22 **COMPLETED** 4/11/22
EASTING 1424626.0939 **NORTHING** 680111.6735
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 280.4 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 4.00 ft / Elev 276.40 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, dark brown, loose, fine-grained sand, little (15-25%) silt, trace (<5%) organics.	280.4		
					0.3 Changes to light brown.	280.1	AOI01-02-SB-00-02	**Well Casing** Type: Schedule 40 PVC Diameter: 1 in Top: 0 ft bgs Bottom: 3 ft bgs
2.5	AU	100						
							AOI-01-02-SB-03-04	
					▽ 4.0 Changes to saturated and light tan brown.	276.4		
5.0					5.0 Changes to light brown.	275.4		**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 3 ft bgs Bottom: 8 ft bgs
			SP		5.8 **POORLY GRADED SAND (SP)** saturated, orange brown, loose, fine-grained sand, trace (<5%) silt.	274.6	AOI01-02-GW	
	GMAC	100						
7.5								

Bottom of borehole at 8.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

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WELL NUMBER AOI01-03

TOTAL DEPTH 7 FT BGS

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 1
DATE STARTED 4/11/22 **COMPLETED** 4/11/22
EASTING 1424710.037 **NORTHING** 680161.7894
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 281.39 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 3.00 ft / Elev 278.39 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, brown, loose, fine-grained sand, little (15-25%) silt, little (15-25%) organics.	281.4		
			SP		0.6 **POORLY GRADED SAND (SP)** moist, light brown, loose, fine-grained sand, trace (<5%) silt.	280.8	AOI01-03-SB-00-02	**Well Casing** Type: Schedule 40 PVC Diameter: 1 in Top: 0 ft bgs Bottom: 2 ft bgs
					1.7 Changes to contain little (15-25%) organics, trace (<5%) subrounded gravel.	279.7		
2.5	AU	100			2.3 Changes to contain no gravel, wet.	279.1	AOI-01-03-SB-02-03	
					▽			
					4.0 Changes to orange brown, saturated.	277.4		**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 2 ft bgs Bottom: 7 ft bgs
5.0					5.0 Changes to brown with apparent black sediment at 6.1 feet bgs and 6.4 to 6.8 feet bgs.	276.4	AOI-01-03-GW	
	GMAC	100						

Bottom of borehole at 7.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

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WELL NUMBER AOI01-04

TOTAL DEPTH 8 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 1
DATE STARTED 4/11/22 **COMPLETED** 4/11/22
EASTING 1424830.0464 **NORTHING** 680182.8996
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 280.68 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 3.90 ft / Elev 276.78 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, dark brown, loose, fine-grained sand, some (30-45%) silt, trace (<5%) subrounded gravel. 280.7		
					0.4 Changes to black brown, firm, little (15-25%) silt. 280.3		
			SP		0.8 **POORLY GRADED SAND (SP)** moist, light brown, loose, fine-grained sand, trace (<5%) silt. 279.9	AOI01-04-SB-00-02	**Well Casing** Type: Schedule 40 PVC Diameter: 1 in Top: 0 ft bgs Bottom: 3 ft bgs
2.5	AU	100	SM		2.4 **SILTY SAND (SM)** moist, light brown, firm, fine-grained sand, some (30-45%) silt, trace (<5%) clay. 278.3		
					3.6 ▽ Changes to wet, brown, and no clay. 277.1	AOI-01-04-SB-03-04	
					4.0 Changes to saturated. 276.7		
5.0						AOI-01-04-GW	**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 3 ft bgs Bottom: 8 ft bgs
	GMAC	100					
7.5							

Bottom of borehole at 8.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

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WELL NUMBER AOI01-05

TOTAL DEPTH 8 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 1
DATE STARTED 4/12/22 **COMPLETED** 4/12/22
EASTING 1424971.3927 **NORTHING** 680198.767
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 281.29 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 4.00 ft / Elev 277.29 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, dark brown, loose, fine-grained sand, little (15-25%) silt, little (15-25%) organics. 281.3		
			SM		0.3 **SILTY SAND with GRAVEL (SM)** moist, brown, loose, fine-grained sand, little (15-25%) silt, little (15-25%) subangular gravel. 281.0	AOI01-05-SB-00-02	
			SP		1.0 **POORLY GRADED SAND (SP)** moist, tan gray, loose, fine-grained sand, trace (<5%) silt. 280.3		**Well Casing** Type: Schedule 40 PVC Diameter: 1 in Top: 0 ft bgs Bottom: 3 ft bgs
2.5	AU	100	SM		2.2 **SILTY SAND (SM)** moist, brown, loose, fine-grained sand, little (15-25%) silt. 279.1		
					2.5 Changes to light brown, little (15-25%) medium to coarse-grained sand, trace (<5%) subangular gravel. 278.8	AOI01-05-SB-03-04	
					▽ 4.0 Changes to contain trace (<5%) medium to coarse-grained sand, no gravel, saturated. 277.3		
5.0			SP		5.8 **POORLY GRADED SAND (SP)** moist, brown, loose, fine-grained sand, trace (<5%) silt. 275.5	AOI01-05-GW	**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 3 ft bgs Bottom: 8 ft bgs
	GMAC	77					
7.5					7.3 No recovery from 7.3 to 8.0 feet bgs. 274.0		

Bottom of borehole at 8.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

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WELL NUMBER AOI01-06

TOTAL DEPTH 7 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 1
DATE STARTED 4/12/22 **COMPLETED** 4/12/22
EASTING 1424948.9898 **NORTHING** 680335.146
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 281.51 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 2.70 ft / Elev 278.81 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND with GRAVEL (SM)** moist, dark brown, loose, fine-grained sand, some (30-45%) silt, little (15-25%) subangular gravel, little (15-25%) organics.	281.5		
					0.1	281.4		
			SM		0.7 Changes to dark gray, firm, some (30-45%) subangular gravel, fine to medium-grained sand.	280.8	AOI01-06-SB-00-02	
					1.1 **SILTY SAND (SM)** moist, light brown, firm, fine-grained sand, little (15-25%) silt. Changes to brown.	280.4		
2.5	AU	100					AOI01-06-SB-02-02.7	
					2.6 ▽ Changes to contain some (30-45%) silt, trace (<5%) clay, saturated.	278.9		
			SP		4.0 **POORLY GRADED SAND (SP)** moist, brown, loose, fine-grained sand, trace (<5%) silt.	277.5		
5.0	GMAC	100					AOI01-06-GW	

Well Casing
Type: Schedule 40 PVC
Diameter: 1 in
Top: 0 ft bgs
Bottom: 2 ft bgs

Well Screen
Type: Schedule 40 PVC
Slot Size: 0.01 in
Top: 2 ft bgs
Bottom: 7 ft bgs

Bottom of borehole at 7.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

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WELL NUMBER AOI01-07

TOTAL DEPTH 6 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 1
DATE STARTED 4/12/22 **COMPLETED** 4/12/22
EASTING 1425413.6361 **NORTHING** 680211.2961
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 279.5 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 2.20 ft / Elev 277.30 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, dark brown, very loose,	279.5		
					0.2 fine-grained sand, some (30-45%) silt, little (15-25%) organics.	279.3		
					Changes to light brown, loose, little (15-25%) silt, no organics.		AOI01-07-SB-00-02	
					1.5 Changes to wet, dark brown, some (30-45%) silt.	278.0		
					1.7 Changes to moist to wet, light brown, little (15-25%) silt.	277.8		
					▽			
2.5					2.2 Changes to saturated.	277.3		
	AU	100						
					3.2 Changes to dark brown, very loose.	276.3		
			SP		3.8 **POORLY GRADED SAND (SP)** saturated, brown, loose, fine-grained sand, trace (<5%) silt.	275.7	AOI01-07-GW	
5.0								

Well Casing
Type: Schedule 40 PVC
Diameter: 1 in
Top: 0 ft bgs
Bottom: 1 ft bgs

Well Screen
Type: Schedule 40 PVC
Slot Size: 0.01 in
Top: 1 ft bgs
Bottom: 6 ft bgs

