2024 PERIODIC REVIEW REPORT

HETTLING PARK

TOWN OF CLERMONT, COLUMBIA COUNTY, NY

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I. Executive Summary

CPL has prepared this Periodic Review Report (PRR) for the Hettling Park (the Site) in the Town of Clermont, Columbia County, NY (Figure 1). The period of review for this report is January 1, 2024 to December 31, 2024. This PRR was prepared in accordance with the requirements in Section 6.3(b) NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010 and guidelines provided by the NYSDEC.

1.1 Site History and Remedial Program

The Site, Hettling Park (formerly Hettling Farm) has been remediated from its previous contaminated state. The New York State Department of Environmental Conservation (NYSDEC) produced a Record of Decision for the Site in March of 2008. The description of the Site characteristics are as follows:

> *"The Former Hettling Farm Site is located in the Town of Clermont, in Columbia County, New York. The Site consists of 20.5 acres and is located along the western side of U.S. Route 9, approximately 1,100 feet north of the intersection of U.S. Route 9 and County Route 6. The Site's general location is in a rural setting, and presently consists of vacant land which has historically been utilized for agricultural purposes. The Site is bordered on the west and north by other lands belonging to Hettling, by private property and a cemetery to the southwest, and by private and Town lands to the south. The Site rises gradually from its eastern border with Route 9, to the property boundary on the west side. An artificial ditch and intermittent stream, constructed for drainage and/or irrigation, roughly bisect the Site flowing south to north.*
>
> *The soils at the Site consist of sand, gravel, and varying percentages of silt and cobbles. Distinct clay layers consisting of greyish-brown and or blueish-grey clay of various thicknesses were encountered at different areas around the Site. Bedrock at the Site is composed of shale and was encountered at depths ranging from 6.5 feet below ground surface up on the west side of the Site, to greater than 20 feet below ground surface in the east side of the Site.*
>
> *A majority of the 20.5 acres of the Site were historically utilized for agricultural purposes. Generally, the lands to the west of the artificial ditch and intermittent stream were primarily utilized as apple orchards and the lands on the eastern portion were utilized for cultivation of row crops, vegetables and/or vineyards and orchards. The use of persistent inorganic and organic pesticides as well as the application of fertilizers resulted in the deposition of these hazardous substances in the Site media. In addition, there was evidence that waste material may have been disposed on the surface and in the subsurface adjacent to the Site. A large stockpile of railroad ties and poles,*

which may have been treated with coal tar creosote and/or chromated copper arsenate (CCA) for preservation, were disposed on the surface in the north section of the site."

Arcadis was hired to design and implement one of the various plans the NYSDEC produced for the remediation of the Site.

A Remedial Investigation / Alternatives Analysis Work Plan (RI) was performed by C.T. Male Associates, P.C. (July 2006) to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the Record of Decision (ROD) dated March 2008. In April 2009, a supplemental soil investigation was performed in addition to the RI. The site was remediated in accordance with the NYSDEC-approved ROD and the Final Engineering Report. Remediation of sediments on the Former Hettling Farm site was completed in 2019. The remedial action also includes continued environmental monitoring.

A Site Management Plan (SMP), dated January 2019, was developed to provide a detailed description of all procedures required to manage remaining contamination at the site after completion of the Remedial Action.

1.2 Remedy Evaluation and Recommendations Summary

In summary, this PRR is intended to evaluate the ongoing management of the selected remedial program for the site as outlined in the Site Management Plan (SMP) dated January 2019. Based on information reviewed as part of this PRR, implementation of investigation and maintenance activities is required in order to ensure that the remedy is performing properly and effectively and is protective of public health and the environment.

In order to maintain compliance with the requirements presented in the SMP, a summary of recommended investigation and maintenance activities is provided below.

- Continue groundwater sampling on an annual basis in order to evaluate trends in groundwater criteria.
- Sample surface/sediment locations if discharge is present in these locations and actively flowing to evaluate trends.
- Continue annual routine site inspection and maintenance of the landfill.
- Repair deficiencies noted in routine site inspections.

II. Site Overview

This PRR has been prepared for the Former Hettling Farm site, located in the Town of Clermont, Columbia County, New York. This PRR covers the period of January 2022 through September 2023. The NYSDEC has assigned the Site the ID No. E411015. This site is currently not on the NYSDEC's registry of inactive hazardous waste sites. The Site is a Class C site. A Class C site is a site that has been determined that the remediation has been satisfactorily completed under a remedial program but requires continued operation and maintenance.

2.1 Objectives of the Periodic Review

The periodic review process is used for determining if a remedy continues to be properly managed as set forth in the guidance documents for the Site and is protective of human health and the environment. The objectives of the periodic review for sites in the State Superfund Program are as follows:

- Determine if the remedy remains in place, is performing properly and effectively, and is protective of public health and the environment;
- Evaluate compliance with the decision document(s) and the SMP; Evaluate the condition of the remedy;
- Verify, if appropriate, that the intent of Institutional Controls (IC) continues to be met, and that Engineering Controls (EC) remain in place, are effective and protective of public health and the environment;
- Evaluate the implemented remedies' effectiveness towards moving the Site to closure.

2.2 Remedial History

The Former Hettling Park site is an approximately 20.5-acre former orchard/farming. Based upon the soil investigation, the main farming areas were identified at the site to have soil contamination and agricultural waste. Numerous types of testing were completed during the soil investigation; Surface soil, subsurface soil, groundwater, surface water, sediments, and soil vapor. Surface soil and subsurface soil investigations both produced areas of concern outlined within the SI report and echoed with in the ROD. Arsenic was found in the surface soils at a level that

exceeded the Part 375 of the Protection for Public Health – Restricted Use Commercial criteria. Like surface soils, the subsurface soils were sampled via test pits in the locations where anomalies were detected in the electromagnetic survey and analyzed against the Part 375, SCO for arsenic (16 ppm). Groundwater, surface water, sediments and soil vapor were all found to have no significant site-related contamination at levels of concern of the SCO so no remedial alternatives were needed for these scenarios.

A RI was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the ROD dated March 2008. The site was remediated in accordance with the NYSDEC-approved ROD and the Final Closure Plan. A Part 360 cap was installed at the site. The potential for soil vapor intrusion was evaluated by the NYSDOH and the NYSDEC, and no further actions were deemed necessary. The remedial action also includes continued environmental monitoring (annual groundwater and stormwater sampling).

A SMP, dated January 2019, was developed to provide a detailed description of all procedures required to manage remaining contamination at the site after completion of the Remedial Action.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness

The SMP describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the site, the soil cover system, and all affected site media. Groundwater samples were collected on June 23rd, 2024 for each of the monitoring wells on site. The monitoring described herein consisted of the sampling and analysis on monitoring wells MW-1, MW-2, MW-4, MW-5, and MW-7A with a stormwater sample SW-1.

During the implementation of the Corrective Actions Plan as part of the 2020 PRR it was determined by this office and the NYSDEC via their representative TRC Companies that MW-3 and MW-6 were not present and as such will be removed from future sampling. MW-7 was found to have a blockage during the same window of sampling, as part of the Corrective Action Plan this well was to be decommissioned and a new well to be installed (March 3rd, 2023) and sampled in its place. At this time, all measures set forth as part of the Corrective Action Plan have been implemented and operating as intended.

In 2019, the SMP and accompanying Environmental Easement was implemented. As a result, the site requires annual monitoring for the first five years after the installation of the cap (2020-2025). The current monitoring program for the site is summarized in the Table 1 below.

Table 1:Sampling Requirements

Task	Frequency	Matrix	Reporting
Groundwater Monitoring	Annually for the First Five Years	Groundwater	Field Parameters TAL Metals 1,4-Dioxane PFAs
Stormwater Monitoring	Annually for the First Five Years	Stormwater	Field Parameters TAL Metals 1,4-Dioxane PFAs
Cover System	Inspection during each groundwater monitoring event	Soil, Asphalt, and Gravel cover	Visual Inspection

IV. IC/EC Plan Compliance Report

A series of institutional controls (IC) and engineering controls (EC) at the Site currently consist of an environmental monitoring to ensure effectiveness of the remedy.

The following table (Table 2) is a comparison of the IC and EC identified in the SMP and the actual site conditions:

Table 2: Comparison of IC's and EC's

DER-10	Remedial Actions	Actual Site Conditions
Source Removal	Contaminated railroad ties and poles as well as contaminated surface soil / subsurface soil to covered or removed from site	Contaminated railroad ties and poles disposed of off site at an approved location.
Containment/ Isolation	Installation of a final cover	Engineered cover system installed included soil cover (Type II), stone cover (Type III), and asphalt cover (Type IV)
Long Term Monitoring	Long term monitoring of groundwater	Long term monitoring of groundwater performed on an annual basis
Long Term Monitoring	Long term monitoring of stormwater	Sampled Annually if there is standing water present in drainage ditch

4.1 IC/EC Requirements and Compliance

Determination of compliance with the IC/EC at the Site is made based on the following criteria:

- The EC(s) applied at the site are in place and previous deficiencies have been rectified.

- Nothing has occurred that would impair the ability of such controls to protect the public health and the environment, or constitute a violation or failure to comply with any element of the SMP for such controls,
- Access to the Site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of such controls.

Currently, certification that the site IC and EC's are in compliance with the requirements stated above.

4.2 IC/EC Certification

See Appendix A.

V. Monitoring Plan Compliance Report

The current Monitoring Plan was prepared by Arcadis CE, Inc. dated January 2019. A copy of the plan is included within the SMP. This PRR assesses whether the site has been managed as set forth in Monitoring Plan.

5.1 Components of the Monitoring Plan

The monitoring plan consists of the following:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems;
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual Inspection and documentation of Site conditions.

The groundwater monitoring was performed June 23rd, 2024 for the third set of sampling since the cover was installed. The groundwater samples will continue to be monitored for the next 2 years, after which the Town and the NYSDEC will come up with the future monitoring requirements. The groundwater monitoring consisted of sampling and analysis of five monitoring wells MW-1, MW-2, MW-4, MW-5 and MW-7A along with surface water samples SW-1 & SW-2. See Figure 1 for location of all sample locations. As previously stated above, monitoring wells MW-3 & MW-6 have been abandoned in place and MW-7 was decommissioned and replaced. During the sampling it was found that MW-2 and MW-7a were both dry as well as SW-1 & SW-2. So due to that fact no results were provided for those wells. In 2019, the SMP and accompanying Environmental Easement was implemented.

5.2 Summary of Monitoring Completed During Reporting Period

The monitoring completed during the reporting period of January 2024 through December 2024 consisted of the following:

Table 3: Monitoring Summary

Activity	Compliance Date(s)
Groundwater and Stormwater Quality Monitoring	June 2024

5.3 Comparisons with Remedial Objectives

The sections below discuss the results of the groundwater and stormwater sampling conducted in accordance with the guidance documents. A summary of results is provided for each parameter tested.

5.3.1 Summary of Sampling Results

Groundwater samples were attempted to be collected from the five (5) monitoring wells and stormwater samples were attempted to be collected at the two (2) designated stormwater sample locations. Due to site conditions described above only three (3) monitoring wells and one (1) stormwater sample were collected. A summary of the results can be found in Appendix B.

The samples were collected, analyzed and the results were compared with the Water Quality Regulations for groundwater as promulgated by NYCRR 6 Part 703.5 (f). The laboratory test results define the following: sample collection dates, field observations, analytical test results and monitoring well alphanumeric designation.

The New York State Department of Environmental Conservation, Division of Water T.O.G.S.-1.1.1, Ambient Water Quality Standards and Guidance Values and 6 NYCRR Part 703 define the quality criteria for the sampled waters. The monitoring well samples were compared to the "GA" classification criteria.

Below is the data summary table listing parameters that have exceeded the standard or guidance value in the current period. All sample results are presented in comparable units to the guidance values. Following the summary table is a brief discussion of the parameters that are monitored and further discussion for those parameters that exceeded the guidance values/standards.

Parameter[1]	Maximum Allowable Concentration (Laboratory Reporting Limit)[3] (ug/L)	MW-1 (d)	MW-2* (d)	MW-4 (d)	MW-5 (u)	MW-5 DUP (u)	MW-7A (u)	SW-1	SW-1 DUP
Aluminum	2000.0 ug/L (100.0 ug/L)[3]	ND	OBSERVATION ONLY (Poor Recovery)	993	69.6	46.2	DRY (NO DATA)	DRY (NO DATA)	DRY (NO DATA)
Antimony	6.0 ug/L (60.0 ug/L)[3]	**13.5**	-	**14.7**	**14.3**	**20.9**	-	-	-
Arsenic	50.0 ug/L (5.0 ug/L)[3]	ND	-	ND	ND	ND	-	-	-
Barium	2000.0 ug/L (10.0 ug/L)[3]	16.1	-	59.2	49.8	48.7	-	-	-
Beryllium	3.0 ug/L (5.0 ug/L)[3]	ND	-	0.31	ND	ND	-	-	-
Cadmium	10.0 ug/L (5.0 ug/L)[3]	1.42	-	1.34	1.44	1.39	-	-	-
Calcium[2]	(50 ug/L)[3]	11700	-	10700	17300	17200	-	-	-
Chromium	100.0 ug/L (5.0 ug/L)[3]	ND	-	ND	ND	ND	-	-	-
Cobalt	5.0 ug/L (50.0 ug/L)[3]	ND	-	0.50	ND	ND	-	-	-
Copper	200.0 ug/L (5.0 ug/L)[3]	ND	-	4.13	ND	ND	-	-	-
Iron	300.0 ug/L (50.0 ug/L)[3]	24.5	-	**3830**	257	56.4	-	-	-
Lead	50.0 ug/L (5.0 ug/L)[3]	2.20	-	13.4	3.07	2.20	-	-	-
Magnesium	35000.0 ug/L (50.0 ug/L)[3]	3020	-	3330	4330	4350	-	-	-
Manganese	300.0 ug/L (20.0 ug/L)[3]	ND	-	103	21.8	13.4	-	-	-
Mercury	1.4 ug/L (0.2 ug/L)[3]	ND	-	ND	ND	ND	-	-	-
Nickel	200.0 ug/L (20.0 ug/L)[3]	ND	-	4.60	2.40	ND	-	-	-
Potassium[2]	(50 ug/L)[3]	3020	-	512	522	518	-	-	-
Selenium	20.0 ug/L (5.0 ug/L)[3]	ND	-	ND	ND	ND	-	-	-
Silver	100.0 ug/L (10.0 ug/L)[3]	ND	-	ND	ND	ND	-	-	-
Sodium	20000 ug/L (500 ug/L)[3]	**59800**	-	5230	3460	3230	-	-	-
Thallium	0.5 ug/L (10.0 ug/L)[3]	ND	-	ND	ND	ND	-	-	-

Vanadium[2]	(20 ug/L)[3]	ND	-	ND	ND	ND	-	-	-
Zinc	5000.0 ug/L (10.0 ug/L)[3]	ND	-	12.6	ND	ND	ND	ND	ND
1-4 Dioxane[3] [4]	0.35 ug/L[4] (0.35 ug/L)[3]	ND	-	ND	ND	ND	ND	ND	ND

Table 4: TAL Metals & 1-4 Dioxane Laboratory Result

Sampling Date: June 24h, 2024

Notes:

(u) = Upgradient Monitoring Well

(d) = Downgradient Monitoring Well

* = Wells produced no data during sampling.

[1]Standard or Guidance Value (GV) per NYS DEC Division of Water, T.O.G.S. – 1.1.1 and 6 NYCRR §703

[2]Standard or Guidance Value (GA) per NYS DEC Division of Water, T.O.G.S. – 1.1.1 and 6 NYCRR §703 not provided

[3]Reporting Limit used during lab analysis by ALS Environmental using Method 8270D SIM and Adirondack Environmental using method EPA 245.1 Rev 3.0 for Mercury and EPA 200.7 for Metals

\- = Either non-detect or not exceeded or no sample taken this period

[4]NYSDEC Guidance Value for 1-4 dioxane = 0.35 ug/L per 2023 addendum to June 1998 Division of Water Technical and Operational Guidance Series (TOGS) NO. 1.1.1

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Parameter	NYSDEC Part 375 Maximum Detection Level**	Laboratory Reporting Limit (MRL)	MW-1 (d)	MW-4 (d)	MW-5 (u)	MW-5 Dup (u)	MW-7A (u)	SW-1 (u)	SW-1 Dup (u)
	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Perfluorobutanesulfonic acid (PFBS)	100.00	0.434	5.35	0.636	ND	ND	--	--	--
Perfluorohexanoic acid (PFHxA)	100.00	0.323	6.94	0.606	ND	ND	--	--	--
Perfluoroheptanoic acid (PFHpA)	100.00	0.656	1.93	ND	ND	ND	--	--	--
Perfluorohexanesulfonic acid (PFHxS)	100.00	0.628	0.892	ND	ND	ND	--	--	--
Perfluorooctanoic acid (PFOA)	2.7	0.388	**6.15**	0.417	ND	ND	--	--	--
Perfluorooctanesulfonic acid (PFOS)	6.7	0.758	ND	ND	ND	ND	--	--	--
Perfluorononanoic acid (PFNA)	100.00	0.480	ND	ND	ND	ND	--	--	--
Perfluorodecanoic acid (PFDA)	100.00	0.693	ND	ND	ND	ND	--	--	--
PerFluoroUndecanoic Acid (PFUnA)	100.00	1.04	ND	ND	ND	ND	--	--	--
Perfluorododecanoic acid (PFDoA)	100.00	0.813	ND	ND	ND	ND	--	--	--
Perfluorotridecanoic acid (PFTrDA)	100.00	0.684	ND	ND	ND	ND	--	--	--
Perfluorotetradecanoic acid (PFTA)	100.00	0.637	ND	ND	ND	ND	--	--	--

N-Methyl perFluoroOctaneSulfonAmidoacetic Acid (NMeFOSAA)	100.00	0.730	ND	ND	ND	ND	--	--	--
N-Ethyl perFluoroOctaneSulfonamidoAcetic Acid (NEtFOSAA)	100.00	0.952	ND	ND	ND	ND	--	--	--
Perfluoropentanoic acid (PFPeA)	100.00	0.212	5.66	0.651	ND	ND	--	--	--
Perfluorooctane Sulfonamide (FOSA)	100.00	0.813	ND	ND	ND	ND	--	--	--
Sodium Perfluoro -1-heptanesulfonate (PFHpS)	100.00	0.841	ND	ND	ND	ND	--	--	--
Perfluorodecanesulfonic acid (PFDS)	100.00	1.22	ND	ND	ND	ND	--	--	--
Sodium H1, H1, H2,H2-Perfluoro -1-octanesulfonate (6:2FTS)	100.00	0.979	ND	2.45	5.74	5.65	--	--	--
Sodium H1, H1, H2,H2-Perfluoro -1-decanesulfonate (8:2FTS)	100.00	1.89	ND	ND	ND	ND	--	--	--
Perfluorobutanoic acid (PFBA)	100.00	0.305	2.50	2.14	ND	ND	--	--	--
MPFOA (ng/mL)	100.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Concentration of PFAs	500.00		29.42	6.90	5.74	5.65	0.00	0.00	0.00

Table 5:PFA's Laboratory Results

Notes: *Emerging Containments were tested in accordance with method SPE Ext-PFAS-EPA 537m
**Contamination Limits are described within the NYSDEC's Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAs

5.3.2 Discussion of Sampling Results

Aluminum:

The standard of 2,000 µg/L was not exceeded in any wells. MW-4 and MW-5 showed concentrations of 993 µg/L and 69.6 µg/L, respectively, indicating aluminum is naturally occurring in the soil media, with possible minor contribution from the soil cap. Continued sampling will help identify trends.

Antimony:

The standard of 6.0 µg/L was exceeded in MW-1 (13.5 µg/L), MW-4 (14.7 µg/L), and MW-5 (14.3 µg/L). Higher concentrations in upgradient wells suggest antimony is naturally occurring in the soil media.

Arsenic:

The standard for Arsenic at a concentration of 50.0 ug/L was not exceeded by any wells for this report period. No concentration was detected in any sample.

Barium:

The standard for Barium at a concentration of 2000.0 ug/L was not exceeded by any wells. The levels indicated above represent naturally occurring Barium throughout the soil media.

Beryllium:

The standard of 3.0 µg/L was not exceeded. MW-4 detected 0.31 µg/L, suggesting naturally occurring beryllium. Future sampling will confirm any influence from the soil cap.

Cadmium:

The standard for cadmium at a concentration of 10.0 ug/L was not exceeded by any wells. All concentrations detected are generally consistent between upgradient and downgradient wells, indicating that the metal is a naturally occurring metal in the native soil media.

Calcium:

There is no standard for calcium, levels will continue to be monitored. Concentrations across the wells (downgradient & upgradient) show

consistent levels of calcium. Indicating it is a naturally occurring metal in the soil media.

Chromium:

The standard for chromium at a concentration of 100.0 ug/L was not exceeded by any wells. No concentration was detected in any sample.

Cobalt:

The standard of 5.0 µg/L was not exceeded. MW-4 showed a minor concentration, likely naturally occurring. Future sampling will confirm any soil cap influence.

Copper:

The standard for copper at a concentration of 200.0 ug/L was not exceeded by any wells. A minor concentration was present in the downgradient well MW-4 indicating that it is a naturally occurring metal in the soil media. Additional sampling in the future will better address if the soil cap and landfill have any effect on the groundwater concentration.

Iron:

The standard for iron at a concentration of 300.0 ug/L was exceeded by downgradient well MW-4. Results will be closely observed in future monitoring events to establish any long-term trends. There were other minor concentration levels found in both upgradient and downgradient wells, indicating that there is a naturally occurring amount of iron within the native soil media. The concentration at MW-4 is much higher than the allowable concentration and will be watched closely in future sampling events.

Lead:

The standard for lead at a concentration of 50.0 ug/L was not exceeded by any wells. Lead is present in both upgradient and downgradient wells indicating that it is a naturally occurring metal in the soil media.

Magnesium:

The standard for magnesium at a concentration of 35000.0 ug/L was not exceeded by any wells. Magnesium levels are present

throughout the wells, levels are consistent between the wells indicating that the metal is naturally occurring in the soil media.

Manganese:

The standard for manganese at a concentration of 300.0 ug/L was not by any monitoring well. Concentrations occurred in both downgradient & upgradient wells (MW-4 & MW-5). The concentrations in both wells were relatively consistent indicating that manganese is a naturally occurring metal in the native soil media. Results will be closely observed in future monitoring events to establish any long-term trends.

Mercury:

The standard for mercury at a concentration of 1.4 ug/L was not exceeded by any wells. No concentration was detected in any sample.

Nickel:

The standard for nickel at a concentration of 200.0 ug/L was not exceeded by any wells. The low concentrations in both upgradient and downgradient wells indicate a certain level of the metal is present in the native soil media.

Potassium:

There is no standard for Potassium, levels will continue to be monitored. Levels of potassium concentrations are consistent with the previous years of data as well as concentrations across the wells tested in this window. It can be assumed that certain levels of potassium are naturally occurring in the native soil media.

Selenium:

The standard for selenium at a concentration of 20.0 ug/L was not exceeded by any wells.

Silver:

The standard for silver at a concentration of 100.0 ug/L was not exceeded by any wells. No concentration was detected in any sample.

Sodium:

The sodium standard of 20000.0 ug/L was exceeded at one downgradient monitoring well, MW-1 with a reported result of 59,800.0 ug/L. Results will be closely observed in future monitoring events to establish any long-term trends. MW-1 is located near US Rt 9, due to its proximity to the main road and the use of road salt during the winter months it can assumed that the groundwater table is affected by the use of road salt and not the upgradient engineered soil cap. The upgradient wells showing low concentrations of sodium indicate that it is a naturally occurring metal in the soil media and that road salt being used along the state road is impacting the groundwater table in the areas adjacent to the roadway.

Thallium:

The thallium standard of 0.5 ug/L was not exceeded in any wells. No concentration was detected in any sample.

Vanadium:

There is no standard for vanadium, levels will continue to be monitored. No concentration was detected in any sample.

Zinc:

The standard for zinc at a concentration of 5000.0 ug/L was not exceeded by any wells. One minor concentration was detected at MW-4. Additional sampling in the future will better address if the soil cap and landfill have any effect on the groundwater concentration.

1,4-Dioxane:

The NYSDEC guidance value for 1,4-Dioxane is 0.35 ug/L, however the lab was examining the samples with a reporting limit of 0.04 ug/L. All samples registered as Non detects (ND). Results for 1,4-Dioxane will be closely monitored during future observation events to establish any long-term trend due to past detections.

Perfluorinated Alkyl Acids (PFAs):

The NYSDEC Division of Environmental Remediation (DER) issued guidance in January 2021, amended in 2023, for sampling, analysis, and assessment of PFAs. According to this guidance, the maximum allowable concentrations for PFOA and PFOS in any water sample (groundwater or stormwater) are 2.7 ng/L and 6.7 ng/L, respectively.

Monitoring well MW-1 showed positive detections for several PFAs, including PFOA at **6.15 ng/L**, which exceeds the maximum limit. Other PFAs detected in MW-1 include PFBS (5.35 ng/L), PFHxA (6.94 ng/L), PFHpA (1.93 ng/L), PFHxS (0.892 ng/L), PFPeA (5.66 ng/L), and PFBA (2.5 ng/L), all below their respective limits. MW-1 is downgradient of the installed soil cap, and given that upgradient wells MW-4 and MW-5 had minor or no detections, it is reasonable to assume some contribution from the soil cap.

MW-4 had low concentrations of PFBS (0.636 ng/L), PFHxA (0.606 ng/L), PFOA (0.417 ng/L), PFPeA (0.651 ng/L), PFBA (2.14 ng/L), and 6:2 FTS (2.45 ng/L). MW-5 showed only 6:2 FTS at 5.74 ng/L. All these concentrations are below the maximum limits, suggesting naturally occurring PFAs in the soil media. However, the elevated PFOA concentration in MW-1 compared to other wells warrants continued monitoring to identify any trends indicating contamination from the soil cap.

PFOS detections remain below the 6.7 ng/L limit but should also be monitored for potential future contamination. Given the growing concern over PFAs, ongoing monitoring will be essential to establish long-term trends.

5.4 Annual Cap Inspection and Site Conditions

A site inspection of the cap was performed on December 16th, 2024. The inspection report can be found in Appendix C. The integrity of the installed cap is in good condition with no obvious intrusions or noticeable coloring on the top of the cap. The drainage ditch had no discoloration or sheen. There was no dead grass or soil erosion within the cap area. The gravel/asphalt portion of the cap is in good condition. No cracks or sink holes are present, no discoloration or evidence of spills and no evidence of

disturbance to area. Pictures from the inspection are included within Appendix C.

5.5 Conclusions and Recommendations for Changes

With only three years of sample data, the sample size is not large enough to determine statistical trends for the functionality of the installed cap. However, there were some metals that showed minor concentrations. The metals that were potentially a concern were Antimony, Iron and Sodium. All of which had results over their maximum allowable concentration. MW-1 may have an abundance of Sodium as it is located adjacent to the state road. Road salt usage could have an impact on the groundwater in that specific area as levels of sodium in MW-4 & MW-5 are substantially less. The existence of these metals in both downgradient and upgradient wells indicates that there may be naturally occurring metals in the native soils and not coming directly from the cap. Analytes will continue to be analyzed to monitor the concentrations within the site to determine if the engineered soil cap is working properly.

VI. Overall PRR Conclusions and Recommendations

The following sections summarize the overall compliance with the SMP, performance and effectiveness of the remedy based on media sampling results and future submission of the PRR.

6.1 Compliance with SMP

The SMP Compliance Schedule for July 2022 – July 2024 has been met for the requirements described in the SMP. Due to various items that delayed previous sampling windows the extended timeline of two years was necessary. The 2024 samples were collected at the end of June 2024, which were within the window. The groundwater monitoring and inspections performed to date have followed the SMP and the current long-term monitoring program. The SMP will be followed into the future.

In accordance with the SMP, the NYSDEC will be notified of any impacts to the cover system or other issues discovered during the monitoring and inspections that may limit the effectiveness of the engineering controls within seven days of discovery.

A copy of the Site Management Periodic Review Report Notice and Institutional and Engineering Controls Certification Form is included in Appendix A.

6.2 Performance and Effectiveness of the Remedy

The completed final capping system is expected to significantly eliminate stormwater and precipitation infiltration into the waste mass thereby reducing impacts to local groundwater quality as the waste mass desiccates. Most of the exceedances of groundwater standards or guidance values at down gradient monitoring wells and sampling points can be attributed, in part, to either naturally occurring background concentrations. Monitoring data indicates that the former hettling farm site is not contributing to the elevated levels recorded in the monitoring wells. Future monitoring events will be studied to observe long-term trends in groundwater and stormwater quality.

6.3 Future Submittals

Future PRR's will be submitted to the Department annually. The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45-days of the end of each certification period. A summary of the sampling results will also be incorporated into the Periodic Review Report as well as submitted electronically via the Equis Software.

6.4 Groundwater Depth and Flow Direction

The groundwater flow direction presented in Figure 1 is based on historical data and previous reports prepared by CT Male and Arcadis. Figure 1 is provided to illustrate the layout and the locations where sampling activities were conducted.

FIGURES

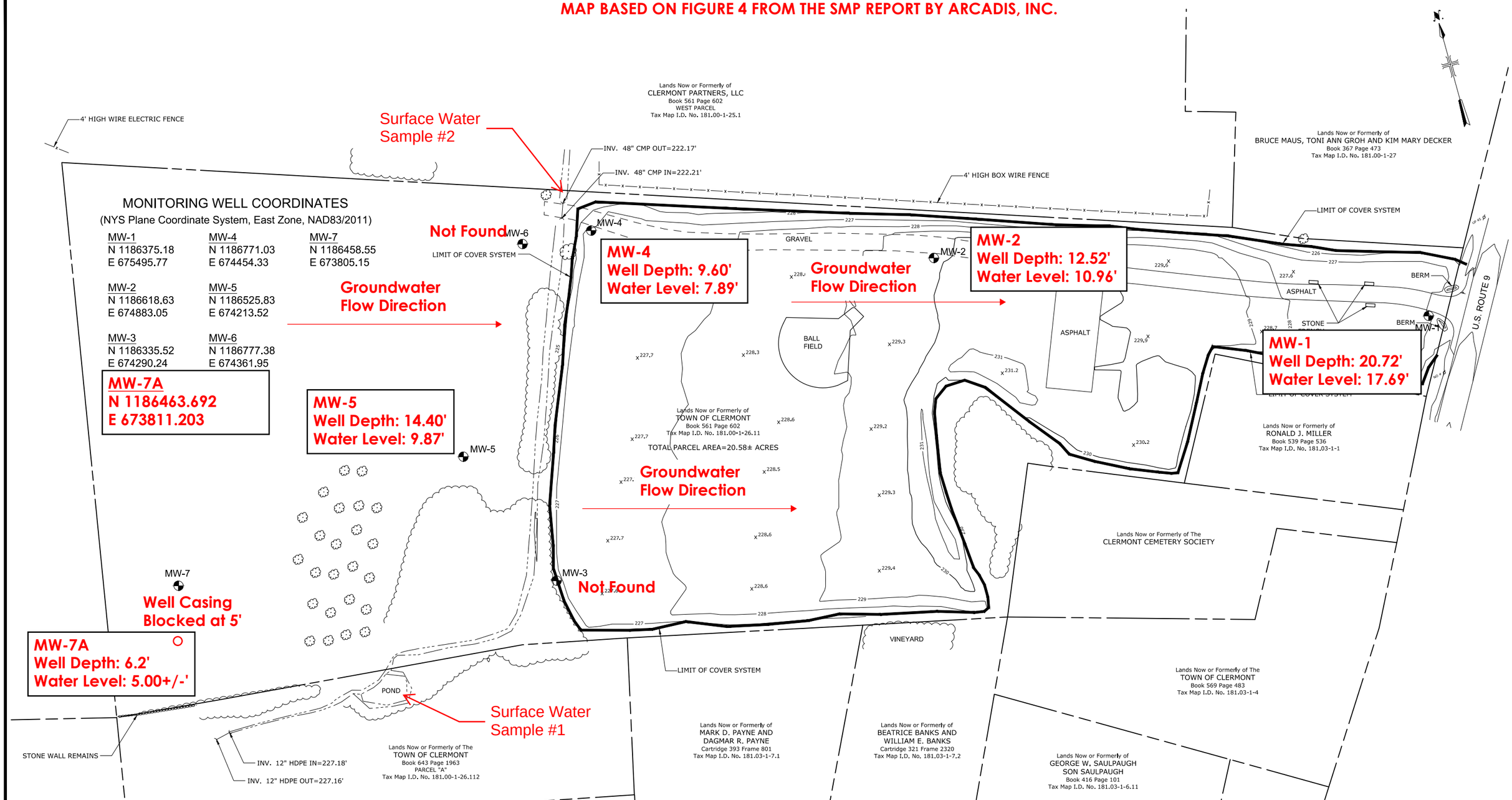
APPENDIX A

APPENDIX B

APPENDIX C

FIGURES

MAP BASED ON FIGURE 4 FROM THE SMP REPORT BY ARCADIS, INC.



	FORMER HETTLING FARM SITE NYSDEC SITE NO. E411015 TOWN OF CLERMONT, COLUMBIA COUNTY, NEW YORK	**MONITORING WELLS LOCATION & DEPTH**	**April 2021** **Figure 1**

APPENDIX A

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Site Management Periodic Review Report Notice

Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **E411015**

Site Name Former Hettling Property

Site Address: 1795 Route 9 Zip Code: 12526
City/Town: Clermont
County: Columbia
Site Acreage: 20.570

Reporting Period: July 01, 2022 to July 01, 2024

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

3/14/25
Date

SITE NO. E411015

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
181-1-26.11	Williams Banks, Town of Clermont	Landuse Restriction Site Management Plan Soil Management Plan Monitoring Plan

Environmental easement which limits the use and development of property to restricted-residential use and requires compliance with approved SMP. SMP will require: (a) management and monitoring of final cover system; (b) compliance with soil excavation plan; (c) monitoring of groundwater and required water quality testing in accordance with local and county requirements for any use of groundwater as a potable water source; (d) identification of any use restrictions on-site; (e)provisions for maintenance of remedy components. A periodic certification of the IC/ECs will be required by property owner.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
181-1-26.11	Cover System Monitoring Wells

A cover system to allow restricted-residential use of the site.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Raymond Hinkle — Signature of Owner, Remedial Party or Designated Representative

3/14/25 — Date

IC CERTIFICATIONS
SITE NO. E411015

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Andrew Learn, PE (print name) at CPL 26 IBM Road, Poughkeepsie NY 12601 (print business address),

am certifying as Designated Representative of the Town of Clermont (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

___ _____ 3/17/2025

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification — Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Andrew Learn, PE (print name) at CPL 26 IBM Road, Poughkeepsie NY 12601 (print business address),

am certifying as a Qualified Environmental Professional for the Town of Clermont (Owner or Remedial Party)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		3/17/2025



Registration Expiration Date: 06/30/2027
Certificate of Authorization: #018330

APPENDIX B

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Summary Information

Table 1
Most Recent Groundwater Exceedences

Parameter	Limit[1]	Well Location							
		Downgradient				Upgradient			
		MW-1	MW-2	MW-3*	MW-4	MW-5	MW-6*	MW-7**	MW-7A
Antimony (2024)	6 ug/L	**13.5**	**POOR**	**ABANDON**	**14.7**	**14.3**	**ABANDON**	**ABANDON**	**DRY**
Iron (2023)	300 ug/L	**ND**	**POOR**	**ABANDON**	**31.3**	**60.8**	**ABANDON**	**ABANDON**	**1140**
Iron (2024)	300 ug/L	**24.5**	**POOR**	**ABANDON**	**3830**	**257**	**ABANDON**	**ABANDON**	**DRY**
Manganese (2023)	600 ug/L	**ND**	**POOR**	**ABANDON**	**10.5**	**14**	**ABANDON**	**ABANDON**	**747**
Sodium (2020)	20000 ug/L	**70500**	**DRY**	**MISSING**	**DRY**	**3050**	**MISSING**	**OBSTRUC**	
Sodium (2023)	20000 ug/L	**43700**	**POOR**	**ABANDON**	**3030**	**2310**	**ABANDON**	**ABANDON**	**2620**
Sodium (2024)	20000 ug/L	**59800**	**POOR**	**ABANDON**	**5230**	**3460**	**ABANDON**	**ABANDON**	**DRY**
Thallium (2020)	0.5 ug/L	**0.22**	**DRY**	**MISSING**	**DRY**	**1.6**	**MISSING**	**OBSTRUC**	
Thallium (2023)	0.5 ug/L	**ND**	**POOR**	**ABANDON**	**3.37**	**ND**	**ABANDON**	**ABANDON**	**3.57**
PFOA (2020)	2.7 ng/L	**16.7**	**DRY**	**MISSING**	**DRY**	**ND**	**MISSING**	**OBSTRUC**	
PFOA (2023)	2.7 ng/L	**7.54**	**POOR**	**ABANDON**	**ND**	**ND**	**ABANDON**	**ABANDON**	**ND**
PFOA (2024)	2.7 ng/L	**6.15**	**POOR**	**ABANDON**	**0.417**	**ND**	**ABANDON**	**ABANDON**	**DRY**

[1]Limit is either a Standard or a Guidance Value per NYSDEC T.O.G.S. 1.1.1.
ND - Not detected

Well Depth Information:

	Well Location							
	MW-1	MW-2	MW-3*	MW-4	MW-5	MW-6*	MW-7**	MW-7A
Depth (feet)	17.7'	10.9'	-	7.9'	9.9	-	-	6.2'

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Aluminum (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC	
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	
Jun-24	ND		POOR		ABANDON		993		69.6		ABANDON		ABANDON	

	Summary Statistics													
Count	0		0		0		1		1		0		0	
Minimum	N/A		N/A		N/A		993		69.6		N/A		N/A	
Maximum	N/A		N/A		N/A		993		69.6		N/A		N/A	
Median	N/A		N/A		N/A		993		69.6		N/A		N/A	
Mean	N/A		N/A		N/A		993		69.6		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		0		0		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		993		69.6		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		993		69.6		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Antimony (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC	
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	
Jun-24	13.5	J	POOR		ABANDON		14.7		14.3		ABANDON		ABANDON	

Summary Statistics														
Count	1		0		0		1		1		0		0	
Minimum	13.5		N/A		N/A		14.7		14.3		N/A		N/A	
Maximum	13.5		N/A		N/A		14.7		14.3		N/A		N/A	
Median	13.5		N/A		N/A		14.7		14.3		N/A		N/A	
Mean	13.5		N/A		N/A		14.7		14.3		N/A		N/A	
Standard Deviation	0		N/A		N/A		0		0		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	13.5		N/A		N/A		14.7		14.3		N/A		N/A	
90^{th} Percentile	13.5		N/A		N/A		14.7		14.3		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Arsenic (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC	
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	

Summary Statistics														
Count	0		0		0		0		0		0		0	
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Barium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	27.2		DRY		MISSING		DRY		58.8		MISSING		OBSTRUC	
Aug-23	24.7		POOR		ABANDON		19.9		54.4		ABANDON		ABANDON	
Jun-24	16.1		POOR		ABANDON		59.2		49.8		ABANDON		ABANDON	

Summary Statistics														
Count	3		0		0		2		3		0		0	
Minimum	16.1		N/A		N/A		19.9		49.8		N/A		N/A	
Maximum	27.2		N/A		N/A		59.2		58.8		N/A		N/A	
Median	24.7		N/A		N/A		39.55		54.4		N/A		N/A	
Mean	22.7		N/A		N/A		39.6		54.3		N/A		N/A	
Standard Deviation	5.82		N/A		N/A		27.79		4.50		N/A		N/A	
90% C.I.	0.42		N/A		N/A		2.47		0.33		N/A		N/A	
10^{th} Percentile	17.82		N/A		N/A		23.83		50.72		N/A		N/A	
90^{th} Percentile	26.7		N/A		N/A		55.27		57.92		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Beryllium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC	
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	
Jun-24	ND		POOR		ABANDON		0.31		ND		ABANDON		ABANDON	

Summary Statistics														
Count	0		0		0		1		0		0		0	
Minimum	N/A		N/A		N/A		0.31		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		0.31		N/A		N/A		N/A	
Median	N/A		N/A		N/A		0.31		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		0.3		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		0		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		0.31		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		0.31		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Boron (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	81.9		DRY		MISSING		DRY		20.1	J	MISSING		OBSTRUC	

	Summary Statistics													
Count	1		0		0		0		1		0		0	
Minimum	81.9		N/A		N/A		N/A		20.1		N/A		N/A	
Maximum	81.9		N/A		N/A		N/A		20.1		N/A		N/A	
Median	81.9		N/A		N/A		N/A		20.1		N/A		N/A	
Mean	81.9		N/A		N/A		N/A		20.1		N/A		N/A	
Standard Deviation	0		N/A		N/A		N/A		0		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	81.9		N/A		N/A		N/A		20.1		N/A		N/A	
90^{th} Percentile	81.9		N/A		N/A		N/A		20.1		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Cadmium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC	
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	
Jun-24	1.42	J	POOR		ABANDON		1.34		1.44		ABANDON		ABANDON	

Summary Statistics														
Count	1		0		0		1		1		0		0	
Minimum	1.42		N/A		N/A		1.34		1.44		N/A		N/A	
Maximum	1.42		N/A		N/A		1.34		1.44		N/A		N/A	
Median	1.42		N/A		N/A		1.34		1.44		N/A		N/A	
Mean	1.4		N/A		N/A		1.3		1.4		N/A		N/A	
Standard Deviation	0		N/A		N/A		0		0		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	1.42		N/A		N/A		1.34		1.44		N/A		N/A	
90^{th} Percentile	1.42		N/A		N/A		1.34		1.44		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Calcium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	19300		DRY		MISSING		DRY		21600		MISSING		OBSTRUC	
Aug-23	16100		POOR		ABANDON		7100		18400		ABANDON		ABANDON	
Jun-24	11700		POOR		ABANDON		10700		17300		ABANDON		ABANDON	

Summary Statistics														
Count	3		0		0		2		3		0		0	
Minimum	11700		N/A		N/A		7100		17300		N/A		N/A	
Maximum	19300		N/A		N/A		10700		21600		N/A		N/A	
Median	16100		N/A		N/A		8900		18400		N/A		N/A	
Mean	15700.0		N/A		N/A		8900.0		19100.0		N/A		N/A	
Standard Deviation	3815.76		N/A		N/A		2545.58		2233.83		N/A		N/A	
90% C.I.	276.84		N/A		N/A		226.19		162.07		N/A		N/A	
10^{th} Percentile	12580		N/A		N/A		7460		17520		N/A		N/A	
90^{th} Percentile	18660		N/A		N/A		10340		20960		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Chromium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC	
Aug-23	6.5		POOR		ABANDON		11.3		ND		ABANDON		ABANDON	
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	

Summary Statistics														
Count	1		0		0		1		0		0		0	
Minimum	6.5		N/A		N/A		11.3		N/A		N/A		N/A	
Maximum	6.5		N/A		N/A		11.3		N/A		N/A		N/A	
Median	6.5		N/A		N/A		11.3		N/A		N/A		N/A	
Mean	6.5		N/A		N/A		11.3		N/A		N/A		N/A	
Standard Deviation	0		N/A		N/A		0		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	6.5		N/A		N/A		11.3		N/A		N/A		N/A	
90^{th} Percentile	6.5		N/A		N/A		11.3		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Cobalt (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	0.25	J	DRY		MISSING		DRY		ND		MISSING		OBSTRUC	
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON	
Jun-24	ND		POOR		ABANDON		0.5		ND		ABANDON		ABANDON	

Summary Statistics														
Count	1		0		0		1		0		0		0	
Minimum	0.25		N/A		N/A		0.5		N/A		N/A		N/A	
Maximum	0.25		N/A		N/A		0.5		N/A		N/A		N/A	
Median	0.25		N/A		N/A		0.5		N/A		N/A		N/A	
Mean	0.3		N/A		N/A		0.5		N/A		N/A		N/A	
Standard Deviation	0		N/A		N/A		0		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	0.25		N/A		N/A		0.5		N/A		N/A		N/A	
90^{th} Percentile	0.25		N/A		N/A		0.5		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Copper (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	5.41		DRY		MISSING		DRY		2.82	J	MISSING		OBSTRUC	
Aug-23	3.16	J	POOR		ABANDON		8.31		4.54		ABANDON		ABANDON	
Jun-24	ND		POOR		ABANDON		4.13		ND		ABANDON		ABANDON	

Summary Statistics														
Count	2		0		0		2		2		0		0	
Minimum	3.16		N/A		N/A		4.13		2.82		N/A		N/A	
Maximum	5.41		N/A		N/A		8.31		4.54		N/A		N/A	
Median	4.285		N/A		N/A		6.22		3.68		N/A		N/A	
Mean	4.3		N/A		N/A		6.2		3.7		N/A		N/A	
Standard Deviation	0		N/A		N/A		0		0		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	3.385		N/A		N/A		4.548		2.992		N/A		N/A	
90^{th} Percentile	5.185		N/A		N/A		7.892		4.368		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Iron (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	102		DRY		MISSING		DRY		94.1		MISSING		OBSTRUC	
Aug-23	ND		POOR		ABANDON		31.3		60.8		ABANDON		ABANDON	
Jun-24	24.5	J	POOR		ABANDON		3830		257		ABANDON		ABANDON	

Summary Statistics														
Count	2		0		0		2		3		0		0	
Minimum	24.5		N/A		N/A		31.3		60.8		N/A		N/A	
Maximum	102		N/A		N/A		3830		257		N/A		N/A	
Median	63.25		N/A		N/A		1930.65		94.1		N/A		N/A	
Mean	63.3		N/A		N/A		1930.7		137.3		N/A		N/A	
Standard Deviation	54.80		N/A		N/A		2686.09		104.99		N/A		N/A	
90% C.I.	4.87		N/A		N/A		238.67		7.62		N/A		N/A	
10^{th} Percentile	32.25		N/A		N/A		411.17		67.46		N/A		N/A	
90^{th} Percentile	94.25		N/A		N/A		3450.13		224.42		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Lead (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		2.78		ND			
Jun-24	2.2	J	POOR		ABANDON		13.4		3.07		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	1		0		0		1		1		0		0		1		0			
Minimum	2.2		N/A		N/A		13.4		3.07		N/A		N/A		2.78		N/A			
Maximum	2.2		N/A		N/A		13.4		3.07		N/A		N/A		2.78		N/A			
Median	2.2		N/A		N/A		13.4		3.07		N/A		N/A		2.78		N/A			
Mean	2.2		N/A		N/A		13.4		3.1		N/A		N/A		2.8		N/A			
Standard Deviation	0		N/A		N/A		0		0		N/A		N/A		0		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	2.2		N/A		N/A		13.4		3.07		N/A		N/A		2.78		N/A			
90^{th} Percentile	2.2		N/A		N/A		13.4		3.07		N/A		N/A		2.78		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Magnesium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	4660		DRY		MISSING		DRY		5200		MISSING		OBSTRUC							
Aug-23	4000		POOR		ABANDON		2410		4290		ABANDON		ABANDON		7200		4510			
Jun-24	3020		POOR		ABANDON		3330		4330		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	3		0		0		2		3		0		0		1		1			
Minimum	3020		N/A		N/A		2410		4290		N/A		N/A		7200		4510			
Maximum	4660		N/A		N/A		3330		5200		N/A		N/A		7200		4510			
Median	4000		N/A		N/A		2870		4330		N/A		N/A		7200		4510			
Mean	3893.3		N/A		N/A		2870.0		4606.7		N/A		N/A		7200.0		4510.0			
Standard Deviation	825.19		N/A		N/A		650.54		514.23		N/A		N/A		0		0			
90% C.I.	59.87		N/A		N/A		57.80		37.31		N/A		N/A		N/A		N/A			
10^{th} Percentile	3216		N/A		N/A		2502		4298		N/A		N/A		7200		4510			
90^{th} Percentile	4528		N/A		N/A		3238		5026		N/A		N/A		7200		4510			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Manganese (ug/L)

Well ID	MW-1		M-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	8.21	J	DRY		MISSING		DRY		5.47	J	MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		10.5		14		ABANDON		ABANDON		747		561			
Jun-24	ND		POOR		ABANDON		103		21.8		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	1		0		0		2		3		0		0		1		1			
Minimum	8.21		N/A		N/A		10.5		5.47		N/A		N/A		747		561			
Maximum	8.21		N/A		N/A		103		21.8		N/A		N/A		747		561			
Median	8.21		N/A		N/A		56.75		14		N/A		N/A		747		561			
Mean	8.2		N/A		N/A		56.8		13.8		N/A		N/A		747.0		561.0			
Standard Deviation	0		N/A		N/A		65.41		8.17		N/A		N/A		0		0			
90% C.I.	N/A		N/A		N/A		5.81		0.59		N/A		N/A		N/A		N/A			
10^{th} Percentile	8.21		N/A		N/A		19.75		7.176		N/A		N/A		747		561			
90^{th} Percentile	8.21		N/A		N/A		93.75		20.24		N/A		N/A		747		561			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Mercury (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Aug-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Nickel (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	0.71	J	DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	0.71		POOR		ABANDON		ND		ND		ABANDON		ABANDON		3.31		ND			
Jun-24	ND		POOR		ABANDON		4.6		2.4		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	2		0		0		1		1		0		0		1		0			
Minimum	0.71		N/A		N/A		4.6		2.4		N/A		N/A		3.31		N/A			
Maximum	0.71		N/A		N/A		4.6		2.4		N/A		N/A		3.31		N/A			
Median	0.71		N/A		N/A		4.6		2.4		N/A		N/A		3.31		N/A			
Mean	0.7		N/A		N/A		4.6		2.4		N/A		N/A		3.3		N/A			
Standard Deviation	0		N/A		N/A		0		0		N/A		N/A		0		N/A			
90% C.I.	0		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10th Percentile	0.71		N/A		N/A		4.6		2.4		N/A		N/A		3.31		N/A			
90th Percentile	0.71		N/A		N/A		4.6		2.4		N/A		N/A		3.31		N/A			

Summary Statistics														
Count	11		1		1		9		9		1		1	
Minimum	0		0		0		0		0		0		0	
Maximum	2		0		0		4.6		2.4		0		0	
Median	0.71		0		0		4.6		2.4		0		0	
Mean	0.7		0.0		0.0		3.7		2.0		0.0		0.0	
Standard Deviation	0.52		#DIV/0!		#DIV/0!		1.83		0.87		#DIV/0!		#DIV/0!	
90% C.I.	0.02		#DIV/0!		#DIV/0!		0.08		0.04		#DIV/0!		#DIV/0!	
10th Percentile	0		0		0		0.8		0.8		0		0	
90th Percentile	0.71		0		0		4.6		2.4		0		0	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Potassium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	5180		DRY		MISSING		DRY		540		MISSING		OBSTRUC							
Aug-23	3750		POOR		ABANDON		172		395		ABANDON		ABANDON		829		954			
Jun-24	3020		POOR		ABANDON		512		522		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	3		0		0		2		3		0		0		1		1			
Minimum	3020		N/A		N/A		172		395		N/A		N/A		829		954			
Maximum	5180		N/A		N/A		512		540		N/A		N/A		829		954			
Median	3750		N/A		N/A		342		522		N/A		N/A		829		954			
Mean	3983.3		N/A		N/A		342.0		485.7		N/A		N/A		829.0		954.0			
Standard Deviation	1098.74		N/A		N/A		240.42		79.03		N/A		N/A		0		0			
90% C.I.	79.71		N/A		N/A		21.36		5.73		N/A		N/A		N/A		N/A			
10^{th} Percentile	3166		N/A		N/A		206		420.4		N/A		N/A		829		954			
90^{th} Percentile	4894		N/A		N/A		478		536.4		N/A		N/A		829		954			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Selenium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Silver (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Sodium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	70500		DRY		MISSING		DRY		3050		MISSING		OBSTRUC							
Aug-23	43700		POOR		ABANDON		3030		2310		ABANDON		ABANDON		2620		2730			
Jun-24	59800		POOR		ABANDON		5230		3460		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	3		0		0		2		3		0		0		1		1			
Minimum	43700		N/A		N/A		3030		2310		N/A		N/A		2620		2730			
Maximum	70500		N/A		N/A		5230		3460		N/A		N/A		2620		2730			
Median	59800		N/A		N/A		4130		3050		N/A		N/A		2620		2730			
Mean	58000.0		N/A		N/A		4130.0		2940.0		N/A		N/A		2620.0		2730.0			
Standard Deviation	13490.37		N/A		N/A		1555.63		582.84		N/A		N/A		0		0			
90% C.I.	978.73		N/A		N/A		138.23		42.29		N/A		N/A		N/A		N/A			
10^{th} Percentile	46920		N/A		N/A		3250		2458		N/A		N/A		2620		2730			
90^{th} Percentile	68360		N/A		N/A		5010		3378		N/A		N/A		2620		2730			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Thallium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	0.22	J	DRY		MISSING		DRY		1.6	J	MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		3.37		ND		ABANDON		ABANDON		3.57		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	1		0		0		1		1		0		0		1		0			
Minimum	0.22		N/A		N/A		3.37		1.6		N/A		N/A		3.57		N/A			
Maximum	0.22		N/A		N/A		3.37		1.6		N/A		N/A		3.57		N/A			
Median	0.22		N/A		N/A		3.37		1.6		N/A		N/A		3.57		N/A			
Mean	0.2		N/A		N/A		3.4		1.6		N/A		N/A		3.6		N/A			
Standard Deviation	0.0		N/A		N/A		0		0		N/A		N/A		0		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	0.22		N/A		N/A		3.37		1.6		N/A		N/A		3.57		N/A			
90^{th} Percentile	0.22		N/A		N/A		3.37		1.6		N/A		N/A		3.57		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Vanadium (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	7.62	J	DRY		MISSING		DRY		5.76	J	MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	1		0		0		0		1		0		0		0		0			
Minimum	7.62		N/A		N/A		N/A		5.76		N/A		N/A		N/A		N/A			
Maximum	7.62		N/A		N/A		N/A		5.76		N/A		N/A		N/A		N/A			
Median	7.62		N/A		N/A		N/A		5.76		N/A		N/A		N/A		N/A			
Mean	7.6		N/A		N/A		N/A		5.8		N/A		N/A		N/A		N/A			
Standard Deviation	0		N/A		N/A		N/A		0		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	7.62		N/A		N/A		N/A		5.76		N/A		N/A		N/A		N/A			
90^{th} Percentile	7.62		N/A		N/A		N/A		5.76		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Total Hardness (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	3.45	J	DRY		MISSING		DRY		5.52	J	MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		12.6		ND		ABANDON		ABANDON		DRY		ND			

Summary Statistics																				
Count	1		0		0		1		1		0		0		0		0			
Minimum	3.45		N/A		N/A		12.6		5.52		N/A		N/A		N/A		N/A			
Maximum	3.45		N/A		N/A		12.6		5.52		N/A		N/A		N/A		N/A			
Median	3.45		N/A		N/A		12.6		5.52		N/A		N/A		N/A		N/A			
Mean	3.5		N/A		N/A		12.6		5.5		N/A		N/A		N/A		N/A			
Standard Deviation	0		N/A		N/A		0		0		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	3.45		N/A		N/A		12.6		5.52		N/A		N/A		N/A		N/A			
90^{th} Percentile	3.45		N/A		N/A		12.6		5.52		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - 1-4 Dioxane (ug/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		ND			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorbutanesulfonic acid (PFBS) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	4.99		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	5.88		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	5.35		POOR		ABANDON		0.636		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	3		0		0		1		0		0		0		0		0			
Minimum	4.99		N/A		N/A		0.636		N/A		N/A		N/A		N/A		N/A			
Maximum	5.88		N/A		N/A		0.636		N/A		N/A		N/A		N/A		N/A			
Median	5.35		N/A		N/A		0.636		N/A		N/A		N/A		N/A		N/A			
Mean	5.4		N/A		N/A		0.6		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	0.45		N/A		N/A		0		N/A		N/A		N/A		N/A		N/A			
90% C.I.	0.03		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	5.062		N/A		N/A		0.636		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	5.774		N/A		N/A		0.636		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorohexanoic acid (PFHxA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	13.4		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	4.4		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	6.94		POOR		ABANDON		0.606		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	3		0		0		1		0		0		0		0		0			
Minimum	4.4		N/A		N/A		0.606		N/A		N/A		N/A		N/A		N/A			
Maximum	13.4		N/A		N/A		0.606		N/A		N/A		N/A		N/A		N/A			
Median	6.94		N/A		N/A		0.606		N/A		N/A		N/A		N/A		N/A			
Mean	8.2		N/A		N/A		0.6		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	4.64		N/A		N/A		0		N/A		N/A		N/A		N/A		N/A			
90% C.I.	0.34		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	4.908		N/A		N/A		0.606		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	12.108		N/A		N/A		0.606		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluoroheptanoic acid (PFHpA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	3.89		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	1.93		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	2		0		0		0		0		0		0		0		0			
Minimum	1.93		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	3.89		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	2.91		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	2.9		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	1.39		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	0.12		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	2.126		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	3.694		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorohexanesulfonic acid (PFHxS) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	0.892		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	1		0		0		0		0		0		0		0		0			
Minimum	0.892		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	0.892		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	0.892		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	0.9		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	0		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	0.892		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	0.892		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorooctanoic acid (PFOA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	16.7		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	7.54		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	6.15		POOR		ABANDON		0.417		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	3		0		0		1		0		0		0		0		0			
Minimum	6.15		N/A		N/A		0.417		N/A		N/A		N/A		N/A		N/A			
Maximum	16.7		N/A		N/A		0.417		N/A		N/A		N/A		N/A		N/A			
Median	7.54		N/A		N/A		0.417		N/A		N/A		N/A		N/A		N/A			
Mean	10.1		N/A		N/A		0.4		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	5.73		N/A		N/A		0		N/A		N/A		N/A		N/A		N/A			
90% C.I.	0.42		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	6.428		N/A		N/A		0.417		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	14.868		N/A		N/A		0.417		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorooctanesulfonic acid (PFOS) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	3.32		DRY		MISSING		DRY		2.26		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	1		0		0		0		1		0		0		0		0			
Minimum	3.32		N/A		N/A		N/A		2.26		N/A		N/A		N/A		N/A			
Maximum	3.32		N/A		N/A		N/A		2.26		N/A		N/A		N/A		N/A			
Median	3.32		N/A		N/A		N/A		2.26		N/A		N/A		N/A		N/A			
Mean	3.3		N/A		N/A		N/A		2.3		N/A		N/A		N/A		N/A			
Standard Deviation	0		N/A		N/A		N/A		0		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	3.32		N/A		N/A		N/A		2.26		N/A		N/A		N/A		N/A			
90^{th} Percentile	3.32		N/A		N/A		N/A		2.26		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorononanoic acid (PFNA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorodecanoic acid (PFDA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluoroundecanoic acid (PFUnA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorododecanoic acid (PFDoA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorotridecanoic acid (PFTrDA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorotetradecanoic acid (PFTA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0			
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A			

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - N-Methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0		0	
Minimum	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Median	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		NA		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - N-Ethyl Perfluorooctanesulfonamidoacetic acid (NE+FOSAA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0		0	
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluoropentanoic acid (PFPeA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	8.33		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	8.33		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	5.66		POOR		ABANDON		0.651		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	3		0		0		1		0		0		0		0		0		0	
Minimum	5.66		N/A		N/A		0.651		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	8.33		N/A		N/A		0.651		N/A		N/A		N/A		N/A		N/A		N/A	
Median	8.33		N/A		N/A		0.651		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	7.4		N/A		N/A		0.7		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	1.54		N/A		N/A		0		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	0.11		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	6.194		N/A		N/A		0.651		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	8.33		N/A		N/A		0.651		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorooctanesulfonamide (FOSA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0		0	
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Sodium perfluoro-1-heptanesulfonate (PFHpS) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0		0	
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorodecanesulfonic acid (PFDS) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0		0	
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Sodium H1, H1, H2, H2-Perfluoro-1-octanesulfonate (6:2FTS) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		2.45		5.74		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		1		1		0		0		0		0		0	
Minimum	N/A		N/A		N/A		2.45		5.74		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		2.45		5.74		N/A		N/A		N/A		N/A		N/A	
Median	N/A		N/A		N/A		2.45		5.74		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		2.5		5.7		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		0		0		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		2.45		5.74		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		2.45		5.74		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Sodium H1, H1, H2, H2-Perfluoro-1-decanesulfonate (8:2FTS (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	ND		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	0		0		0		0		0		0		0		0		0		0	
Minimum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Median	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Perfluorobutanoic acid (PFBA) (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	4.03		DRY		MISSING		DRY		ND		MISSING		OBSTRUC							
Aug-23	ND		POOR		ABANDON		ND		ND		ABANDON		ABANDON		ND		ND			
Jun-24	2.5		POOR		ABANDON		2.14		ND		ABANDON		ABANDON		DRY		DRY			

Summary Statistics																				
Count	2		0		0		1		0		0		0		0		0		0	
Minimum	2.5		N/A		N/A		2.14		N/A		N/A		N/A		N/A		N/A		N/A	
Maximum	4.03		N/A		N/A		2.14		N/A		N/A		N/A		N/A		N/A		N/A	
Median	3.265		N/A		N/A		2.14		N/A		N/A		N/A		N/A		N/A		N/A	
Mean	3.3		N/A		N/A		2.1		N/A		N/A		N/A		N/A		N/A		N/A	
Standard Deviation	1.08		N/A		N/A		0		N/A		N/A		N/A		N/A		N/A		N/A	
90% C.I.	0.10		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	2.653		N/A		N/A		2.14		N/A		N/A		N/A		N/A		N/A		N/A	
90^{th} Percentile	3.877		N/A		N/A		2.14		N/A		N/A		N/A		N/A		N/A		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - MPFOA (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	0		DRY		MISSING		DRY		0		MISSING		OBSTRUC							
Aug-23	0		POOR		ABANDON		0		0		ABANDON		ABANDON		0		0			
Jun-24	0		POOR		ABANDON		0		0		ABANDON		ABANDON		0		0			

Summary Statistics																				
Count	3		0		0		2		3		0		0		2		2		0	
Minimum	0		N/A		N/A		0		0		N/A		N/A		0		0		N/A	
Maximum	0		N/A		N/A		0		0		N/A		N/A		0		0		N/A	
Median	0		N/A		N/A		0		0		N/A		N/A		0		0		N/A	
Mean	0		N/A		N/A		0		0		N/A		N/A		0		0		N/A	
Standard Deviation	0		N/A		N/A		0		0		N/A		N/A		0		0		N/A	
90% C.I.	N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	0		N/A		N/A		0		0		N/A		N/A		0		0		N/A	
90^{th} Percentile	0		N/A		N/A		0		0		N/A		N/A		0		0		N/A	

Town of Clermont - Former Hettling Farm Site Landfill, Columbia County - Total Concentration of PFOAs (ng/L)

Well ID	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-7A		SW-1		SW-2	
Position	Downgradient		Downgradient				Downgradient		Upgradient				Upgradient		Upgradient		Upgradient		Upgradient	
Formation	Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel		Gravel	
Sample Date	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier	Value	Qualifier
Sep-20	54.66		DRY		MISSING		DRY		2.26		MISSING		OBSTRUC							
Aug-23	26.12		POOR		ABANDON		0		0		ABANDON		ABANDON		0		0			
Jun-24	29.42		POOR		ABANDON		6.9		5.74		ABANDON		ABANDON		0		0			

Summary Statistics																				
Count	3		0		0		2		3		0		0		2		2		0	
Minimum	26.12		N/A		N/A		0		0		N/A		N/A		0		0		N/A	
Maximum	54.66		N/A		N/A		6.9		5.74		N/A		N/A		0		0		N/A	
Median	29.42		N/A		N/A		3.45		2.26		N/A		N/A		0		0		N/A	
Mean	36.7		N/A		N/A		3.5		2.7		N/A		N/A		0		0		N/A	
Standard Deviation	15.61		N/A		N/A		4.88		2.89		N/A		N/A		0		0		N/A	
90% C.I.	1.13		N/A		N/A		0.43		0.21		N/A		N/A		N/A		N/A		N/A	
10^{th} Percentile	26.78		N/A		N/A		0.69		0.452		N/A		N/A		0		0		N/A	
90^{th} Percentile	49.612		N/A		N/A		6.21		5.044		N/A		N/A		0		0		N/A	

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

August 08, 2024

Raymond Staats
Town of Clermont
1795 Route 9
Clermont, NY 12526

TEL: (518) 537-6868

Work Order No: 240625028

RE: Clermont Hettling Park
Hettling Park Groundwater Sampl

Dear Raymond Staats:

"I certify that this data package is in compliance with the terms and conditions of the protocol, both technically and for completeness, to the best of my knowledge, for other than the conditions detailed in the Case Narrative. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

Tara Daniels
Laboratory Director

Workorder Sample Summary

Client: Town of Clermont

Work Order: 240625028

ProjectName: Clermont Hettling Park

ProjLocation: Hettling Park Groundwater Sampling

AES Sample No	ClientSampID	Matrix	CollectionDate	DateReceived
240625028-001	MW-1	Groundwater	6/24/2024 11:35:00 AM	6/25/2024 1:30:00 PM
240625028-002	MW-4	Groundwater	6/24/2024 3:30:00 PM	6/25/2024 1:30:00 PM
240625028-003	MW-5	Groundwater	6/24/2024 2:25:00 PM	6/25/2024 1:30:00 PM
240625028-004	MW-5 Dup	Groundwater	6/24/2024 2:25:00 PM	6/25/2024 1:30:00 PM
240625028-005	MW-7	Groundwater	6/25/2024	6/25/2024 1:30:00 PM
240625028-006	SW-1	Surface Water	6/25/2024	6/25/2024 1:30:00 PM
240625028-007	SW-1 Dup	Surface Water	6/25/2024	6/25/2024 1:30:00 PM
240625028-008	MW-2	Groundwater	6/25/2024	6/25/2024 1:30:00 PM

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Case Narrative

Client: Town of Clermont – Hettling Park

Case: 240625028

SDG: MW-1

Semi-Volatile Organics – 1,4-Dioxane

1) The samples were analyzed for 1,4-Dioxane using EPA Method 8270D SIM.

2) The samples received on 6/25/24 had a temperature of 4 °C.

3) The %RSD's for the compounds 1,4-Dioxane and 1,4-Dioxane-d8 in the initial calibration analyzed on 4/19/24 were outside the method limits. The %RSD's for these compounds were 30.25 % and 35.75 %, respectively. These analytes were quantitated using linear regression. No further action was taken.

4) Sample MW-5 (AES sample number 240625028-003) was used for the matrix spike analysis. All recoveries were within acceptable limits.

5) Sample MW-5 (AES sample number 240625028-003) was used for the duplicate analysis. All recoveries were within acceptable limits.

Inorganics – Total Metals

1) The sample was analyzed for TAL Metals as specified in the project.

2) The recovery for Aluminum, Calcium, Iron and Magnesium in the ICSA and the ICSAB check standards may be outside the required limit. The required concentration for these analytes in the check standards is 500,000 ug/L, 500,000 ug/L, 200,000 ug/L and 500,000 ug/L, respectively. The linear range on this instrument for Aluminum, Calcium, Iron and Magnesium is 250,000 ug/L, 250,000 ug/L, 100,000 ug/L and 250,000 ug/L, respectively. At this level accurate recovery of Aluminum, Calcium, Iron and Magnesium in the check standards is not possible. No further action is required.

3) The digested spike recovery for the element Silver for sample MW-5 (AES sample number 240625028-003) was outside the required 75-125 % limits. A post digestion spike was performed and the recovery for Silver was below acceptable limits. The result for the element Silver for sample MW-5 (AES sample number 240625028-003) is flagged with an "N" to denote the low recovery. No further action is required.

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4) Sample MW-5 (AES sample number 240625028-003) was used as the Mercury matrix spike sample. All recoveries were within acceptable limits.

5) Sample MW-5 (AES sample number 240625028-003) was used as the duplicate sample. All recoveries were within acceptable limits.

6) Sample MW-5 (AES sample number 240625028-003) was used as the Mercury duplicate sample. All recoveries were within acceptable limits.

Sub-Contract Analyses – PFOA/PFOS

1) The sample was analyzed by York Analytical Laboratories, Inc. in Richmond Hill, NY for EPA Method 1633. York Analytical Laboratories, Inc. is a New York State Department of Health-approved environmental laboratory (ELAP ID: 12058).

2) See attached report for the PFOA/PFOS analysis.

"I certify that this data package is in compliance with the terms and conditions of the protocol, both technically and for completeness, to the best of my knowledge, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Laboratory Director

Date: 8/8/2024

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Albany, New York 12207
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EXPERIENCE IS THE SOLUTION

A full service analytical research laboratory offering solutions to environmental concerns

CHAIN OF CUSTODY RECORD

AES Work Order#: 240625028

T/O Clermont

Client Name: **Bryce Recer**	Address	
Send Report to: **Brecer@cplteam.com**	Project Name (Location): Hettling Park Groundwater Sampling	Samplers Name: Ryan Zacher / Colin Morse
Client Phone No:	PO #:	Samplers Signature:
Client Fax No:		

AES Sample ID	Client Sample ID:	Date Sampled	Time A=am P=pm		Sample Type Matrix	C	G	# of Cont's	Analysis
001	MW-1	6/24/24	11:35	A P	GW		X	3	TAL Metals, 1,4-Dioxane, PFAS, Field SWL, pH, Temp, Spec. Cond., eH, DO, Turbidity
002	MW-4	6/24/25	3:30	A P	GW		X	3	" "
003	MW-5	6/24/24	2:25	A P	GW		X	9	* " "
004	MW-5 Dup	6/24/25	2:25	A P	GW		X	3	* " * "
005	MW-7	6/24/25	2:45	A P	GW		X	0	*** " "
006	SW-1	6/24/24	2:15	A P	SF		X	0	** TAL Metals, 1,4-Dioxane, PFAS
007	SW-1 Dup	6/25/24	2:15	A P	SF		X	0	** " "
008	MW-2	6/25/24	12:00	A P	GW		X	0	Observation Only
				A P					
				A P					
				A P					
				A P					

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

Turnaround Time Requested:
Normal CLP Cat B

Special Instructions/Remarks:
* Extra volume collected from MW-5 for MS/MSD.
** ~~Extra volume collected from SW-1 for MS/MSD.~~ Dry Observation Only (CM)
*** MW-7 Dry Observation Only

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Relinquished by: (Signature) Ryan Zacher	**Received for Laboratory by:** JE	Date 6/25/24	Time 13:30

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

Properly Preserved
(Y) N
Notes:

Received Within Holding Times
(Y) N
Notes:



Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-1
Work Order:	240625028	**Collection Date:**	6/24/2024 11:35:00 AM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity (E120.1)	***391***	1.0		umhos/cm		6/24/2024 11:35:00 AM
Dissolved Oxygen (E360.1)	***6.88***	0.10		mg/L		6/24/2024 11:35:00 AM
eH (Orion)	***225.8***			millivolts		6/24/2024 11:35:00 AM
pH (E150.1)	***6.2***			su		6/24/2024 11:35:00 AM
Static Water Level	***14.28***			ft		6/24/2024 11:35:00 AM
Temperature (E170.1)	***13***			deg C		6/24/2024 11:35:00 AM
Turbidity (E180.1)	***4.69***	1.0		NTU		6/24/2024 11:35:00 AM
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:10:03 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***ND***	100		µg/L	1	7/2/2024
Antimony	***13.5***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***16.1***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	***1.42***	5.00	J	µg/L	1	7/2/2024
Calcium	***11700***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***24.5***	50.0	J	µg/L	1	7/2/2024
Lead	***2.20***	5.00	J	µg/L	1	7/2/2024
Magnesium	***3020***	50.0		µg/L	1	7/2/2024
Manganese	***ND***	20.0		µg/L	1	7/2/2024
Nickel	***ND***	20.0		µg/L	1	7/2/2024
Potassium	***3020***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0		µg/L	1	7/2/2024
Sodium	***59800***	500		µg/L	10	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:07:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-1
Work Order:	240625028	**Collection Date:**	6/24/2024 11:35:00 AM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
Surr: 1,4-Dioxane-d8	***73.2***	33-122		%REC	1	7/9/2024 5:07:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- X - Value exceeds Maximum Contaminant Level
- E - Value above quantitation range-Estimate
- S - LCS Spike below accepted limits (+ above)
- Z - RPD outside accepted recovery limits
- N - Matrix Spike below accepted limits (+ above)
- T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-4
Work Order:	240625028	**Collection Date:**	6/24/2024 3:30:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity (E120.1)	***93***	1.0		umhos/cm		6/24/2024 3:30:00 PM
Dissolved Oxygen (E360.1)	***6.65***	0.10		mg/L		6/24/2024 3:30:00 PM
eH (Orion)	***216.8***			millivolts		6/24/2024 3:30:00 PM
pH (E150.1)	***6.0***			su		6/24/2024 3:30:00 PM
Static Water Level	***6.03***			ft		6/24/2024 3:30:00 PM
Temperature (E170.1)	***20***			deg C		6/24/2024 3:30:00 PM
Turbidity (E180.1)	***115***	1.0		NTU		6/24/2024 3:30:00 PM
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:11:39 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***993***	100		µg/L	1	7/2/2024
Antimony	***14.7***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***59.2***	10.0		µg/L	1	7/2/2024
Beryllium	***0.31***	5.00	J	µg/L	1	7/2/2024
Cadmium	***1.34***	5.00	J	µg/L	1	7/2/2024
Calcium	***10700***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***0.50***	50.0	J	µg/L	1	7/2/2024
Copper	***4.13***	5.00	J	µg/L	1	7/2/2024
Iron	***3830***	50.0		µg/L	1	7/2/2024
Lead	***13.4***	5.00		µg/L	1	7/2/2024
Magnesium	***3330***	50.0		µg/L	1	7/2/2024
Manganese	***103***	20.0		µg/L	1	7/2/2024
Nickel	***4.60***	20.0	J	µg/L	1	7/2/2024
Potassium	***512***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0		µg/L	1	7/2/2024
Sodium	***5230***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***12.6***	10.0		µg/L	1	7/2/2024
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:16:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-4
Work Order:	240625028	**Collection Date:**	6/24/2024 3:30:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
Surr: 1,4-Dioxane-d8	***21.0***	33-122	S	%REC	1	7/9/2024 5:16:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity (E120.1)	***116***	1.0		umhos/cm		6/24/2024 2:25:00 PM
Dissolved Oxygen (E360.1)	***6.91***	0.10		mg/L		6/24/2024 2:25:00 PM
eH (Orion)	***236.7***			millivolts		6/24/2024 2:25:00 PM
pH (E150.1)	***6.5***			su		6/24/2024 2:25:00 PM
Static Water Level	***5.41***			ft		6/24/2024 2:25:00 PM
Temperature (E170.1)	***13***			deg C		6/24/2024 2:25:00 PM
Turbidity (E180.1)	***20.7***	1.0		NTU		6/24/2024 2:25:00 PM
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:13:16 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***69.6***	100	J	µg/L	1	7/2/2024
Antimony	***14.3***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***49.8***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	***1.44***	5.00	J	µg/L	1	7/2/2024
Calcium	***17300***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***257***	50.0		µg/L	1	7/2/2024
Lead	***3.07***	5.00	J	µg/L	1	7/2/2024
Magnesium	***4330***	50.0		µg/L	1	7/2/2024
Manganese	***21.8***	20.0		µg/L	1	7/2/2024
Nickel	***2.40***	20.0	J	µg/L	1	7/2/2024
Potassium	***522***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0	N	µg/L	1	7/2/2024
Sodium	***3460***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:26:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
Surr: 1,4-Dioxane-d8	***58.1***	33-122		%REC	1	7/9/2024 5:26:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5 Dup
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Conductivity (E120.1)	***116***	1.0		umhos/cm		6/24/2024 2:25:00 PM
Dissolved Oxygen (E360.1)	***6.91***	0.10		mg/L		6/24/2024 2:25:00 PM
eH (Orion)	***236.7***			millivolts		6/24/2024 2:25:00 PM
pH (E150.1)	***6.5***			su		6/24/2024 2:25:00 PM
Static Water Level	***5.41***			ft		6/24/2024 2:25:00 PM
Temperature (E170.1)	***13***			deg C		6/24/2024 2:25:00 PM
Turbidity (E180.1)	***20.7***	1.0		NTU		6/24/2024 2:25:00 PM
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:18:05 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***46.2***	100	J	µg/L	1	7/2/2024
Antimony	***20.9***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***48.7***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	***1.39***	5.00	J	µg/L	1	7/2/2024
Calcium	***17200***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***56.4***	50.0		µg/L	1	7/2/2024
Lead	***2.20***	5.00	J	µg/L	1	7/2/2024
Magnesium	***4350***	50.0		µg/L	1	7/2/2024
Manganese	***13.4***	20.0	J	µg/L	1	7/2/2024
Nickel	***ND***	20.0		µg/L	1	7/2/2024
Potassium	***518***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0		µg/L	1	7/2/2024
Sodium	***3230***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:36:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5 Dup
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
Surr: 1,4-Dioxane-d8	***56.9***	33-122		%REC	1	7/9/2024 5:36:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
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Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-7
Work Order:	240625028	**Collection Date:**	6/25/2024
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-005
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Observation	***Dry***			NA		6/25/2024

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	SW-1
Work Order:	240625028	**Collection Date:**	6/25/2024
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-006
PO#:		**Matrix:**	SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Observation	***Dry***			NA		6/25/2024

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- X - Value exceeds Maximum Contaminant Level
- E - Value above quantitation range-Estimate
- S - LCS Spike below accepted limits (+ above)
- Z - RPD outside accepted recovery limits
- N - Matrix Spike below accepted limits (+ above)
- T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	SW-1 Dup
Work Order:	240625028	**Collection Date:**	6/25/2024
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-007
PO#:		**Matrix:**	SURFACE WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Observation	***Dry***			NA		6/25/2024

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- X - Value exceeds Maximum Contaminant Level
- E - Value above quantitation range-Estimate
- S - LCS Spike below accepted limits (+ above)
- Z - RPD outside accepted recovery limits
- N - Matrix Spike below accepted limits (+ above)
- T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-2
Work Order:	240625028	**Collection Date:**	6/25/2024
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-008
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
FIELD-PH, RES CL2, AND TEMP ARE NOT ELAP CERTIFIABLE						Analyst: **FLD**
Observation	***Poor Recovery***			NA		6/25/2024

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-1
Work Order:	240625028	**Collection Date:**	6/24/2024 11:35:00 AM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:07:00 PM
Surr: 1,4-Dioxane-d8	***73.2***	33-122		%REC	1	7/9/2024 5:07:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- X - Value exceeds Maximum Contaminant Level
- E - Value above quantitation range-Estimate
- S - LCS Spike below accepted limits (+ above)
- Z - RPD outside accepted recovery limits
- N - Matrix Spike below accepted limits (+ above)
- T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-4
Work Order:	240625028	**Collection Date:**	6/24/2024 3:30:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:16:00 PM
Surr: 1,4-Dioxane-d8	***21.0***	33-122	S	%REC	1	7/9/2024 5:16:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:26:00 PM
Surr: 1,4-Dioxane-d8	***58.1***	33-122		%REC	1	7/9/2024 5:26:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- X - Value exceeds Maximum Contaminant Level
- E - Value above quantitation range-Estimate
- S - LCS Spike below accepted limits (+ above)
- Z - RPD outside accepted recovery limits
- N - Matrix Spike below accepted limits (+ above)
- T - Tentitively Identified Compound-Estimated Conc.

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5 Dup
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:36:00 PM
Surr: 1,4-Dioxane-d8	***56.9***	33-122		%REC	1	7/9/2024 5:36:00 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- X - Value exceeds Maximum Contaminant Level
- E - Value above quantitation range-Estimate
- S - LCS Spike below accepted limits (+ above)
- Z - RPD outside accepted recovery limits
- N - Matrix Spike below accepted limits (+ above)
- T - Tentitively Identified Compound-Estimated Conc.

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109723

mblk

SeqNo: **3822094** *PrepDate:6/26/2024* TestNo: **SW8270D** RunNo: ***234850***
Samp ID: **mb-109723** *PrepRef:(SW3535A)* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
1,4-Dioxane	ND	0.350									
Surr: 1,4-Dioxane-d8	4.127	0	5	0	82.5	33	122	0	0		

mblk

SeqNo: **3825502** *PrepDate:6/26/2024* TestNo: **SW8270D** RunNo: ***235032***
Samp ID: **mb-109723** *PrepRef:(SW3535A)* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
1,4-Dioxane	ND	0.350									
Surr: 1,4-Dioxane-d8	4.127	0	5	0	82.5	33	122	0	0		

lcs

SeqNo: **3822095** *PrepDate:6/26/2024* TestNo: **SW8270D** RunNo: ***234850***
Samp ID: **lcs-109723** *PrepRef:(SW3535A)* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
1,4-Dioxane	3.078	0.350	5	0	61.6	50	120	0	0		
Surr: 1,4-Dioxane-d8	2.6	0	5	0	52	33	122	0	0		

lcs

SeqNo: **3825503** *PrepDate:6/26/2024* TestNo: **SW8270D** RunNo: ***235032***
Samp ID: **lcs-109723** *PrepRef:(SW3535A)* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
1,4-Dioxane	3.078	0.350	5	0	61.6	50	120	0	0		
Surr: 1,4-Dioxane-d8	2.6	0	5	0	52	33	122	0	0		

ms

SeqNo: **3825492** *PrepDate:6/26/2024* TestNo: **SW8270D** RunNo: ***235032***
Samp ID: **240625028-003** ***(MW-5)*** *PrepRef:(SW3535A)* Units: **µg/L** Analysis Date: **7/9/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
1,4-Dioxane	3.607	0.350	5	0	72.1	50	120	0	0		
Surr: 1,4-Dioxane-d8	3.023	0	5	0	60.5	33	122	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109723

dup	SeqNo: **3825491**	***PrepDate:6/26/2024***	TestNo: **SW8270D**	RunNo: ***235032***
	Samp ID: **240625028-003** ***(MW-5)***	***PrepRef:(SW3535A)***	Units: **µg/L**	Analysis Date: **7/9/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
1,4-Dioxane	ND	0.350	0	0	0	0	0	0	0	0	
Surr: 1,4-Dioxane-d8	3.669	0	5	0	73.4	33	122	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC Batch Summary Report

Batch: R235032 **Analyst:** KL

SampID	SampType	DF	TestName:	Analysis Date/Time:
dftpp	tune	1	EPA 8270 SIM for 1,4 dioxane	4/19/2024 7:31:00 AM
diox 100	ical	1	EPA 8270 SIM for 1,4 dioxane	4/19/2024 9:12:00 AM
DIOX500	ICAL	1	EPA 8270 SIM for 1,4 dioxane	4/19/2024 9:38:00 AM
diox-10	ICAL	1	EPA 8270 SIM for 1,4 dioxane	4/19/2024 10:11:00 AM
diox-20	ICAL	1	EPA 8270 SIM for 1,4 dioxane	4/19/2024 10:24:00 AM
diox-200	ICAL	1	EPA 8270 SIM for 1,4 dioxane	4/19/2024 10:35:00 AM
dftpp	tune	1	EPA 8270 SIM for 1,4 dioxane	7/3/2024 6:06:00 AM
diox 100	ccv	1	EPA 8270 SIM for 1,4 dioxane	7/3/2024 3:21:00 PM
mb-109723	mblk	1	EPA 8270 SIM for 1,4 dioxane	7/3/2024 3:49:00 PM
lcs-109723	lcs	1	EPA 8270 SIM for 1,4 dioxane	7/3/2024 3:59:00 PM
dftpp	ccv	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 9:59:00 AM
diox-100	ccv	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 2:11:00 PM
240625028-001b	samp	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 5:07:00 PM
240625028-002b	samp	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 5:16:00 PM
240625028-003b	samp	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 5:26:00 PM
240625028-004b	samp	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 5:36:00 PM
240625028-003BDUP	dup	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 5:45:00 PM
240625028-003BMS	ms	1	EPA 8270 SIM for 1,4 dioxane	7/9/2024 5:55:00 PM

Adirondack Environmental Servies, Inc.

Client: Town of Clermont

WorkOrder 240625028

Project: Clermont Hettling Park

Test: Sim-14diox

Internal Standard Summary Report

Batch: R234850

SampID	Analysis Time	Tetrahydrofuran-d8
diox 100	7/3/2024 3:21:00 PM	8895 RT: 2.286
diox 100	7/3/2024 3:21:00 PM	8895 RT: 2.286
mb-109723	7/3/2024 3:49:00 PM	8513 RT: 2.286
mb-109723	7/3/2024 3:49:00 PM	8513 RT: 2.286
lcs-109723	7/3/2024 3:59:00 PM	6008 RT: 2.286
lcs-109723	7/3/2024 3:59:00 PM	6008 RT: 2.286
dftpp	7/9/2024 9:59:00 AM	0 RT: 0
diox-100	7/9/2024 2:11:00 PM	23319 RT: 2.338
240625028-001B	7/9/2024 5:07:00 PM	16882 RT: 2.348
240625028-002B	7/9/2024 5:16:00 PM	21414 RT: 2.359
240625028-003B	7/9/2024 5:26:00 PM	20433 RT: 2.348
240625028-004B	7/9/2024 5:36:00 PM	17733 RT: 2.348
240625028-003BDUP	7/9/2024 5:45:00 PM	19396 RT: 2.348
240625028-003B	7/9/2024 5:45:00 PM	19396 RT: 2.348
240625028-003BMS	7/9/2024 5:55:00 PM	19353 RT: 2.359

Adirondack Environmental Services, Inc

Date: 06-Aug-24

Test Code: Sim-14diox
Test Number: SW8270D
Test Name: EPA 8270 SIM for 1,4 dioxane
Matrix: Water **Units:** µg/L

METHOD DETECTION / REPORTING LIMITS

Updated: 25-Aug-23

Type	Analyte	MDL	PQL
A	1,4-Dioxane	0.23	0.35
I	Tetrahydrofuran-d8	0	0
S	1,4-Dioxane-d8	0	0

Response Factor Report GCMS-B

Method Path : C:\msdchem\2\methods\
Method File : simdiox041924.M
Title : 14Dioxane-Sim
Last Update : Fri Apr 19 11:16:28 2024
Response Via : Initial Calibration

Calibration Files
1 =b1087.D 2 =b1088.D 3 =b1085.D 4 =b1089.D 5 =b1086.D

	Compound	1	2	3	4	5	Avg	%RSD
1) I	Tetrahydrofuran-d8	----------ISTD----------						
2)	1,4-Dioxane-d8(s...	1.285	1.113	0.676	0.669	0.595	0.868	35.75
3)	1,4-Dioxane	1.206	1.388	0.772	0.827	0.718	0.982	30.25

(#) = Out of Range

Continuing Calibration Report GCMS-B

Method Path : C:\msdchem\2\methods\
Method File : simdiox041924.M
Title : 14Dioxane-Sim
Last Update : Wed Jul 10 16:49:36 2024
Response Via : Initial Calibration

CC Data File: b1624.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%
1	I	Tetrahydrofuran-d8	1.000	1.000	0.0	45#
2		1,4-Dioxane-d8(surr)	0.868	0.751	13.4	50#
3		1,4-Dioxane	0.982	0.901	8.2	52

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Report GCMS-B

Method Path : C:\msdchem\2\methods\
Method File : simdiox041924.M
Title : 14Dioxane-Sim
Last Update : Thu Jul 11 11:55:12 2024
Response Via : Initial Calibration

CC Data File: b1679.D

Min. RRF : 0.000 Min. Rel. Area : 50%
Max. RRF Dev : 25% Max. Rel. Area : 150%

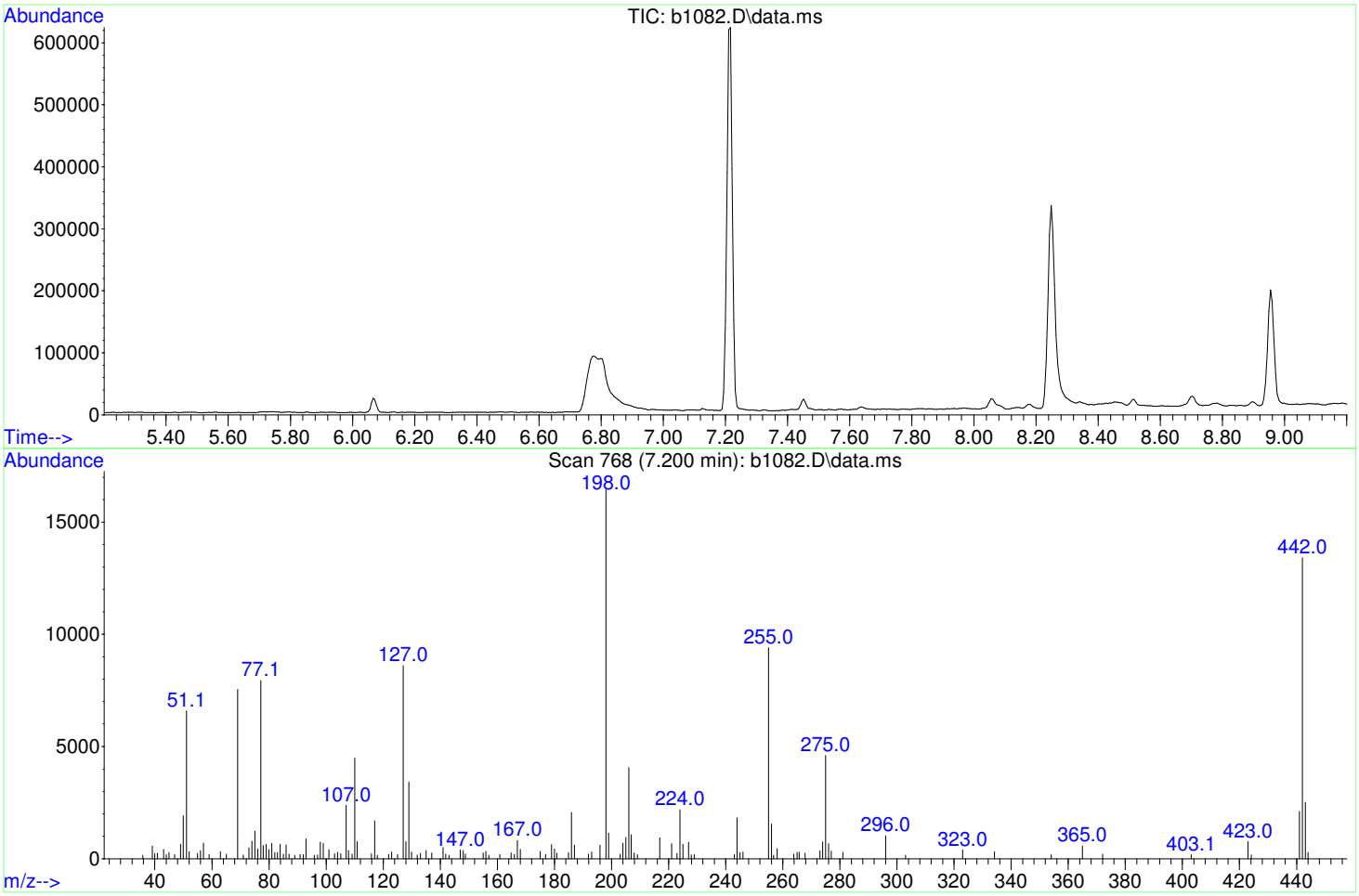
		Compound	AvgRF	CCRF	%Dev	Area%
1	I	Tetrahydrofuran-d8	1.000	1.000	0.0	117
2		1,4-Dioxane-d8(surr)	0.868	0.887	-2.3	154#
3		1,4-Dioxane	0.982	0.915	6.8	139

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : D:\2\data\041924\
Data File : b1082.D
Acq On : 19 Apr 2024 7:31 am
Operator :
Sample : dftpp
Misc : tune
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\2\methods\simdiox041924.M
Title : 14Dioxane-Sim
Last Update : Fri Apr 19 11:16:28 2024



Spectrum Information: Scan 768

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.1	6591	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	7538	PASS
70	69	0.00	2	0.0	0	PASS
127	198	30	60	52.3	8601	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	16448	PASS
199	198	5	9	7.0	1149	PASS
275	198	10	30	27.9	4597	PASS
365	198	1	100	3.4	566	PASS
441	443	0.01	100	84.2	2112	PASS
442	198	39	100	81.5	13406	PASS
443	442	17	23	18.7	2507	PASS

Quantitation Report (QT Reviewed)

Data Path : D:\2\data\041924\
Data File : b1087.D
Acq On : 19 Apr 2024 10:11 am
Operator :
Sample : diox-10
Misc : ccv
ALS Vial : 1 Sample Multiplier: 1

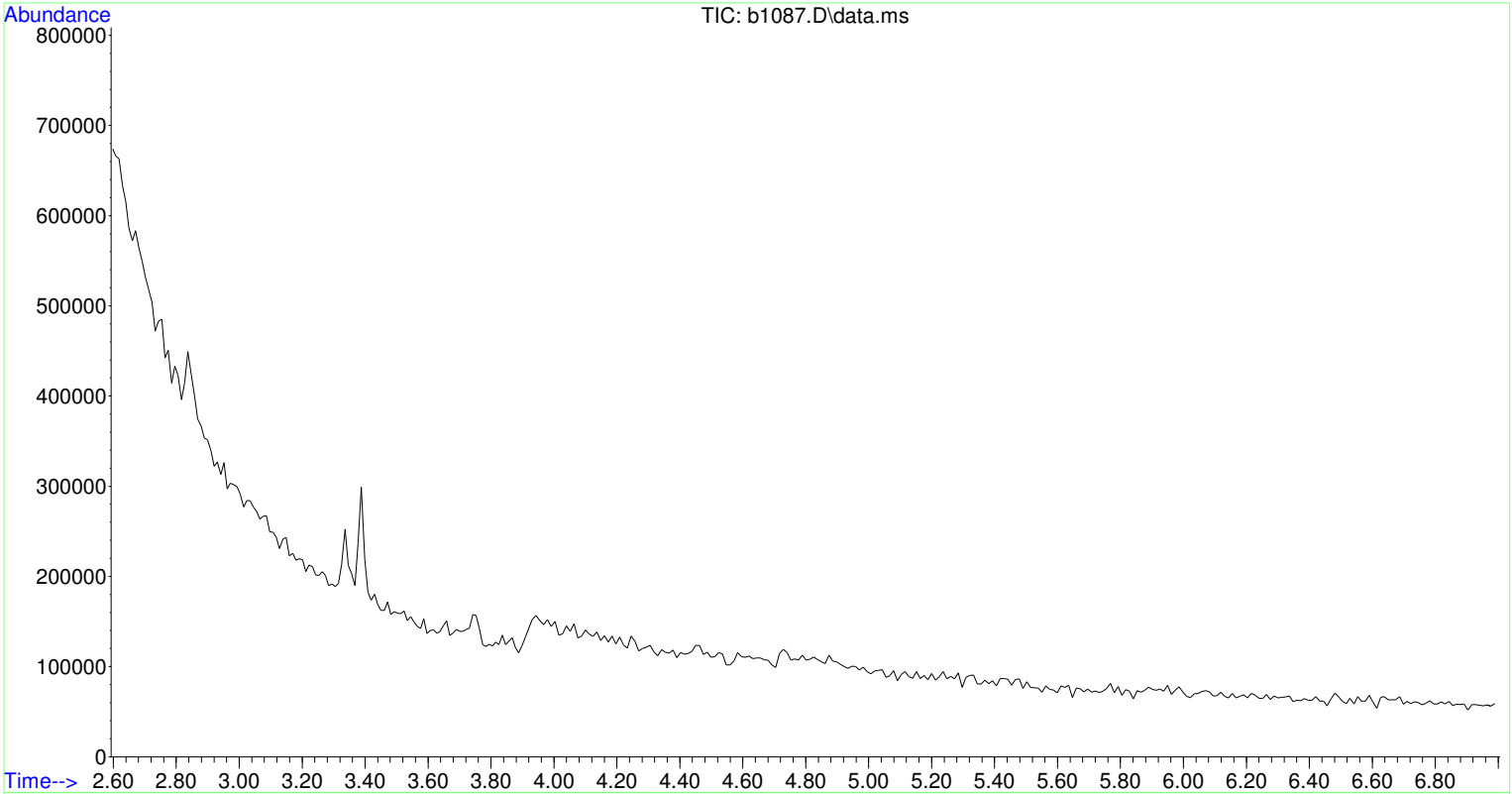
Quant Time: Jul 10 12:16:22 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Wed Jul 10 12:16:16 2024
Response via : Initial Calibration

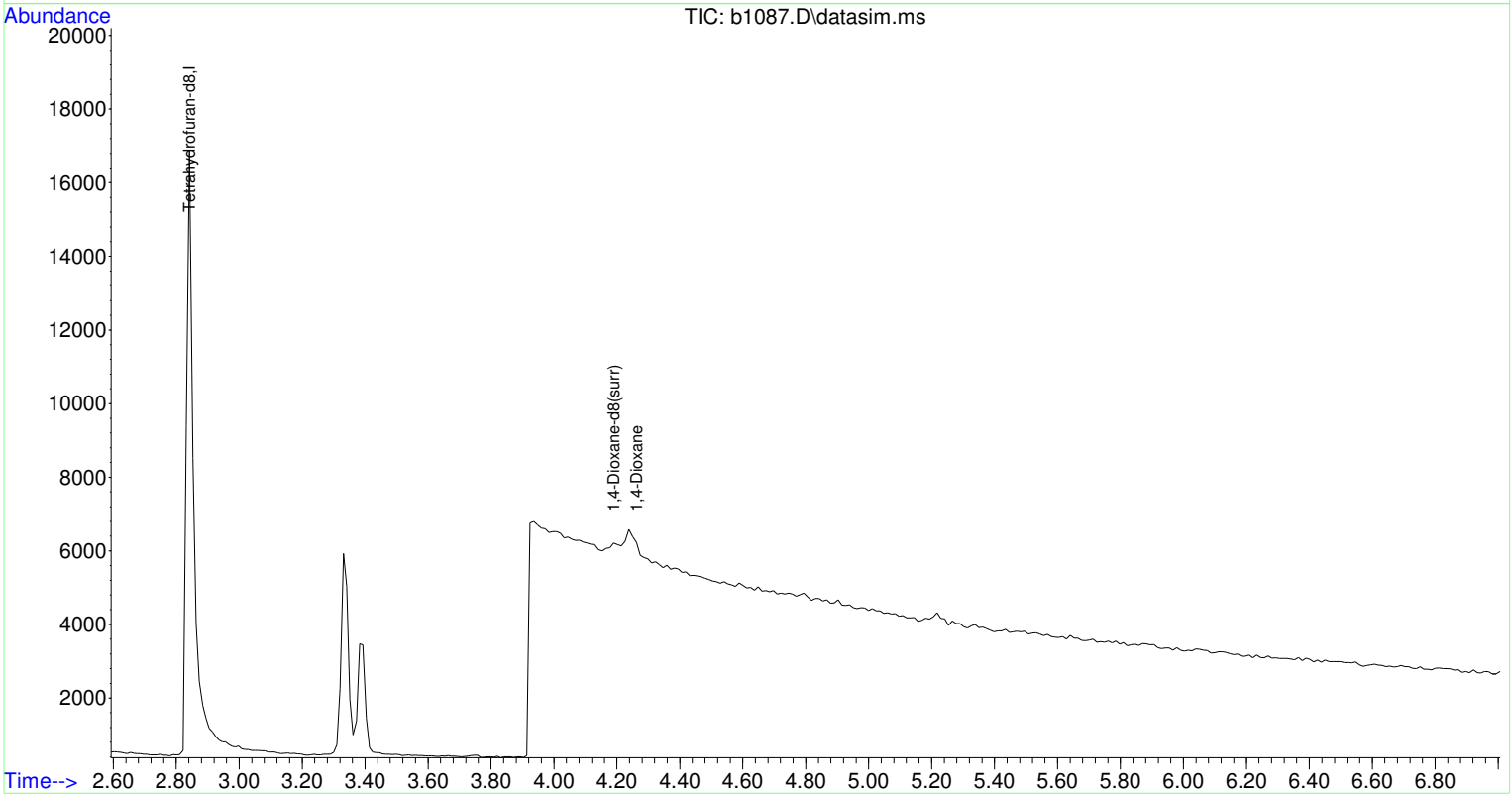
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.842	46	14594	500.00	ug	0.01
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	4.190	64	375	3.67	ug	# 1
3] 1,4-Dioxane	4.262	88	389m	2.66	ug	

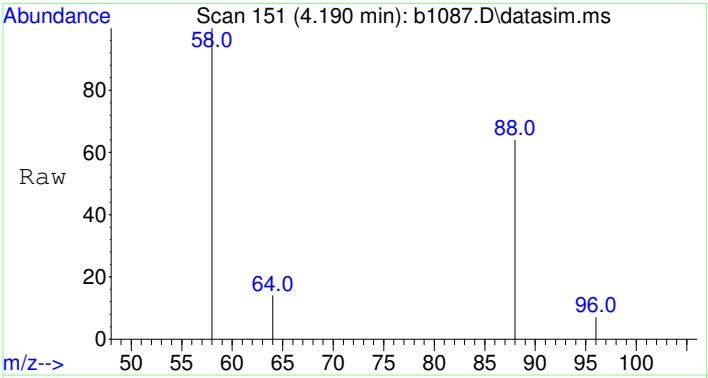
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\041924\
Data File : b1087.D
Acq On : 19 Apr 2024 10:11 am
Operator :
Sample : diox-10
Misc : ccv
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 12:16:22 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Wed Jul 10 12:16:16 2024
Response via : Initial Calibration



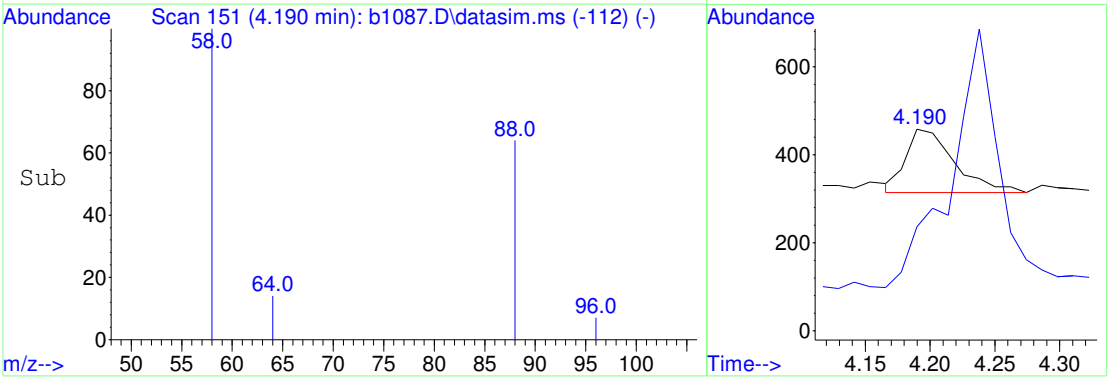


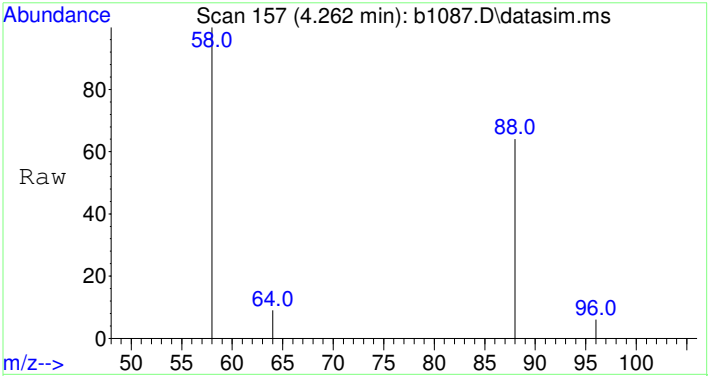


#2
1,4-Dioxane-d8(surr)
Concen: 3.67 ug
RT: 4.190 min Scan# 151
Delta R.T. 0.012 min
Lab File: b1087.D
Acq: 19 Apr 2024 10:11 am

Tgt Ion: 64 Resp: 375

Ion	Ratio	Lower	Upper
64	100		
96	417.6	97.1	145.7#

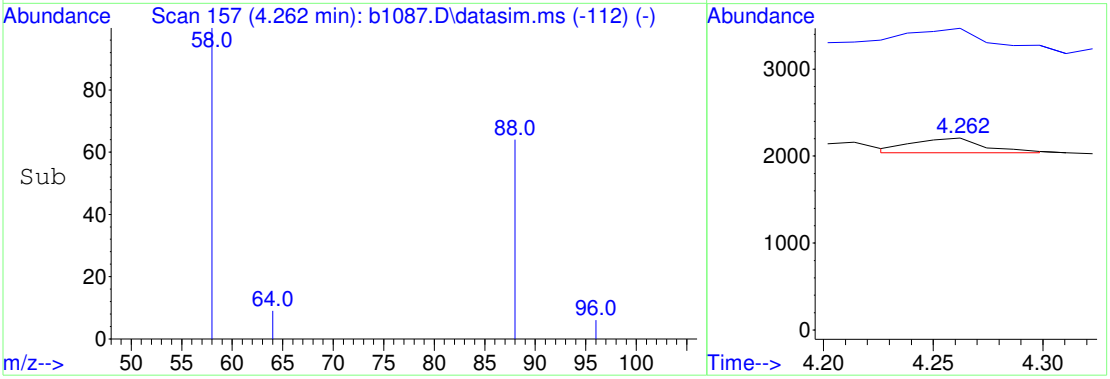




#3
1,4-Dioxane
Concen: 2.66 ug m
RT: 4.262 min Scan# 157
Delta R.T. 0.024 min
Lab File: b1087.D
Acq: 19 Apr 2024 10:11 am

Tgt Ion: 88 Resp: 389

Ion	Ratio	Lower	Upper
88	100		
58	0.0	159.6	239.4#



Quantitation Report (QT Reviewed)

Data Path : D:\2\data\041924\
Data File : b1088.D
Acq On : 19 Apr 2024 10:24 am
Operator :
Sample : diox-20
Misc : ccv
ALS Vial : 2 Sample Multiplier: 1

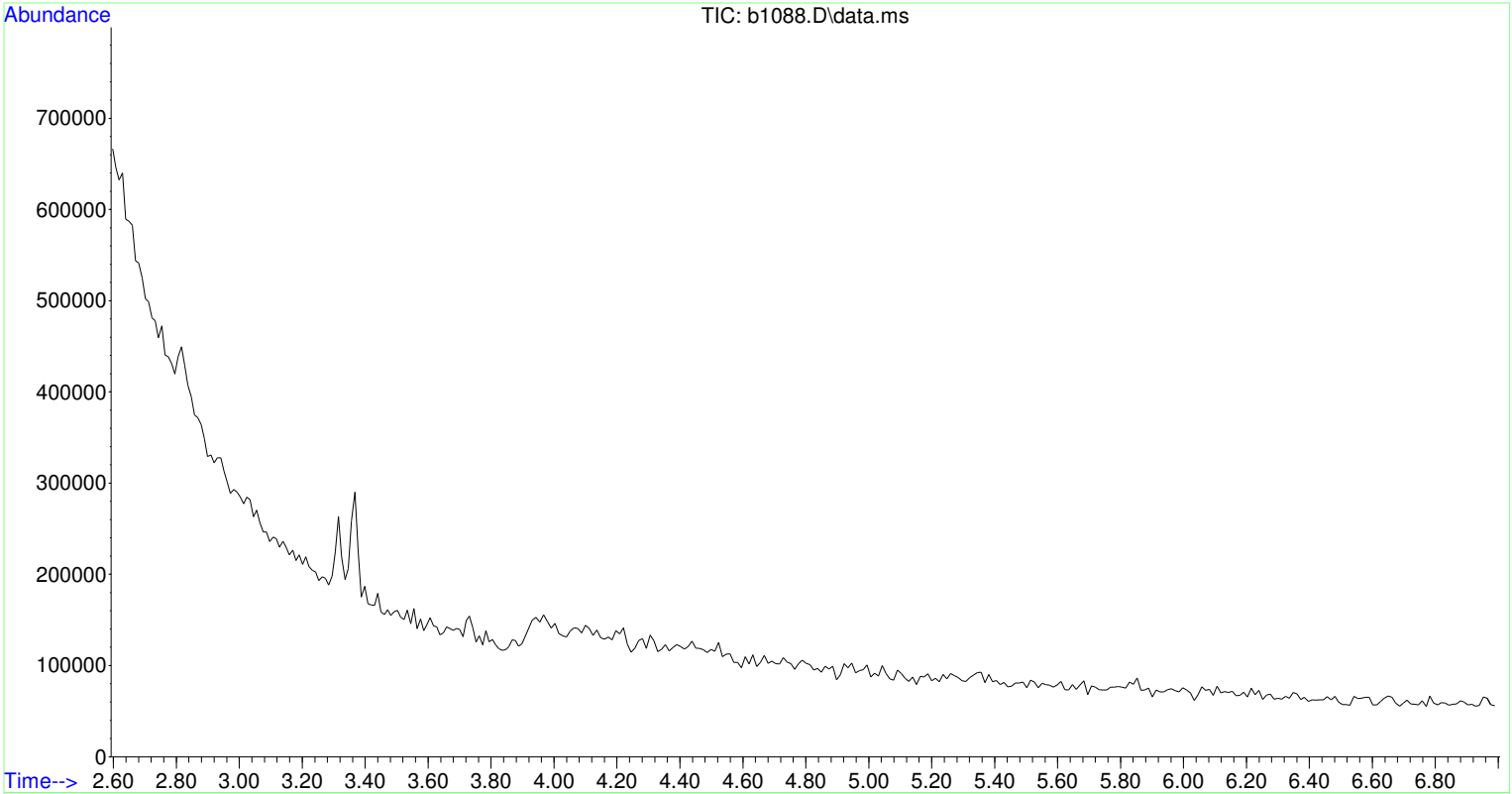
Quant Time: Jul 10 12:18:43 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

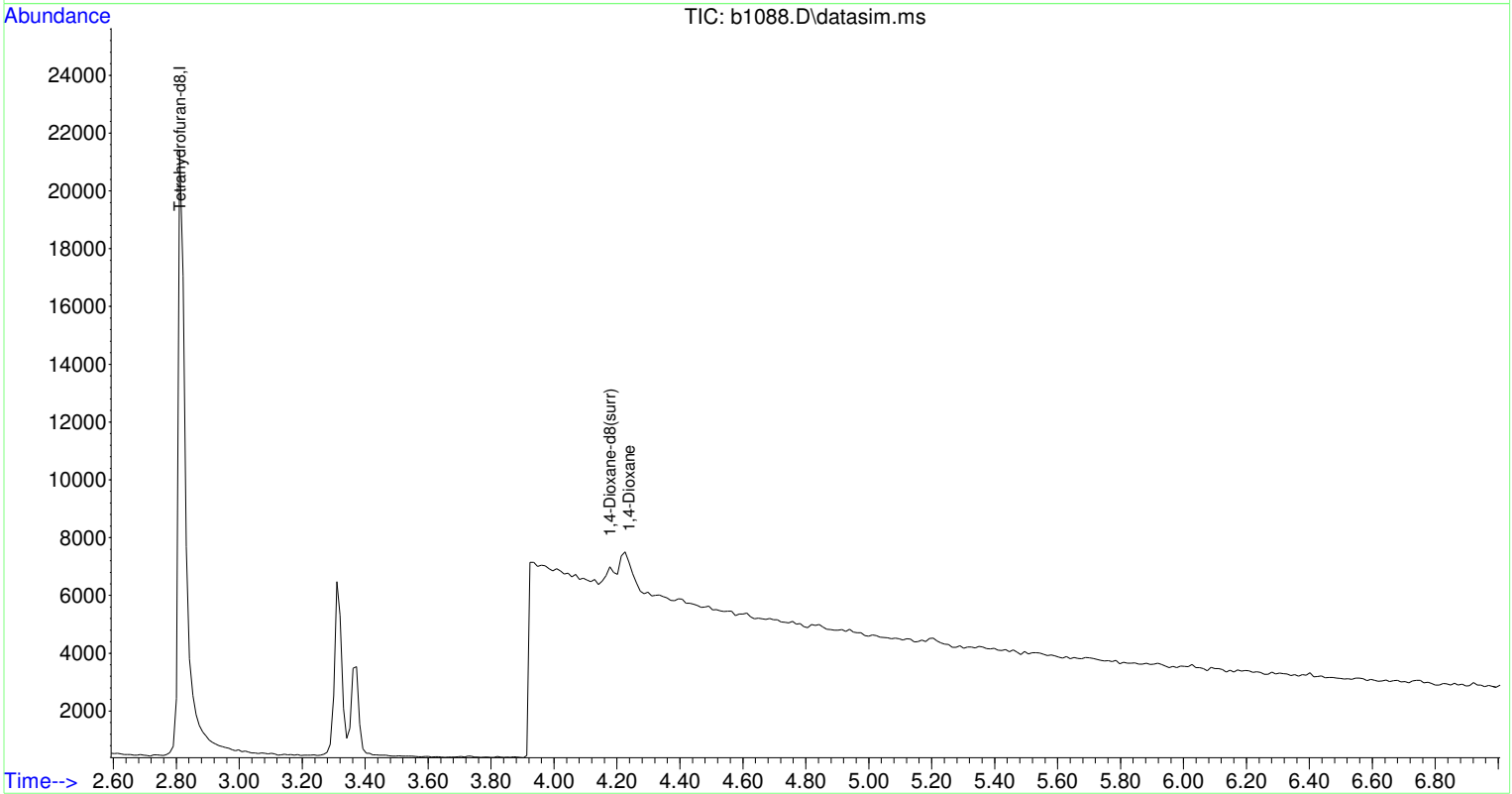
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.811	46	18822	500.00	ug	-0.02
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	4.177	64	838	19.94	ug	# 1
3] 1,4-Dioxane	4.238	88	1141m	26.80	ug	

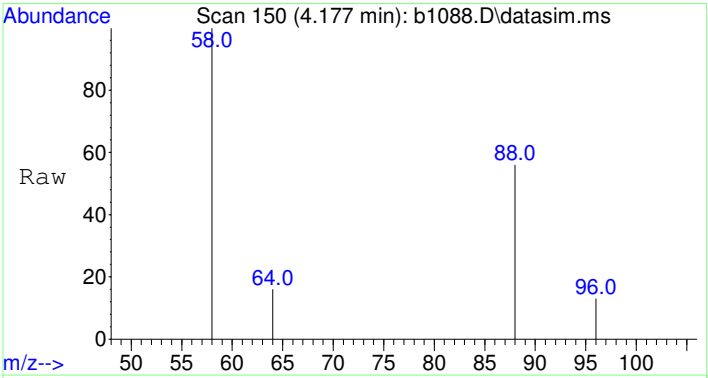
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\041924\
Data File : b1088.D
Acq On : 19 Apr 2024 10:24 am
Operator :
Sample : diox-20
Misc : ccv
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 12:18:43 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



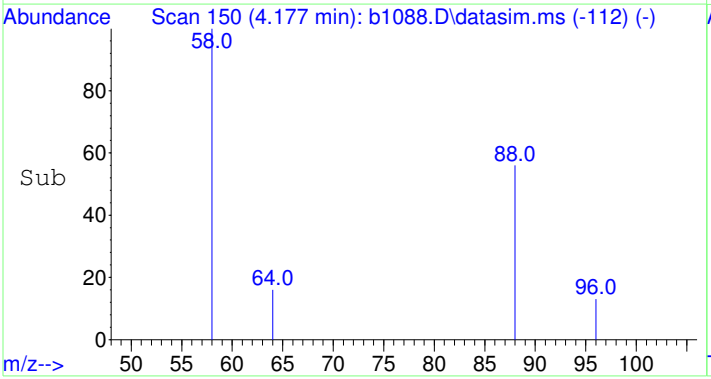


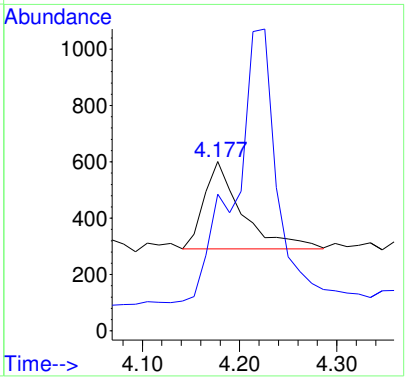


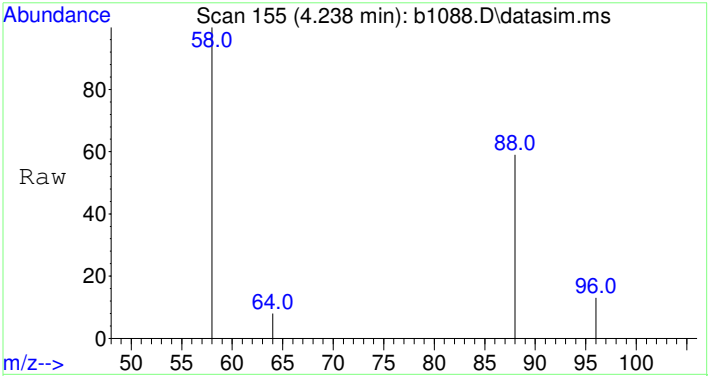
#2
1,4-Dioxane-d8(surr)
Concen: 19.94 ug
RT: 4.177 min Scan# 150
Delta R.T. -0.000 min
Lab File: b1088.D
Acq: 19 Apr 2024 10:24 am

Tgt Ion: 64 Resp: 838

Ion	Ratio	Lower	Upper
64	100		
96	359.4	97.1	145.7#



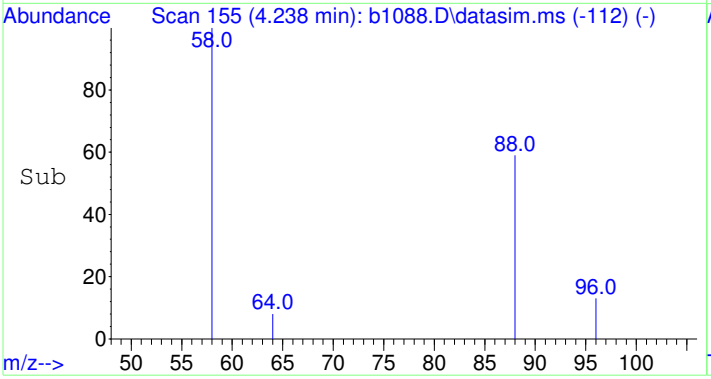


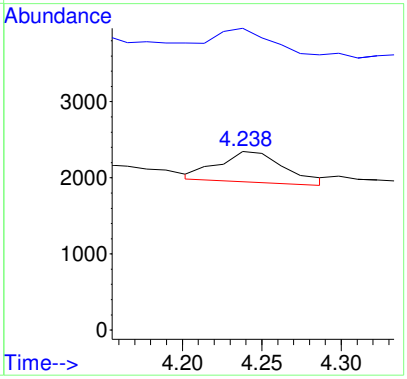


#3
1,4-Dioxane
Concen: 26.80 ug m
RT: 4.238 min Scan# 155
Delta R.T. -0.000 min
Lab File: b1088.D
Acq: 19 Apr 2024 10:24 am

Tgt Ion: 88 Resp: 1141

Ion	Ratio	Lower	Upper
88	100		
58	0.0	159.6	239.4#





Quantitation Report (Not Reviewed)

Data Path : D:\2\data\041924\
Data File : b1085.D
Acq On : 19 Apr 2024 9:12 am
Operator :
Sample : diox 100
Misc : ccv
ALS Vial : 3 Sample Multiplier: 1

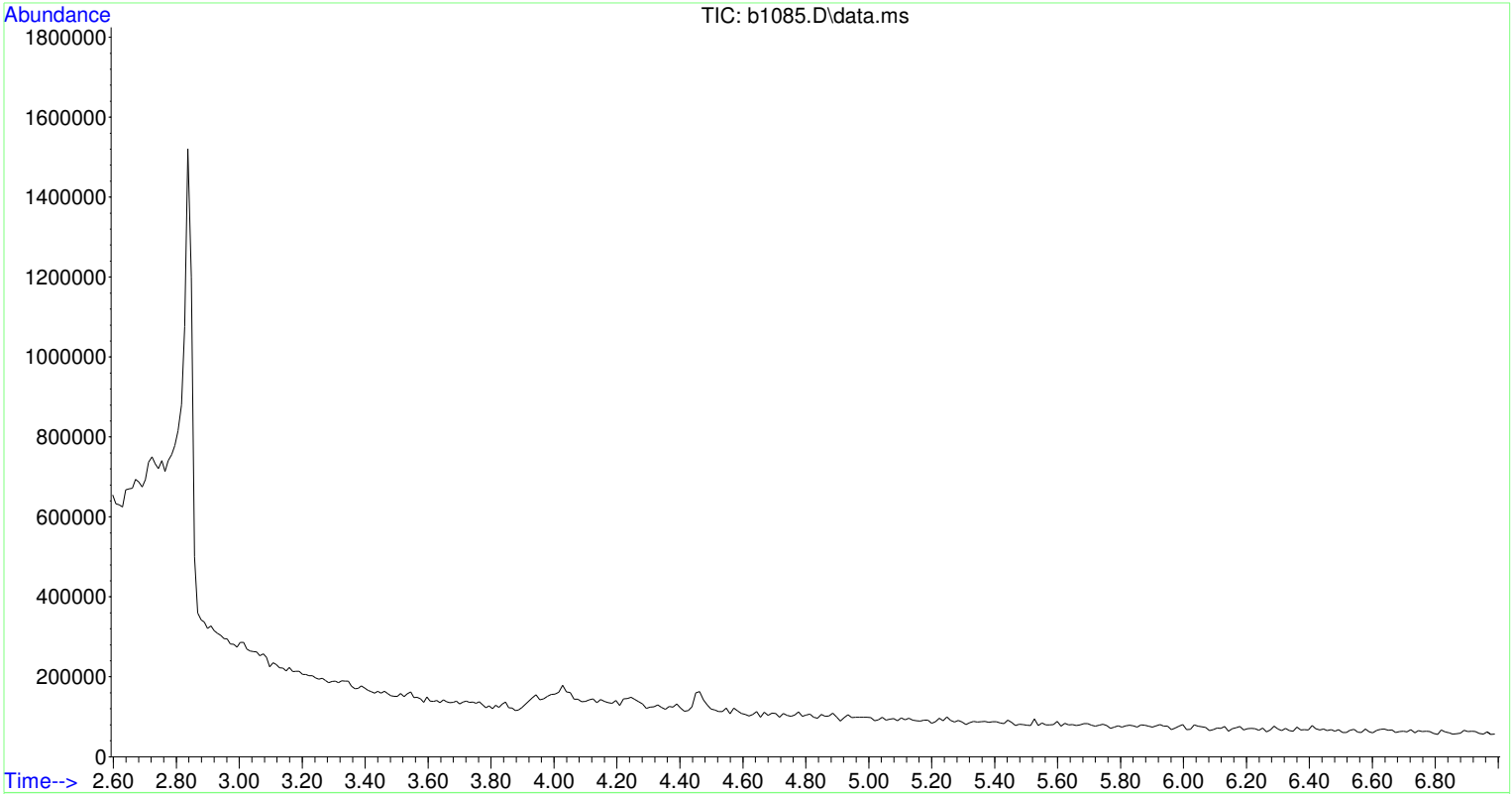
Quant Time: Jul 10 12:16:53 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

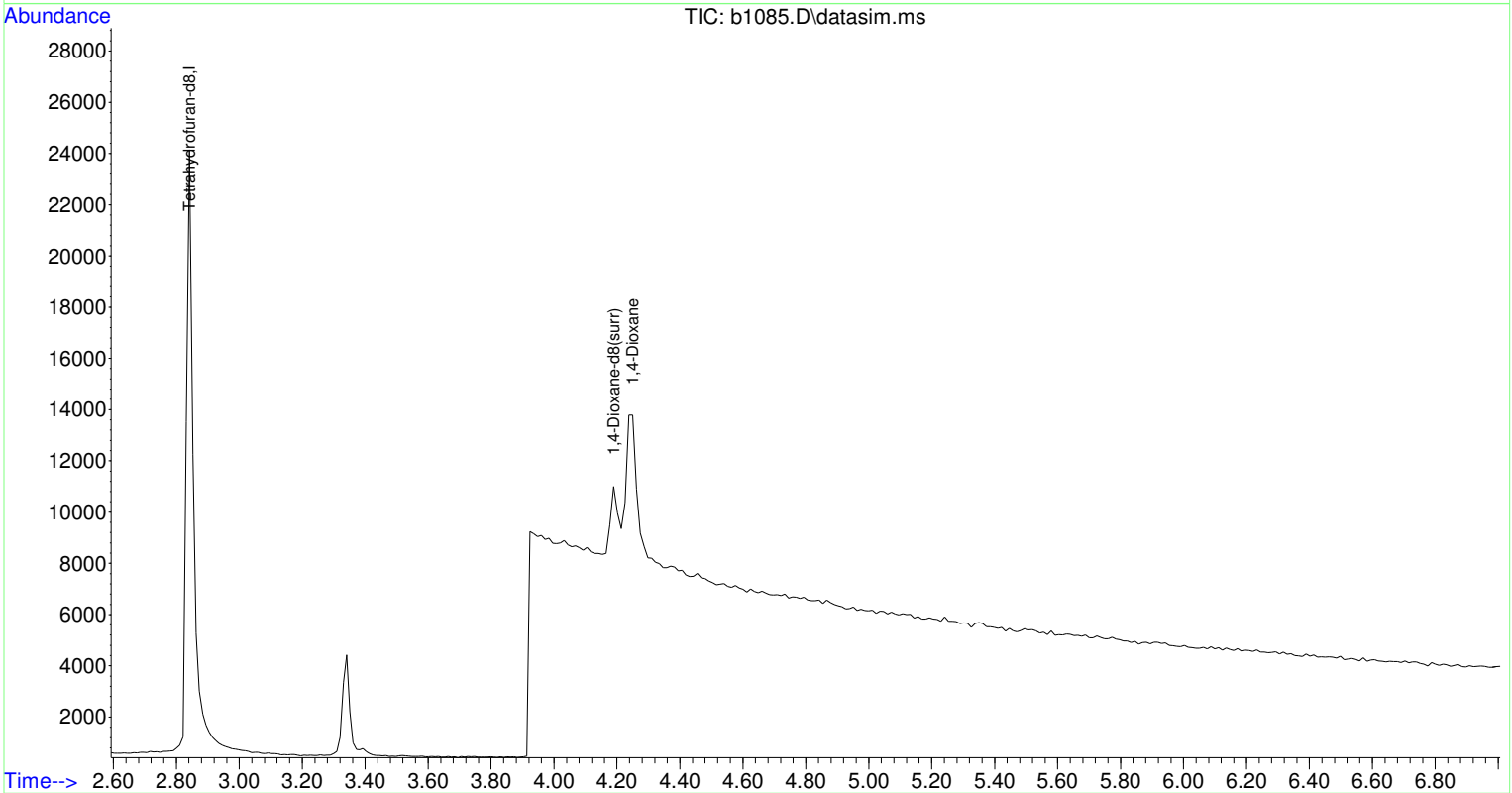
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.842	46	19895	500.00	ug	0.01
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	4.190	64	2688	98.20	ug	# 1
3] 1,4-Dioxane	4.250	88	3070	93.37	ug	83

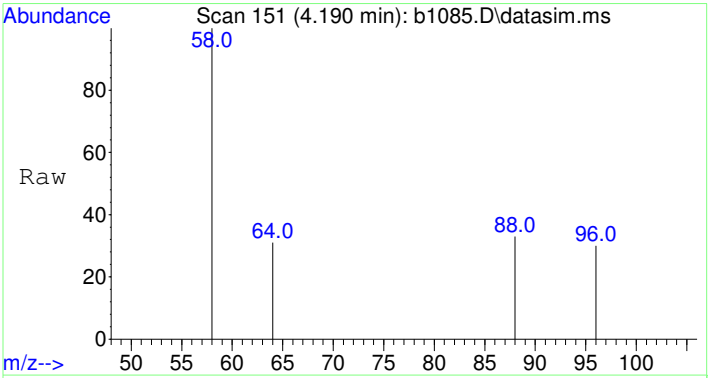
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\041924\
Data File : b1085.D
Acq On : 19 Apr 2024 9:12 am
Operator :
Sample : diox 100
Misc : ccv
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 10 12:16:53 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



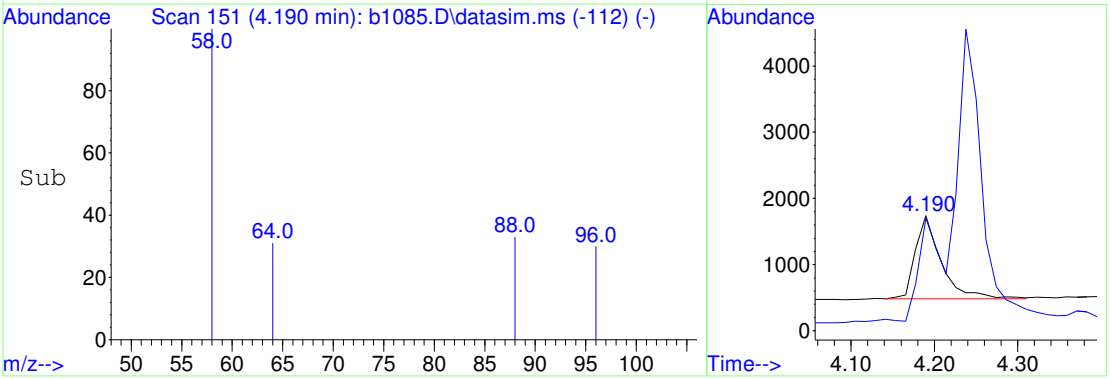


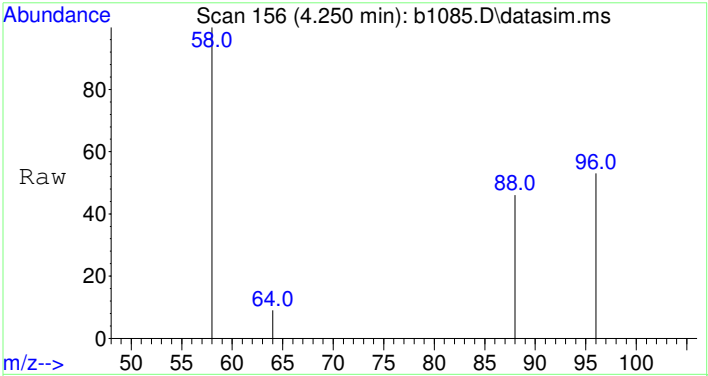


#2
1,4-Dioxane-d8(surr)
Concen: 98.20 ug
RT: 4.190 min Scan# 151
Delta R.T. 0.012 min
Lab File: b1085.D
Acq: 19 Apr 2024 9:12 am

Tgt Ion: 64 Resp: 2688

Ion	Ratio	Lower	Upper
64	100		
96	457.6	97.1	145.7#

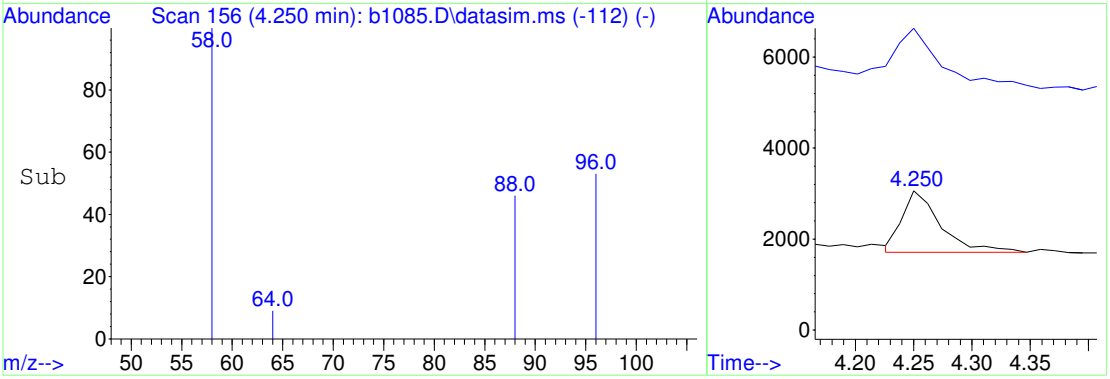




#3
1,4-Dioxane
Concen: 93.37 ug
RT: 4.250 min Scan# 156
Delta R.T. 0.012 min
Lab File: b1085.D
Acq: 19 Apr 2024 9:12 am

Tgt Ion: 88 Resp: 3070

Ion	Ratio	Lower	Upper
88	100		
58	173.6	159.6	239.4



Quantitation Report (QT Reviewed)

Data Path : D:\2\data\041924\
Data File : b1089.D
Acq On : 19 Apr 2024 10:35 am
Operator :
Sample : diox-200
Misc : ccv
ALS Vial : 3 Sample Multiplier: 1

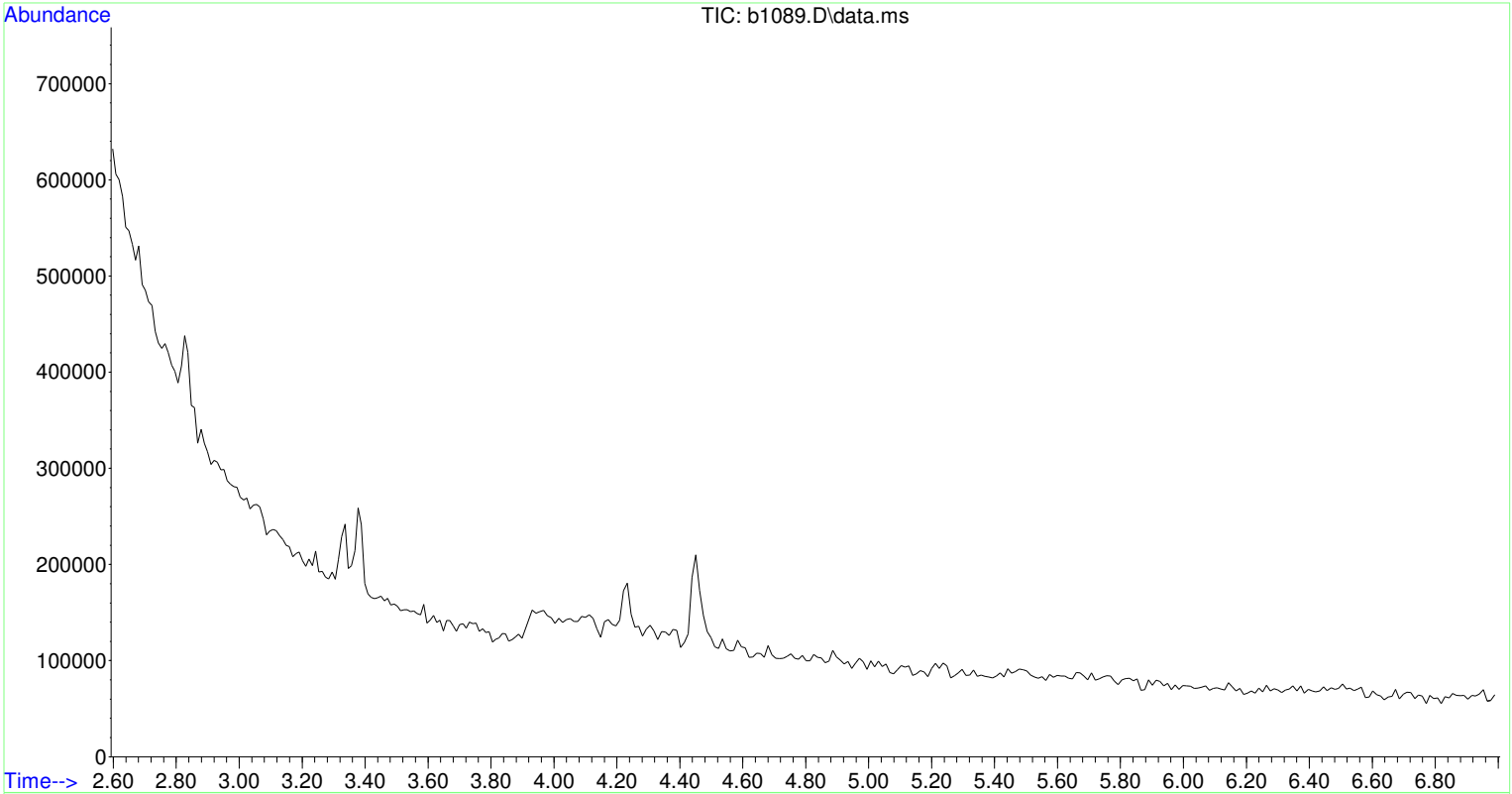
Quant Time: Jul 10 12:17:10 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

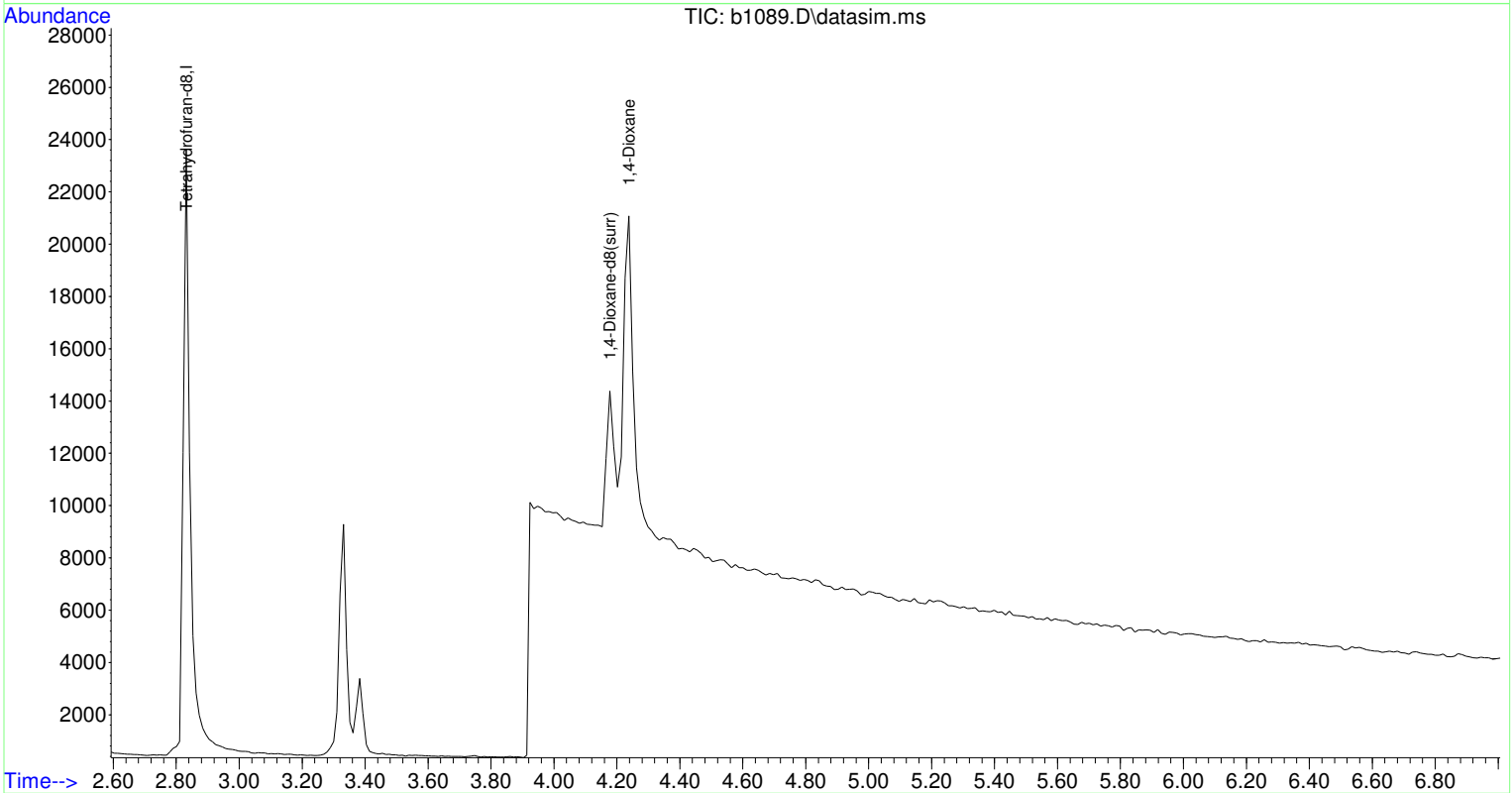
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.832	46	18948	500.00	ug	0.00
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	4.178	64	5074	212.83	ug	94
3] 1,4-Dioxane	4.238	88	5739m	198.93	ug	

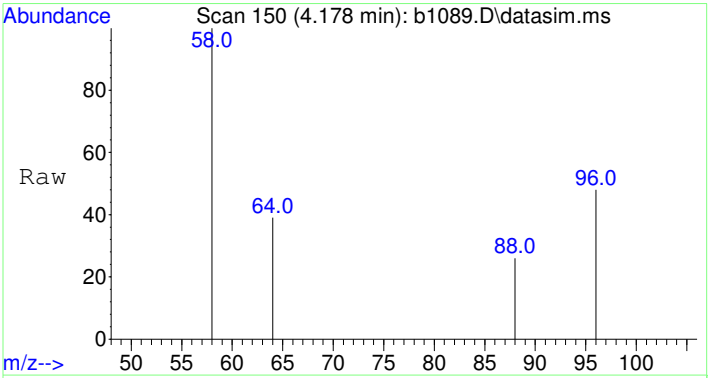
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\041924\
Data File : b1089.D
Acq On : 19 Apr 2024 10:35 am
Operator :
Sample : diox-200
Misc : ccv
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 10 12:17:10 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



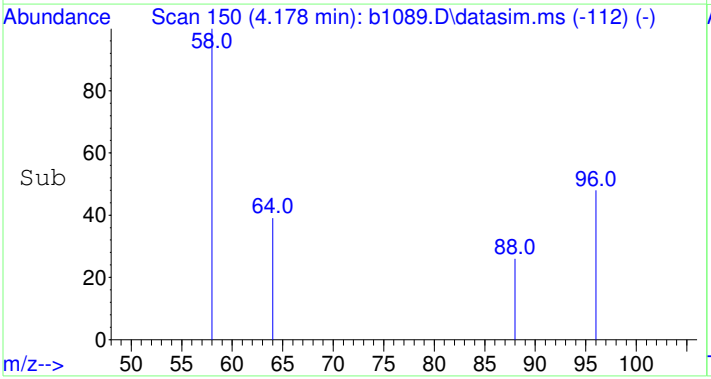


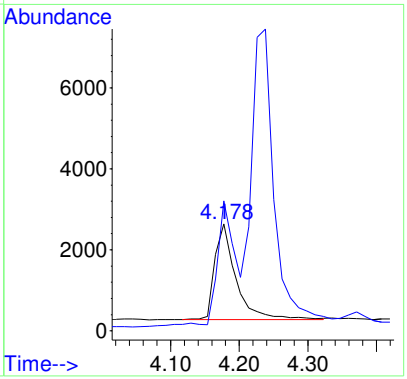


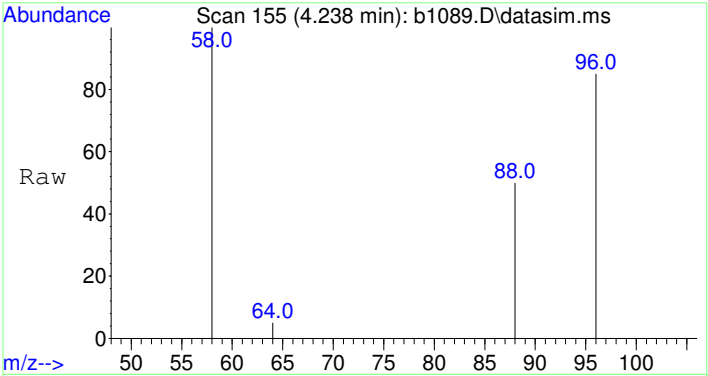
#2
1,4-Dioxane-d8(surr)
Concen: 212.83 ug
RT: 4.178 min Scan# 150
Delta R.T. 0.000 min
Lab File: b1089.D
Acq: 19 Apr 2024 10:35 am

Tgt Ion: 64 Resp: 5074

Ion	Ratio	Lower	Upper
64	100		
96	114.5	97.1	145.7



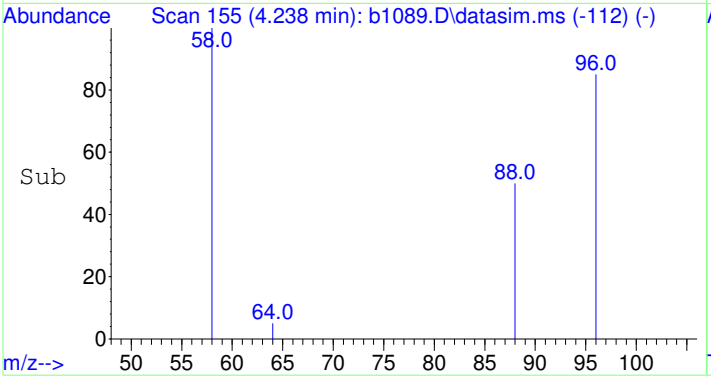


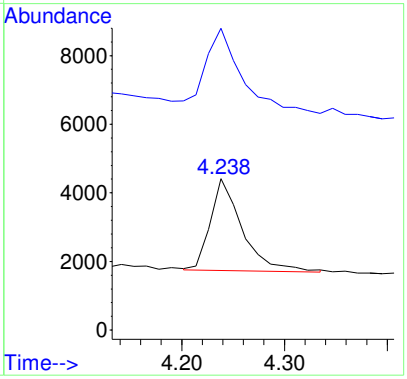


#3
1,4-Dioxane
Concen: 198.93 ug m
RT: 4.238 min Scan# 155
Delta R.T. 0.000 min
Lab File: b1089.D
Acq: 19 Apr 2024 10:35 am

Tgt Ion: 88 Resp: 5739

Ion	Ratio	Lower	Upper
88	100		
58	241.1	159.6	239.4#





Quantitation Report (Not Reviewed)

Data Path : D:\2\data\041924\
Data File : b1086.D
Acq On : 19 Apr 2024 9:38 am
Operator :
Sample : diox500 (Sig #1); diox50 (Sig #2)
Misc : ccv
ALS Vial : 2 Sample Multiplier: 1

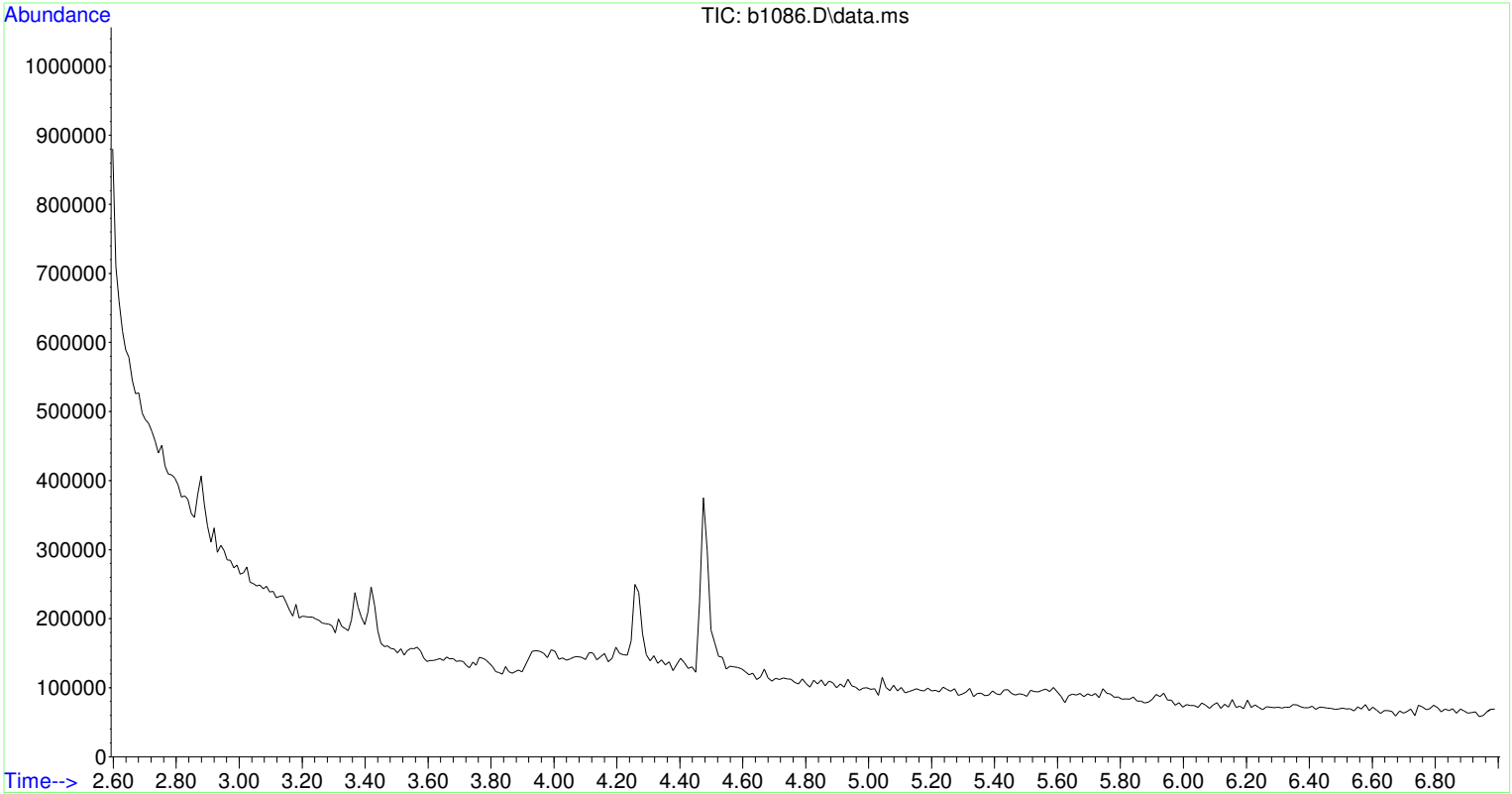
Quant Time: Jul 10 12:17:00 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

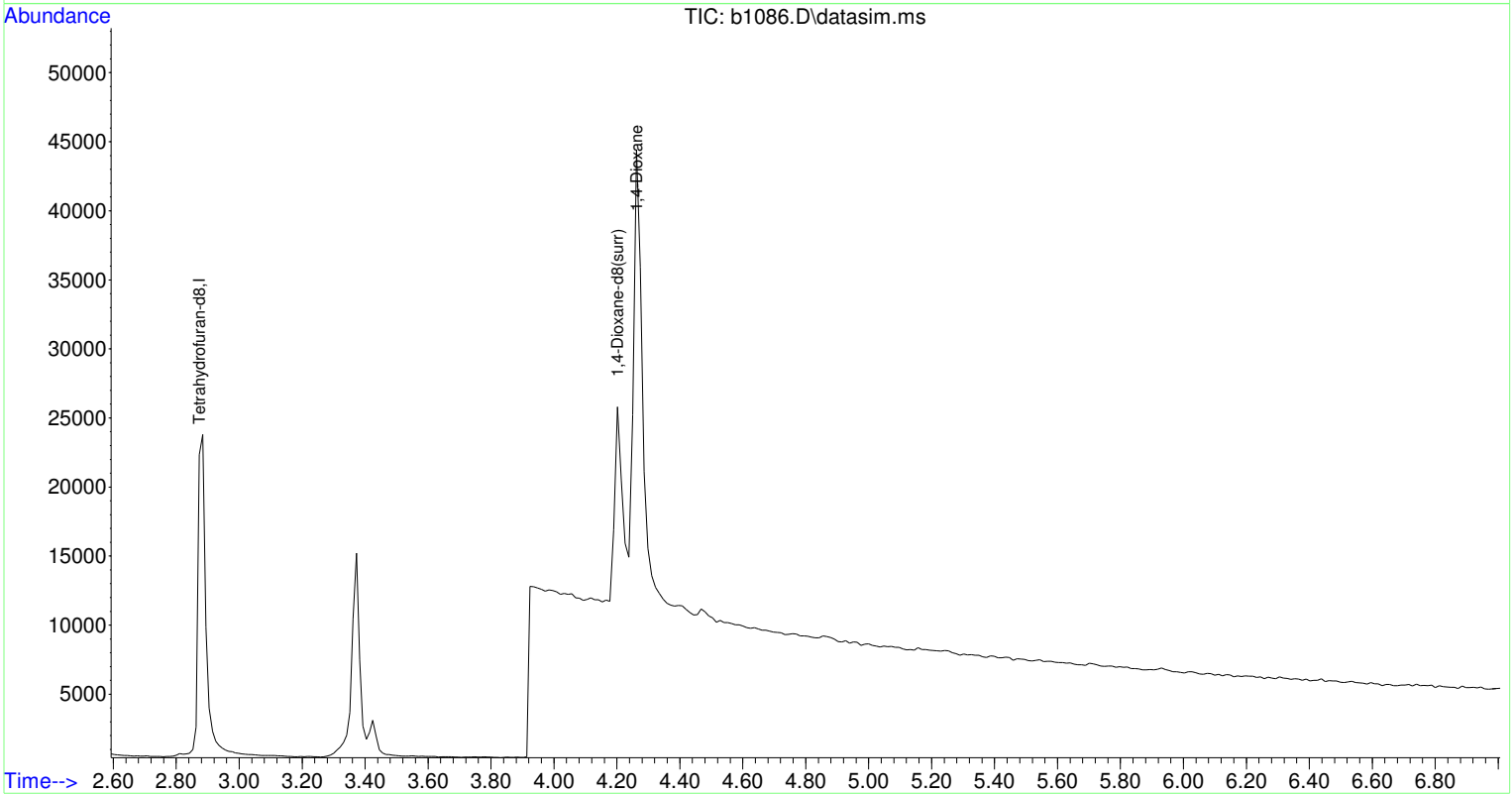
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tetrahydrofuran-d8	2.873	46	21279	500.00	ug		0.04
Target Compounds							Qvalue
2] 1,4-Dioxane-d8(surr)	4.202	64	12657	495.36	ug		93
3] 1,4-Dioxane	4.262	88	15279	493.91	ug	#	63

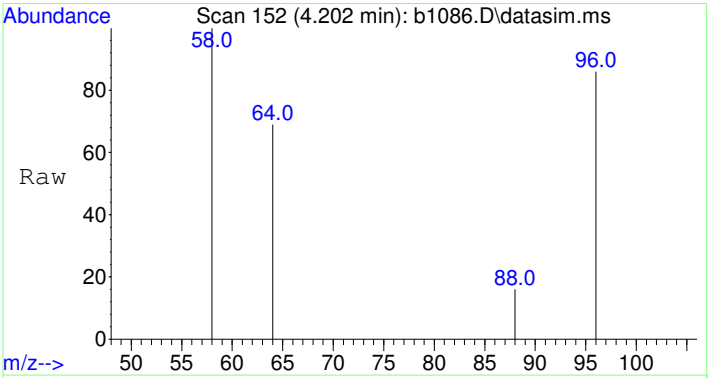
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\041924\
Data File : b1086.D
Acq On : 19 Apr 2024 9:38 am
Operator :
Sample : diox500 (Sig #1); diox50 (Sig #2)
Misc : ccv
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 12:17:00 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



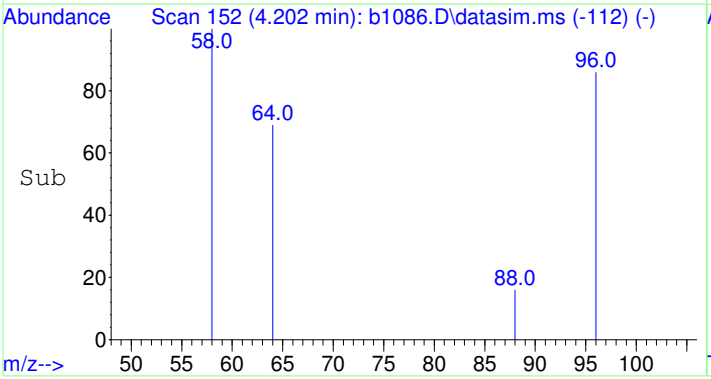


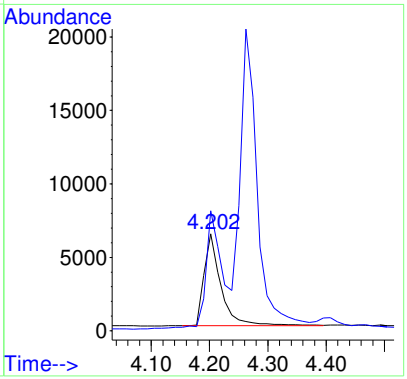


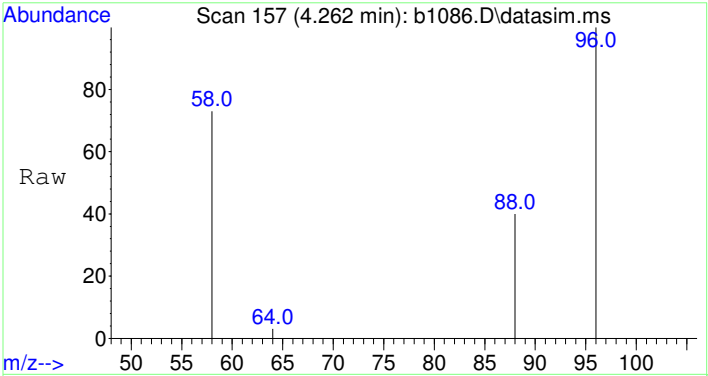
#2
1,4-Dioxane-d8(surr)
Concen: 495.36 ug
RT: 4.202 min Scan# 152
Delta R.T. 0.024 min
Lab File: b1086.D
Acq: 19 Apr 2024 9:38 am

Tgt Ion: 64 Resp: 12657

Ion	Ratio	Lower	Upper
64	100		
96	129.4	97.1	145.7



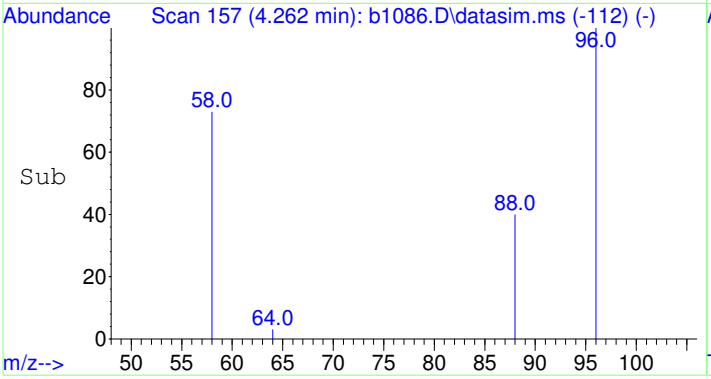


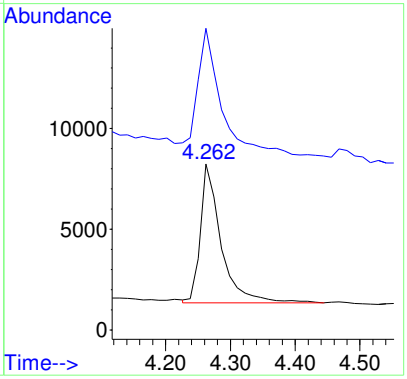


#3
1,4-Dioxane
Concen: 493.91 ug
RT: 4.262 min Scan# 157
Delta R.T. 0.024 min
Lab File: b1086.D
Acq: 19 Apr 2024 9:38 am

Tgt Ion: 88 Resp: 15279

Ion	Ratio	Lower	Upper
88	100		
58	254.9	159.6	239.4#



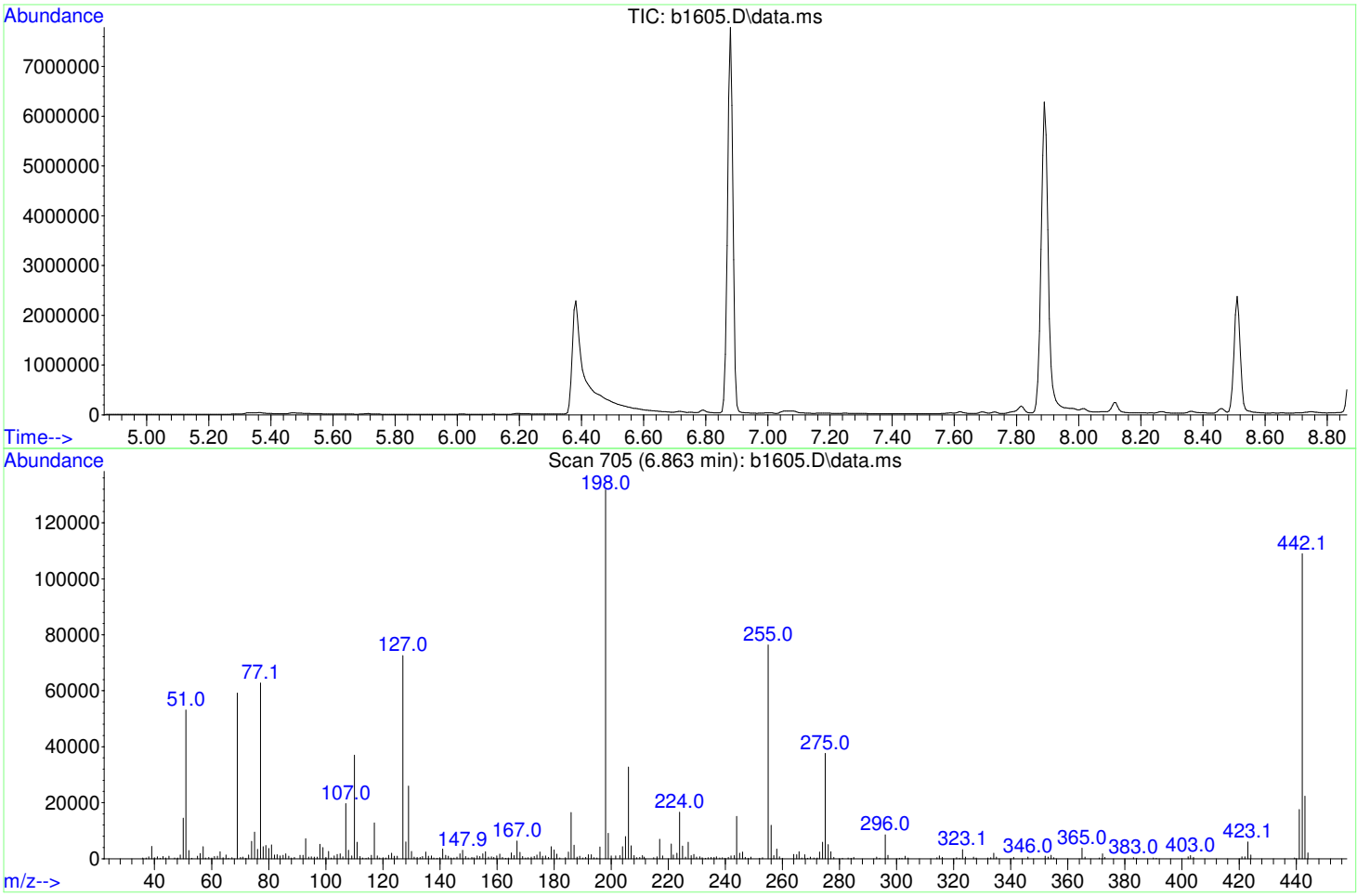


DFTPP

Data Path : D:\2\data\070324\
Data File : b1605.D
Acq On : 3 Jul 2024 6:06 am
Operator :
Sample : dftpp
Misc : tune
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\2\methods\simdiox041924.M
Title : 14Dioxane-Sim
Last Update : Fri Apr 19 11:16:28 2024



Spectrum Information: Scan 705

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.3	53144	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	44.9	59160	PASS
70	69	0.00	2	0.8	490	PASS
127	198	30	60	55.0	72512	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	131840	PASS
199	198	5	9	6.9	9126	PASS
275	198	10	30	28.5	37640	PASS
365	198	1	100	2.9	3774	PASS
441	443	0.01	100	78.6	17592	PASS
442	198	39	100	82.7	109008	PASS
443	442	17	23	20.5	22392	PASS

Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070324\
Data File : b1624.D
Acq On : 3 Jul 2024 3:21 pm
Operator :
Sample : diox 100
Misc : ccv
ALS Vial : 1 Sample Multiplier: 1