Bottom of borehole at 6.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

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WELL NUMBER AOI02-01

TOTAL DEPTH 8 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 2
DATE STARTED 4/14/22 **COMPLETED** 4/14/22
EASTING 1424632.0044 **NORTHING** 680753.0643
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 285.72 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 4.30 ft / Elev 281.42 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0.0					0.0 **ASPHALT** 285.7		
			SM		0.9 **SILTY SAND with GRAVEL (SM) FILL** dry, gray, very firm, fine-grained sand with little (15-25%) medium to coarse-grained sand, some (30-45%) silt, little (15-25%) subrounded gravel. 284.8	AOI02-01-SB-00.9-03.5	**Well Casing** Type: Schedule 40 PVC Diameter: 1 in Top: 0 ft bgs Bottom: 3 ft bgs
2.5	AU	100					
			SM		3.5 **SILTY SAND (SM)** moist, light brown, loose, fine-grained sand, little (15-25%) silt, trace (<5%) subangular gravel. 282.2		
			SP		3.7 282.0	AOI02-01-SB-03.5-04.3	
					▽ 4.3 **POORLY GRADED SAND (SP)** moist, brown, loose, fine-grained sand, trace (<5%) silt. 281.4 Changes to saturated, firm.		
5.0							**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 3 ft bgs Bottom: 8 ft bgs
	GMAC	100				AOI02-01-GW	
7.5							

Bottom of borehole at 8.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

ARNG SMART LOG 8.5X11_V2 - - 5/4/22 09:45 - C:\USERS\GOLUBOVICV\DESKTOP\REVIEW\ALBANY\ALBANY AASF #3_ARNG.GPJ

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WELL NUMBER AOI02-02

TOTAL DEPTH 8 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 2
DATE STARTED 4/12/22 **COMPLETED** 4/12/22
EASTING 1424653.8584 **NORTHING** 680751.8417
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 285.07 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 3.70 ft / Elev 281.37 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			GW-GM SM		0.0 **WELL-GRADED GRAVEL with SILT and SAND (GW-GM) FILL** dry, gray, angular gravel, some (30-45%) fine to coarse-grained sand, little (15-25%) silt. (285.1)		
					0.1 **SILTY SAND (SM)** moist, brown, firm, fine-grained sand with little (15-25%) medium to coarse-grained sand, little (15-25%) silt, trace (<5%) angular to subangular gravel, decreasing gravel with depth, occasional lenses of sand and silt from 1.5 to 1.9 feet bgs. (285.0)	AOI02-02-SB-00-02	
2.5	AU	100					
					3.2 Changes to moist to wet, loose. (281.9)	AOI02-02-SB-03-03.7	
					▽ 3.7 Changes to saturated, light brown, firm, trace (<5%) clay, sand and silt lenses at 5.4 feet bgs. (281.4)		
5.0							
	GMAC	100				AOI02-02-GW	
7.5							

Well Casing
Type: Schedule 40 PVC
Diameter: 1 in
Top: 0 ft bgs
Bottom: 3 ft bgs

Well Screen
Type: Schedule 40 PVC
Slot Size: 0.01 in
Top: 3 ft bgs
Bottom: 8 ft bgs

Bottom of borehole at 8.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

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WELL NUMBER AOI02-03

TOTAL DEPTH 7 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 2
DATE STARTED 4/13/22 **COMPLETED** 4/13/22
EASTING 1424700.0917 **NORTHING** 680743.2067
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 284.34 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 2.70 ft / Elev 281.64 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, dark brown, loose, fine-grained sand, some (30-45%) silt, little (15-25%) organics.	284.3		
					0.6 Changes to firm, little (15-25%) silt, trace (<5%) subrounded gravel.	283.7	AOI02-03-SB-00-02	**Well Casing** Type: Schedule 40 PVC Diameter: 1 in Top: 0 ft bgs Bottom: 2 ft bgs
			SP		1.2 **POORLY GRADED SAND (SP)** moist, light brown, loose, fine-grained sand trace (<5%) silt.	283.1		
2.5	AU	100					AOI02-03-SB-02-02.7	
					▽ 2.7 Changes to saturated with sand, silt, and trace (<5%) clay lenses at 4.3 feet bgs.	281.6		
5.0			SM		5.0 **SILTY SAND (SM)** moist, brown and gray, firm, some (30-45%) silt, trace (<5%) clay.	279.3		**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 2 ft bgs Bottom: 7 ft bgs
	GMAC	100			5.6 Changes to gray.	278.7	AOI02-03-GW	
					6.2 Changes to saturated.	278.1		

Bottom of borehole at 7.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

ARNG SMART LOG 8.5X11_V2 - - 5/4/22 09:45 - C:\USERS\GOLUBOVICV\DESKTOP\REVIEW\ALBANY\ALBANY AASF #3_ARNG.GPJ

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WELL NUMBER AOI02-04

TOTAL DEPTH 10 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 2
DATE STARTED 4/12/22 **COMPLETED** 4/12/22
EASTING 1425277.1145 **NORTHING** 681038.6528
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 289.3 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 5.50 ft / Elev 283.80 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, dark brown, loose,	289.3		
					0.1 fine-grained sand, little (15-25%) silt, little (15-25%) organics.	289.2		
					Changes to brown, no organics.			
2.5	AU	100						
					3.2 Changes to wet, occasional lenses of trace (<5%) clay.	286.1		
			SP		4.1 **POORLY GRADED SAND (SP)** moist, light brown, loose, fine-grained sand, trace (<5%) silt.	285.2		
5.0							AOI02-04-SB-05-05.5	
					5.5 ▽ Changes to saturated.	283.8		
7.5	GMAC	78					AOI02-04-GW	
					8.9 No recovery from 8.9 to 10.0 feet bgs.	280.4		
10.0								

Well Casing
Type: Schedule 40 PVC
Diameter: 1 in
Top: 0 ft bgs
Bottom: 4.5 ft bgs

Well Screen
Type: Schedule 40 PVC
Slot Size: 0.01 in
Top: 4.5 ft bgs
Bottom: 9.5 ft bgs

Bottom of borehole at 10.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

ARNG SMART LOG 8.5X11_V2 - - 5/4/22 09:47 - C:\USERS\GOLUBOVICV\DESKTOP\REVIEW\ALBANY\ALBANY AASF #3_ARNG.GPJ

AECOM
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876
Telephone: 301-944-5915

WELL NUMBER AOI03-01

TOTAL DEPTH 5 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 3
DATE STARTED 4/13/22 **COMPLETED** 4/13/22
EASTING 1425620.0816 **NORTHING** 681607.8837
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 285.26 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 1.00 ft / Elev 284.26 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND with GRAVEL (SM)** moist, dark brown, loose, fine-grained sand, some (30-45%) silt, little (15-25%) angular gravel, trace (<5%) organics. 285.3		
			SM		0.1 285.2 **SILTY SAND (SM)** moist, dark brown, loose, fine-grained sand with some (30-45%) medium to coarse-grained sand, little (15-25%) silt, trace (<5%) angular gravel.	AOI03-01-SB-00-01	
			SW		0.8 ▽ 284.5 **WELL-GRADED SAND (SW)** moist to saturated, brown, loose, medium to coarse grained sand with little (15-25%) fine-grained sand, trace (<5%) silt.		
			SM		1.3 284.0 **SILTY SAND (SM)** saturated, tan, loose, fine-grained sand with little (15-25%) coarse-grained sand, little (15-25%) silt.		
			SP		2.1 **POORLY GRADED SAND (SW)** saturated, tan, loose, fine-grained sand, trace (<5%) silt. 283.2		
2.5	AU	100	SM		2.3 283.0 **SILTY SAND (SM)** moist, brown, loose, fine-grained sand, little (15-25%) silt, trace (<5%) angular gravel.	AOI03-01-GW	**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 0 ft bgs Bottom: 5 ft bgs
5.0					Bottom of borehole at 5.0 feet.		

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

ARNG SMART LOG 8.5X11_V2 - - 5/4/22 09:44 - C:\USERS\GOLUBOVIC\V\DESKTOP\REVIEW\ALBANY\ALBANY AASF #3_ARNG.GPJ

AECOM
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876
Telephone: 301-944-5915

WELL NUMBER AOI03-02

TOTAL DEPTH 5 FT BGS
PAGE 1 OF 1

CLIENT ARNG, USACE Baltimore District
PROJECT NAME ARNG PFAS - Albany AASF #3, Latham, New York
PROJECT NUMBER 60552172
SITE NAME AOI 3
DATE STARTED 4/13/22 **COMPLETED** 4/13/22
EASTING 1425722.1356 **NORTHING** 681600.0582
DRILLING CONTRACTOR Cascade
GROUND ELEVATION 284.63 ft **HOLE SIZE** 2.5 inches
DRILLING EQUIPMENT Geoprobe 7822DT
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
▽ **AT TIME OF DRILLING** 1.00 ft / Elev 283.63 ft
LOGGED BY N/A **CHECKED BY** N/A
AT TIME OF SAMPLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0.0			SM		0.0 **SILTY SAND (SM)** moist, dark brown, loose, fine-grained sand with little (15-25%) medium to coarse-grained sand, little (15-25%) silt, little (15-25%) organics, trace (<5%) angular gravel. 284.6		
			SM		0.2 **SILTY SAND with GRAVEL (SM)** wet, dark brown, loose, fine-grained sand with little (15-25%) medium to coarse-grained sand, little (15-25%) silt, little (15-25%) organics, little (15-25%) subrounded gravel. 284.4	AOI03-02-SB-00-01	
			SM		1.0 **SILTY SAND (SM)** saturated, brown, loose, fine-grained sand, some (30-45%) silt, trace (<5%) angular gravel. 283.6		
2.5	AU	100	SP-SM		2.2 **POORLY GRADED SAND with SILT (SP-SM)**, saturated, light brown, fine-grained sand, little (15-25%) to trace (<5%) silt, silt decreasing with depth. 282.4	AOI03-02-GW	**Well Screen** Type: Schedule 40 PVC Slot Size: 0.01 in Top: 0 ft bgs Bottom: 5 ft bgs
5.0							

Bottom of borehole at 5.0 feet.

Notes:
1. Coordinates and elevation data in NAVD88 for vertical datum and NAD83 for horizontal datum in New York State Plane Coordinate System of 1983, East Zone.
2. 0 to 5 feet bgs cleared using hand auger.

ARNG SMART LOG 8.5X11_V2 - - 5/4/22 09:44 - C:\USERS\GOLUBOVIC\V\DESKTOP\REVIEW\ALBANY\ALBANY AASF #3_ARNG.GPJ

Appendix F
Analytical Results

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Appendix F Laboratory Data
Surface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI01																							
Sample ID		AOI01-01-SB-00-02				AOI01-02-SB-00-02				AOI01-03-SB-00-02				AOI01-04-SB-00-02				AOI01-05-SB-00-02				AOI01-06-SB-00-02			
Sample Date		04/11/2022				04/11/2022				04/11/2022				04/11/2022				04/12/2022				04/12/2022			
Depth		0-2 ft				0-2 ft				0-2 ft				0-2 ft				0-2 ft				0-2 ft			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																									
6:2 FTS	-	<	0.213	1.07	U	<	0.228	1.14	U	<	0.229	1.15	U	<	0.232	1.16	U	<	0.225	1.12	U	<	0.228	1.14	U
8:2 FTS	-	<	0.107	1.07	U	<	0.114	1.14	U	<	0.115	1.15	U	<	0.116	1.16	U	<	0.112	1.12	U	<	0.114	1.14	U
NEtFOSAA	-	5.53	0.107	1.07		<	0.114	1.14	U	<	0.115	1.15	U	<	0.116	1.16	U	<	0.112	1.12	U	<	0.114	1.14	U
NMeFOSAA	-	<	0.053	1.07	U	<	0.057	1.14	U	<	0.057	1.15	U	<	0.058	1.16	U	<	0.056	1.12	U	<	0.057	1.14	U
PFBA	-	0.076	0.107	1.07	J	0.080	0.114	1.14	J	0.082	0.115	1.15	J	0.063	0.116	1.16	J	0.053	0.112	1.12	J	<	0.114	1.14	U
PFBS	1900	<	0.053	1.07	U	<	0.057	1.14	U	<	0.057	1.15	U	0.039	0.058	1.16	J	<	0.056	1.12	U	<	0.057	1.14	U
PFDA	-	0.050	0.107	1.07	J	0.054	0.114	1.14	J	<	0.115	1.15	U	0.070	0.116	1.16	J	<	0.112	1.12	U	0.094	0.114	1.14	J
PFDoA	-	0.034	0.053	1.07	J	<	0.057	1.14	U	<	0.057	1.15	U	0.024	0.058	1.16	J	<	0.056	1.12	U	<	0.057	1.14	U
PFHpA	-	0.033	0.053	1.07	J	0.046	0.057	1.14	J	0.052	0.057	1.15	J	0.064	0.058	1.16	J	0.045	0.056	1.12	J	<	0.057	1.14	U
PFHxA	-	0.077	0.053	1.07	J	0.040	0.057	1.14	J	0.071	0.057	1.15	J	0.188	0.058	1.16	J	0.080	0.056	1.12	J	0.031	0.057	1.14	J
PFHxS	130	0.250	0.107	1.07	J	<	0.114	1.14	U	0.102	0.115	1.15	J	1.24	0.116	1.16		0.332	0.112	1.12	J	0.260	0.114	1.14	J
PFNA	19	0.060	0.053	1.07	J	0.071	0.057	1.14	J	0.057	0.057	1.15	J	0.037	0.058	1.16	J	0.077	0.056	1.12	J	0.039	0.057	1.14	J
PFOA	19	0.164	0.213	1.07	J	0.104	0.228	1.14	J	0.177	0.229	1.15	J	0.174	0.232	1.16	J	0.229	0.225	1.12	J	<	0.228	1.14	U
PFOS	13	7.45	0.213	1.07		0.538	0.228	1.14	J	4.70	0.229	1.15		60.1	1.16	5.80		6.40	0.225	1.12		6.33	0.228	1.14	
PFPeA	-	0.053	0.053	1.07	J	0.037	0.057	1.14	J	0.058	0.057	1.15	J	0.109	0.058	1.16	J	0.050	0.056	1.12	J	<	0.057	1.14	U
PFTeDA	-	<	0.053	1.07	U	<	0.057	1.14	U	<	0.057	1.15	U	<	0.058	1.16	U	<	0.056	1.12	U	<	0.057	1.14	U
PFTrDA	-	0.110	0.107	1.07	J	<	0.114	1.14	U	<	0.115	1.15	U	<	0.116	1.16	U	<	0.112	1.12	U	<	0.114	1.14	U
PFUnDA	-	0.206	0.053	1.07	J	0.041	0.057	1.14	J	0.029	0.057	1.15	J	0.035	0.058	1.16	J	0.037	0.056	1.12	J	0.054	0.057	1.14	J

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on residential scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
NEtFOSAA	N-ethyl perfluorooctane- sulfonamidoacetic acid
NMeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
Dup	duplicate
DL	detection llimit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram
-	not applicable
<	analyte not detected above the LOD