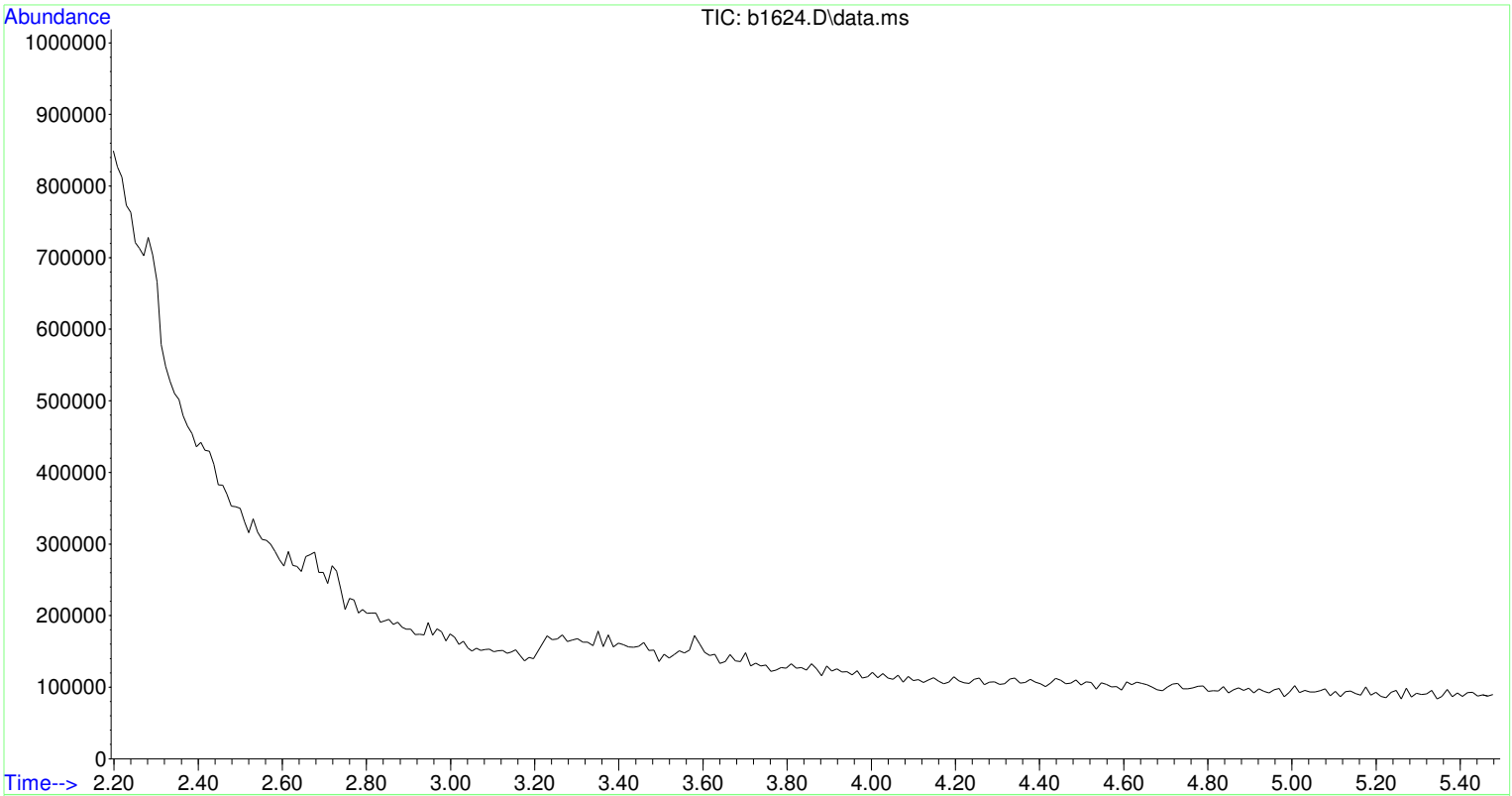
Quant Time: Jul 03 15:32:11 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

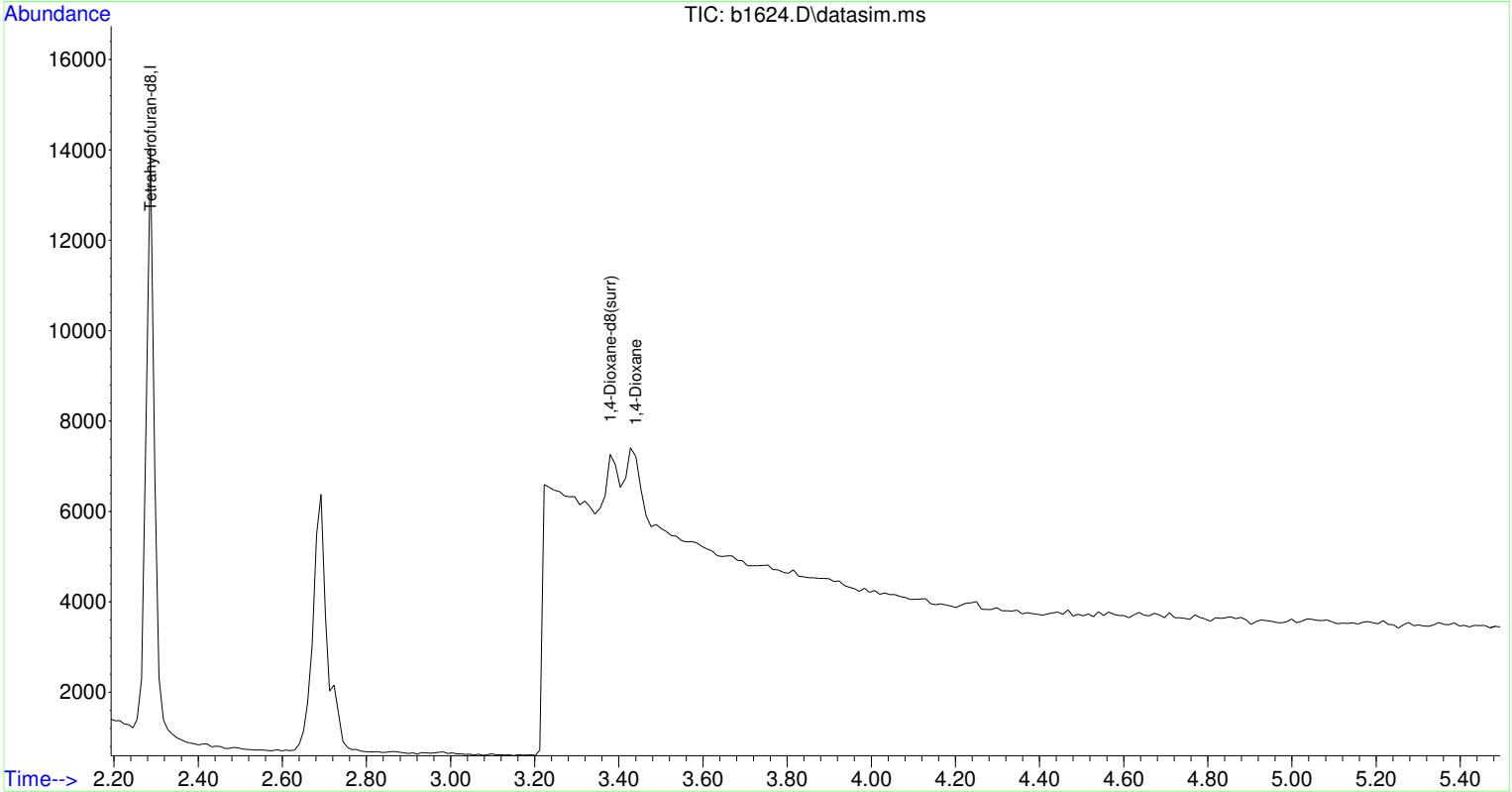
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.286	46	8895m	500.00	ug	-0.03
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.380	64	1336m	111.24	ug	
3] 1,4-Dioxane	3.440	88	1603m	111.77	ug	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070324\
Data File : b1624.D
Acq On : 3 Jul 2024 3:21 pm
Operator :
Sample : diox 100
Misc : ccv
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 03 15:32:11 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070324\
Data File : b1625.D
Acq On : 3 Jul 2024 3:49 pm
Operator :
Sample : mb-109723
Misc : mblk
ALS Vial : 2 Sample Multiplier: 1

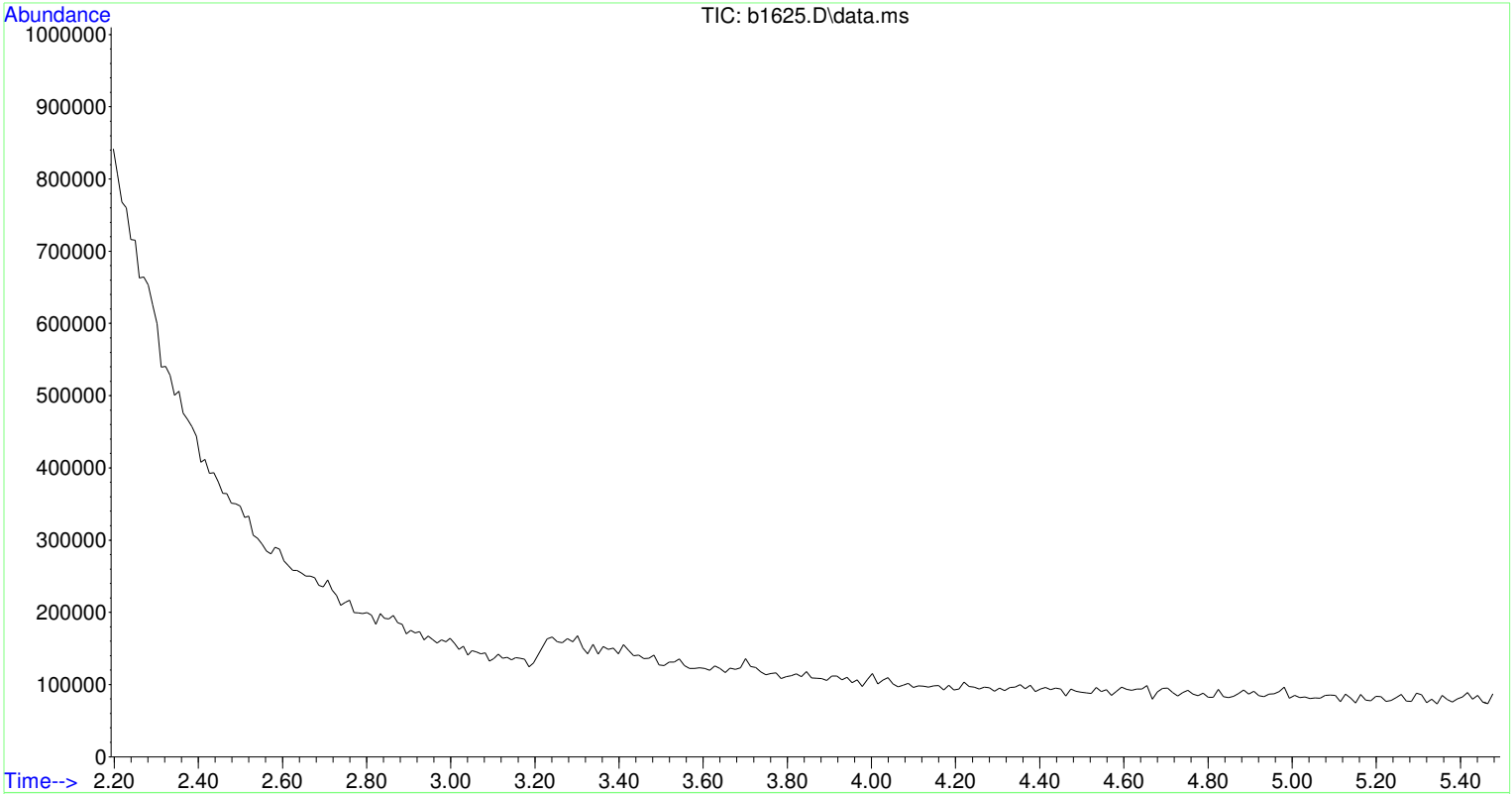
Quant Time: Jul 05 07:55:41 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

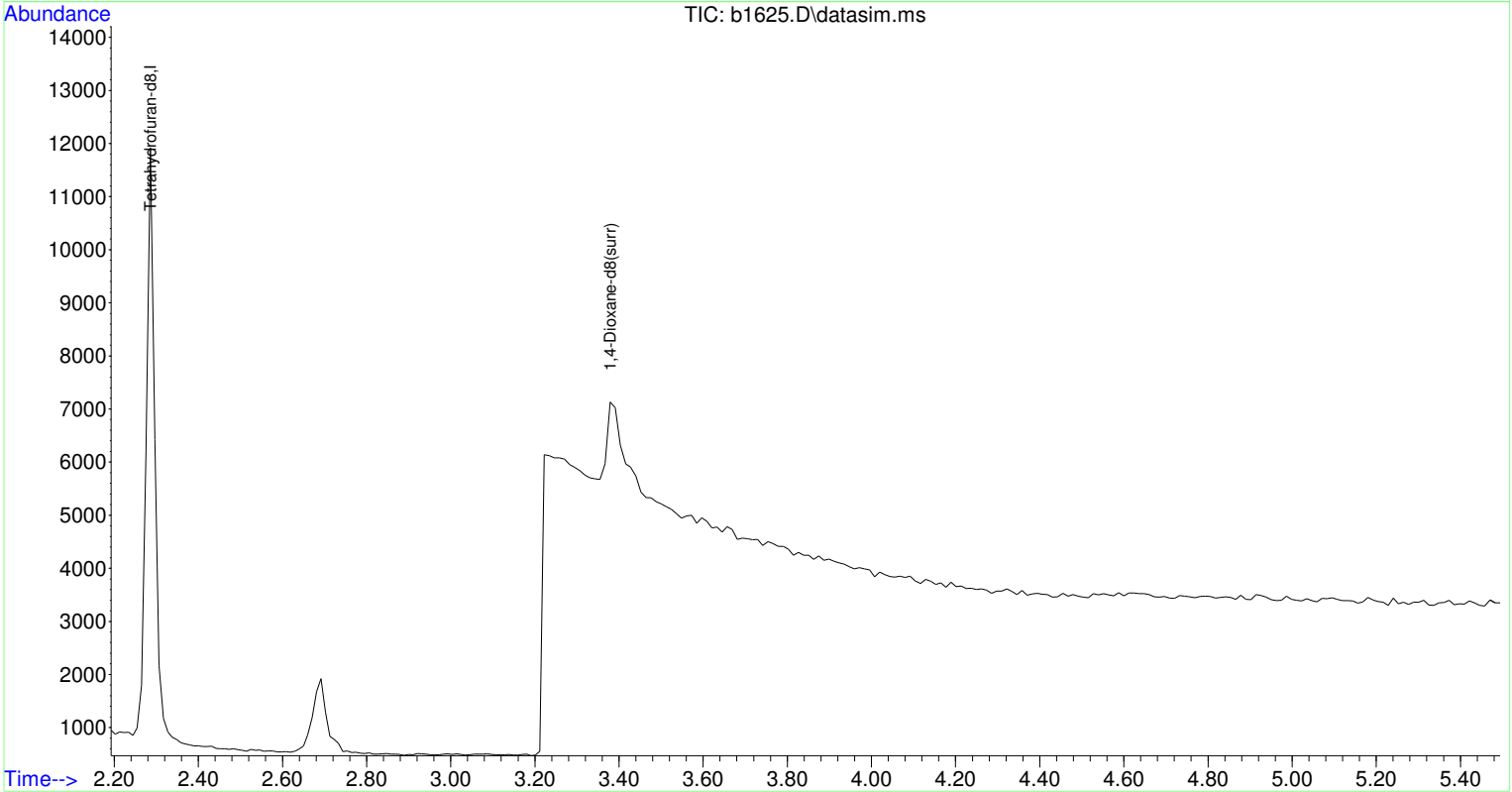
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.286	46	8513	500.00	ug	-0.03
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.379	64	2216	206.37	ug	100

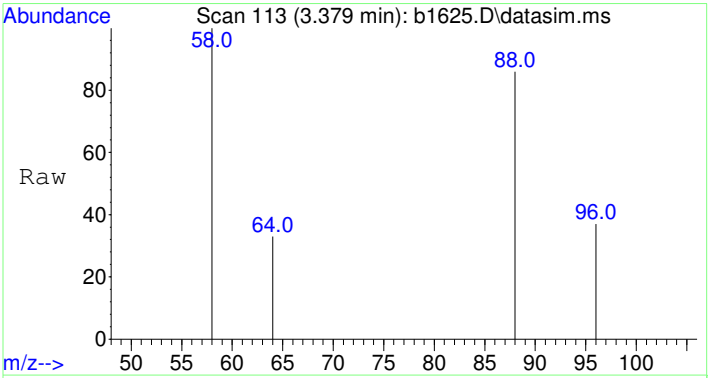
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070324\
Data File : b1625.D
Acq On : 3 Jul 2024 3:49 pm
Operator :
Sample : mb-109723
Misc : mblk
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 07:55:41 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



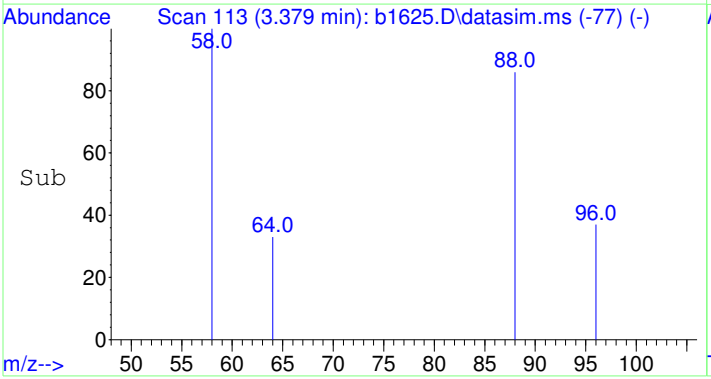


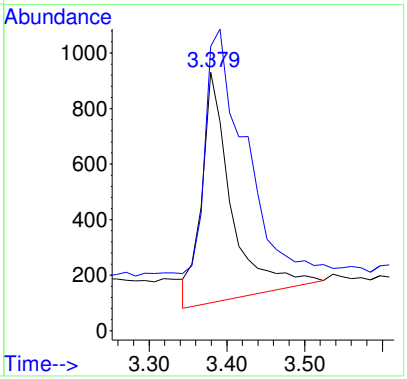


#2
1,4-Dioxane-d8(surr)
Concen: 206.37 ug
RT: 3.379 min Scan# 113
Delta R.T. -0.036 min
Lab File: b1625.D
Acq: 3 Jul 2024 3:49 pm

Tgt Ion: 64 Resp: 2216

Ion	Ratio	Lower	Upper
64	100		
96	140.9	112.9	169.3





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070324\
Data File : b1626.D
Acq On : 3 Jul 2024 3:59 pm
Operator :
Sample : lcs-109723
Misc : lcs
ALS Vial : 3 Sample Multiplier: 1

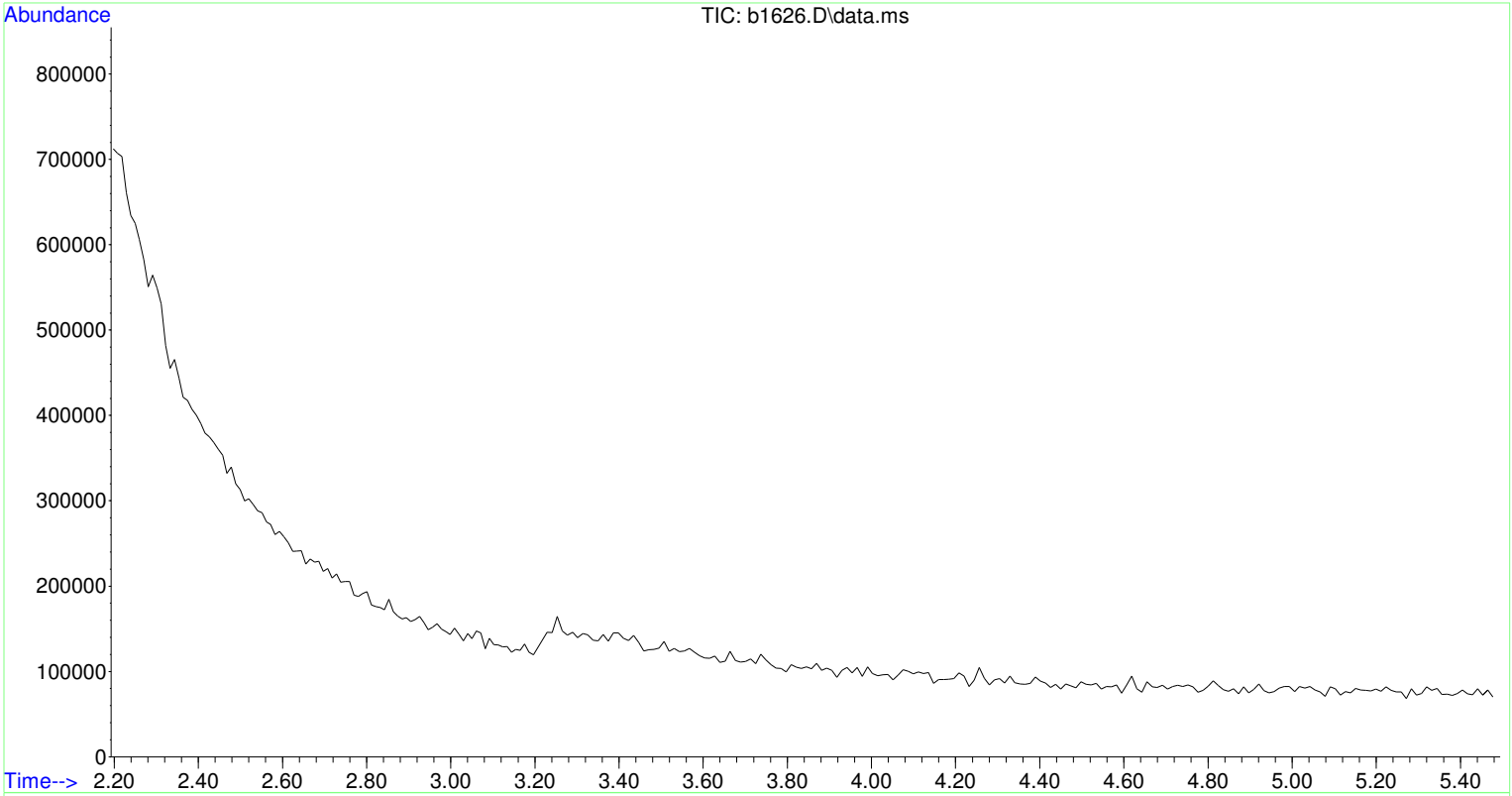
Quant Time: Jul 05 07:56:11 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

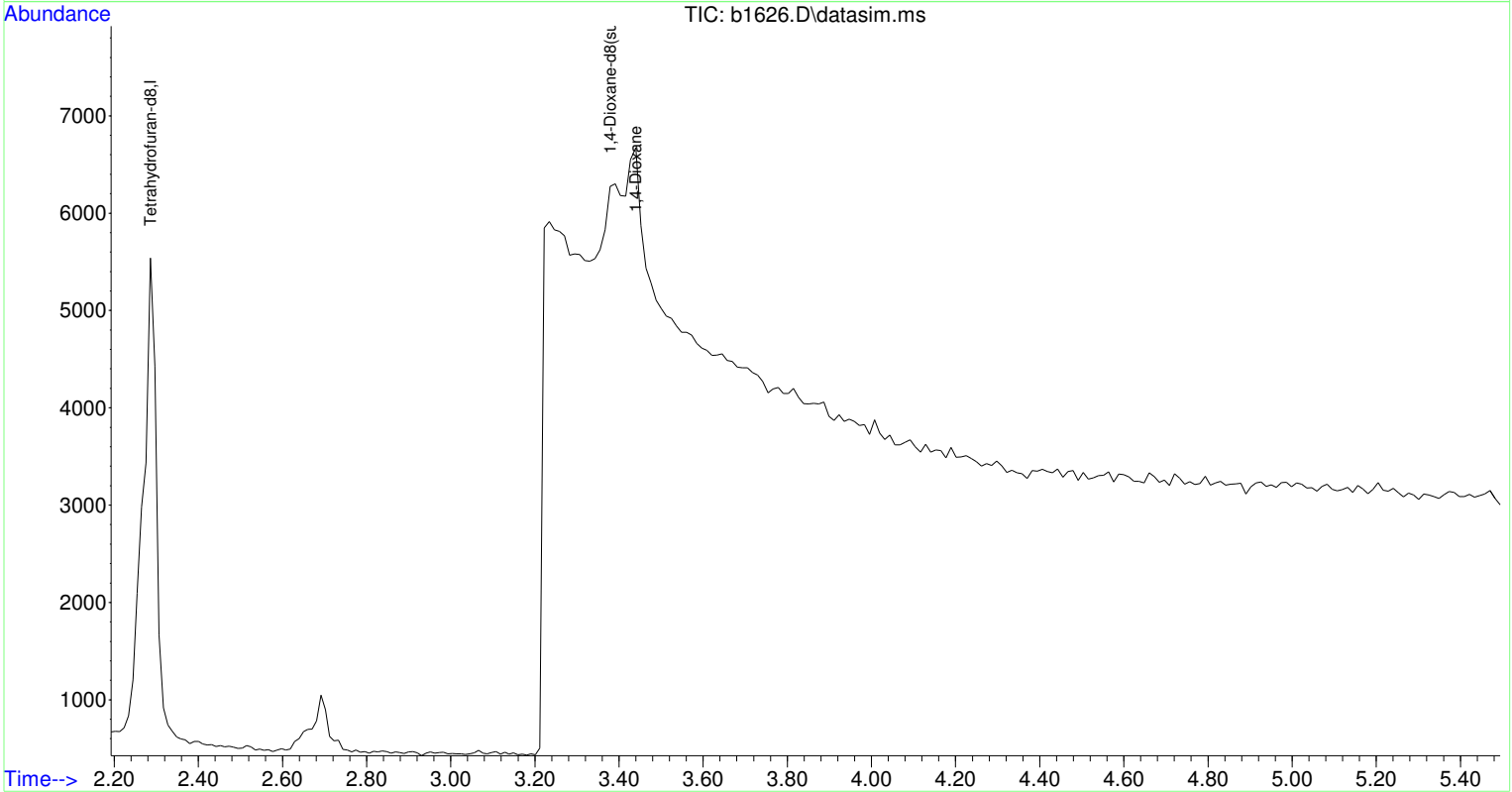
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.286	46	6008	500.00	ug	-0.03
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.379	64	1033m	130.02	ug	
3] 1,4-Dioxane	3.440	88	1439m	153.91	ug	

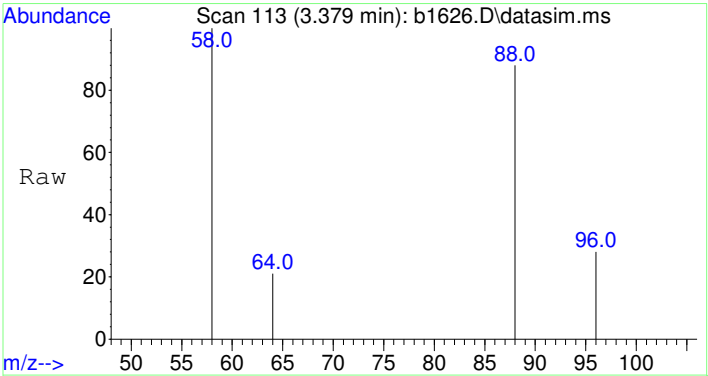
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070324\
Data File : b1626.D
Acq On : 3 Jul 2024 3:59 pm
Operator :
Sample : lcs-109723
Misc : lcs
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 07:56:11 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



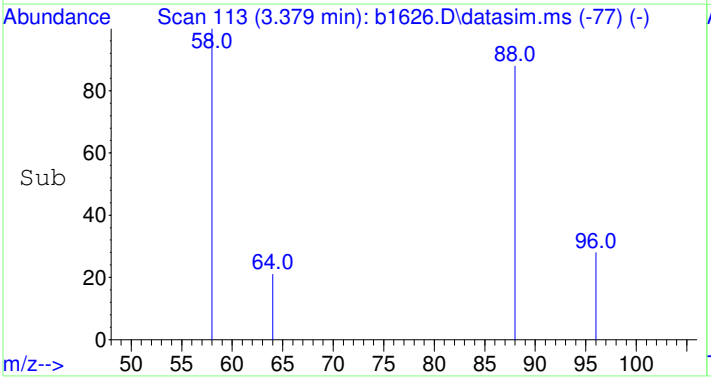


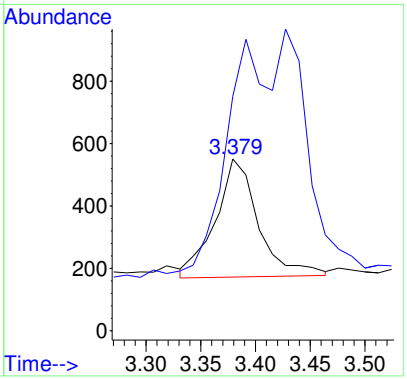


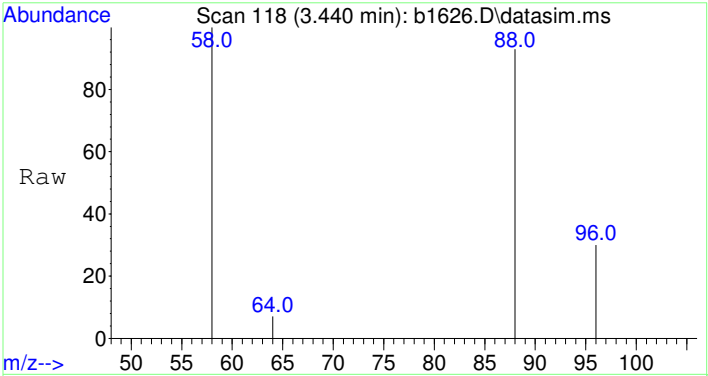
#2
1,4-Dioxane-d8(surr)
Concen: 130.02 ug m
RT: 3.379 min Scan# 113
Delta R.T. -0.036 min
Lab File: b1626.D
Acq: 3 Jul 2024 3:59 pm

Tgt Ion: 64 Resp: 1033

Ion	Ratio	Lower	Upper
64	100		
96	205.9	112.9	169.3#



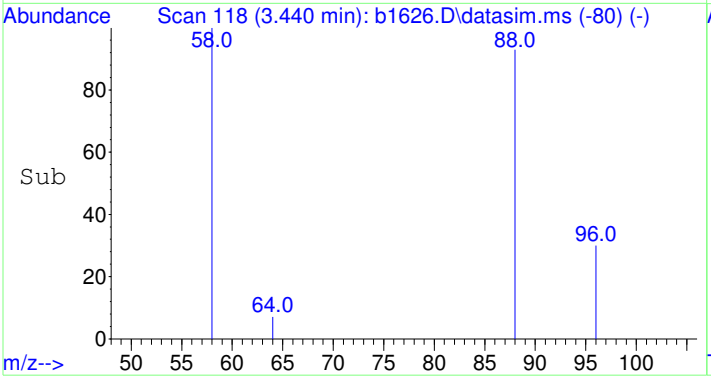


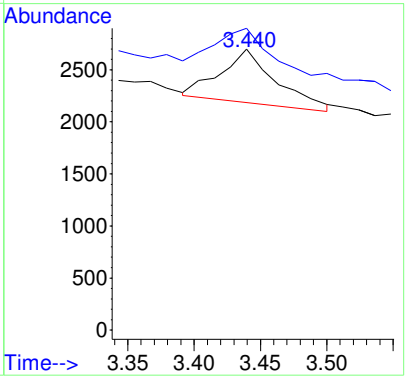


#3
1,4-Dioxane
Concen: 153.91 ug m
RT: 3.440 min Scan# 118
Delta R.T. -0.058 min
Lab File: b1626.D
Acq: 3 Jul 2024 3:59 pm

Tgt Ion: 88 Resp: 1439

Ion	Ratio	Lower	Upper
88	100		
58	0.0	151.0	226.4#



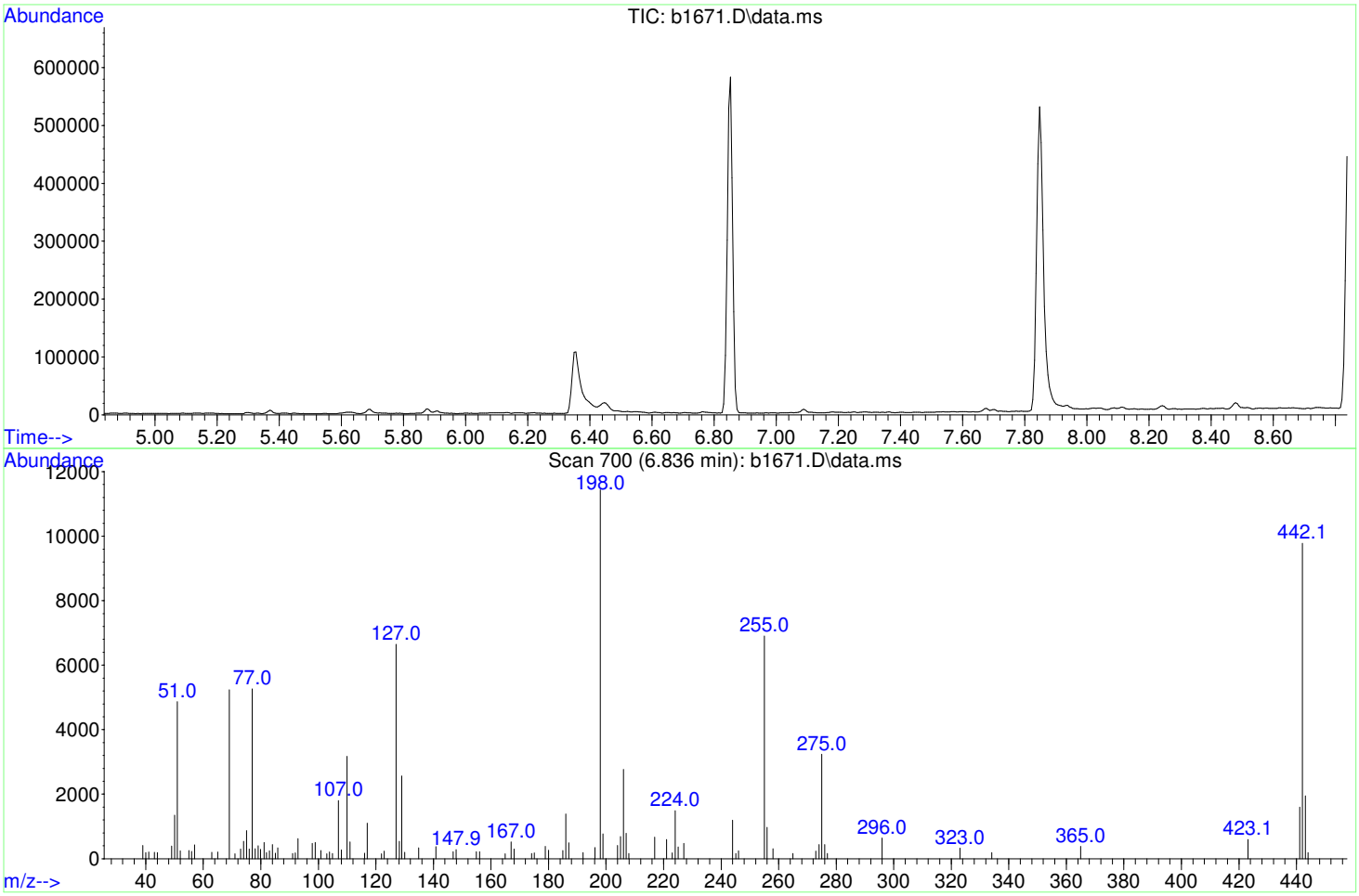


DFTPP

Data Path : D:\2\data\070924\
Data File : b1671.D
Acq On : 9 Jul 2024 9:59 am
Operator :
Sample : dftpp
Misc : ccv
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\2\methods\simdiox041924.M
Title : 14Dioxane-Sim
Last Update : Fri Apr 19 11:16:28 2024



Spectrum Information: Scan 700

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.6	4870	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.8	5240	PASS
70	69	0.00	2	0.0	0	PASS
127	198	30	60	58.1	6650	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	11442	PASS
199	198	5	9	6.7	769	PASS
275	198	10	30	28.3	3240	PASS
365	198	1	100	3.3	380	PASS
441	443	0.01	100	82.2	1599	PASS
442	198	39	100	85.5	9784	PASS
443	442	17	23	19.9	1945	PASS

Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1679.D
Acq On : 9 Jul 2024 2:11 pm
Operator :
Sample : diox-100
Misc : ccv
ALS Vial : 1 Sample Multiplier: 1

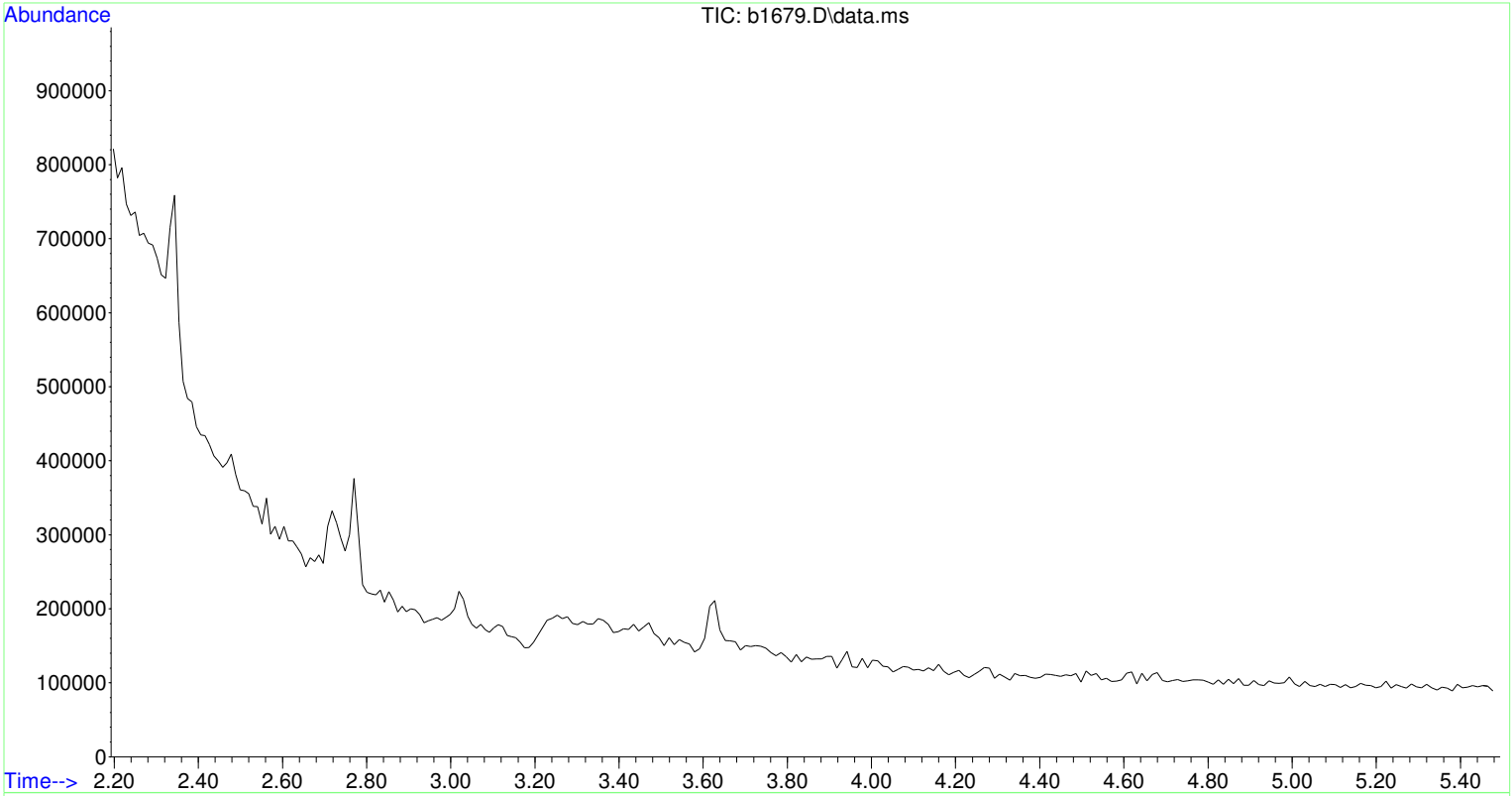
Quant Time: Jul 10 12:11:35 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

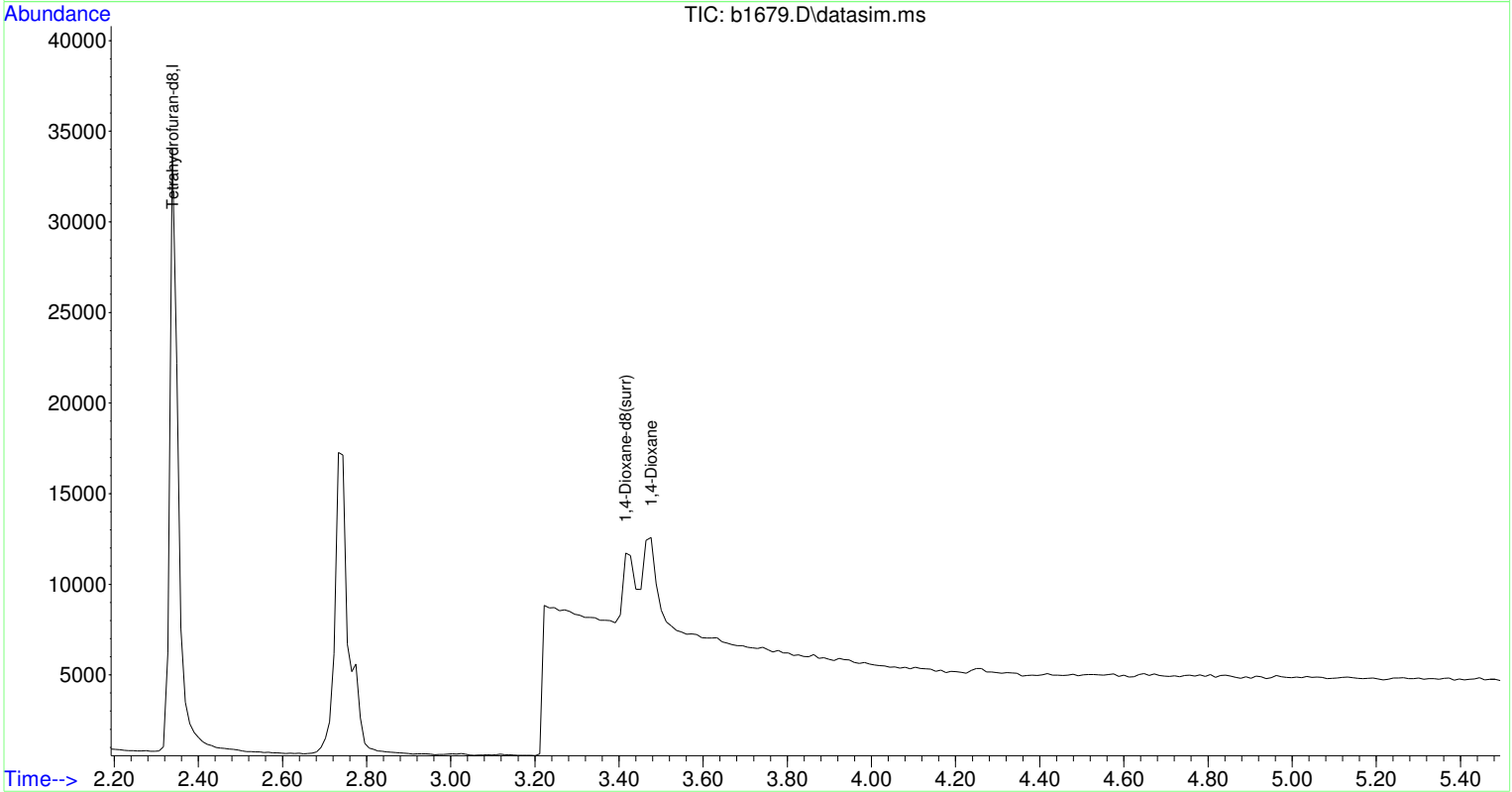
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.338	46	23319	500.00	ug	0.02
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.415	64	4138	134.78	ug	# 43
3] 1,4-Dioxane	3.476	88	4269m	113.80	ug	

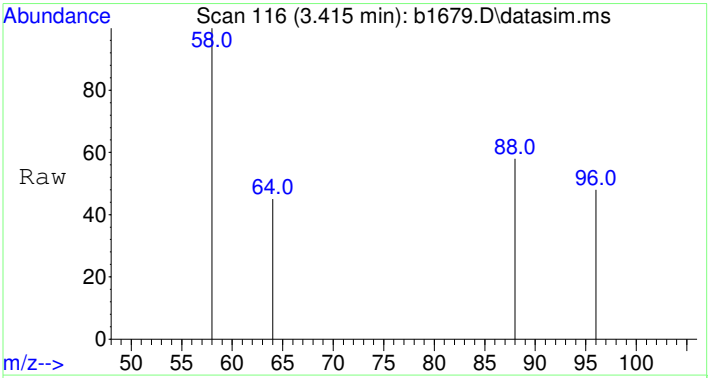
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070924\
Data File : b1679.D
Acq On : 9 Jul 2024 2:11 pm
Operator :
Sample : diox-100
Misc : ccv
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 10 12:11:35 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



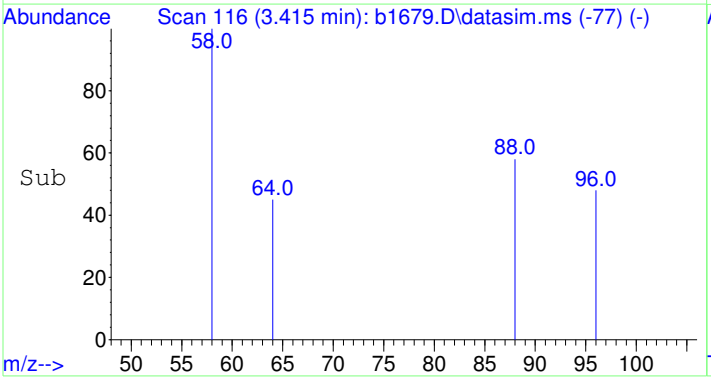


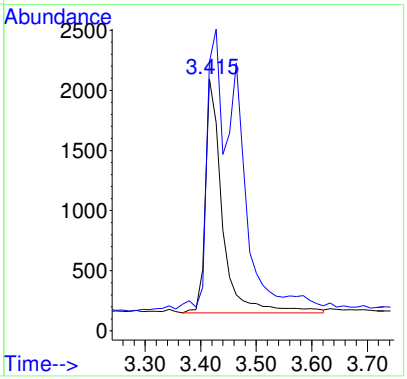


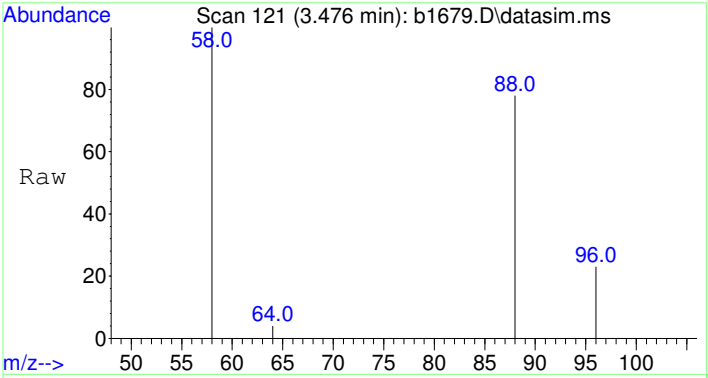
#2
1,4-Dioxane-d8(surr)
Concen: 134.78 ug
RT: 3.415 min Scan# 116
Delta R.T. -0.000 min
Lab File: b1679.D
Acq: 9 Jul 2024 2:11 pm

Tgt Ion: 64 Resp: 4138

Ion	Ratio	Lower	Upper
64	100		
96	210.5	112.9	169.3#



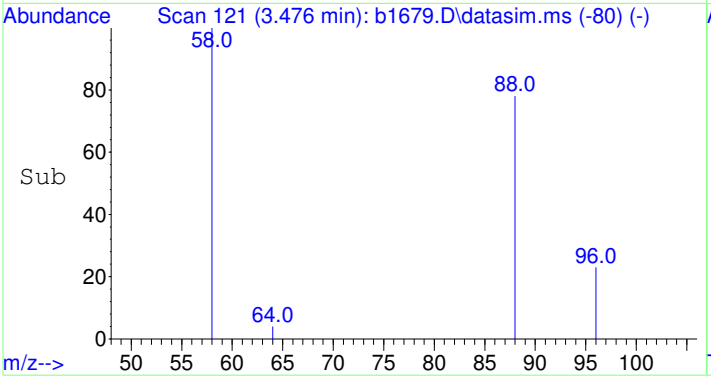


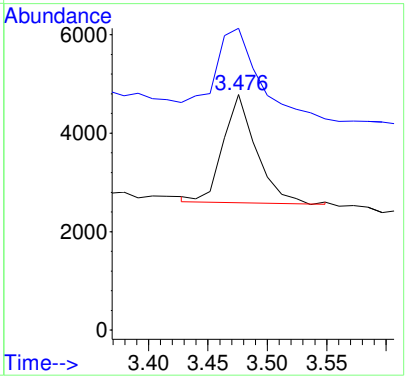


#3
1,4-Dioxane
Concen: 113.80 ug m
RT: 3.476 min Scan# 121
Delta R.T. -0.022 min
Lab File: b1679.D
Acq: 9 Jul 2024 2:11 pm

Tgt Ion: 88 Resp: 4269

Ion	Ratio	Lower	Upper
88	100		
58	650.5	151.0	226.4#





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1682.D
Acq On : 9 Jul 2024 5:07 pm
Operator :
Sample : 240625028-001b (Sig #1); 240625028-002b (Sig #2)
Misc : samp
ALS Vial : 7 Sample Multiplier: 1

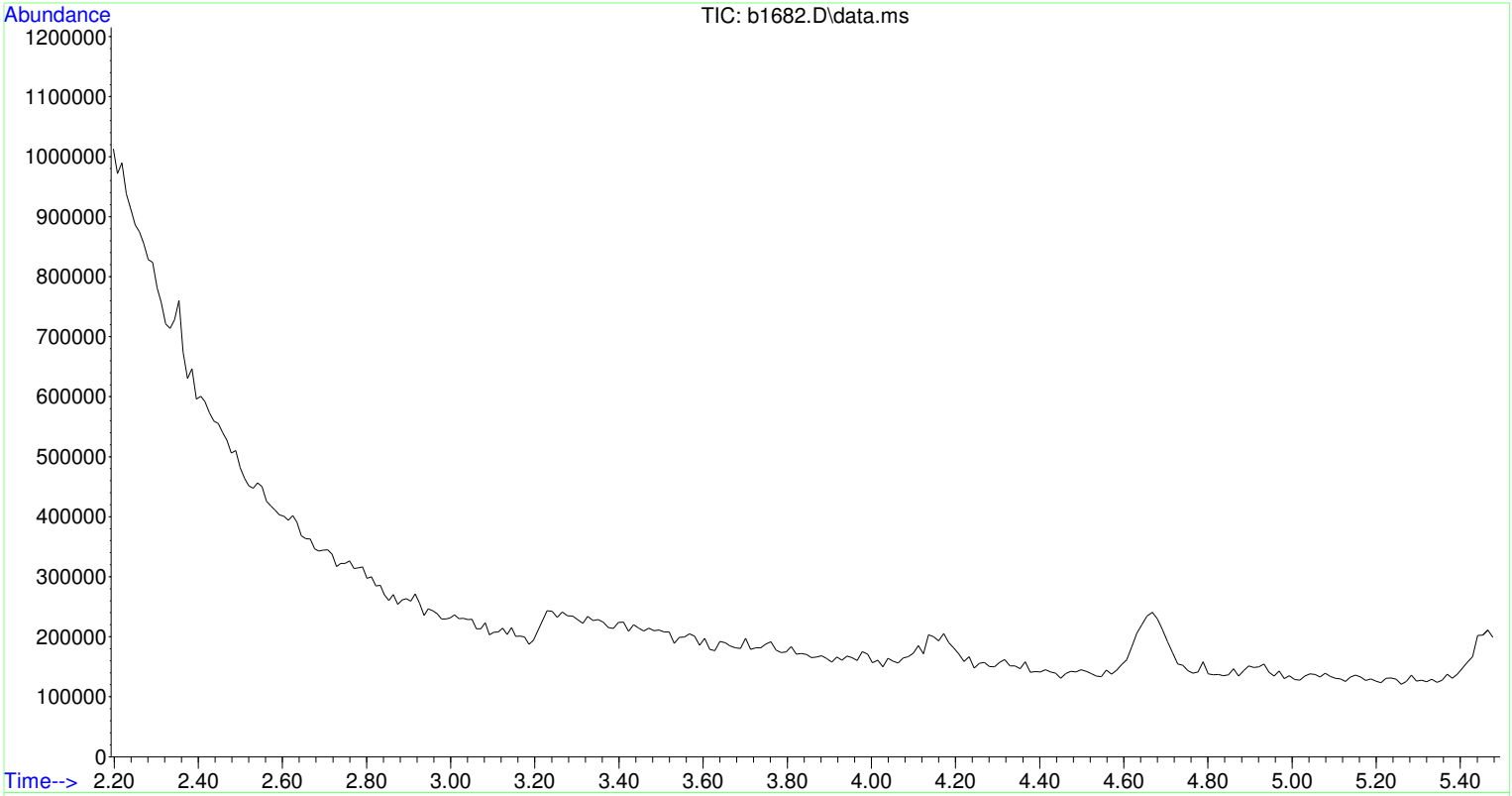
Quant Time: Jul 10 12:11:49 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

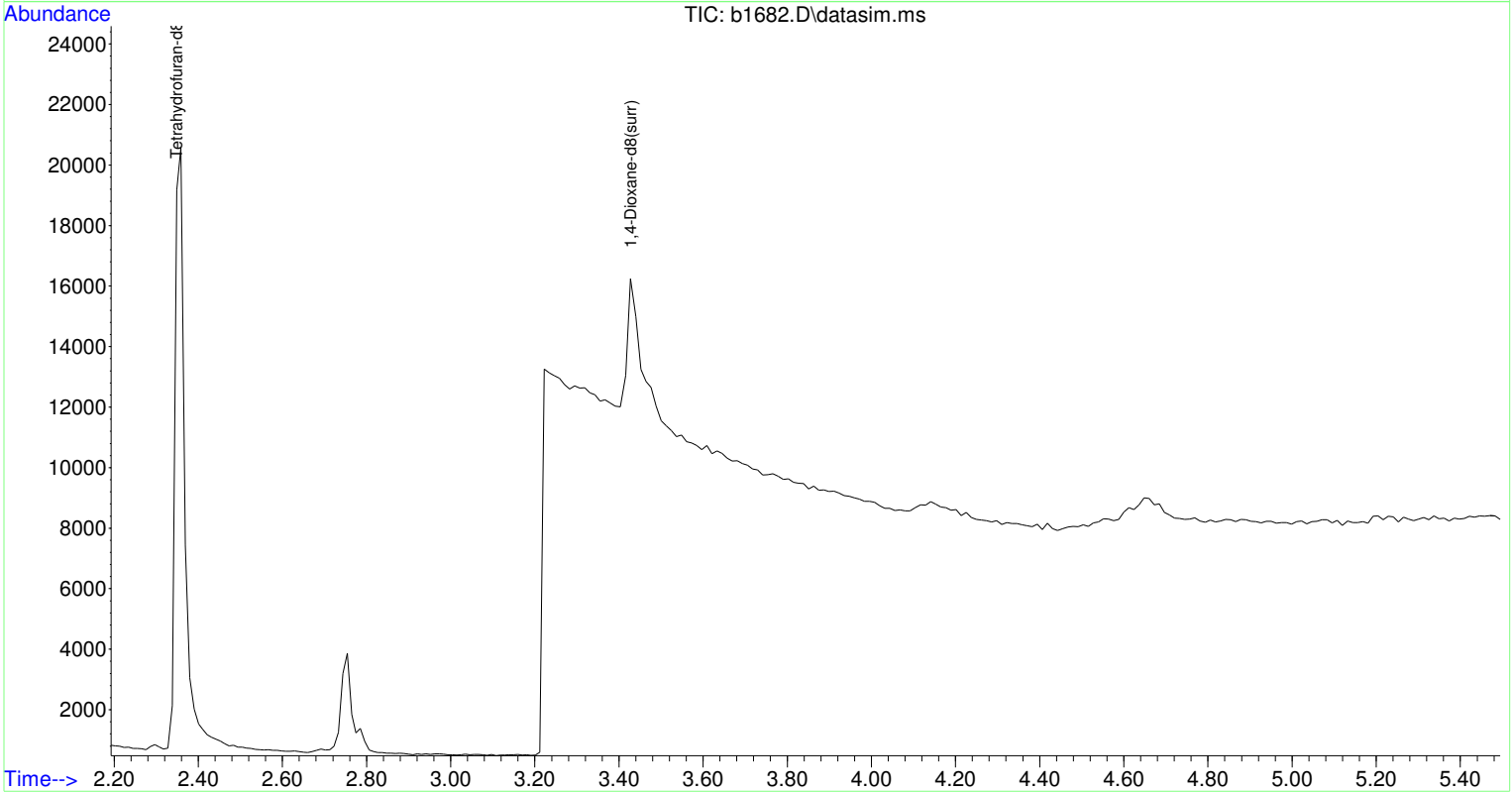
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.348	46	16882	500.00	ug	0.03
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.428	64	3936	182.90	ug	# 38

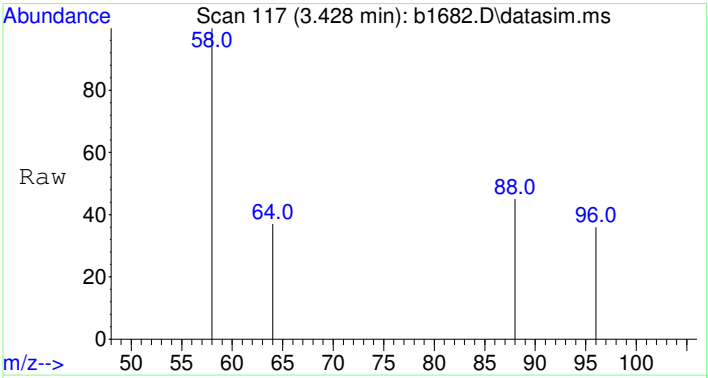
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070924\
Data File : b1682.D
Acq On : 9 Jul 2024 5:07 pm
Operator :
Sample : 240625028-001b (Sig #1); 240625028-002b (Sig #2)
Misc : samp
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 10 12:11:49 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



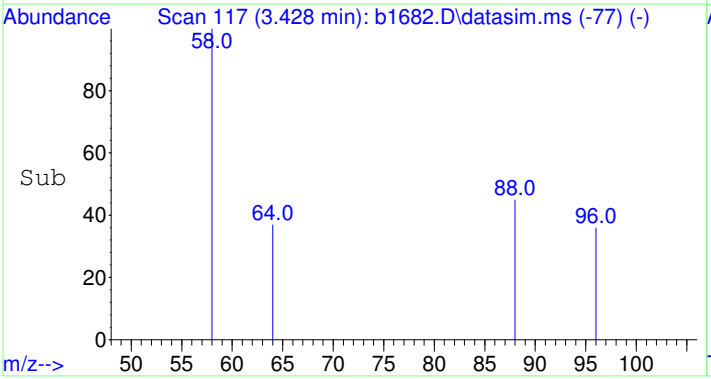


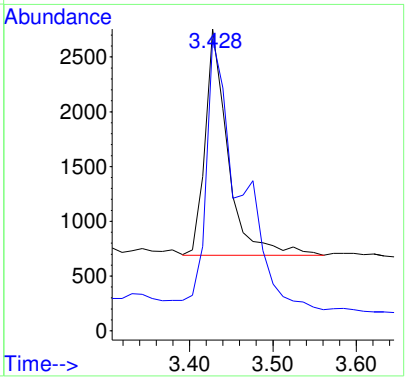


#2
1,4-Dioxane-d8(surr)
Concen: 182.90 ug
RT: 3.428 min Scan# 117
Delta R.T. 0.012 min
Lab File: b1682.D
Acq: 9 Jul 2024 5:07 pm

Tgt Ion: 64 Resp: 3936

Ion	Ratio	Lower	Upper
64	100		
96	216.4	112.9	169.3#





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1683.D
Acq On : 9 Jul 2024 5:16 pm
Operator :
Sample : 240625028-002b (Sig #1); 240625028-003b (Sig #2)
Misc : samp
ALS Vial : 8 Sample Multiplier: 1

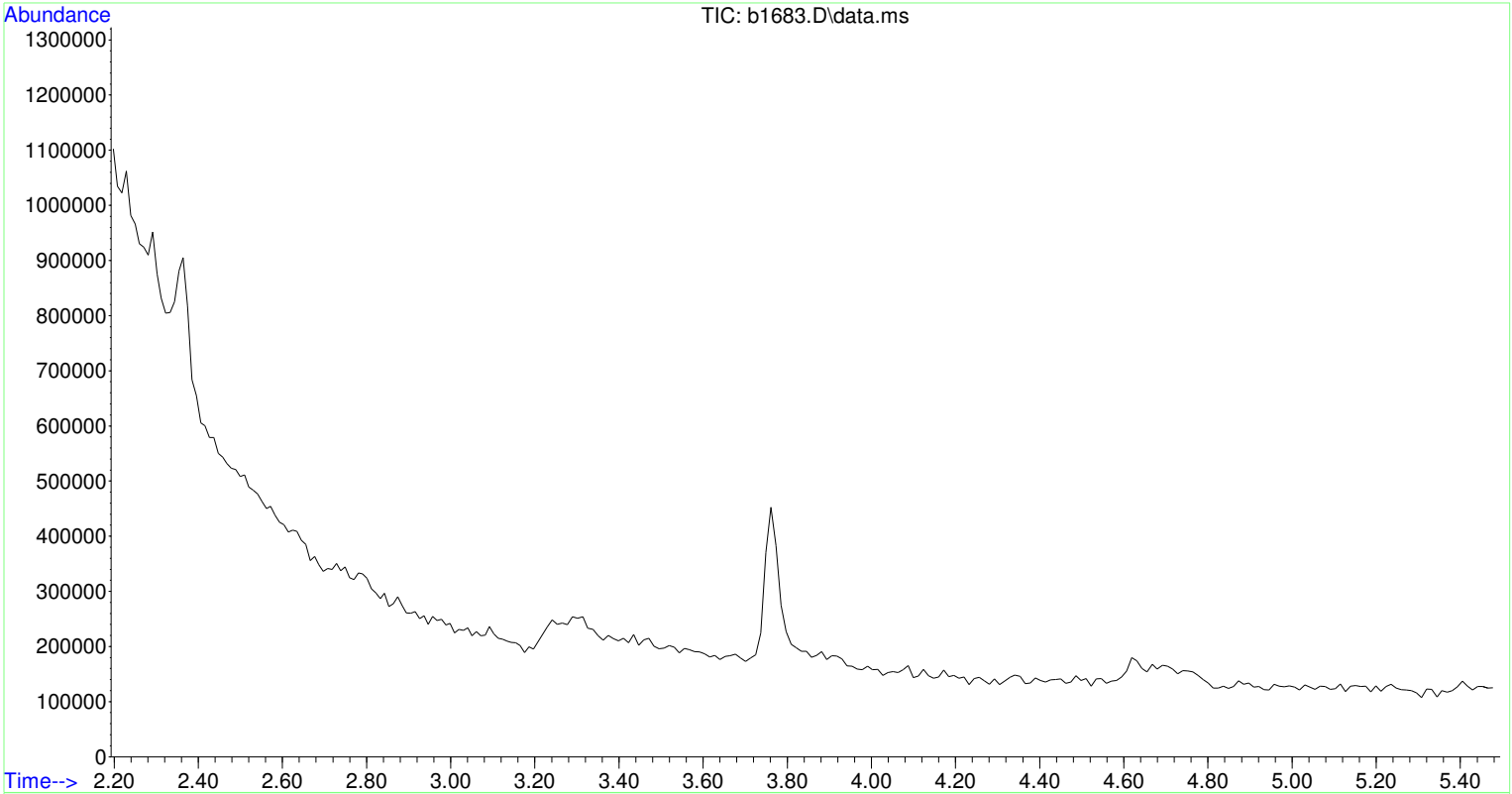
Quant Time: Jul 10 10:52:47 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

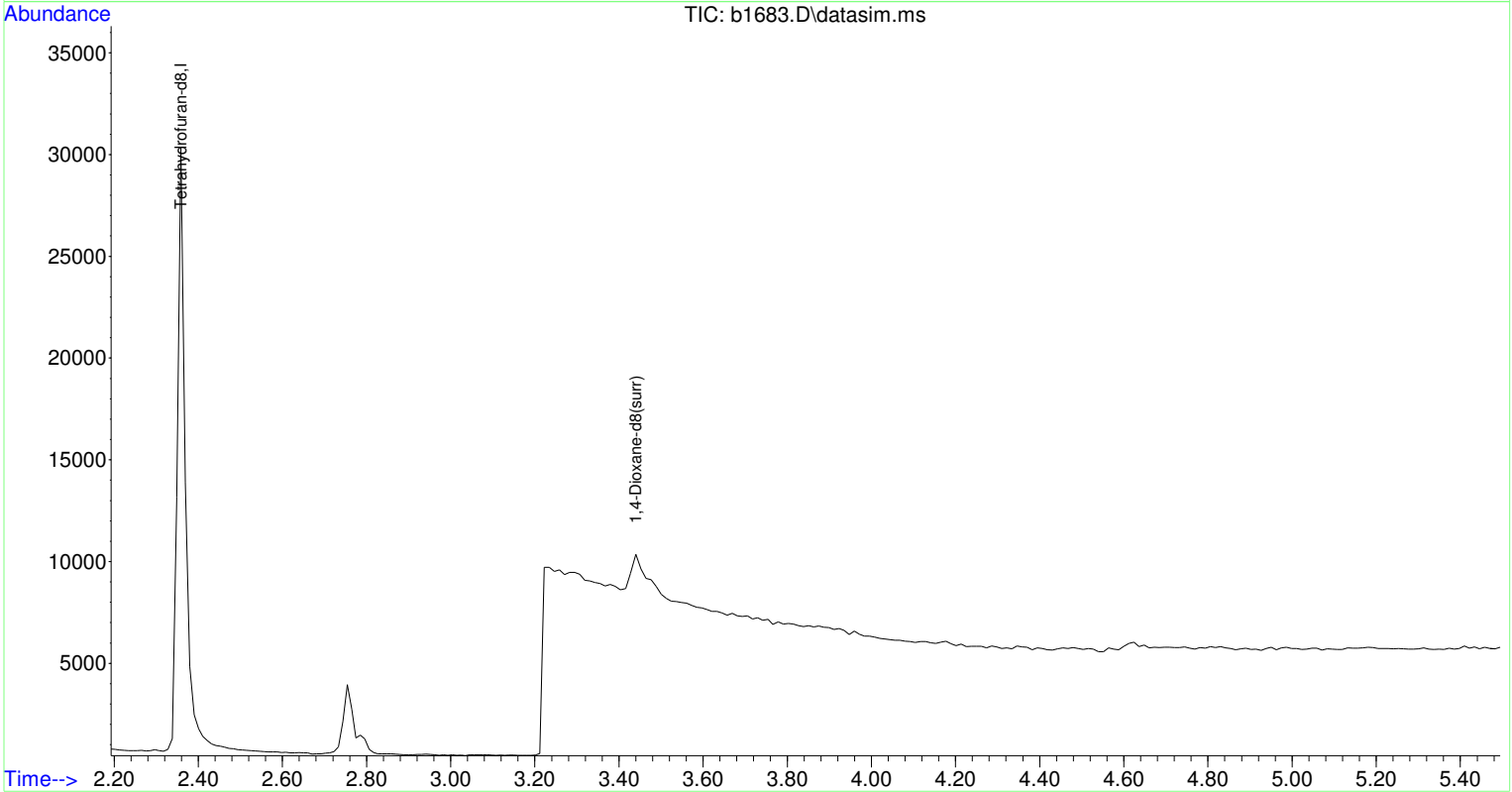
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.359	46	21414	500.00	ug	0.04
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.440	64	1758	52.40	ug	# 55

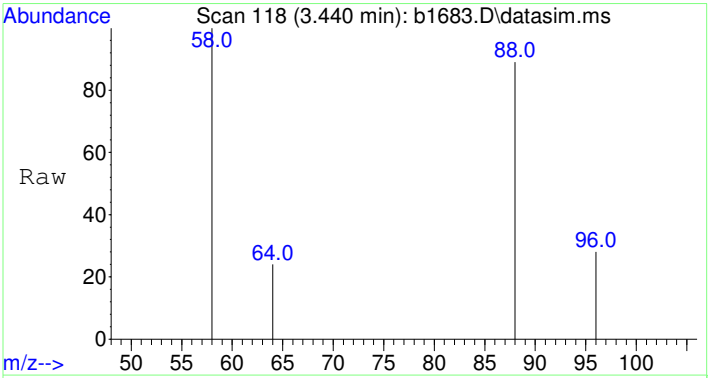
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070924\
Data File : b1683.D
Acq On : 9 Jul 2024 5:16 pm
Operator :
Sample : 240625028-002b (Sig #1); 240625028-003b (Sig #2)
Misc : samp
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 10 10:52:47 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



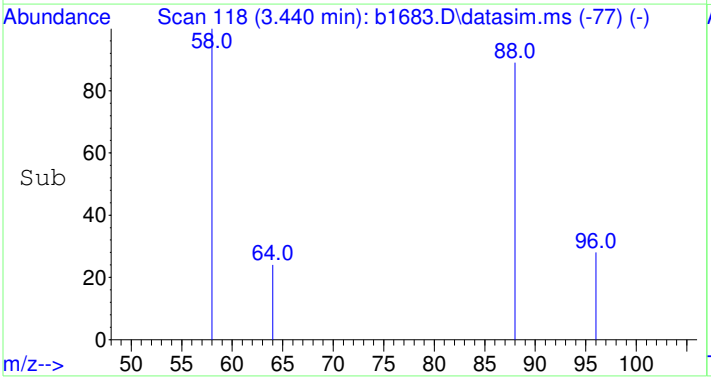


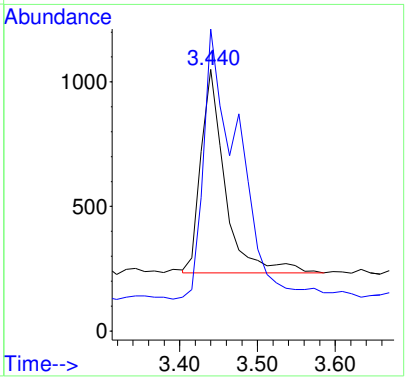


#2
1,4-Dioxane-d8(surr)
Concen: 52.40 ug
RT: 3.440 min Scan# 118
Delta R.T. 0.024 min
Lab File: b1683.D
Acq: 9 Jul 2024 5:16 pm

Tgt Ion: 64 Resp: 1758

Ion	Ratio	Lower	Upper
64	100		
96	195.8	112.9	169.3#





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1684.D
Acq On : 9 Jul 2024 5:26 pm
Operator :
Sample : 240625028-003b (Sig #1); 240625028-004b (Sig #2)
Misc : samp
ALS Vial : 9 Sample Multiplier: 1

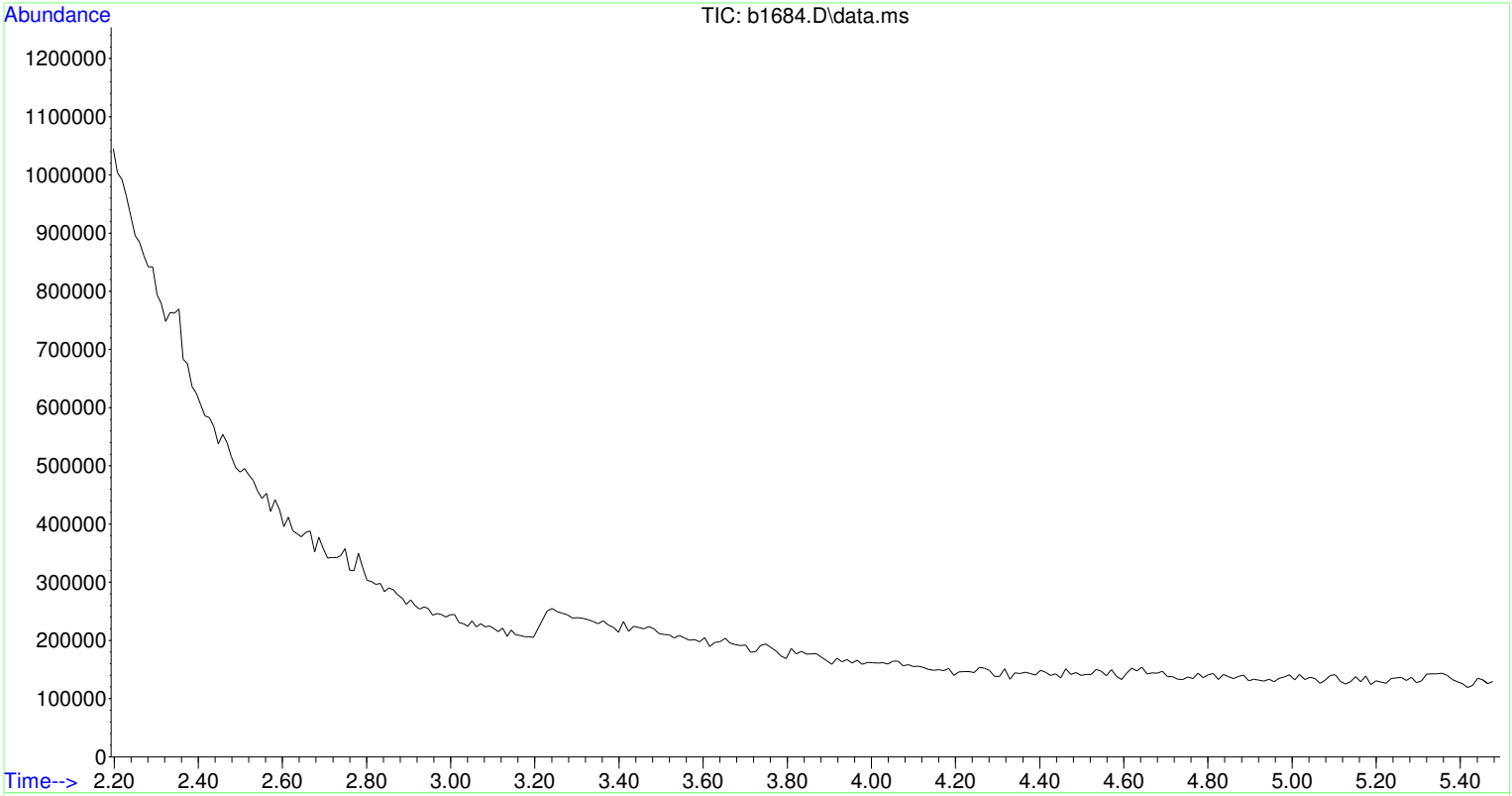
Quant Time: Jul 10 10:52:59 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

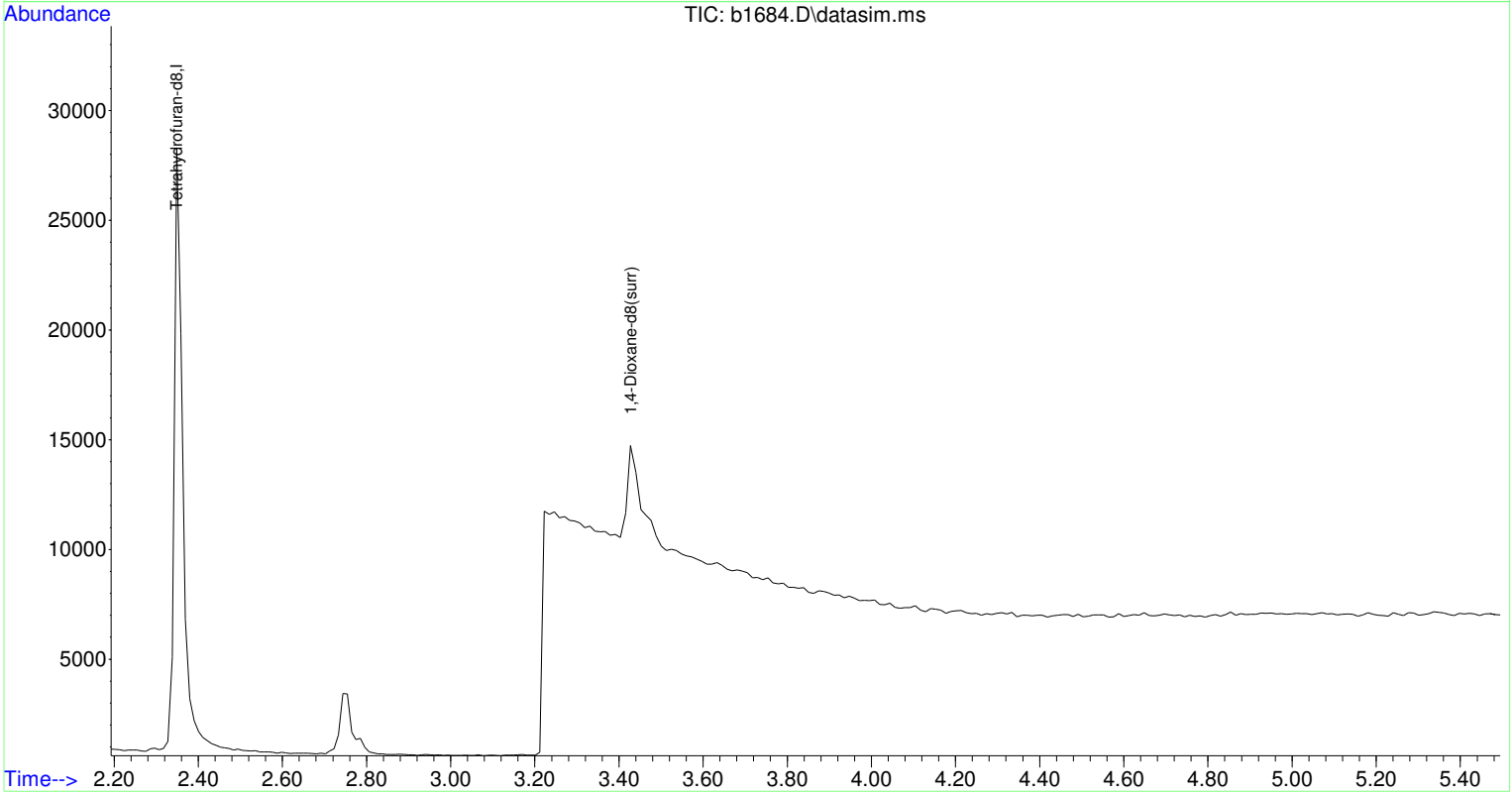
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.348	46	20433	500.00	ug	0.03
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.428	64	3871	145.15	ug	# 61

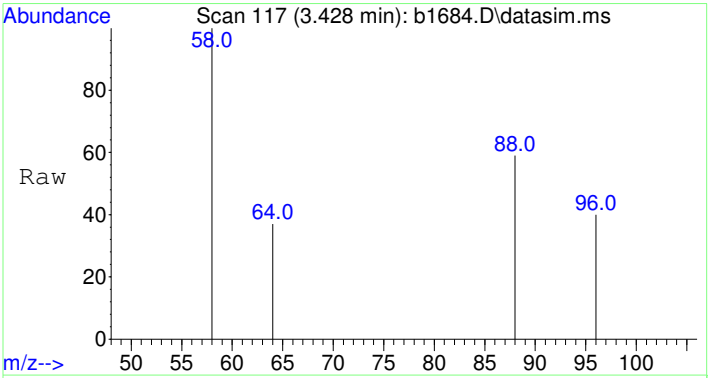
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070924\
Data File : b1684.D
Acq On : 9 Jul 2024 5:26 pm
Operator :
Sample : 240625028-003b (Sig #1); 240625028-004b (Sig #2)
Misc : samp
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 10 10:52:59 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



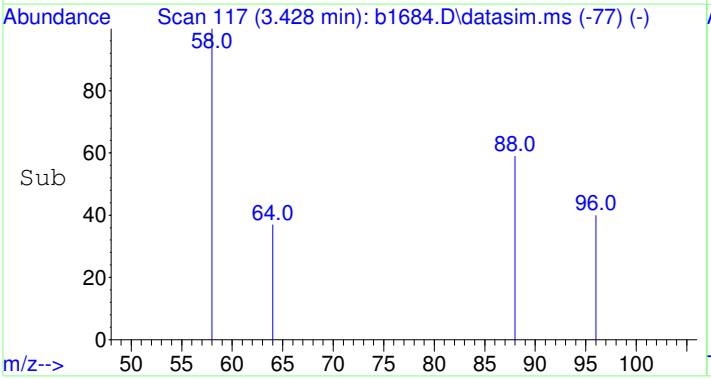


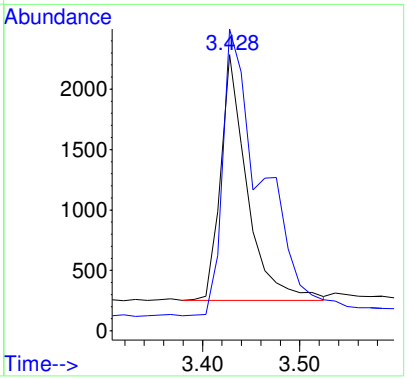


#2
1,4-Dioxane-d8(surr)
Concen: 145.15 ug
RT: 3.428 min Scan# 117
Delta R.T. 0.012 min
Lab File: b1684.D
Acq: 9 Jul 2024 5:26 pm

Tgt Ion: 64 Resp: 3871

Ion	Ratio	Lower	Upper
64	100		
96	189.0	112.9	169.3#





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1685.D
Acq On : 9 Jul 2024 5:36 pm
Operator :
Sample : 240625028-004b (Sig #1); 240625028-003bdup (Sig #2)
Misc : samp
ALS Vial : 10 Sample Multiplier: 1