Area of Interest		AOI01																				AOI02			
Sample ID		AOI01-07-SB-00-02				AOI01-08-SB-00-02				AOI01-SB-DUP-1				AOI01-09-SB-00-02				AOI02-01-SB-00.9-03.5				AOI02-SB-DUP-3			
Sample Date		04/12/2022				04/11/2022				04/12/2022				04/11/2022				04/14/2022				04/14/2022			
Depth		0-2 ft				0-2 ft				0-2 ft				0-2 ft				0.9-3.5 ft				0.9-3.5 ft			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																									
6:2 FTS	-	<	0.257	1.28	U	<	0.221	1.10	U	<	0.220	1.10	U	<	0.221	1.11	U	<	0.189	0.947	U	<	0.193	0.963	U
8:2 FTS	-	<	0.128	1.28	U	<	0.110	1.10	U	<	0.110	1.10	U	<	0.111	1.11	U	<	0.095	0.947	U	<	0.096	0.963	U
NEtFOSAA	-	<	0.128	1.28	U	<	0.110	1.10	U	<	0.110	1.10	U	<	0.111	1.11	U	<	0.095	0.947	U	<	0.096	0.963	U
NMeFOSAA	-	<	0.064	1.28	U	<	0.055	1.10	U	<	0.055	1.10	U	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFBA	-	0.248	0.128	1.28	J	0.072	0.110	1.10	J	0.046	0.110	1.10	J	<	0.111	1.11	U	<	0.095	0.947	U	<	0.096	0.963	U
PFBS	1900	0.028	0.064	1.28	J	<	0.055	1.10	U	<	0.055	1.10	U	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFDA	-	<	0.128	1.28	U	<	0.110	1.10	U	<	0.110	1.10	U	<	0.111	1.11	U	<	0.095	0.947	U	<	0.096	0.963	U
PFDoA	-	<	0.064	1.28	U	<	0.055	1.10	U	<	0.055	1.10	U	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFHpA	-	0.106	0.064	1.28	J	0.042	0.055	1.10	J	0.026	0.055	1.10	J	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFHxA	-	0.096	0.064	1.28	J	0.095	0.055	1.10	J	0.066	0.055	1.10	J	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFHxS	130	0.088	0.128	1.28	J	0.146	0.110	1.10	J	0.121	0.110	1.10	J	0.086	0.111	1.11	J	<	0.095	0.947	U	<	0.096	0.963	U
PFNA	19	0.079	0.064	1.28	J	0.058	0.055	1.10	J	0.042	0.055	1.10	J	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFOA	19	0.242	0.257	1.28	J	0.136	0.221	1.10	J	<	0.220	1.10	UJ	<	0.221	1.11	U	<	0.189	0.947	U	<	0.193	0.963	U
PFOS	13	0.310	0.257	1.28	J	14.1	0.221	1.10		12.0	0.220	1.10		8.88	0.221	1.11		0.071	0.189	0.947	J	0.087	0.193	0.963	J
PFPeA	-	0.155	0.064	1.28	J	0.070	0.055	1.10	J	0.043	0.055	1.10	J	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFTeDA	-	<	0.064	1.28	U	<	0.055	1.10	U	<	0.055	1.10	U	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U
PFTrDA	-	<	0.128	1.28	U	<	0.110	1.10	U	<	0.110	1.10	U	<	0.111	1.11	U	<	0.095	0.947	U	<	0.096	0.963	U
PFUnDA	-	<	0.064	1.28	U	0.024	0.055	1.10	J	<	0.055	1.10	UJ	<	0.055	1.11	U	<	0.047	0.947	U	<	0.048	0.963	U

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on residential scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
NEtFOSAA	N-ethyl perfluorooctane- sulfonamidoacetic acid
NMeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
Dup	duplicate
DL	detection llimit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram
-	not applicable
<	analyte not detected above the LOD

Appendix F Laboratory Data
Surface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI02												AOI03											
Sample ID		AOI02-02-SB-00-02				AOI02-03-SB-00-02				AOI02-05-SB-00-02				AOI03-01-SB-00-01				AOI03-02-SB-00-01				AOI03-03-SB-00-02			
Sample Date		04/12/2022				04/13/2022				04/14/2022				04/13/2022				04/13/2022				01/04/2022			
Depth		0-2 ft				0-2 ft				0-2 ft				0-1 ft				0-1 ft				0-2 ft			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																									
6:2 FTS	-	<	0.211	1.05	U	<	0.220	1.10	U	<	0.211	1.06	U	<	0.211	1.05	U	<	0.232	1.16	U	<	0.230	1.15	U
8:2 FTS	-	<	0.105	1.05	U	<	0.110	1.10	U	<	0.106	1.06	U	<	0.105	1.05	U	<	0.116	1.16	U	<	0.115	1.15	U
NEtFOSAA	-	<	0.105	1.05	U	<	0.110	1.10	U	<	0.106	1.06	U	<	0.105	1.05	U	<	0.116	1.16	U	<	0.115	1.15	U
NMeFOSAA	-	<	0.053	1.05	U	<	0.055	1.10	U	<	0.053	1.06	U	<	0.053	1.05	U	<	0.058	1.16	U	<	0.057	1.15	U
PFBA	-	<	0.105	1.05	U	<	0.110	1.10	U	<	0.106	1.06	U	<	0.105	1.05	U	0.093	0.116	1.16	J	0.118	0.115	1.15	J
PFBS	1900	<	0.053	1.05	U	<	0.055	1.10	U	<	0.053	1.06	U	<	0.053	1.05	U	<	0.058	1.16	U	<	0.057	1.15	U
PFDA	-	0.044	0.105	1.05	J	0.102	0.110	1.10	J	<	0.106	1.06	U	<	0.105	1.05	U	0.047	0.116	1.16	J	0.067	0.115	1.15	J
PFDoA	-	<	0.053	1.05	U	0.052	0.055	1.10	J	<	0.053	1.06	U	0.021	0.053	1.05	J	<	0.058	1.16	U	0.029	0.057	1.15	J
PFHpA	-	0.026	0.053	1.05	J	<	0.055	1.10	U	<	0.053	1.06	U	<	0.053	1.05	U	0.035	0.058	1.16	J	0.059	0.057	1.15	J
PFHxA	-	0.042	0.053	1.05	J	0.031	0.055	1.10	J	<	0.053	1.06	U	<	0.053	1.05	U	0.045	0.058	1.16	J	0.070	0.057	1.15	J
PFHxS	130	<	0.105	1.05	U	<	0.110	1.10	U	<	0.106	1.06	U	<	0.105	1.05	U	<	0.116	1.16	U	0.047	0.115	1.15	J
PFNA	19	0.031	0.053	1.05	J	0.029	0.055	1.10	J	<	0.053	1.06	U	0.028	0.053	1.05	J	0.072	0.058	1.16	J	0.096	0.057	1.15	J
PFOA	19	<	0.211	1.05	U	<	0.220	1.10	U	<	0.211	1.06	U	<	0.211	1.05	U	<	0.232	1.16	U	0.107	0.230	1.15	J
PFOS	13	0.463	0.211	1.05	J	0.492	0.220	1.10	J	0.080	0.211	1.06	J	0.320	0.211	1.05	J	0.638	0.232	1.16	J	0.441	0.230	1.15	J
PFPeA	-	0.051	0.053	1.05	J	0.025	0.055	1.10	J	0.029	0.053	1.06	J	<	0.053	1.05	U	0.064	0.058	1.16	J	0.095	0.057	1.15	J
PFTeDA	-	<	0.053	1.05	U	0.033	0.055	1.10	J	<	0.053	1.06	U	<	0.053	1.05	U	<	0.058	1.16	U	<	0.057	1.15	U
PFTrDA	-	<	0.105	1.05	U	<	0.110	1.10	U	<	0.106	1.06	U	<	0.105	1.05	U	<	0.116	1.16	U	<	0.115	1.15	U
PFUnDA	-	<	0.053	1.05	U	0.042	0.055	1.10	J	<	0.053	1.06	U	0.034	0.053	1.05	J	0.033	0.058	1.16	J	0.058	0.057	1.15	J

Grey Fill: Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on residential scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
NEtFOSAA	N-ethyl perfluorooctane- sulfonamidoacetic acid
NMeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
Dup	duplicate
DL	detection llimit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram
-	not applicable
<	analyte not detected above the LOD

Area of Interest		AOI03																			
Sample ID		AOI03-04-SB-00-02				AOI03-04-SB-00-02-DUP				AOI03-05-SB-00-02				AOI03-06-SB-00-02				AOI03-07-SB-00-02			
Sample Date		01/04/2022				01/04/2022				01/04/2022				01/04/2022				01/04/2022			
Depth		0-2 ft				0-2 ft				0-2 ft				0-2 ft				0-2 ft			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																					
6:2 FTS	-	<	0.219	1.10	UJ	<	0.229	1.15	UJ	0.355	0.216	1.08	JJ	<	0.227	1.14	U	<	0.230	1.15	U
8:2 FTS	-	<	0.110	1.10	U	<	0.115	1.15	U	0.077	0.108	1.08	J	<	0.114	1.14	U	<	0.115	1.15	U
NEtFOSAA	-	<	0.110	1.10	U	<	0.115	1.15	U	<	0.108	1.08	U	<	0.114	1.14	U	<	0.115	1.15	U
NMeFOSAA	-	<	0.055	1.10	U	<	0.057	1.15	U	<	0.054	1.08	U	<	0.057	1.14	U	<	0.058	1.15	U
PFBA	-	0.087	0.110	1.10	J	0.111	0.115	1.15	J	0.077	0.108	1.08	J	0.084	0.114	1.14	J	0.117	0.115	1.15	J
PFBS	1900	<	0.055	1.10	U	<	0.057	1.15	U	<	0.054	1.08	U	<	0.057	1.14	U	<	0.058	1.15	U
PFDA	-	<	0.110	1.10	UJ	0.052	0.115	1.15	J	<	0.108	1.08	U	0.048	0.114	1.14	J	0.060	0.115	1.15	J
PFDoA	-	<	0.055	1.10	UJ	0.026	0.057	1.15	J	<	0.054	1.08	U	<	0.057	1.14	U	0.029	0.058	1.15	J
PFHpA	-	0.060	0.055	1.10	J	0.068	0.057	1.15	J	0.047	0.054	1.08	J	0.055	0.057	1.14	J	0.068	0.058	1.15	J
PFHxA	-	0.129	0.055	1.10	J	0.094	0.057	1.15	J	0.074	0.054	1.08	J	0.074	0.057	1.14	J	0.088	0.058	1.15	J
PFHxS	130	0.163	0.110	1.10	J	0.145	0.115	1.15	J	0.078	0.108	1.08	J	0.116	0.114	1.14	J	0.163	0.115	1.15	J
PFNA	19	0.069	0.055	1.10	J	0.089	0.057	1.15	J	0.060	0.054	1.08	J	0.076	0.057	1.14	J	0.101	0.058	1.15	J
PFOA	19	0.151	0.219	1.10	J	0.196	0.229	1.15	J	0.120	0.216	1.08	J	0.146	0.227	1.14	J	0.191	0.230	1.15	J
PFOS	13	2.67	0.219	1.10		2.19	0.229	1.15		1.23	0.216	1.08		3.44	0.227	1.14		3.12	0.230	1.15	
PFPeA	-	0.087	0.055	1.10	J	0.077	0.057	1.15	J	0.064	0.054	1.08	J	0.075	0.057	1.14	J	0.083	0.058	1.15	J
PFTeDA	-	<	0.055	1.10	U	<	0.057	1.15	U	<	0.054	1.08	U	<	0.057	1.14	U	<	0.058	1.15	U
PFTrDA	-	<	0.110	1.10	U	<	0.115	1.15	U	<	0.108	1.08	U	<	0.114	1.14	U	<	0.115	1.15	U
PFUnDA	-	0.039	0.055	1.10	J	0.054	0.057	1.15	J	0.035	0.054	1.08	J	0.043	0.057	1.14	J	0.057	0.058	1.15	J

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on residential scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
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PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
Dup	duplicate
DL	detection llimit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram
-	not applicable
<	analyte not detected above the LOD

Appendix F Laboratory Data
Shallow Subsurface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI01																											
Sample ID		AOI01-01-SB-03-04				AOI01-01-SB-05.6-06.2				AOI01-02-SB-03-04				AOI01-03-SB-02-03				AOI01-04-SB-03-04				AOI01-05-SB-03-04				AOI01-SB-DUP-2			
Sample Date		04/11/2022				04/11/2022				04/11/2022				04/11/2022				04/11/2022				04/12/2022				04/12/2022			
Depth		3-4 ft				5.6-6.2 ft				3-4 ft				2-3 ft				3-4 ft				3-4 ft				3-4 ft			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																													
6:2 FTS	-	<	0.199	0.995	U	<	0.214	1.07	U	<	0.238	1.19	U	<	0.224	1.12	U	<	0.233	1.17	U	<	0.279	1.39	U	<	0.236	1.18	U
8:2 FTS	-	<	0.099	0.995	U	<	0.107	1.07	U	<	0.119	1.19	U	<	0.112	1.12	U	<	0.117	1.17	U	<	0.139	1.39	U	<	0.118	1.18	U
NEtFOSAA	-	3.58	0.099	0.995		0.578	0.107	1.07	J	<	0.119	1.19	U	<	0.112	1.12	U	<	0.117	1.17	U	<	0.139	1.39	U	<	0.118	1.18	U
NMeFOSAA	-	<	0.050	0.995	U	<	0.053	1.07	U	<	0.060	1.19	U	<	0.056	1.12	U	<	0.058	1.17	U	<	0.070	1.39	U	<	0.059	1.18	U
PFBA	-	<	0.099	0.995	U	<	0.107	1.07	U	<	0.119	1.19	U	<	0.112	1.12	U	<	0.117	1.17	U	<	0.139	1.39	U	<	0.118	1.18	U
PFBS	25000	0.027	0.050	0.995	J	<	0.053	1.07	U	<	0.060	1.19	U	<	0.056	1.12	U	<	0.058	1.17	U	<	0.070	1.39	U	<	0.059	1.18	U
PFDA	-	<	0.099	0.995	U	<	0.107	1.07	U	<	0.119	1.19	U	<	0.112	1.12	U	<	0.117	1.17	U	<	0.139	1.39	U	<	0.118	1.18	U
PFDoA	-	<	0.050	0.995	U	<	0.053	1.07	U	<	0.060	1.19	U	<	0.056	1.12	U	<	0.058	1.17	U	<	0.070	1.39	U	<	0.059	1.18	U
PFHpA	-	0.050	0.050	0.995	J	0.034	0.053	1.07	J	<	0.060	1.19	U	<	0.056	1.12	U	<	0.058	1.17	U	0.068	0.070	1.39	J	0.064	0.059	1.18	J
PFHxA	-	0.121	0.050	0.995	J	0.127	0.053	1.07	J	<	0.060	1.19	U	<	0.056	1.12	U	0.067	0.058	1.17	J	0.301	0.070	1.39	J	0.313	0.059	1.18	J
PFHxS	1600	3.23	0.099	0.995		0.433	0.107	1.07	J	<	0.119	1.19	U	0.036	0.112	1.12	J	0.398	0.117	1.17	J	2.18	0.139	1.39		2.09	0.118	1.18	
PFNA	250	0.049	0.050	0.995	J	0.057	0.053	1.07	J	<	0.060	1.19	U	<	0.056	1.12	U	<	0.058	1.17	U	<	0.070	1.39	U	<	0.059	1.18	U
PFOA	250	0.726	0.199	0.995	J	0.193	0.214	1.07	J	<	0.238	1.19	U	<	0.224	1.12	U	<	0.233	1.17	U	0.148	0.279	1.39	J	0.133	0.236	1.18	J
PFOS	160	10.7	0.199	0.995		14.7	0.214	1.07		0.063	0.238	1.19	J	1.22	0.224	1.12		10.3	0.233	1.17		0.925	0.279	1.39	J	0.597	0.236	1.18	J
PFPeA	-	0.020	0.050	0.995	J	0.079	0.053	1.07	J	<	0.060	1.19	U	<	0.056	1.12	U	0.034	0.058	1.17	J	0.089	0.070	1.39	J	0.080	0.059	1.18	J
PFTeDA	-	<	0.050	0.995	U	<	0.053	1.07	U	<	0.060	1.19	U	<	0.056	1.12	U	<	0.058	1.17	U	<	0.070	1.39	U	<	0.059	1.18	U
PFTrDA	-	<	0.099	0.995	U	<	0.107	1.07	U	<	0.119	1.19	U	<	0.112	1.12	U	<	0.117	1.17	U	<	0.139	1.39	U	<	0.118	1.18	U
PFUnDA	-	0.097	0.050	0.995	J	0.097	0.053	1.07	J	<	0.060	1.19	U	<	0.056	1.12	U	<	0.058	1.17	U	<	0.070	1.39	U	<	0.059	1.18	U