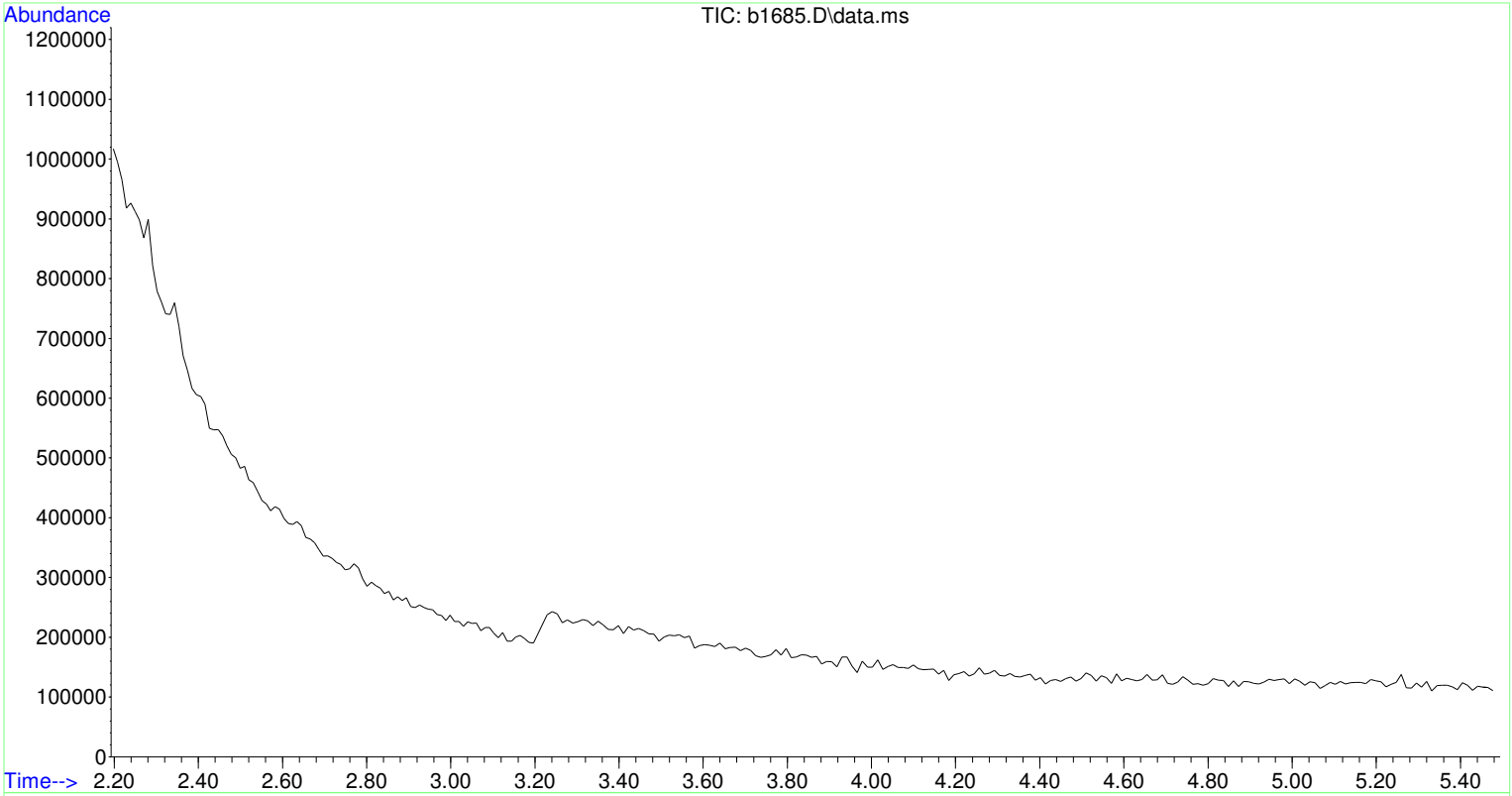
Quant Time: Jul 10 10:53:10 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

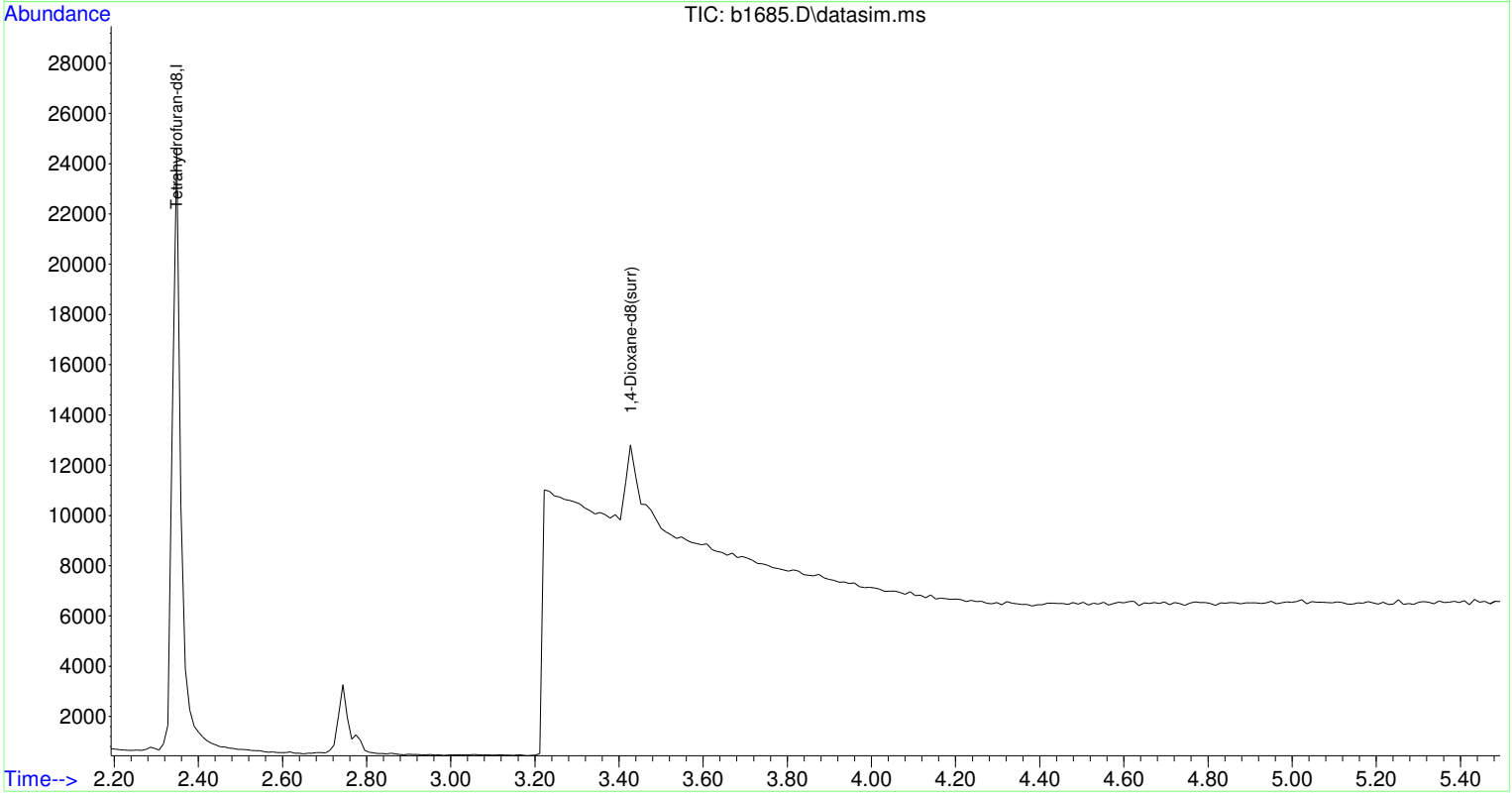
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.348	46	17733	500.00	ug	0.03
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.428	64	3302	142.35	ug	83

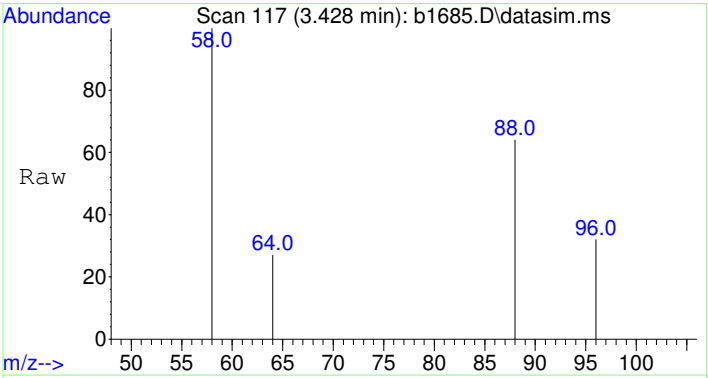
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070924\
Data File : b1685.D
Acq On : 9 Jul 2024 5:36 pm
Operator :
Sample : 240625028-004b (Sig #1); 240625028-003bdup (Sig #2)
Misc : samp
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 10 10:53:10 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



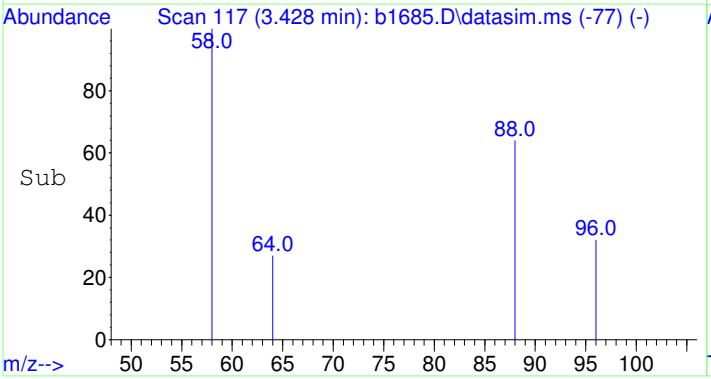


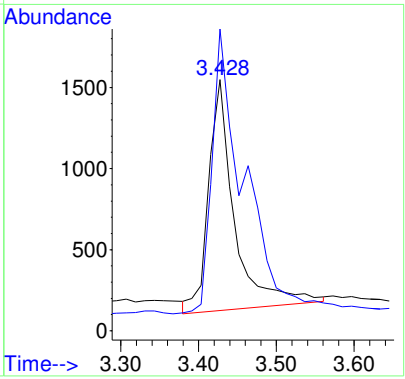


#2
1,4-Dioxane-d8(surr)
Concen: 142.35 ug
RT: 3.428 min Scan# 117
Delta R.T. 0.012 min
Lab File: b1685.D
Acq: 9 Jul 2024 5:36 pm

Tgt Ion: 64 Resp: 3302

Ion	Ratio	Lower	Upper
64	100		
96	162.0	112.9	169.3





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1686.D
Acq On : 9 Jul 2024 5:45 pm
Operator :
Sample : 240625028-003bdup
Misc : dup
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 10 10:53:21 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

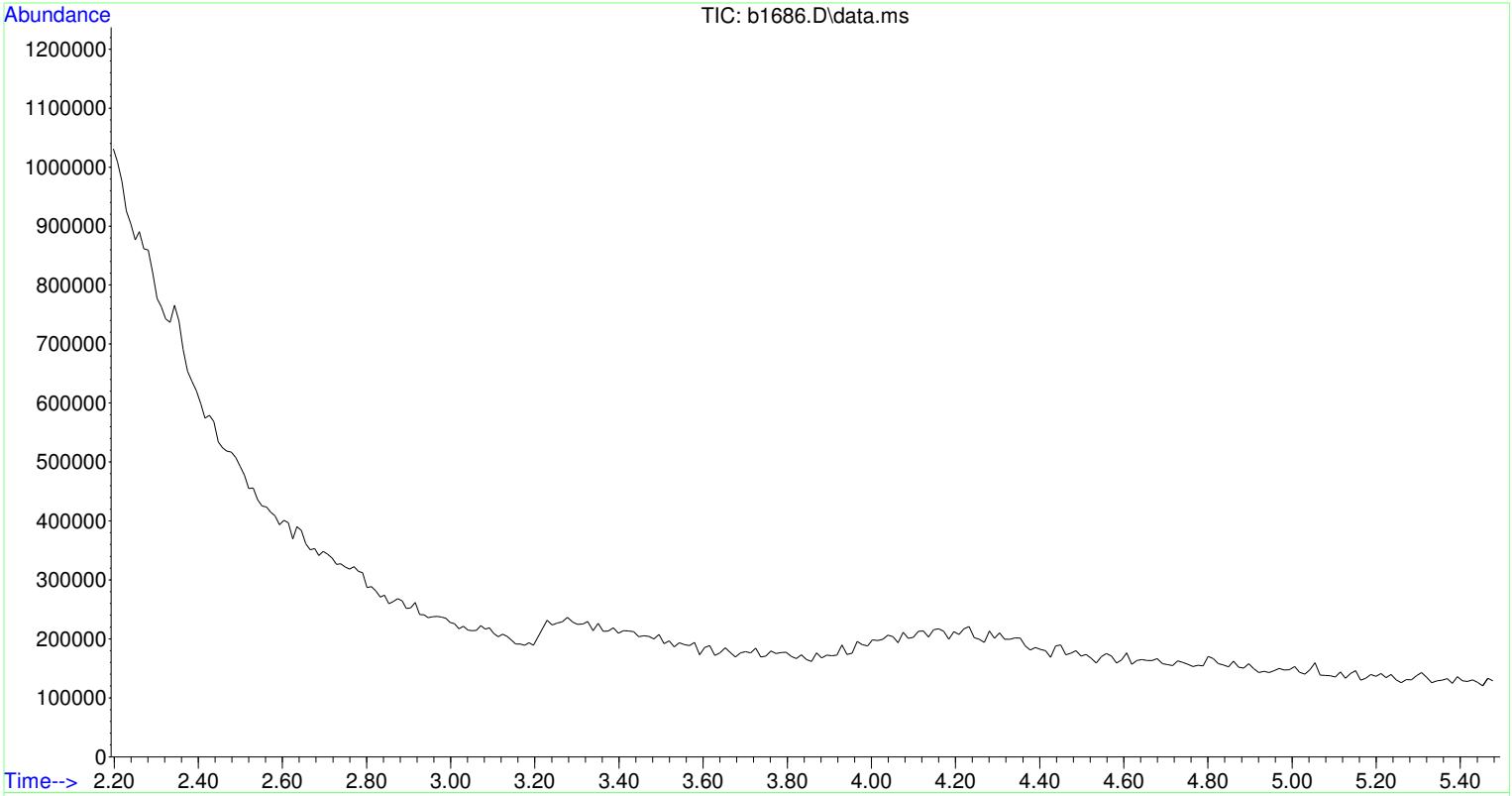
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.348	46	19396	500.00	ug	0.03
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.428	64	4535	183.47	ug	85

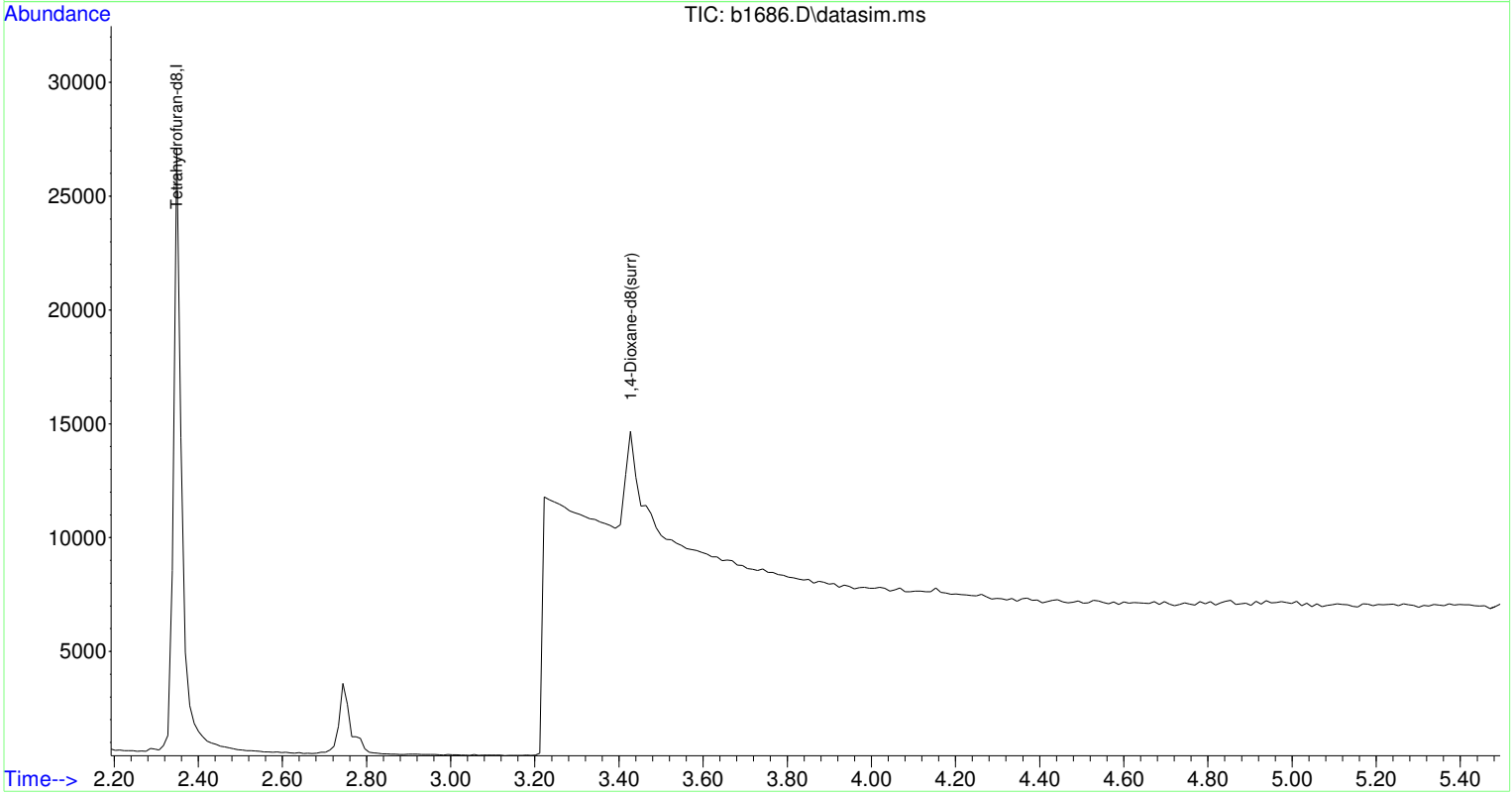
(#) = qualifier out of range (m) = manual integration (+) = signals summed

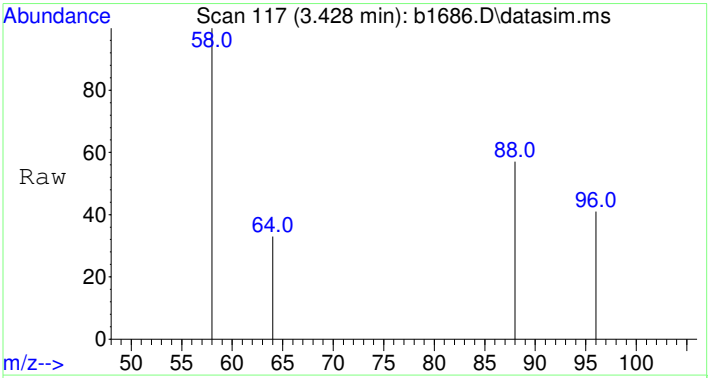
Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1686.D
Acq On : 9 Jul 2024 5:45 pm
Operator :
Sample : 240625028-003bdup
Misc : dup
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 10 10:53:21 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



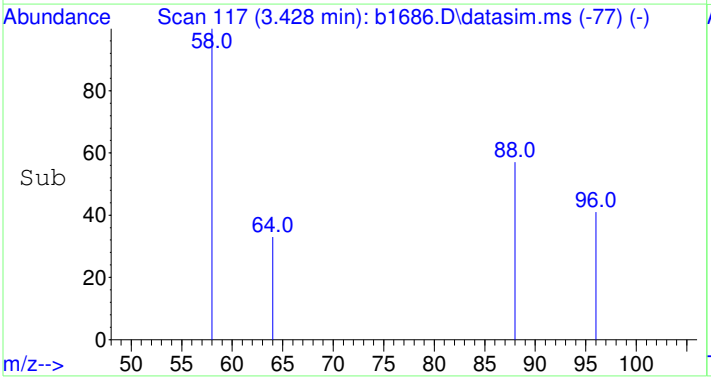


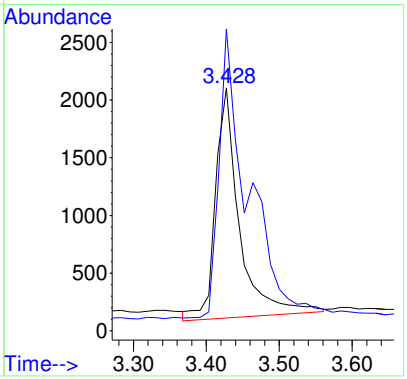


#2
1,4-Dioxane-d8(surr)
Concen: 183.47 ug
RT: 3.428 min Scan# 117
Delta R.T. 0.012 min
Lab File: b1686.D
Acq: 9 Jul 2024 5:45 pm

Tgt Ion: 64 Resp: 4535

Ion	Ratio	Lower	Upper
64	100		
96	159.7	112.9	169.3





Quantitation Report (QT Reviewed)

Data Path : D:\2\data\070924\
Data File : b1687.D
Acq On : 9 Jul 2024 5:55 pm
Operator :
Sample : 240625028-003bms
Misc : ms
ALS Vial : 12 Sample Multiplier: 1

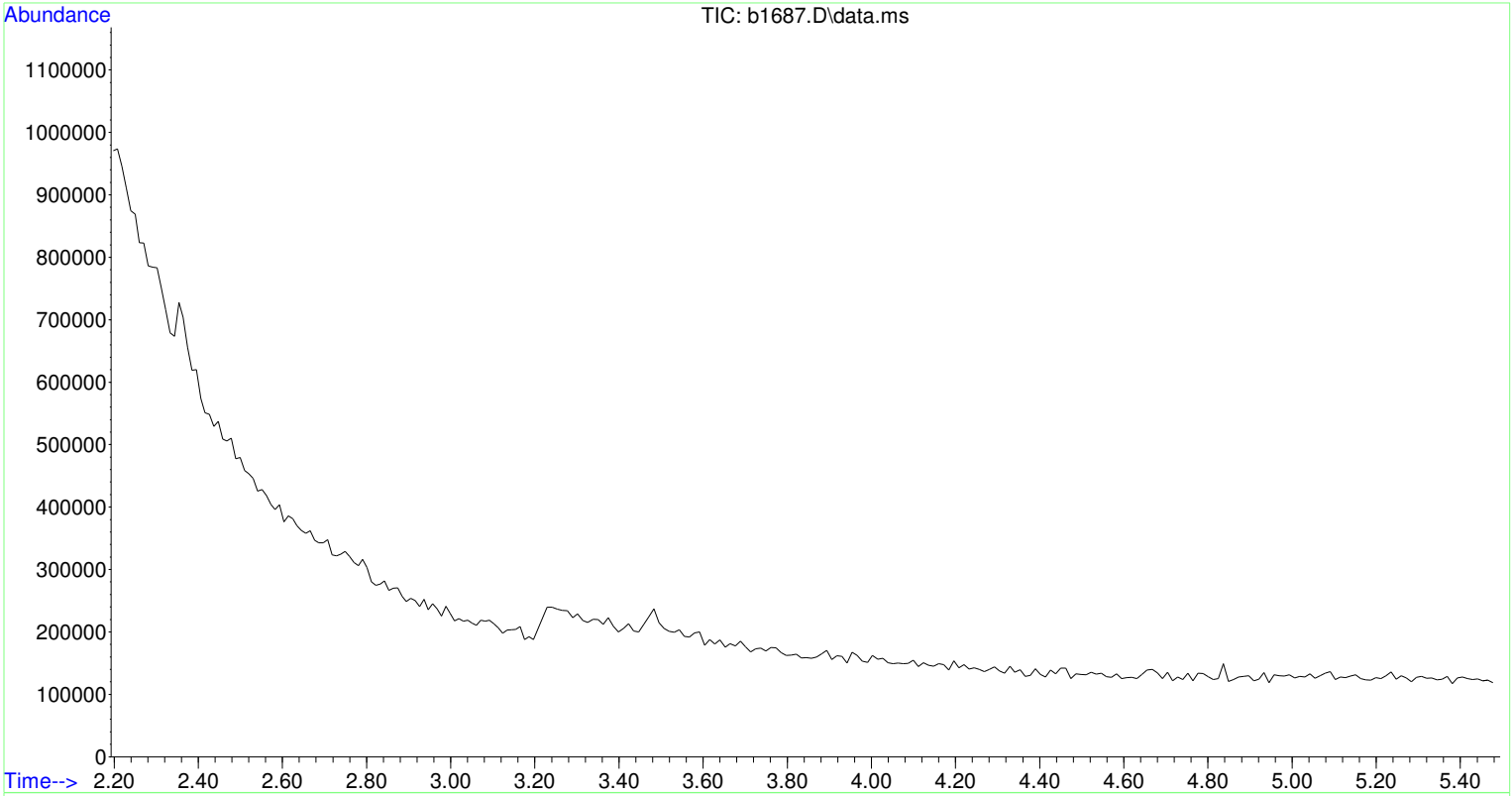
Quant Time: Jul 10 10:55:22 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration

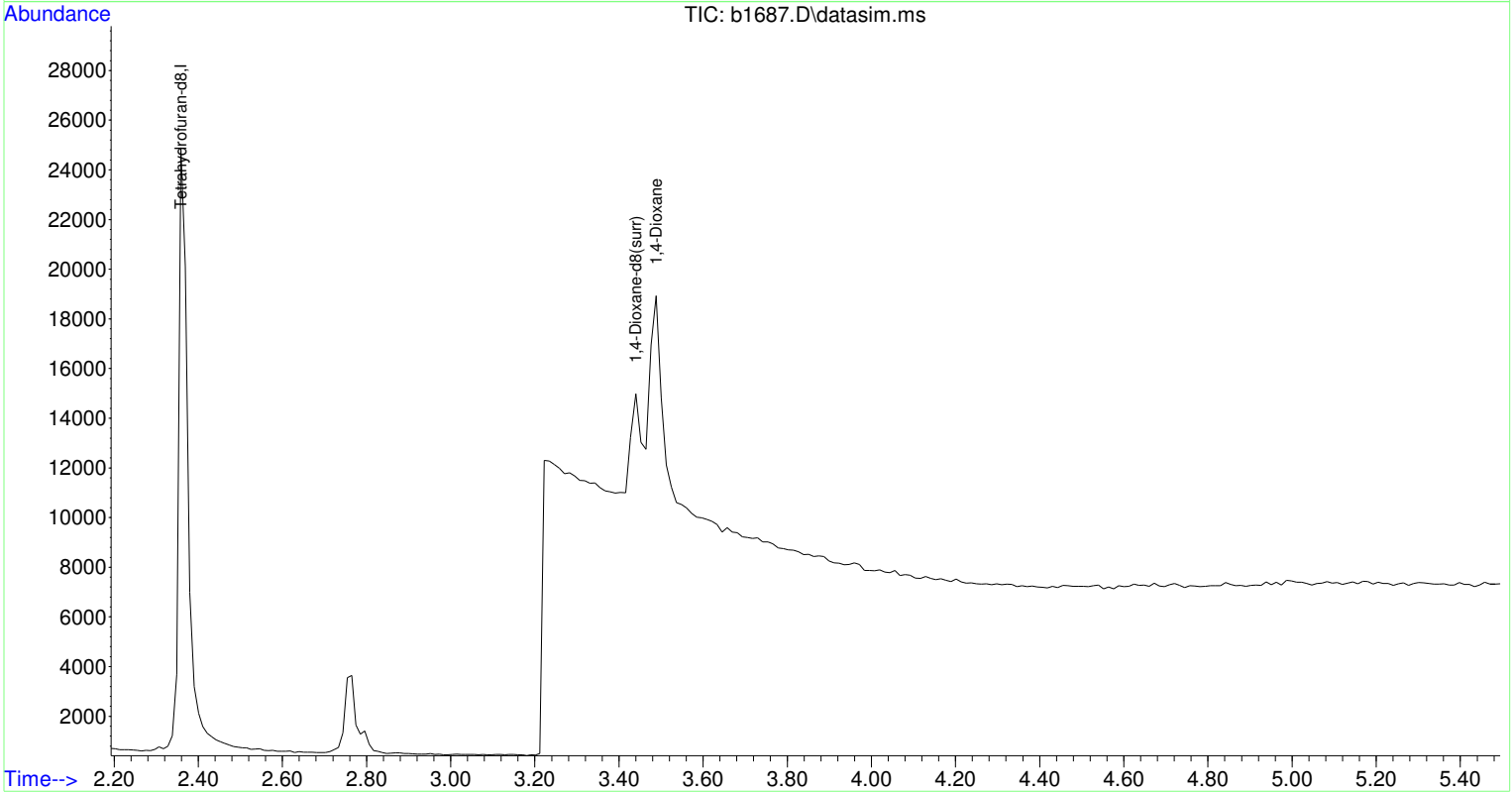
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tetrahydrofuran-d8	2.359	46	19353	500.00	ug	0.04
Target Compounds						Qvalue
2] 1,4-Dioxane-d8(surr)	3.440	64	3801	151.16	ug	# 1
3] 1,4-Dioxane	3.488	88	5356m	180.37	ug	

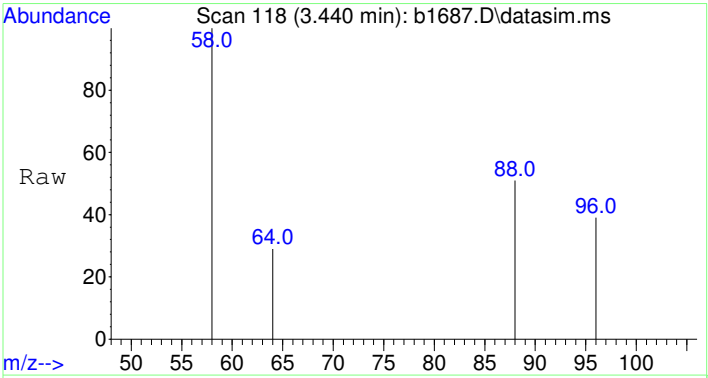
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\2\data\070924\
Data File : b1687.D
Acq On : 9 Jul 2024 5:55 pm
Operator :
Sample : 240625028-003bms
Misc : ms
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 10 10:55:22 2024
Quant Method : C:\msdchem\2\methods\simdiox041924.M
Quant Title : 14Dioxane-Sim
QLast Update : Fri Apr 19 11:16:28 2024
Response via : Initial Calibration



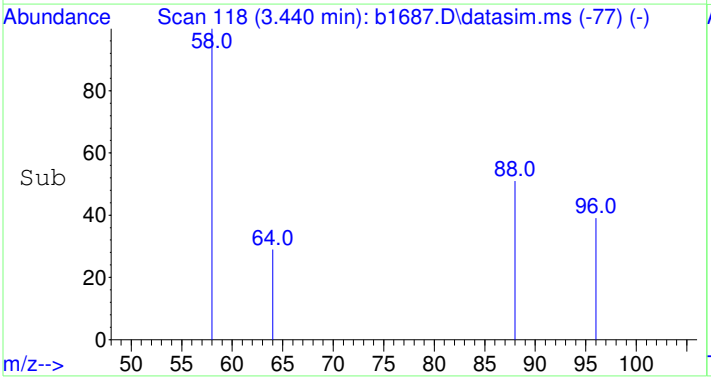


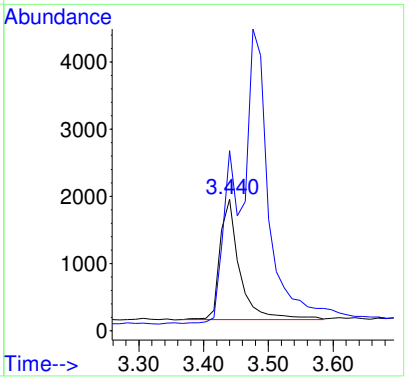


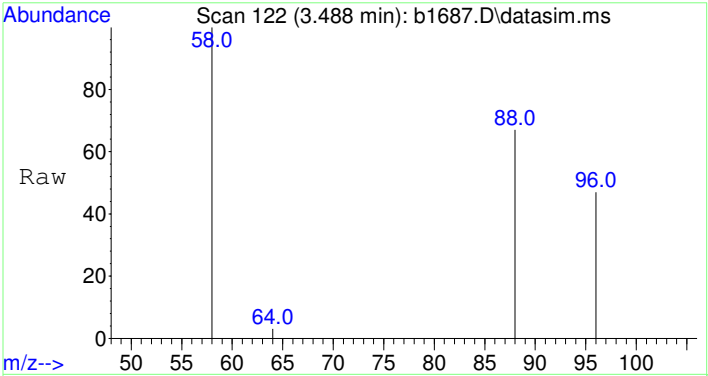
#2
1,4-Dioxane-d8(surr)
Concen: 151.16 ug
RT: 3.440 min Scan# 118
Delta R.T. 0.024 min
Lab File: b1687.D
Acq: 9 Jul 2024 5:55 pm

Tgt Ion: 64 Resp: 3801

Ion	Ratio	Lower	Upper
64	100		
96	412.0	112.9	169.3#



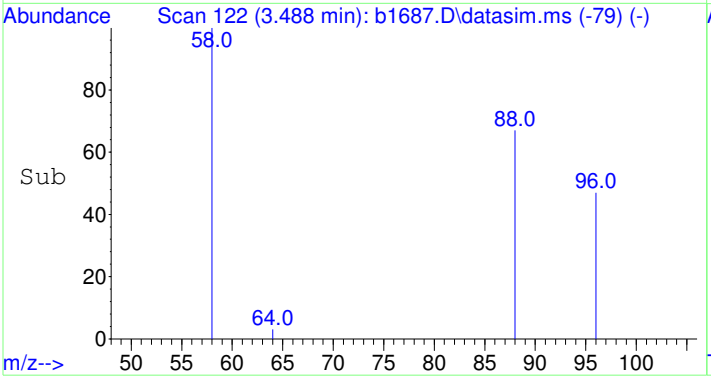


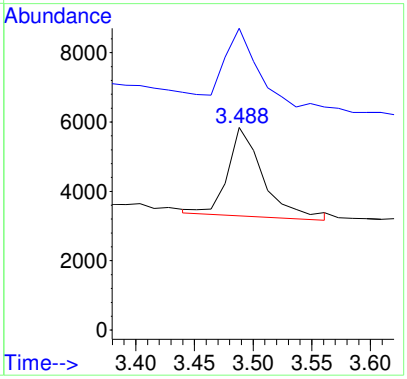


#3
1,4-Dioxane
Concen: 180.37 ug m
RT: 3.488 min Scan# 122
Delta R.T. -0.010 min
Lab File: b1687.D
Acq: 9 Jul 2024 5:55 pm

Tgt Ion: 88 Resp: 5356

Ion	Ratio	Lower	Upper
88	100		
58	403.5	151.0	226.4#





Adirondack Environmental Services, Inc

PREP BATCH REPORT

Prep Start Date: **6/26/2024 10:27:45**
Prep End Date: **7/9/2024**

Comments:

Prep Factor Units: **mL / mL**

Prep Batch **109723** Prep Code: **3535-14DIOXA** Technician: **Monica Traver**

Sample ID	Matrix	pH	ResCl	SampAmt	Sol Added	Fin Vol	factor	PrepStart	PrepEnd	ExPos	TareWt	CleanUp
MB-109723				500	0	10	0.020	6/26/2024	7/3/2024		0	
LCS-109723				500	0	10	0.020	6/26/2024	7/3/2024		0	
240621037-001B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240621037-002B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240621037-003B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240621037-004B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240621037-005B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240621051-001B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240621051-002B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240621051-003B	Wastewater		No	500	0	10	0.020	6/26/2024	7/3/2024		0	
240625028-001B	Groundwater		No	500	0	10	0.020	6/26/2024	7/9/2024		0	
240625028-002B	Groundwater		No	500	0	10	0.020	6/26/2024	7/9/2024		0	
240625028-003B	Groundwater		No	500	0	10	0.020	6/26/2024	7/9/2024		0	
240625028-003BMS	Groundwater		No	500	0	10	0.020	6/26/2024	7/9/2024		0	
240625028-003BMSD	Groundwater		No	500	0	10	0.020	6/26/2024	7/9/2024		0	
240625028-004B	Groundwater		No	500	0	10	0.020	6/26/2024	7/9/2024		0	

Prep Start Date: **6/26/2024 10:27:45**
Prep End Date: **7/9/2024**

Comments:

Prep Factor Units: **mL** / **mL**

Prep Batch **109723** Prep Code: **3535-14DIOXA** Technician: **Monica Traver**

Sample ID	Matrix	pH	ResCl	SampAmt	Sol Added	Fin Vol	factor	PrepStart	PrepEnd	ExPos	TareWt	CleanUp

Analyst	Date	Time	File ID	Sample ID	DF	QA/QC Checks		Manual Integration	Comments
						Surrogate Check	Internal Std Check		
			B1624	DICX-100	✓		8095	III / III	
			25	MB-104723	✓	✓	✓	dg - manually baseline to baseline	
			26	LCS-104723	✓	✓	✓		
			27	0627-15-2D	✓	✓	✓		
			28	0621-37-1B	✓	✓	✓		
			29	2B	✓	✓	✓		
			30	3B	✓	✓	✓		
			31	4B	✓	✓	✓		
			32	5B	✓	✓	✓		
			33	0621-51-1B	✓	✓	✓		
			34	2B	✓	✓	✓		
			35	3B	✓	✓	✓	✓	
MHT	7/5/24		36	DFTPP					
			37	~~SSTD050~~		ugly, old liner			
			38	SSTD050			liner - ugly glass wool black		
			39	↓					
			B1640	DFTPP ↓					
			41	SSTD050	✓		✓	SI	
			42	SI	✓			51.95 / 47.68 / 53.07 / 55.46 / 53.69 / 47.27	
					→				

REVIEW _____ DATE _____

Analyst	Date	Time	File ID	Sample ID	DF	QA/QC Checks		Manual Integration	Comments
						Surrogate Check	Internal Std Check		
KEL	07/08/24			DFTPP					
				SSTD080					
				DFTPP					
				SSTD080					
				Column maintenance					
KEL	07/09/24		B1671	DFTPP					
			~~72~~	SSTD080	✓				
			~~73~~	SI@~~50~~ 100 5D					
			~~74~~	SI@100					
			~~75~~	0625-38-1B	✓	✓	✓		
			~~76~~	38-2B	✓	✓	✓		0625 - (T108)
			~~77~~	DUP 38-2B	✓	✓	✓		
			~~78~~	MS 38-2B	✓	✓	✓		
			~~79~~	D10X @100	✓				
			~~80~~ ~~80~~	0703-110-3C	✓	✓	✓		
			~~81~~						
			~~82~~	0625-28-1B	✓	✓	✓		
			~~83~~	2B	✓	✓	✓		
			~~84~~	3B	✓	✓	✓		

REVIEW _____ DATE _____

Analyst	Date	Time	File ID	Sample ID	DF	QA/QC Checks		Manual Integration	Comments
						Surrogate Check	Internal Std Check		
KEL	07/09		B1685	0625-28AB	✓	✓	✓		Batch lot= 109723 07038
			86	DUP 28-2B	✓	✓	✓		
			87	MS-28-2B	✓	✓	✓		
KEL	07/10/24		B1688	DFTPP					
			89	DFTPP					
			90	~~D~~10X@100	—	—	—	Bad injection	
			91	D10X@200	—	—	—	Too high	
			92→	D10X@100	✓				
			9A ~~92~~	MB-109767	✓	✓	✓		
222			93	LCS-109767	✓	✓	✓		
841			94	0627-26-1B	✓	✓	✓		Dioxane Hits
535			95	0627-26-3B	✓	✓	✓		
1112			96	0626-44-1B	✓	✓	✓		
1029			97	0626-44-2B	✓	✓	✓		
1147			~~98~~	BTC					
			- 98	SSTD080	✓	~	~		
			~~1700~~ 99	MB-109986	✓	✓	✓		E8270S + TCLP-SVT
			1700	LCS-	✓	✓	✓		
			01 ~~2~~	0709-59-1B	✓	✓	✓		E8270S
			02 ~~3~~	0709-58-1A	✓	✓	✓		TCLP-SVT
			03 ~~4~~	0626-112-1B		LOW			

REVIEW _____ DATE _____

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-1
Work Order:	240625028	**Collection Date:**	6/24/2024 11:35:00 AM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:10:03 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***ND***	100		µg/L	1	7/2/2024
Antimony	***13.5***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***16.1***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	***1.42***	5.00	J	µg/L	1	7/2/2024
Calcium	***11700***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***24.5***	50.0	J	µg/L	1	7/2/2024
Lead	***2.20***	5.00	J	µg/L	1	7/2/2024
Magnesium	***3020***	50.0		µg/L	1	7/2/2024
Manganese	***ND***	20.0		µg/L	1	7/2/2024
Nickel	***ND***	20.0		µg/L	1	7/2/2024
Potassium	***3020***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0		µg/L	1	7/2/2024
Sodium	***59800***	500		µg/L	10	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024

Qualifiers:

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Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-4
Work Order:	240625028	**Collection Date:**	6/24/2024 3:30:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:11:39 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***993***	100		µg/L	1	7/2/2024
Antimony	***14.7***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***59.2***	10.0		µg/L	1	7/2/2024
Beryllium	***0.31***	5.00	J	µg/L	1	7/2/2024
Cadmium	***1.34***	5.00	J	µg/L	1	7/2/2024
Calcium	***10700***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***0.50***	50.0	J	µg/L	1	7/2/2024
Copper	***4.13***	5.00	J	µg/L	1	7/2/2024
Iron	***3830***	50.0		µg/L	1	7/2/2024
Lead	***13.4***	5.00		µg/L	1	7/2/2024
Magnesium	***3330***	50.0		µg/L	1	7/2/2024
Manganese	***103***	20.0		µg/L	1	7/2/2024
Nickel	***4.60***	20.0	J	µg/L	1	7/2/2024
Potassium	***512***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0		µg/L	1	7/2/2024
Sodium	***5230***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***12.6***	10.0		µg/L	1	7/2/2024

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Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:13:16 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***69.6***	100	J	µg/L	1	7/2/2024
Antimony	***14.3***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***49.8***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	***1.44***	5.00	J	µg/L	1	7/2/2024
Calcium	***17300***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***257***	50.0		µg/L	1	7/2/2024
Lead	***3.07***	5.00	J	µg/L	1	7/2/2024
Magnesium	***4330***	50.0		µg/L	1	7/2/2024
Manganese	***21.8***	20.0		µg/L	1	7/2/2024
Nickel	***2.40***	20.0	J	µg/L	1	7/2/2024
Potassium	***522***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0	N	µg/L	1	7/2/2024
Sodium	***3460***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024

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Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5 Dup
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:18:05 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***46.2***	100	J	µg/L	1	7/2/2024
Antimony	***20.9***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***48.7***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	***1.39***	5.00	J	µg/L	1	7/2/2024
Calcium	***17200***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***56.4***	50.0		µg/L	1	7/2/2024
Lead	***2.20***	5.00	J	µg/L	1	7/2/2024
Magnesium	***4350***	50.0		µg/L	1	7/2/2024
Manganese	***13.4***	20.0	J	µg/L	1	7/2/2024
Nickel	***ND***	20.0		µg/L	1	7/2/2024
Potassium	***518***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0		µg/L	1	7/2/2024
Sodium	***3230***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024

Qualifiers:

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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

PS

SeqNo: **3821116** ***PrepDate:*** TestNo: **E200.7** RunNo: ***234795***
Samp ID: **240625028-003** ***(MW-5)*** ***PrepRef:(SW3010A)*** Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	4067	200	4000	69.56	99.9	75	125	0	0		
Antimony	1017	60.0	1000	14.3	100	75	125	0	0		
Arsenic	69.06	10.0	80	0	86.3	75	125	0	0		
Barium	ND	200	4000	49.75	-1.24	75	125	0	0		S
Beryllium	104.3	5.00	100	0	104	75	125	0	0		
Cadmium	95.11	5.00	100	1.439	93.7	75	125	0	0		
Chromium	406.9	10.0	400	0	102	75	125	0	0		
Cobalt	978.7	50.0	1000	0	97.9	75	125	0	0		
Copper	485	25.0	500	0	97	75	125	0	0		
Iron	2285	100	2000	257.3	101	75	125	0	0		
Lead	44.75	3.00	40	3.07	104	75	125	0	0		
Manganese	985.2	15.0	1000	21.85	96.3	75	125	0	0		
Nickel	1044	40.0	1000	2.402	104	75	125	0	0		
Selenium	19.37	5.00	20	0	96.9	75	125	0	0		
Silver	60.91	10.0	100	0	60.9	75	125	0	0		S
Thallium	103.2	10.0	100	0	103	75	125	0	0		
Vanadium	1023	50.0	1000	0	102	75	125	0	0		
Zinc	1022	20.0	1000	0	102	75	125	0	0		

SD

SeqNo: **3821117** ***PrepDate:*** TestNo: **E200.7** RunNo: ***234795***
Samp ID: **240625028-003** ***(MW-5)*** ***PrepRef:(SW3010A)*** Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	186.9	1000	0	0	0	0	0	69.56	62.8	0	J
Antimony	93.42	300	0	0	0	0	0	14.3	84.7	0	J
Arsenic	ND	50.0	0	0	0	0	0	0	0	0	
Barium	58.45	1000	0	0	0	0	0	49.75	14.9	0	J
Beryllium	ND	25.0	0	0	0	0	0	0	0	0	
Cadmium	6.966	25.0	0	0	0	0	0	1.439	79.3	0	J
Calcium	19010	25000	0	0	0	0	0	17270	9.15	0	J
Chromium	ND	50.0	0	0	0	0	0	0	0	0	

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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

SD

SeqNo: **3821117** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **240625028-003** ***(MW-5)*** ***PrepRef:(SW3010A)*** Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	ND	250	0	0	0	0	0	0	0	0	
Copper	ND	120	0	0	0	0	0	0	0	0	
Iron	294.8	500	0	0	0	0	0	257.3	12.7	0	J
Lead	9.788	15.0	0	0	0	0	0	3.07	68.6	0	J
Magnesium	4627	25000	0	0	0	0	0	4330	6.42	0	J
Manganese	24.51	75.0	0	0	0	0	0	21.85	10.9	0	J
Nickel	ND	200	0	0	0	0	0	2.402	0	0	
Potassium	580.5	25000	0	0	0	0	0	521.6	10.1	0	J
Selenium	ND	25.0	0	0	0	0	0	0	0	0	
Silver	ND	50.0	0	0	0	0	0	0	0	0	
Sodium	5019	25000	0	0	0	0	0	3461	31	0	J
Thallium	ND	50.0	0	0	0	0	0	0	0	0	
Vanadium	ND	250	0	0	0	0	0	0	0	0	
Zinc	ND	100	0	0	0	0	0	0	0	0	

MBLK

SeqNo: **3821068** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **MBLK** ***PrepRef:(SW3010A)*** Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	ND	200									
Antimony	ND	60.0									
Arsenic	ND	10.0									
Barium	ND	200									
Beryllium	ND	5.00									
Cadmium	1.367	5.00									J
Calcium	ND	5000									
Chromium	ND	10.0									
Cobalt	ND	50.0									
Copper	ND	25.0									
Iron	ND	100									
Lead	ND	3.00									
Magnesium	ND	5000									
Manganese	ND	15.0									

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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

MBLK

SeqNo: **3821068** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **MBLK** *PrepRef:(SW3010A)* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Nickel	ND	40.0									
Potassium	ND	5000									
Selenium	ND	5.00									
Silver	ND	10.0									
Sodium	ND	5000									
Thallium	ND	10.0									
Vanadium	ND	50.0									
Zinc	ND	20.0									

LCS

SeqNo: **3821069** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **LCS** *PrepRef:(SW3010A)* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2101	200	2000	0	105	80	120	0	0		
Antimony	2057	60.0	2000	0	103	80	120	0	0		
Arsenic	2007	10.0	2000	0	100	80	120	0	0		
Barium	1857	200	2000	0	92.9	80	120	0	0		
Beryllium	1993	5.00	2000	0	99.7	80	120	0	0		
Cadmium	1990	5.00	2000	0	99.5	80	120	0	0		
Calcium	2040	5000	2000	0	102	80	120	0	0		J
Chromium	2012	10.0	2000	0	101	80	120	0	0		
Cobalt	1930	50.0	2000	0	96.5	80	120	0	0		
Copper	1873	25.0	2000	0	93.7	80	120	0	0		
Iron	1979	100	2000	0	98.9	80	120	0	0		
Lead	1998	3.00	2000	0	99.9	80	120	0	0		
Magnesium	1985	5000	2000	0	99.2	80	120	0	0		J
Manganese	1893	15.0	2000	0	94.7	80	120	0	0		
Nickel	2064	40.0	2000	0	103	80	120	0	0		
Potassium	9692	5000	10000	0	96.9	80	120	0	0		
Selenium	2012	5.00	2000	0	101	80	120	0	0		
Silver	448.7	10.0	500	0	89.7	80	120	0	0		
Sodium	2128	5000	2000	0	106	80	120	0	0		J
Thallium	1994	10.0	2000	0	99.7	80	120	0	0		

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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

LCS

SeqNo: **3821069** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **LCS** *PrepRef:(SW3010A)* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Vanadium	1986	50.0	2000	0	99.3	80	120	0	0		
Zinc	2003	20.0	2000	0	100	80	120	0	0		

MS

SeqNo: **3821113** *PrepDate:6/26/2024* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **240625028-003** ***(MW-5)*** *PrepRef:(SW3010A)* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2030	200	2000	69.56	98	75	125	0	0		
Antimony	516.7	60.0	500	14.3	100	75	125	0	0		
Arsenic	33.44	10.0	40	0	83.6	75	125	0	0		
Barium	1923	200	2000	49.75	93.6	75	121	0	0		
Beryllium	51.95	5.00	50	0	104	75	120	0	0		
Cadmium	48.03	5.00	50	1.439	93.2	75	114	0	0		
Chromium	198	10.0	200	0	99	75	125	0	0		
Cobalt	486.8	50.0	500	0	97.4	75	117	0	0		
Copper	238	25.0	250	0	95.2	75	123	0	0		
Iron	1167	100	1000	257.3	90.9	75	125	0	0		
Lead	23.6	3.00	20	3.07	103	75	125	0	0		
Manganese	494.3	15.0	500	21.85	94.5	75	125	0	0		
Nickel	517.2	40.0	500	2.402	103	75	120	0	0		
Selenium	8.869	5.00	10	0	88.7	75	125	0	0		
Silver	33.38	10.0	50	0	66.8	75	125	0	0		S
Thallium	50.49	10.0	50	0	101	75	125	0	0		
Vanadium	505.8	50.0	500	0	101	75	125	0	0		
Zinc	506.6	20.0	500	0	101	78.5	123	0	0		

DUP

SeqNo: **3821111** *PrepDate:6/26/2024* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **240625028-003** ***(MW-5)*** *PrepRef:(SW3010A)* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	107.8	200	0	0	0	0	0	69.56	0	20	J
Antimony	13.68	60.0	0	0	0	0	0	14.3	0	20	J
Arsenic	ND	10.0	0	0	0	0	0	0	0	20	

Qualifiers:
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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

DUP

SeqNo: **3821111** *PrepDate:6/26/2024* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **240625028-003** ***(MW-5)*** *PrepRef:(SW3010A)* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Barium	53.84	200	0	0	0	0	0	49.75	0	20	J
Beryllium	ND	5.00	0	0	0	0	0	0	0	20	
Cadmium	1.454	5.00	0	0	0	0	0	1.439	0	20	J
Calcium	17670	5000	0	0	0	0	0	17270	2.31	20	
Chromium	ND	10.0	0	0	0	0	0	0	0	20	
Cobalt	ND	50.0	0	0	0	0	0	0	0	20	
Copper	ND	25.0	0	0	0	0	0	0	0	20	
Iron	252	100	0	0	0	0	0	257.3	2.06	20	
Lead	2.993	3.00	0	0	0	0	0	3.07	0	20	J
Magnesium	4461	5000	0	0	0	0	0	4330	0	20	J
Manganese	24.18	15.0	0	0	0	0	0	21.85	10.1	20	
Nickel	ND	40.0	0	0	0	0	0	2.402	0	20	
Potassium	526.3	5000	0	0	0	0	0	521.6	0	20	J
Selenium	ND	5.00	0	0	0	0	0	0	0	20	
Silver	ND	10.0	0	0	0	0	0	0	0	20	
Sodium	3420	5000	0	0	0	0	0	3461	0	20	J
Thallium	ND	10.0	0	0	0	0	0	0	0	20	
Vanadium	ND	50.0	0	0	0	0	0	0	0	20	
Zinc	ND	20.0	0	0	0	0	0	0	0	20	

CCB

SeqNo: **3821067** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.483	200	0	0	0	0	0	0	0		
Antimony	11.46	60.0	0	0	0	0	0	0	0		
Arsenic	-0.5102	10.0	0	0	0	0	0	0	0		
Barium	1.143	200	0	0	0	0	0	0	0		
Beryllium	0.125	5.00	0	0	0	0	0	0	0		
Boron	2.27	50.0	0	0	0	0	0	0	0		
Cadmium	1.41	5.00	0	0	0	0	0	0	0		
Calcium	-5.418	5000	0	0	0	0	0	0	0		
Chromium	-3.991	10.0	0	0	0	0	0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCB

SeqNo: **3821067** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	-0.09952	50.0	0	0	0	0	0	0	0		
Copper	-2.366	25.0	0	0	0	0	0	0	0		
Iron	2.889	100	0	0	0	0	0	0	0		
Lead	1.529	3.00	0	0	0	0	0	0	0		
Lithium	5.727	100	0	0	0	0	0	0	0		
Magnesium	-1.651	5000	0	0	0	0	0	0	0		
Manganese	0.4641	15.0	0	0	0	0	0	0	0		
Molybdenum	5.708	50.0	0	0	0	0	0	0	0		
Nickel	-0.4134	40.0	0	0	0	0	0	0	0		
Potassium	-0.8458	5000	0	0	0	0	0	0	0		
Selenium	-0.4003	5.00	0	0	0	0	0	0	0		
Silver	2.397	10.0	0	0	0	0	0	0	0		
Sodium	5.144	5000	0	0	0	0	0	0	0		
Strontium	1.45	20.0	0	0	0	0	0	0	0		
Thallium	0.1514	10.0	0	0	0	0	0	0	0		
Tin	-0.6135	50.0	0	0	0	0	0	0	0		
Titanium	ND	50.0	0	0	0	0	0	0	0		
Vanadium	-0.3761	50.0	0	0	0	0	0	0	0		
Zinc	0.05988	20.0	0	0	0	0	0	0	0		

CCB

SeqNo: **3821079** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.924	200	0	0	0	0	0	0	0		
Antimony	11.96	60.0	0	0	0	0	0	0	0		
Arsenic	0.2702	10.0	0	0	0	0	0	0	0		
Barium	1.13	200	0	0	0	0	0	0	0		
Beryllium	0.08845	5.00	0	0	0	0	0	0	0		
Boron	2.185	50.0	0	0	0	0	0	0	0		
Cadmium	1.342	5.00	0	0	0	0	0	0	0		
Calcium	-6.642	5000	0	0	0	0	0	0	0		
Chromium	-4.045	10.0	0	0	0	0	0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCB	SeqNo: **3821079**	***PrepDate:***	TestNo: **E200.7**	RunNo: ***234795***
	Samp ID: **CCB**	***PrepRef:***	Units: **µg/L**	Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	0.04275	50.0	0	0	0	0	0	0	0		
Copper	-2.566	25.0	0	0	0	0	0	0	0		
Iron	2.869	100	0	0	0	0	0	0	0		
Lead	1.374	3.00	0	0	0	0	0	0	0		
Lithium	7.171	100	0	0	0	0	0	0	0		
Magnesium	-1.98	5000	0	0	0	0	0	0	0		
Manganese	0.4772	15.0	0	0	0	0	0	0	0		
Molybdenum	5.842	50.0	0	0	0	0	0	0	0		
Nickel	-0.3936	40.0	0	0	0	0	0	0	0		
Potassium	0.9666	5000	0	0	0	0	0	0	0		
Selenium	-0.3742	5.00	0	0	0	0	0	0	0		
Silver	2.64	10.0	0	0	0	0	0	0	0		
Sodium	15.38	5000	0	0	0	0	0	0	0		
Strontium	1.685	20.0	0	0	0	0	0	0	0		
Thallium	0.5731	10.0	0	0	0	0	0	0	0		
Tin	-0.7737	50.0	0	0	0	0	0	0	0		
Titanium	ND	50.0	0	0	0	0	0	0	0		
Vanadium	-0.2278	50.0	0	0	0	0	0	0	0		
Zinc	-0.2064	20.0	0	0	0	0	0	0	0		

CCB	SeqNo: **3821091**	***PrepDate:***	TestNo: **E200.7**	RunNo: ***234795***
	Samp ID: **CCB**	***PrepRef:***	Units: **µg/L**	Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.439	200	0	0	0	0	0	0	0		
Antimony	23.98	60.0	0	0	0	0	0	0	0		
Arsenic	-1.571	10.0	0	0	0	0	0	0	0		
Barium	1.121	200	0	0	0	0	0	0	0		
Beryllium	0.07641	5.00	0	0	0	0	0	0	0		
Boron	1.942	50.0	0	0	0	0	0	0	0		
Cadmium	1.32	5.00	0	0	0	0	0	0	0		
Calcium	-6.537	5000	0	0	0	0	0	0	0		
Chromium	-4.096	10.0	0	0	0	0	0	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCB

SeqNo: **3821091** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	-0.1564	50.0	0	0	0	0	0	0	0		
Copper	-2.441	25.0	0	0	0	0	0	0	0		
Iron	2.856	100	0	0	0	0	0	0	0		
Lead	1.601	3.00	0	0	0	0	0	0	0		
Lithium	10.09	100	0	0	0	0	0	0	0		
Magnesium	-0.07238	5000	0	0	0	0	0	0	0		
Manganese	0.4179	15.0	0	0	0	0	0	0	0		
Molybdenum	8.778	50.0	0	0	0	0	0	0	0		
Nickel	-0.4294	40.0	0	0	0	0	0	0	0		
Potassium	3.4	5000	0	0	0	0	0	0	0		
Selenium	-0.7315	5.00	0	0	0	0	0	0	0		
Silver	2.759	10.0	0	0	0	0	0	0	0		
Sodium	8.247	5000	0	0	0	0	0	0	0		
Strontium	1.484	20.0	0	0	0	0	0	0	0		
Thallium	-0.1919	10.0	0	0	0	0	0	0	0		
Tin	-0.7371	50.0	0	0	0	0	0	0	0		
Titanium	ND	50.0	0	0	0	0	0	0	0		
Vanadium	-0.1233	50.0	0	0	0	0	0	0	0		
Zinc	-0.2419	20.0	0	0	0	0	0	0	0		

CCB

SeqNo: **3821103** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.279	200	0	0	0	0	0	0	0		
Antimony	12.93	60.0	0	0	0	0	0	0	0		
Arsenic	-0.8021	10.0	0	0	0	0	0	0	0		
Barium	1.144	200	0	0	0	0	0	0	0		
Beryllium	0.09761	5.00	0	0	0	0	0	0	0		
Boron	1.333	50.0	0	0	0	0	0	0	0		
Cadmium	1.402	5.00	0	0	0	0	0	0	0		
Calcium	-6.424	5000	0	0	0	0	0	0	0		
Chromium	-3.937	10.0	0	0	0	0	0	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCB

SeqNo: **3821103** | ***PrepDate:*** | TestNo: **E200.7** | RunNo: ***234795***
Samp ID: **CCB** | ***PrepRef:*** | Units: **µg/L** | Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	-0.1904	50.0	0	0	0	0	0	0	0		
Copper	-2.421	25.0	0	0	0	0	0	0	0		
Iron	3.112	100	0	0	0	0	0	0	0		
Lead	1.494	3.00	0	0	0	0	0	0	0		
Lithium	2.375	100	0	0	0	0	0	0	0		
Magnesium	-0.4213	5000	0	0	0	0	0	0	0		
Manganese	0.4499	15.0	0	0	0	0	0	0	0		
Molybdenum	6.927	50.0	0	0	0	0	0	0	0		
Nickel	-0.2637	40.0	0	0	0	0	0	0	0		
Potassium	2.187	5000	0	0	0	0	0	0	0		
Selenium	-0.6067	5.00	0	0	0	0	0	0	0		
Silver	2.421	10.0	0	0	0	0	0	0	0		
Sodium	7.476	5000	0	0	0	0	0	0	0		
Strontium	1.373	20.0	0	0	0	0	0	0	0		
Thallium	-0.1242	10.0	0	0	0	0	0	0	0		
Tin	-0.4682	50.0	0	0	0	0	0	0	0		
Titanium	ND	50.0	0	0	0	0	0	0	0		
Vanadium	-0.3778	50.0	0	0	0	0	0	0	0		
Zinc	-0.08042	20.0	0	0	0	0	0	0	0		

CCB

SeqNo: **3821115** | ***PrepDate:*** | TestNo: **E200.7** | RunNo: ***234795***
Samp ID: **CCB** | ***PrepRef:*** | Units: **µg/L** | Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.513	200	0	0	0	0	0	0	0		
Antimony	12.28	60.0	0	0	0	0	0	0	0		
Arsenic	-1.411	10.0	0	0	0	0	0	0	0		
Barium	1.157	200	0	0	0	0	0	0	0		
Beryllium	0.086	5.00	0	0	0	0	0	0	0		
Boron	1.424	50.0	0	0	0	0	0	0	0		
Cadmium	1.367	5.00	0	0	0	0	0	0	0		
Calcium	-6.197	5000	0	0	0	0	0	0	0		
Chromium	-4.093	10.0	0	0	0	0	0	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCB

SeqNo: **3821115** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	0.05985	50.0	0	0	0	0	0	0	0		
Copper	-2.365	25.0	0	0	0	0	0	0	0		
Iron	2.89	100	0	0	0	0	0	0	0		
Lead	1.431	3.00	0	0	0	0	0	0	0		
Lithium	-3.409	100	0	0	0	0	0	0	0		
Magnesium	-1.6	5000	0	0	0	0	0	0	0		
Manganese	0.4653	15.0	0	0	0	0	0	0	0		
Molybdenum	6.773	50.0	0	0	0	0	0	0	0		
Nickel	-0.4033	40.0	0	0	0	0	0	0	0		
Potassium	0.8178	5000	0	0	0	0	0	0	0		
Selenium	0.3674	5.00	0	0	0	0	0	0	0		
Silver	2.894	10.0	0	0	0	0	0	0	0		
Sodium	7.259	5000	0	0	0	0	0	0	0		
Strontium	1.787	20.0	0	0	0	0	0	0	0		
Thallium	-0.2753	10.0	0	0	0	0	0	0	0		
Tin	-0.6467	50.0	0	0	0	0	0	0	0		
Titanium	ND	50.0	0	0	0	0	0	0	0		
Vanadium	-0.506	50.0	0	0	0	0	0	0	0		
Zinc	-0.001362	20.0	0	0	0	0	0	0	0		

CCB

SeqNo: **3821121** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.458	200	0	0	0	0	0	0	0		
Antimony	12.19	60.0	0	0	0	0	0	0	0		
Arsenic	-0.335	10.0	0	0	0	0	0	0	0		
Barium	1.124	200	0	0	0	0	0	0	0		
Beryllium	0.07064	5.00	0	0	0	0	0	0	0		
Boron	1.392	50.0	0	0	0	0	0	0	0		
Cadmium	1.277	5.00	0	0	0	0	0	0	0		
Calcium	-6.59	5000	0	0	0	0	0	0	0		
Chromium	-4.039	10.0	0	0	0	0	0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCB

SeqNo: **3821121** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	-0.09952	50.0	0	0	0	0	0	0	0		
Copper	-2.358	25.0	0	0	0	0	0	0	0		
Iron	2.863	100	0	0	0	0	0	0	0		
Lead	1.419	3.00	0	0	0	0	0	0	0		
Lithium	10.76	100	0	0	0	0	0	0	0		
Magnesium	0.1269	5000	0	0	0	0	0	0	0		
Manganese	0.4657	15.0	0	0	0	0	0	0	0		
Molybdenum	6.776	50.0	0	0	0	0	0	0	0		
Nickel	-0.3455	40.0	0	0	0	0	0	0	0		
Potassium	0.5732	5000	0	0	0	0	0	0	0		
Selenium	0.9142	5.00	0	0	0	0	0	0	0		
Silver	2.552	10.0	0	0	0	0	0	0	0		
Sodium	3.096	5000	0	0	0	0	0	0	0		
Strontium	1.635	20.0	0	0	0	0	0	0	0		
Thallium	0.02285	10.0	0	0	0	0	0	0	0		
Tin	-0.8893	50.0	0	0	0	0	0	0	0		
Titanium	ND	50.0	0	0	0	0	0	0	0		
Vanadium	-0.5354	50.0	0	0	0	0	0	0	0		
Zinc	-0.1262	20.0	0	0	0	0	0	0	0		

CCB

SeqNo: **3821126** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.609	200	0	0	0	0	0	0	0		
Antimony	2.656	60.0	0	0	0	0	0	0	0		
Arsenic	-0.4925	10.0	0	0	0	0	0	0	0		
Barium	1.129	200	0	0	0	0	0	0	0		
Beryllium	0.07591	5.00	0	0	0	0	0	0	0		
Boron	1.207	50.0	0	0	0	0	0	0	0		
Cadmium	1.345	5.00	0	0	0	0	0	0	0		
Calcium	-5.944	5000	0	0	0	0	0	0	0		
Chromium	-4.125	10.0	0	0	0	0	0	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCB

SeqNo: **3821126** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	-0.09036	50.0	0	0	0	0	0	0	0		
Copper	-2.398	25.0	0	0	0	0	0	0	0		
Iron	2.816	100	0	0	0	0	0	0	0		
Lead	1.698	3.00	0	0	0	0	0	0	0		
Lithium	6.658	100	0	0	0	0	0	0	0		
Magnesium	-0.9535	5000	0	0	0	0	0	0	0		
Manganese	0.4843	15.0	0	0	0	0	0	0	0		
Molybdenum	7.312	50.0	0	0	0	0	0	0	0		
Nickel	-0.3064	40.0	0	0	0	0	0	0	0		
Potassium	-1.31	5000	0	0	0	0	0	0	0		
Selenium	-1.469	5.00	0	0	0	0	0	0	0		
Silver	2.619	10.0	0	0	0	0	0	0	0		
Sodium	12.24	5000	0	0	0	0	0	0	0		
Strontium	1.81	20.0	0	0	0	0	0	0	0		
Thallium	0.1454	10.0	0	0	0	0	0	0	0		
Tin	-0.6681	50.0	0	0	0	0	0	0	0		
Titanium	ND	50.0	0	0	0	0	0	0	0		
Vanadium	-0.3964	50.0	0	0	0	0	0	0	0		
Zinc	-0.03563	20.0	0	0	0	0	0	0	0		

CCV

SeqNo: **3821066** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2153	200	2000	0	108	90	110	0	0		
Antimony	2126	60.0	2000	0	106	90	110	0	0		
Arsenic	2069	10.0	2000	0	103	90	110	0	0		
Barium	1914	200	2000	0	95.7	90	110	0	0		
Beryllium	2060	5.00	2000	0	103	90	110	0	0		
Boron	2099	50.0	2000	0	105	90	110	0	0		
Cadmium	2054	5.00	2000	0	103	90	110	0	0		
Calcium	2137	5000	2000	0	107	90	110	0	0		
Chromium	2107	10.0	2000	0	105	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCV

SeqNo: **3821066** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	2014	50.0	2000	0	101	90	110	0	0		
Copper	1950	25.0	2000	0	97.5	90	110	0	0		
Iron	2099	100	2000	0	105	90	110	0	0		
Lead	2073	3.00	2000	0	104	90	110	0	0		
Lithium	2055	100	2000	0	103	90	110	0	0		
Magnesium	2091	5000	2000	0	105	90	110	0	0		
Manganese	1958	15.0	2000	0	97.9	90	110	0	0		
Molybdenum	2119	50.0	2000	0	106	90	110	0	0		
Nickel	2160	40.0	2000	0	108	90	110	0	0		
Potassium	9921	5000	10000	0	99.2	90	110	0	0		
Selenium	2078	5.00	2000	0	104	90	110	0	0		
Silver	464	10.0	500	0	92.8	90	110	0	0		
Sodium	2054	5000	2000	0	103	90	110	0	0		
Strontium	2051	20.0	2000	0	103	90	110	0	0		
Thallium	2063	10.0	2000	0	103	90	110	0	0		
Tin	2098	50.0	2000	0	105	90	110	0	0		
Titanium	ND	50.0	0	0	0	90	110	0	0		
Vanadium	2082	50.0	2000	0	104	90	110	0	0		
Zinc	2088	20.0	2000	0	104	90	110	0	0		

CCV

SeqNo: **3821078** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2061	200	2000	0	103	90	110	0	0		
Antimony	2186	60.0	2000	0	109	90	110	0	0		
Arsenic	2139	10.0	2000	0	107	90	110	0	0		
Barium	1981	200	2000	0	99.1	90	110	0	0		
Beryllium	2125	5.00	2000	0	106	90	110	0	0		
Boron	2173	50.0	2000	0	109	90	110	0	0		
Cadmium	2113	5.00	2000	0	106	90	110	0	0		
Calcium	2100	5000	2000	0	105	90	110	0	0		
Chromium	2179	10.0	2000	0	109	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCV

SeqNo: **3821078** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	2072	50.0	2000	0	104	90	110	0	0		
Copper	2026	25.0	2000	0	101	90	110	0	0		
Iron	2137	100	2000	0	107	90	110	0	0		
Lead	2141	3.00	2000	0	107	90	110	0	0		
Lithium	2150	100	2000	0	108	90	110	0	0		
Magnesium	2146	5000	2000	0	107	90	110	0	0		
Manganese	2028	15.0	2000	0	101	90	110	0	0		
Molybdenum	2185	50.0	2000	0	109	90	110	0	0		
Nickel	2121	40.0	2000	0	106	90	110	0	0		
Potassium	10350	5000	10000	0	104	90	110	0	0		
Selenium	2146	5.00	2000	0	107	90	110	0	0		
Silver	483.2	10.0	500	0	96.6	90	110	0	0		
Sodium	2094	5000	2000	0	105	90	110	0	0		
Strontium	2107	20.0	2000	0	105	90	110	0	0		
Thallium	2124	10.0	2000	0	106	90	110	0	0		
Tin	2165	50.0	2000	0	108	90	110	0	0		
Titanium	ND	50.0	0	0	0	90	110	0	0		
Vanadium	2150	50.0	2000	0	108	90	110	0	0		
Zinc	2156	20.0	2000	0	108	90	110	0	0		

CCV

SeqNo: **3821090** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2089	200	2000	0	104	90	110	0	0		
Antimony	2010	60.0	2000	0	100	90	110	0	0		
Arsenic	1972	10.0	2000	0	98.6	90	110	0	0		
Barium	1872	200	2000	0	93.6	90	110	0	0		
Beryllium	2024	5.00	2000	0	101	90	110	0	0		
Boron	1992	50.0	2000	0	99.6	90	110	0	0		
Cadmium	1969	5.00	2000	0	98.5	90	110	0	0		
Calcium	2069	5000	2000	0	103	90	110	0	0		
Chromium	2020	10.0	2000	0	101	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCV

SeqNo: **3821090** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	1922	50.0	2000	0	96.1	90	110	0	0		
Copper	1900	25.0	2000	0	95	90	110	0	0		
Iron	1978	100	2000	0	98.9	90	110	0	0		
Lead	1989	3.00	2000	0	99.5	90	110	0	0		
Lithium	2034	100	2000	0	102	90	110	0	0		
Magnesium	2003	5000	2000	0	100	90	110	0	0		
Manganese	1889	15.0	2000	0	94.5	90	110	0	0		
Molybdenum	2042	50.0	2000	0	102	90	110	0	0		
Nickel	2049	40.0	2000	0	102	90	110	0	0		
Potassium	9856	5000	10000	0	98.6	90	110	0	0		
Selenium	2013	5.00	2000	0	101	90	110	0	0		
Silver	452.1	10.0	500	0	90.4	90	110	0	0		
Sodium	1971	5000	2000	0	98.5	90	110	0	0		
Strontium	1947	20.0	2000	0	97.3	90	110	0	0		
Thallium	1972	10.0	2000	0	98.6	90	110	0	0		
Tin	2016	50.0	2000	0	101	90	110	0	0		
Titanium	ND	50.0	0	0	0	90	110	0	0		
Vanadium	2004	50.0	2000	0	100	90	110	0	0		
Zinc	2019	20.0	2000	0	101	90	110	0	0		

CCV

SeqNo: **3821102** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2094	200	2000	0	105	90	110	0	0		
Antimony	2060	60.0	2000	0	103	90	110	0	0		
Arsenic	2006	10.0	2000	0	100	90	110	0	0		
Barium	1878	200	2000	0	93.9	90	110	0	0		
Beryllium	1988	5.00	2000	0	99.4	90	110	0	0		
Boron	2025	50.0	2000	0	101	90	110	0	0		
Cadmium	1981	5.00	2000	0	99.1	90	110	0	0		
Calcium	2058	5000	2000	0	103	90	110	0	0		
Chromium	2036	10.0	2000	0	102	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCV

SeqNo: **3821102** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	1942	50.0	2000	0	97.1	90	110	0	0		
Copper	1899	25.0	2000	0	95	90	110	0	0		
Iron	2000	100	2000	0	100	90	110	0	0		
Lead	2010	3.00	2000	0	100	90	110	0	0		
Lithium	2033	100	2000	0	102	90	110	0	0		
Magnesium	2009	5000	2000	0	100	90	110	0	0		
Manganese	1895	15.0	2000	0	94.8	90	110	0	0		
Molybdenum	2056	50.0	2000	0	103	90	110	0	0		
Nickel	2094	40.0	2000	0	105	90	110	0	0		
Potassium	9735	5000	10000	0	97.4	90	110	0	0		
Selenium	2027	5.00	2000	0	101	90	110	0	0		
Silver	450.6	10.0	500	0	90.1	90	110	0	0		
Sodium	2181	5000	2000	0	109	90	110	0	0		
Strontium	1940	20.0	2000	0	97	90	110	0	0		
Thallium	1993	10.0	2000	0	99.6	90	110	0	0		
Tin	2043	50.0	2000	0	102	90	110	0	0		
Titanium	ND	50.0	0	0	0	90	110	0	0		
Vanadium	2019	50.0	2000	0	101	90	110	0	0		
Zinc	2032	20.0	2000	0	102	90	110	0	0		

CCV

SeqNo: **3821114** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2148	200	2000	0	107	90	110	0	0		
Antimony	2087	60.0	2000	0	104	90	110	0	0		
Arsenic	2037	10.0	2000	0	102	90	110	0	0		
Barium	1901	200	2000	0	95.1	90	110	0	0		
Beryllium	2018	5.00	2000	0	101	90	110	0	0		
Boron	2060	50.0	2000	0	103	90	110	0	0		
Cadmium	2017	5.00	2000	0	101	90	110	0	0		
Calcium	2077	5000	2000	0	104	90	110	0	0		
Chromium	2058	10.0	2000	0	103	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCV | SeqNo: **3821114** | ***PrepDate:*** | TestNo: **E200.7** | RunNo: ***234795*** | Samp ID: **CCV** | ***PrepRef:*** | Units: **µg/L** | Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	1959	50.0	2000	0	98	90	110	0	0		
Copper	1917	25.0	2000	0	95.9	90	110	0	0		
Iron	2013	100	2000	0	101	90	110	0	0		
Lead	2037	3.00	2000	0	102	90	110	0	0		
Lithium	2021	100	2000	0	101	90	110	0	0		
Magnesium	2022	5000	2000	0	101	90	110	0	0		
Manganese	1912	15.0	2000	0	95.6	90	110	0	0		
Molybdenum	2069	50.0	2000	0	103	90	110	0	0		
Nickel	2099	40.0	2000	0	105	90	110	0	0		
Potassium	9999	5000	10000	0	100	90	110	0	0		
Selenium	2039	5.00	2000	0	102	90	110	0	0		
Silver	459.3	10.0	500	0	91.9	90	110	0	0		
Sodium	2174	5000	2000	0	109	90	110	0	0		
Strontium	1979	20.0	2000	0	98.9	90	110	0	0		
Thallium	2028	10.0	2000	0	101	90	110	0	0		
Tin	2054	50.0	2000	0	103	90	110	0	0		
Titanium	ND	50.0	0	0	0	90	110	0	0		
Vanadium	2031	50.0	2000	0	102	90	110	0	0		
Zinc	2046	20.0	2000	0	102	90	110	0	0		

CCV | SeqNo: **3821120** | ***PrepDate:*** | TestNo: **E200.7** | RunNo: ***234795*** | Samp ID: **CCV** | ***PrepRef:*** | Units: **µg/L** | Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2149	200	2000	0	107	90	110	0	0		
Antimony	2187	60.0	2000	0	109	90	110	0	0		
Arsenic	2145	10.0	2000	0	107	90	110	0	0		
Barium	1977	200	2000	0	98.8	90	110	0	0		
Beryllium	2103	5.00	2000	0	105	90	110	0	0		
Boron	2158	50.0	2000	0	108	90	110	0	0		
Cadmium	2129	5.00	2000	0	106	90	110	0	0		
Calcium	2183	5000	2000	0	109	90	110	0	0		
Chromium	2155	10.0	2000	0	108	90	110	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCV

SeqNo: **3821120** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	2064	50.0	2000	0	103	90	110	0	0		
Copper	2006	25.0	2000	0	100	90	110	0	0		
Iron	2118	100	2000	0	106	90	110	0	0		
Lead	2140	3.00	2000	0	107	90	110	0	0		
Lithium	2103	100	2000	0	105	90	110	0	0		
Magnesium	2134	5000	2000	0	107	90	110	0	0		
Manganese	2005	15.0	2000	0	100	90	110	0	0		
Molybdenum	2175	50.0	2000	0	109	90	110	0	0		
Nickel	2106	40.0	2000	0	105	90	110	0	0		
Potassium	10350	5000	10000	0	103	90	110	0	0		
Selenium	2137	5.00	2000	0	107	90	110	0	0		
Silver	480.4	10.0	500	0	96.1	90	110	0	0		
Sodium	2104	5000	2000	0	105	90	110	0	0		
Strontium	2035	20.0	2000	0	102	90	110	0	0		
Thallium	2138	10.0	2000	0	107	90	110	0	0		
Tin	2145	50.0	2000	0	107	90	110	0	0		
Titanium	ND	50.0	0	0	0	90	110	0	0		
Vanadium	2126	50.0	2000	0	106	90	110	0	0		
Zinc	2148	20.0	2000	0	107	90	110	0	0		

CCV

SeqNo: **3821125** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2150	200	2000	0	107	90	110	0	0		
Antimony	2060	60.0	2000	0	103	90	110	0	0		
Arsenic	2042	10.0	2000	0	102	90	110	0	0		
Barium	1879	200	2000	0	94	90	110	0	0		
Beryllium	2043	5.00	2000	0	102	90	110	0	0		
Boron	2046	50.0	2000	0	102	90	110	0	0		
Cadmium	2051	5.00	2000	0	103	90	110	0	0		
Calcium	2102	5000	2000	0	105	90	110	0	0		
Chromium	2054	10.0	2000	0	103	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CCV

SeqNo: **3821125** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Cobalt	1978	50.0	2000	0	98.9	90	110	0	0		
Copper	1906	25.0	2000	0	95.3	90	110	0	0		
Iron	2045	100	2000	0	102	90	110	0	0		
Lead	2047	3.00	2000	0	102	90	110	0	0		
Lithium	2011	100	2000	0	101	90	110	0	0		
Magnesium	2047	5000	2000	0	102	90	110	0	0		
Manganese	1959	15.0	2000	0	97.9	90	110	0	0		
Molybdenum	2079	50.0	2000	0	104	90	110	0	0		
Nickel	2080	40.0	2000	0	104	90	110	0	0		
Potassium	9982	5000	10000	0	99.8	90	110	0	0		
Selenium	2042	5.00	2000	0	102	90	110	0	0		
Silver	461.9	10.0	500	0	92.4	90	110	0	0		
Sodium	2085	5000	2000	0	104	90	110	0	0		
Strontium	1949	20.0	2000	0	97.4	90	110	0	0		
Thallium	2049	10.0	2000	0	102	90	110	0	0		
Tin	2037	50.0	2000	0	102	90	110	0	0		
Titanium	ND	50.0	0	0	0	90	110	0	0		
Vanadium	2017	50.0	2000	0	101	90	110	0	0		
Zinc	2058	20.0	2000	0	103	90	110	0	0		

CRI

SeqNo: **3821063** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CRI** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	45.12	200	0	0	0	50	150	0	0		
Antimony	131.6	60.0	120	0	110	50	150	0	0		
Arsenic	18.54	10.0	20	0	92.7	50	150	0	0		
Barium	1.226	200	0	0	0	50	150	0	0		
Beryllium	9.777	5.00	10	0	97.8	50	150	0	0		
Cadmium	10.64	5.00	10	0	106	50	150	0	0		
Calcium	2.933	5000	0	0	0	50	150	0	0		
Chromium	16.26	10.0	20	0	81.3	50	150	0	0		
Cobalt	95.31	50.0	100	0	95.3	50	150	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CRI

SeqNo: **3821063** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CRI** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Copper	47.58	25.0	50	0	95.2	50	150	0	0		
Iron	10.5	100	0	0	0	50	150	0	0		
Lead	8.317	3.00	6	0	139	50	150	0	0		
Magnesium	2.377	5000	0	0	0	50	150	0	0		
Manganese	29.35	15.0	30	0	97.8	50	150	0	0		
Nickel	81.87	40.0	80	0	102	50	150	0	0		
Potassium	0.4324	5000	0	0	0	50	150	0	0		
Selenium	9.047	5.00	10	0	90.5	50	150	0	0		
Silver	20.61	10.0	20	0	103	50	150	0	0		
Sodium	147.6	5000	0	0	0	50	150	0	0		
Thallium	20.87	10.0	20	0	104	50	150	0	0		
Vanadium	97.05	50.0	100	0	97.1	50	150	0	0		
Zinc	41.23	20.0	40	0	103	50	150	0	0		

CRI

SeqNo: **3821122** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CRI** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	47.92	200	0	0	0	50	150	0	0		
Antimony	134.7	60.0	120	0	112	50	150	0	0		
Arsenic	18.52	10.0	20	0	92.6	50	150	0	0		
Barium	1.175	200	0	0	0	50	150	0	0		
Beryllium	9.702	5.00	10	0	97	50	150	0	0		
Cadmium	10.92	5.00	10	0	109	50	150	0	0		
Calcium	16.81	5000	0	0	0	50	150	0	0		
Chromium	16.29	10.0	20	0	81.4	50	150	0	0		
Cobalt	96.12	50.0	100	0	96.1	50	150	0	0		
Copper	46.99	25.0	50	0	94	50	150	0	0		
Iron	9.712	100	0	0	0	50	150	0	0		
Lead	8.289	3.00	6	0	138	50	150	0	0		
Magnesium	2.5	5000	0	0	0	50	150	0	0		
Manganese	29.75	15.0	30	0	99.2	50	150	0	0		
Nickel	81.6	40.0	80	0	102	50	150	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

CRI

SeqNo: **3821122** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **CRI** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Potassium	3.607	5000	0	0	0	50	150	0	0		
Selenium	9.807	5.00	10	0	98.1	50	150	0	0		
Silver	21.09	10.0	20	0	105	50	150	0	0		
Sodium	1061	5000	0	0	0	50	150	0	0		
Thallium	22.21	10.0	20	0	111	50	150	0	0		
Vanadium	96.72	50.0	100	0	96.7	50	150	0	0		
Zinc	42.07	20.0	40	0	105	50	150	0	0		

ICB

SeqNo: **3821062** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	-1.111	200	0	0	0	0	0	0	0		
Antimony	11.82	60.0	0	0	0	0	0	0	0		
Arsenic	-0.3139	10.0	0	0	0	0	0	0	0		
Barium	1.112	200	0	0	0	0	0	0	0		
Beryllium	0.1219	5.00	0	0	0	0	0	0	0		
Cadmium	1.277	5.00	0	0	0	0	0	0	0		
Calcium	-7.045	5000	0	0	0	0	0	0	0		
Chromium	-3.945	10.0	0	0	0	0	0	0	0		
Cobalt	-0.1315	50.0	0	0	0	0	0	0	0		
Copper	-2.257	25.0	0	0	0	0	0	0	0		
Iron	2.969	100	0	0	0	0	0	0	0		
Lead	1.891	3.00	0	0	0	0	0	0	0		
Magnesium	-2.483	5000	0	0	0	0	0	0	0		
Manganese	0.4205	15.0	0	0	0	0	0	0	0		
Nickel	-0.2957	40.0	0	0	0	0	0	0	0		
Potassium	-0.7667	5000	0	0	0	0	0	0	0		
Selenium	-0.9387	5.00	0	0	0	0	0	0	0		
Silver	2.585	10.0	0	0	0	0	0	0	0		
Sodium	6.082	5000	0	0	0	0	0	0	0		
Thallium	-0.3103	10.0	0	0	0	0	0	0	0		
Vanadium	-0.6255	50.0	0	0	0	0	0	0	0		