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on industrial/commercial composite worker scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
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PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
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PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

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ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
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Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram
-	not applicable
<	analyte not detected above the LOD

Area of Interest		AOI01				AOI02																AOI03							
Sample ID		AOI01-06-SB-02-02.7				AOI02-01-SB-03.5-04.3				AOI02-02-SB-03-03.7				AOI02-03-SB-02-02.7				AOI02-04-SB-05-05.5				AOI03-03-SB-02-04				AOI03-04-SB-02-04			
Sample Date		04/12/2022				04/14/2022				04/12/2022				04/13/2022				04/12/2022				01/04/2022				01/04/2022			
Depth		2-2.7 ft				3.5-4.3 ft				3-3.7 ft				2-2.7 ft				5-5.5 ft				2-4 ft				2-4 ft			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)																													
6:2 FTS	-	1.80	0.246	1.23		<	0.215	1.08	U	<	0.247	1.24	U	<	0.223	1.11	U	<	0.216	1.08	U	<	0.229	1.14	U	<	0.233	1.17	U
8:2 FTS	-	<	0.123	1.23	U	<	0.108	1.08	U	<	0.124	1.24	U	<	0.111	1.11	U	<	0.108	1.08	U	<	0.114	1.14	U	<	0.117	1.17	U
NEtFOSAA	-	<	0.123	1.23	U	<	0.108	1.08	U	<	0.124	1.24	U	<	0.111	1.11	U	<	0.108	1.08	U	<	0.114	1.14	U	<	0.117	1.17	U
NMeFOSAA	-	<	0.062	1.23	U	<	0.054	1.08	U	<	0.062	1.24	U	<	0.056	1.11	U	<	0.054	1.08	U	<	0.057	1.14	U	<	0.058	1.17	U
PFBA	-	<	0.123	1.23	U	<	0.108	1.08	U	<	0.124	1.24	U	<	0.111	1.11	U	<	0.108	1.08	U	0.084	0.114	1.14	J	0.112	0.117	1.17	J
PFBS	25000	<	0.062	1.23	U	<	0.054	1.08	U	<	0.062	1.24	U	<	0.056	1.11	U	0.032	0.054	1.08	J	<	0.057	1.14	U	<	0.058	1.17	U
PFDA	-	<	0.123	1.23	U	<	0.108	1.08	U	<	0.124	1.24	U	<	0.111	1.11	U	<	0.108	1.08	U	0.057	0.114	1.14	J	0.050	0.117	1.17	J
PFDoA	-	<	0.062	1.23	U	<	0.054	1.08	U	<	0.062	1.24	U	<	0.056	1.11	U	<	0.054	1.08	U	0.027	0.057	1.14	J	<	0.058	1.17	U
PFHpA	-	<	0.062	1.23	U	<	0.054	1.08	U	<	0.062	1.24	U	<	0.056	1.11	U	<	0.054	1.08	U	0.035	0.057	1.14	J	0.068	0.058	1.17	J
PFHxA	-	0.098	0.062	1.23	J	<	0.054	1.08	U	0.027	0.062	1.24	J	<	0.056	1.11	U	<	0.054	1.08	U	0.067	0.057	1.14	J	0.085	0.058	1.17	J
PFHxS	1600	0.196	0.123	1.23	J	<	0.108	1.08	U	<	0.124	1.24	U	<	0.111	1.11	U	0.166	0.108	1.08	J	<	0.114	1.14	U	0.144	0.117	1.17	J
PFNA	250	<	0.062	1.23	U	<	0.054	1.08	U	<	0.062	1.24	U	<	0.056	1.11	U	<	0.054	1.08	U	0.078	0.057	1.14	J	0.090	0.058	1.17	J
PFOA	250	<	0.246	1.23	U	<	0.215	1.08	U	<	0.247	1.24	U	<	0.223	1.11	U	<	0.216	1.08	U	<	0.229	1.14	U	0.193	0.233	1.17	J
PFOS	160	3.87	0.246	1.23		0.398	0.215	1.08	J	0.148	0.247	1.24	J	0.139	0.223	1.11	J	0.230	0.216	1.08	J	0.391	0.229	1.14	J	2.20	0.233	1.17	
PFPeA	-	0.041	0.062	1.23	J	0.028	0.054	1.08	J	0.040	0.062	1.24	J	<	0.056	1.11	U	<	0.054	1.08	U	0.042	0.057	1.14	J	0.075	0.058	1.17	J
PFTeDA	-	<	0.062	1.23	U	<	0.054	1.08	U	<	0.062	1.24	U	<	0.056	1.11	U	<	0.054	1.08	U	<	0.057	1.14	U	<	0.058	1.17	U
PFTrDA	-	<	0.123	1.23	U	<	0.108	1.08	U	<	0.124	1.24	U	<	0.111	1.11	U	<	0.108	1.08	U	<	0.114	1.14	U	<	0.117	1.17	U
PFUnDA	-	<	0.062	1.23	U	<	0.054	1.08	U	<	0.062	1.24	U	<	0.056	1.11	U	<	0.054	1.08	U	0.057	0.057	1.14	J	0.049	0.058	1.17	J

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on industrial/commercial composite worker scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
NEtFOSAA	N-ethyl perfluorooctane- sulfonamidoacetic acid
NMeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection llimit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram
-	not applicable
<	analyte not detected above the LOD

Appendix F Laboratory Data
Shallow Subsurface Soil
Site Inspection Report, Albany AASF #3

Area of Interest		AOI03											
Sample ID		AOI03-05-SB-02-04				AOI03-06-SB-02-04				AOI03-07-SB-02-04			
Sample Date		01/04/2022				01/04/2022				01/04/2022			
Depth		2-4 ft				2-4 ft				2-4 ft			
Analyte	**OSD Screening Level [a]**	**Result**	**LOD**	**LOQ**	**Qual**	**Result**	**LOD**	**LOQ**	**Qual**	**Result**	**LOD**	**LOQ**	**Qual**
Soil, LCMSMS compliant with QSM 5.3 Table B-15 (µg/kg)													
6:2 FTS	-	<	0.238	1.19	U	<	0.231	1.15	U	<	0.225	1.13	U
8:2 FTS	-	<	0.119	1.19	U	<	0.115	1.15	U	<	0.113	1.13	U
NEtFOSAA	-	<	0.119	1.19	U	<	0.115	1.15	U	<	0.113	1.13	U
NMeFOSAA	-	<	0.060	1.19	U	<	0.058	1.15	U	<	0.056	1.13	U
PFBA	-	0.149	0.119	1.19	J	0.132	0.115	1.15	J	0.128	0.113	1.13	J
PFBS	25000	<	0.060	1.19	U	<	0.058	1.15	U	<	0.056	1.13	U
PFDA	-	0.071	0.119	1.19	J	0.073	0.115	1.15	J	0.063	0.113	1.13	J
PFDoA	-	0.034	0.060	1.19	J	0.029	0.058	1.15	J	0.028	0.056	1.13	J
PFHpA	-	0.083	0.060	1.19	J	0.093	0.058	1.15	J	0.066	0.056	1.13	J
PFHxA	-	0.091	0.060	1.19	J	0.110	0.058	1.15	J	0.087	0.056	1.13	J
PFHxS	1600	0.079	0.119	1.19	J	0.133	0.115	1.15	J	0.091	0.113	1.13	J
PFNA	250	0.130	0.060	1.19	J	0.131	0.058	1.15	J	0.098	0.056	1.13	J
PFOA	250	0.219	0.238	1.19	J	0.235	0.231	1.15	J	0.179	0.225	1.13	J
PFOS	160	1.87	0.238	1.19		4.12	0.231	1.15		2.00	0.225	1.13	
PFPeA	-	0.100	0.060	1.19	J	0.124	0.058	1.15	J	0.077	0.056	1.13	J
PFTeDA	-	<	0.060	1.19	U	<	0.058	1.15	U	<	0.056	1.13	U
PFTrDA	-	<	0.119	1.19	U	<	0.115	1.15	U	<	0.113	1.13	U
PFUnDA	-	0.068	0.060	1.19	J	0.063	0.058	1.15	J	0.058	0.056	1.13	J

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Soil screening levels based on industrial/commercial composite worker scenario for incidental ingestion of contaminated soil.

Interpreted Qualifiers

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U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

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PFDoA	perfluorododecanoic acid
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PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection llimit
ft	feet
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
SB	soil boring
USEPA	United States Environmental Protection Agency
µg/kg	micrograms per kilogram
-	not applicable
<	analyte not detected above the LOD

Appendix F Laboratory Data
Groundwater
Site Inspection Report, Albany AASF #3

Area of Interest		AOI01																									
Sample ID		AOI01-01-GW				AOI01-02-GW				AOI01-03-GW				AOI01-04-GW				DUP-GW-01				AOI01-05-GW				AOI01-06-GW			
Sample Date		04/11/2022				04/11/2022				04/12/2022				04/12/2022				04/12/2022				04/12/2022				04/13/2022			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Water, LCMSMS compliant with QSM 5.3 Table B-15 (ng/l)																													
6:2 FTS	-	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	5.48	3.00	4.00		5.26	3.00	4.00		<	2.88	3.85	U	8.06	3.00	4.00	
8:2 FTS	-	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	2.88	3.85	U	<	3.00	4.00	U
NEtFOSAA	-	3.02	4.00	8.00	J	<	4.00	8.00	U	<	4.00	8.00	U	<	4.00	8.00	U	<	4.00	8.00	U	<	3.85	7.69	U	<	4.00	8.00	U
NMeFOSAA	-	<	4.00	8.00	U	<	4.00	8.00	U	<	4.00	8.00	U	<	4.00	8.00	U	<	4.00	8.00	U	<	3.85	7.69	U	<	4.00	8.00	U
PFBA	-	3.84	3.50	4.00	J	7.49	3.50	4.00		5.20	3.50	4.00		49.2	3.50	4.00		52.2	3.50	4.00		11.8	3.37	3.85		18.0	3.50	4.00	
PFBS	601	9.07	2.00	4.00		2.05	2.00	4.00	J	3.54	2.00	4.00	J	48.5	2.00	4.00		51.6	2.00	4.00		49.6	1.92	3.85		7.55	2.00	4.00	
PFDA	-	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	2.94	3.00	4.00	J	3.05	3.00	4.00	J	<	2.88	3.85	U	2.82	3.00	4.00	J
PFDoA	-	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	2.88	3.85	U	<	3.00	4.00	U
PFHpA	-	4.74	3.00	4.00		3.07	3.00	4.00	J	3.07	3.00	4.00	J	33.9	3.00	4.00		35.3	3.00	4.00		11.3	2.88	3.85		37.5	3.00	4.00	
PFHxA	-	20.7	2.00	4.00		5.75	2.00	4.00		8.08	2.00	4.00		152	2.00	4.00		167	2.00	4.00		64.1	1.92	3.85		31.7	2.00	4.00	
PFHxS	39	276	3.00	4.00		6.51	3.00	4.00		24.4	3.00	4.00		1120	3.00	4.00		1180	3.00	4.00		597	2.88	3.85		139	3.00	4.00	
PFNA	6	1.72	2.00	4.00	J	1.31	2.00	4.00	J	<	2.00	4.00	U	4.90	2.00	4.00		5.06	2.00	4.00		2.46	1.92	3.85	J	13.3	2.00	4.00	
PFOA	6	29.6	2.00	4.00		2.71	2.00	4.00	J	8.55	2.00	4.00		58.7	2.00	4.00		61.9	2.00	4.00		31.5	1.92	3.85		28.5	2.00	4.00	
PFOS	4	533	2.00	4.00		57.8	2.00	4.00		95.8	2.00	4.00		14100	40.0	80.0	J	15000	40.0	80.0		1190	1.92	3.85		391	2.00	4.00	
PFPeA	-	4.66	2.00	4.00		7.59	2.00	4.00		6.32	2.00	4.00		78.6	2.00	4.00		82.9	2.00	4.00		23.9	1.92	3.85		46.1	2.00	4.00	
PFTeDA	-	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	2.88	3.85	U	<	3.00	4.00	U
PFTrDA	-	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	2.88	3.85	U	<	3.00	4.00	U
PFUnDA	-	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	3.00	4.00	U	<	2.88	3.85	U	<	3.00	4.00	U

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Groundwater screening levels based on residential scenario for direct ingestion of groundwater.

Interpreted Qualifiers

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U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

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8:2 FTS	8:2 fluorotelomer sulfonate
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PFDoA	perfluorododecanoic acid
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PFHxA	perfluorohexanoic acid
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PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
GW	groundwater
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
USEPA	United States Environmental Protection Agency
ng/l	nanogram per liter
-	not applicable
<	analyte not detected above the LOD

Area of Interest		AOI01				AOI02																				AOI03			
Sample ID		AOI01-07-GW				AOI02-01-GW				AOI02-02-GW				AOI02-03-GW				AOI02-DUP-GW-02				AOI02-04-GW				AOI03-01-GW			
Sample Date		04/12/2022				04/14/2022				04/13/2022				04/13/2022				04/13/2022				04/13/2022				04/14/2022			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Water, LCMSMS compliant with QSM 5.3 Table B-15 (ng/l)																													
6:2 FTS	-	<	3.13	4.17	U	<	3.07	4.10	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.02	4.03	U	<	3.02	4.03	U	<	3.02	4.03	U
8:2 FTS	-	<	3.13	4.17	U	<	3.07	4.10	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.02	4.03	U	<	3.02	4.03	U	<	3.02	4.03	U
NEtFOSAA	-	<	4.17	8.33	U	<	4.10	8.20	U	<	4.00	8.00	U	<	4.07	8.13	U	<	4.03	8.06	U	<	4.03	8.06	U	<	4.03	8.06	U
NMeFOSAA	-	<	4.17	8.33	U	<	4.10	8.20	U	<	4.00	8.00	U	<	4.07	8.13	U	<	4.03	8.06	U	<	4.03	8.06	U	<	4.03	8.06	U
PFBA	-	1.73	3.65	4.17	J	5.82	3.59	4.10		32.3	3.50	4.00		13.3	3.56	4.07		15.4	3.53	4.03		<	3.53	4.03	U	9.27	3.53	4.03	
PFBS	601	1.90	2.08	4.17	J	<	2.05	4.10	U	1.21	2.00	4.00	J	6.69	2.03	4.07		6.28	2.02	4.03		<	2.02	4.03	U	3.30	2.02	4.03	J
PFDA	-	<	3.13	4.17	U	<	3.07	4.10	U	<	3.00	4.00	U	3.96	3.05	4.07	J	4.10	3.02	4.03		<	3.02	4.03	U	<	3.02	4.03	U
PFDoA	-	<	3.13	4.17	U	<	3.07	4.10	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.02	4.03	U	<	3.02	4.03	U	<	3.02	4.03	U
PFHpA	-	<	3.13	4.17	U	3.07	3.07	4.10	J	10.1	3.00	4.00		18.4	3.05	4.07		18.6	3.02	4.03		<	3.02	4.03	U	3.35	3.02	4.03	J
PFHxA	-	1.12	2.08	4.17	J	3.29	2.05	4.10	J	43.5	2.00	4.00		22.8	2.03	4.07		23.3	2.02	4.03		<	2.02	4.03	U	3.59	2.02	4.03	J
PFHxS	39	14.6	3.13	4.17		1.59	3.07	4.10	J	<	3.00	4.00	U	2.89	3.05	4.07	J	2.34	3.02	4.03	J	<	3.02	4.03	U	3.36	3.02	4.03	J
PFNA	6	<	2.08	4.17	U	<	2.05	4.10	U	1.80	2.00	4.00	J	2.13	2.03	4.07	J	2.08	2.02	4.03	J	<	2.02	4.03	U	<	2.02	4.03	U
PFOA	6	1.46	2.08	4.17	J	4.50	2.05	4.10		1.51	2.00	4.00	J	10.5	2.03	4.07		9.97	2.02	4.03		<	2.02	4.03	U	17.9	2.02	4.03	
PFOS	4	1.31	2.08	4.17	J	16.6	2.05	4.10		11.6	2.00	4.00		21.8	2.03	4.07		20.4	2.02	4.03		<	2.02	4.03	U	24.6	2.02	4.03	
PFPeA	-	1.26	2.08	4.17	J	5.42	2.05	4.10		86.8	2.00	4.00		22.8	2.03	4.07		25.3	2.02	4.03		<	2.02	4.03	U	3.11	2.02	4.03	J
PFTeDA	-	<	3.13	4.17	U	<	3.07	4.10	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.02	4.03	U	<	3.02	4.03	U	<	3.02	4.03	U
PFTrDA	-	<	3.13	4.17	U	<	3.07	4.10	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.02	4.03	U	<	3.02	4.03	U	<	3.02	4.03	U
PFUnDA	-	<	3.13	4.17	U	<	3.07	4.10	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.02	4.03	U	<	3.02	4.03	U	<	3.02	4.03	U