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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

ICB

SeqNo: **3821062** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Zinc	-0.08429	20.0	0	0	0	0	0	0	0		

ICV

SeqNo: **3821061** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICV** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	2118	200	2000	0	106	90	110	0	0		
Antimony	2055	60.0	2000	0	103	90	110	0	0		
Arsenic	2007	10.0	2000	0	100	90	110	0	0		
Barium	1871	200	2000	0	93.6	90	110	0	0		
Beryllium	1992	5.00	2000	0	99.6	90	110	0	0		
Cadmium	1996	5.00	2000	0	99.8	90	110	0	0		
Calcium	2065	5000	2000	0	103	90	110	0	0		
Chromium	2003	10.0	2000	0	100	90	110	0	0		
Cobalt	1927	50.0	2000	0	96.4	90	110	0	0		
Copper	1890	25.0	2000	0	94.5	90	110	0	0		
Iron	2002	100	2000	0	100	90	110	0	0		
Lead	1995	3.00	2000	0	99.7	90	110	0	0		
Magnesium	2006	5000	2000	0	100	90	110	0	0		
Manganese	1910	15.0	2000	0	95.5	90	110	0	0		
Nickel	2059	40.0	2000	0	103	90	110	0	0		
Potassium	9728	5000	10000	0	97.3	90	110	0	0		
Selenium	1993	5.00	2000	0	99.6	90	110	0	0		
Silver	477.2	10.0	500	0	95.4	90	110	0	0		
Sodium	2167	5000	2000	0	108	90	110	0	0		
Thallium	1997	10.0	2000	0	99.9	90	110	0	0		
Vanadium	2006	50.0	2000	0	100	90	110	0	0		
Zinc	2001	20.0	2000	0	100	90	110	0	0		

ICSA

SeqNo: **3821064** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSA** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual

Qualifiers:
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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

ICSA

SeqNo: **3821064** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSA** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	ND	200	500000	0	0	80	120	0	0		S
Antimony	3.29	60.0	0	0	0	0	0	0	0		
Arsenic	-0.9929	10.0	0	0	0	0	0	0	0		
Barium	4.703	200	0	0	0	0	0	0	0		
Beryllium	-0.0741	5.00	0	0	0	0	0	0	0		
Cadmium	-1.295	5.00	0	0	0	0	0	0	0		
Calcium	ND	5000	500000	0	0	80	120	0	0		S
Chromium	-4.813	10.0	0	0	0	0	0	0	0		
Cobalt	0.8125	50.0	0	0	0	0	0	0	0		
Copper	-0.1919	25.0	0	0	0	0	0	0	0		
Iron	ND	100	200000	0	0	80	120	0	0		S
Lead	-0.9574	3.00	0	0	0	0	0	0	0		
Magnesium	431500	5000	500000	0	86.3	80	120	0	0		
Manganese	3.964	15.0	0	0	0	0	0	0	0		
Nickel	4.278	40.0	0	0	0	0	0	0	0		
Potassium	26.9	5000	0	0	0	0	0	0	0		
Selenium	-0.0296	5.00	0	0	0	0	0	0	0		
Silver	-3.481	10.0	0	0	0	0	0	0	0		
Sodium	432.9	5000	0	0	0	0	0	0	0		
Thallium	-2.635	10.0	0	0	0	0	0	0	0		
Vanadium	-1.862	50.0	0	0	0	0	0	0	0		
Zinc	10.06	20.0	0	0	0	0	0	0	0		

ICSA

SeqNo: **3821123** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSA** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	ND	200	500000	0	0	80	120	0	0		S
Antimony	1.359	60.0	0	0	0	0	0	0	0		
Arsenic	-0.2918	10.0	0	0	0	0	0	0	0		
Barium	4.71	200	0	0	0	0	0	0	0		
Beryllium	-0.1298	5.00	0	0	0	0	0	0	0		
Cadmium	-1.262	5.00	0	0	0	0	0	0	0		

Qualifiers:
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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

ICSA

SeqNo: **3821123** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSA** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Calcium	ND	5000	500000	0	0	80	120	0	0		S
Chromium	-4.896	10.0	0	0	0	0	0	0	0		
Cobalt	0.7841	50.0	0	0	0	0	0	0	0		
Copper	2.058	25.0	0	0	0	0	0	0	0		
Iron	ND	100	200000	0	0	80	120	0	0		S
Lead	-0.7308	3.00	0	0	0	0	0	0	0		
Magnesium	442800	5000	500000	0	88.6	80	120	0	0		
Manganese	4.145	15.0	0	0	0	0	0	0	0		
Nickel	4.4	40.0	0	0	0	0	0	0	0		
Potassium	33.01	5000	0	0	0	0	0	0	0		
Selenium	-0.1777	5.00	0	0	0	0	0	0	0		
Silver	-2.934	10.0	0	0	0	0	0	0	0		
Sodium	979.4	5000	0	0	0	0	0	0	0		
Thallium	-2.478	10.0	0	0	0	0	0	0	0		
Vanadium	-2.072	50.0	0	0	0	0	0	0	0		
Zinc	11.13	20.0	0	0	0	0	0	0	0		

ICSAB

SeqNo: **3821065** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSAB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	ND	200	500000	0	0	80	120	0	0		S
Antimony	38.29	60.0	0	0	0	0	0	0	0		
Arsenic	-0.7108	10.0	0	0	0	0	0	0	0		
Barium	408.1	200	500	0	81.6	80	120	0	0		
Beryllium	488.4	5.00	500	0	97.7	80	120	0	0		
Cadmium	867.1	5.00	1000	0	86.7	80	120	0	0		
Calcium	ND	5000	500000	0	0	80	120	0	0		S
Chromium	440.7	10.0	500	0	88.1	80	120	0	0		
Cobalt	417.2	50.0	500	0	83.4	80	120	0	0		
Copper	484.3	25.0	500	0	96.9	80	120	0	0		
Iron	ND	100	200000	0	0	80	120	0	0		S
Lead	881.2	3.00	1000	0	88.1	80	120	0	0		

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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

ICSAB

SeqNo: **3821065** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSAB** *PrepRef:* Units: **µg/L** Analysis Date: **7/2/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Magnesium	452000	5000	500000	0	90.4	80	120	0	0		
Manganese	405	15.0	500	0	81	80	120	0	0		
Nickel	891.9	40.0	1000	0	89.2	80	120	0	0		
Potassium	32.24	5000	0	0	0	0	0	0	0		
Selenium	-0.4086	5.00	0	0	0	0	0	0	0		
Silver	805.1	10.0	1000	0	80.5	80	120	0	0		
Sodium	508.3	5000	0	0	0	0	0	0	0		
Thallium	-1.199	10.0	0	0	0	0	0	0	0		
Vanadium	445.1	50.0	500	0	89	80	120	0	0		
Zinc	895.9	20.0	1000	0	89.6	80	120	0	0		

ICSAB

SeqNo: **3821124** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSAB** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Aluminum	ND	200	500000	0	0	80	120	0	0		S
Antimony	3.108	60.0	0	0	0	0	0	0	0		
Arsenic	-0.8006	10.0	0	0	0	0	0	0	0		
Barium	413.9	200	500	0	82.8	80	120	0	0		
Beryllium	484.2	5.00	500	0	96.8	80	120	0	0		
Cadmium	882.6	5.00	1000	0	88.3	80	120	0	0		
Calcium	ND	5000	500000	0	0	80	120	0	0		S
Chromium	442.9	10.0	500	0	88.6	80	120	0	0		
Cobalt	417.8	50.0	500	0	83.6	80	120	0	0		
Copper	481.2	25.0	500	0	96.2	80	120	0	0		
Iron	ND	100	200000	0	0	80	120	0	0		S
Lead	985.9	3.00	1000	0	98.6	80	120	0	0		
Magnesium	452800	5000	500000	0	90.6	80	120	0	0		
Manganese	414.8	15.0	500	0	83	80	120	0	0		
Nickel	882.9	40.0	1000	0	88.3	80	120	0	0		
Potassium	27.75	5000	0	0	0	0	0	0	0		
Selenium	-0.5093	5.00	0	0	0	0	0	0	0		
Silver	818.5	10.0	1000	0	81.9	80	120	0	0		

Qualifiers:
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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109718

ICSAB

SeqNo: **3821124** *PrepDate:* TestNo: **E200.7** RunNo: ***234795***
Samp ID: **ICSAB** *PrepRef:* Units: **µg/L** Analysis Date: **7/3/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Sodium	830.1	5000	0	0	0	0	0	0	0		
Thallium	-1.267	10.0	0	0	0	0	0	0	0		
Vanadium	441	50.0	500	0	88.2	80	120	0	0		
Zinc	889.2	20.0	1000	0	88.9	80	120	0	0		

Qualifiers:
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CLIENT: Town of Clermont
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ANALYTICAL QC SUMMARY REPORT

BatchID: 109732

mblk

SeqNo: **3817079** *PrepDate:6/26/2024* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **MB-109732** *PrepRef:(E245.1)* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	ND	0.200									

lcs

SeqNo: **3817080** *PrepDate:6/26/2024* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **LCS-109732** *PrepRef:(E245.1)* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	1.822	0.200	2	0	91.1	85	115	0	0		

ms

SeqNo: **3817087** *PrepDate:6/26/2024* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **240625028-003** ***(MW-5)*** *PrepRef:(E245.1)* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	1.989	0.200	2	0	99.4	80.8	119	0	0		

dup

SeqNo: **3817086** *PrepDate:6/26/2024* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **240625028-003** ***(MW-5)*** *PrepRef:(E245.1)* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	ND	0.200	0	0	0	0	0	0	0	16.5	

ccb

SeqNo: **3817060** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **ICB** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	-0.0149	0.200	0	0	0	0	0	0	0		

ccb

SeqNo: **3817070** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	-0.0205	0.200	0	0	0	0	0	0	0		

Qualifiers:
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CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109732

ccb SeqNo: **3817082** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	-0.0179	0.200	0	0	0	0	0	0	0		

ccb SeqNo: **3817090** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **CCB** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	-0.0178	0.200	0	0	0	0	0	0	0		

ccv SeqNo: **3817059** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **ICV** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	2.141	0.200	2	0	107	85	115	0	0		

ccv SeqNo: **3817069** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	2.186	0.200	2	0	109	85	115	0	0		

ccv SeqNo: **3817081** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	2.2	0.200	2	0	110	85	115	0	0		

ccv SeqNo: **3817089** *PrepDate:* TestNo: **E245.1** RunNo: ***234569***
Samp ID: **CCV** *PrepRef:* Units: **µg/L** Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	2.16	0.200	2	0	108	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Town of Clermont
Work Order: 240625028
Project: Clermont Hettling Park

ANALYTICAL QC SUMMARY REPORT

BatchID: 109732

cra	SeqNo: **3817061**	***PrepDate:***	TestNo: **E245.1**	RunNo: ***234569***
	Samp ID: **0.2ppb**	***PrepRef:***	Units: **µg/L**	Analysis Date: **6/26/2024**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref	%RPD(SD-%D)	RPDLimit	Qual
Mercury	0.2198	0.200	0.2	0	110	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Adirondack Environmental Services, Inc

Date: 15-Dec-23

Test Code: CLPHG
Test Number: E245.1
Test Name: Mercury
Matrix: Water **Units:** µg/L

METHOD DETECTION / REPORTING LIMITS

Updated: 06-Dec-23

Type	Analyte	MDL	PQL
A	Mercury	0.16	0.2

Adirondack Environmental Services, Inc

Date: 04-Dec-23

Test Code: CLPW
Test Number: E200.7
Test Name: ICP Metals Water
Matrix: Water **Units:** µg/L

METHOD DETECTION / REPORTING LIMITS

Updated: 24-Oct-23

Type	Analyte	MDL	PQL
A	Aluminum	24.6	200
A	Antimony	5.2	60
A	Arsenic	3	10
A	Barium	2.3	200
A	Beryllium	0.7	5
A	Boron	3.6	50
A	Cadmium	0.4	5
A	Calcium	13.3	5000
A	Chromium	4.5	10
A	Cobalt	0.6	50
A	Copper	2.1	25
A	Iron	11.5	100
A	Lead	1.9	3
A	Lithium	20.7	100
A	Magnesium	38	5000
A	Manganese	4.4	15
A	Molybdenum	4.5	50
A	Nickel	1.6	40
A	Potassium	30.5	5000
A	Selenium	2.8	5
A	Silver	7.9	10
A	Sodium	201.2	5000
A	Strontium	12.3	20
A	Thallium	3.3	10
A	Tin	2.3	50
A	Titanium	0	50
A	Vanadium	10.9	50
A	Zinc	4.6	20

Seq. No.	1	AS Loc:	1	Date:	6/26/2024			
Sample ID:	Blank							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.0001	[0.00]		µg/L				11:56:16AM
	0.0001	[0.00]		µg/L				11:56:47AM
Mean:	0.0001	[0.00]	0.0000	µg/L			3.2700	

Seq. No.	2	AS Loc:	2	Date:	6/26/2024			
Sample ID:	0.2ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.0022	[0.200]		µg/L				11:57:52AM
	0.0022	[0.200]		µg/L				11:58:22AM
Mean:	0.0022	[0.200]	0.0000	µg/L			0.6709	

Seq. No.	3	AS Loc:	3	Date:	6/26/2024			
Sample ID:	0.5ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.0054	[0.500]		µg/L				11:59:28AM
	0.0054	[0.500]		µg/L				11:59:58AM
Mean:	0.0054	[0.500]	0.0000	µg/L			0.4546	

Seq. No.	4	AS Loc:	4	Date:	6/26/2024			
Sample ID:	1.00ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.0108	[1.000]		µg/L				12:01:05PM
	0.0108	[1.000]		µg/L				12:01:36PM
Mean:	0.0108	[1.000]	0.0000	µg/L			0.1926	

Seq. No.	5	AS Loc:	5	Date:	6/26/2024			
Sample ID:	2.00ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.0216	[2.000]		µg/L				12:02:43PM
	0.0216	[2.000]		µg/L				12:03:13PM
Mean:	0.0216	[2.000]	0.0001	µg/L			0.3133	

Seq. No.	6	AS Loc:	6	Date:	6/26/2024			
Sample ID:	5.00ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.0523	[5.000]		µg/L				12:04:20PM
	0.0530	[5.000]		µg/L				12:04:50PM
Mean:	0.0527	[5.000]	0.0005	µg/L			0.9162	

Seq. No.	7	AS Loc:	7	Date:	6/26/2024			
Sample ID:	10.00ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.1060	[10.000]		µg/L				12:05:55PM
	0.1061	[10.000]		µg/L				12:06:25PM
Mean:	0.1060	[10.000]	0.0000	µg/L			0.0457	

Seq. No.	50	AS Loc:	5	Date:	6/26/2024			
Sample ID:	ICV							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7	6/26/2024 2:29:30PM All analyte(s) passed QC.							
	0.0223	2.098		µg/L	2.098	µg/L		2:28:58PM
	0.0232	2.183		µg/L	2.183	µg/L		2:29:28PM
Mean:	0.0228	2.141	0.0604	µg/L	2.141	µg/L	2.8218	

6/26/2024 2:29:30PM QC value within limits for Hg 253.7 Recovery = 107.03%

Seq. No.	51	AS Loc:	1	Date:	6/26/2024			
Sample ID:	ICB							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7		6/26/2024 2:31:07PM	All analyte(s) passed QC.					
	-0.0001	-0.0149	µg/L	-0.0149		µg/L		2:30:34PM
	-0.0001	-0.0150	µg/L	-0.0150		µg/L		2:31:05PM
Mean:	-0.0001	-0.0149	0.00008 µg/L	-0.0149		µg/L	0.5227	

6/26/2024 2:31:07PM QC value within limits for Hg 253.7 Recovery = Not calculated

Seq. No.	52	AS Loc:	2	Date:	6/26/2024			
Sample ID:	0.2ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7								
	0.0025	0.2256	µg/L	0.2256		µg/L		2:32:10PM
	0.0024	0.2141	µg/L	0.2141		µg/L		2:32:41PM
Mean:	0.0024	0.2198	0.00817 µg/L	0.2198	0.00817	µg/L	3.7149	

Seq. No.	53	AS Loc:	5	Date:	6/26/2024			
Sample ID:	2.0ppb							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7								
	0.0232	2.182	µg/L	2.182		µg/L		2:33:48PM
	0.0233	2.191	µg/L	2.191		µg/L		2:34:18PM
Mean:	0.0232	2.186	0.0061 µg/L	2.186	0.0061	µg/L	0.2808	

Seq. No.	62	AS Loc:	5	Date:	6/26/2024			
Sample ID:	CCV							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7		6/26/2024 2:48:49PM	All analyte(s) passed QC.					
	0.0232	2.181	µg/L	2.181		µg/L		2:48:16PM
	0.0233	2.191	µg/L	2.191		µg/L		2:48:46PM
Mean:	0.0232	2.186	0.0073 µg/L	2.186		µg/L	0.3361	

6/26/2024 2:48:49PM QC value within limits for Hg 253.7 Recovery = 109.29%

Seq. No.	63	AS Loc:	1	Date:	6/26/2024			
Sample ID:	CCB							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7		6/26/2024 2:50:26PM	All analyte(s) passed QC.					
	-0.0001	-0.0202	µg/L	-0.0202		µg/L		2:49:53PM
	-0.0001	-0.0207	µg/L	-0.0207		µg/L		2:50:23PM
Mean:	-0.0001	-0.0205	0.00033 µg/L	-0.0205		µg/L	1.6071	

6/26/2024 2:50:26PM QC value within limits for Hg 253.7 Recovery = Not calculated

Seq. No.	72	AS Loc:	11	Date:	6/26/2024			
Sample ID:	MB-109732							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7								
	-0.0001	-0.0148	µg/L	-0.0148		µg/L		3:04:26PM
	-0.0001	-0.0156	µg/L	-0.0156		µg/L		3:04:56PM
Mean:	-0.0001	-0.0152	0.00057 µg/L	-0.0152	0.00057	µg/L	3.7504	

Seq. No.	73	AS Loc:	12	Date:	6/26/2024			
Sample ID:	LCS-109732							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7								
	0.0194	1.820	µg/L	1.820		µg/L		3:06:02PM
	0.0194	1.824	µg/L	1.824		µg/L		3:06:32PM
Mean:	0.0194	1.822	0.0029 µg/L	1.822	0.0029	µg/L	0.1585	

Seq. No.	74	AS Loc:	5	Date:	6/26/2024			
Sample ID:	CCV							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7		6/26/2024 3:08:11PM	All analyte(s) passed QC.					
	0.0233	2.194	µg/L	2.194		µg/L		3:07:39PM
	0.0234	2.206	µg/L	2.206		µg/L		3:08:09PM
Mean:	0.0234	2.200	0.0079 µg/L	2.200		µg/L	0.3585	

6/26/2024 3:08:11PM QC value within limits for Hg 253.7 Recovery = 110.00%

Seq. No.	75	AS Loc:	1	Date:	6/26/2024			
Sample ID:	CCB							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7		6/26/2024 3:09:48PM All analyte(s) passed QC.						
	-0.0001	-0.0151		µg/L	-0.0151	µg/L		3:09:15PM
	-0.0001	-0.0206		µg/L	-0.0206	µg/L		3:09:45PM
Mean:	-0.0001	-0.0179	0.00391	µg/L	-0.0179	µg/L	21.8771	

6/26/2024 3:09:48PM QC value within limits for Hg 253.7 Recovery = Not calculated

Seq. No.	76	AS Loc:	26	Date:	6/26/2024			
Sample ID:	240625028-001A							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	-0.0001	-0.0222		µg/L	-0.0222	µg/L		3:10:51PM
	-0.0001	-0.0175		µg/L	-0.0175	µg/L		3:11:21PM
Mean:	-0.0001	-0.0199	0.00328	µg/L	-0.0199	0.00328 µg/L	16.5114	

Seq. No.	77	AS Loc:	27	Date:	6/26/2024			
Sample ID:	240625028-002A							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	0.0001	0.0013		µg/L	0.0013	µg/L		3:12:28PM
	0.0001	0.0029		µg/L	0.0029	µg/L		3:12:58PM
Mean:	0.0001	0.0021	0.00111	µg/L	0.0021	0.00111 µg/L	52.3721	

Seq. No.	78	AS Loc:	28	Date:	6/26/2024			
Sample ID:	240625028-003A							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7								
	-0.0001	-0.0173		µg/L	-0.0173	µg/L		3:14:05PM
	-0.0001	-0.0215		µg/L	-0.0215	µg/L		3:14:35PM
Mean:	-0.0001	-0.0194	0.00302	µg/L	-0.0194	0.00302 µg/L	15.5886	

Seq. No.	79	AS Loc:	29	Date:	6/26/2024			
Sample ID:	240625028-003ADP							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7								
	-0.0001	-0.0195	µg/L	-0.0195	µg/L			3:15:41PM
	-0.0001	-0.0202	µg/L	-0.0202	µg/L			3:16:11PM
Mean:	-0.0001	-0.0199	0.00052 µg/L	-0.0199	0.00052	µg/L	2.6309	

Seq. No.	80	AS Loc:	30	Date:	6/26/2024			
Sample ID:	240625028-003AMS							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7								
	0.0212	1.991	µg/L	1.991	µg/L			3:17:17PM
	0.0211	1.988	µg/L	1.988	µg/L			3:17:47PM
Mean:	0.0212	1.989	0.0020 µg/L	1.989	0.0020	µg/L	0.1000	

Seq. No.	81	AS Loc:	31	Date:	6/26/2024			
Sample ID:	240625028-004A							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7								
	-0.0001	-0.0170	µg/L	-0.0170	µg/L			3:18:53PM
	-0.0001	-0.0237	µg/L	-0.0237	µg/L			3:19:23PM
Mean:	-0.0001	-0.0204	0.00471 µg/L	-0.0204	0.00471	µg/L	23.1313	

Seq. No.	82	AS Loc:	5	Date:	6/26/2024			
Sample ID:	CCV							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**	**Conc (Sample)**	**Std. Dev.**		**%RSD:**	**Time**
Hg 253.7	6/26/2024 3:21:03PM All analyte(s) passed QC.							
	0.0230	2.165	µg/L	2.165	µg/L			3:20:30PM
	0.0229	2.155	µg/L	2.155	µg/L			3:21:01PM
Mean:	0.0230	2.160	0.0070 µg/L	2.160	µg/L		0.3242	

6/26/2024 3:21:03PM QC value within limits for Hg 253.7 Recovery = 108.00%

Seq. No.	83	AS Loc:	1	Date:	6/26/2024			
Sample ID:	CCB							
Analyte	**Corr. Absorbance**	**Conc (Calib)**	**Std. Dev.**		**Conc (Sample)**	**Std. Dev.**	**%RSD:**	**Time**
Hg 253.7		6/26/2024 3:22:39PM	All analyte(s) passed QC.					
	-0.0001	-0.0175		µg/L	-0.0175	µg/L		3:22:07PM
	-0.0001	-0.0180		µg/L	-0.0180	µg/L		3:22:37PM
Mean:	-0.0001	-0.0178	0.00038	µg/L	-0.0178	µg/L	2.1185	

6/26/2024 3:22:39PM QC value within limits for Hg 253.7 Recovery = Not calculated

Basic Sample Report

7/10/2024 4:54:06 PM

LabBook 07-02-2024CLP.imexp

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Analysis Type: BLK Analysis started at: 7/2/2024 5:57:43 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.035 ppb
K 766.490 {44} (Axial)	0.446 ppb
Ba 455.403 {74} (Axial)	1.130 ppb
Pb 220.353 {453} (Axial)	1.195 ppb
Sb 206.833 {463} (Axial)	14.504 ppb
Sn 189.989 {478} (Axial)	-0.733 ppb
Cd 228.802 {447} (Axial)	1.378 ppb
Ag 328.068 {103} (Axial)	2.581 ppb
Mo 202.030 {467} (Axial)	0.856 ppb
Mn 257.610 {131} (Axial)	0.477 ppb
Fe 259.940 {130} (Axial)	2.949 ppb
Co 228.616 {447} (Axial)	-0.077 ppb
Ni 221.647 {452} (Axial)	-0.474 ppb
Cu 324.754 {104} (Axial)	-2.815 ppb
B 249.773 {135} (Axial)	7.462 ppb
Al 396.152 {85} (Axial)	-1.200 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.326 ppb
Na 589.592 {57} (Radial)	404.851 ppb
Sr 407.771 {83} (Radial)	1.726 ppb
Ca 317.933 {106} (Axial)	-2.572 ppb
Mg 279.079 {121} (Axial)	-0.808 ppb
Zn 206.200 {463} (Axial)	0.067 ppb
Cr 267.716 {126} (Axial)	-3.923 ppb
Si 251.611 {134} (Axial)	8.646 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.063 ppb
As 193.759 {474} (Axial)	-2.110 ppb
Se 196.090 {472} (Axial)	-5.464 ppb
Se 203.985 {465} (Axial)	-7.800 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	-17.948 ppb
In 230.606 {446} (Axial)	N/A

	Concentration average
Pb 220.353 {453} (Axial) (2)	1.195 ppb

200.7.1

Analysis Type: STD Analysis started at: 7/2/2024 6:02:36 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	N/A
K 766.490 {44} (Axial)	10,000.000 ppb
Ba 455.403 {74} (Axial)	N/A
Pb 220.353 {453} (Axial)	N/A
Sb 206.833 {463} (Axial)	N/A
Sn 189.989 {478} (Axial)	N/A
Cd 228.802 {447} (Axial)	N/A
Ag 328.068 {103} (Axial)	N/A
Mo 202.030 {467} (Axial)	N/A
Mn 257.610 {131} (Axial)	N/A
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	N/A
Ni 221.647 {452} (Axial)	5,000.000 ppb
Cu 324.754 {104} (Axial)	N/A
B 249.773 {135} (Axial)	N/A
Al 396.152 {85} (Axial)	10,000.000 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	N/A
Na 589.592 {57} (Radial)	10,000.000 ppb
Sr 407.771 {83} (Radial)	N/A
Ca 317.933 {106} (Axial)	10,000.000 ppb
Mg 279.079 {121} (Axial)	10,000.000 ppb
Zn 206.200 {463} (Axial)	5,000.000 ppb
Cr 267.716 {126} (Axial)	N/A
Si 251.611 {134} (Axial)	N/A
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	N/A
As 193.759 {474} (Axial)	N/A
Se 196.090 {472} (Axial)	N/A
Se 203.985 {465} (Axial)	N/A
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	N/A

	Concentration average
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	N/A

200.7-2

Analysis Type: STD Analysis started at: 7/2/2024 6:07:46 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	N/A
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	1,000.000 ppb
Pb 220.353 {453} (Axial)	N/A
Sb 206.833 {463} (Axial)	N/A
Sn 189.989 {478} (Axial)	N/A
Cd 228.802 {447} (Axial)	N/A
Ag 328.068 {103} (Axial)	N/A
Mo 202.030 {467} (Axial)	N/A
Mn 257.610 {131} (Axial)	1,000.000 ppb
Fe 259.940 {130} (Axial)	10,000.000 ppb
Co 228.616 {447} (Axial)	2,000.000 ppb
Ni 221.647 {452} (Axial)	N/A
Cu 324.754 {104} (Axial)	1,000.000 ppb
B 249.773 {135} (Axial)	N/A
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	N/A
Na 589.592 {57} (Radial)	N/A
Sr 407.771 {83} (Radial)	N/A
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	N/A
Zn 206.200 {463} (Axial)	N/A
Cr 267.716 {126} (Axial)	N/A
Si 251.611 {134} (Axial)	N/A
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	N/A
As 193.759 {474} (Axial)	N/A
Se 196.090 {472} (Axial)	N/A
Se 203.985 {465} (Axial)	N/A
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A

	Concentration average
Li 670.784 {50} (Radial)	N/A
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	N/A

200.7-4

Analysis Type: STD Analysis started at: 7/2/2024 6:13:02 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	N/A
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	N/A
Pb 220.353 {453} (Axial)	N/A
Sb 206.833 {463} (Axial)	10,000.000 ppb
Sn 189.989 {478} (Axial)	N/A
Cd 228.802 {447} (Axial)	N/A
Ag 328.068 {103} (Axial)	N/A
Mo 202.030 {467} (Axial)	10,000.000 ppb
Mn 257.610 {131} (Axial)	N/A
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	N/A
Ni 221.647 {452} (Axial)	N/A
Cu 324.754 {104} (Axial)	N/A
B 249.773 {135} (Axial)	N/A
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	N/A
Na 589.592 {57} (Radial)	N/A
Sr 407.771 {83} (Radial)	N/A
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	N/A
Zn 206.200 {463} (Axial)	N/A
Cr 267.716 {126} (Axial)	N/A
Si 251.611 {134} (Axial)	N/A
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	N/A
As 193.759 {474} (Axial)	N/A
Se 196.090 {472} (Axial)	N/A
Se 203.985 {465} (Axial)	N/A
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A

	Concentration average
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	N/A
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	N/A

200.7-6

Analysis Type: STD Analysis started at: 7/2/2024 6:18:02 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	2,000.000 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	N/A
Pb 220.353 {453} (Axial)	2,000.000 ppb
Sb 206.833 {463} (Axial)	N/A
Sn 189.989 {478} (Axial)	2,000.000 ppb
Cd 228.802 {447} (Axial)	2,000.000 ppb
Ag 328.068 {103} (Axial)	N/A
Mo 202.030 {467} (Axial)	N/A
Mn 257.610 {131} (Axial)	N/A
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	N/A
Ni 221.647 {452} (Axial)	N/A
Cu 324.754 {104} (Axial)	N/A
B 249.773 {135} (Axial)	2,000.000 ppb
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,000.000 ppb
Na 589.592 {57} (Radial)	N/A
Sr 407.771 {83} (Radial)	2,000.000 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	N/A
Zn 206.200 {463} (Axial)	N/A
Cr 267.716 {126} (Axial)	2,000.000 ppb
Si 251.611 {134} (Axial)	10,000.000 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	2,000.000 ppb
As 193.759 {474} (Axial)	2,000.000 ppb
Se 196.090 {472} (Axial)	2,000.000 ppb
Se 203.985 {465} (Axial)	2,000.000 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A

	Concentration average
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,000.000 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,000.000 ppb

1 ppm Ag

Analysis Type: STD Analysis started at: 7/2/2024 6:23:20 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	N/A
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	N/A
Pb 220.353 {453} (Axial)	N/A
Sb 206.833 {463} (Axial)	N/A
Sn 189.989 {478} (Axial)	N/A
Cd 228.802 {447} (Axial)	N/A
Ag 328.068 {103} (Axial)	1,000.000 ppb
Mo 202.030 {467} (Axial)	N/A
Mn 257.610 {131} (Axial)	N/A
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	N/A
Ni 221.647 {452} (Axial)	N/A
Cu 324.754 {104} (Axial)	N/A
B 249.773 {135} (Axial)	N/A
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	N/A
Na 589.592 {57} (Radial)	N/A
Sr 407.771 {83} (Radial)	N/A
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	N/A
Zn 206.200 {463} (Axial)	N/A
Cr 267.716 {126} (Axial)	N/A
Si 251.611 {134} (Axial)	N/A
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	N/A
As 193.759 {474} (Axial)	N/A
Se 196.090 {472} (Axial)	N/A
Se 203.985 {465} (Axial)	N/A
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A

	Concentration average
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	N/A
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	N/A

ICV

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 6:28:15 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	1,991.544 ppb
K 766.490 {44} (Axial)	9,727.575 ppb
Ba 455.403 {74} (Axial)	1,871.359 ppb
Pb 220.353 {453} (Axial)	1,994.568 ppb
Sb 206.833 {463} (Axial)	2,054.852 ppb
Sn 189.989 {478} (Axial)	1,992.650 ppb
Cd 228.802 {447} (Axial)	1,995.527 ppb
Ag 328.068 {103} (Axial)	477.221 ppb
Mo 202.030 {467} (Axial)	2,028.699 ppb
Mn 257.610 {131} (Axial)	1,909.777 ppb
Fe 259.940 {130} (Axial)	2,002.336 ppb
Co 228.616 {447} (Axial)	1,927.261 ppb
Ni 221.647 {452} (Axial)	2,059.330 ppb
Cu 324.754 {104} (Axial)	1,889.925 ppb
B 249.773 {135} (Axial)	2,017.870 ppb
Al 396.152 {85} (Axial)	2,118.227 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,005.593 ppb
Na 589.592 {57} (Radial)	2,166.994 ppb
Sr 407.771 {83} (Radial)	1,990.485 ppb
Ca 317.933 {106} (Axial)	2,065.450 ppb
Mg 279.079 {121} (Axial)	2,006.096 ppb
Zn 206.200 {463} (Axial)	2,001.187 ppb
Cr 267.716 {126} (Axial)	2,003.397 ppb
Si 251.611 {134} (Axial)	6,688.429 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	1,997.499 ppb
As 193.759 {474} (Axial)	2,006.978 ppb
Se 196.090 {472} (Axial)	1,992.515 ppb
Se 203.985 {465} (Axial)	1,992.632 ppb
S 180.731 {487} (Axial)	N/A

	Concentration average
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,043.534 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1,994.568 ppb

ICB

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 6:35:55 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.122 ppb
K 766.490 {44} (Axial)	-0.767 ppb
Ba 455.403 {74} (Axial)	1.112 ppb
Pb 220.353 {453} (Axial)	1.891 ppb
Sb 206.833 {463} (Axial)	11.820 ppb
Sn 189.989 {478} (Axial)	-0.860 ppb
Cd 228.802 {447} (Axial)	1.277 ppb
Ag 328.068 {103} (Axial)	2.585 ppb
Mo 202.030 {467} (Axial)	6.752 ppb
Mn 257.610 {131} (Axial)	0.420 ppb
Fe 259.940 {130} (Axial)	2.969 ppb
Co 228.616 {447} (Axial)	-0.132 ppb
Ni 221.647 {452} (Axial)	-0.296 ppb
Cu 324.754 {104} (Axial)	-2.257 ppb
B 249.773 {135} (Axial)	2.627 ppb
Al 396.152 {85} (Axial)	-1.111 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.625 ppb
Na 589.592 {57} (Radial)	6.082 ppb
Sr 407.771 {83} (Radial)	1.898 ppb
Ca 317.933 {106} (Axial)	-7.045 ppb
Mg 279.079 {121} (Axial)	-2.483 ppb
Zn 206.200 {463} (Axial)	-0.084 ppb
Cr 267.716 {126} (Axial)	-3.945 ppb
Si 251.611 {134} (Axial)	9.675 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.310 ppb
As 193.759 {474} (Axial)	-0.314 ppb
Se 196.090 {472} (Axial)	-0.939 ppb
Se 203.985 {465} (Axial)	-0.968 ppb

	Concentration average
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2.311 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.891 ppb

CRI

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 6:40:51 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	9.777 ppb
K 766.490 {44} (Axial)	0.432 ppb
Ba 455.403 {74} (Axial)	1.226 ppb
Pb 220.353 {453} (Axial)	8.317 ppb
Sb 206.833 {463} (Axial)	131.578 ppb
Sn 189.989 {478} (Axial)	1.539 ppb
Cd 228.802 {447} (Axial)	10.637 ppb
Ag 328.068 {103} (Axial)	20.610 ppb
Mo 202.030 {467} (Axial)	7.441 ppb
Mn 257.610 {131} (Axial)	29.346 ppb
Fe 259.940 {130} (Axial)	10.496 ppb
Co 228.616 {447} (Axial)	95.312 ppb
Ni 221.647 {452} (Axial)	81.870 ppb
Cu 324.754 {104} (Axial)	47.581 ppb
B 249.773 {135} (Axial)	1.613 ppb
Al 396.152 {85} (Axial)	45.120 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	97.051 ppb
Na 589.592 {57} (Radial)	147.649 ppb
Sr 407.771 {83} (Radial)	1.737 ppb
Ca 317.933 {106} (Axial)	2.933 ppb
Mg 279.079 {121} (Axial)	2.377 ppb
Zn 206.200 {463} (Axial)	41.226 ppb
Cr 267.716 {126} (Axial)	16.264 ppb
Si 251.611 {134} (Axial)	12.490 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	20.872 ppb
As 193.759 {474} (Axial)	18.545 ppb
Se 196.090 {472} (Axial)	9.047 ppb

	Concentration average
Se 203.985 {465} (Axial)	6.425 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2.515 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	8.317 ppb

ICSA

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 6:45:44 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	-0.074 ppb
K 766.490 {44} (Axial)	26.898 ppb
Ba 455.403 {74} (Axial)	4.703 ppb
Pb 220.353 {453} (Axial)	-0.957 ppb
Sb 206.833 {463} (Axial)	3.290 ppb
Sn 189.989 {478} (Axial)	7.026 ppb
Cd 228.802 {447} (Axial)	-1.295 ppb
Ag 328.068 {103} (Axial)	-3.481 ppb
Mo 202.030 {467} (Axial)	1.931 ppb
Mn 257.610 {131} (Axial)	3.964 ppb
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	0.813 ppb
Ni 221.647 {452} (Axial)	4.278 ppb
Cu 324.754 {104} (Axial)	-0.192 ppb
B 249.773 {135} (Axial)	168.169 ppb
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-1.862 ppb
Na 589.592 {57} (Radial)	432.892 ppb
Sr 407.771 {83} (Radial)	10.178 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	431,462.069 ppb
Zn 206.200 {463} (Axial)	10.064 ppb
Cr 267.716 {126} (Axial)	-4.813 ppb
Si 251.611 {134} (Axial)	-6.073 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-2.635 ppb
As 193.759 {474} (Axial)	-0.993 ppb

	Concentration average
Se 196.090 {472} (Axial)	-0.030 ppb
Se 203.985 {465} (Axial)	0.0897 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	114.298 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	-0.957 ppb

ICSAB

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 6:50:49 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	488.405 ppb
K 766.490 {44} (Axial)	32.235 ppb
Ba 455.403 {74} (Axial)	408.116 ppb
Pb 220.353 {453} (Axial)	881.230 ppb
Sb 206.833 {463} (Axial)	38.294 ppb
Sn 189.989 {478} (Axial)	-0.463 ppb
Cd 228.802 {447} (Axial)	867.092 ppb
Ag 328.068 {103} (Axial)	805.068 ppb
Mo 202.030 {467} (Axial)	0.052 ppb
Mn 257.610 {131} (Axial)	405.045 ppb
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	417.215 ppb
Ni 221.647 {452} (Axial)	891.945 ppb
Cu 324.754 {104} (Axial)	484.255 ppb
B 249.773 {135} (Axial)	176.066 ppb
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	445.098 ppb
Na 589.592 {57} (Radial)	508.349 ppb
Sr 407.771 {83} (Radial)	10.556 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	452,014.311 ppb
Zn 206.200 {463} (Axial)	895.914 ppb
Cr 267.716 {126} (Axial)	440.699 ppb
Si 251.611 {134} (Axial)	-6.377 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.199 ppb

	Concentration average
As 193.759 {474} (Axial)	-0.711 ppb
Se 196.090 {472} (Axial)	-0.409 ppb
Se 203.985 {465} (Axial)	0.359 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	115.302 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	881.230 ppb

CCV

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 6:56:06 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	2,059.800 ppb
K 766.490 {44} (Axial)	9,921.166 ppb
Ba 455.403 {74} (Axial)	1,913.685 ppb
Pb 220.353 {453} (Axial)	2,072.962 ppb
Sb 206.833 {463} (Axial)	2,126.170 ppb
Sn 189.989 {478} (Axial)	2,098.036 ppb
Cd 228.802 {447} (Axial)	2,053.912 ppb
Ag 328.068 {103} (Axial)	464.037 ppb
Mo 202.030 {467} (Axial)	2,119.167 ppb
Mn 257.610 {131} (Axial)	1,957.713 ppb
Fe 259.940 {130} (Axial)	2,099.466 ppb
Co 228.616 {447} (Axial)	2,014.080 ppb
Ni 221.647 {452} (Axial)	2,159.939 ppb
Cu 324.754 {104} (Axial)	1,949.660 ppb
B 249.773 {135} (Axial)	2,099.175 ppb
Al 396.152 {85} (Axial)	2,152.592 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,081.959 ppb
Na 589.592 {57} (Radial)	2,053.803 ppb
Sr 407.771 {83} (Radial)	2,051.217 ppb
Ca 317.933 {106} (Axial)	2,136.750 ppb
Mg 279.079 {121} (Axial)	2,090.557 ppb
Zn 206.200 {463} (Axial)	2,087.676 ppb
Cr 267.716 {126} (Axial)	2,106.908 ppb
Si 251.611 {134} (Axial)	7,022.146 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A

	Concentration average
Tl 190.864 {477} (Axial)	2,062.508 ppb
As 193.759 {474} (Axial)	2,069.112 ppb
Se 196.090 {472} (Axial)	2,078.275 ppb
Se 203.985 {465} (Axial)	2,073.420 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,054.700 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,072.962 ppb

CCB

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:01:26 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.125 ppb
K 766.490 {44} (Axial)	-0.846 ppb
Ba 455.403 {74} (Axial)	1.143 ppb
Pb 220.353 {453} (Axial)	1.529 ppb
Sb 206.833 {463} (Axial)	11.459 ppb
Sn 189.989 {478} (Axial)	-0.613 ppb
Cd 228.802 {447} (Axial)	1.410 ppb
Ag 328.068 {103} (Axial)	2.397 ppb
Mo 202.030 {467} (Axial)	5.708 ppb
Mn 257.610 {131} (Axial)	0.464 ppb
Fe 259.940 {130} (Axial)	2.889 ppb
Co 228.616 {447} (Axial)	-0.100 ppb
Ni 221.647 {452} (Axial)	-0.413 ppb
Cu 324.754 {104} (Axial)	-2.366 ppb
B 249.773 {135} (Axial)	2.270 ppb
Al 396.152 {85} (Axial)	-1.483 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.376 ppb
Na 589.592 {57} (Radial)	5.144 ppb
Sr 407.771 {83} (Radial)	1.450 ppb
Ca 317.933 {106} (Axial)	-5.418 ppb
Mg 279.079 {121} (Axial)	-1.651 ppb
Zn 206.200 {463} (Axial)	0.060 ppb
Cr 267.716 {126} (Axial)	-3.991 ppb
Si 251.611 {134} (Axial)	8.842 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A

	Concentration average
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.151 ppb
As 193.759 {474} (Axial)	-0.510 ppb
Se 196.090 {472} (Axial)	-0.400 ppb
Se 203.985 {465} (Axial)	-1.811 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	5.727 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.529 ppb

MBLK

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:06:23 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.072 ppb
K 766.490 {44} (Axial)	-0.796 ppb
Ba 455.403 {74} (Axial)	1.139 ppb
Pb 220.353 {453} (Axial)	1.541 ppb
Sb 206.833 {463} (Axial)	2.928 ppb
Sn 189.989 {478} (Axial)	-0.871 ppb
Cd 228.802 {447} (Axial)	1.367 ppb
Ag 328.068 {103} (Axial)	2.602 ppb
Mo 202.030 {467} (Axial)	1.936 ppb
Mn 257.610 {131} (Axial)	0.480 ppb
Fe 259.940 {130} (Axial)	2.895 ppb
Co 228.616 {447} (Axial)	-0.120 ppb
Ni 221.647 {452} (Axial)	-0.428 ppb
Cu 324.754 {104} (Axial)	-2.625 ppb
B 249.773 {135} (Axial)	1.528 ppb
Al 396.152 {85} (Axial)	-1.531 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.447 ppb
Na 589.592 {57} (Radial)	14.617 ppb
Sr 407.771 {83} (Radial)	1.602 ppb
Ca 317.933 {106} (Axial)	8.753 ppb
Mg 279.079 {121} (Axial)	-0.952 ppb
Zn 206.200 {463} (Axial)	-0.084 ppb
Cr 267.716 {126} (Axial)	-3.989 ppb
Si 251.611 {134} (Axial)	10.063 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A

	Concentration average
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.533 ppb
As 193.759 {474} (Axial)	-0.940 ppb
Se 196.090 {472} (Axial)	-3.252 ppb
Se 203.985 {465} (Axial)	-6.671 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	4.991 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.541 ppb

LCS

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:11:17 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	1,993.359 ppb
K 766.490 {44} (Axial)	9,692.325 ppb
Ba 455.403 {74} (Axial)	1,857.459 ppb
Pb 220.353 {453} (Axial)	1,997.615 ppb
Sb 206.833 {463} (Axial)	2,056.572 ppb
Sn 189.989 {478} (Axial)	2,010.311 ppb
Cd 228.802 {447} (Axial)	1,989.747 ppb
Ag 328.068 {103} (Axial)	448.676 ppb
Mo 202.030 {467} (Axial)	2,029.581 ppb
Mn 257.610 {131} (Axial)	1,893.152 ppb
Fe 259.940 {130} (Axial)	1,978.623 ppb
Co 228.616 {447} (Axial)	1,929.901 ppb
Ni 221.647 {452} (Axial)	2,064.081 ppb
Cu 324.754 {104} (Axial)	1,873.335 ppb
B 249.773 {135} (Axial)	2,025.646 ppb
Al 396.152 {85} (Axial)	2,100.599 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	1,986.462 ppb
Na 589.592 {57} (Radial)	2,128.046 ppb
Sr 407.771 {83} (Radial)	1,949.267 ppb
Ca 317.933 {106} (Axial)	2,039.864 ppb
Mg 279.079 {121} (Axial)	1,984.847 ppb
Zn 206.200 {463} (Axial)	2,002.833 ppb
Cr 267.716 {126} (Axial)	2,012.021 ppb
Si 251.611 {134} (Axial)	6,801.102 ppb
Hf 277.336 {122} (Axial)	N/A

	Concentration average
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	1,994.194 ppb
As 193.759 {474} (Axial)	2,006.942 ppb
Se 196.090 {472} (Axial)	2,012.450 ppb
Se 203.985 {465} (Axial)	2,006.953 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	1,922.961 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1,997.615 ppb

240618004-001F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:16:33 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.138 ppb
K 766.490 {44} (Axial)	4,238.981 ppb
Ba 455.403 {74} (Axial)	46.545 ppb
Pb 220.353 {453} (Axial)	6.932 ppb
Sb 206.833 {463} (Axial)	14.696 ppb
Sn 189.989 {478} (Axial)	2.049 ppb
Cd 228.802 {447} (Axial)	1.446 ppb
Ag 328.068 {103} (Axial)	2.000 ppb
Mo 202.030 {467} (Axial)	10.524 ppb
Mn 257.610 {131} (Axial)	287.466 ppb
Fe 259.940 {130} (Axial)	11,419.868 ppb
Co 228.616 {447} (Axial)	0.575 ppb
Ni 221.647 {452} (Axial)	10.668 ppb
Cu 324.754 {104} (Axial)	148.530 ppb
B 249.773 {135} (Axial)	31.098 ppb
Al 396.152 {85} (Axial)	241.668 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	6.961 ppb
Na 589.592 {57} (Radial)	14,051.488 ppb
Sr 407.771 {83} (Radial)	1,350.085 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	56,705.319 ppb
Zn 206.200 {463} (Axial)	84.002 ppb
Cr 267.716 {126} (Axial)	-2.118 ppb
Si 251.611 {134} (Axial)	9,665.723 ppb

	Concentration average
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.485 ppb
As 193.759 {474} (Axial)	3.731 ppb
Se 196.090 {472} (Axial)	0.601 ppb
Se 203.985 {465} (Axial)	-0.123 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	312.700 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	6.932 ppb

240618004-001F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:21:46 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.074 ppb
K 766.490 {44} (Axial)	330.153 ppb
Ba 455.403 {74} (Axial)	5.040 ppb
Pb 220.353 {453} (Axial)	2.109 ppb
Sb 206.833 {463} (Axial)	11.602 ppb
Sn 189.989 {478} (Axial)	-0.614 ppb
Cd 228.802 {447} (Axial)	1.371 ppb
Ag 328.068 {103} (Axial)	2.650 ppb
Mo 202.030 {467} (Axial)	0.767 ppb
Mn 257.610 {131} (Axial)	23.693 ppb
Fe 259.940 {130} (Axial)	945.222 ppb
Co 228.616 {447} (Axial)	-0.044 ppb
Ni 221.647 {452} (Axial)	0.250 ppb
Cu 324.754 {104} (Axial)	10.374 ppb
B 249.773 {135} (Axial)	3.844 ppb
Al 396.152 {85} (Axial)	23.299 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.079 ppb
Na 589.592 {57} (Radial)	1,443.374 ppb
Sr 407.771 {83} (Radial)	111.312 ppb
Ca 317.933 {106} (Axial)	14,316.776 ppb
Mg 279.079 {121} (Axial)	4,723.005 ppb
Zn 206.200 {463} (Axial)	5.404 ppb
Cr 267.716 {126} (Axial)	-3.675 ppb

	Concentration average
Si 251.611 {134} (Axial)	829.298 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.391 ppb
As 193.759 {474} (Axial)	-0.393 ppb
Se 196.090 {472} (Axial)	-4.862 ppb
Se 203.985 {465} (Axial)	-12.015 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	28.121 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.109 ppb

240618004-001FDP

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:26:46 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.060 ppb
K 766.490 {44} (Axial)	4,158.454 ppb
Ba 455.403 {74} (Axial)	44.791 ppb
Pb 220.353 {453} (Axial)	5.956 ppb
Sb 206.833 {463} (Axial)	15.948 ppb
Sn 189.989 {478} (Axial)	1.552 ppb
Cd 228.802 {447} (Axial)	1.349 ppb
Ag 328.068 {103} (Axial)	2.028 ppb
Mo 202.030 {467} (Axial)	3.225 ppb
Mn 257.610 {131} (Axial)	241.332 ppb
Fe 259.940 {130} (Axial)	10,966.002 ppb
Co 228.616 {447} (Axial)	0.334 ppb
Ni 221.647 {452} (Axial)	10.429 ppb
Cu 324.754 {104} (Axial)	131.359 ppb
B 249.773 {135} (Axial)	26.532 ppb
Al 396.152 {85} (Axial)	175.748 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	5.408 ppb
Na 589.592 {57} (Radial)	12,786.473 ppb
Sr 407.771 {83} (Radial)	1,326.871 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	55,888.516 ppb
Zn 206.200 {463} (Axial)	78.688 ppb

	Concentration average
Cr 267.716 {126} (Axial)	-2.256 ppb
Si 251.611 {134} (Axial)	9,474.311 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.327 ppb
As 193.759 {474} (Axial)	1.719 ppb
Se 196.090 {472} (Axial)	-2.471 ppb
Se 203.985 {465} (Axial)	-8.831 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	311.612 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	5.456 ppb

240618004-001FDP

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:31:59 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.046 ppb
K 766.490 {44} (Axial)	291.634 ppb
Ba 455.403 {74} (Axial)	4.525 ppb
Pb 220.353 {453} (Axial)	2.026 ppb
Sb 206.833 {463} (Axial)	11.772 ppb
Sn 189.989 {478} (Axial)	-0.424 ppb
Cd 228.802 {447} (Axial)	1.402 ppb
Ag 328.068 {103} (Axial)	2.627 ppb
Mo 202.030 {467} (Axial)	-0.027 ppb
Mn 257.610 {131} (Axial)	24.027 ppb
Fe 259.940 {130} (Axial)	964.925 ppb
Co 228.616 {447} (Axial)	-0.188 ppb
Ni 221.647 {452} (Axial)	0.239 ppb
Cu 324.754 {104} (Axial)	7.602 ppb
B 249.773 {135} (Axial)	3.381 ppb
Al 396.152 {85} (Axial)	14.543 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.088 ppb
Na 589.592 {57} (Radial)	1,480.599 ppb
Sr 407.771 {83} (Radial)	102.761 ppb
Ca 317.933 {106} (Axial)	13,085.007 ppb
Mg 279.079 {121} (Axial)	4,251.654 ppb

	Concentration average
Zn 206.200 {463} (Axial)	4.563 ppb
Cr 267.716 {126} (Axial)	-3.696 ppb
Si 251.611 {134} (Axial)	731.214 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.668 ppb
As 193.759 {474} (Axial)	-1.143 ppb
Se 196.090 {472} (Axial)	-5.534 ppb
Se 203.985 {465} (Axial)	-9.342 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	26.514 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.026 ppb

240618004-001FMS

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:36:59 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	48.691 ppb
K 766.490 {44} (Axial)	4,152.316 ppb
Ba 455.403 {74} (Axial)	1,748.491 ppb
Pb 220.353 {453} (Axial)	25.046 ppb
Sb 206.833 {463} (Axial)	473.565 ppb
Sn 189.989 {478} (Axial)	2.291 ppb
Cd 228.802 {447} (Axial)	43.575 ppb
Ag 328.068 {103} (Axial)	30.243 ppb
Mo 202.030 {467} (Axial)	2.127 ppb
Mn 257.610 {131} (Axial)	727.593 ppb
Fe 259.940 {130} (Axial)	12,172.419 ppb
Co 228.616 {447} (Axial)	435.315 ppb
Ni 221.647 {452} (Axial)	481.015 ppb
Cu 324.754 {104} (Axial)	375.971 ppb
B 249.773 {135} (Axial)	30.189 ppb
Al 396.152 {85} (Axial)	1,825.515 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	479.933 ppb
Na 589.592 {57} (Radial)	12,188.842 ppb
Sr 407.771 {83} (Radial)	1,328.975 ppb
Ca 317.933 {106} (Axial)	N/A

	Concentration average
Mg 279.079 {121} (Axial)	56,380.656 ppb
Zn 206.200 {463} (Axial)	548.630 ppb
Cr 267.716 {126} (Axial)	181.667 ppb
Si 251.611 {134} (Axial)	9,757.139 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	42.220 ppb
As 193.759 {474} (Axial)	39.704 ppb
Se 196.090 {472} (Axial)	9.677 ppb
Se 203.985 {465} (Axial)	9.918 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	111.496 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	25.046 ppb

240618004-001FA

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:42:19 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	102.546 ppb
K 766.490 {44} (Axial)	4,211.778 ppb
Ba 455.403 {74} (Axial)	3,438.791 ppb
Pb 220.353 {453} (Axial)	44.051 ppb
Sb 206.833 {463} (Axial)	963.809 ppb
Sn 189.989 {478} (Axial)	2.697 ppb
Cd 228.802 {447} (Axial)	89.590 ppb
Ag 328.068 {103} (Axial)	56.885 ppb
Mo 202.030 {467} (Axial)	1.787 ppb
Mn 257.610 {131} (Axial)	1,190.169 ppb
Fe 259.940 {130} (Axial)	13,416.363 ppb
Co 228.616 {447} (Axial)	917.518 ppb
Ni 221.647 {452} (Axial)	996.923 ppb
Cu 324.754 {104} (Axial)	602.236 ppb
B 249.773 {135} (Axial)	30.831 ppb
Al 396.152 {85} (Axial)	3,409.600 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	994.054 ppb
Na 589.592 {57} (Radial)	12,494.071 ppb
Sr 407.771 {83} (Radial)	1,394.153 ppb

	Concentration average
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	57,970.897 ppb
Zn 206.200 {463} (Axial)	1,052.907 ppb
Cr 267.716 {126} (Axial)	386.529 ppb
Si 251.611 {134} (Axial)	9,996.711 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	89.387 ppb
As 193.759 {474} (Axial)	67.935 ppb
Se 196.090 {472} (Axial)	19.676 ppb
Se 203.985 {465} (Axial)	15.157 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	105.859 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	44.051 ppb

240618004-001FL

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:47:40 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.043 ppb
K 766.490 {44} (Axial)	984.937 ppb
Ba 455.403 {74} (Axial)	12.104 ppb
Pb 220.353 {453} (Axial)	3.306 ppb
Sb 206.833 {463} (Axial)	17.892 ppb
Sn 189.989 {478} (Axial)	-0.083 ppb
Cd 228.802 {447} (Axial)	1.357 ppb
Ag 328.068 {103} (Axial)	2.412 ppb
Mo 202.030 {467} (Axial)	0.309 ppb
Mn 257.610 {131} (Axial)	63.807 ppb
Fe 259.940 {130} (Axial)	2,601.134 ppb
Co 228.616 {447} (Axial)	0.069 ppb
Ni 221.647 {452} (Axial)	2.161 ppb
Cu 324.754 {104} (Axial)	31.772 ppb
B 249.773 {135} (Axial)	7.213 ppb
Al 396.152 {85} (Axial)	161.891 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	1.382 ppb
Na 589.592 {57} (Radial)	3,006.682 ppb

	Concentration average
Sr 407.771 {83} (Radial)	294.327 ppb
Ca 317.933 {106} (Axial)	37,434.390 ppb
Mg 279.079 {121} (Axial)	12,937.747 ppb
Zn 206.200 {463} (Axial)	18.865 ppb
Cr 267.716 {126} (Axial)	-3.549 ppb
Si 251.611 {134} (Axial)	2,602.458 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.155 ppb
As 193.759 {474} (Axial)	-1.244 ppb
Se 196.090 {472} (Axial)	-5.776 ppb
Se 203.985 {465} (Axial)	-8.423 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	27.365 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.306 ppb

240618004-002F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:52:47 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.111 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	169.951 ppb
Pb 220.353 {453} (Axial)	7.023 ppb
Sb 206.833 {463} (Axial)	20.666 ppb
Sn 189.989 {478} (Axial)	6.457 ppb
Cd 228.802 {447} (Axial)	1.182 ppb
Ag 328.068 {103} (Axial)	1.593 ppb
Mo 202.030 {467} (Axial)	8.955 ppb
Mn 257.610 {131} (Axial)	612.933 ppb
Fe 259.940 {130} (Axial)	23,851.052 ppb
Co 228.616 {447} (Axial)	22.700 ppb
Ni 221.647 {452} (Axial)	51.782 ppb
Cu 324.754 {104} (Axial)	16.545 ppb
B 249.773 {135} (Axial)	185.482 ppb
Al 396.152 {85} (Axial)	596.879 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	248.692 ppb

	Concentration average
Na 589.592 {57} (Radial)	664,994.776 ppb
Sr 407.771 {83} (Radial)	1,598.285 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	143,239.030 ppb
Zn 206.200 {463} (Axial)	60.889 ppb
Cr 267.716 {126} (Axial)	3.584 ppb
Si 251.611 {134} (Axial)	13,192.970 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.031 ppb
As 193.759 {474} (Axial)	11.994 ppb
Se 196.090 {472} (Axial)	-5.086 ppb
Se 203.985 {465} (Axial)	-6.899 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	254.616 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	7.023 ppb

CCV

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 7:58:01 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	2,124.739 ppb
K 766.490 {44} (Axial)	10,353.170 ppb
Ba 455.403 {74} (Axial)	1,981.383 ppb
Pb 220.353 {453} (Axial)	2,141.482 ppb
Sb 206.833 {463} (Axial)	2,186.116 ppb
Sn 189.989 {478} (Axial)	2,165.073 ppb
Cd 228.802 {447} (Axial)	2,113.432 ppb
Ag 328.068 {103} (Axial)	483.206 ppb
Mo 202.030 {467} (Axial)	2,184.826 ppb
Mn 257.610 {131} (Axial)	2,027.821 ppb
Fe 259.940 {130} (Axial)	2,137.332 ppb
Co 228.616 {447} (Axial)	2,072.028 ppb
Ni 221.647 {452} (Axial)	2,121.306 ppb
Cu 324.754 {104} (Axial)	2,025.909 ppb
B 249.773 {135} (Axial)	2,172.992 ppb
Al 396.152 {85} (Axial)	2,060.765 ppb
Ti 336.121 {100} (Axial)	N/A

	Concentration average
V 292.402 {115} (Axial)	2,150.352 ppb
Na 589.592 {57} (Radial)	2,093.827 ppb
Sr 407.771 {83} (Radial)	2,107.329 ppb
Ca 317.933 {106} (Axial)	2,100.482 ppb
Mg 279.079 {121} (Axial)	2,145.792 ppb
Zn 206.200 {463} (Axial)	2,155.665 ppb
Cr 267.716 {126} (Axial)	2,178.506 ppb
Si 251.611 {134} (Axial)	7,522.827 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	2,124.079 ppb
As 193.759 {474} (Axial)	2,139.213 ppb
Se 196.090 {472} (Axial)	2,145.606 ppb
Se 203.985 {465} (Axial)	2,142.003 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,150.226 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,141.482 ppb

CCB

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:03:18 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.088 ppb
K 766.490 {44} (Axial)	0.967 ppb
Ba 455.403 {74} (Axial)	1.130 ppb
Pb 220.353 {453} (Axial)	1.374 ppb
Sb 206.833 {463} (Axial)	11.960 ppb
Sn 189.989 {478} (Axial)	-0.774 ppb
Cd 228.802 {447} (Axial)	1.342 ppb
Ag 328.068 {103} (Axial)	2.640 ppb
Mo 202.030 {467} (Axial)	5.842 ppb
Mn 257.610 {131} (Axial)	0.477 ppb
Fe 259.940 {130} (Axial)	2.869 ppb
Co 228.616 {447} (Axial)	0.043 ppb
Ni 221.647 {452} (Axial)	-0.394 ppb
Cu 324.754 {104} (Axial)	-2.566 ppb
B 249.773 {135} (Axial)	2.185 ppb
Al 396.152 {85} (Axial)	-1.924 ppb

	Concentration average
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.228 ppb
Na 589.592 {57} (Radial)	15.381 ppb
Sr 407.771 {83} (Radial)	1.685 ppb
Ca 317.933 {106} (Axial)	-6.642 ppb
Mg 279.079 {121} (Axial)	-1.980 ppb
Zn 206.200 {463} (Axial)	-0.206 ppb
Cr 267.716 {126} (Axial)	-4.045 ppb
Si 251.611 {134} (Axial)	14.693 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.573 ppb
As 193.759 {474} (Axial)	0.270 ppb
Se 196.090 {472} (Axial)	-0.374 ppb
Se 203.985 {465} (Axial)	-3.263 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	7.171 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.374 ppb

240618004-002F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:08:11 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.127 ppb
K 766.490 {44} (Axial)	10,774.816 ppb
Ba 455.403 {74} (Axial)	15.569 ppb
Pb 220.353 {453} (Axial)	2.097 ppb
Sb 206.833 {463} (Axial)	12.821 ppb
Sn 189.989 {478} (Axial)	0.121 ppb
Cd 228.802 {447} (Axial)	1.370 ppb
Ag 328.068 {103} (Axial)	2.597 ppb
Mo 202.030 {467} (Axial)	3.331 ppb
Mn 257.610 {131} (Axial)	47.822 ppb
Fe 259.940 {130} (Axial)	1,879.752 ppb
Co 228.616 {447} (Axial)	1.270 ppb
Ni 221.647 {452} (Axial)	2.687 ppb
Cu 324.754 {104} (Axial)	-0.399 ppb
B 249.773 {135} (Axial)	16.086 ppb

	Concentration average
Al 396.152 {85} (Axial)	68.672 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	19.122 ppb
Na 589.592 {57} (Radial)	66,357.972 ppb
Sr 407.771 {83} (Radial)	118.461 ppb
Ca 317.933 {106} (Axial)	10,864.196 ppb
Mg 279.079 {121} (Axial)	11,216.767 ppb
Zn 206.200 {463} (Axial)	3.483 ppb
Cr 267.716 {126} (Axial)	-3.229 ppb
Si 251.611 {134} (Axial)	1,104.964 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.302 ppb
As 193.759 {474} (Axial)	-0.453 ppb
Se 196.090 {472} (Axial)	-1.866 ppb
Se 203.985 {465} (Axial)	-7.619 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	13.079 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.097 ppb

240618004-003F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:13:16 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.065 ppb
K 766.490 {44} (Axial)	4,052.886 ppb
Ba 455.403 {74} (Axial)	46.057 ppb
Pb 220.353 {453} (Axial)	3.469 ppb
Sb 206.833 {463} (Axial)	14.698 ppb
Sn 189.989 {478} (Axial)	2.609 ppb
Cd 228.802 {447} (Axial)	1.414 ppb
Ag 328.068 {103} (Axial)	2.182 ppb
Mo 202.030 {467} (Axial)	6.645 ppb
Mn 257.610 {131} (Axial)	609.116 ppb
Fe 259.940 {130} (Axial)	4,434.337 ppb
Co 228.616 {447} (Axial)	2.946 ppb
Ni 221.647 {452} (Axial)	4.530 ppb
Cu 324.754 {104} (Axial)	-2.438 ppb

	Concentration average
B 249.773 {135} (Axial)	22.329 ppb
Al 396.152 {85} (Axial)	32.933 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.878 ppb
Na 589.592 {57} (Radial)	16,535.655 ppb
Sr 407.771 {83} (Radial)	1,131.957 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	53,801.548 ppb
Zn 206.200 {463} (Axial)	5.187 ppb
Cr 267.716 {126} (Axial)	-2.904 ppb
Si 251.611 {134} (Axial)	7,724.978 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.200 ppb
As 193.759 {474} (Axial)	-0.203 ppb
Se 196.090 {472} (Axial)	-1.910 ppb
Se 203.985 {465} (Axial)	-2.901 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	105.740 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.469 ppb

240618004-003F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:18:23 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.048 ppb
K 766.490 {44} (Axial)	382.065 ppb
Ba 455.403 {74} (Axial)	5.630 ppb
Pb 220.353 {453} (Axial)	1.739 ppb
Sb 206.833 {463} (Axial)	12.348 ppb
Sn 189.989 {478} (Axial)	-0.559 ppb
Cd 228.802 {447} (Axial)	1.309 ppb
Ag 328.068 {103} (Axial)	2.563 ppb
Mo 202.030 {467} (Axial)	0.080 ppb
Mn 257.610 {131} (Axial)	58.873 ppb
Fe 259.940 {130} (Axial)	427.875 ppb
Co 228.616 {447} (Axial)	0.065 ppb
Ni 221.647 {452} (Axial)	-0.061 ppb

	Concentration average
Cu 324.754 {104} (Axial)	-2.389 ppb
B 249.773 {135} (Axial)	2.387 ppb
Al 396.152 {85} (Axial)	2.579 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.276 ppb
Na 589.592 {57} (Radial)	2,137.139 ppb
Sr 407.771 {83} (Radial)	111.097 ppb
Ca 317.933 {106} (Axial)	14,772.357 ppb
Mg 279.079 {121} (Axial)	5,250.708 ppb
Zn 206.200 {463} (Axial)	0.224 ppb
Cr 267.716 {126} (Axial)	-3.872 ppb
Si 251.611 {134} (Axial)	767.873 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.483 ppb
As 193.759 {474} (Axial)	-1.859 ppb
Se 196.090 {472} (Axial)	-5.032 ppb
Se 203.985 {465} (Axial)	-13.399 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	10.559 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.739 ppb

240618004-004F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:23:21 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.049 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	98.793 ppb
Pb 220.353 {453} (Axial)	3.606 ppb
Sb 206.833 {463} (Axial)	13.170 ppb
Sn 189.989 {478} (Axial)	0.748 ppb
Cd 228.802 {447} (Axial)	1.388 ppb
Ag 328.068 {103} (Axial)	2.502 ppb
Mo 202.030 {467} (Axial)	8.255 ppb
Mn 257.610 {131} (Axial)	520.489 ppb
Fe 259.940 {130} (Axial)	996.816 ppb
Co 228.616 {447} (Axial)	27.773 ppb

	Concentration average
Ni 221.647 {452} (Axial)	26.268 ppb
Cu 324.754 {104} (Axial)	-1.655 ppb
B 249.773 {135} (Axial)	142.068 ppb
Al 396.152 {85} (Axial)	43.498 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	27.307 ppb
Na 589.592 {57} (Radial)	729,648.865 ppb
Sr 407.771 {83} (Radial)	1,392.913 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	150,414.723 ppb
Zn 206.200 {463} (Axial)	3.497 ppb
Cr 267.716 {126} (Axial)	-0.441 ppb
Si 251.611 {134} (Axial)	10,972.858 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.092 ppb
As 193.759 {474} (Axial)	0.235 ppb
Se 196.090 {472} (Axial)	-3.403 ppb
Se 203.985 {465} (Axial)	-8.339 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	298.044 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.606 ppb

240618004-004F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:28:31 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.036 ppb
K 766.490 {44} (Axial)	14,347.352 ppb
Ba 455.403 {74} (Axial)	10.653 ppb
Pb 220.353 {453} (Axial)	1.803 ppb
Sb 206.833 {463} (Axial)	11.891 ppb
Sn 189.989 {478} (Axial)	-0.504 ppb
Cd 228.802 {447} (Axial)	1.243 ppb
Ag 328.068 {103} (Axial)	2.669 ppb
Mo 202.030 {467} (Axial)	0.461 ppb
Mn 257.610 {131} (Axial)	46.439 ppb
Fe 259.940 {130} (Axial)	89.728 ppb

	Concentration average
Co 228.616 {447} (Axial)	2.160 ppb
Ni 221.647 {452} (Axial)	1.740 ppb
Cu 324.754 {104} (Axial)	-2.252 ppb
B 249.773 {135} (Axial)	13.863 ppb
Al 396.152 {85} (Axial)	4.902 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	1.799 ppb
Na 589.592 {57} (Radial)	97,434.666 ppb
Sr 407.771 {83} (Radial)	125.850 ppb
Ca 317.933 {106} (Axial)	13,101.072 ppb
Mg 279.079 {121} (Axial)	13,484.197 ppb
Zn 206.200 {463} (Axial)	0.505 ppb
Cr 267.716 {126} (Axial)	-3.600 ppb
Si 251.611 {134} (Axial)	1,087.955 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.369 ppb
As 193.759 {474} (Axial)	-1.105 ppb
Se 196.090 {472} (Axial)	-6.190 ppb
Se 203.985 {465} (Axial)	-7.383 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	25.433 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.803 ppb

240618004-005F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:33:36 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.004 ppb
K 766.490 {44} (Axial)	3,871.194 ppb
Ba 455.403 {74} (Axial)	31.609 ppb
Pb 220.353 {453} (Axial)	3.721 ppb
Sb 206.833 {463} (Axial)	14.002 ppb
Sn 189.989 {478} (Axial)	-0.287 ppb
Cd 228.802 {447} (Axial)	1.393 ppb
Ag 328.068 {103} (Axial)	2.309 ppb
Mo 202.030 {467} (Axial)	1.072 ppb
Mn 257.610 {131} (Axial)	868.768 ppb

	Concentration average
Fe 259.940 {130} (Axial)	4,135.293 ppb
Co 228.616 {447} (Axial)	-0.222 ppb
Ni 221.647 {452} (Axial)	2.488 ppb
Cu 324.754 {104} (Axial)	-2.937 ppb
B 249.773 {135} (Axial)	19.744 ppb
Al 396.152 {85} (Axial)	27.907 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.050 ppb
Na 589.592 {57} (Radial)	16,719.532 ppb
Sr 407.771 {83} (Radial)	1,426.468 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	56,851.658 ppb
Zn 206.200 {463} (Axial)	3.674 ppb
Cr 267.716 {126} (Axial)	-3.155 ppb
Si 251.611 {134} (Axial)	11,145.125 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.397 ppb
As 193.759 {474} (Axial)	-1.148 ppb
Se 196.090 {472} (Axial)	-4.711 ppb
Se 203.985 {465} (Axial)	-7.602 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	106.166 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.721 ppb

240618004-005F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:38:44 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.033 ppb
K 766.490 {44} (Axial)	412.568 ppb
Ba 455.403 {74} (Axial)	4.565 ppb
Pb 220.353 {453} (Axial)	1.986 ppb
Sb 206.833 {463} (Axial)	12.155 ppb
Sn 189.989 {478} (Axial)	-0.932 ppb
Cd 228.802 {447} (Axial)	1.395 ppb
Ag 328.068 {103} (Axial)	2.432 ppb
Mo 202.030 {467} (Axial)	-0.153 ppb

	Concentration average
Mn 257.610 {131} (Axial)	93.635 ppb
Fe 259.940 {130} (Axial)	443.622 ppb
Co 228.616 {447} (Axial)	-0.067 ppb
Ni 221.647 {452} (Axial)	-0.089 ppb
Cu 324.754 {104} (Axial)	-2.551 ppb
B 249.773 {135} (Axial)	2.423 ppb
Al 396.152 {85} (Axial)	2.283 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.430 ppb
Na 589.592 {57} (Radial)	2,479.879 ppb
Sr 407.771 {83} (Radial)	156.916 ppb
Ca 317.933 {106} (Axial)	20,354.260 ppb
Mg 279.079 {121} (Axial)	6,137.297 ppb
Zn 206.200 {463} (Axial)	0.407 ppb
Cr 267.716 {126} (Axial)	-3.795 ppb
Si 251.611 {134} (Axial)	1,247.218 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.495 ppb
As 193.759 {474} (Axial)	-1.716 ppb
Se 196.090 {472} (Axial)	-5.482 ppb
Se 203.985 {465} (Axial)	-8.812 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	17.391 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.986 ppb

240618004-007F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:43:44 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.089 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	56.319 ppb
Pb 220.353 {453} (Axial)	4.697 ppb
Sb 206.833 {463} (Axial)	25.696 ppb
Sn 189.989 {478} (Axial)	1.079 ppb
Cd 228.802 {447} (Axial)	1.559 ppb
Ag 328.068 {103} (Axial)	2.151 ppb

	Concentration average
Mo 202.030 {467} (Axial)	23.546 ppb
Mn 257.610 {131} (Axial)	604.977 ppb
Fe 259.940 {130} (Axial)	4,809.239 ppb
Co 228.616 {447} (Axial)	10.432 ppb
Ni 221.647 {452} (Axial)	44.174 ppb
Cu 324.754 {104} (Axial)	12.662 ppb
B 249.773 {135} (Axial)	346.388 ppb
Al 396.152 {85} (Axial)	284.006 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	39.050 ppb
Na 589.592 {57} (Radial)	897,732.045 ppb
Sr 407.771 {83} (Radial)	1,288.244 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	135,641.299 ppb
Zn 206.200 {463} (Axial)	30.417 ppb
Cr 267.716 {126} (Axial)	6.434 ppb
Si 251.611 {134} (Axial)	11,337.388 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.430 ppb
As 193.759 {474} (Axial)	20.330 ppb
Se 196.090 {472} (Axial)	-2.574 ppb
Se 203.985 {465} (Axial)	-4.454 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	451.783 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	4.697 ppb

240618004-007F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:48:55 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.026 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	6.313 ppb
Pb 220.353 {453} (Axial)	1.542 ppb
Sb 206.833 {463} (Axial)	12.848 ppb
Sn 189.989 {478} (Axial)	-0.770 ppb
Cd 228.802 {447} (Axial)	1.360 ppb

	Concentration average
Ag 328.068 {103} (Axial)	2.727 ppb
Mo 202.030 {467} (Axial)	0.982 ppb
Mn 257.610 {131} (Axial)	52.624 ppb
Fe 259.940 {130} (Axial)	416.257 ppb
Co 228.616 {447} (Axial)	0.517 ppb
Ni 221.647 {452} (Axial)	2.287 ppb
Cu 324.754 {104} (Axial)	-0.963 ppb
B 249.773 {135} (Axial)	31.888 ppb
Al 396.152 {85} (Axial)	36.972 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	3.023 ppb
Na 589.592 {57} (Radial)	158,342.830 ppb
Sr 407.771 {83} (Radial)	122.164 ppb
Ca 317.933 {106} (Axial)	14,278.039 ppb
Mg 279.079 {121} (Axial)	11,910.441 ppb
Zn 206.200 {463} (Axial)	2.007 ppb
Cr 267.716 {126} (Axial)	-3.101 ppb
Si 251.611 {134} (Axial)	1,078.833 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.071 ppb
As 193.759 {474} (Axial)	0.896 ppb
Se 196.090 {472} (Axial)	-6.102 ppb
Se 203.985 {465} (Axial)	-9.684 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	29.278 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.542 ppb

240618004-008F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:53:58 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	-0.004 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	23.288 ppb
Pb 220.353 {453} (Axial)	3.374 ppb
Sb 206.833 {463} (Axial)	10.821 ppb
Sn 189.989 {478} (Axial)	0.117 ppb

	Concentration average
Cd 228.802 {447} (Axial)	1.509 ppb
Ag 328.068 {103} (Axial)	2.413 ppb
Mo 202.030 {467} (Axial)	166.590 ppb
Mn 257.610 {131} (Axial)	35.709 ppb
Fe 259.940 {130} (Axial)	1,570.939 ppb
Co 228.616 {447} (Axial)	1.273 ppb
Ni 221.647 {452} (Axial)	55.690 ppb
Cu 324.754 {104} (Axial)	1.022 ppb
B 249.773 {135} (Axial)	42.004 ppb
Al 396.152 {85} (Axial)	14.404 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-1.285 ppb
Na 589.592 {57} (Radial)	582,431.495 ppb
Sr 407.771 {83} (Radial)	1,888.490 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	81,180.303 ppb
Zn 206.200 {463} (Axial)	21.505 ppb
Cr 267.716 {126} (Axial)	39.571 ppb
Si 251.611 {134} (Axial)	7,673.262 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.853 ppb
As 193.759 {474} (Axial)	-0.667 ppb
Se 196.090 {472} (Axial)	-2.561 ppb
Se 203.985 {465} (Axial)	-3.767 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	461.965 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.374 ppb

CCV

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 8:59:11 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	2,023.651 ppb
K 766.490 {44} (Axial)	9,856.332 ppb
Ba 455.403 {74} (Axial)	1,872.134 ppb
Pb 220.353 {453} (Axial)	1,989.400 ppb
Sb 206.833 {463} (Axial)	2,009.627 ppb

	Concentration average
Sn 189.989 {478} (Axial)	2,016.282 ppb
Cd 228.802 {447} (Axial)	1,969.042 ppb
Ag 328.068 {103} (Axial)	452.122 ppb
Mo 202.030 {467} (Axial)	2,042.231 ppb
Mn 257.610 {131} (Axial)	1,889.129 ppb
Fe 259.940 {130} (Axial)	1,977.598 ppb
Co 228.616 {447} (Axial)	1,922.219 ppb
Ni 221.647 {452} (Axial)	2,049.453 ppb
Cu 324.754 {104} (Axial)	1,899.963 ppb
B 249.773 {135} (Axial)	1,991.532 ppb
Al 396.152 {85} (Axial)	2,089.067 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,004.148 ppb
Na 589.592 {57} (Radial)	1,970.505 ppb
Sr 407.771 {83} (Radial)	1,946.716 ppb
Ca 317.933 {106} (Axial)	2,068.533 ppb
Mg 279.079 {121} (Axial)	2,002.734 ppb
Zn 206.200 {463} (Axial)	2,018.976 ppb
Cr 267.716 {126} (Axial)	2,019.573 ppb
Si 251.611 {134} (Axial)	11,784.252 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	1,972.134 ppb
As 193.759 {474} (Axial)	1,971.596 ppb
Se 196.090 {472} (Axial)	2,013.075 ppb
Se 203.985 {465} (Axial)	2,000.458 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,034.238 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1,989.400 ppb

CCB

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:04:30 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.076 ppb
K 766.490 {44} (Axial)	3.400 ppb
Ba 455.403 {74} (Axial)	1.121 ppb
Pb 220.353 {453} (Axial)	1.601 ppb

	Concentration average
Sb 206.833 {463} (Axial)	23.976 ppb
Sn 189.989 {478} (Axial)	-0.737 ppb
Cd 228.802 {447} (Axial)	1.320 ppb
Ag 328.068 {103} (Axial)	2.759 ppb
Mo 202.030 {467} (Axial)	8.778 ppb
Mn 257.610 {131} (Axial)	0.418 ppb
Fe 259.940 {130} (Axial)	2.856 ppb
Co 228.616 {447} (Axial)	-0.156 ppb
Ni 221.647 {452} (Axial)	-0.429 ppb
Cu 324.754 {104} (Axial)	-2.441 ppb
B 249.773 {135} (Axial)	1.942 ppb
Al 396.152 {85} (Axial)	-1.439 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.123 ppb
Na 589.592 {57} (Radial)	8.247 ppb
Sr 407.771 {83} (Radial)	1.484 ppb
Ca 317.933 {106} (Axial)	-6.537 ppb
Mg 279.079 {121} (Axial)	-0.072 ppb
Zn 206.200 {463} (Axial)	-0.242 ppb
Cr 267.716 {126} (Axial)	-4.096 ppb
Si 251.611 {134} (Axial)	21.931 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.192 ppb
As 193.759 {474} (Axial)	-1.571 ppb
Se 196.090 {472} (Axial)	-0.731 ppb
Se 203.985 {465} (Axial)	-4.367 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	10.086 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.601 ppb

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Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:09:24 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.127 ppb
K 766.490 {44} (Axial)	2,931.458 ppb
Ba 455.403 {74} (Axial)	3.236 ppb

	Concentration average
Pb 220.353 {453} (Axial)	2.703 ppb
Sb 206.833 {463} (Axial)	22.503 ppb
Sn 189.989 {478} (Axial)	0.053 ppb
Cd 228.802 {447} (Axial)	1.504 ppb
Ag 328.068 {103} (Axial)	2.843 ppb
Mo 202.030 {467} (Axial)	13.434 ppb
Mn 257.610 {131} (Axial)	3.279 ppb
Fe 259.940 {130} (Axial)	122.121 ppb
Co 228.616 {447} (Axial)	-0.055 ppb
Ni 221.647 {452} (Axial)	3.089 ppb
Cu 324.754 {104} (Axial)	-1.778 ppb
B 249.773 {135} (Axial)	3.977 ppb
Al 396.152 {85} (Axial)	0.402 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.387 ppb
Na 589.592 {57} (Radial)	56,315.919 ppb
Sr 407.771 {83} (Radial)	138.001 ppb
Ca 317.933 {106} (Axial)	13,493.377 ppb
Mg 279.079 {121} (Axial)	6,333.893 ppb
Zn 206.200 {463} (Axial)	1.260 ppb
Cr 267.716 {126} (Axial)	-0.577 ppb
Si 251.611 {134} (Axial)	630.800 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.505 ppb
As 193.759 {474} (Axial)	-1.464 ppb
Se 196.090 {472} (Axial)	-2.418 ppb
Se 203.985 {465} (Axial)	-7.702 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	34.366 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.703 ppb

240618004-009F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:14:31 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.062 ppb
K 766.490 {44} (Axial)	N/A

	Concentration average
Ba 455.403 {74} (Axial)	51.318 ppb
Pb 220.353 {453} (Axial)	4.616 ppb
Sb 206.833 {463} (Axial)	33.656 ppb
Sn 189.989 {478} (Axial)	0.747 ppb
Cd 228.802 {447} (Axial)	1.645 ppb
Ag 328.068 {103} (Axial)	2.208 ppb
Mo 202.030 {467} (Axial)	13.971 ppb
Mn 257.610 {131} (Axial)	640.898 ppb
Fe 259.940 {130} (Axial)	1,547.852 ppb
Co 228.616 {447} (Axial)	9.144 ppb
Ni 221.647 {452} (Axial)	28.181 ppb
Cu 324.754 {104} (Axial)	4.583 ppb
B 249.773 {135} (Axial)	230.212 ppb
Al 396.152 {85} (Axial)	41.739 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	13.216 ppb
Na 589.592 {57} (Radial)	804,256.600 ppb
Sr 407.771 {83} (Radial)	1,950.439 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	197,418.896 ppb
Zn 206.200 {463} (Axial)	14.736 ppb
Cr 267.716 {126} (Axial)	1.133 ppb
Si 251.611 {134} (Axial)	12,616.628 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.068 ppb
As 193.759 {474} (Axial)	31.364 ppb
Se 196.090 {472} (Axial)	0.423 ppb
Se 203.985 {465} (Axial)	-0.729 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	465.296 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	4.616 ppb

240618004-009F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:19:41 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.046 ppb

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	Concentration average
K 766.490 {44} (Axial)	17,312.359 ppb
Ba 455.403 {74} (Axial)	6.064 ppb
Pb 220.353 {453} (Axial)	1.396 ppb
Sb 206.833 {463} (Axial)	13.593 ppb
Sn 189.989 {478} (Axial)	-0.866 ppb
Cd 228.802 {447} (Axial)	1.428 ppb
Ag 328.068 {103} (Axial)	2.724 ppb
Mo 202.030 {467} (Axial)	0.927 ppb
Mn 257.610 {131} (Axial)	58.281 ppb
Fe 259.940 {130} (Axial)	141.113 ppb
Co 228.616 {447} (Axial)	0.367 ppb
Ni 221.647 {452} (Axial)	1.391 ppb
Cu 324.754 {104} (Axial)	-1.754 ppb
B 249.773 {135} (Axial)	22.111 ppb
Al 396.152 {85} (Axial)	4.638 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.640 ppb
Na 589.592 {57} (Radial)	122,534.531 ppb
Sr 407.771 {83} (Radial)	173.100 ppb
Ca 317.933 {106} (Axial)	17,930.711 ppb
Mg 279.079 {121} (Axial)	18,198.431 ppb
Zn 206.200 {463} (Axial)	0.701 ppb
Cr 267.716 {126} (Axial)	-3.538 ppb
Si 251.611 {134} (Axial)	1,254.344 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.183 ppb
As 193.759 {474} (Axial)	0.948 ppb
Se 196.090 {472} (Axial)	-6.123 ppb
Se 203.985 {465} (Axial)	-9.180 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	28.951 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.396 ppb

240618004-010F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:24:46 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.046 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	37.704 ppb
Pb 220.353 {453} (Axial)	3.189 ppb
Sb 206.833 {463} (Axial)	14.354 ppb
Sn 189.989 {478} (Axial)	0.388 ppb
Cd 228.802 {447} (Axial)	1.404 ppb
Ag 328.068 {103} (Axial)	2.173 ppb
Mo 202.030 {467} (Axial)	25.901 ppb
Mn 257.610 {131} (Axial)	29.229 ppb
Fe 259.940 {130} (Axial)	394.989 ppb
Co 228.616 {447} (Axial)	0.475 ppb
Ni 221.647 {452} (Axial)	8.366 ppb
Cu 324.754 {104} (Axial)	0.889 ppb
B 249.773 {135} (Axial)	314.304 ppb
Al 396.152 {85} (Axial)	107.482 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.450 ppb
Na 589.592 {57} (Radial)	503,533.310 ppb
Sr 407.771 {83} (Radial)	1,587.761 ppb
Ca 317.933 {106} (Axial)	112,226.405 ppb
Mg 279.079 {121} (Axial)	40,381.343 ppb
Zn 206.200 {463} (Axial)	19.454 ppb
Cr 267.716 {126} (Axial)	0.237 ppb
Si 251.611 {134} (Axial)	8,574.090 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.648 ppb
As 193.759 {474} (Axial)	-0.971 ppb
Se 196.090 {472} (Axial)	-4.318 ppb
Se 203.985 {465} (Axial)	-10.982 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	299.139 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.189 ppb

240618004-010F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:29:52 PM

Standard DF: 1

Basic Sample Report

7/10/2024 4:54:06 PM

	Concentration average
Be 313.042 {108} (Axial)	0.031 ppb
K 766.490 {44} (Axial)	4,905.559 ppb
Ba 455.403 {74} (Axial)	5.094 ppb
Pb 220.353 {453} (Axial)	1.777 ppb
Sb 206.833 {463} (Axial)	13.000 ppb
Sn 189.989 {478} (Axial)	-0.490 ppb
Cd 228.802 {447} (Axial)	1.397 ppb
Ag 328.068 {103} (Axial)	2.759 ppb
Mo 202.030 {467} (Axial)	1.459 ppb
Mn 257.610 {131} (Axial)	3.363 ppb
Fe 259.940 {130} (Axial)	41.032 ppb
Co 228.616 {447} (Axial)	-0.183 ppb
Ni 221.647 {452} (Axial)	0.107 ppb
Cu 324.754 {104} (Axial)	-2.162 ppb
B 249.773 {135} (Axial)	32.727 ppb
Al 396.152 {85} (Axial)	14.317 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.483 ppb
Na 589.592 {57} (Radial)	64,533.691 ppb
Sr 407.771 {83} (Radial)	157.124 ppb
Ca 317.933 {106} (Axial)	12,788.883 ppb
Mg 279.079 {121} (Axial)	4,076.749 ppb
Zn 206.200 {463} (Axial)	1.546 ppb
Cr 267.716 {126} (Axial)	-3.444 ppb
Si 251.611 {134} (Axial)	929.263 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.450 ppb
As 193.759 {474} (Axial)	-1.757 ppb
Se 196.090 {472} (Axial)	-5.650 ppb
Se 203.985 {465} (Axial)	-12.443 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	16.069 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.777 ppb

240618004-011F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:34:58 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.011 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	182.969 ppb
Pb 220.353 {453} (Axial)	4.272 ppb
Sb 206.833 {463} (Axial)	13.047 ppb
Sn 189.989 {478} (Axial)	-0.014 ppb
Cd 228.802 {447} (Axial)	1.504 ppb
Ag 328.068 {103} (Axial)	2.260 ppb
Mo 202.030 {467} (Axial)	5.189 ppb
Mn 257.610 {131} (Axial)	863.960 ppb
Fe 259.940 {130} (Axial)	465.949 ppb
Co 228.616 {447} (Axial)	7.324 ppb
Ni 221.647 {452} (Axial)	22.822 ppb
Cu 324.754 {104} (Axial)	-1.839 ppb
B 249.773 {135} (Axial)	291.331 ppb
Al 396.152 {85} (Axial)	68.769 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	9.681 ppb
Na 589.592 {57} (Radial)	732,896.144 ppb
Sr 407.771 {83} (Radial)	1,459.963 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	172,649.419 ppb
Zn 206.200 {463} (Axial)	6.316 ppb
Cr 267.716 {126} (Axial)	5.244 ppb
Si 251.611 {134} (Axial)	13,429.957 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.031 ppb
As 193.759 {474} (Axial)	11.338 ppb
Se 196.090 {472} (Axial)	-3.913 ppb
Se 203.985 {465} (Axial)	-2.907 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	317.484 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	4.272 ppb

240618004-011F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:40:12 PM

Standard DF: 1

Basic Sample Report

7/10/2024 4:54:06 PM

QTEGRA

	Concentration average
Be 313.042 {108} (Axial)	0.036 ppb
K 766.490 {44} (Axial)	18,751.172 ppb
Ba 455.403 {74} (Axial)	17.372 ppb
Pb 220.353 {453} (Axial)	1.598 ppb
Sb 206.833 {463} (Axial)	12.046 ppb
Sn 189.989 {478} (Axial)	-0.728 ppb
Cd 228.802 {447} (Axial)	1.374 ppb
Ag 328.068 {103} (Axial)	2.523 ppb
Mo 202.030 {467} (Axial)	0.069 ppb
Mn 257.610 {131} (Axial)	71.134 ppb
Fe 259.940 {130} (Axial)	40.330 ppb
Co 228.616 {447} (Axial)	0.275 ppb
Ni 221.647 {452} (Axial)	0.937 ppb
Cu 324.754 {104} (Axial)	-2.240 ppb
B 249.773 {135} (Axial)	25.149 ppb
Al 396.152 {85} (Axial)	7.452 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.272 ppb
Na 589.592 {57} (Radial)	92,113.502 ppb
Sr 407.771 {83} (Radial)	118.419 ppb
Ca 317.933 {106} (Axial)	16,577.119 ppb
Mg 279.079 {121} (Axial)	14,411.009 ppb
Zn 206.200 {463} (Axial)	0.261 ppb
Cr 267.716 {126} (Axial)	-3.208 ppb
Si 251.611 {134} (Axial)	1,209.334 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.026 ppb
As 193.759 {474} (Axial)	-0.489 ppb
Se 196.090 {472} (Axial)	-5.787 ppb
Se 203.985 {465} (Axial)	-11.436 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	25.069 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.598 ppb

240618004-012F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:45:19 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	-0.032 ppb
K 766.490 {44} (Axial)	12,104.645 ppb
Ba 455.403 {74} (Axial)	29.361 ppb
Pb 220.353 {453} (Axial)	5.229 ppb
Sb 206.833 {463} (Axial)	14.788 ppb
Sn 189.989 {478} (Axial)	2.275 ppb
Cd 228.802 {447} (Axial)	1.496 ppb
Ag 328.068 {103} (Axial)	1.928 ppb
Mo 202.030 {467} (Axial)	1.945 ppb
Mn 257.610 {131} (Axial)	1,634.578 ppb
Fe 259.940 {130} (Axial)	7,262.504 ppb
Co 228.616 {447} (Axial)	0.582 ppb
Ni 221.647 {452} (Axial)	69.399 ppb
Cu 324.754 {104} (Axial)	-2.137 ppb
B 249.773 {135} (Axial)	22.686 ppb
Al 396.152 {85} (Axial)	14.906 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.285 ppb
Na 589.592 {57} (Radial)	250,664.136 ppb
Sr 407.771 {83} (Radial)	4,187.603 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	535,828.497 ppb
Zn 206.200 {463} (Axial)	3.804 ppb
Cr 267.716 {126} (Axial)	158.865 ppb
Si 251.611 {134} (Axial)	11,941.423 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	1.563 ppb
As 193.759 {474} (Axial)	-1.115 ppb
Se 196.090 {472} (Axial)	-4.206 ppb
Se 203.985 {465} (Axial)	25.974 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	253.268 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	5.229 ppb

240618004-012F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:50:40 PM

Standard DF: 1

Basic Sample Report

7/10/2024 4:54:06 PM

QTEGRA

	Concentration average
Be 313.042 {108} (Axial)	0.107 ppb
K 766.490 {44} (Axial)	1,146.170 ppb
Ba 455.403 {74} (Axial)	3.441 ppb
Pb 220.353 {453} (Axial)	1.738 ppb
Sb 206.833 {463} (Axial)	11.696 ppb
Sn 189.989 {478} (Axial)	-0.367 ppb
Cd 228.802 {447} (Axial)	1.368 ppb
Ag 328.068 {103} (Axial)	2.721 ppb
Mo 202.030 {467} (Axial)	-0.240 ppb
Mn 257.610 {131} (Axial)	126.909 ppb
Fe 259.940 {130} (Axial)	558.964 ppb
Co 228.616 {447} (Axial)	-0.031 ppb
Ni 221.647 {452} (Axial)	3.232 ppb
Cu 324.754 {104} (Axial)	-1.946 ppb
B 249.773 {135} (Axial)	1.961 ppb
Al 396.152 {85} (Axial)	2.501 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.229 ppb
Na 589.592 {57} (Radial)	21,611.211 ppb
Sr 407.771 {83} (Radial)	309.201 ppb
Ca 317.933 {106} (Axial)	26,973.877 ppb
Mg 279.079 {121} (Axial)	43,567.609 ppb
Zn 206.200 {463} (Axial)	0.035 ppb
Cr 267.716 {126} (Axial)	8.539 ppb
Si 251.611 {134} (Axial)	991.832 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.207 ppb
As 193.759 {474} (Axial)	-1.875 ppb
Se 196.090 {472} (Axial)	-4.577 ppb
Se 203.985 {465} (Axial)	-9.942 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	28.105 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.738 ppb

240618004-013F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 9:55:45 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.013 ppb
K 766.490 {44} (Axial)	N/A
Ba 455.403 {74} (Axial)	137.980 ppb
Pb 220.353 {453} (Axial)	4.183 ppb
Sb 206.833 {463} (Axial)	13.144 ppb
Sn 189.989 {478} (Axial)	0.326 ppb
Cd 228.802 {447} (Axial)	1.372 ppb
Ag 328.068 {103} (Axial)	1.788 ppb
Mo 202.030 {467} (Axial)	0.975 ppb
Mn 257.610 {131} (Axial)	599.884 ppb
Fe 259.940 {130} (Axial)	9,838.843 ppb
Co 228.616 {447} (Axial)	5.038 ppb
Ni 221.647 {452} (Axial)	9.709 ppb
Cu 324.754 {104} (Axial)	-3.033 ppb
B 249.773 {135} (Axial)	164.889 ppb
Al 396.152 {85} (Axial)	51.343 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	8.065 ppb
Na 589.592 {57} (Radial)	350,987.129 ppb
Sr 407.771 {83} (Radial)	1,601.856 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	149,521.972 ppb
Zn 206.200 {463} (Axial)	11.217 ppb
Cr 267.716 {126} (Axial)	0.198 ppb
Si 251.611 {134} (Axial)	13,663.167 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.322 ppb
As 193.759 {474} (Axial)	0.927 ppb
Se 196.090 {472} (Axial)	-5.983 ppb
Se 203.985 {465} (Axial)	-4.459 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	135.617 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	4.183 ppb

CCV

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:01:04 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	1,988.426 ppb
K 766.490 {44} (Axial)	9,735.186 ppb
Ba 455.403 {74} (Axial)	1,878.245 ppb
Pb 220.353 {453} (Axial)	2,009.875 ppb
Sb 206.833 {463} (Axial)	2,060.254 ppb
Sn 189.989 {478} (Axial)	2,042.907 ppb
Cd 228.802 {447} (Axial)	1,981.017 ppb
Ag 328.068 {103} (Axial)	450.644 ppb
Mo 202.030 {467} (Axial)	2,056.294 ppb
Mn 257.610 {131} (Axial)	1,895.071 ppb
Fe 259.940 {130} (Axial)	1,999.956 ppb
Co 228.616 {447} (Axial)	1,942.276 ppb
Ni 221.647 {452} (Axial)	2,093.716 ppb
Cu 324.754 {104} (Axial)	1,899.234 ppb
B 249.773 {135} (Axial)	2,024.721 ppb
Al 396.152 {85} (Axial)	2,093.956 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,018.584 ppb
Na 589.592 {57} (Radial)	2,180.631 ppb
Sr 407.771 {83} (Radial)	1,939.630 ppb
Ca 317.933 {106} (Axial)	2,057.645 ppb
Mg 279.079 {121} (Axial)	2,008.617 ppb
Zn 206.200 {463} (Axial)	2,031.713 ppb
Cr 267.716 {126} (Axial)	2,036.312 ppb
Si 251.611 {134} (Axial)	6,895.146 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	1,992.897 ppb
As 193.759 {474} (Axial)	2,005.852 ppb
Se 196.090 {472} (Axial)	2,026.781 ppb
Se 203.985 {465} (Axial)	2,011.764 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,032.958 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,009.875 ppb

CCB

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:06:25 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.098 ppb
K 766.490 {44} (Axial)	2.187 ppb
Ba 455.403 {74} (Axial)	1.144 ppb
Pb 220.353 {453} (Axial)	1.494 ppb
Sb 206.833 {463} (Axial)	12.934 ppb
Sn 189.989 {478} (Axial)	-0.468 ppb
Cd 228.802 {447} (Axial)	1.402 ppb
Ag 328.068 {103} (Axial)	2.421 ppb
Mo 202.030 {467} (Axial)	6.927 ppb
Mn 257.610 {131} (Axial)	0.450 ppb
Fe 259.940 {130} (Axial)	3.112 ppb
Co 228.616 {447} (Axial)	-0.190 ppb
Ni 221.647 {452} (Axial)	-0.264 ppb
Cu 324.754 {104} (Axial)	-2.421 ppb
B 249.773 {135} (Axial)	1.333 ppb
Al 396.152 {85} (Axial)	-1.279 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.378 ppb
Na 589.592 {57} (Radial)	7.476 ppb
Sr 407.771 {83} (Radial)	1.373 ppb
Ca 317.933 {106} (Axial)	-6.424 ppb
Mg 279.079 {121} (Axial)	-0.421 ppb
Zn 206.200 {463} (Axial)	-0.080 ppb
Cr 267.716 {126} (Axial)	-3.937 ppb
Si 251.611 {134} (Axial)	13.435 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.124 ppb
As 193.759 {474} (Axial)	-0.802 ppb
Se 196.090 {472} (Axial)	-0.607 ppb
Se 203.985 {465} (Axial)	-3.700 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2.375 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.494 ppb

240618004-013F

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:11:25 PM

Standard DF: 1

Basic Sample Report

7/10/2024 4:54:06 PM

QTEGRA

	Concentration average
Be 313.042 {108} (Axial)	0.105 ppb
K 766.490 {44} (Axial)	6,426.560 ppb
Ba 455.403 {74} (Axial)	14.534 ppb
Pb 220.353 {453} (Axial)	2.460 ppb
Sb 206.833 {463} (Axial)	11.895 ppb
Sn 189.989 {478} (Axial)	0.171 ppb
Cd 228.802 {447} (Axial)	1.487 ppb
Ag 328.068 {103} (Axial)	2.463 ppb
Mo 202.030 {467} (Axial)	3.059 ppb
Mn 257.610 {131} (Axial)	54.317 ppb
Fe 259.940 {130} (Axial)	889.682 ppb
Co 228.616 {447} (Axial)	0.337 ppb
Ni 221.647 {452} (Axial)	0.345 ppb
Cu 324.754 {104} (Axial)	-2.051 ppb
B 249.773 {135} (Axial)	16.026 ppb
Al 396.152 {85} (Axial)	5.710 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.373 ppb
Na 589.592 {57} (Radial)	35,623.786 ppb
Sr 407.771 {83} (Radial)	147.285 ppb
Ca 317.933 {106} (Axial)	15,101.178 ppb
Mg 279.079 {121} (Axial)	13,532.717 ppb
Zn 206.200 {463} (Axial)	0.676 ppb
Cr 267.716 {126} (Axial)	-3.656 ppb
Si 251.611 {134} (Axial)	1,321.940 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.387 ppb
As 193.759 {474} (Axial)	-0.096 ppb
Se 196.090 {472} (Axial)	-1.537 ppb
Se 203.985 {465} (Axial)	-9.086 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	11.418 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.460 ppb

240625028-001A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:16:32 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.058 ppb
K 766.490 {44} (Axial)	3,022.216 ppb
Ba 455.403 {74} (Axial)	16.064 ppb
Pb 220.353 {453} (Axial)	2.204 ppb
Sb 206.833 {463} (Axial)	13.547 ppb
Sn 189.989 {478} (Axial)	0.925 ppb
Cd 228.802 {447} (Axial)	1.422 ppb
Ag 328.068 {103} (Axial)	2.448 ppb
Mo 202.030 {467} (Axial)	4.750 ppb
Mn 257.610 {131} (Axial)	2.966 ppb
Fe 259.940 {130} (Axial)	24.453 ppb
Co 228.616 {447} (Axial)	-0.141 ppb
Ni 221.647 {452} (Axial)	1.387 ppb
Cu 324.754 {104} (Axial)	-2.291 ppb
B 249.773 {135} (Axial)	50.021 ppb
Al 396.152 {85} (Axial)	23.039 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.691 ppb
Na 589.592 {57} (Radial)	61,478.069 ppb
Sr 407.771 {83} (Radial)	73.907 ppb
Ca 317.933 {106} (Axial)	11,736.516 ppb
Mg 279.079 {121} (Axial)	3,020.475 ppb
Zn 206.200 {463} (Axial)	1.181 ppb
Cr 267.716 {126} (Axial)	-3.563 ppb
Si 251.611 {134} (Axial)	4,962.301 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.623 ppb
As 193.759 {474} (Axial)	-0.467 ppb
Se 196.090 {472} (Axial)	-1.579 ppb
Se 203.985 {465} (Axial)	-10.025 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	44.970 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.204 ppb

240625028-001A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:21:40 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.028 ppb
K 766.490 {44} (Axial)	250.572 ppb
Ba 455.403 {74} (Axial)	2.478 ppb
Pb 220.353 {453} (Axial)	1.271 ppb
Sb 206.833 {463} (Axial)	12.358 ppb
Sn 189.989 {478} (Axial)	-0.889 ppb
Cd 228.802 {447} (Axial)	1.432 ppb
Ag 328.068 {103} (Axial)	2.471 ppb
Mo 202.030 {467} (Axial)	0.270 ppb
Mn 257.610 {131} (Axial)	0.696 ppb
Fe 259.940 {130} (Axial)	4.490 ppb
Co 228.616 {447} (Axial)	-0.174 ppb
Ni 221.647 {452} (Axial)	-0.172 ppb
Cu 324.754 {104} (Axial)	-2.434 ppb
B 249.773 {135} (Axial)	4.470 ppb
Al 396.152 {85} (Axial)	1.458 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.414 ppb
Na 589.592 {57} (Radial)	5,982.204 ppb
Sr 407.771 {83} (Radial)	7.744 ppb
Ca 317.933 {106} (Axial)	1,047.225 ppb
Mg 279.079 {121} (Axial)	249.611 ppb
Zn 206.200 {463} (Axial)	0.073 ppb
Cr 267.716 {126} (Axial)	-4.168 ppb
Si 251.611 {134} (Axial)	439.469 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.175 ppb
As 193.759 {474} (Axial)	-1.360 ppb
Se 196.090 {472} (Axial)	-4.658 ppb
Se 203.985 {465} (Axial)	-8.228 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	10.800 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.271 ppb

240625028-002A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:26:37 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.307 ppb
K 766.490 {44} (Axial)	511.837 ppb
Ba 455.403 {74} (Axial)	59.201 ppb
Pb 220.353 {453} (Axial)	13.416 ppb
Sb 206.833 {463} (Axial)	14.721 ppb
Sn 189.989 {478} (Axial)	1.343 ppb
Cd 228.802 {447} (Axial)	1.336 ppb
Ag 328.068 {103} (Axial)	2.321 ppb
Mo 202.030 {467} (Axial)	1.571 ppb
Mn 257.610 {131} (Axial)	103.179 ppb
Fe 259.940 {130} (Axial)	3,826.274 ppb
Co 228.616 {447} (Axial)	0.504 ppb
Ni 221.647 {452} (Axial)	4.601 ppb
Cu 324.754 {104} (Axial)	4.133 ppb
B 249.773 {135} (Axial)	17.004 ppb
Al 396.152 {85} (Axial)	992.628 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	1.800 ppb
Na 589.592 {57} (Radial)	5,230.998 ppb
Sr 407.771 {83} (Radial)	64.709 ppb
Ca 317.933 {106} (Axial)	10,698.376 ppb
Mg 279.079 {121} (Axial)	3,326.600 ppb
Zn 206.200 {463} (Axial)	12.558 ppb
Cr 267.716 {126} (Axial)	-1.704 ppb
Si 251.611 {134} (Axial)	8,881.261 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.508 ppb
As 193.759 {474} (Axial)	-1.729 ppb
Se 196.090 {472} (Axial)	-4.414 ppb
Se 203.985 {465} (Axial)	-9.057 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	24.599 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	13.416 ppb

240625028-002A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:31:39 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.059 ppb
K 766.490 {44} (Axial)	42.669 ppb
Ba 455.403 {74} (Axial)	6.265 ppb
Pb 220.353 {453} (Axial)	2.788 ppb
Sb 206.833 {463} (Axial)	12.109 ppb
Sn 189.989 {478} (Axial)	-0.534 ppb
Cd 228.802 {447} (Axial)	1.397 ppb
Ag 328.068 {103} (Axial)	2.337 ppb
Mo 202.030 {467} (Axial)	-0.126 ppb
Mn 257.610 {131} (Axial)	9.457 ppb
Fe 259.940 {130} (Axial)	337.275 ppb
Co 228.616 {447} (Axial)	0.059 ppb
Ni 221.647 {452} (Axial)	-0.029 ppb
Cu 324.754 {104} (Axial)	-1.926 ppb
B 249.773 {135} (Axial)	1.739 ppb
Al 396.152 {85} (Axial)	90.331 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.342 ppb
Na 589.592 {57} (Radial)	1,162.791 ppb
Sr 407.771 {83} (Radial)	7.105 ppb
Ca 317.933 {106} (Axial)	979.674 ppb
Mg 279.079 {121} (Axial)	293.873 ppb
Zn 206.200 {463} (Axial)	0.768 ppb
Cr 267.716 {126} (Axial)	-3.885 ppb
Si 251.611 {134} (Axial)	808.626 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.084 ppb
As 193.759 {474} (Axial)	-1.482 ppb
Se 196.090 {472} (Axial)	-4.734 ppb
Se 203.985 {465} (Axial)	-8.842 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	-4.256 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.788 ppb

240625028-003A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:36:33 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.049 ppb
K 766.490 {44} (Axial)	521.637 ppb
Ba 455.403 {74} (Axial)	49.753 ppb
Pb 220.353 {453} (Axial)	3.070 ppb
Sb 206.833 {463} (Axial)	14.296 ppb
Sn 189.989 {478} (Axial)	0.204 ppb
Cd 228.802 {447} (Axial)	1.439 ppb
Ag 328.068 {103} (Axial)	2.610 ppb
Mo 202.030 {467} (Axial)	1.057 ppb
Mn 257.610 {131} (Axial)	21.847 ppb
Fe 259.940 {130} (Axial)	257.267 ppb
Co 228.616 {447} (Axial)	0.123 ppb
Ni 221.647 {452} (Axial)	2.402 ppb
Cu 324.754 {104} (Axial)	-2.375 ppb
B 249.773 {135} (Axial)	12.309 ppb
Al 396.152 {85} (Axial)	69.559 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.397 ppb
Na 589.592 {57} (Radial)	3,461.399 ppb
Sr 407.771 {83} (Radial)	145.495 ppb
Ca 317.933 {106} (Axial)	17,270.300 ppb
Mg 279.079 {121} (Axial)	4,330.032 ppb
Zn 206.200 {463} (Axial)	1.236 ppb
Cr 267.716 {126} (Axial)	-1.539 ppb
Si 251.611 {134} (Axial)	6,748.818 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.099 ppb
As 193.759 {474} (Axial)	-1.546 ppb
Se 196.090 {472} (Axial)	-4.686 ppb
Se 203.985 {465} (Axial)	-13.821 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	10.762 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.070 ppb

240625028-003A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:41:33 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.023 ppb
K 766.490 {44} (Axial)	45.780 ppb
Ba 455.403 {74} (Axial)	5.640 ppb
Pb 220.353 {453} (Axial)	1.403 ppb
Sb 206.833 {463} (Axial)	11.547 ppb
Sn 189.989 {478} (Axial)	-0.525 ppb
Cd 228.802 {447} (Axial)	1.330 ppb
Ag 328.068 {103} (Axial)	2.523 ppb
Mo 202.030 {467} (Axial)	-0.099 ppb
Mn 257.610 {131} (Axial)	2.417 ppb
Fe 259.940 {130} (Axial)	27.978 ppb
Co 228.616 {447} (Axial)	0.022 ppb
Ni 221.647 {452} (Axial)	-0.162 ppb
Cu 324.754 {104} (Axial)	-2.356 ppb
B 249.773 {135} (Axial)	4.771 ppb
Al 396.152 {85} (Axial)	6.614 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.458 ppb
Na 589.592 {57} (Radial)	914.984 ppb
Sr 407.771 {83} (Radial)	15.547 ppb
Ca 317.933 {106} (Axial)	1,660.840 ppb
Mg 279.079 {121} (Axial)	396.537 ppb
Zn 206.200 {463} (Axial)	0.836 ppb
Cr 267.716 {126} (Axial)	-3.737 ppb
Si 251.611 {134} (Axial)	642.042 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.153 ppb
As 193.759 {474} (Axial)	-0.948 ppb
Se 196.090 {472} (Axial)	-5.502 ppb
Se 203.985 {465} (Axial)	-10.630 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	0.854 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.403 ppb

240625028-003ADP

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:46:28 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.036 ppb
K 766.490 {44} (Axial)	526.322 ppb
Ba 455.403 {74} (Axial)	53.837 ppb
Pb 220.353 {453} (Axial)	2.993 ppb
Sb 206.833 {463} (Axial)	13.680 ppb
Sn 189.989 {478} (Axial)	-0.347 ppb
Cd 228.802 {447} (Axial)	1.454 ppb
Ag 328.068 {103} (Axial)	2.477 ppb
Mo 202.030 {467} (Axial)	0.695 ppb
Mn 257.610 {131} (Axial)	24.178 ppb
Fe 259.940 {130} (Axial)	252.029 ppb
Co 228.616 {447} (Axial)	0.071 ppb
Ni 221.647 {452} (Axial)	1.586 ppb
Cu 324.754 {104} (Axial)	-1.753 ppb
B 249.773 {135} (Axial)	13.999 ppb
Al 396.152 {85} (Axial)	107.771 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.243 ppb
Na 589.592 {57} (Radial)	3,420.090 ppb
Sr 407.771 {83} (Radial)	147.997 ppb
Ca 317.933 {106} (Axial)	17,674.535 ppb
Mg 279.079 {121} (Axial)	4,460.995 ppb
Zn 206.200 {463} (Axial)	1.307 ppb
Cr 267.716 {126} (Axial)	-3.332 ppb
Si 251.611 {134} (Axial)	6,949.454 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.808 ppb
As 193.759 {474} (Axial)	-1.893 ppb
Se 196.090 {472} (Axial)	-4.172 ppb
Se 203.985 {465} (Axial)	-2.348 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	22.956 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.993 ppb

240625028-003ADP

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:51:29 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.019 ppb
K 766.490 {44} (Axial)	35.912 ppb
Ba 455.403 {74} (Axial)	5.052 ppb
Pb 220.353 {453} (Axial)	1.351 ppb
Sb 206.833 {463} (Axial)	11.607 ppb
Sn 189.989 {478} (Axial)	-0.829 ppb
Cd 228.802 {447} (Axial)	1.252 ppb
Ag 328.068 {103} (Axial)	2.581 ppb
Mo 202.030 {467} (Axial)	-0.332 ppb
Mn 257.610 {131} (Axial)	2.258 ppb
Fe 259.940 {130} (Axial)	12.349 ppb
Co 228.616 {447} (Axial)	-0.014 ppb
Ni 221.647 {452} (Axial)	-0.177 ppb
Cu 324.754 {104} (Axial)	-2.375 ppb
B 249.773 {135} (Axial)	0.899 ppb
Al 396.152 {85} (Axial)	7.065 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.738 ppb
Na 589.592 {57} (Radial)	794.992 ppb
Sr 407.771 {83} (Radial)	12.906 ppb
Ca 317.933 {106} (Axial)	1,376.106 ppb
Mg 279.079 {121} (Axial)	329.103 ppb
Zn 206.200 {463} (Axial)	-0.283 ppb
Cr 267.716 {126} (Axial)	-4.013 ppb
Si 251.611 {134} (Axial)	532.697 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.439 ppb
As 193.759 {474} (Axial)	-1.565 ppb
Se 196.090 {472} (Axial)	-5.945 ppb
Se 203.985 {465} (Axial)	-10.314 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	19.157 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.351 ppb

240625028-003AMS

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 10:56:26 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	51.954 ppb
K 766.490 {44} (Axial)	526.950 ppb
Ba 455.403 {74} (Axial)	1,922.622 ppb
Pb 220.353 {453} (Axial)	23.603 ppb
Sb 206.833 {463} (Axial)	516.749 ppb
Sn 189.989 {478} (Axial)	1.395 ppb
Cd 228.802 {447} (Axial)	48.030 ppb
Ag 328.068 {103} (Axial)	33.384 ppb
Mo 202.030 {467} (Axial)	0.529 ppb
Mn 257.610 {131} (Axial)	494.316 ppb
Fe 259.940 {130} (Axial)	1,166.618 ppb
Co 228.616 {447} (Axial)	486.836 ppb
Ni 221.647 {452} (Axial)	517.201 ppb
Cu 324.754 {104} (Axial)	237.972 ppb
B 249.773 {135} (Axial)	14.399 ppb
Al 396.152 {85} (Axial)	2,030.006 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	505.831 ppb
Na 589.592 {57} (Radial)	3,359.000 ppb
Sr 407.771 {83} (Radial)	145.023 ppb
Ca 317.933 {106} (Axial)	17,450.123 ppb
Mg 279.079 {121} (Axial)	4,375.839 ppb
Zn 206.200 {463} (Axial)	506.626 ppb
Cr 267.716 {126} (Axial)	198.001 ppb
Si 251.611 {134} (Axial)	6,839.885 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	50.489 ppb
As 193.759 {474} (Axial)	33.436 ppb
Se 196.090 {472} (Axial)	8.869 ppb
Se 203.985 {465} (Axial)	7.879 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	18.650 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	23.603 ppb

CCV

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:01:34 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	2,017.946 ppb
K 766.490 {44} (Axial)	9,999.167 ppb
Ba 455.403 {74} (Axial)	1,901.092 ppb
Pb 220.353 {453} (Axial)	2,037.171 ppb
Sb 206.833 {463} (Axial)	2,087.460 ppb
Sn 189.989 {478} (Axial)	2,053.886 ppb
Cd 228.802 {447} (Axial)	2,017.488 ppb
Ag 328.068 {103} (Axial)	459.278 ppb
Mo 202.030 {467} (Axial)	2,069.257 ppb
Mn 257.610 {131} (Axial)	1,912.412 ppb
Fe 259.940 {130} (Axial)	2,012.683 ppb
Co 228.616 {447} (Axial)	1,959.013 ppb
Ni 221.647 {452} (Axial)	2,098.814 ppb
Cu 324.754 {104} (Axial)	1,917.138 ppb
B 249.773 {135} (Axial)	2,059.789 ppb
Al 396.152 {85} (Axial)	2,148.384 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,031.063 ppb
Na 589.592 {57} (Radial)	2,173.648 ppb
Sr 407.771 {83} (Radial)	1,978.988 ppb
Ca 317.933 {106} (Axial)	2,076.954 ppb
Mg 279.079 {121} (Axial)	2,021.893 ppb
Zn 206.200 {463} (Axial)	2,045.804 ppb
Cr 267.716 {126} (Axial)	2,058.487 ppb
Si 251.611 {134} (Axial)	6,950.841 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	2,028.289 ppb
As 193.759 {474} (Axial)	2,037.158 ppb
Se 196.090 {472} (Axial)	2,039.079 ppb
Se 203.985 {465} (Axial)	2,037.330 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,021.133 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,037.171 ppb

CCB

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:06:57 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.086 ppb
K 766.490 {44} (Axial)	0.818 ppb
Ba 455.403 {74} (Axial)	1.157 ppb
Pb 220.353 {453} (Axial)	1.431 ppb
Sb 206.833 {463} (Axial)	12.276 ppb
Sn 189.989 {478} (Axial)	-0.647 ppb
Cd 228.802 {447} (Axial)	1.367 ppb
Ag 328.068 {103} (Axial)	2.894 ppb
Mo 202.030 {467} (Axial)	6.773 ppb
Mn 257.610 {131} (Axial)	0.465 ppb
Fe 259.940 {130} (Axial)	2.890 ppb
Co 228.616 {447} (Axial)	0.060 ppb
Ni 221.647 {452} (Axial)	-0.403 ppb
Cu 324.754 {104} (Axial)	-2.365 ppb
B 249.773 {135} (Axial)	1.424 ppb
Al 396.152 {85} (Axial)	-1.513 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.506 ppb
Na 589.592 {57} (Radial)	7.259 ppb
Sr 407.771 {83} (Radial)	1.787 ppb
Ca 317.933 {106} (Axial)	-6.197 ppb
Mg 279.079 {121} (Axial)	-1.600 ppb
Zn 206.200 {463} (Axial)	-0.001 ppb
Cr 267.716 {126} (Axial)	-4.093 ppb
Si 251.611 {134} (Axial)	9.497 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.275 ppb
As 193.759 {474} (Axial)	-1.411 ppb
Se 196.090 {472} (Axial)	0.367 ppb
Se 203.985 {465} (Axial)	-0.357 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	-3.409 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.431 ppb

240625028-003AA

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:11:58 PM

Standard DF: 1

Basic Sample Report

7/10/2024 4:54:06 PM

	Concentration average
Be 313.042 {108} (Axial)	104.310 ppb
K 766.490 {44} (Axial)	538.560 ppb
Ba 455.403 {74} (Axial)	N/A
Pb 220.353 {453} (Axial)	44.745 ppb
Sb 206.833 {463} (Axial)	1,017.470 ppb
Sn 189.989 {478} (Axial)	3.658 ppb
Cd 228.802 {447} (Axial)	95.111 ppb
Ag 328.068 {103} (Axial)	60.909 ppb
Mo 202.030 {467} (Axial)	6.178 ppb
Mn 257.610 {131} (Axial)	985.168 ppb
Fe 259.940 {130} (Axial)	2,284.645 ppb
Co 228.616 {447} (Axial)	978.663 ppb
Ni 221.647 {452} (Axial)	1,044.280 ppb
Cu 324.754 {104} (Axial)	485.011 ppb
B 249.773 {135} (Axial)	15.359 ppb
Al 396.152 {85} (Axial)	4,066.876 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	1,023.167 ppb
Na 589.592 {57} (Radial)	3,368.269 ppb
Sr 407.771 {83} (Radial)	144.901 ppb
Ca 317.933 {106} (Axial)	17,031.703 ppb
Mg 279.079 {121} (Axial)	4,351.584 ppb
Zn 206.200 {463} (Axial)	1,021.743 ppb
Cr 267.716 {126} (Axial)	406.861 ppb
Si 251.611 {134} (Axial)	6,755.982 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	103.203 ppb
As 193.759 {474} (Axial)	69.062 ppb
Se 196.090 {472} (Axial)	19.373 ppb
Se 203.985 {465} (Axial)	14.925 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	43.106 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	44.745 ppb

240625028-003AL

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:17:03 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.051 ppb
K 766.490 {44} (Axial)	116.092 ppb
Ba 455.403 {74} (Axial)	11.690 ppb
Pb 220.353 {453} (Axial)	1.958 ppb
Sb 206.833 {463} (Axial)	18.685 ppb
Sn 189.989 {478} (Axial)	-0.321 ppb
Cd 228.802 {447} (Axial)	1.393 ppb
Ag 328.068 {103} (Axial)	2.363 ppb
Mo 202.030 {467} (Axial)	0.789 ppb
Mn 257.610 {131} (Axial)	4.903 ppb
Fe 259.940 {130} (Axial)	58.956 ppb
Co 228.616 {447} (Axial)	-0.101 ppb
Ni 221.647 {452} (Axial)	0.320 ppb
Cu 324.754 {104} (Axial)	-2.042 ppb
B 249.773 {135} (Axial)	2.926 ppb
Al 396.152 {85} (Axial)	37.372 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.379 ppb
Na 589.592 {57} (Radial)	1,003.803 ppb
Sr 407.771 {83} (Radial)	31.775 ppb
Ca 317.933 {106} (Axial)	3,802.338 ppb
Mg 279.079 {121} (Axial)	925.336 ppb
Zn 206.200 {463} (Axial)	1.193 ppb
Cr 267.716 {126} (Axial)	-3.606 ppb
Si 251.611 {134} (Axial)	1,462.514 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.791 ppb
As 193.759 {474} (Axial)	-1.091 ppb
Se 196.090 {472} (Axial)	-4.460 ppb
Se 203.985 {465} (Axial)	-7.725 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	23.297 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.958 ppb

240625028-004A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:22:00 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.042 ppb
K 766.490 {44} (Axial)	518.372 ppb
Ba 455.403 {74} (Axial)	48.653 ppb
Pb 220.353 {453} (Axial)	2.197 ppb
Sb 206.833 {463} (Axial)	20.869 ppb
Sn 189.989 {478} (Axial)	0.566 ppb
Cd 228.802 {447} (Axial)	1.390 ppb
Ag 328.068 {103} (Axial)	2.547 ppb
Mo 202.030 {467} (Axial)	1.867 ppb
Mn 257.610 {131} (Axial)	13.399 ppb
Fe 259.940 {130} (Axial)	56.416 ppb
Co 228.616 {447} (Axial)	-0.153 ppb
Ni 221.647 {452} (Axial)	1.296 ppb
Cu 324.754 {104} (Axial)	-2.330 ppb
B 249.773 {135} (Axial)	12.792 ppb
Al 396.152 {85} (Axial)	46.208 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.421 ppb
Na 589.592 {57} (Radial)	3,233.481 ppb
Sr 407.771 {83} (Radial)	144.293 ppb
Ca 317.933 {106} (Axial)	17,249.443 ppb
Mg 279.079 {121} (Axial)	4,350.523 ppb
Zn 206.200 {463} (Axial)	0.903 ppb
Cr 267.716 {126} (Axial)	-3.523 ppb
Si 251.611 {134} (Axial)	6,792.685 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.800 ppb
As 193.759 {474} (Axial)	-1.562 ppb
Se 196.090 {472} (Axial)	-4.724 ppb
Se 203.985 {465} (Axial)	-10.301 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	31.257 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.197 ppb

240625028-004A

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:27:03 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.022 ppb
K 766.490 {44} (Axial)	42.906 ppb
Ba 455.403 {74} (Axial)	5.400 ppb
Pb 220.353 {453} (Axial)	1.993 ppb
Sb 206.833 {463} (Axial)	12.295 ppb
Sn 189.989 {478} (Axial)	-0.450 ppb
Cd 228.802 {447} (Axial)	1.402 ppb
Ag 328.068 {103} (Axial)	2.496 ppb
Mo 202.030 {467} (Axial)	-0.032 ppb
Mn 257.610 {131} (Axial)	1.641 ppb
Fe 259.940 {130} (Axial)	7.602 ppb
Co 228.616 {447} (Axial)	-0.027 ppb
Ni 221.647 {452} (Axial)	-0.314 ppb
Cu 324.754 {104} (Axial)	-2.377 ppb
B 249.773 {135} (Axial)	1.244 ppb
Al 396.152 {85} (Axial)	2.913 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.621 ppb
Na 589.592 {57} (Radial)	676.862 ppb
Sr 407.771 {83} (Radial)	15.507 ppb
Ca 317.933 {106} (Axial)	1,619.695 ppb
Mg 279.079 {121} (Axial)	388.747 ppb
Zn 206.200 {463} (Axial)	-0.202 ppb
Cr 267.716 {126} (Axial)	-4.089 ppb
Si 251.611 {134} (Axial)	623.850 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.012 ppb
As 193.759 {474} (Axial)	-1.158 ppb
Se 196.090 {472} (Axial)	-5.439 ppb
Se 203.985 {465} (Axial)	-10.881 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	1.053 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.993 ppb

MBLK

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:32:02 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.020 ppb
K 766.490 {44} (Axial)	1.375 ppb
Ba 455.403 {74} (Axial)	1.144 ppb
Pb 220.353 {453} (Axial)	1.915 ppb
Sb 206.833 {463} (Axial)	11.917 ppb
Sn 189.989 {478} (Axial)	-0.610 ppb
Cd 228.802 {447} (Axial)	1.350 ppb
Ag 328.068 {103} (Axial)	2.797 ppb
Mo 202.030 {467} (Axial)	0.276 ppb
Mn 257.610 {131} (Axial)	0.395 ppb
Fe 259.940 {130} (Axial)	2.837 ppb
Co 228.616 {447} (Axial)	-0.203 ppb
Ni 221.647 {452} (Axial)	-0.489 ppb
Cu 324.754 {104} (Axial)	-2.680 ppb
B 249.773 {135} (Axial)	-0.071 ppb
Al 396.152 {85} (Axial)	-1.461 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.593 ppb
Na 589.592 {57} (Radial)	21.777 ppb
Sr 407.771 {83} (Radial)	1.282 ppb
Ca 317.933 {106} (Axial)	-6.255 ppb
Mg 279.079 {121} (Axial)	-1.526 ppb
Zn 206.200 {463} (Axial)	-0.392 ppb
Cr 267.716 {126} (Axial)	-4.135 ppb
Si 251.611 {134} (Axial)	10.370 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.037 ppb
As 193.759 {474} (Axial)	-1.329 ppb
Se 196.090 {472} (Axial)	-0.023 ppb
Se 203.985 {465} (Axial)	-0.586 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	3.161 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.915 ppb

LCS

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:37:01 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	1,981.970 ppb
K 766.490 {44} (Axial)	9,826.190 ppb
Ba 455.403 {74} (Axial)	1,840.222 ppb
Pb 220.353 {453} (Axial)	2,007.962 ppb
Sb 206.833 {463} (Axial)	2,056.140 ppb
Sn 189.989 {478} (Axial)	2,015.829 ppb
Cd 228.802 {447} (Axial)	1,993.850 ppb
Ag 328.068 {103} (Axial)	479.721 ppb
Mo 202.030 {467} (Axial)	2,034.861 ppb
Mn 257.610 {131} (Axial)	1,875.508 ppb
Fe 259.940 {130} (Axial)	1,959.703 ppb
Co 228.616 {447} (Axial)	1,930.502 ppb
Ni 221.647 {452} (Axial)	2,062.384 ppb
Cu 324.754 {104} (Axial)	1,868.395 ppb
B 249.773 {135} (Axial)	2,018.341 ppb
Al 396.152 {85} (Axial)	2,107.686 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	1,977.557 ppb
Na 589.592 {57} (Radial)	2,054.177 ppb
Sr 407.771 {83} (Radial)	1,888.875 ppb
Ca 317.933 {106} (Axial)	2,024.189 ppb
Mg 279.079 {121} (Axial)	1,976.297 ppb
Zn 206.200 {463} (Axial)	2,012.474 ppb
Cr 267.716 {126} (Axial)	2,008.411 ppb
Si 251.611 {134} (Axial)	6,784.138 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	2,003.905 ppb
As 193.759 {474} (Axial)	2,008.825 ppb
Se 196.090 {472} (Axial)	2,006.811 ppb
Se 203.985 {465} (Axial)	2,004.982 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	1,897.446 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,007.962 ppb

240702086-001D

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:42:20 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.089 ppb
K 766.490 {44} (Axial)	3,467.632 ppb
Ba 455.403 {74} (Axial)	131.054 ppb
Pb 220.353 {453} (Axial)	3.245 ppb
Sb 206.833 {463} (Axial)	11.899 ppb
Sn 189.989 {478} (Axial)	0.040 ppb
Cd 228.802 {447} (Axial)	1.446 ppb
Ag 328.068 {103} (Axial)	2.813 ppb
Mo 202.030 {467} (Axial)	13.930 ppb
Mn 257.610 {131} (Axial)	4.656 ppb
Fe 259.940 {130} (Axial)	55.989 ppb
Co 228.616 {447} (Axial)	0.029 ppb
Ni 221.647 {452} (Axial)	3.530 ppb
Cu 324.754 {104} (Axial)	23.065 ppb
B 249.773 {135} (Axial)	36.602 ppb
Al 396.152 {85} (Axial)	16.758 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.491 ppb
Na 589.592 {57} (Radial)	256,754.539 ppb
Sr 407.771 {83} (Radial)	405.384 ppb
Ca 317.933 {106} (Axial)	70,931.512 ppb
Mg 279.079 {121} (Axial)	15,596.829 ppb
Zn 206.200 {463} (Axial)	68.701 ppb
Cr 267.716 {126} (Axial)	-2.349 ppb
Si 251.611 {134} (Axial)	9,514.037 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.639 ppb
As 193.759 {474} (Axial)	0.807 ppb
Se 196.090 {472} (Axial)	3.597 ppb
Se 203.985 {465} (Axial)	0.837 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	94.800 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	3.245 ppb

240702087-001D

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:47:27 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.051 ppb
K 766.490 {44} (Axial)	2,213.994 ppb
Ba 455.403 {74} (Axial)	68.488 ppb
Pb 220.353 {453} (Axial)	2.541 ppb
Sb 206.833 {463} (Axial)	12.511 ppb
Sn 189.989 {478} (Axial)	-0.385 ppb
Cd 228.802 {447} (Axial)	1.490 ppb
Ag 328.068 {103} (Axial)	2.416 ppb
Mo 202.030 {467} (Axial)	9.992 ppb
Mn 257.610 {131} (Axial)	2.193 ppb
Fe 259.940 {130} (Axial)	23.303 ppb
Co 228.616 {447} (Axial)	0.053 ppb
Ni 221.647 {452} (Axial)	2.482 ppb
Cu 324.754 {104} (Axial)	18.827 ppb
B 249.773 {135} (Axial)	28.864 ppb
Al 396.152 {85} (Axial)	16.294 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.082 ppb
Na 589.592 {57} (Radial)	278,504.111 ppb
Sr 407.771 {83} (Radial)	251.411 ppb
Ca 317.933 {106} (Axial)	43,086.735 ppb
Mg 279.079 {121} (Axial)	9,239.811 ppb
Zn 206.200 {463} (Axial)	52.401 ppb
Cr 267.716 {126} (Axial)	-2.788 ppb
Si 251.611 {134} (Axial)	5,620.153 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.902 ppb
As 193.759 {474} (Axial)	-0.529 ppb
Se 196.090 {472} (Axial)	-2.195 ppb
Se 203.985 {465} (Axial)	-3.331 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	82.964 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.541 ppb

240702087-001D

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:52:34 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.001 ppb
K 766.490 {44} (Axial)	6,362.841 ppb
Ba 455.403 {74} (Axial)	296.388 ppb
Pb 220.353 {453} (Axial)	5.689 ppb
Sb 206.833 {463} (Axial)	12.242 ppb
Sn 189.989 {478} (Axial)	-0.326 ppb
Cd 228.802 {447} (Axial)	1.374 ppb
Ag 328.068 {103} (Axial)	2.340 ppb
Mo 202.030 {467} (Axial)	5.857 ppb
Mn 257.610 {131} (Axial)	9.538 ppb
Fe 259.940 {130} (Axial)	128.495 ppb
Co 228.616 {447} (Axial)	0.247 ppb
Ni 221.647 {452} (Axial)	6.234 ppb
Cu 324.754 {104} (Axial)	30.863 ppb
B 249.773 {135} (Axial)	46.358 ppb
Al 396.152 {85} (Axial)	24.949 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.010 ppb
Na 589.592 {57} (Radial)	191,214.799 ppb
Sr 407.771 {83} (Radial)	811.273 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	31,875.027 ppb
Zn 206.200 {463} (Axial)	116.747 ppb
Cr 267.716 {126} (Axial)	-0.935 ppb
Si 251.611 {134} (Axial)	19,507.064 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.762 ppb
As 193.759 {474} (Axial)	1.977 ppb
Se 196.090 {472} (Axial)	-3.343 ppb
Se 203.985 {465} (Axial)	-9.769 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	138.630 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	5.689 ppb

MBLK

Analysis Type: UNKNOWN Analysis started at: 7/2/2024 11:57:44 PM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.016 ppb
K 766.490 {44} (Axial)	3.788 ppb
Ba 455.403 {74} (Axial)	1.147 ppb
Pb 220.353 {453} (Axial)	1.750 ppb
Sb 206.833 {463} (Axial)	12.856 ppb
Sn 189.989 {478} (Axial)	-1.092 ppb
Cd 228.802 {447} (Axial)	1.357 ppb
Ag 328.068 {103} (Axial)	2.677 ppb
Mo 202.030 {467} (Axial)	0.668 ppb
Mn 257.610 {131} (Axial)	0.407 ppb
Fe 259.940 {130} (Axial)	2.786 ppb
Co 228.616 {447} (Axial)	-0.090 ppb
Ni 221.647 {452} (Axial)	-0.385 ppb
Cu 324.754 {104} (Axial)	-2.486 ppb
B 249.773 {135} (Axial)	0.165 ppb
Al 396.152 {85} (Axial)	-2.043 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.702 ppb
Na 589.592 {57} (Radial)	18.028 ppb
Sr 407.771 {83} (Radial)	1.695 ppb
Ca 317.933 {106} (Axial)	-5.792 ppb
Mg 279.079 {121} (Axial)	-0.213 ppb
Zn 206.200 {463} (Axial)	-0.330 ppb
Cr 267.716 {126} (Axial)	-4.017 ppb
Si 251.611 {134} (Axial)	11.460 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.135 ppb
As 193.759 {474} (Axial)	-1.169 ppb
Se 196.090 {472} (Axial)	-4.889 ppb
Se 203.985 {465} (Axial)	-7.757 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	6.186 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.750 ppb

CCV

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:02:40 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	2,103.394 ppb
K 766.490 {44} (Axial)	10,348.369 ppb
Ba 455.403 {74} (Axial)	1,976.524 ppb
Pb 220.353 {453} (Axial)	2,139.849 ppb
Sb 206.833 {463} (Axial)	2,186.719 ppb
Sn 189.989 {478} (Axial)	2,144.677 ppb
Cd 228.802 {447} (Axial)	2,128.988 ppb
Ag 328.068 {103} (Axial)	480.416 ppb
Mo 202.030 {467} (Axial)	2,174.622 ppb
Mn 257.610 {131} (Axial)	2,004.578 ppb
Fe 259.940 {130} (Axial)	2,117.678 ppb
Co 228.616 {447} (Axial)	2,064.229 ppb
Ni 221.647 {452} (Axial)	2,105.972 ppb
Cu 324.754 {104} (Axial)	2,006.472 ppb
B 249.773 {135} (Axial)	2,157.919 ppb
Al 396.152 {85} (Axial)	2,148.966 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,126.285 ppb
Na 589.592 {57} (Radial)	2,104.334 ppb
Sr 407.771 {83} (Radial)	2,035.256 ppb
Ca 317.933 {106} (Axial)	2,182.848 ppb
Mg 279.079 {121} (Axial)	2,134.092 ppb
Zn 206.200 {463} (Axial)	2,148.465 ppb
Cr 267.716 {126} (Axial)	2,154.772 ppb
Si 251.611 {134} (Axial)	7,289.592 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	2,138.395 ppb
As 193.759 {474} (Axial)	2,145.342 ppb
Se 196.090 {472} (Axial)	2,137.118 ppb
Se 203.985 {465} (Axial)	2,134.397 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,103.153 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,139.849 ppb

CCB

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:08:01 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.071 ppb
K 766.490 {44} (Axial)	0.573 ppb
Ba 455.403 {74} (Axial)	1.124 ppb
Pb 220.353 {453} (Axial)	1.419 ppb
Sb 206.833 {463} (Axial)	12.185 ppb
Sn 189.989 {478} (Axial)	-0.889 ppb
Cd 228.802 {447} (Axial)	1.277 ppb
Ag 328.068 {103} (Axial)	2.552 ppb
Mo 202.030 {467} (Axial)	6.776 ppb
Mn 257.610 {131} (Axial)	0.466 ppb
Fe 259.940 {130} (Axial)	2.863 ppb
Co 228.616 {447} (Axial)	-0.100 ppb
Ni 221.647 {452} (Axial)	-0.346 ppb
Cu 324.754 {104} (Axial)	-2.358 ppb
B 249.773 {135} (Axial)	1.392 ppb
Al 396.152 {85} (Axial)	-1.458 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.535 ppb
Na 589.592 {57} (Radial)	3.096 ppb
Sr 407.771 {83} (Radial)	1.635 ppb
Ca 317.933 {106} (Axial)	-6.590 ppb
Mg 279.079 {121} (Axial)	0.127 ppb
Zn 206.200 {463} (Axial)	-0.126 ppb
Cr 267.716 {126} (Axial)	-4.039 ppb
Si 251.611 {134} (Axial)	9.994 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.023 ppb
As 193.759 {474} (Axial)	-0.335 ppb
Se 196.090 {472} (Axial)	0.914 ppb
Se 203.985 {465} (Axial)	-1.210 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	10.760 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.419 ppb

LCS

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:12:58 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	1,977.636 ppb
K 766.490 {44} (Axial)	9,731.074 ppb
Ba 455.403 {74} (Axial)	1,838.820 ppb
Pb 220.353 {453} (Axial)	1,993.153 ppb
Sb 206.833 {463} (Axial)	2,040.842 ppb
Sn 189.989 {478} (Axial)	1,993.508 ppb
Cd 228.802 {447} (Axial)	1,987.358 ppb
Ag 328.068 {103} (Axial)	449.273 ppb
Mo 202.030 {467} (Axial)	2,023.048 ppb
Mn 257.610 {131} (Axial)	1,888.257 ppb
Fe 259.940 {130} (Axial)	1,965.744 ppb
Co 228.616 {447} (Axial)	1,921.674 ppb
Ni 221.647 {452} (Axial)	2,049.322 ppb
Cu 324.754 {104} (Axial)	1,864.026 ppb
B 249.773 {135} (Axial)	2,023.195 ppb
Al 396.152 {85} (Axial)	2,106.335 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	1,977.233 ppb
Na 589.592 {57} (Radial)	2,001.569 ppb
Sr 407.771 {83} (Radial)	1,903.004 ppb
Ca 317.933 {106} (Axial)	2,034.350 ppb
Mg 279.079 {121} (Axial)	1,988.393 ppb
Zn 206.200 {463} (Axial)	1,996.497 ppb
Cr 267.716 {126} (Axial)	2,012.520 ppb
Si 251.611 {134} (Axial)	6,763.164 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	1,996.781 ppb
As 193.759 {474} (Axial)	2,001.474 ppb
Se 196.090 {472} (Axial)	1,989.061 ppb
Se 203.985 {465} (Axial)	1,989.880 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	1,937.694 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1,993.153 ppb

240702086-001E

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:18:18 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.136 ppb
K 766.490 {44} (Axial)	3,315.549 ppb
Ba 455.403 {74} (Axial)	123.828 ppb
Pb 220.353 {453} (Axial)	4.006 ppb
Sb 206.833 {463} (Axial)	12.000 ppb
Sn 189.989 {478} (Axial)	0.478 ppb
Cd 228.802 {447} (Axial)	1.487 ppb
Ag 328.068 {103} (Axial)	2.705 ppb
Mo 202.030 {467} (Axial)	13.815 ppb
Mn 257.610 {131} (Axial)	2.573 ppb
Fe 259.940 {130} (Axial)	27.583 ppb
Co 228.616 {447} (Axial)	0.053 ppb
Ni 221.647 {452} (Axial)	3.410 ppb
Cu 324.754 {104} (Axial)	20.092 ppb
B 249.773 {135} (Axial)	36.297 ppb
Al 396.152 {85} (Axial)	14.287 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.340 ppb
Na 589.592 {57} (Radial)	247,795.464 ppb
Sr 407.771 {83} (Radial)	388.656 ppb
Ca 317.933 {106} (Axial)	66,307.849 ppb
Mg 279.079 {121} (Axial)	14,834.674 ppb
Zn 206.200 {463} (Axial)	63.498 ppb
Cr 267.716 {126} (Axial)	-2.761 ppb
Si 251.611 {134} (Axial)	9,134.229 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.872 ppb
As 193.759 {474} (Axial)	1.136 ppb
Se 196.090 {472} (Axial)	4.350 ppb
Se 203.985 {465} (Axial)	0.093 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	128.628 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	4.006 ppb

240702087-001E

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:23:26 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.079 ppb
K 766.490 {44} (Axial)	2,157.486 ppb
Ba 455.403 {74} (Axial)	65.674 ppb
Pb 220.353 {453} (Axial)	2.228 ppb
Sb 206.833 {463} (Axial)	12.671 ppb
Sn 189.989 {478} (Axial)	-0.273 ppb
Cd 228.802 {447} (Axial)	1.392 ppb
Ag 328.068 {103} (Axial)	2.465 ppb
Mo 202.030 {467} (Axial)	10.039 ppb
Mn 257.610 {131} (Axial)	0.933 ppb
Fe 259.940 {130} (Axial)	18.543 ppb
Co 228.616 {447} (Axial)	0.117 ppb
Ni 221.647 {452} (Axial)	2.310 ppb
Cu 324.754 {104} (Axial)	17.557 ppb
B 249.773 {135} (Axial)	28.326 ppb
Al 396.152 {85} (Axial)	15.234 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	0.384 ppb
Na 589.592 {57} (Radial)	265,832.153 ppb
Sr 407.771 {83} (Radial)	238.301 ppb
Ca 317.933 {106} (Axial)	41,381.389 ppb
Mg 279.079 {121} (Axial)	8,910.055 ppb
Zn 206.200 {463} (Axial)	50.893 ppb
Cr 267.716 {126} (Axial)	-3.042 ppb
Si 251.611 {134} (Axial)	5,453.304 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.044 ppb
As 193.759 {474} (Axial)	-0.173 ppb
Se 196.090 {472} (Axial)	-2.735 ppb
Se 203.985 {465} (Axial)	-4.892 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	98.535 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2.228 ppb

240702088-001E

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:28:35 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.023 ppb
K 766.490 {44} (Axial)	6,349.356 ppb
Ba 455.403 {74} (Axial)	290.686 ppb
Pb 220.353 {453} (Axial)	5.576 ppb
Sb 206.833 {463} (Axial)	12.185 ppb
Sn 189.989 {478} (Axial)	-0.450 ppb
Cd 228.802 {447} (Axial)	1.376 ppb
Ag 328.068 {103} (Axial)	2.510 ppb
Mo 202.030 {467} (Axial)	5.740 ppb
Mn 257.610 {131} (Axial)	6.960 ppb
Fe 259.940 {130} (Axial)	29.231 ppb
Co 228.616 {447} (Axial)	0.072 ppb
Ni 221.647 {452} (Axial)	5.625 ppb
Cu 324.754 {104} (Axial)	16.944 ppb
B 249.773 {135} (Axial)	46.681 ppb
Al 396.152 {85} (Axial)	17.315 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.216 ppb
Na 589.592 {57} (Radial)	188,374.996 ppb
Sr 407.771 {83} (Radial)	802.525 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	31,600.912 ppb
Zn 206.200 {463} (Axial)	84.457 ppb
Cr 267.716 {126} (Axial)	-2.824 ppb
Si 251.611 {134} (Axial)	19,693.538 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-0.762 ppb
As 193.759 {474} (Axial)	2.414 ppb
Se 196.090 {472} (Axial)	-4.688 ppb
Se 203.985 {465} (Axial)	-6.512 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	153.407 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	5.576 ppb

CRI

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:33:47 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	9.702 ppb
K 766.490 {44} (Axial)	3.607 ppb
Ba 455.403 {74} (Axial)	1.175 ppb
Pb 220.353 {453} (Axial)	8.289 ppb
Sb 206.833 {463} (Axial)	134.691 ppb
Sn 189.989 {478} (Axial)	0.441 ppb
Cd 228.802 {447} (Axial)	10.923 ppb
Ag 328.068 {103} (Axial)	21.090 ppb
Mo 202.030 {467} (Axial)	2.280 ppb
Mn 257.610 {131} (Axial)	29.750 ppb
Fe 259.940 {130} (Axial)	9.712 ppb
Co 228.616 {447} (Axial)	96.120 ppb
Ni 221.647 {452} (Axial)	81.603 ppb
Cu 324.754 {104} (Axial)	46.990 ppb
B 249.773 {135} (Axial)	0.824 ppb
Al 396.152 {85} (Axial)	47.917 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	96.720 ppb
Na 589.592 {57} (Radial)	1,060.969 ppb
Sr 407.771 {83} (Radial)	1.603 ppb
Ca 317.933 {106} (Axial)	16.812 ppb
Mg 279.079 {121} (Axial)	2.500 ppb
Zn 206.200 {463} (Axial)	42.072 ppb
Cr 267.716 {126} (Axial)	16.287 ppb
Si 251.611 {134} (Axial)	15.159 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	22.215 ppb
As 193.759 {474} (Axial)	18.521 ppb
Se 196.090 {472} (Axial)	9.807 ppb
Se 203.985 {465} (Axial)	9.402 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	-12.245 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	8.289 ppb

ICSA

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:38:45 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	-0.130 ppb
K 766.490 {44} (Axial)	33.010 ppb
Ba 455.403 {74} (Axial)	4.710 ppb
Pb 220.353 {453} (Axial)	-0.731 ppb
Sb 206.833 {463} (Axial)	1.359 ppb
Sn 189.989 {478} (Axial)	6.945 ppb
Cd 228.802 {447} (Axial)	-1.262 ppb
Ag 328.068 {103} (Axial)	-2.934 ppb
Mo 202.030 {467} (Axial)	0.297 ppb
Mn 257.610 {131} (Axial)	4.145 ppb
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	0.784 ppb
Ni 221.647 {452} (Axial)	4.400 ppb
Cu 324.754 {104} (Axial)	2.058 ppb
B 249.773 {135} (Axial)	173.186 ppb
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-2.072 ppb
Na 589.592 {57} (Radial)	979.441 ppb
Sr 407.771 {83} (Radial)	9.757 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	442,773.978 ppb
Zn 206.200 {463} (Axial)	11.130 ppb
Cr 267.716 {126} (Axial)	-4.896 ppb
Si 251.611 {134} (Axial)	-4.603 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-2.478 ppb
As 193.759 {474} (Axial)	-0.292 ppb
Se 196.090 {472} (Axial)	-0.178 ppb
Se 203.985 {465} (Axial)	-0.682 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	101.374 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	-0.731 ppb

ICSAB

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:43:56 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	484.180 ppb
K 766.490 {44} (Axial)	27.753 ppb
Ba 455.403 {74} (Axial)	413.919 ppb
Pb 220.353 {453} (Axial)	985.921 ppb
Sb 206.833 {463} (Axial)	3.108 ppb
Sn 189.989 {478} (Axial)	-0.360 ppb
Cd 228.802 {447} (Axial)	882.642 ppb
Ag 328.068 {103} (Axial)	818.529 ppb
Mo 202.030 {467} (Axial)	-0.721 ppb
Mn 257.610 {131} (Axial)	414.849 ppb
Fe 259.940 {130} (Axial)	N/A
Co 228.616 {447} (Axial)	417.768 ppb
Ni 221.647 {452} (Axial)	882.868 ppb
Cu 324.754 {104} (Axial)	481.188 ppb
B 249.773 {135} (Axial)	178.981 ppb
Al 396.152 {85} (Axial)	N/A
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	441.041 ppb
Na 589.592 {57} (Radial)	830.076 ppb
Sr 407.771 {83} (Radial)	9.799 ppb
Ca 317.933 {106} (Axial)	N/A
Mg 279.079 {121} (Axial)	452,770.727 ppb
Zn 206.200 {463} (Axial)	889.216 ppb
Cr 267.716 {126} (Axial)	442.883 ppb
Si 251.611 {134} (Axial)	-4.854 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	-1.267 ppb
As 193.759 {474} (Axial)	- 0.801 ppb
Se 196.090 {472} (Axial)	- 0.509 ppb
Se 203.985 {465} (Axial)	0.226 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	105.366 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	985.921 ppb

CCV

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:49:18 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	2,042.552 ppb
K 766.490 {44} (Axial)	9,981.553 ppb
Ba 455.403 {74} (Axial)	1,879.083 ppb
Pb 220.353 {453} (Axial)	2,046.607 ppb
Sb 206.833 {463} (Axial)	2,059.872 ppb
Sn 189.989 {478} (Axial)	2,037.419 ppb
Cd 228.802 {447} (Axial)	2,051.281 ppb
Ag 328.068 {103} (Axial)	461.881 ppb
Mo 202.030 {467} (Axial)	2,078.544 ppb
Mn 257.610 {131} (Axial)	1,958.527 ppb
Fe 259.940 {130} (Axial)	2,044.551 ppb
Co 228.616 {447} (Axial)	1,978.003 ppb
Ni 221.647 {452} (Axial)	2,079.958 ppb
Cu 324.754 {104} (Axial)	1,906.024 ppb
B 249.773 {135} (Axial)	2,045.698 ppb
Al 396.152 {85} (Axial)	2,149.724 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	2,016.663 ppb
Na 589.592 {57} (Radial)	2,084.625 ppb
Sr 407.771 {83} (Radial)	1,948.691 ppb
Ca 317.933 {106} (Axial)	2,101.713 ppb
Mg 279.079 {121} (Axial)	2,046.922 ppb
Zn 206.200 {463} (Axial)	2,057.528 ppb
Cr 267.716 {126} (Axial)	2,053.918 ppb
Si 251.611 {134} (Axial)	10,783.701 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	2,049.419 ppb
As 193.759 {474} (Axial)	2,042.440 ppb
Se 196.090 {472} (Axial)	2,041.948 ppb
Se 203.985 {465} (Axial)	2,047.939 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	2,010.707 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	2,046.607 ppb

CCB

Analysis Type: UNKNOWN Analysis started at: 7/3/2024 12:54:40 AM

Standard DF: 1

	Concentration average
Be 313.042 {108} (Axial)	0.076 ppb
K 766.490 {44} (Axial)	-1.310 ppb
Ba 455.403 {74} (Axial)	1.129 ppb
Pb 220.353 {453} (Axial)	1.698 ppb
Sb 206.833 {463} (Axial)	2.656 ppb
Sn 189.989 {478} (Axial)	-0.668 ppb
Cd 228.802 {447} (Axial)	1.345 ppb
Ag 328.068 {103} (Axial)	2.619 ppb
Mo 202.030 {467} (Axial)	7.312 ppb
Mn 257.610 {131} (Axial)	0.484 ppb
Fe 259.940 {130} (Axial)	2.816 ppb
Co 228.616 {447} (Axial)	-0.090 ppb
Ni 221.647 {452} (Axial)	-0.306 ppb
Cu 324.754 {104} (Axial)	-2.398 ppb
B 249.773 {135} (Axial)	1.207 ppb
Al 396.152 {85} (Axial)	-1.609 ppb
Ti 336.121 {100} (Axial)	N/A
V 292.402 {115} (Axial)	-0.396 ppb
Na 589.592 {57} (Radial)	12.240 ppb
Sr 407.771 {83} (Radial)	1.810 ppb
Ca 317.933 {106} (Axial)	-5.944 ppb
Mg 279.079 {121} (Axial)	-0.953 ppb
Zn 206.200 {463} (Axial)	-0.036 ppb
Cr 267.716 {126} (Axial)	-4.125 ppb
Si 251.611 {134} (Axial)	10.084 ppb
Hf 277.336 {122} (Axial)	N/A
Ce 404.076 {83} (Axial)	N/A
Ru 240.272 {140} (Axial)	N/A
Zr 343.823 {98} (Axial)	N/A
Tl 190.864 {477} (Axial)	0.145 ppb
As 193.759 {474} (Axial)	-0.492 ppb
Se 196.090 {472} (Axial)	-1.469 ppb
Se 203.985 {465} (Axial)	-1.482 ppb
S 180.731 {487} (Axial)	N/A
Ga 294.364 {115} (Axial)	N/A
Os 225.585 {449} (Axial)	N/A
Au 242.795 {139} (Axial)	N/A
Bi 306.770 {110} (Axial)	N/A
Li 670.784 {50} (Radial)	6.658 ppb
In 230.606 {446} (Axial)	N/A
Pb 220.353 {453} (Axial) (2)	1.698 ppb

Adirondack Environmental Services, Inc

PREP BATCH REPORT

Prep Start Date: **6/26/2024 11:34:04**
Prep End Date: **6/26/2024 1:34:00 P**

Comments: Temp: 95 Start time: 1134 End time: 1334

Prep Factor Units: **mL / mL**

Prep Batch **109732** Prep Code: **HG_PREP** Technician: **Anna Fonda**

Sample ID	Matrix	pH	ResCl	SampAmt	Sol Added	Fin Vol	factor	PrepStart	PrepEnd	ExPos	TareWt	CleanUp
MB-109732				50	0	50	1.000	6/26/2024	6/26/2024		0	
LCS-109732				50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-001A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-002A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-003A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-003ADP	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-003AMS	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-004A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	

Number	Reagent Name
8801	Hot Block Digestion Vessels - 100m
8825	Nitric Acid, ACS
8950	Sulfuric Acid

Solution ID	Solution Name	SampType	AmtAdd	units
MR-HYDROXYL	Hydroxlamine, 12%		3	ml
MR-KMNO4 5%-	Potassium Permanganate		7.5	ml
MR-POTASSIU	Potassium Persulfate, 5%		4	ml
MSP-HG 0.1 PP	0.1 PPM Hg		1	ml

Adirondack Environmental Services, Inc

PREP BATCH REPORT

Prep Start Date: **6/26/2024 9:17:41 A**
Prep End Date: **6/26/2024 10:47:00**

Comments: Temp: 95 Start time: 917 End time: 1047

Prep Factor Units: **mL / mL**

Prep Batch **109718** Prep Code: **3010CLP** Technician: **Anna Fonda**

Sample ID	Matrix	pH	ResCl	SampAmt	Sol Added	Fin Vol	factor	PrepStart	PrepEnd	ExPos	TareWt	CleanUp
MB-109718				50	0	50	1.000	6/26/2024	6/26/2024		0	
LCS-109718				50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-001A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-002A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-003A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-003ADP	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-003AMS	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	
240625028-004A	Groundwater	1		50	0	50	1.000	6/26/2024	6/26/2024		0	

Number	Reagent Name
8825	Nitric Acid, ACS
8847	Hydrochoric Acid
8800	Hot Block Digestion Vessels - 50mL

Solution ID	Solution Name	SampType	AmtAdd	units
8746	M-ICP-SSWS-M		0.5	ml
MWS-200.7-6-14	200.7-6		50	ml

Sample Information

Client Sample ID: 240625028-001C

York Sample ID: 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**5.35**		ng/L	0.434	1.64	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**6.94**		ng/L	0.323	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-85-9	**Perfluoroheptanoic acid (PFHpA)**	**1.93**		ng/L	0.656	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
355-46-4	**Perfluorohexanesulfonic acid (PFHxS)**	**0.892**	J	ng/L	0.628	1.69	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
335-67-1	**Perfluorooctanoic acid (PFOA)**	**6.15**		ng/L	0.388	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.758	1.72	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.480	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.693	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.04	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.813	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.684	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.637	1.85	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.730	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.952	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**5.66**		ng/L	0.212	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.813	1.85	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.841	1.76	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.22	1.78	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	0.979	7.02	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.89	7.09	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**2.50**	J	ng/L	0.305	7.39	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.462	3.29	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM

Sample Information

Client Sample ID: 240625028-001C **York Sample ID:** 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.98	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND	PF-LCS-L	ng/L	0.231	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.342	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.702	1.74	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.65	6.93	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.98	7.39	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.27	6.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.647	6.91	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
919005-14-4	ADONA	ND		ng/L	0.490	6.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.859	1.79	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.794	1.77	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.88	4.62	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	6.77	23.1	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	8.75	23.1	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.69	18.5	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.46	1.85	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.69	18.5	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.66	1.85	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*132 %*	*25-150*
Surrogate: M5PFHxA	*127 %*	*25-150*
Surrogate: M4PFHpA	*138 %*	*25-150*
Surrogate: M3PFHxS	*121 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*119 %*	*25-150*
Surrogate: M6PFDA	*132 %*	*25-150*
Surrogate: M7PFUdA	*124 %*	*25-150*

Sample Information

Client Sample ID: 240625028-001C **York Sample ID:** 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*91.7 %*			*25-150*						
	Surrogate: M2PFTeDA	*75.2 %*			*10-150*						
	Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*122 %*			*25-150*						
	Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*119 %*			*25-150*						
	Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*126 %*			*25-150*						
	Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*128 %*			*10-150*						
	Surrogate: d3-N-MeFOSAA	*113 %*			*25-150*						
	Surrogate: d5-N-EtFOSAA	*119 %*			*25-150*						
	Surrogate: M2-6:2 FTS	*115 %*			*25-200*						
	Surrogate: M2-8:2 FTS	*104 %*			*25-200*						
	Surrogate: M9PFNA	*124 %*			*25-150*						
	Surrogate: M2-4:2 FTS	*126 %*			*25-150*						
	Surrogate: d-N-MeFOSA	*74.4 %*			*25-150*						
	Surrogate: d-N-EtFOSA	*54.5 %*			*25-150*						
	Surrogate: M3HFPO-DA	*131 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*70.9 %*			*25-150*						
	Surrogate: d7-N-MeFOSE	*84.9 %*			*25-150*						

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**0.636**	J	ng/L	0.465	1.75	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**0.606**	J	ng/L	0.346	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.703	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.673	1.81	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
335-67-1	**Perfluorooctanoic acid (PFOA)**	**0.417**	J	ng/L	0.416	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.812	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.515	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.742	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.12	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.871	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.732	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.683	1.98	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.782	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2991-50-6	N-EtFOSAA	ND		ng/L	1.02	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**0.651**	J	ng/L	0.228	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.871	1.98	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.901	1.89	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.31	1.91	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**2.45**	J	ng/L	1.05	7.52	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	2.03	7.60	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**2.14**	J	ng/L	0.327	7.92	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.495	3.52	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	2.12	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND	PF-LCS-L	ng/L	0.247	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.366	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.752	1.86	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.77	7.42	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	3.20	7.92	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.37	7.48	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.693	7.40	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
919005-14-4	ADONA	ND		ng/L	0.525	7.48	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.920	1.92	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.851	1.90	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	2.01	4.95	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	7.25	24.7	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	9.37	24.7	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.95	19.8	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.56	1.98	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.95	19.8	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.78	1.98	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*155 %*	PFSu-H	*25-150*
Surrogate: M5PFHxA	*140 %*		*25-150*
Surrogate: M4PFHpA	*140 %*		*25-150*
Surrogate: M3PFHxS	*140 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*127 %*		*25-150*
Surrogate: M6PFDA	*108 %*		*25-150*
Surrogate: M7PFUdA	*76.9 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*39.7 %*		*25-150*
Surrogate: M2PFTeDA	*22.8 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*135 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*117 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*141 %*		*25-150*

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*102 %*			*10-150*						
	Surrogate: d3-N-MeFOSAA	*91.6 %*			*25-150*						
	Surrogate: d5-N-EtFOSAA	*81.5 %*			*25-150*						
	Surrogate: M2-6:2 FTS	*120 %*			*25-200*						
	Surrogate: M2-8:2 FTS	*108 %*			*25-200*						
	Surrogate: M9PFNA	*129 %*			*25-150*						
	Surrogate: M2-4:2 FTS	*174 %*	PFSu-H		*25-150*						
	Surrogate: d-N-MeFOSA	*26.9 %*			*25-150*						
	Surrogate: d-N-EtFOSA	*17.3 %*	PFSu-L		*25-150*						
	Surrogate: M3HFPO-DA	*147 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*8.54 %*	PFSu-L		*25-150*						
	Surrogate: d7-N-MeFOSE	*15.4 %*	PFSu-L		*25-150*						

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	0.421	1.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		ng/L	0.314	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.637	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.610	1.64	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
335-67-1	Perfluorooctanoic acid (PFOA)	ND		ng/L	0.377	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.735	1.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.466	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.673	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.01	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.789	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.664	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.619	1.79	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.708	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.924	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		ng/L	0.206	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.789	1.79	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.816	1.71	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.18	1.73	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**5.74**	PF-CCV-L, J	ng/L	0.951	6.82	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.84	6.89	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.296	7.17	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.448	3.19	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.92	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.224	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.332	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.682	1.69	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.61	6.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.90	7.17	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.24	6.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.628	6.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
919005-14-4	ADONA	ND		ng/L	0.475	6.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.834	1.74	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.771	1.72	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND	PF-CCV-L	ng/L	1.82	4.48	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND	PF-CCV-L	ng/L	6.57	22.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND	PF-CCV-L	ng/L	8.49	22.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.58	17.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.42	1.79	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.58	17.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.61	1.79	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*136 %*	*25-150*
Surrogate: M5PFHxA	*132 %*	*25-150*
Surrogate: M4PFHpA	*128 %*	*25-150*
Surrogate: M3PFHxS	*137 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*128 %*	*25-150*
Surrogate: M6PFDA	*109 %*	*25-150*
Surrogate: M7PFUdA	*106 %*	*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*84.4 %*	*25-150*
Surrogate: M2PFTeDA	*46.2 %*	*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*103 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*114 %*	*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*134 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*116 %*	*10-150*
Surrogate: d3-N-MeFOSAA	*98.1 %*	*25-150*
Surrogate: d5-N-EtFOSAA	*98.2 %*	*25-150*
Surrogate: M2-6:2 FTS	*77.4 %*	*25-200*
Surrogate: M2-8:2 FTS	*86.2 %*	*25-200*
Surrogate: M9PFNA	*126 %*	*25-150*
Surrogate: M2-4:2 FTS	*75.8 %*	*25-150*
Surrogate: d-N-MeFOSA	*61.9 %*	*25-150*
Surrogate: d-N-EtFOSA	*47.0 %*	*25-150*

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: M3HFPO-DA	*110 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*37.6 %*			*25-150*						
	Surrogate: d7-N-MeFOSE	*64.5 %*			*25-150*						

Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	0.431	1.62	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		ng/L	0.321	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.651	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.624	1.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
335-67-1	Perfluorooctanoic acid (PFOA)	ND		ng/L	0.385	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.752	1.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.477	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.688	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.04	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.807	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.679	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.633	1.84	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.725	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.945	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		ng/L	0.211	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM

Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.807	1.84	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.835	1.75	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.21	1.77	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**5.65**	PF-CCV-L, J	ng/L	0.973	6.97	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.88	7.05	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.303	7.34	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.459	3.27	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.96	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.229	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.340	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.697	1.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.64	6.88	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.96	7.34	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.27	6.94	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.642	6.86	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
919005-14-4	ADONA	ND		ng/L	0.486	6.94	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.853	1.78	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.789	1.76	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND	PF-CCV-L	ng/L	1.86	4.59	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND	PF-CCV-L	ng/L	6.73	22.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND	PF-CCV-L	ng/L	8.69	22.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.66	18.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.45	1.84	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM

Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1691-99-2	* N-EtFOSE	ND		ng/L	3.66	18.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.65	1.84	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*128 %*		*25-150*
Surrogate: M5PFHxA	*133 %*		*25-150*
Surrogate: M4PFHpA	*128 %*		*25-150*
Surrogate: M3PFHxS	*125 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*129 %*		*25-150*
Surrogate: M6PFDA	*117 %*		*25-150*
Surrogate: M7PFUdA	*118 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*90.1 %*		*25-150*
Surrogate: M2PFTeDA	*62.0 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*127 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*122 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*138 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*103 %*		*10-150*
Surrogate: d3-N-MeFOSAA	*95.5 %*		*25-150*
Surrogate: d5-N-EtFOSAA	*97.0 %*		*25-150*
Surrogate: M2-6:2 FTS	*66.7 %*		*25-200*
Surrogate: M2-8:2 FTS	*75.2 %*		*25-200*
Surrogate: M9PFNA	*117 %*		*25-150*
Surrogate: M2-4:2 FTS	*55.7 %*		*25-150*
Surrogate: d-N-MeFOSA	*26.0 %*		*25-150*
Surrogate: d-N-EtFOSA	*14.3 %*	PFSu-L	*25-150*
Surrogate: M3HFPO-DA	*48.7 %*		*25-150*
Surrogate: d9-N-EtFOSE	*29.8 %*		*25-150*
Surrogate: d7-N-MeFOSE	*46.0 %*		*25-150*

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Technical Report

prepared for:

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany NY, 12207
Attention: Lisa Seypura

Report Date: 08/07/2024
Client Project ID: 240625028
York Project (SDG) No.: 24F1801

Stratford, CT Laboratory IDs:
NY:10854, NJ: CT005, PA: 68-0440, CT: PH-0723

Richmond Hill, NY Laboratory IDs:
NY:12058, NJ: NY037, CT: PH-0721, NH: 2097,
EPA: NY01600

120 RESEARCH DRIVE | STRATFORD, CT 06615 | 132-02 89th AVENUE | RICHMOND HILL, NY 11418
www.YORKLAB.com | (203) 325-1371 | FAX (203) 357-0166 | ClientServices@yorklab.com

Report Date: 08/07/2024
Client Project ID: 240625028
York Project (SDG) No.: 24F1801

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany NY, 12207
Attention: Lisa Seypura

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 27, 2024 and listed below. The project was identified as your project: **240625028**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

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

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

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
24F1801-01	240625028-001C	Ground Water	06/24/2024	06/27/2024
24F1801-02	240625028-002C	Ground Water	06/24/2024	06/27/2024
24F1801-03	240625028-003C	Ground Water	06/24/2024	06/27/2024
24F1801-04	240625028-004C	Ground Water	06/24/2024	06/27/2024

General Notes for York Project (SDG) No.: 24F1801

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854, NJ Cert No. CT005, PA Cert No. 68-04440, CT Cert No. PH-0723; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058, NJ Cert No. NY037, CT Cert No. PH-0721, NH Cert No. 2097, EPA Cert No. NY01600.