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

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Interpreted Qualifiers

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PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
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PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

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DL	detection limit
GW	groundwater
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ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
USEPA	United States Environmental Protection Agency
ng/l	nanogram per liter
-	not applicable
<	analyte not detected above the LOD

	Area of Interest	AOI03			
	Sample ID	AOI03-02-GW			
	Sample Date	04/14/2022			
Analyte	OSD Screening Level [a]	Result	LOD	LOQ	Qual
Water, LCMSMS compliant with QSM 5.3 Table B-15 (ng/l)					
6:2 FTS	-	<	3.00	4.00	U
8:2 FTS	-	<	3.00	4.00	U
NEtFOSAA	-	<	4.00	8.00	U
NMeFOSAA	-	<	4.00	8.00	U
PFBA	-	2.51	3.50	4.00	J
PFBS	601	1.87	2.00	4.00	J
PFDA	-	<	3.00	4.00	U
PFDoA	-	<	3.00	4.00	U
PFHpA	-	2.29	3.00	4.00	J
PFHxA	-	1.50	2.00	4.00	J
PFHxS	39	2.42	3.00	4.00	J
PFNA	6	1.17	2.00	4.00	J
PFOA	6	13.7	2.00	4.00	
PFOS	4	11.4	2.00	4.00	
PFPeA	-	1.77	2.00	4.00	J
PFTeDA	-	<	3.00	4.00	U
PFTrDA	-	<	3.00	4.00	U
PFUnDA	-	<	3.00	4.00	U

Grey Fill — Detected concentration exceeded OSD Screening Levels

References

a. Assistant Secretary of Defense, July 2022. Risk Based Screening Levels Calculated for PFOA, PFOS, PFBS, PFHxS, and PFNA in Groundwater or Soil using USEPA's Regional Screening Level Calculator. HQ=0.1, May 2022. Groundwater screening levels based on residential scenario for direct ingestion of groundwater.

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
NEtFOSAA	N-ethyl perfluorooctane- sulfonamidoacetic acid
NMeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DUP	duplicate
DL	detection limit
GW	groundwater
HQ	hazard quotient
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
OSD	Office of the Secretary of Defense
PFAS	per- and polyfluoroalkyl substances
QSM	Quality Systems Manual
Qual	interpreted qualifier
USEPA	United States Environmental Protection Agency
ng/l	nanogram per liter
-	not applicable
<	analyte not detected above the LOD

Appendix F Laboratory Data
Decontamination Water and Quality Control Samples
Site Inspection Report, Albany AASF #3

Area of Interest	DECON SOURCE				FIELDQC															
Sample ID	ALB-DECON-01				ALB-ERB-01				EB-1-041122				EB-2-041422				EB-3-041422			
Sample Date	11/19/2021				01/04/2022				04/11/2022				04/14/2022				04/14/2022			
Analyte	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
Water, LCMSMS compliant with QSM 5.3 Table B-15 (ng/l)																				
6:2 FTS	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
8:2 FTS	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
NEtFOSAA	<	4.00	8.00	U	<	4.00	8.00	U	<	4.07	8.13	U	<	4.00	8.00	U	<	4.03	8.06	U
NMeFOSAA	<	4.00	8.00	U	<	4.00	8.00	U	<	4.07	8.13	U	<	4.00	8.00	U	<	4.03	8.06	U
PFBA	1.83	3.50	4.00	J	<	3.50	4.00	U	<	3.56	4.07	U	<	3.50	4.00	U	<	3.53	4.03	U
PFBS	0.642	2.00	4.00	J	<	2.00	4.00	U	<	2.03	4.07	U	<	2.00	4.00	U	<	2.02	4.03	U
PFDA	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
PFDoA	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
PFHpA	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
PFHxA	1.62	2.00	4.00	J	<	2.00	4.00	U	<	2.03	4.07	U	<	2.00	4.00	U	<	2.02	4.03	U
PFHxS	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
PFNA	<	2.00	4.00	U	<	2.00	4.00	U	<	2.03	4.07	U	<	2.00	4.00	U	<	2.02	4.03	U
PFOA	0.889	2.00	4.00	J	<	2.00	4.00	U	<	2.03	4.07	U	<	2.00	4.00	U	<	2.02	4.03	U
PFOS	1.49	2.00	4.00	J	4.50	2.00	4.00		<	2.03	4.07	U	<	2.00	4.00	U	<	2.02	4.03	U
PFPeA	1.68	2.00	4.00	J	<	2.00	4.00	U	<	2.03	4.07	U	<	2.00	4.00	U	<	2.02	4.03	U
PFTeDA	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
PFTrDA	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U
PFUnDA	<	3.00	4.00	U	<	3.00	4.00	U	<	3.05	4.07	U	<	3.00	4.00	U	<	3.02	4.03	U

Interpreted Qualifiers

J = Estimated concentration

U = The analyte was not detected at a level greater than or equal to the adjusted DL

Chemical Abbreviations

6:2 FTS	6:2 fluorotelomer sulfonate
8:2 FTS	8:2 fluorotelomer sulfonate
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NMeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid
PFBA	perfluorobutanoic acid
PFBS	perfluorobutanesulfonic acid
PFDA	perfluorodecanoic acid
PFDoA	perfluorododecanoic acid
PFHpA	perfluoroheptanoic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PFPeA	perfluoropentanoic acid
PFTeDA	perfluorotetradecanoic acid
PFTrDA	perfluorotridecanoic acid
PFUnDA	perfluoro-n-undecanoic acid

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
DL	detection limit
ERB	equipment rinsate blank
FRB	field reagent blank
ID	identification
LCMSMS	liquid chromatography with tandem mass spectrometry
LOD	limit of detection
LOQ	limit of quantitation
QC	quality control
QSM	Quality Systems Manual
Qual	interpreted qualifier
ng/l	nanogram per liter
<	analyte not detected above the LOD

Appendix F Laboratory Data
TOC and pH
Site Inspection Report, Albany AASF #3

Area of Interest	AOI01				AOI02							
Sample ID	AOI01-06-SB-02-02.7				AOI02-01-SB-03.5-04.3				AOI02-SB-DUP-4			
Sample Date	04/12/2022				04/14/2022				04/14/2022			
Depth	2-2.7 ft				3.5-4.3 ft				3.5-4.3 ft			
Analyte	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual	Result	LOD	LOQ	Qual
pH	7.08	1.00	1.00	J	7.97	1.00	1.00	J	7.56	1.00	1.00	J
Total Organic Carbon (mg/kg)	4580	350	500	J+	2830	350	500	J	714	350	500	J

Acronyms and Abbreviations

AASF	Army Aviation Support Facility
AOI	Area of Interest
D	duplicate
ft	feet
ID	identification
LOD	limit of detection
LOQ	limit of quantitation
Qual	interpreted qualifier
mg/kg	milligram per kilogram
SB	soil boring
TOC	total organic carbon
<	analyte not detected above the LOD

Interpreted Qualifiers

J = Estimated concentration

J+ = Estimated concentration, biased high

Appendix G
Laboratory Reports

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Due to file size, laboratory reports are provided electronically (CD) or can be requested.

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