Approved By: 

Cassie L. Mosher
Laboratory Manager

Date: 08/07/2024

Sample Information

Client Sample ID: 240625028-001C

York Sample ID: 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**5.35**		ng/L	0.434	1.64	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**6.94**		ng/L	0.323	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-85-9	**Perfluoroheptanoic acid (PFHpA)**	**1.93**		ng/L	0.656	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
355-46-4	**Perfluorohexanesulfonic acid (PFHxS)**	**0.892**	J	ng/L	0.628	1.69	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-67-1	**Perfluorooctanoic acid (PFOA)**	**6.15**		ng/L	0.388	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.758	1.72	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.480	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.693	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.04	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.813	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.684	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.637	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NJDEP-NY037			
2355-31-9	N-MeFOSAA	ND		ng/L	0.730	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2991-50-6	N-EtFOSAA	ND		ng/L	0.952	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**5.66**		ng/L	0.212	3.70	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.813	1.85	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NJDEP-NY037			
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.841	1.76	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NJDEP-NY037			
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.22	1.78	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NJDEP-NY037			
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	0.979	7.02	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.89	7.09	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**2.50**	J	ng/L	0.305	7.39	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.462	3.29	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058			
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.98	3.70	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
							Certifications:	NELAC-NY12058			

Sample Information

Client Sample ID: 240625028-001C

York Sample ID: 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND	PF-LCS -L	ng/L	0.231	3.70	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.342	3.70	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.702	1.74	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.65	6.93	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.98	7.39	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.27	6.98	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.647	6.91	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
919005-14-4	ADONA	ND		ng/L	0.490	6.98	1 Certifications:	EPA 1633 Draft 3 NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.859	1.79	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.794	1.77	1 Certifications:	EPA 1633 Draft 3 NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.88	4.62	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	6.77	23.1	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	8.75	23.1	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.69	18.5	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.46	1.85	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.69	18.5	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.66	1.85	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:36	AM

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*132 %*	*25-150*
Surrogate: M5PFHxA	*127 %*	*25-150*
Surrogate: M4PFHpA	*138 %*	*25-150*
Surrogate: M3PFHxS	*121 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic aci	*119 %*	*25-150*
Surrogate: M6PFDA	*132 %*	*25-150*
Surrogate: M7PFUdA	*124 %*	*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecan	*91.7 %*	*25-150*
Surrogate: M2PFTeDA	*75.2 %*	*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic aci	*122 %*	*25-150*

Sample Information

Client Sample ID: 240625028-001C **York Sample ID:** 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: Perfluoro-1-[13C8]octanesulfon	*119 %*			*25-150*						
	Surrogate: Perfluoro-n-[13C5]pentanoic ac	*126 %*			*25-150*						
	Surrogate: Perfluoro-1-[13C8]octanesulfon	*128 %*			*10-150*						
	Surrogate: d3-N-MeFOSAA	*113 %*			*25-150*						
	Surrogate: d5-N-EtFOSAA	*119 %*			*25-150*						
	Surrogate: M2-6:2 FTS	*115 %*			*25-200*						
	Surrogate: M2-8:2 FTS	*104 %*			*25-200*						
	Surrogate: M9PFNA	*124 %*			*25-150*						
	Surrogate: M2-4:2 FTS	*126 %*			*25-150*						
	Surrogate: d-N-MeFOSA	*74.4 %*			*25-150*						
	Surrogate: d-N-EtFOSA	*54.5 %*			*25-150*						
	Surrogate: M3HFPO-DA	*131 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*70.9 %*			*25-150*						
	Surrogate: d7-N-MeFOSE	*84.9 %*			*25-150*						

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**0.636**	J	ng/L	0.465	1.75	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**0.606**	J	ng/L	0.346	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.703	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.673	1.81	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-67-1	**Perfluorooctanoic acid (PFOA)**	**0.417**	J	ng/L	0.416	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.812	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.515	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.742	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			

Sample Information

Client Sample ID: 240625028-002C

York Sample ID: 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.12	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.871	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.732	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.683	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NJDEP-NY037			
2355-31-9	N-MeFOSAA	ND		ng/L	0.782	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2991-50-6	N-EtFOSAA	ND		ng/L	1.02	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**0.651**	J	ng/L	0.228	3.96	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.871	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NJDEP-NY037			
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.901	1.89	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NJDEP-NY037			
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.31	1.91	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NJDEP-NY037			
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**2.45**	J	ng/L	1.05	7.52	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	2.03	7.60	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**2.14**	J	ng/L	0.327	7.92	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.495	3.52	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058			
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	2.12	3.96	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058			
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND	PF-LCS-L	ng/L	0.247	3.96	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058			
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.366	3.96	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058			
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.752	1.86	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.77	7.42	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	3.20	7.92	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.37	7.48	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
756426-58-1	9CL-PF3ONS	ND		ng/L	0.693	7.40	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
919005-14-4	ADONA	ND		ng/L	0.525	7.48	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.920	1.92	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.851	1.90	1 Certifications: NJDEP-NY037	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	2.01	4.95	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	7.25	24.7	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	9.37	24.7	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.95	19.8	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.56	1.98	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.95	19.8	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.78	1.98	1 Certifications:	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*155 %*	PFSu-H	*25-150*
Surrogate: M5PFHxA	*140 %*		*25-150*
Surrogate: M4PFHpA	*140 %*		*25-150*
Surrogate: M3PFHxS	*140 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic aci	*127 %*		*25-150*
Surrogate: M6PFDA	*108 %*		*25-150*
Surrogate: M7PFUdA	*76.9 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecan	*39.7 %*		*25-150*
Surrogate: M2PFTeDA	*22.8 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic aci	*135 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfon	*117 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic ac	*141 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfon	*102 %*		*10-150*
Surrogate: d3-N-MeFOSAA	*91.6 %*		*25-150*
Surrogate: d5-N-EtFOSAA	*81.5 %*		*25-150*
Surrogate: M2-6:2 FTS	*120 %*		*25-200*
Surrogate: M2-8:2 FTS	*108 %*		*25-200*
Surrogate: M9PFNA	*129 %*		*25-150*
Surrogate: M2-4:2 FTS	*174 %*	PFSu-H	*25-150*
Surrogate: d-N-MeFOSA	*26.9 %*		*25-150*
Surrogate: d-N-EtFOSA	*17.3 %*	PFSu-L	*25-150*
Surrogate: M3HFPO-DA	*147 %*		*25-150*
Surrogate: d9-N-EtFOSE	*8.54 %*	PFSu-L	*25-150*

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: d7-N-MeFOSE	*15.4 %*	PFSu-L		*25-150*						

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	0.421	1.59	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		ng/L	0.314	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.637	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.610	1.64	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-67-1	Perfluorooctanoic acid (PFOA)	ND		ng/L	0.377	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.735	1.67	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.466	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.673	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.01	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.789	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.664	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.619	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NJDEP-NY037			
2355-31-9	N-MeFOSAA	ND		ng/L	0.708	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2991-50-6	N-EtFOSAA	ND		ng/L	0.924	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		ng/L	0.206	3.59	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.789	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM
							Certifications:	NJDEP-NY037			

Sample Information

Client Sample ID: 240625028-003C

York Sample ID: 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.816	1.71	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.18	1.73	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**5.74**	PF-CCV-L, J	ng/L	0.951	6.82	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.84	6.89	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.296	7.17	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.448	3.19	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.92	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.224	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.332	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.682	1.69	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.61	6.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.90	7.17	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.24	6.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.628	6.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
919005-14-4	ADONA	ND		ng/L	0.475	6.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.834	1.74	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.771	1.72	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND	PF-CCV-L	ng/L	1.82	4.48	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND	PF-CCV-L	ng/L	6.57	22.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND	PF-CCV-L	ng/L	8.49	22.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.58	17.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.42	1.79	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.58	17.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
4151-50-2	* N-EtFOSA	ND		ng/L	1.61	1.79	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 13:41	AM

Certifications:

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*136 %*	*25-150*
Surrogate: M5PFHxA	*132 %*	*25-150*
Surrogate: M4PFHpA	*128 %*	*25-150*
Surrogate: M3PFHxS	*137 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic aci	*128 %*	*25-150*
Surrogate: M6PFDA	*109 %*	*25-150*
Surrogate: M7PFUdA	*106 %*	*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecan	*84.4 %*	*25-150*
Surrogate: M2PFTeDA	*46.2 %*	*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic aci	*103 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfon	*114 %*	*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic ac	*134 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfon	*116 %*	*10-150*
Surrogate: d3-N-MeFOSAA	*98.1 %*	*25-150*
Surrogate: d5-N-EtFOSAA	*98.2 %*	*25-150*
Surrogate: M2-6:2 FTS	*77.4 %*	*25-200*
Surrogate: M2-8:2 FTS	*86.2 %*	*25-200*
Surrogate: M9PFNA	*126 %*	*25-150*
Surrogate: M2-4:2 FTS	*75.8 %*	*25-150*
Surrogate: d-N-MeFOSA	*61.9 %*	*25-150*
Surrogate: d-N-EtFOSA	*47.0 %*	*25-150*
Surrogate: M3HFPO-DA	*110 %*	*25-150*
Surrogate: d9-N-EtFOSE	*37.6 %*	*25-150*
Surrogate: d7-N-MeFOSE	*64.5 %*	*25-150*

Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	0.431	1.62	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM

Certifications: NELAC-NY12058,NJDEP-NY037

Sample Information

Client Sample ID: 240625028-004C

York Sample ID: 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		ng/L	0.321	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.651	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.624	1.68	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-67-1	Perfluorooctanoic acid (PFOA)	ND		ng/L	0.385	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.752	1.71	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.477	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.688	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.04	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.807	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.679	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.633	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NJDEP-NY037			
2355-31-9	N-MeFOSAA	ND		ng/L	0.725	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2991-50-6	N-EtFOSAA	ND		ng/L	0.945	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		ng/L	0.211	3.67	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.807	1.84	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NJDEP-NY037			
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.835	1.75	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NJDEP-NY037			
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.21	1.77	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NJDEP-NY037			
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**5.65**	PF-CCV-L, J	ng/L	0.973	6.97	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.88	7.05	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.303	7.34	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058,NJDEP-NY037			
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.459	3.27	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058			
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.96	3.67	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058			
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND		ng/L	0.229	3.67	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 14:30	AM
							Certifications:	NELAC-NY12058			

Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.340	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.697	1.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.64	6.88	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.96	7.34	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.27	6.94	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.642	6.86	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
919005-14-4	ADONA	ND		ng/L	0.486	6.94	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.853	1.78	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.789	1.76	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND	PF-CCV-L	ng/L	1.86	4.59	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND	PF-CCV-L	ng/L	6.73	22.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND	PF-CCV-L	ng/L	8.69	22.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.66	18.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.45	1.84	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.66	18.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.65	1.84	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*128 %*	*25-150*
Surrogate: M5PFHxA	*133 %*	*25-150*
Surrogate: M4PFHpA	*128 %*	*25-150*
Surrogate: M3PFHxS	*125 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic aci	*129 %*	*25-150*
Surrogate: M6PFDA	*117 %*	*25-150*
Surrogate: M7PFUdA	*118 %*	*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecan	*90.1 %*	*25-150*
Surrogate: M2PFTeDA	*62.0 %*	*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic aci	*127 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfon	*122 %*	*25-150*

Sample Information

Client Sample ID: 240625028-004C

York Sample ID: 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: Perfluoro-n-[13C5]pentanoic ac	*138 %*			*25-150*						
	Surrogate: Perfluoro-1-[13C8]octanesulfon	*103 %*			*10-150*						
	Surrogate: d3-N-MeFOSAA	*95.5 %*			*25-150*						
	Surrogate: d5-N-EtFOSAA	*97.0 %*			*25-150*						
	Surrogate: M2-6:2 FTS	*66.7 %*			*25-200*						
	Surrogate: M2-8:2 FTS	*75.2 %*			*25-200*						
	Surrogate: M9PFNA	*117 %*			*25-150*						
	Surrogate: M2-4:2 FTS	*55.7 %*			*25-150*						
	Surrogate: d-N-MeFOSA	*26.0 %*			*25-150*						
	Surrogate: d-N-EtFOSA	*14.3 %*	PFSu-L		*25-150*						
	Surrogate: M3HFPO-DA	*48.7 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*29.8 %*			*25-150*						
	Surrogate: d7-N-MeFOSE	*46.0 %*			*25-150*						

York Narrative Contents Summary

This Work Order Narrative includes the following items for full review of any quality issues encountered with samples and their analyses for the parameters requested:

1. Sample Receipt Information, including a Sample Summary which cross references your sample ID with York Analytical sample ID, identifying the matrix and Date/Time collected and received at York.
2. Analysis Methodologies employed for the work order
3. Any Sample Issues encountered such as Holding time exceedances, improper containers/preservation, or any related issue with sample integrity
4. Specific Analysis Findings in order: Volatiles, Semi-Volatiles, Pesticides/PCBs, Herbicides, other GC parameters, Metals, Mercury, Wet Chemistry.
5. Analysis Findings Include:

    - Analyte qualifier summary
    - Samples and associated Calibration Curve(s)
    - Calibration Outliers Discussion/Tabular presentation and affected samples
    - Initial Calibration Verification (ICV) information
    - Batch QC Sample Performance (Blanks, Blank Spikes (BS), MS/MSD)
    - Internal Standard Performance
    - Surrogate Performance
    - Example Calculations

Work Order Narrative

York Analytical Work Order No.: 24F1801

Client : Adirondack Environmental Services, Inc.

Client Project ID : 240625028

Prepared for : Lisa Seypura

1.0) Introduction

This work order Narrative applies to the following samples submitted to our laboratory on: 06/27/2024 9:35 AM

4 sample(s) were received intact in a custody-sealed cooler(s) unless otherwise noted. Upon receipt, cooler temperature(s) was determined using a NIST traceable digital infrared thermometer. The cooler temperature was acceptable (<= 6 °C)
and documented as: **{4.3}°C**

Sample Summary

SampleName	Lab Number	Matrix	Date Collected	Date Received
240625028-001C	24F1801-01	Water	06/24/2024 11:35 AM	06/27/2024 9:35 AM
240625028-002C	24F1801-02	Water	06/24/2024 3:30 PM	06/27/2024 9:35 AM
240625028-003C	24F1801-03	Water	06/24/2024 2:25 PM	06/27/2024 9:35 AM
240625028-004C	24F1801-04	Water	06/24/2024 2:25 PM	06/27/2024 9:35 AM

WorkOrder Comments

2.0 Methodology

Analysis Class	*Preparation Method*	*Analysis Methodology*
PFAS	EPA 1633 Prep	EPA 1633 Draft 3

3.0 Sample Issues

No issues were encountered with the samples submitted other than those detailed below.

Qualifier Summary Report:

SampleID	Method	LabNumber	Matrix	Analyte	Qualifier
240625028-001C	EPA 1633 Draft 3	24F1801-01	Water	Perfluoro-4-oxapentanoic acid (PFMPA)	PF-LCS-L
240625028-001C	EPA 1633 Draft 3	24F1801-01	Water	Perfluorohexanesulfonic acid (PFHxS)	J
240625028-001C	EPA 1633 Draft 3	24F1801-01	Water	Perfluoro-n-butanoic acid (PFBA)	J
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	J
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	d7-N-MeFOSE	PFSu-L
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	d9-N-EtFOSE	PFSu-L
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	d-N-EtFOSA	PFSu-L
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	M2-4:2 FTS	PFSu-H
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	M3PFBS	PFSu-H
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	Perfluoro-4-oxapentanoic acid (PFMPA)	PF-LCS-L
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	Perfluorobutanesulfonic acid (PFBS)	J
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	Perfluorohexanoic acid (PFHxA)	J
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	Perfluoro-n-butanoic acid (PFBA)	J
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	Perfluorooctanoic acid (PFOA)	J
240625028-002C	EPA 1633 Draft 3	24F1801-02	Water	Perfluoropentanoic acid (PFPeA)	J
240625028-003C	EPA 1633 Draft 3	24F1801-03	Water	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	J
240625028-003C	EPA 1633 Draft 3	24F1801-03	Water	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	PF-CCV-L
240625028-003C	EPA 1633 Draft 3	24F1801-03	Water	3-Perfluoroheptyl propanoic acid (FHpPA)	PF-CCV-L
240625028-003C	EPA 1633 Draft 3	24F1801-03	Water	3-Perfluoropentyl propanoic acid (FPePA)	PF-CCV-L
240625028-003C	EPA 1633 Draft 3	24F1801-03	Water	3-Perfluoropropyl propanoic acid (FPrPA)	PF-CCV-L
240625028-004C	EPA 1633 Draft 3	24F1801-04	Water	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	J
240625028-004C	EPA 1633 Draft 3	24F1801-04	Water	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	PF-CCV-L
240625028-004C	EPA 1633 Draft 3	24F1801-04	Water	3-Perfluoroheptyl propanoic acid (FHpPA)	PF-CCV-L

York Analytical Work Order Narrative

Qualifier Summary Report:

SampleID	Method	LabNumber	Matrix	Analyte	Qualifier
240625028-004C	EPA 1633 Draft 3	24F1801-04	Water	3-Perfluoropentyl propanoic acid (FPePA)	PF-CCV-L
240625028-004C	EPA 1633 Draft 3	24F1801-04	Water	3-Perfluoropropyl propanoic acid (FPrPA)	PF-CCV-L
240625028-004C	EPA 1633 Draft 3	24F1801-04	Water	d-N-EtFOSA	PFSu-L
	EPA 1633 Draft 3	BG40502-BS2	Water	Perfluoro-4-oxapentanoic acid (PFMPA)	J

Qualifier Definitions :

J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
PF-CCV-L	The CCV recovery for this PFAS compound was below control limits.
PF-LCS-L	The LCS recovery for this PFAS compound was below control limits.
PFSu-H	The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied.
PFSu-L	The isotopically labeled surrogate recovered below lab control limits due to a matrix effect. Isotope Dilution was applied.

4.0 Analysis Issues

EPA 1633 Draft 3

PFAS, EPA 1633 Target List

No problems were encountered with analysis of the samples, other than detailed below.

Initial Calibration : SF40019

Samples and QC analyzed using this calibration / sequence.

Calibration	Batch	Sequence	SampleName	LabNumber	Instrument	File ID
SF40019	S4F1245	S4F1245	Secondary Cal Check	S4F1245-SCV1	LCQQQ	QQQ40103.d
SF40019	S4G1047	S4G1047	Calibration Check	S4G1047-CCV1	LCQQQ	QQQ41361.d
SF40019	S4G1047	S4G1047	Calibration Blank	S4G1047-CCB1	LCQQQ	QQQ41364.d
SF40019	BG40502	S4G1047	Blank	BG40502-BLK1	LCQQQ	QQQ41366.d
SF40019	BG40502	S4G1047	LCS	BG40502-BS1	LCQQQ	QQQ41367.d
SF40019	BG40502	S4G1047	LCS	BG40502-BS2	LCQQQ	QQQ41368.d
SF40019	BG40502	S4G1047	240625028-001C	24F1801-01	LCQQQ	QQQ41374.d
SF40019	BG40502	S4G1047	240625028-002C	24F1801-02	LCQQQ	QQQ41375.d
SF40019	S4G1047	S4G1047	Calibration Check	S4G1047-CCV2	LCQQQ	QQQ41376.d
SF40019	S4G1047	S4G1047	Calibration Blank	S4G1047-CCB2	LCQQQ	QQQ41377.d
SF40019	BG40502	S4G1047	240625028-003C	24F1801-03	LCQQQ	QQQ41378.d
SF40019	BG40502	S4G1047	240625028-004C	24F1801-04	LCQQQ	QQQ41381.d
SF40019	S4G1047	S4G1047	Calibration Check	S4G1047-CCV3	LCQQQ	QQQ41400.d
SF40019	S4G1047	S4G1047	Calibration Blank	S4G1047-CCB3	LCQQQ	QQQ41401.d
SF40019	S4G1047	S4G1047	Calibration Check	S4G1047-CCV4	LCQQQ	QQQ41408.d
SF40019	S4G1047	S4G1047	Calibration Blank	S4G1047-CCB4	LCQQQ	QQQ41409.d
SF40019	S4G1047	S4G1047	Calibration Check	S4G1047-CCV5	LCQQQ	QQQ41420.d
SF40019	S4G1047	S4G1047	Calibration Blank	S4G1047-CCB5	LCQQQ	QQQ41421.d
SF40019	S4G1047	S4G1047	Calibration Check	S4G1047-CCV6	LCQQQ	QQQ41432.d
SF40019	S4G1047	S4G1047	Calibration Blank	S4G1047-CCB6	LCQQQ	QQQ41433.d

Initial calibration for EPA 1633 Draft 3 exceeded method guidelines.

Calibration	Intrument	Calibration Date	File ID
SF40019	LCQQQ	6/11/2024 8:00:34 AM	QQQ40095.d

The following QC and or client samples were affected:

York Analytical Work Order Narrative

EPA 1633 Draft 3

Initial Calibration Verification-

The initial calibration verification for analytical method EPA 1633 Draft 3

All target analytes recovered within method limits

Continuing Calibration Verification-

Calibration	Sequence	LabNumber	File ID	Date / Time
SF40019	S4G1047	S4G1047-CCV1	QQQ41361.d	07/10/24 09:07
SF40019	S4G1047	S4G1047-CCV2	QQQ41376.d	07/10/24 13:09
SF40019	S4G1047	S4G1047-CCV3	QQQ41400.d	07/10/24 17:15
SF40019	S4G1047	S4G1047-CCV4	QQQ41408.d	07/10/24 19:29
SF40019	S4G1047	S4G1047-CCV5	QQQ41420.d	07/10/24 22:44
SF40019	S4G1047	S4G1047-CCV6	QQQ41432.d	07/11/24 01:57

The continuing calibration verification exceeded method limits for the following analytes.

Calibration	LabNumber	Analyte	Units	Result	TrueVal	REC%	Limits		File ID
SF40019	S4G1047-CCV3	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ng/mL	6.52	9.50	**68.7**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	HFPO-DA (Gen-X)	ng/mL	13.3	10.0	**133**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	11CL-PF3OUdS	ng/mL	90.7	9.45	**960**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	9CL-PF3ONS	ng/mL	98.2	9.35	**1050**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	ADONA	ng/mL	80.4	9.45	**851**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	3-Perfluoropropyl propanoic acid (FPrPA)	ng/mL	1.12	12.5	**8.97**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	3-Perfluoropentyl propanoic acid (FPePA)	ng/mL	17.8	62.6	**28.4**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	3-Perfluoroheptyl propanoic acid (FHpPA)	ng/mL	37.5	62.6	**60**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	M2PFTeDA	ng/mL	2.05	1.25	**164**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	d5-N-EtFOSAA	ng/mL	7.00	5.00	**140**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	M2-6:2 FTS	ng/mL	2.85	4.76	**59.9**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	M2-4:2 FTS	ng/mL	1.93	4.69	**41.1**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	d-N-MeFOSA	ng/mL	0.943	2.50	**37.7**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	d-N-EtFOSA	ng/mL	0.914	2.50	**36.5**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	M3HFPO-DA	ng/mL	0.934	10.0	**9.34**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	d9-N-EtFOSE	ng/mL	11.4	25.0	**45.6**	70	130	QQQ41400.d
SF40019	S4G1047-CCV3	d7-N-MeFOSE	ng/mL	12.5	25.0	**50.2**	70	130	QQQ41400.d
SF40019	S4G1047-CCV4	11CL-PF3OUdS	ng/mL	15.6	9.45	**165**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	9CL-PF3ONS	ng/mL	18.6	9.35	**199**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	ADONA	ng/mL	19.5	9.45	**207**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	3-Perfluoropropyl propanoic acid (FPrPA)	ng/mL	4.68	12.5	**37.5**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	3-Perfluoropentyl propanoic acid (FPePA)	ng/mL	33.4	62.6	**53.3**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	ng/mL	0.840	1.25	**67.2**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	M2PFTeDA	ng/mL	0.536	1.25	**42.9**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	ng/mL	1.28	2.50	**51.3**	70	130	QQQ41408.d

SF40019	S4G1047-CCV4	M2-8:2 FTS	ng/mL	10.5	4.80	**218**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	M2-4:2 FTS	ng/mL	2.15	4.69	**45.8**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	d-N-MeFOSA	ng/mL	0.623	2.50	**24.9**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	d-N-EtFOSA	ng/mL	0.282	2.50	**11.3**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	M3HFPO-DA	ng/mL	5.15	10.0	**51.5**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	d9-N-EtFOSE	ng/mL	4.90	25.0	**19.6**	70	130	QQQ41408.d
SF40019	S4G1047-CCV4	d7-N-MeFOSE	ng/mL	6.13	25.0	**24.5**	70	130	QQQ41408.d
SF40019	S4G1047-CCV5	d9-NEtFOSE-EIS	ng/mL	25.0	25.0	**575**	0	500	QQQ41420.d
SF40019	S4G1047-CCV5	d5-NEtFOSA-EIS	ng/mL	2.50	2.50	**533**	0	500	QQQ41420.d

The following QC and or client samples were affected:

Calibration	Sequence	LabNumber	SampleName	Source Sample	File ID
SF40019	S4G1047	S4G1047-CCB1	Calibration Blank		QQQ41364.d
SF40019	S4G1047	BG40502-BLK1	Blank		QQQ41366.d
SF40019	S4G1047	BG40502-BS1	LCS		QQQ41367.d
SF40019	S4G1047	BG40502-BS2	LCS		QQQ41368.d
SF40019	S4G1047	24F1801-01	240625028-001C		QQQ41374.d
SF40019	S4G1047	24F1801-02	240625028-002C		QQQ41375.d
SF40019	S4G1047	S4G1047-CCB2	Calibration Blank		QQQ41377.d
SF40019	S4G1047	24F1801-03	240625028-003C		QQQ41378.d
SF40019	S4G1047	24F1801-04	240625028-004C		QQQ41381.d
SF40019	S4G1047	S4G1047-CCB3	Calibration Blank		QQQ41401.d
SF40019	S4G1047	S4G1047-CCB4	Calibration Blank		QQQ41409.d
SF40019	S4G1047	S4G1047-CCB5	Calibration Blank		QQQ41421.d
SF40019	S4G1047	S4G1047-CCB6	Calibration Blank		QQQ41433.d

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Batch QC

Method Blank-

	Batch	Sequence	Instrument	Blank	FileID
PFAS	BG40502	S4G1047	LCQQQ	BG40502-BLK1	QQQ41366.d

Sequence	SampleName	LabNumber	Matrix	Analyte	Result	MRL	RptUnits
S4G1047	Blank	BG40502-BLK1	Water	Taurodeoxycholic Acid (TDC	0.00		ng/L
S4G1047	Blank	BG40502-BLK1	Water	Taurochenodeoxycholic Aci	0.00		ng/L
S4G1047	Blank	BG40502-BLK1	Water	Tauroursodeoxycholic Acid (	0.00		ng/L

The following QC and or client samples had positive(s) in associated blanks:

Laboratory Control Sample (LCS) or Standard Reference Material (SRM)-

Were run as batch QC for this project. Please refer to the Quality Control Data attached to this report for bias information.

Calibration	Sequence	LabNumber	SampleName	File ID
SF40019	4G1047	BG40502-BS1	LCS	QQQ41367.d
SF40019	4G1047	BG40502-BS2	LCS	QQQ41368.d

Sequence	SampleName	LabNumber	Analyte	DupRec%	Rec%	RPD%	REC Limits	RPD Limit
S4G1047	LCS	BG40502-BS1	Perfluoro-4-oxapentanoic acid (PFMPA)		**18**		50 - 150	
S4G1047	LCS	BG40502-BS2	Perfluoro-4-oxapentanoic acid (PFMPA)		**12**		50 - 150	

The following samples were affected:

Batch	LabNumber	SampleName	SourceSample
BG40502	24F1801-01	240625028-001C	
BG40502	24F1801-02	240625028-002C	
BG40502	24F1801-03	240625028-003C	
BG40502	24F1801-04	240625028-004C	
BG40502	BG40502-BLK1	Blank	

EPA 1633 Draft 3

Dilutions: No sample dilutions were required.

York Analytical Work Order Narrative

EPA 1633 Draft 3

Internal Standards / Surrogates

Internal Standards Issues:

Surrogate Issues:

Batch	Instrument	Calibration	SampleName	LabNumber	Analyte	ISArea%	ISCVRTDiff
BG40502	LCQQQ	**SF40019**	LCS	BG40502-BS1	Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	4	0.0183
BG40502	LCQQQ	**SF40019**	LCS	BG40502-BS2	Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	2	0.0642
BG40502	LCQQQ	**SF40019**	Blank	BG40502-BLK1	Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	8	0.0826
BG40502	LCQQQ	**SF40019**	240625028-002C	24F1801-02	Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	45	0.1391
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	M3-HFPO-DA-EIS	32	-0.0093
BG40502	LCQQQ	**SF40019**	240625028-002C	24F1801-02	M2PFTeDA-EIS	31	0.1473
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	M2-8-2FTS-EIS	47	0.0000
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	M2-6-2FTS-EIS	27	0.0000
BG40502	LCQQQ	**SF40019**	240625028-003C	24F1801-03	M2-6-2FTS-EIS	31	-0.0186
BG40502	LCQQQ	**SF40019**	240625028-003C	24F1801-03	M2-4-2FTS-EIS	42	-0.0185
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	M2-4-2FTS-EIS	31	0.0000
BG40502	LCQQQ	**SF40019**	240625028-002C	24F1801-02	d9-NEtFOSE-EIS	10	0.1565
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	d9-NEtFOSE-EIS	34	-0.0276
BG40502	LCQQQ	**SF40019**	240625028-003C	24F1801-03	d9-NEtFOSE-EIS	44	0.0092
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	d7-NMeFOSE-EIS	48	-0.0184
BG40502	LCQQQ	**SF40019**	240625028-002C	24F1801-02	d7-NMeFOSE-EIS	17	0.1474
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	d5-NEtFOSA-EIS	19	-0.0368
BG40502	LCQQQ	**SF40019**	240625028-002C	24F1801-02	d5-NEtFOSA-EIS	22	0.1565
BG40502	LCQQQ	**SF40019**	240625028-004C	24F1801-04	d3-NMeFOSA-EIS	26	-0.0277
BG40502	LCQQQ	**SF40019**	240625028-002C	24F1801-02	d3-NMeFOSA-EIS	29	0.1566

Calibration	SampleName	LabNumber	Analyte	Rec %	Limits
SF40019	Blank	BG40502-BLK1	M3PFBS	**155**	25 - 150
SF40019	Blank	BG40502-BLK1	M4PFHpA	**156**	25 - 150
SF40019	Blank	BG40502-BLK1	Perfluoro-n-[13C4]butanoic acid (MPFBA)	**10.1**	25 - 150
SF40019	Blank	BG40502-BLK1	d5-N-EtFOSAA	**155**	25 - 150
SF40019	LCS	BG40502-BS1	Perfluoro-n-[13C4]butanoic acid (MPFBA)	**4.85**	25 - 150
SF40019	LCS	BG40502-BS2	M3PFBS	**152**	25 - 150
SF40019	LCS	BG40502-BS2	Perfluoro-n-[13C4]butanoic acid (MPFBA)	**3.02**	25 - 150
SF40019	LCS	BG40502-BS2	d5-N-EtFOSAA	**153**	25 - 150
SF40019	LCS	BG40502-BS2	M3HFPO-DA	**153**	25 - 150
SF40019	240625028-002C	24F1801-02	M3PFBS	**155**	25 - 150
SF40019	240625028-002C	24F1801-02	M2-4:2 FTS	**174**	25 - 150
SF40019	240625028-002C	24F1801-02	d-N-EtFOSA	**17.3**	25 - 150
SF40019	240625028-002C	24F1801-02	d9-N-EtFOSE	**8.54**	25 - 150
SF40019	240625028-002C	24F1801-02	d7-N-MeFOSE	**15.4**	25 - 150

SF40019	240625028-004C	24F1801-04	d-N-EtFOSA	**14.3**	25 - 150
SF40019	Calibration Blank	S4G1047-CCB2	M2PFTeDA	**159**	10 - 150
SF40019	Calibration Blank	S4G1047-CCB2	d9-N-EtFOSE	**156**	25 - 150
SF40019	Calibration Blank	S4G1047-CCB2	d7-N-MeFOSE	**160**	25 - 150
SF40019	Calibration Check	S4G1047-CCV3	M2PFTeDA	**164**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	d5-N-EtFOSAA	**140**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	M2-6:2 FTS	**59.9**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	M2-4:2 FTS	**41.1**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	d-N-MeFOSA	**37.7**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	d-N-EtFOSA	**36.5**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	M3HFPO-DA	**9.34**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	d9-N-EtFOSE	**45.6**	70 - 130
SF40019	Calibration Check	S4G1047-CCV3	d7-N-MeFOSE	**50.2**	70 - 130
SF40019	Calibration Blank	S4G1047-CCB3	M2PFTeDA	**162**	10 - 150
SF40019	Calibration Blank	S4G1047-CCB3	M3HFPO-DA	**15.2**	25 - 150
SF40019	Calibration Check	S4G1047-CCV4	Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	**67.2**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	M2PFTeDA	**42.9**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	**51.3**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	M2-8:2 FTS	**218**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	M2-4:2 FTS	**45.8**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	d-N-MeFOSA	**24.9**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	d-N-EtFOSA	**11.3**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	M3HFPO-DA	**51.5**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	d9-N-EtFOSE	**19.6**	70 - 130
SF40019	Calibration Check	S4G1047-CCV4	d7-N-MeFOSE	**24.5**	70 - 130
SF40019	Calibration Blank	S4G1047-CCB4	d-N-EtFOSA	**20.7**	25 - 150

York Analytical Laboratories, Inc.

Formulae Used for Sample Calculations

1. Volatiles in Air-ppbv

Cx (ppbv) = Compound concentration, ppbv (parts per billion by volume)

$$Cx = \frac{(Ax)(Cis)(DF)}{(Ais)(RRF)}$$

2. Volatiles in Air-ug/m³

Cx (ug/m³)= Compound concentration in ug/m³

$$Cx\ (ug/m^3) = \frac{(ppbv \times Molecular\ wt.)}{(24.040)}$$

3. Volatile Organics (water and soil), ug/L or ug/kg

Soils/Waters

$$Cx = \frac{(Ax)(IS)(DF)}{(Ais)(RRF)(V)(\%\ solids)}$$

Medium Level Soils

$$Cx = \frac{(Ax)(IS)(VT)(1000)(DF)}{(Ais)(RRF)(VA)(V)(\%\ solids)}$$

4. Semi-Volatiles (waters and soils)

$$Cx = \frac{(Ax)(IS)(VE)(DF)}{(Ais)(RRF)(Volume\ injected,\ uL)(V)(\%\ solids)}$$

5. Pesticides/PCB (waters and soils), DRO, CTETPH

$$Cx = \frac{(Ax)(VE)(DF)}{(CF)(Volume\ injected,\ uL)(V)(\%\ solids)}$$

WHERE:
Cx = concentration of analyte as ug/L or ug/kg
Ax = Area of the characteristic ion for the compound to be measured, counts.
Ais = Area of the characteristic ion for the specific internal standard, counts.
IS = Concentration of the internal standard spiking mixture, ng
RRF = Mean relative response factor from the initial calibration.
DF = Dilution factor calculated as described in section 2. If no dilution is performed, DF= 1
V = Volume for liquids in mL, weight for soils/solids in grams.
VA = volume of MeOH aliquot for medium level soils
VE = final volume of concentrated extract
VT = volume of MeOH for volatiles medium level soils
CF = calibration factor for external calibration used in GC pest/pcb
Cis = Concentration of the internal standard spiking mixture, ppbv

Analytical Batch Summary

Batch ID: BG40502 **Preparation Method:** EPA 1633 Prep **Prepared By:** J D

YORK Sample ID	Client Sample ID	Preparation Date
24F1801-01	240625028-001C	07/08/24
24F1801-02	240625028-002C	07/08/24
24F1801-03	240625028-003C	07/08/24
24F1801-04	240625028-004C	07/08/24
BG40502-BLK1	Blank	07/08/24
BG40502-BS1	LCS	07/08/24
BG40502-BS2	LCS	07/08/24
BG40502-MS1	Matrix Spike	07/08/24
BG40502-MSD1	Matrix Spike Dup	07/08/24

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

York Analytical Laboratories, Inc. - Stratford

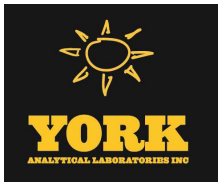
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
Blank (BG40502-BLK1)											Prepared: 07/08/2024 Analyzed: 07/10/2024
Perfluorobutanesulfonic acid (PFBS)	ND	3.54	ng/L								
Perfluorohexanoic acid (PFHxA)	ND	4.00	"								
Perfluoroheptanoic acid (PFHpA)	ND	4.00	"								
Perfluorohexanesulfonic acid (PFHxS)	ND	3.66	"								
Perfluorooctanoic acid (PFOA)	ND	4.00	"								
Perfluorooctanesulfonic acid (PFOS)	ND	3.72	"								
Perfluorononanoic acid (PFNA)	ND	4.00	"								
Perfluorodecanoic acid (PFDA)	ND	4.00	"								
Perfluoroundecanoic acid (PFUnA)	ND	4.00	"								
Perfluorododecanoic acid (PFDoA)	ND	4.00	"								
Perfluorotridecanoic acid (PFTrDA)	ND	4.00	"								
Perfluorotetradecanoic acid (PFTA)	ND	4.00	"								
N-MeFOSAA	ND	4.00	"								
N-EtFOSAA	ND	4.00	"								
Perfluoropentanoic acid (PFPeA)	ND	8.00	"								
Perfluoro-1-octanesulfonamide (FOSA)	ND	4.00	"								
Perfluoro-1-heptanesulfonic acid (PFHpS)	ND	3.82	"								
Perfluoro-1-decanesulfonic acid (PFDS)	ND	3.86	"								
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND	15.2	"								
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND	15.4	"								
Perfluoro-n-butanoic acid (PFBA)	ND	16.0	"								
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	7.12	"								
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	8.00	"								
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	8.00	"								
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	8.00	"								
Perfluoro-1-pentanesulfonate (PFPeS)	ND	3.76	"								
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND	15.0	"								
HFPO-DA (Gen-X)	ND	16.0	"								
11CL-PF3OUdS	ND	15.1	"								
9CL-PF3ONS	ND	15.0	"								
ADONA	ND	15.1	"								
Perfluorododecanesulfonic acid (PFDoS)	ND	3.88	"								
Perfluoro-1-nonanesulfonic acid (PFNS)	ND	3.84	"								
3-Perfluoropropyl propanoic acid (FPrPA)	ND	10.0	"								
3-Perfluoropentyl propanoic acid (FPePA)	ND	50.0	"								
3-Perfluoroheptyl propanoic acid (FHpPA)	ND	50.0	"								
N-MeFOSE	ND	40.0	"								
N-MeFOSA	ND	4.00	"								
N-EtFOSE	ND	40.0	"								
N-EtFOSA	ND	4.00	"								
Surrogate: M3PFBS	*72.2*		*"*	*46.6*		*155*	*25-150*				
Surrogate: M5PFHxA	*70.8*		*"*	*50.0*		*142*	*25-150*				
Surrogate: M4PFHpA	*77.9*		*"*	*50.0*		*156*	*25-150*				
Surrogate: M3PFHxS	*70.6*		*"*	*47.4*		*149*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*67.9*		*"*	*50.0*		*136*	*25-150*				
Surrogate: M6PFDA	*30.8*		*"*	*25.0*		*123*	*25-150*				
Surrogate: M7PFUdA	*35.2*		*"*	*25.0*		*141*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*32.4*		*"*	*25.0*		*129*	*25-150*				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
Blank (BG40502-BLK1)								Prepared: 07/08/2024 Analyzed: 07/10/2024			
Surrogate: M2PFTeDA	*28.7*		*ng/L*	*25.0*		*115*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*20.1*		*"*	*200*		*10.1*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*59.7*		*"*	*47.9*		*125*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*119*		*"*	*100*		*119*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*67.7*		*"*	*50.0*		*135*	*10-150*				
Surrogate: d3-N-MeFOSAA	*138*		*"*	*100*		*138*	*25-150*				
Surrogate: d5-N-EtFOSAA	*155*		*"*	*100*		*155*	*25-150*				
Surrogate: M2-6:2 FTS	*126*		*"*	*95.1*		*132*	*25-200*				
Surrogate: M2-8:2 FTS	*110*		*"*	*96.0*		*115*	*25-200*				
Surrogate: M9PFNA	*32.6*		*"*	*25.0*		*130*	*25-150*				
Surrogate: M2-4:2 FTS	*126*		*"*	*93.8*		*135*	*25-150*				
Surrogate: d-N-MeFOSA	*67.3*		*"*	*50.0*		*135*	*25-150*				
Surrogate: d-N-EtFOSA	*59.4*		*"*	*50.0*		*119*	*25-150*				
Surrogate: M3HFPO-DA	*295*		*"*	*200*		*147*	*25-150*				
Surrogate: d9-N-EtFOSE	*409*		*"*	*500*		*81.8*	*25-150*				
Surrogate: d7-N-MeFOSE	*497*		*"*	*500*		*99.4*	*25-150*				
LCS (BG40502-BS1)								Prepared: 07/08/2024 Analyzed: 07/10/2024			
Perfluorobutanesulfonic acid (PFBS)	59.8	3.54	ng/L	70.8		84.5	50-150				
Perfluorohexanoic acid (PFHxA)	69.0	4.00	"	80.0		86.3	50-150				
Perfluoroheptanoic acid (PFHpA)	74.5	4.00	"	80.0		93.2	50-150				
Perfluorohexanesulfonic acid (PFHxS)	61.9	3.66	"	73.2		84.7	50-150				
Perfluorooctanoic acid (PFOA)	72.9	4.00	"	80.0		91.2	50-150				
Perfluorooctanesulfonic acid (PFOS)	59.5	3.72	"	74.4		80.0	50-150				
Perfluorononanoic acid (PFNA)	69.3	4.00	"	80.0		86.6	50-150				
Perfluorodecanoic acid (PFDA)	76.3	4.00	"	80.0		95.4	50-150				
Perfluoroundecanoic acid (PFUnA)	58.5	4.00	"	80.0		73.2	50-150				
Perfluorododecanoic acid (PFDoA)	71.9	4.00	"	80.0		90.0	50-150				
Perfluorotridecanoic acid (PFTrDA)	81.9	4.00	"	80.0		102	50-150				
Perfluorotetradecanoic acid (PFTA)	71.4	4.00	"	80.0		89.3	50-150				
N-MeFOSAA	64.7	4.00	"	80.0		80.9	50-150				
N-EtFOSAA	74.7	4.00	"	80.0		93.4	50-150				
Perfluoropentanoic acid (PFPeA)	139	8.00	"	160		87.1	50-150				
Perfluoro-1-octanesulfonamide (FOSA)	71.7	4.00	"	80.0		89.6	50-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	65.3	3.82	"	76.4		85.5	50-150				
Perfluoro-1-decanesulfonic acid (PFDS)	65.8	3.86	"	77.2		85.3	50-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	195	15.2	"	304		64.3	50-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	262	15.4	"	307		85.4	50-150				
Perfluoro-n-butanoic acid (PFBA)	231	16.0	"	320		72.1	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	115	7.12	"	142		80.7	50-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	112	8.00	"	160		70.3	50-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	28.7	8.00	"	160		18.0	50-150	Low Bias			
Perfluoro-5-oxahexanoic acid (PFMBA)	157	8.00	"	160		98.1	50-150				
Perfluoro-1-pentanesulfonate (PFPeS)	67.6	3.76	"	75.2		90.0	50-150				
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	254	15.0	"	300		84.9	50-150				
HFPO-DA (Gen-X)	142	16.0	"	160		88.8	50-150				
11CL-PF3OUdS	108	15.1	"	151		71.5	50-150				
9CL-PF3ONS	117	15.0	"	150		78.5	50-150				

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

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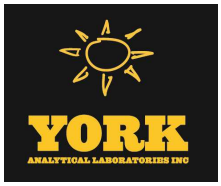
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
LCS (BG40502-BS1)								Prepared: 07/08/2024 Analyzed: 07/10/2024			
ADONA	117	15.1	ng/L	151		77.7	50-150				
Perfluorododecanesulfonic acid (PFDoS)	53.8	3.88	"	77.6		69.4	50-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	73.1	3.84	"	76.8		95.3	50-150				
3-Perfluoropropyl propanoic acid (FPrPA)	173	9.99	"	320		54.2	50-150				
3-Perfluoropentyl propanoic acid (FPePA)	1230	50.0	"	1600		77.0	50-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	1290	50.0	"	1600		80.7	50-150				
N-MeFOSE	662	40.0	"	800		82.8	50-150				
N-MeFOSA	61.5	4.00	"	80.0		76.9	50-150				
N-EtFOSE	610	40.0	"	800		76.3	50-150				
N-EtFOSA	57.3	4.00	"	80.0		71.7	50-150				
Surrogate: M3PFBS	*63.2*		*"*	*46.6*		*136*	*25-150*				
Surrogate: M5PFHxA	*61.8*		*"*	*50.0*		*124*	*25-150*				
Surrogate: M4PFHpA	*63.7*		*"*	*50.0*		*127*	*25-150*				
Surrogate: M3PFHxS	*60.1*		*"*	*47.4*		*127*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*56.7*		*"*	*50.0*		*113*	*25-150*				
Surrogate: M6PFDA	*26.6*		*"*	*25.0*		*107*	*25-150*				
Surrogate: M7PFUdA	*36.7*		*"*	*25.0*		*147*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*32.0*		*"*	*25.0*		*128*	*25-150*				
Surrogate: M2PFTeDA	*26.9*		*"*	*25.0*		*108*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*9.70*		*"*	*200*		*4.85*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*54.8*		*"*	*47.9*		*114*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*95.0*		*"*	*99.9*		*95.1*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*60.4*		*"*	*50.0*		*121*	*10-150*				
Surrogate: d3-N-MeFOSAA	*121*		*"*	*99.9*		*121*	*25-150*				
Surrogate: d5-N-EtFOSAA	*128*		*"*	*99.9*		*128*	*25-150*				
Surrogate: M2-6:2 FTS	*117*		*"*	*95.0*		*123*	*25-200*				
Surrogate: M2-8:2 FTS	*104*		*"*	*95.9*		*108*	*25-200*				
Surrogate: M9PFNA	*30.8*		*"*	*25.0*		*123*	*25-150*				
Surrogate: M2-4:2 FTS	*115*		*"*	*93.7*		*122*	*25-150*				
Surrogate: d-N-MeFOSA	*57.8*		*"*	*50.0*		*116*	*25-150*				
Surrogate: d-N-EtFOSA	*53.8*		*"*	*50.0*		*108*	*25-150*				
Surrogate: M3HFPO-DA	*258*		*"*	*200*		*129*	*25-150*				
Surrogate: d9-N-EtFOSE	*382*		*"*	*500*		*76.4*	*25-150*				
Surrogate: d7-N-MeFOSE	*428*		*"*	*500*		*85.7*	*25-150*				



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

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
LCS (BG40502-BS2)								Prepared: 07/08/2024 Analyzed: 07/10/2024			
Perfluorobutanesulfonic acid (PFBS)	12.5	3.54	ng/L	14.2		88.6	50-150				
Perfluorohexanoic acid (PFHxA)	13.6	4.00	"	16.0		85.2	50-150				
Perfluoroheptanoic acid (PFHpA)	15.4	4.00	"	16.0		96.0	50-150				
Perfluorohexanesulfonic acid (PFHxS)	12.8	3.66	"	14.6		87.1	50-150				
Perfluorooctanoic acid (PFOA)	13.8	4.00	"	16.0		86.1	50-150				
Perfluorooctanesulfonic acid (PFOS)	13.6	3.72	"	14.9		91.1	50-150				
Perfluorononanoic acid (PFNA)	13.8	4.00	"	16.0		86.2	50-150				
Perfluorodecanoic acid (PFDA)	13.8	4.00	"	16.0		86.3	50-150				
Perfluoroundecanoic acid (PFUnA)	12.3	4.00	"	16.0		77.0	50-150				
Perfluorododecanoic acid (PFDoA)	15.9	4.00	"	16.0		99.2	50-150				
Perfluorotridecanoic acid (PFTrDA)	18.4	4.00	"	16.0		115	50-150				
Perfluorotetradecanoic acid (PFTA)	17.8	4.00	"	16.0		112	50-150				
N-MeFOSAA	14.4	4.00	"	16.0		90.0	50-150				
N-EtFOSAA	16.0	4.00	"	16.0		100	50-150				
Perfluoropentanoic acid (PFPeA)	29.8	8.00	"	32.0		93.1	50-150				
Perfluoro-1-octanesulfonamide (FOSA)	14.1	4.00	"	16.0		88.2	50-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	14.3	3.82	"	15.3		93.4	50-150				
Perfluoro-1-decanesulfonic acid (PFDS)	15.3	3.86	"	15.4		99.4	50-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	47.6	15.2	"	60.8		78.3	50-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	60.6	15.4	"	61.4		98.6	50-150				
Perfluoro-n-butanoic acid (PFBA)	46.5	16.0	"	64.0		72.7	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	25.0	7.12	"	28.5		87.8	50-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	23.0	8.00	"	32.0		71.8	50-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	3.84	8.00	"	32.0		12.0	50-150	Low Bias			
Perfluoro-5-oxahexanoic acid (PFMBA)	37.2	8.00	"	32.0		116	50-150				
Perfluoro-1-pentanesulfonate (PFPeS)	14.4	3.76	"	15.0		95.8	50-150				
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	53.7	15.0	"	60.0		89.5	50-150				
HFPO-DA (Gen-X)	37.2	16.0	"	32.0		116	50-150				
11CL-PF3OUdS	24.2	15.1	"	30.2		79.9	50-150				
9CL-PF3ONS	24.7	15.0	"	29.9		82.7	50-150				
ADONA	23.2	15.1	"	30.2		76.6	50-150				
Perfluorododecanesulfonic acid (PFDoS)	15.4	3.88	"	15.5		99.6	50-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	18.0	3.84	"	15.4		117	50-150				
3-Perfluoropropyl propanoic acid (FPrPA)	36.1	10.0	"	64.0		56.4	50-150				
3-Perfluoropentyl propanoic acid (FPePA)	258	50.0	"	320		80.7	50-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	288	50.0	"	320		89.9	50-150				
N-MeFOSE	173	40.0	"	160		108	50-150				
N-MeFOSA	15.7	4.00	"	16.0		98.3	50-150				
N-EtFOSE	163	40.0	"	160		102	50-150				
N-EtFOSA	16.4	4.00	"	16.0		103	50-150				
Surrogate: M3PFBS	*70.7*		"	*46.6*		*152*	*25-150*				
Surrogate: M5PFHxA	*70.1*		"	*50.0*		*140*	*25-150*				
Surrogate: M4PFHpA	*73.8*		"	*50.0*		*148*	*25-150*				
Surrogate: M3PFHxS	*68.0*		"	*47.4*		*143*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*71.0*		"	*50.0*		*142*	*25-150*				
Surrogate: M6PFDA	*30.9*		"	*25.0*		*123*	*25-150*				
Surrogate: M7PFUdA	*33.8*		"	*25.0*		*135*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*31.0*		"	*25.0*		*124*	*25-150*				
Surrogate: M2PFTeDA	*25.0*		"	*25.0*		*100*	*10-150*				



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

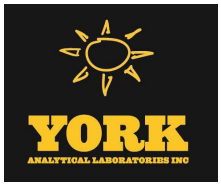
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
LCS (BG40502-BS2)								Prepared: 07/08/2024 Analyzed: 07/10/2024			
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*6.05*		*ng/L*	*200*		*3.02*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*61.9*		*"*	*47.9*		*129*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*81.7*		*"*	*100*		*81.7*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*72.6*		*"*	*50.0*		*145*	*10-150*				
Surrogate: d3-N-MeFOSAA	*140*		*"*	*100*		*140*	*25-150*				
Surrogate: d5-N-EtFOSAA	*153*		*"*	*100*		*153*	*25-150*				
Surrogate: M2-6:2 FTS	*119*		*"*	*95.1*		*126*	*25-200*				
Surrogate: M2-8:2 FTS	*123*		*"*	*96.0*		*128*	*25-200*				
Surrogate: M9PFNA	*35.0*		*"*	*25.0*		*140*	*25-150*				
Surrogate: M2-4:2 FTS	*125*		*"*	*93.8*		*134*	*25-150*				
Surrogate: d-N-MeFOSA	*75.2*		*"*	*50.0*		*150*	*25-150*				
Surrogate: d-N-EtFOSA	*63.4*		*"*	*50.0*		*127*	*25-150*				
Surrogate: M3HFPO-DA	*306*		*"*	*200*		*153*	*25-150*				
Surrogate: d9-N-EtFOSE	*385*		*"*	*500*		*76.9*	*25-150*				
Surrogate: d7-N-MeFOSE	*467*		*"*	*500*		*93.5*	*25-150*				
Matrix Spike (BG40502-MS1)	*Source sample: 24F1801-03 (240625028-003C)							Prepared: 07/08/2024 Analyzed: 07/10/2024			
Perfluorobutanesulfonic acid (PFBS)	27.5	1.58	ng/L	31.5	ND	87.2	25-150				
Perfluorohexanoic acid (PFHxA)	32.7	1.78	"	35.6	ND	91.9	25-150				
Perfluoroheptanoic acid (PFHpA)	35.6	1.78	"	35.6	ND	100	25-150				
Perfluorohexanesulfonic acid (PFHxS)	31.4	1.63	"	32.6	ND	96.5	25-150				
Perfluorooctanoic acid (PFOA)	35.3	1.78	"	35.6	ND	99.1	25-150				
Perfluorooctanesulfonic acid (PFOS)	29.8	1.66	"	33.1	ND	90.0	25-150				
Perfluorononanoic acid (PFNA)	31.9	1.78	"	35.6	ND	89.5	25-150				
Perfluorodecanoic acid (PFDA)	29.2	1.78	"	35.6	ND	82.1	25-150				
Perfluoroundecanoic acid (PFUnA)	29.1	1.78	"	35.6	ND	81.8	25-150				
Perfluorododecanoic acid (PFDoA)	34.1	1.78	"	35.6	ND	95.7	25-150				
Perfluorotridecanoic acid (PFTrDA)	35.4	1.78	"	35.6	ND	99.4	25-150				
Perfluorotetradecanoic acid (PFTA)	34.3	1.78	"	35.6	ND	96.2	25-150				
N-MeFOSAA	32.5	1.78	"	35.6	ND	91.4	25-150				
N-EtFOSAA	33.3	1.78	"	35.6	ND	93.6	25-150				
Perfluoropentanoic acid (PFPeA)	65.7	3.56	"	71.2	ND	92.2	25-150				
Perfluoro-1-octanesulfonamide (FOSA)	32.3	1.78	"	35.6	ND	90.6	25-150				
Perfluoro-1-heptanesulfonic acid (PFHpS)	30.0	1.70	"	34.0	ND	88.3	25-150				
Perfluoro-1-decanesulfonic acid (PFDS)	24.5	1.72	"	34.4	ND	71.4	25-150				
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	92.7	6.77	"	135	5.74	64.2	25-150				
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS	108	6.84	"	137	ND	78.9	25-150				
Perfluoro-n-butanoic acid (PFBA)	119	7.12	"	142	ND	83.2	25-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	50.1	3.17	"	63.4	ND	79.0	25-150				
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	51.0	3.56	"	71.2	ND	71.7	25-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	16.4	3.56	"	71.2	ND	23.0	25-150	Low Bias			
Perfluoro-5-oxahexanoic acid (PFMBA)	72.6	3.56	"	71.2	ND	102	25-150				
Perfluoro-1-pentanesulfonate (PFPeS)	31.1	1.67	"	33.5	ND	93.1	25-150				
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS	98.5	6.68	"	134	ND	73.8	25-150				
HFPO-DA (Gen-X)	66.6	7.12	"	71.2	ND	93.5	25-150				
11CL-PF3OUdS	59.9	6.73	"	67.3	ND	88.9	25-150				
9CL-PF3ONS	81.1	6.66	"	66.6	ND	122	25-150				
ADONA	82.4	6.73	"	67.3	ND	122	25-150				

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

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
Matrix Spike (BG40502-MS1)	*Source sample: 24F1801-03 (240625028-003C)							Prepared: 07/08/2024 Analyzed: 07/10/2024			
Perfluorododecanesulfonic acid (PFDoS)	22.5	1.73	ng/L	34.5	ND	65.2	25-150				
Perfluoro-1-nonanesulfonic acid (PFNS)	32.4	1.71	"	34.2	ND	94.8	25-150				
3-Perfluoropropyl propanoic acid (FPrPA)	49.0	4.45	"	142	ND	34.4	25-150				
3-Perfluoropentyl propanoic acid (FPePA)	349	22.3	"	712	ND	49.0	25-150				
3-Perfluoroheptyl propanoic acid (FHpPA)	424	22.3	"	712	ND	59.5	25-150				
N-MeFOSE	333	17.8	"	356	ND	93.4	25-150				
N-MeFOSA	30.3	1.78	"	35.6	ND	85.2	25-150				
N-EtFOSE	282	17.8	"	356	ND	79.1	25-150				
N-EtFOSA	28.6	1.78	"	35.6	ND	80.3	25-150				
Surrogate: M3PFBS	*30.5*		*"*	*20.7*		*147*	*25-150*				
Surrogate: M5PFHxA	*32.7*		*"*	*22.3*		*147*	*25-150*				
Surrogate: M4PFHpA	*32.4*		*"*	*22.3*		*146*	*25-150*				
Surrogate: M3PFHxS	*28.9*		*"*	*21.1*		*137*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*30.7*		*"*	*22.3*		*138*	*25-150*				
Surrogate: M6PFDA	*16.1*		*"*	*11.1*		*145*	*25-150*				
Surrogate: M7PFUdA	*15.9*		*"*	*11.1*		*143*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*13.8*		*"*	*11.1*		*124*	*25-150*				
Surrogate: M2PFTeDA	*11.8*		*"*	*11.1*		*106*	*10-150*				
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*5.85*		*"*	*89.0*		*6.57*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*26.1*		*"*	*21.3*		*122*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*54.8*		*"*	*44.5*		*123*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*26.3*		*"*	*22.3*		*118*	*10-150*				
Surrogate: d3-N-MeFOSAA	*50.7*		*"*	*44.5*		*114*	*25-150*				
Surrogate: d5-N-EtFOSAA	*54.7*		*"*	*44.5*		*123*	*25-150*				
Surrogate: M2-6:2 FTS	*38.7*		*"*	*42.3*		*91.4*	*25-200*				
Surrogate: M2-8:2 FTS	*43.0*		*"*	*42.7*		*101*	*25-200*				
Surrogate: M9PFNA	*16.2*		*"*	*11.1*		*146*	*25-150*				
Surrogate: M2-4:2 FTS	*35.4*		*"*	*41.8*		*84.8*	*25-150*				
Surrogate: d-N-MeFOSA	*17.6*		*"*	*22.3*		*79.3*	*25-150*				
Surrogate: d-N-EtFOSA	*15.2*		*"*	*22.3*		*68.5*	*25-150*				
Surrogate: M3HFPO-DA	*89.3*		*"*	*89.0*		*100*	*25-150*				
Surrogate: d9-N-EtFOSE	*157*		*"*	*223*		*70.6*	*25-150*				
Surrogate: d7-N-MeFOSE	*207*		*"*	*223*		*93.1*	*25-150*				



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

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
Matrix Spike Dup (BG40502-MSD1)	*Source sample: 24F1801-03 (240625028-003C)								Prepared: 07/08/2024 Analyzed: 07/10/2024		
Perfluorobutanesulfonic acid (PFBS)	27.9	1.61	ng/L	32.2	ND	86.8	25-150		1.61	35	
Perfluorohexanoic acid (PFHxA)	33.4	1.82	"	36.3	ND	91.9	25-150		2.11	35	
Perfluoroheptanoic acid (PFHpA)	32.8	1.82	"	36.3	ND	90.2	25-150		8.29	35	
Perfluorohexanesulfonic acid (PFHxS)	30.1	1.66	"	33.2	ND	90.5	25-150		4.45	35	
Perfluorooctanoic acid (PFOA)	36.0	1.82	"	36.3	ND	99.1	25-150		1.98	35	
Perfluorooctanesulfonic acid (PFOS)	26.9	1.69	"	33.8	ND	79.7	25-150		10.2	35	
Perfluorononanoic acid (PFNA)	33.7	1.82	"	36.3	ND	92.6	25-150		5.41	35	
Perfluorodecanoic acid (PFDA)	33.2	1.82	"	36.3	ND	91.3	25-150		12.5	35	
Perfluoroundecanoic acid (PFUnA)	29.0	1.82	"	36.3	ND	79.9	25-150		0.372	35	
Perfluorododecanoic acid (PFDoA)	34.4	1.82	"	36.3	ND	94.7	25-150		0.995	35	
Perfluorotridecanoic acid (PFTrDA)	44.0	1.82	"	36.3	ND	121	25-150		21.6	35	
Perfluorotetradecanoic acid (PFTA)	36.1	1.82	"	36.3	ND	99.3	25-150		5.15	35	
N-MeFOSAA	29.7	1.82	"	36.3	ND	81.7	25-150		9.21	35	
N-EtFOSAA	35.2	1.82	"	36.3	ND	97.0	25-150		5.53	35	
Perfluoropentanoic acid (PFPeA)	66.1	3.63	"	72.7	ND	90.9	25-150		0.610	35	
Perfluoro-1-octanesulfonamide (FOSA)	36.2	1.82	"	36.3	ND	99.7	25-150		11.6	35	
Perfluoro-1-heptanesulfonic acid (PFHpS)	26.9	1.73	"	34.7	ND	77.4	25-150		11.2	35	
Perfluoro-1-decanesulfonic acid (PFDS)	25.7	1.75	"	35.1	ND	73.2	25-150		4.50	35	
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	94.6	6.90	"	138	5.74	64.3	25-150		2.04	35	
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	116	6.98	"	140	ND	83.2	25-150		7.29	35	
Perfluoro-n-butanoic acid (PFBA)	92.6	7.27	"	145	ND	63.7	25-150		24.5	35	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	51.0	3.23	"	64.7	ND	78.8	25-150		1.71	30	
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	46.4	3.63	"	72.7	ND	63.8	25-150		9.59	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	6.50	3.63	"	72.7	ND	8.95	25-150	Low Bias	86.4	30	Non-dir.
Perfluoro-5-oxahexanoic acid (PFMBA)	98.3	3.63	"	72.7	ND	135	25-150		30.1	30	Non-dir.
Perfluoro-1-pentanesulfonate (PFPeS)	29.2	1.71	"	34.2	ND	85.4	25-150		6.58	30	
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	92.7	6.81	"	136	ND	68.0	25-150		6.12	30	
HFPO-DA (Gen-X)	74.1	7.27	"	72.7	ND	102	25-150		10.6	30	
11CL-PF3OUdS	93.6	6.87	"	68.7	ND	136	25-150		44.0	30	Non-dir.
9CL-PF3ONS	109	6.79	"	67.9	ND	161	25-150	High Bias	29.6	30	
ADONA	117	6.87	"	68.7	ND	171	25-150	High Bias	35.0	30	Non-dir.
Perfluorododecanesulfonic acid (PFDoS)	20.7	1.76	"	35.2	ND	58.8	25-150		8.42	30	
Perfluoro-1-nonanesulfonic acid (PFNS)	30.9	1.74	"	34.9	ND	88.5	25-150		4.83	30	
3-Perfluoropropyl propanoic acid (FPrPA)	24.5	4.54	"	145	ND	16.9	25-150	Low Bias	66.5	30	Non-dir.
3-Perfluoropentyl propanoic acid (FPePA)	308	22.7	"	727	ND	42.4	25-150		12.4	30	
3-Perfluoroheptyl propanoic acid (FHpPA)	373	22.7	"	727	ND	51.4	25-150		12.6	30	
N-MeFOSE	334	18.2	"	363	ND	92.0	25-150		0.483	30	
N-MeFOSA	29.3	1.82	"	36.3	ND	80.6	25-150		3.55	30	
N-EtFOSE	309	18.2	"	363	ND	85.1	25-150		9.30	30	
N-EtFOSA	25.1	1.82	"	36.3	ND	69.0	25-150		13.2	30	
Surrogate: M3PFBS	*32.1*		"	*21.2*		*152*	*25-150*				
Surrogate: M5PFHxA	*31.9*		"	*22.7*		*140*	*25-150*				
Surrogate: M4PFHpA	*31.4*		"	*22.7*		*138*	*25-150*				
Surrogate: M3PFHxS	*34.0*		"	*21.5*		*158*	*25-150*				
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*31.3*		"	*22.7*		*138*	*25-150*				
Surrogate: M6PFDA	*13.7*		"	*11.4*		*121*	*25-150*				
Surrogate: M7PFUdA	*16.3*		"	*11.4*		*144*	*25-150*				
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*13.5*		"	*11.4*		*119*	*25-150*				
Surrogate: M2PFTeDA	*10.3*		"	*11.4*		*90.8*	*10-150*				

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

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG40502 - EPA 1633 Prep											
Matrix Spike Dup (BG40502-MSD1)	*Source sample: 24F1801-03 (240625028-003C)								Prepared: 07/08/2024 Analyzed: 07/10/2024		
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*1.60*		*ng/L*	*90.8*		*1.77*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*32.0*		*"*	*21.8*		*147*	*25-150*				
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*30.5*		*"*	*45.4*		*67.1*	*25-150*				
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*26.6*		*"*	*22.7*		*117*	*10-150*				
Surrogate: d3-N-MeFOSAA	*54.1*		*"*	*45.4*		*119*	*25-150*				
Surrogate: d5-N-EtFOSAA	*54.4*		*"*	*45.4*		*120*	*25-150*				
Surrogate: M2-6:2 FTS	*39.7*		*"*	*43.2*		*91.9*	*25-200*				
Surrogate: M2-8:2 FTS	*45.0*		*"*	*43.6*		*103*	*25-200*				
Surrogate: M9PFNA	*17.5*		*"*	*11.4*		*154*	*25-150*				
Surrogate: M2-4:2 FTS	*36.5*		*"*	*42.6*		*85.8*	*25-150*				
Surrogate: d-N-MeFOSA	*16.9*		*"*	*22.7*		*74.6*	*25-150*				
Surrogate: d-N-EtFOSA	*17.9*		*"*	*22.7*		*79.0*	*25-150*				
Surrogate: M3HFPO-DA	*65.5*		*"*	*90.8*		*72.1*	*25-150*				
Surrogate: d9-N-EtFOSE	*162*		*"*	*227*		*71.2*	*25-150*				
Surrogate: d7-N-MeFOSE	*211*		*"*	*227*		*93.1*	*25-150*				

Sample and Data Qualifiers Relating to This Work Order

PFSu-L	The isotopically labeled surrogate recovered below lab control limits due to a matrix effect. Isotope Dilution was applied.
PFSu-H	The isotopically labeled surrogate recovered above lab control limits due to a matrix effect. Isotope Dilution was applied.
PF-LCS-L	The LCS recovery for this PFAS compound was below control limits.
PF-CCV-L	The CCV recovery for this PFAS compound was below control limits.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

Definitions and Other Explanations

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

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Laboratory Chain-of-Custody Record

York Project (SDG) No.: 24F1801

Samples Received: 06/27/2024 15:30 **By:** Noah C Soriano **Logged In:** 06/27/2024 9:35 **By:** Lea M. Sherman

Sample Conditions:

- [ ] Custody Seals
- [x] Containers Intact
- [x] COC/Labels Agree
- [x] Preservation Confirmed
- [x] Cooler Temperature Confirmed
- [x] COC Complete
- [x] Chain of Custody Form Received
- [x] Appropriate Sample Volumes Received
- [x] Appropriate Sample Containers Submitted
- [x] Samples Submitted within Holding Times
- [ ] Corrective Action Form Required

Preparation Chain-of-Custody

Sample ID	Reason Prep	Prep Start Date	Prep End Date	Prep Analyst
24F1801-01	EPA 1633 Prep	07/08/2024 17:39	07/08/2024 17:39	Joel Dhaness
24F1801-02	EPA 1633 Prep	07/08/2024 17:39	07/08/2024 17:39	Joel Dhaness
24F1801-03	EPA 1633 Prep	07/08/2024 17:39	07/08/2024 17:39	Joel Dhaness
24F1801-04	EPA 1633 Prep	07/08/2024 17:39	07/08/2024 17:39	Joel Dhaness

Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
24F1801-01	PFAS, EPA 1633 Target List	07/08/2024 17:39	07/10/2024 12:36	Aigerim Madyarova
24F1801-02	PFAS, EPA 1633 Target List	07/08/2024 17:39	07/10/2024 12:52	Aigerim Madyarova
24F1801-03	PFAS, EPA 1633 Target List	07/08/2024 17:39	07/10/2024 13:41	Aigerim Madyarova
24F1801-04	PFAS, EPA 1633 Target List	07/08/2024 17:39	07/10/2024 14:30	Aigerim Madyarova

Adirondack Environmental Service
314 N. Pearl St.
Albany, NY 12207
(518) 434-4546

240625028

240625028
24F1801

CHAIN-OF-CUSTODY RECORD

Acct #:

6/26/2024

Subcontractor:
York Analytical Laboratories, Inc.
132-02 89th Avenue
Suite 217
Richmond Hill, NY 11418

TEL:

Invoice to: Accounts Receivable
314 No Pearl St
Albany, NY 12207
OR: ARAES@adkenv.com

(All invoices MUST have PO)
Purchase Order : 240625028

AES ID	ClientID	Matrix	Collection Date	No. of Btls	Air Vol (Liters)	Requested Tests: EPA 1633W					
240625028-001C	MW-1	Groundwater	6/24/2024 11:35:00 AM	1	0	1					
240625028-002C	MW-4	Groundwater	6/24/2024 3:30:00 PM	1	0	1					
240625028-003C	MW-5	Groundwater	6/24/2024 2:25:00 PM	3	0	1					
240625028-004C	MW-5 Dup	Groundwater	6/24/2024 2:25:00 PM	1	0	1					

Comments: Sampled in New York State

*** Please e-mail results when they are ready.*** E-mail: SubReports@adirondackenvironmental.com

		Date/Time			Date/Time
Relinquished by:	Jeffrey Cluny	6/26/24 17:00	**Received by:**	Chris C	6-27-24 8:50
Relinquished by:	Chris C	6-27-24 1530	**Received by:**	NCCA	6-27-24 1530 4.3

York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
CLASS: PFAS
METHOD: EPA 1633 Draft 3

DATA PACKAGE COVER PAGE

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801

Client: Adirondack Environmental Services, Inc.
Project: 240625028

Client Sample Id:	Lab Sample Id:
240625028-001C	24F1801-01
240625028-002C	24F1801-02
240625028-003C	24F1801-03
240625028-004C	24F1801-04

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the project narrative. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the

Signature: 

Name: Cassie L. Mosher

Date: 8/7/2024

Title: Laboratory Manager

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (S4G1047-CCV1)			Lab File ID: QQQ41361.d		Analyzed: 07/10/24 09:07			
M3PFBS	2.33	106	70 - 130	5.4735	5.537413	-0.0639	+/-1.00	
M5PFHxA	2.50	102	70 - 130	6.29785	6.374235	-0.0764	+/-1.00	
M4PFHpA	2.50	109	70 - 130	7.142233	7.262489	-0.1203	+/-1.00	
M3PFHxS	2.37	103	70 - 130	7.24255	7.375458	-0.1329	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	96.5	70 - 130	7.829183	7.984846	-0.1557	+/-1.00	
M6PFDA	1.25	99.3	70 - 130	8.960466	9.099868	-0.1394	+/-1.00	
M7PFUdA	1.25	107	70 - 130	9.431733	9.5615	-0.1298	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	105	70 - 130	9.847266	9.969002	-0.1217	+/-1.00	
M2PFTeDA	1.25	111	70 - 130	10.53428	10.59178	-0.0575	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	100	70 - 130	1.27825	1.300046	-0.0218	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	111	70 - 130	8.476684	8.6183	-0.1416	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	98.7	70 - 130	4.6904	4.7717	-0.0813	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	105	70 - 130	9.546083	9.663958	-0.1179	+/-1.00	
d3-N-MeFOSAA	5.00	105	70 - 130	9.171117	9.304604	-0.1335	+/-1.00	
d5-N-EtFOSAA	5.00	121	70 - 130	9.41205	9.546608	-0.1346	+/-1.00	
M2-6:2 FTS	4.76	91.6	70 - 130	7.772417	7.9212	-0.1488	+/-1.00	
M2-8:2 FTS	4.80	96.9	70 - 130	8.93065	9.064858	-0.1342	+/-1.00	
M9PFNA	1.25	96.6	70 - 130	8.4415	8.5853	-0.1438	+/-1.00	
M2-4:2 FTS	4.69	97.0	70 - 130	6.222617	6.298503	-0.0759	+/-1.00	
d-N-MeFOSA	2.50	113	70 - 130	10.33005	10.43133	-0.1013	+/-1.00	
d-N-EtFOSA	2.50	110	70 - 130	10.60365	10.67725	-0.0736	+/-1.00	
M3HFPO-DA	10.0	106	70 - 130	6.596533	6.687971	-0.0914	+/-1.00	
d9-N-EtFOSE	25.0	107	70 - 130	10.56375	10.63852	-0.0748	+/-1.00	
d7-N-MeFOSE	25.0	103	70 - 130	10.29887	10.39784	-0.0990	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (S4G1047-CCB1)			Lab File ID: QQQ41364.d		Analyzed: 07/10/24 09:55			
M3PFBS	2.33	115	25 - 150	5.4735	5.537413	-0.0639	+/-1.00	
M5PFHxA	2.50	104	25 - 150	6.316367	6.374235	-0.0579	+/-1.00	
M4PFHpA	2.50	116	25 - 150	7.1885	7.262489	-0.0740	+/-1.00	
M3PFHxS	2.37	113	25 - 150	7.2985	7.375458	-0.0770	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	105	25 - 150	7.903417	7.984846	-0.0814	+/-1.00	
M6PFDA	1.25	103	25 - 150	9.034567	9.099868	-0.0653	+/-1.00	
M7PFUdA	1.25	131	25 - 150	9.48725	9.5615	-0.0743	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	112	25 - 150	9.8934	9.969002	-0.0756	+/-1.00	
M2PFTeDA	1.25	125	10 - 150	10.55268	10.59178	-0.0391	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	108	25 - 150	1.269067	1.300046	-0.0310	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	92.0	25 - 150	8.5604	8.6183	-0.0579	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	104	25 - 150	4.652833	4.7717	-0.1189	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	99.1	10 - 150	9.610817	9.663958	-0.0531	+/-1.00	
d3-N-MeFOSAA	5.00	114	25 - 150	9.235967	9.304604	-0.0686	+/-1.00	
d5-N-EtFOSAA	5.00	125	25 - 150	9.4768	9.546608	-0.0698	+/-1.00	
M2-6:2 FTS	4.76	95.0	25 - 200	7.837683	7.9212	-0.0835	+/-1.00	
M2-8:2 FTS	4.80	95.6	25 - 200	8.996634	9.064858	-0.0682	+/-1.00	
M9PFNA	1.25	111	25 - 150	8.5251	8.5853	-0.0602	+/-1.00	
M2-4:2 FTS	4.69	106	25 - 150	6.241133	6.298503	-0.0574	+/-1.00	
d-N-MeFOSA	2.50	119	25 - 150	10.36688	10.43133	-0.0645	+/-1.00	
d-N-EtFOSA	2.50	124	25 - 150	10.63125	10.67725	-0.0460	+/-1.00	
M3HFPO-DA	10.0	113	25 - 150	6.624317	6.687971	-0.0637	+/-1.00	
d9-N-EtFOSE	25.0	109	25 - 150	10.59135	10.63852	-0.0472	+/-1.00	
d7-N-MeFOSE	25.0	106	25 - 150	10.3357	10.39784	-0.0621	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Blank (BG40502-BLK1)			Lab File ID: QQQ41366.d		Analyzed: 07/10/24 10:28			
M3PFBS	46.6	155	25 - 150	5.519617	5.537413	-0.0178	+/-1.00	*
M5PFHxA	50.0	142	25 - 150	6.3349	6.374235	-0.0393	+/-1.00	
M4PFHpA	50.0	156	25 - 150	7.17925	7.262489	-0.0832	+/-1.00	*
M3PFHxS	47.4	149	25 - 150	7.288816	7.375458	-0.0866	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	50.0	136	25 - 150	7.884867	7.984846	-0.1000	+/-1.00	
M6PFDA	25.0	123	25 - 150	9.01605	9.099868	-0.0838	+/-1.00	
M7PFUdA	25.0	141	25 - 150	9.48725	9.5615	-0.0743	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	25.0	129	25 - 150	9.921083	9.969002	-0.0479	+/-1.00	
M2PFTeDA	25.0	115	10 - 150	10.58952	10.59178	-0.0023	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	200	10.1	25 - 150	1.360867	1.300046	0.0608	+/-1.00	*
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	47.9	125	25 - 150	8.523334	8.6183	-0.0950	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	100	119	25 - 150	4.774017	4.7717	0.0023	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	50.0	135	10 - 150	9.629316	9.663958	-0.0346	+/-1.00	
d3-N-MeFOSAA	100	138	25 - 150	9.226717	9.304604	-0.0779	+/-1.00	
d5-N-EtFOSAA	100	155	25 - 150	9.476817	9.546608	-0.0698	+/-1.00	*
M2-6:2 FTS	95.1	132	25 - 200	7.819133	7.9212	-0.1021	+/-1.00	
M2-8:2 FTS	96.0	115	25 - 200	8.978117	9.064858	-0.0867	+/-1.00	
M9PFNA	25.0	130	25 - 150	8.487817	8.5853	-0.0975	+/-1.00	
M2-4:2 FTS	93.8	135	25 - 150	6.25965	6.298503	-0.0389	+/-1.00	
d-N-MeFOSA	50.0	135	25 - 150	10.40373	10.43133	-0.0276	+/-1.00	
d-N-EtFOSA	50.0	119	25 - 150	10.66808	10.67725	-0.0092	+/-1.00	
M3HFPO-DA	200	147	25 - 150	6.633567	6.687971	-0.0544	+/-1.00	
d9-N-EtFOSE	500	81.8	25 - 150	10.61898	10.63852	-0.0195	+/-1.00	
d7-N-MeFOSE	500	99.4	25 - 150	10.36333	10.39784	-0.0345	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (BG40502-BS1)			Lab File ID: QQQ41367.d		Analyzed: 07/10/24 10:44			
M3PFBS	46.6	136	25 - 150	5.49195	5.537413	-0.0455	+/-1.00	
M5PFHxA	50.0	124	25 - 150	6.334883	6.374235	-0.0394	+/-1.00	
M4PFHpA	50.0	127	25 - 150	7.207	7.262489	-0.0555	+/-1.00	
M3PFHxS	47.4	127	25 - 150	7.317017	7.375458	-0.0584	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	50.0	113	25 - 150	7.931267	7.984846	-0.0536	+/-1.00	
M6PFDA	25.0	107	25 - 150	9.071917	9.099868	-0.0280	+/-1.00	
M7PFUdA	25.0	147	25 - 150	9.543016	9.5615	-0.0185	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	25.0	128	25 - 150	9.95865	9.969002	-0.0104	+/-1.00	
M2PFTeDA	25.0	108	10 - 150	10.5987	10.59178	0.0069	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	200	4.85	25 - 150	1.2966	1.300046	-0.0034	+/-1.00	*
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	47.9	114	25 - 150	8.569667	8.6183	-0.0486	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	99.9	95.1	25 - 150	4.6904	4.7717	-0.0813	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	50.0	121	10 - 150	9.666284	9.663958	0.0023	+/-1.00	
d3-N-MeFOSAA	99.9	121	25 - 150	9.2823	9.304604	-0.0223	+/-1.00	
d5-N-EtFOSAA	99.9	128	25 - 150	9.53275	9.546608	-0.0139	+/-1.00	
M2-6:2 FTS	95.0	123	25 - 200	7.865533	7.9212	-0.0557	+/-1.00	
M2-8:2 FTS	95.9	108	25 - 200	9.033667	9.064858	-0.0312	+/-1.00	
M9PFNA	25.0	123	25 - 150	8.543616	8.5853	-0.0417	+/-1.00	
M2-4:2 FTS	93.7	122	25 - 150	6.259634	6.298503	-0.0389	+/-1.00	
d-N-MeFOSA	50.0	116	25 - 150	10.42213	10.43133	-0.0092	+/-1.00	
d-N-EtFOSA	50.0	108	25 - 150	10.67727	10.67725	0.0000	+/-1.00	
M3HFPO-DA	200	129	25 - 150	6.642817	6.687971	-0.0452	+/-1.00	
d9-N-EtFOSE	500	76.4	25 - 150	10.63737	10.63852	-0.0011	+/-1.00	
d7-N-MeFOSE	500	85.7	25 - 150	10.39095	10.39784	-0.0069	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
LCS (BG40502-BS2)			Lab File ID: QQQ41368.d		Analyzed: 07/10/24 11:00			
M3PFBS	46.6	152	25 - 150	5.56625	5.537413	0.0288	+/-1.00	*
M5PFHxA	50.0	140	25 - 150	6.3534	6.374235	-0.0208	+/-1.00	
M4PFHpA	50.0	148	25 - 150	7.17925	7.262489	-0.0832	+/-1.00	
M3PFHxS	47.4	143	25 - 150	7.27955	7.375458	-0.0959	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	50.0	142	25 - 150	7.8663	7.984846	-0.1185	+/-1.00	
M6PFDA	25.0	123	25 - 150	8.978967	9.099868	-0.1209	+/-1.00	
M7PFUdA	25.0	135	25 - 150	9.431717	9.5615	-0.1298	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	25.0	124	25 - 150	9.856466	9.969002	-0.1125	+/-1.00	
M2PFTeDA	25.0	100	10 - 150	10.52507	10.59178	-0.0667	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	200	3.02	25 - 150	1.3425	1.300046	0.0425	+/-1.00	*
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	47.9	129	25 - 150	8.4952	8.6183	-0.1231	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	100	81.7	25 - 150	4.82935	4.7717	0.0576	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	50.0	145	10 - 150	9.573816	9.663958	-0.0901	+/-1.00	
d3-N-MeFOSAA	100	140	25 - 150	9.189633	9.304604	-0.1150	+/-1.00	
d5-N-EtFOSAA	100	153	25 - 150	9.430533	9.546608	-0.1161	+/-1.00	*
M2-6:2 FTS	95.1	126	25 - 200	7.800567	7.9212	-0.1206	+/-1.00	
M2-8:2 FTS	96.0	128	25 - 200	8.939934	9.064858	-0.1249	+/-1.00	
M9PFNA	25.0	140	25 - 150	8.460016	8.5853	-0.1253	+/-1.00	
M2-4:2 FTS	93.8	134	25 - 150	6.2877	6.298503	-0.0108	+/-1.00	
d-N-MeFOSA	50.0	150	25 - 150	10.33925	10.43133	-0.0921	+/-1.00	
d-N-EtFOSA	50.0	127	25 - 150	10.61285	10.67725	-0.0644	+/-1.00	
M3HFPO-DA	200	153	25 - 150	6.652083	6.687971	-0.0359	+/-1.00	*
d9-N-EtFOSE	500	76.9	25 - 150	10.56373	10.63852	-0.0748	+/-1.00	
d7-N-MeFOSE	500	93.5	25 - 150	10.29885	10.39784	-0.0990	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
240625028-001C (24F1801-01)				Lab File ID: QQQ41374.d		Analyzed: 07/10/24 12:36		
M3PFBS	21.5	132	25 - 150	5.557034	5.537413	0.0196	+/-1.00	
M5PFHxA	23.1	127	25 - 150	6.390433	6.374235	0.0162	+/-1.00	
M4PFHpA	23.1	138	25 - 150	7.244	7.262489	-0.0185	+/-1.00	
M3PFHxS	21.9	121	25 - 150	7.354417	7.375458	-0.0210	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	23.1	119	25 - 150	7.95	7.984846	-0.0348	+/-1.00	
M6PFDA	11.5	132	25 - 150	9.090466	9.099868	-0.0094	+/-1.00	
M7PFUdA	11.5	124	25 - 150	9.561517	9.5615	0.0000	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.5	91.7	25 - 150	9.9863	9.969002	0.0173	+/-1.00	
M2PFTeDA	11.5	75.2	10 - 150	10.68157	10.59178	0.0898	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	92.4	122	25 - 150	1.32415	1.300046	0.0241	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	22.1	119	25 - 150	8.5882	8.6183	-0.0301	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	46.2	126	25 - 150	4.764783	4.7717	-0.0069	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	23.1	128	10 - 150	9.684783	9.663958	0.0208	+/-1.00	
d3-N-MeFOSAA	46.2	113	25 - 150	9.30085	9.304604	-0.0038	+/-1.00	
d5-N-EtFOSAA	46.2	119	25 - 150	9.55125	9.546608	0.0046	+/-1.00	
M2-6:2 FTS	43.9	115	25 - 200	7.893367	7.9212	-0.0278	+/-1.00	
M2-8:2 FTS	44.3	104	25 - 200	9.0522	9.064858	-0.0127	+/-1.00	
M9PFNA	11.5	124	25 - 150	8.56215	8.5853	-0.0231	+/-1.00	
M2-4:2 FTS	43.3	126	25 - 150	6.315484	6.298503	0.0170	+/-1.00	
d-N-MeFOSA	23.1	74.4	25 - 150	10.48662	10.43133	0.0553	+/-1.00	
d-N-EtFOSA	23.1	54.5	25 - 150	10.76013	10.67725	0.0829	+/-1.00	
M3HFPO-DA	92.4	131	25 - 150	6.698383	6.687971	0.0104	+/-1.00	
d9-N-EtFOSE	231	70.9	25 - 150	10.71103	10.63852	0.0725	+/-1.00	
d7-N-MeFOSE	231	84.9	25 - 150	10.44622	10.39784	0.0484	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
240625028-002C (24F1801-02)				Lab File ID: QQQ41375.d		Analyzed: 07/10/24 12:52		
M3PFBS	23.1	155	25 - 150	5.557034	5.537413	0.0196	+/-1.00	*
M5PFHxA	24.7	140	25 - 150	6.353416	6.374235	-0.0208	+/-1.00	
M4PFHpA	24.7	140	25 - 150	7.19775	7.262489	-0.0647	+/-1.00	
M3PFHxS	23.5	140	25 - 150	7.307766	7.375458	-0.0677	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	24.7	127	25 - 150	7.912717	7.984846	-0.0721	+/-1.00	
M6PFDA	12.4	108	25 - 150	9.062683	9.099868	-0.0372	+/-1.00	
M7PFUdA	12.4	76.9	25 - 150	9.54305	9.5615	-0.0185	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	12.4	39.7	25 - 150	9.986317	9.969002	0.0173	+/-1.00	
M2PFTeDA	12.4	22.8	10 - 150	10.68157	10.59178	0.0898	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	99.0	135	25 - 150	1.37005	1.300046	0.0700	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	23.7	117	25 - 150	8.560416	8.6183	-0.0579	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	49.5	141	25 - 150	4.820133	4.7717	0.0484	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	24.7	102	10 - 150	9.67555	9.663958	0.0116	+/-1.00	
d3-N-MeFOSAA	49.5	91.6	25 - 150	9.282333	9.304604	-0.0223	+/-1.00	
d5-N-EtFOSAA	49.5	81.5	25 - 150	9.532766	9.546608	-0.0138	+/-1.00	
M2-6:2 FTS	47.1	120	25 - 200	7.846983	7.9212	-0.0742	+/-1.00	
M2-8:2 FTS	47.5	108	25 - 200	9.024433	9.064858	-0.0404	+/-1.00	
M9PFNA	12.4	129	25 - 150	8.525117	8.5853	-0.0602	+/-1.00	
M2-4:2 FTS	46.4	174	25 - 150	6.27845	6.298503	-0.0201	+/-1.00	*
d-N-MeFOSA	24.7	26.9	25 - 150	10.48663	10.43133	0.0553	+/-1.00	
d-N-EtFOSA	24.7	17.3	25 - 150	10.76015	10.67725	0.0829	+/-1.00	*
M3HFPO-DA	99.0	147	25 - 150	6.652083	6.687971	-0.0359	+/-1.00	
d9-N-EtFOSE	247	8.54	25 - 150	10.72025	10.63852	0.0817	+/-1.00	*
d7-N-MeFOSE	247	15.4	25 - 150	10.44623	10.39784	0.0484	+/-1.00	*

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (S4G1047-CCV2)				Lab File ID: QQQ41376.d		Analyzed: 07/10/24 13:09		
M3PFBS	2.33	102	70 - 130	5.566267	5.537413	0.0289	+/-1.00	
M5PFHxA	2.50	101	70 - 130	6.3812	6.374235	0.0070	+/-1.00	
M4PFHpA	2.50	103	70 - 130	7.216267	7.262489	-0.0462	+/-1.00	
M3PFHxS	2.37	103	70 - 130	7.317033	7.375458	-0.0584	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	96.6	70 - 130	7.912717	7.984846	-0.0721	+/-1.00	
M6PFDA	1.25	86.1	70 - 130	9.034567	9.099868	-0.0653	+/-1.00	
M7PFUdA	1.25	98.3	70 - 130	9.505767	9.5615	-0.0557	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	103	70 - 130	9.940233	9.969002	-0.0288	+/-1.00	
M2PFTeDA	1.25	93.1	70 - 130	10.64475	10.59178	0.0530	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	105	70 - 130	1.305783	1.300046	0.0057	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	94.2	70 - 130	8.541883	8.6183	-0.0764	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	97.4	70 - 130	4.783233	4.7717	0.0115	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	101	70 - 130	9.647817	9.663958	-0.0161	+/-1.00	
d3-N-MeFOSAA	5.00	98.4	70 - 130	9.24525	9.304604	-0.0594	+/-1.00	
d5-N-EtFOSAA	5.00	110	70 - 130	9.495317	9.546608	-0.0513	+/-1.00	
M2-6:2 FTS	4.76	82.0	70 - 130	7.846983	7.9212	-0.0742	+/-1.00	
M2-8:2 FTS	4.80	80.1	70 - 130	8.996634	9.064858	-0.0682	+/-1.00	
M9PFNA	1.25	96.6	70 - 130	8.50635	8.5853	-0.0790	+/-1.00	
M2-4:2 FTS	4.69	94.8	70 - 130	6.306233	6.298503	0.0077	+/-1.00	
d-N-MeFOSA	2.50	103	70 - 130	10.459	10.43133	0.0277	+/-1.00	
d-N-EtFOSA	2.50	105	70 - 130	10.73252	10.67725	0.0553	+/-1.00	
M3HFPO-DA	10.0	104	70 - 130	6.679917	6.687971	-0.0081	+/-1.00	
d9-N-EtFOSE	25.0	112	70 - 130	10.69263	10.63852	0.0541	+/-1.00	
d7-N-MeFOSE	25.0	121	70 - 130	10.4186	10.39784	0.0208	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (S4G1047-CCB2)				Lab File ID: QQQ41377.d		Analyzed: 07/10/24 13:25		
M3PFBS	2.33	106	25 - 150	5.529333	5.537413	-0.0081	+/-1.00	
M5PFHxA	2.50	108	25 - 150	6.344133	6.374235	-0.0301	+/-1.00	
M4PFHpA	2.50	116	25 - 150	7.188483	7.262489	-0.0740	+/-1.00	
M3PFHxS	2.37	114	25 - 150	7.298483	7.375458	-0.0770	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	96.0	25 - 150	7.903417	7.984846	-0.0814	+/-1.00	
M6PFDA	1.25	118	25 - 150	9.034534	9.099868	-0.0653	+/-1.00	
M7PFUdA	1.25	135	25 - 150	9.505733	9.5615	-0.0558	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	141	25 - 150	9.9402	9.969002	-0.0288	+/-1.00	
M2PFTeDA	1.25	159	10 - 150	10.64472	10.59178	0.0529	+/-1.00	*
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	111	25 - 150	1.333317	1.300046	0.0333	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	93.7	25 - 150	8.54185	8.6183	-0.0764	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	108	25 - 150	4.774	4.7717	0.0023	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	107	10 - 150	9.647783	9.663958	-0.0162	+/-1.00	
d3-N-MeFOSAA	5.00	106	25 - 150	9.245216	9.304604	-0.0594	+/-1.00	
d5-N-EtFOSAA	5.00	121	25 - 150	9.4953	9.546608	-0.0513	+/-1.00	
M2-6:2 FTS	4.76	65.0	25 - 200	7.837683	7.9212	-0.0835	+/-1.00	
M2-8:2 FTS	4.80	77.3	25 - 200	8.9966	9.064858	-0.0683	+/-1.00	
M9PFNA	1.25	103	25 - 150	8.506317	8.5853	-0.0790	+/-1.00	
M2-4:2 FTS	4.69	70.5	25 - 150	6.268883	6.298503	-0.0296	+/-1.00	
d-N-MeFOSA	2.50	126	25 - 150	10.45897	10.43133	0.0276	+/-1.00	
d-N-EtFOSA	2.50	145	25 - 150	10.7417	10.67725	0.0644	+/-1.00	
M3HFPO-DA	10.0	115	25 - 150	6.642817	6.687971	-0.0452	+/-1.00	
d9-N-EtFOSE	25.0	156	25 - 150	10.6926	10.63852	0.0541	+/-1.00	*
d7-N-MeFOSE	25.0	160	25 - 150	10.41857	10.39784	0.0207	+/-1.00	*

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
240625028-003C (24F1801-03)				Lab File ID: QQQ41378.d		Analyzed: 07/10/24 13:41		
M3PFBS	20.9	136	25 - 150	5.566267	5.537413	0.0289	+/-1.00	
M5PFHxA	22.4	132	25 - 150	6.362667	6.374235	-0.0116	+/-1.00	
M4PFHpA	22.4	128	25 - 150	7.1885	7.262489	-0.0740	+/-1.00	
M3PFHxS	21.3	137	25 - 150	7.2985	7.375458	-0.0770	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	22.4	128	25 - 150	7.89415	7.984846	-0.0907	+/-1.00	
M6PFDA	11.2	109	25 - 150	9.01605	9.099868	-0.0838	+/-1.00	
M7PFUdA	11.2	106	25 - 150	9.496516	9.5615	-0.0650	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.2	84.4	25 - 150	9.94025	9.969002	-0.0288	+/-1.00	
M2PFTeDA	11.2	46.2	10 - 150	10.65397	10.59178	0.0622	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	89.7	103	25 - 150	1.415933	1.300046	0.1159	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	21.5	114	25 - 150	8.523334	8.6183	-0.0950	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	44.8	134	25 - 150	4.838583	4.7717	0.0669	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	22.4	116	10 - 150	9.638567	9.663958	-0.0254	+/-1.00	
d3-N-MeFOSAA	44.8	98.1	25 - 150	9.235983	9.304604	-0.0686	+/-1.00	
d5-N-EtFOSAA	44.8	98.2	25 - 150	9.495334	9.546608	-0.0513	+/-1.00	
M2-6:2 FTS	42.6	77.4	25 - 200	7.828417	7.9212	-0.0928	+/-1.00	
M2-8:2 FTS	43.0	86.2	25 - 200	8.987383	9.064858	-0.0775	+/-1.00	
M9PFNA	11.2	126	25 - 150	8.487817	8.5853	-0.0975	+/-1.00	
M2-4:2 FTS	42.1	75.8	25 - 150	6.287717	6.298503	-0.0108	+/-1.00	
d-N-MeFOSA	22.4	61.9	25 - 150	10.46822	10.43133	0.0369	+/-1.00	
d-N-EtFOSA	22.4	47.0	25 - 150	10.74173	10.67725	0.0645	+/-1.00	
M3HFPO-DA	89.7	110	25 - 150	6.652083	6.687971	-0.0359	+/-1.00	
d9-N-EtFOSE	224	37.6	25 - 150	10.70183	10.63852	0.0633	+/-1.00	
d7-N-MeFOSE	224	64.5	25 - 150	10.42782	10.39784	0.0300	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Matrix Spike (BG40502-MS1)			Lab File ID: QQQ41379.d		Analyzed: 07/10/24 13:57			
M3PFBS	20.7	147	25 - 150	5.519617	5.537413	-0.0178	+/-1.00	
M5PFHxA	22.3	147	25 - 150	6.353416	6.374235	-0.0208	+/-1.00	
M4PFHpA	22.3	146	25 - 150	7.225517	7.262489	-0.0370	+/-1.00	
M3PFHxS	21.1	137	25 - 150	7.3359	7.375458	-0.0396	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	22.3	138	25 - 150	7.950016	7.984846	-0.0348	+/-1.00	
M6PFDA	11.1	145	25 - 150	9.109217	9.099868	0.0093	+/-1.00	
M7PFUdA	11.1	143	25 - 150	9.580033	9.5615	0.0185	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.1	124	25 - 150	10.02308	9.969002	0.0541	+/-1.00	
M2PFTeDA	11.1	106	10 - 150	10.69997	10.59178	0.1082	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	89.0	6.57	25 - 150	1.3425	1.300046	0.0425	+/-1.00	*
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	21.3	122	25 - 150	8.606733	8.6183	-0.0116	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	44.5	123	25 - 150	4.746333	4.7717	-0.0254	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	22.3	118	10 - 150	9.721784	9.663958	0.0578	+/-1.00	
d3-N-MeFOSAA	44.5	114	25 - 150	9.319883	9.304604	0.0153	+/-1.00	
d5-N-EtFOSAA	44.5	123	25 - 150	9.56975	9.546608	0.0231	+/-1.00	
M2-6:2 FTS	42.3	91.4	25 - 200	7.8841	7.9212	-0.0371	+/-1.00	
M2-8:2 FTS	42.7	101	25 - 200	9.071116	9.064858	0.0063	+/-1.00	
M9PFNA	11.1	146	25 - 150	8.571433	8.5853	-0.0139	+/-1.00	
M2-4:2 FTS	41.8	84.8	25 - 150	6.278467	6.298503	-0.0200	+/-1.00	
d-N-MeFOSA	22.3	79.3	25 - 150	10.51425	10.43133	0.0829	+/-1.00	
d-N-EtFOSA	22.3	68.5	25 - 150	10.78775	10.67725	0.1105	+/-1.00	
M3HFPO-DA	89.0	100	25 - 150	6.66135	6.687971	-0.0266	+/-1.00	
d9-N-EtFOSE	223	70.6	25 - 150	10.73865	10.63852	0.1001	+/-1.00	
d7-N-MeFOSE	223	93.1	25 - 150	10.47385	10.39784	0.0760	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Matrix Spike Dup (BG40502-MSD1)			Lab File ID: QQQ41380.d		Analyzed: 07/10/24 14:13			
M3PFBS	21.2	152	25 - 150	5.557034	5.537413	0.0196	+/-1.00	*
M5PFHxA	22.7	140	25 - 150	6.371933	6.374235	-0.0023	+/-1.00	
M4PFHpA	22.7	138	25 - 150	7.207	7.262489	-0.0555	+/-1.00	
M3PFHxS	21.5	158	25 - 150	7.317033	7.375458	-0.0584	+/-1.00	*
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	22.7	138	25 - 150	7.9127	7.984846	-0.0721	+/-1.00	
M6PFDA	11.4	121	25 - 150	9.043817	9.099868	-0.0561	+/-1.00	
M7PFUdA	11.4	144	25 - 150	9.515017	9.5615	-0.0465	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.4	119	25 - 150	9.9771	9.969002	0.0081	+/-1.00	
M2PFTeDA	11.4	90.8	10 - 150	10.69077	10.59178	0.0990	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	90.8	1.77	25 - 150	1.32415	1.300046	0.0241	+/-1.00	*
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	21.8	147	25 - 150	8.541866	8.6183	-0.0764	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	45.4	67.1	25 - 150	4.792467	4.7717	0.0208	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	22.7	117	10 - 150	9.6663	9.663958	0.0023	+/-1.00	
d3-N-MeFOSAA	45.4	119	25 - 150	9.254517	9.304604	-0.0501	+/-1.00	
d5-N-EtFOSAA	45.4	120	25 - 150	9.504583	9.546608	-0.0420	+/-1.00	
M2-6:2 FTS	43.2	91.9	25 - 200	7.846967	7.9212	-0.0742	+/-1.00	
M2-8:2 FTS	43.6	103	25 - 200	9.0059	9.064858	-0.0590	+/-1.00	
M9PFNA	11.4	154	25 - 150	8.515833	8.5853	-0.0695	+/-1.00	*
M2-4:2 FTS	42.6	85.8	25 - 150	6.296967	6.298503	-0.0015	+/-1.00	
d-N-MeFOSA	22.7	74.6	25 - 150	10.49583	10.43133	0.0645	+/-1.00	
d-N-EtFOSA	22.7	79.0	25 - 150	10.77855	10.67725	0.1013	+/-1.00	
M3HFPO-DA	90.8	72.1	25 - 150	6.66135	6.687971	-0.0266	+/-1.00	
d9-N-EtFOSE	227	71.2	25 - 150	10.73865	10.63852	0.1001	+/-1.00	
d7-N-MeFOSE	227	93.1	25 - 150	10.46465	10.39784	0.0668	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
240625028-004C (24F1801-04)				Lab File ID: QQQ41381.d		Analyzed: 07/10/24 14:30		
M3PFBS	21.4	128	25 - 150	5.56625	5.537413	0.0288	+/-1.00	
M5PFHxA	22.9	133	25 - 150	6.381183	6.374235	0.0069	+/-1.00	
M4PFHpA	22.9	128	25 - 150	7.206984	7.262489	-0.0555	+/-1.00	
M3PFHxS	21.7	125	25 - 150	7.317017	7.375458	-0.0584	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	22.9	129	25 - 150	7.9127	7.984846	-0.0721	+/-1.00	
M6PFDA	11.5	117	25 - 150	9.025283	9.099868	-0.0746	+/-1.00	
M7PFUdA	11.5	118	25 - 150	9.496484	9.5615	-0.0650	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.5	90.1	25 - 150	9.9303	9.969002	-0.0387	+/-1.00	
M2PFTeDA	11.5	62.0	10 - 150	10.62632	10.59178	0.0345	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	91.8	127	25 - 150	1.351683	1.300046	0.0516	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	22.0	122	25 - 150	8.532583	8.6183	-0.0857	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	45.9	138	25 - 150	4.801683	4.7717	0.0300	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	22.9	103	10 - 150	9.629283	9.663958	-0.0347	+/-1.00	
d3-N-MeFOSAA	45.9	95.5	25 - 150	9.245216	9.304604	-0.0594	+/-1.00	
d5-N-EtFOSAA	45.9	97.0	25 - 150	9.48605	9.546608	-0.0606	+/-1.00	
M2-6:2 FTS	43.6	66.7	25 - 200	7.846967	7.9212	-0.0742	+/-1.00	
M2-8:2 FTS	44.0	75.2	25 - 200	8.996616	9.064858	-0.0682	+/-1.00	
M9PFNA	11.5	117	25 - 150	8.506333	8.5853	-0.0790	+/-1.00	
M2-4:2 FTS	43.0	55.7	25 - 150	6.306217	6.298503	0.0077	+/-1.00	
d-N-MeFOSA	22.9	26.0	25 - 150	10.43133	10.43133	0.0000	+/-1.00	
d-N-EtFOSA	22.9	14.3	25 - 150	10.69568	10.67725	0.0184	+/-1.00	*
M3HFPO-DA	91.8	48.7	25 - 150	6.670583	6.687971	-0.0174	+/-1.00	
d9-N-EtFOSE	229	29.8	25 - 150	10.66498	10.63852	0.0265	+/-1.00	
d7-N-MeFOSE	229	46.0	25 - 150	10.40015	10.39784	0.0023	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (S4G1047-CCV3)				Lab File ID: QQQ41400.d		Analyzed: 07/10/24 17:15		
M3PFBS	2.33	82.7	70 - 130	5.6597	5.537413	0.1223	+/-1.00	
M5PFHxA	2.50	78.5	70 - 130	6.483483	6.374235	0.1092	+/-1.00	
M4PFHpA	2.50	80.0	70 - 130	7.309033	7.262489	0.0465	+/-1.00	
M3PFHxS	2.37	90.8	70 - 130	7.41025	7.375458	0.0348	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	106	70 - 130	7.97785	7.984846	-0.0070	+/-1.00	
M6PFDA	1.25	110	70 - 130	9.062634	9.099868	-0.0372	+/-1.00	
M7PFUdA	1.25	125	70 - 130	9.543	9.5615	-0.0185	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	127	70 - 130	9.9954	9.969002	0.0264	+/-1.00	
M2PFTeDA	1.25	164	70 - 130	10.71835	10.59178	0.1266	+/-1.00	*
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	99.6	70 - 130	1.406767	1.300046	0.1067	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	108	70 - 130	8.56965	8.6183	-0.0487	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	78.9	70 - 130	4.922133	4.7717	0.1504	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	82.3	70 - 130	9.721766	9.663958	0.0578	+/-1.00	
d3-N-MeFOSAA	5.00	94.4	70 - 130	9.291567	9.304604	-0.0130	+/-1.00	
d5-N-EtFOSAA	5.00	140	70 - 130	9.541984	9.546608	-0.0046	+/-1.00	*
M2-6:2 FTS	4.76	59.9	70 - 130	7.911917	7.9212	-0.0093	+/-1.00	*
M2-8:2 FTS	4.80	74.6	70 - 130	9.0244	9.064858	-0.0405	+/-1.00	
M9PFNA	1.25	100	70 - 130	8.552867	8.5853	-0.0324	+/-1.00	
M2-4:2 FTS	4.69	41.1	70 - 130	6.408083	6.298503	0.1096	+/-1.00	*
d-N-MeFOSA	2.50	37.7	70 - 130	10.51422	10.43133	0.0829	+/-1.00	*
d-N-EtFOSA	2.50	36.5	70 - 130	10.79692	10.67725	0.1197	+/-1.00	*
M3HFPO-DA	10.0	9.34	70 - 130	6.781483	6.687971	0.0935	+/-1.00	*
d9-N-EtFOSE	25.0	45.6	70 - 130	10.75703	10.63852	0.1185	+/-1.00	*
d7-N-MeFOSE	25.0	50.2	70 - 130	10.47382	10.39784	0.0760	+/-1.00	*

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (S4G1047-CCB3)			Lab File ID: QQQ41401.d		Analyzed: 07/10/24 17:31			
M3PFBS	2.33	112	25 - 150	5.557034	5.537413	0.0196	+/-1.00	
M5PFHxA	2.50	111	25 - 150	6.371933	6.374235	-0.0023	+/-1.00	
M4PFHpA	2.50	108	25 - 150	7.19775	7.262489	-0.0647	+/-1.00	
M3PFHxS	2.37	122	25 - 150	7.307766	7.375458	-0.0677	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	101	25 - 150	7.903433	7.984846	-0.0814	+/-1.00	
M6PFDA	1.25	103	25 - 150	9.016033	9.099868	-0.0838	+/-1.00	
M7PFUdA	1.25	127	25 - 150	9.4965	9.5615	-0.0650	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	134	25 - 150	9.949433	9.969002	-0.0196	+/-1.00	
M2PFTeDA	1.25	162	10 - 150	10.65393	10.59178	0.0622	+/-1.00	*
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	106	25 - 150	1.3425	1.300046	0.0425	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	128	25 - 150	8.5326	8.6183	-0.0857	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	110	25 - 150	4.79245	4.7717	0.0207	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	88.3	10 - 150	9.6478	9.663958	-0.0162	+/-1.00	
d3-N-MeFOSAA	5.00	94.5	25 - 150	9.235967	9.304604	-0.0686	+/-1.00	
d5-N-EtFOSAA	5.00	115	25 - 150	9.48605	9.546608	-0.0606	+/-1.00	
M2-6:2 FTS	4.76	56.5	25 - 200	7.8377	7.9212	-0.0835	+/-1.00	
M2-8:2 FTS	4.80	67.8	25 - 200	8.987367	9.064858	-0.0775	+/-1.00	
M9PFNA	1.25	111	25 - 150	8.497084	8.5853	-0.0882	+/-1.00	
M2-4:2 FTS	4.69	48.5	25 - 150	6.296967	6.298503	-0.0015	+/-1.00	
d-N-MeFOSA	2.50	39.4	25 - 150	10.46818	10.43133	0.0368	+/-1.00	
d-N-EtFOSA	2.50	55.7	25 - 150	10.75092	10.67725	0.0737	+/-1.00	
M3HFPO-DA	10.0	15.2	25 - 150	6.66135	6.687971	-0.0266	+/-1.00	*
d9-N-EtFOSE	25.0	61.9	25 - 150	10.71102	10.63852	0.0725	+/-1.00	
d7-N-MeFOSE	25.0	56.1	25 - 150	10.437	10.39784	0.0392	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (S4G1047-CCV4)				Lab File ID: QQQ41408.d		Analyzed: 07/10/24 19:29		
M3PFBS	2.33	82.3	70 - 130	5.5196	5.537413	-0.0178	+/-1.00	
M5PFHxA	2.50	99.5	70 - 130	6.334883	6.374235	-0.0394	+/-1.00	
M4PFHpA	2.50	105	70 - 130	7.17925	7.262489	-0.0832	+/-1.00	
M3PFHxS	2.37	103	70 - 130	7.27955	7.375458	-0.0959	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	96.7	70 - 130	7.875583	7.984846	-0.1093	+/-1.00	
M6PFDA	1.25	101	70 - 130	9.016033	9.099868	-0.0838	+/-1.00	
M7PFUdA	1.25	80.3	70 - 130	9.48725	9.5615	-0.0743	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	67.2	70 - 130	9.9303	9.969002	-0.0387	+/-1.00	*
M2PFTeDA	1.25	42.9	70 - 130	10.65393	10.59178	0.0622	+/-1.00	*
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	107	70 - 130	1.2966	1.300046	-0.0034	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	98.6	70 - 130	8.514067	8.6183	-0.1042	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	95.8	70 - 130	4.727883	4.7717	-0.0438	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	51.3	70 - 130	9.684783	9.663958	0.0208	+/-1.00	*
d3-N-MeFOSAA	5.00	124	70 - 130	9.2267	9.304604	-0.0779	+/-1.00	
d5-N-EtFOSAA	5.00	120	70 - 130	9.4768	9.546608	-0.0698	+/-1.00	
M2-6:2 FTS	4.76	126	70 - 130	7.819133	7.9212	-0.1021	+/-1.00	
M2-8:2 FTS	4.80	218	70 - 130	8.9781	9.064858	-0.0868	+/-1.00	*
M9PFNA	1.25	97.9	70 - 130	8.47855	8.5853	-0.1068	+/-1.00	
M2-4:2 FTS	4.69	45.8	70 - 130	6.25965	6.298503	-0.0389	+/-1.00	*
d-N-MeFOSA	2.50	24.9	70 - 130	10.50503	10.43133	0.0737	+/-1.00	*
d-N-EtFOSA	2.50	11.3	70 - 130	10.80633	10.67725	0.1291	+/-1.00	*
M3HFPO-DA	10.0	51.5	70 - 130	6.624317	6.687971	-0.0637	+/-1.00	*
d9-N-EtFOSE	25.0	19.6	70 - 130	10.74783	10.63852	0.1093	+/-1.00	*
d7-N-MeFOSE	25.0	24.5	70 - 130	10.47383	10.39784	0.0760	+/-1.00	*

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (S4G1047-CCB4)				Lab File ID: QQQ41409.d		Analyzed: 07/10/24 19:46		
M3PFBS	2.33	94.0	25 - 150	5.52935	5.537413	-0.0081	+/-1.00	
M5PFHxA	2.50	105	25 - 150	6.353416	6.374235	-0.0208	+/-1.00	
M4PFHpA	2.50	116	25 - 150	7.1885	7.262489	-0.0740	+/-1.00	
M3PFHxS	2.37	108	25 - 150	7.298517	7.375458	-0.0769	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	101	25 - 150	7.884883	7.984846	-0.1000	+/-1.00	
M6PFDA	1.25	96.3	25 - 150	9.0068	9.099868	-0.0931	+/-1.00	
M7PFUdA	1.25	97.6	25 - 150	9.496533	9.5615	-0.0650	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	78.1	25 - 150	9.94025	9.969002	-0.0288	+/-1.00	
M2PFTeDA	1.25	56.0	10 - 150	10.65397	10.59178	0.0622	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	115	25 - 150	1.287433	1.300046	-0.0126	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	110	25 - 150	8.523367	8.6183	-0.0949	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	106	25 - 150	4.718017	4.7717	-0.0537	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	69.6	10 - 150	9.684816	9.663958	0.0209	+/-1.00	
d3-N-MeFOSAA	5.00	132	25 - 150	9.226733	9.304604	-0.0779	+/-1.00	
d5-N-EtFOSAA	5.00	146	25 - 150	9.486083	9.546608	-0.0605	+/-1.00	
M2-6:2 FTS	4.76	87.5	25 - 200	7.828434	7.9212	-0.0928	+/-1.00	
M2-8:2 FTS	4.80	190	25 - 200	8.978133	9.064858	-0.0867	+/-1.00	
M9PFNA	1.25	110	25 - 150	8.487833	8.5853	-0.0975	+/-1.00	
M2-4:2 FTS	4.69	47.1	25 - 150	6.27845	6.298503	-0.0201	+/-1.00	
d-N-MeFOSA	2.50	43.4	25 - 150	10.50507	10.43133	0.0737	+/-1.00	
d-N-EtFOSA	2.50	20.7	25 - 150	10.79697	10.67725	0.1197	+/-1.00	*
M3HFPO-DA	10.0	67.3	25 - 150	6.652083	6.687971	-0.0359	+/-1.00	
d9-N-EtFOSE	25.0	28.0	25 - 150	10.74787	10.63852	0.1094	+/-1.00	
d7-N-MeFOSE	25.0	44.0	25 - 150	10.47387	10.39784	0.0760	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (S4G1047-CCV5)				Lab File ID: QQQ41420.d		Analyzed: 07/10/24 22:44		
M3PFBS	2.33	106	70 - 130	5.566267	5.537413	0.0289	+/-1.00	
M5PFHxA	2.50	99.4	70 - 130	6.39045	6.374235	0.0162	+/-1.00	
M4PFHpA	2.50	98.9	70 - 130	7.244	7.262489	-0.0185	+/-1.00	
M3PFHxS	2.37	104	70 - 130	7.354434	7.375458	-0.0210	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	99.4	70 - 130	7.950016	7.984846	-0.0348	+/-1.00	
M6PFDA	1.25	102	70 - 130	9.053083	9.099868	-0.0468	+/-1.00	
M7PFUdA	1.25	101	70 - 130	9.524533	9.5615	-0.0370	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	109	70 - 130	9.949433	9.969002	-0.0196	+/-1.00	
M2PFTeDA	1.25	90.9	70 - 130	10.64473	10.59178	0.0529	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	107	70 - 130	1.305783	1.300046	0.0057	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	110	70 - 130	8.569667	8.6183	-0.0486	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	99.0	70 - 130	4.774017	4.7717	0.0023	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	106	70 - 130	9.703283	9.663958	0.0393	+/-1.00	
d3-N-MeFOSAA	5.00	115	70 - 130	9.273033	9.304604	-0.0316	+/-1.00	
d5-N-EtFOSAA	5.00	123	70 - 130	9.513817	9.546608	-0.0328	+/-1.00	
M2-6:2 FTS	4.76	75.5	70 - 130	7.893367	7.9212	-0.0278	+/-1.00	
M2-8:2 FTS	4.80	107	70 - 130	9.024417	9.064858	-0.0404	+/-1.00	
M9PFNA	1.25	88.5	70 - 130	8.543616	8.5853	-0.0417	+/-1.00	
M2-4:2 FTS	4.69	82.6	70 - 130	6.315484	6.298503	0.0170	+/-1.00	
d-N-MeFOSA	2.50	101	70 - 130	10.49582	10.43133	0.0645	+/-1.00	
d-N-EtFOSA	2.50	84.4	70 - 130	10.76933	10.67725	0.0921	+/-1.00	
M3HFPO-DA	10.0	98.5	70 - 130	6.68915	6.687971	0.0012	+/-1.00	
d9-N-EtFOSE	25.0	90.6	70 - 130	10.72943	10.63852	0.0909	+/-1.00	
d7-N-MeFOSE	25.0	121	70 - 130	10.46463	10.39784	0.0668	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (S4G1047-CCB5)			Lab File ID: QQQ41421.d		Analyzed: 07/10/24 23:00			
M3PFBS	2.33	105	25 - 150	5.5755	5.537413	0.0381	+/-1.00	
M5PFHxA	2.50	103	25 - 150	6.3997	6.374235	0.0255	+/-1.00	
M4PFHpA	2.50	105	25 - 150	7.244017	7.262489	-0.0185	+/-1.00	
M3PFHxS	2.37	106	25 - 150	7.345167	7.375458	-0.0303	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	101	25 - 150	7.94055	7.984846	-0.0443	+/-1.00	
M6PFDA	1.25	101	25 - 150	9.043834	9.099868	-0.0560	+/-1.00	
M7PFUdA	1.25	115	25 - 150	9.505767	9.5615	-0.0557	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	96.3	25 - 150	9.94025	9.969002	-0.0288	+/-1.00	
M2PFTeDA	1.25	86.0	10 - 150	10.62637	10.59178	0.0346	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	116	25 - 150	1.2966	1.300046	-0.0034	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	101	25 - 150	8.560416	8.6183	-0.0579	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	99.5	25 - 150	4.7648	4.7717	-0.0069	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	114	10 - 150	9.675567	9.663958	0.0116	+/-1.00	
d3-N-MeFOSAA	5.00	113	25 - 150	9.254534	9.304604	-0.0501	+/-1.00	
d5-N-EtFOSAA	5.00	134	25 - 150	9.495334	9.546608	-0.0513	+/-1.00	
M2-6:2 FTS	4.76	72.6	25 - 200	7.874817	7.9212	-0.0464	+/-1.00	
M2-8:2 FTS	4.80	91.3	25 - 200	9.0059	9.064858	-0.0590	+/-1.00	
M9PFNA	1.25	100	25 - 150	8.534367	8.5853	-0.0509	+/-1.00	
M2-4:2 FTS	4.69	79.5	25 - 150	6.32475	6.298503	0.0262	+/-1.00	
d-N-MeFOSA	2.50	97.0	25 - 150	10.46822	10.43133	0.0369	+/-1.00	
d-N-EtFOSA	2.50	92.8	25 - 150	10.75095	10.67725	0.0737	+/-1.00	
M3HFPO-DA	10.0	104	25 - 150	6.698383	6.687971	0.0104	+/-1.00	
d9-N-EtFOSE	25.0	89.9	25 - 150	10.71105	10.63852	0.0725	+/-1.00	
d7-N-MeFOSE	25.0	116	25 - 150	10.43703	10.39784	0.0392	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (S4G1047-CCV6)			Lab File ID: QQQ41432.d		Analyzed: 07/11/24 01:57			
M3PFBS	2.33	108	70 - 130	5.575483	5.537413	0.0381	+/-1.00	
M5PFHxA	2.50	99.5	70 - 130	6.3997	6.374235	0.0255	+/-1.00	
M4PFHpA	2.50	102	70 - 130	7.23475	7.262489	-0.0277	+/-1.00	
M3PFHxS	2.37	103	70 - 130	7.34515	7.375458	-0.0303	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	93.0	70 - 130	7.94055	7.984846	-0.0443	+/-1.00	
M6PFDA	1.25	95.4	70 - 130	9.062667	9.099868	-0.0372	+/-1.00	
M7PFUdA	1.25	108	70 - 130	9.533783	9.5615	-0.0277	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	99.0	70 - 130	9.9771	9.969002	0.0081	+/-1.00	
M2PFTeDA	1.25	98.6	70 - 130	10.67237	10.59178	0.0806	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	111	70 - 130	1.2966	1.300046	-0.0034	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	105	70 - 130	8.569667	8.6183	-0.0486	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	92.8	70 - 130	4.783233	4.7717	0.0115	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	105	70 - 130	9.712533	9.663958	0.0486	+/-1.00	
d3-N-MeFOSAA	5.00	110	70 - 130	9.282316	9.304604	-0.0223	+/-1.00	
d5-N-EtFOSAA	5.00	119	70 - 130	9.523517	9.546608	-0.0231	+/-1.00	
M2-6:2 FTS	4.76	92.6	70 - 130	7.874817	7.9212	-0.0464	+/-1.00	
M2-8:2 FTS	4.80	102	70 - 130	9.024417	9.064858	-0.0404	+/-1.00	
M9PFNA	1.25	100	70 - 130	8.53435	8.5853	-0.0510	+/-1.00	
M2-4:2 FTS	4.69	97.2	70 - 130	6.32475	6.298503	0.0262	+/-1.00	
d-N-MeFOSA	2.50	104	70 - 130	10.51425	10.43133	0.0829	+/-1.00	
d-N-EtFOSA	2.50	87.6	70 - 130	10.78775	10.67725	0.1105	+/-1.00	
M3HFPO-DA	10.0	99.3	70 - 130	6.698383	6.687971	0.0104	+/-1.00	
d9-N-EtFOSE	25.0	85.8	70 - 130	10.74785	10.63852	0.1093	+/-1.00	
d7-N-MeFOSE	25.0	93.9	70 - 130	10.48307	10.39784	0.0852	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Blank (S4G1047-CCB6)			Lab File ID: QQQ41433.d		Analyzed: 07/11/24 02:13			
M3PFBS	2.33	108	25 - 150	5.5478	5.537413	0.0104	+/-1.00	
M5PFHxA	2.50	107	25 - 150	6.381183	6.374235	0.0069	+/-1.00	
M4PFHpA	2.50	113	25 - 150	7.23475	7.262489	-0.0277	+/-1.00	
M3PFHxS	2.37	104	25 - 150	7.345167	7.375458	-0.0303	+/-1.00	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	113	25 - 150	7.950016	7.984846	-0.0348	+/-1.00	
M6PFDA	1.25	106	25 - 150	9.090466	9.099868	-0.0094	+/-1.00	
M7PFUdA	1.25	110	25 - 150	9.561517	9.5615	0.0000	+/-1.00	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	107	25 - 150	9.995417	9.969002	0.0264	+/-1.00	
M2PFTeDA	1.25	101	10 - 150	10.69997	10.59178	0.1082	+/-1.00	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	117	25 - 150	1.305783	1.300046	0.0057	+/-1.00	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	103	25 - 150	8.5882	8.6183	-0.0301	+/-1.00	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	101	25 - 150	4.75555	4.7717	-0.0161	+/-1.00	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	119	10 - 150	9.731017	9.663958	0.0671	+/-1.00	
d3-N-MeFOSAA	5.00	113	25 - 150	9.30085	9.304604	-0.0038	+/-1.00	
d5-N-EtFOSAA	5.00	131	25 - 150	9.55125	9.546608	0.0046	+/-1.00	
M2-6:2 FTS	4.76	80.8	25 - 200	7.8841	7.9212	-0.0371	+/-1.00	
M2-8:2 FTS	4.80	84.1	25 - 200	9.042933	9.064858	-0.0219	+/-1.00	
M9PFNA	1.25	111	25 - 150	8.5529	8.5853	-0.0324	+/-1.00	
M2-4:2 FTS	4.69	84.8	25 - 150	6.306233	6.298503	0.0077	+/-1.00	
d-N-MeFOSA	2.50	120	25 - 150	10.55085	10.43133	0.1195	+/-1.00	
d-N-EtFOSA	2.50	111	25 - 150	10.83392	10.67725	0.1567	+/-1.00	
M3HFPO-DA	10.0	109	25 - 150	6.6799	6.687971	-0.0081	+/-1.00	
d9-N-EtFOSE	25.0	95.6	25 - 150	10.78467	10.63852	0.1462	+/-1.00	
d7-N-MeFOSE	25.0	106	25 - 150	10.51068	10.39784	0.1128	+/-1.00	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 1633 Draft 3

240625028-003C

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Matrix: Water
Batch: BG40502
Laboratory ID: BG40502-MS1
Preparation: EPA 1633 Prep
Initial/Final: 561.63 mL / 5 mL
Source Sample Name: 240625028-003C

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC. #	QC LIMITS REC.
11CL-PF3OUdS	67.3	ND	59.9	88.9	25 - 150
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	137	ND	108	78.9	25 - 150
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	134	ND	98.5	73.8	25 - 150
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	135	5.74	92.7	64.2	25 - 150
3-Perfluoroheptyl propanoic acid (FHpPA)	712	ND	424	59.5	25 - 150
3-Perfluoropentyl propanoic acid (FPePA)	712	ND	349	49.0	25 - 150
3-Perfluoropropyl propanoic acid (FPrPA)	142	ND	49.0	34.4	25 - 150
9CL-PF3ONS	66.6	ND	81.1	122	25 - 150
ADONA	67.3	ND	82.4	122	25 - 150
HFPO-DA (Gen-X)	71.2	ND	66.6	93.5	25 - 150
N-EtFOSA	35.6	ND	28.6	80.3	25 - 150
N-EtFOSAA	35.6	ND	33.3	93.6	25 - 150
N-EtFOSE	356	ND	282	79.1	25 - 150
N-MeFOSA	35.6	ND	30.3	85.2	25 - 150
N-MeFOSAA	35.6	ND	32.5	91.4	25 - 150
N-MeFOSE	356	ND	333	93.4	25 - 150
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	63.4	ND	50.1	79.0	25 - 150
Perfluoro-1-decanesulfonic acid (PFDS)	34.4	ND	24.5	71.4	25 - 150
Perfluoro-1-heptanesulfonic acid (PFHpS)	34.0	ND	30.0	88.3	25 - 150
Perfluoro-1-nonanesulfonic acid (PFNS)	34.2	ND	32.4	94.8	25 - 150
Perfluoro-1-octanesulfonamide (FOSA)	35.6	ND	32.3	90.6	25 - 150
Perfluoro-1-pentanesulfonate (PFPeS)	33.5	ND	31.1	93.1	25 - 150
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	71.2	ND	51.0	71.7	25 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 1633 Draft 3

240625028-003C

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Matrix: Water
Batch: BG40502
Laboratory ID: BG40502-MS1
Preparation: EPA 1633 Prep
Initial/Final: 561.63 mL / 5 mL
Source Sample Name: 240625028-003C

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC. #	QC LIMITS REC.
Perfluoro-4-oxapentanoic acid (PFMPA)	71.2	ND	16.4	23.0 *	25 - 150
Perfluoro-5-oxahexanoic acid (PFMBA)	71.2	ND	72.6	102	25 - 150
Perfluorobutanesulfonic acid (PFBS)	31.5	ND	27.5	87.2	25 - 150
Perfluorodecanoic acid (PFDA)	35.6	ND	29.2	82.1	25 - 150
Perfluorododecanesulfonic acid (PFDoS)	34.5	ND	22.5	65.2	25 - 150
Perfluorododecanoic acid (PFDoA)	35.6	ND	34.1	95.7	25 - 150
Perfluoroheptanoic acid (PFHpA)	35.6	ND	35.6	100	25 - 150
Perfluorohexanesulfonic acid (PFHxS)	32.6	ND	31.4	96.5	25 - 150
Perfluorohexanoic acid (PFHxA)	35.6	ND	32.7	91.9	25 - 150
Perfluoro-n-butanoic acid (PFBA)	142	ND	119	83.2	25 - 150
Perfluorononanoic acid (PFNA)	35.6	ND	31.9	89.5	25 - 150
Perfluorooctanesulfonic acid (PFOS)	33.1	ND	29.8	90.0	25 - 150
Perfluorooctanoic acid (PFOA)	35.6	ND	35.3	99.1	25 - 150
Perfluoropentanoic acid (PFPeA)	71.2	ND	65.7	92.2	25 - 150
Perfluorotetradecanoic acid (PFTA)	35.6	ND	34.3	96.2	25 - 150
Perfluorotridecanoic acid (PFTrDA)	35.6	ND	35.4	99.4	25 - 150
Perfluoroundecanoic acid (PFUnA)	35.6	ND	29.1	81.8	25 - 150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

240625028-003C

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Matrix: Water
Batch: BG40502
Laboratory ID: BG40502-MSD1
Preparation: EPA 1633 Prep
Initial/Final: 550.46 mL / 5 mL
Source Sample Name: 240625028-003C

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
11CL-PF3OUdS	68.7	93.6	136	44.0 *	30	25 - 150
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	140	116	83.2	7.29	35	25 - 150
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	136	92.7	68.0	6.12	30	25 - 150
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	138	94.6	64.3	2.04	35	25 - 150
3-Perfluoroheptyl propanoic acid (FHpPA)	727	373	51.4	12.6	30	25 - 150
3-Perfluoropentyl propanoic acid (FPePA)	727	308	42.4	12.4	30	25 - 150
3-Perfluoropropyl propanoic acid (FPrPA)	145	24.5	16.9 *	66.5 *	30	25 - 150
9CL-PF3ONS	67.9	109	161 *	29.6	30	25 - 150
ADONA	68.7	117	171 *	35.0 *	30	25 - 150
HFPO-DA (Gen-X)	72.7	74.1	102	10.6	30	25 - 150
N-EtFOSA	36.3	25.1	69.0	13.2	30	25 - 150
N-EtFOSAA	36.3	35.2	97.0	5.53	35	25 - 150
N-EtFOSE	363	309	85.1	9.30	30	25 - 150
N-MeFOSA	36.3	29.3	80.6	3.55	30	25 - 150
N-MeFOSAA	36.3	29.7	81.7	9.21	35	25 - 150
N-MeFOSE	363	334	92.0	0.483	30	25 - 150
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	64.7	51.0	78.8	1.71	30	25 - 150
Perfluoro-1-decanesulfonic acid (PFDS)	35.1	25.7	73.2	4.50	35	25 - 150
Perfluoro-1-heptanesulfonic acid (PFHpS)	34.7	26.9	77.4	11.2	35	25 - 150
Perfluoro-1-nonanesulfonic acid (PFNS)	34.9	30.9	88.5	4.83	30	25 - 150
Perfluoro-1-octanesulfonamide (FOSA)	36.3	36.2	99.7	11.6	35	25 - 150
Perfluoro-1-pentanesulfonate (PFPeS)	34.2	29.2	85.4	6.58	30	25 - 150
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	72.7	46.4	63.8	9.59	30	25 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 1633 Draft 3

240625028-003C

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Matrix: Water
Batch: BG40502
Laboratory ID: BG40502-MSD1
Preparation: EPA 1633 Prep
Initial/Final: 550.46 mL / 5 mL
Source Sample Name: 240625028-003C

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Perfluoro-4-oxapentanoic acid (PFMPA)	72.7	6.50	8.95 *	86.4 *	30	25 - 150
Perfluoro-5-oxahexanoic acid (PFMBA)	72.7	98.3	135	30.1 *	30	25 - 150
Perfluorobutanesulfonic acid (PFBS)	32.2	27.9	86.8	1.61	35	25 - 150
Perfluorodecanoic acid (PFDA)	36.3	33.2	91.3	12.5	35	25 - 150
Perfluorododecanesulfonic acid (PFDoS)	35.2	20.7	58.8	8.42	30	25 - 150
Perfluorododecanoic acid (PFDoA)	36.3	34.4	94.7	0.995	35	25 - 150
Perfluoroheptanoic acid (PFHpA)	36.3	32.8	90.2	8.29	35	25 - 150
Perfluorohexanesulfonic acid (PFHxS)	33.2	30.1	90.5	4.45	35	25 - 150
Perfluorohexanoic acid (PFHxA)	36.3	33.4	91.9	2.11	35	25 - 150
Perfluoro-n-butanoic acid (PFBA)	145	92.6	63.7	24.5	35	25 - 150
Perfluorononanoic acid (PFNA)	36.3	33.7	92.6	5.41	35	25 - 150
Perfluorooctanesulfonic acid (PFOS)	33.8	26.9	79.7	10.2	35	25 - 150
Perfluorooctanoic acid (PFOA)	36.3	36.0	99.1	1.98	35	25 - 150
Perfluoropentanoic acid (PFPeA)	72.7	66.1	90.9	0.610	35	25 - 150
Perfluorotetradecanoic acid (PFTA)	36.3	36.1	99.3	5.15	35	25 - 150
Perfluorotridecanoic acid (PFTrDA)	36.3	44.0	121	21.6	35	25 - 150
Perfluoroundecanoic acid (PFUnA)	36.3	29.0	79.9	0.372	35	25 - 150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Matrix:	Water		
Batch:	BG40502	Laboratory ID:	BG40502-BS1
Preparation:	EPA 1633 Prep	Initial/Final:	250.15 mL / 5 mL

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC. #	QC LIMITS REC.
11CL-PF3OUdS	151	108	71.5	50 - 150
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	307	262	85.4	50 - 150
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	300	254	84.9	50 - 150
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	304	195	64.3	50 - 150
3-Perfluoroheptyl propanoic acid (FHpPA)	1600	1290	80.7	50 - 150
3-Perfluoropentyl propanoic acid (FPePA)	1600	1230	77.0	50 - 150
3-Perfluoropropyl propanoic acid (FPrPA)	320	173	54.2	50 - 150
9CL-PF3ONS	150	117	78.5	50 - 150
ADONA	151	117	77.7	50 - 150
HFPO-DA (Gen-X)	160	142	88.8	50 - 150
N-EtFOSA	80.0	57.3	71.7	50 - 150
N-EtFOSAA	80.0	74.7	93.4	50 - 150
N-EtFOSE	800	610	76.3	50 - 150
N-MeFOSA	80.0	61.5	76.9	50 - 150
N-MeFOSAA	80.0	64.7	80.9	50 - 150
N-MeFOSE	800	662	82.8	50 - 150
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	142	115	80.7	50 - 150
Perfluoro-1-decanesulfonic acid (PFDS)	77.2	65.8	85.3	50 - 150
Perfluoro-1-heptanesulfonic acid (PFHpS)	76.4	65.3	85.5	50 - 150
Perfluoro-1-nonanesulfonic acid (PFNS)	76.8	73.1	95.3	50 - 150
Perfluoro-1-octanesulfonamide (FOSA)	80.0	71.7	89.6	50 - 150
Perfluoro-1-pentanesulfonate (PFPeS)	75.2	67.6	90.0	50 - 150
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	160	112	70.3	50 - 150
Perfluoro-4-oxapentanoic acid (PFMPA)	160	28.7	18.0 *	50 - 150
Perfluoro-5-oxahexanoic acid (PFMBA)	160	157	98.1	50 - 150
Perfluorobutanesulfonic acid (PFBS)	70.8	59.8	84.5	50 - 150
Perfluorodecanoic acid (PFDA)	80.0	76.3	95.4	50 - 150
Perfluorododecanesulfonic acid (PFDoS)	77.6	53.8	69.4	50 - 150
Perfluorododecanoic acid (PFDoA)	80.0	71.9	90.0	50 - 150

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Matrix:	Water		
Batch:	BG40502	Laboratory ID:	BG40502-BS1
Preparation:	EPA 1633 Prep	Initial/Final:	250.15 mL / 5 mL

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC. #	QC LIMITS REC.
Perfluoroheptanoic acid (PFHpA)	80.0	74.5	93.2	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	73.2	61.9	84.7	50 - 150
Perfluorohexanoic acid (PFHxA)	80.0	69.0	86.3	50 - 150
Perfluoro-n-butanoic acid (PFBA)	320	231	72.1	50 - 150
Perfluorononanoic acid (PFNA)	80.0	69.3	86.6	50 - 150
Perfluorooctanesulfonic acid (PFOS)	74.4	59.5	80.0	50 - 150
Perfluorooctanoic acid (PFOA)	80.0	72.9	91.2	50 - 150
Perfluoropentanoic acid (PFPeA)	160	139	87.1	50 - 150
Perfluorotetradecanoic acid (PFTA)	80.0	71.4	89.3	50 - 150
Perfluorotridecanoic acid (PFTrDA)	80.0	81.9	102	50 - 150
Perfluoroundecanoic acid (PFUnA)	80.0	58.5	73.2	50 - 150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Matrix:	Water		
Batch:	BG40502	Laboratory ID:	BG40502-BS2
Preparation:	EPA 1633 Prep	Initial/Final:	250.07 mL / 5 mL

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC. #	QC LIMITS REC.
11CL-PF3OUdS	30.2	24.2	79.9	50 - 150
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	61.4	60.6	98.6	50 - 150
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	60.0	53.7	89.5	50 - 150
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	60.8	47.6	78.3	50 - 150
3-Perfluoroheptyl propanoic acid (FHpPA)	320	288	89.9	50 - 150
3-Perfluoropentyl propanoic acid (FPePA)	320	258	80.7	50 - 150
3-Perfluoropropyl propanoic acid (FPrPA)	64.0	36.1	56.4	50 - 150
9CL-PF3ONS	29.9	24.7	82.7	50 - 150
ADONA	30.2	23.2	76.6	50 - 150
HFPO-DA (Gen-X)	32.0	37.2	116	50 - 150
N-EtFOSA	16.0	16.4	103	50 - 150
N-EtFOSAA	16.0	16.0	100	50 - 150
N-EtFOSE	160	163	102	50 - 150
N-MeFOSA	16.0	15.7	98.3	50 - 150
N-MeFOSAA	16.0	14.4	90.0	50 - 150
N-MeFOSE	160	173	108	50 - 150
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	28.5	25.0	87.8	50 - 150
Perfluoro-1-decanesulfonic acid (PFDS)	15.4	15.3	99.4	50 - 150
Perfluoro-1-heptanesulfonic acid (PFHpS)	15.3	14.3	93.4	50 - 150
Perfluoro-1-nonanesulfonic acid (PFNS)	15.4	18.0	117	50 - 150
Perfluoro-1-octanesulfonamide (FOSA)	16.0	14.1	88.2	50 - 150
Perfluoro-1-pentanesulfonate (PFPeS)	15.0	14.4	95.8	50 - 150
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	32.0	23.0	71.8	50 - 150
Perfluoro-4-oxapentanoic acid (PFMPA)	32.0	3.84	12.0 *	50 - 150
Perfluoro-5-oxahexanoic acid (PFMBA)	32.0	37.2	116	50 - 150
Perfluorobutanesulfonic acid (PFBS)	14.2	12.5	88.6	50 - 150
Perfluorodecanoic acid (PFDA)	16.0	13.8	86.3	50 - 150
Perfluorododecanesulfonic acid (PFDoS)	15.5	15.4	99.6	50 - 150
Perfluorododecanoic acid (PFDoA)	16.0	15.9	99.2	50 - 150

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Matrix:	Water		
Batch:	BG40502	Laboratory ID:	BG40502-BS2
Preparation:	EPA 1633 Prep	Initial/Final:	250.07 mL / 5 mL

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC. #	QC LIMITS REC.
Perfluoroheptanoic acid (PFHpA)	16.0	15.4	96.0	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	14.6	12.8	87.1	50 - 150
Perfluorohexanoic acid (PFHxA)	16.0	13.6	85.2	50 - 150
Perfluoro-n-butanoic acid (PFBA)	64.0	46.5	72.7	50 - 150
Perfluorononanoic acid (PFNA)	16.0	13.8	86.2	50 - 150
Perfluorooctanesulfonic acid (PFOS)	14.9	13.6	91.1	50 - 150
Perfluorooctanoic acid (PFOA)	16.0	13.8	86.1	50 - 150
Perfluoropentanoic acid (PFPeA)	32.0	29.8	93.1	50 - 150
Perfluorotetradecanoic acid (PFTA)	16.0	17.8	112	50 - 150
Perfluorotridecanoic acid (PFTrDA)	16.0	18.4	115	50 - 150
Perfluoroundecanoic acid (PFUnA)	16.0	12.3	77.0	50 - 150

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM IV **PREPARATION BATCH SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24F1801

Client: Adirondack Environmental Services, Inc. Project: 240625028

Batch: BG40502 Batch Matrix: Water Preparation: EPA 1633 Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
240625028-001C	24F1801-01	QQQ41374.d	07/08/24 17:39	ammonium hydroxide added for pH
240625028-002C	24F1801-02	QQQ41375.d	07/08/24 17:39	ammonium hydroxide added for pH
240625028-003C	24F1801-03	QQQ41378.d	07/08/24 17:39	ammonium hydroxide added for pH
240625028-004C	24F1801-04	QQQ41381.d	07/08/24 17:39	ammonium hydroxide added for pH
Blank	BG40502-BLK1	QQQ41366.d	07/08/24 17:39	ammonium hydroxide added for pH
LCS	BG40502-BS1	QQQ41367.d	07/08/24 17:39	ammonium hydroxide added for pH
LCS	BG40502-BS2	QQQ41368.d	07/08/24 17:39	ammonium hydroxide added for pH
240625028-003C	BG40502-MS1	QQQ41379.d	07/08/24 17:39	ammonium hydroxide added for pH
240625028-003C	BG40502-MSD1	QQQ41380.d	07/08/24 17:39	ammonium hydroxide added for pH

FORM I

METHOD BLANK DATA SHEET

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Water	Laboratory ID:	BG40502-BLK1	File ID:	QQQ41366.d
Prepared:	07/08/24 17:39	Preparation:	EPA 1633 Prep	Initial/Final:	250.02 mL / 5 mL
Analyzed:	07/10/24 10:28	Instrument:	LCQQQ		
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019

CAS NO.	COMPOUND	CONC. (ng/L)	Q
763051-92-9	11CL-PF3OUdS	15.1	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	15.4	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	15.0	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	15.2	U
812-70-4	3-Perfluoroheptyl propanoic acid (FHpPA)	50.0	U
914637-49-3	3-Perfluoropentyl propanoic acid (FPePA)	50.0	U
356-02-5	3-Perfluoropropyl propanoic acid (FPrPA)	10.0	U
756426-58-1	9CL-PF3ONS	15.0	U
919005-14-4	ADONA	15.1	U
13252-13-6	HFPO-DA (Gen-X)	16.0	U
4151-50-2	N-EtFOSA	4.00	U
2991-50-6	N-EtFOSAA	4.00	U
1691-99-2	N-EtFOSE	40.0	U
31506-32-8	N-MeFOSA	4.00	U
2355-31-9	N-MeFOSAA	4.00	U
24448-09-7	N-MeFOSE	40.0	U
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7.12	U
335-77-3	Perfluoro-1-decanesulfonic acid (PFDS)	3.86	U
375-92-8	Perfluoro-1-heptanesulfonic acid (PFHpS)	3.82	U
68259-12-1	Perfluoro-1-nonanesulfonic acid (PFNS)	3.84	U
754-91-6	Perfluoro-1-octanesulfonamide (FOSA)	4.00	U
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	3.76	U
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	8.00	U
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	8.00	U
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	8.00	U
375-73-5	Perfluorobutanesulfonic acid (PFBS)	3.54	U
335-76-2	Perfluorodecanoic acid (PFDA)	4.00	U
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	3.88	U
307-55-1	Perfluorododecanoic acid (PFDoA)	4.00	U
375-85-9	Perfluoroheptanoic acid (PFHpA)	4.00	U

FORM I

METHOD BLANK DATA SHEET

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Water	Laboratory ID:	BG40502-BLK1	File ID:	QQQ41366.d
Prepared:	07/08/24 17:39	Preparation:	EPA 1633 Prep	Initial/Final:	250.02 mL / 5 mL
Analyzed:	07/10/24 10:28	Instrument:	LCQQQ		
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019

CAS NO.	COMPOUND	CONC. (ng/L)	Q
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.66	U
307-24-4	Perfluorohexanoic acid (PFHxA)	4.00	U
375-22-4	Perfluoro-n-butanoic acid (PFBA)	16.0	U
375-95-1	Perfluorononanoic acid (PFNA)	4.00	U
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.72	U
335-67-1	Perfluorooctanoic acid (PFOA)	4.00	U
2706-90-3	Perfluoropentanoic acid (PFPeA)	8.00	U
376-06-7	Perfluorotetradecanoic acid (PFTA)	4.00	U
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	4.00	U
2058-94-8	Perfluoroundecanoic acid (PFUnA)	4.00	U

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
d3-N-MeFOSAA	100	138	138	25 - 150	
d5-N-EtFOSAA	100	155	155	25 - 150	*
d7-N-MeFOSE	500	497	99.4	25 - 150	
d9-N-EtFOSE	500	409	81.8	25 - 150	
d-N-EtFOSA	50.0	59.4	119	25 - 150	
d-N-MeFOSA	50.0	67.3	135	25 - 150	
M2-4:2 FTS	93.8	126	135	25 - 150	
M2-6:2 FTS	95.1	126	132	25 - 200	
M2-8:2 FTS	96.0	110	115	25 - 200	
M2PFTeDA	25.0	28.7	115	10 - 150	
M3HFPO-DA	200	295	147	25 - 150	
M3PFBS	46.6	72.2	155	25 - 150	*
M3PFHxS	47.4	70.6	149	25 - 150	
M4PFHpA	50.0	77.9	156	25 - 150	*
M5PFHxA	50.0	70.8	142	25 - 150	
M6PFDA	25.0	30.8	123	25 - 150	
M7PFUdA	25.0	35.2	141	25 - 150	
M9PFNA	25.0	32.6	130	25 - 150	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	50.0	67.7	135	10 - 150	

FORM I

METHOD BLANK DATA SHEET

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Water	Laboratory ID:	BG40502-BLK1	File ID:	QQQ41366.d
Prepared:	07/08/24 17:39	Preparation:	EPA 1633 Prep	Initial/Final:	250.02 mL / 5 mL
Analyzed:	07/10/24 10:28	Instrument:	LCQQQ		
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	47.9	59.7	125	25 - 150	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	25.0	32.4	129	25 - 150	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	200	20.1	10.1	25 - 150	*
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	100	119	119	25 - 150	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	50.0	67.9	136	25 - 150	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
MPFOA	36856.59	7.88525	48987.36	7.829566	
MPFOS	9433.09	8.523916	11805.16	8.4773	

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Sequence:	S4F1245	Instrument:	LCQQQ
		Calibration:	SF40019

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	S4F1245-CAL1	QQQ40095.d	06/12/24 03:14
Cal Standard	S4F1245-CAL2	QQQ40096.d	06/12/24 03:30
Cal Standard	S4F1245-CAL3	QQQ40097.d	06/12/24 03:46
Cal Standard	S4F1245-CAL4	QQQ40098.d	06/12/24 04:03
Cal Standard	S4F1245-CAL5	QQQ40099.d	06/12/24 04:19
Cal Standard	S4F1245-CAL6	QQQ40100.d	06/12/24 04:35
Cal Standard	S4F1245-CAL7	QQQ40101.d	06/12/24 04:51
Cal Standard	S4F1245-CAL8	QQQ40102.d	06/12/24 05:07
Secondary Cal Check	S4F1245-SCV1	QQQ40103.d	06/12/24 05:23

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Sequence:	S4G1047	Instrument:	LCQQQ
		Calibration:	SF40019

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	S4G1047-CCV1	QQQ41361.d	07/10/24 09:07
Calibration Blank	S4G1047-CCB1	QQQ41364.d	07/10/24 09:55
Blank	BG40502-BLK1	QQQ41366.d	07/10/24 10:28
LCS	BG40502-BS1	QQQ41367.d	07/10/24 10:44
LCS	BG40502-BS2	QQQ41368.d	07/10/24 11:00
240625028-001C	24F1801-01	QQQ41374.d	07/10/24 12:36
240625028-002C	24F1801-02	QQQ41375.d	07/10/24 12:52
Calibration Check	S4G1047-CCV2	QQQ41376.d	07/10/24 13:09
Calibration Blank	S4G1047-CCB2	QQQ41377.d	07/10/24 13:25
240625028-003C	24F1801-03	QQQ41378.d	07/10/24 13:41
240625028-003C	BG40502-MS1	QQQ41379.d	07/10/24 13:57
240625028-003C	BG40502-MSD1	QQQ41380.d	07/10/24 14:13
240625028-004C	24F1801-04	QQQ41381.d	07/10/24 14:30
Calibration Check	S4G1047-CCV3	QQQ41400.d	07/10/24 17:15
Calibration Blank	S4G1047-CCB3	QQQ41401.d	07/10/24 17:31
Calibration Check	S4G1047-CCV4	QQQ41408.d	07/10/24 19:29
Calibration Blank	S4G1047-CCB4	QQQ41409.d	07/10/24 19:46
Calibration Check	S4G1047-CCV5	QQQ41420.d	07/10/24 22:44
Calibration Blank	S4G1047-CCB5	QQQ41421.d	07/10/24 23:00
Calibration Check	S4G1047-CCV6	QQQ41432.d	07/11/24 01:57
Calibration Blank	S4G1047-CCB6	QQQ41433.d	07/11/24 02:13

FORM VIII **INTERNAL STANDARD AREA AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4F1245
Instrument: LCQQQ
Calibration: SF40019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (S4F1245-CAL1)			Lab File ID: QQQ40095.d			Analyzed: 06/12/24 03:14			
MPFOA	42631.71	7.9969	52897.32	7.987484	81	50 - 150	0.0094	+/-0.50	
MPFOS	9835.111	8.625834	13077.96	8.625834	75	50 - 150	0.0000	+/-0.50	
Cal Standard (S4F1245-CAL2)			Lab File ID: QQQ40096.d			Analyzed: 06/12/24 03:30			
MPFOA	41506.48	7.987484	52897.32	7.987484	78	50 - 150	0.0000	+/-0.50	
MPFOS	9899.199	8.625834	13077.96	8.625834	76	50 - 150	0.0000	+/-0.50	
Cal Standard (S4F1245-CAL3)			Lab File ID: QQQ40097.d			Analyzed: 06/12/24 03:46			
MPFOA	42635.77	7.987484	52897.32	7.987484	81	50 - 150	0.0000	+/-0.50	
MPFOS	10341.87	8.616567	13077.96	8.625834	79	50 - 150	-0.0093	+/-0.50	
Cal Standard (S4F1245-CAL4)			Lab File ID: QQQ40098.d			Analyzed: 06/12/24 04:03			
MPFOA	52897.32	7.987484	52897.32	7.987484	100	50 - 150	0.0000	+/-0.50	
MPFOS	13077.96	8.625834	13077.96	8.625834	100	50 - 150	0.0000	+/-0.50	
Cal Standard (S4F1245-CAL5)			Lab File ID: QQQ40099.d			Analyzed: 06/12/24 04:19			
MPFOA	36314.29	7.987484	52897.32	7.987484	69	50 - 150	0.0000	+/-0.50	
MPFOS	8960.804	8.616567	13077.96	8.625834	69	50 - 150	-0.0093	+/-0.50	
Cal Standard (S4F1245-CAL6)			Lab File ID: QQQ40100.d			Analyzed: 06/12/24 04:35			
MPFOA	40192.3	7.968917	52897.32	7.987484	76	50 - 150	-0.0186	+/-0.50	
MPFOS	9337.706	8.6073	13077.96	8.625834	71	50 - 150	-0.0185	+/-0.50	
Cal Standard (S4F1245-CAL7)			Lab File ID: QQQ40101.d			Analyzed: 06/12/24 04:51			
MPFOA	41088.49	7.968917	52897.32	7.987484	78	50 - 150	-0.0186	+/-0.50	
MPFOS	10420.59	8.598033	13077.96	8.625834	80	50 - 150	-0.0278	+/-0.50	
Cal Standard (S4F1245-CAL8)			Lab File ID: QQQ40102.d			Analyzed: 06/12/24 05:07			
MPFOA	39489.35	7.987484	52897.32	7.987484	75	50 - 150	0.0000	+/-0.50	
MPFOS	8592.887	8.616567	13077.96	8.625834	66	50 - 150	-0.0093	+/-0.50	
Secondary Cal Check (S4F1245-SCV1)			Lab File ID: QQQ40103.d			Analyzed: 06/12/24 05:23			
MPFOA	41377.82	7.987484	52897.32	7.987484	78	50 - 150	0.0000	+/-0.50	
MPFOS	9794.842	8.616567	13077.96	8.625834	75	50 - 150	-0.0093	+/-0.50	

FORM VIII **INTERNAL STANDARD AREA AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S4G1047-CCV1)			Lab File ID: QQQ41361.d			Analyzed: 07/10/24 09:07			
MPFOA	48987.36	7.829566				50 - 150		+/-0.50	
MPFOS	11805.16	8.4773				50 - 150		+/-0.50	
Calibration Blank (S4G1047-CCB1)			Lab File ID: QQQ41364.d			Analyzed: 07/10/24 09:55			
MPFOA	40198.35	7.9038	48987.36	7.829566	82	50 - 150	0.0742	+/-0.50	
MPFOS	11024.08	8.551717	11805.16	8.4773	93	50 - 150	0.0744	+/-0.50	
Blank (BG40502-BLK1)			Lab File ID: QQQ41366.d			Analyzed: 07/10/24 10:28			
MPFOA	36856.59	7.88525	48987.36	7.829566	75	50 - 150	0.0557	+/-0.50	
MPFOS	9433.09	8.523916	11805.16	8.4773	80	50 - 150	0.0466	+/-0.50	
LCS (BG40502-BS1)			Lab File ID: QQQ41367.d			Analyzed: 07/10/24 10:44			
MPFOA	43014.93	7.922367	48987.36	7.829566	88	50 - 150	0.0928	+/-0.50	
MPFOS	10579.49	8.57025	11805.16	8.4773	90	50 - 150	0.0930	+/-0.50	
LCS (BG40502-BS2)			Lab File ID: QQQ41368.d			Analyzed: 07/10/24 11:00			
MPFOA	36674.14	7.866683	48987.36	7.829566	75	50 - 150	0.0371	+/-0.50	
MPFOS	9905.148	8.495816	11805.16	8.4773	84	50 - 150	0.0185	+/-0.50	
240625028-001C (24F1801-01)			Lab File ID: QQQ41374.d			Analyzed: 07/10/24 12:36			
MPFOA	41842.33	7.950366	48987.36	7.829566	85	50 - 150	0.1208	+/-0.50	
MPFOS	10645.28	8.59805	11805.16	8.4773	90	50 - 150	0.1208	+/-0.50	
240625028-002C (24F1801-02)			Lab File ID: QQQ41375.d			Analyzed: 07/10/24 12:52			
MPFOA	38130.11	7.913116	48987.36	7.829566	78	50 - 150	0.0835	+/-0.50	
MPFOS	9853.048	8.561017	11805.16	8.4773	83	50 - 150	0.0837	+/-0.50	
Calibration Check (S4G1047-CCV2)			Lab File ID: QQQ41376.d			Analyzed: 07/10/24 13:09			
MPFOA	44351.86	7.9131	48987.36	7.829566	91	50 - 150	0.0835	+/-0.50	
MPFOS	12610.34	8.542467	11805.16	8.4773	107	50 - 150	0.0652	+/-0.50	
Calibration Blank (S4G1047-CCB2)			Lab File ID: QQQ41377.d			Analyzed: 07/10/24 13:25			
MPFOA	43121.92	7.9038	44351.86	7.9131	97	50 - 150	-0.0093	+/-0.50	
MPFOS	11312.5	8.542434	12610.34	8.542467	90	50 - 150	0.0000	+/-0.50	
240625028-003C (24F1801-03)			Lab File ID: QQQ41378.d			Analyzed: 07/10/24 13:41			
MPFOA	35872.53	7.88525	44351.86	7.9131	81	50 - 150	-0.0278	+/-0.50	
MPFOS	9693.676	8.523933	12610.34	8.542467	77	50 - 150	-0.0185	+/-0.50	
Matrix Spike (BG40502-MS1)			Lab File ID: QQQ41379.d			Analyzed: 07/10/24 13:57			
MPFOA	31890.75	7.950383	44351.86	7.9131	72	50 - 150	0.0373	+/-0.50	
MPFOS	8842.922	8.607333	12610.34	8.542467	70	50 - 150	0.0649	+/-0.50	
Matrix Spike Dup (BG40502-MSD1)			Lab File ID: QQQ41380.d			Analyzed: 07/10/24 14:13			
MPFOA	29692.22	7.9131	44351.86	7.9131	67	50 - 150	0.0000	+/-0.50	
MPFOS	8909.751	8.551733	12610.34	8.542467	71	50 - 150	0.0093	+/-0.50	

FORM VIII **INTERNAL STANDARD AREA AND RT SUMMARY**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Sequence: S4G1047
Instrument: LCQQQ
Calibration: SF40019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
240625028-004C (24F1801-04)			Lab File ID: QQQ41381.d			Analyzed: 07/10/24 14:30			
MPFOA	28854.28	7.9038	44351.86	7.9131	65	50 - 150	-0.0093	+/-0.50	
MPFOS	9296.026	8.533183	12610.34	8.542467	74	50 - 150	-0.0093	+/-0.50	
Calibration Check (S4G1047-CCV3)			Lab File ID: QQQ41400.d			Analyzed: 07/10/24 17:15			
MPFOA	37623.73	7.968917	44351.86	7.9131	85	50 - 150	0.0558	+/-0.50	
MPFOS	11941.37	8.5795	12610.34	8.542467	95	50 - 150	0.0370	+/-0.50	
Calibration Blank (S4G1047-CCB3)			Lab File ID: QQQ41401.d			Analyzed: 07/10/24 17:31			
MPFOA	39205.81	7.894533	37623.73	7.968917	104	50 - 150	-0.0744	+/-0.50	
MPFOS	10433.66	8.533183	11941.37	8.5795	87	50 - 150	-0.0463	+/-0.50	
Calibration Check (S4G1047-CCV4)			Lab File ID: QQQ41408.d			Analyzed: 07/10/24 19:29			
MPFOA	51985.46	7.875967	37623.73	7.968917	138	50 - 150	-0.0930	+/-0.50	
MPFOS	12879.58	8.51465	11941.37	8.5795	108	50 - 150	-0.0648	+/-0.50	
Calibration Blank (S4G1047-CCB4)			Lab File ID: QQQ41409.d			Analyzed: 07/10/24 19:46			
MPFOA	43753.79	7.89455	51985.46	7.875967	84	50 - 150	0.0186	+/-0.50	
MPFOS	11924.54	8.514684	12879.58	8.51465	93	50 - 150	0.0000	+/-0.50	
Calibration Check (S4G1047-CCV5)			Lab File ID: QQQ41420.d			Analyzed: 07/10/24 22:44			
MPFOA	41130.29	7.950366	51985.46	7.875967	79	50 - 150	0.0744	+/-0.50	
MPFOS	11342.82	8.57025	12879.58	8.51465	88	50 - 150	0.0556	+/-0.50	
Calibration Blank (S4G1047-CCB5)			Lab File ID: QQQ41421.d			Analyzed: 07/10/24 23:00			
MPFOA	40754.8	7.940933	41130.29	7.950366	99	50 - 150	-0.0094	+/-0.50	
MPFOS	11791.67	8.561	11342.82	8.57025	104	50 - 150	-0.0092	+/-0.50	
Calibration Check (S4G1047-CCV6)			Lab File ID: QQQ41432.d			Analyzed: 07/11/24 01:57			
MPFOA	47248.33	7.940933	41130.29	7.950366	115	50 - 150	-0.0094	+/-0.50	
MPFOS	12636.77	8.57025	11342.82	8.57025	111	50 - 150	0.0000	+/-0.50	
Calibration Blank (S4G1047-CCB6)			Lab File ID: QQQ41433.d			Analyzed: 07/11/24 02:13			
MPFOA	43840.11	7.940933	47248.33	7.940933	93	50 - 150	0.0000	+/-0.50	
MPFOS	12066.92	8.588783	12636.77	8.57025	95	50 - 150	0.0185	+/-0.50	

HOLDING TIME SUMMARY

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24F1801

Client: Adirondack Environmental Services, Inc. Project: 240625028

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
240625028-001C	06/24/24 11:35	06/27/24 15:30	07/08/24 17:39	14.25	28.00	07/10/24 12:36	1.79	28.00	
240625028-002C	06/24/24 15:30	06/27/24 15:30	07/08/24 17:39	14.09	28.00	07/10/24 12:52	1.80	28.00	
240625028-003C	06/24/24 14:25	06/27/24 15:30	07/08/24 17:39	14.13	28.00	07/10/24 13:41	1.84	28.00	
240625028-004C	06/24/24 14:25	06/27/24 15:30	07/08/24 17:39	14.13	28.00	07/10/24 14:30	1.87	28.00	

METHOD DETECTION AND REPORTING LIMITS

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford **SDG:** 24F1801

Client: Adirondack Environmental Services, Inc. **Project:** 240625028

Matrix: Water **Instrument:** LCQQQ

Analyte	LOD	LOQ	Units
11CL-PF3OUdS	1.38	7.56	ng/L
	0.311	0.756	ug/kg
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	2.05	7.68	ng/L
	0.755	0.768	ug/kg
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	1.79	7.50	ng/L
	0.595	0.750	ug/kg
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	1.06	7.60	ng/L
	0.595	0.760	ug/kg
3-Perfluoroheptyl propanoic acid (FHpPA)	9.47	25.0	ng/L
	1.50	5.00	ug/kg
3-Perfluoropentyl propanoic acid (FPePA)	7.33	25.0	ng/L
	2.10	5.00	ug/kg
3-Perfluoropropyl propanoic acid (FPrPA)	2.03	5.00	ng/L
	0.634	1.00	ug/kg
9CL-PF3ONS	0.700	7.48	ng/L
	0.246	0.748	ug/kg
ADONA	0.530	7.56	ng/L
	0.174	0.756	ug/kg
HFPO-DA (Gen-X)	3.23	8.00	ng/L
	0.608	0.800	ug/kg
N-EtFOSA	1.80	2.00	ng/L
	0.198	0.200	ug/kg
N-EtFOSAA	1.03	2.00	ng/L
	0.194	0.200	ug/kg
N-EtFOSE	3.99	20.0	ng/L
	0.697	2.00	ug/kg
N-MeFOSA	1.58	2.00	ng/L
	0.180	0.200	ug/kg
N-MeFOSAA	0.790	2.00	ng/L
	0.148	0.200	ug/kg
N-MeFOSE	3.99	20.0	ng/L
	0.611	2.00	ug/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford **SDG:** 24F1801

Client: Adirondack Environmental Services, Inc. **Project:** 240625028

Matrix: Water **Instrument:** LCQQQ

Analyte	LOD	LOQ	Units
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	0.500	3.56	ng/L
	0.139	0.356	ug/kg
Perfluoro-1-decanesulfonic acid (PFDS)	1.32	1.93	ng/L
	0.191	0.193	ug/kg
Perfluoro-1-heptanesulfonic acid (PFHpS)	0.910	1.91	ng/L
	0.155	0.200	ug/kg
Perfluoro-1-nonanesulfonic acid (PFNS)	0.860	1.92	ng/L
	0.124	0.192	ug/kg
Perfluoro-1-octanesulfonamide (FOSA)	0.880	2.00	ng/L
	0.146	0.200	ug/kg
Perfluoro-1-pentanesulfonate (PFPeS)	0.760	1.88	ng/L
	0.157	0.188	ug/kg
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	2.14	4.00	ng/L
	0.193	0.400	ug/kg
Perfluoro-4-oxapentanoic acid (PFMPA)	0.250	4.00	ng/L
	0.0620	0.400	ug/kg
Perfluoro-5-oxahexanoic acid (PFMBA)	0.370	4.00	ng/L
	0.0960	0.400	ug/kg
Perfluorobutanesulfonic acid (PFBS)	0.470	1.77	ng/L
	0.111	0.177	ug/kg
Perfluorodecanoic acid (PFDA)	0.750	2.00	ng/L
	0.191	0.200	ug/kg
Perfluorododecanesulfonic acid (PFDoS)	0.930	1.94	ng/L
	0.169	0.194	ug/kg
Perfluorododecanoic acid (PFDoA)	0.880	2.00	ng/L
	0.163	0.200	ug/kg
Perfluoroheptanoic acid (PFHpA)	0.710	2.00	ng/L
	0.105	0.200	ug/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford **SDG:** 24F1801

Client: Adirondack Environmental Services, Inc. **Project:** 240625028

Matrix: Water **Instrument:** LCQQQ

Analyte	LOD	LOQ	Units
Perfluorohexanesulfonic acid (PFHxS)	0.680	1.83	ng/L
	0.179	0.183	ug/kg
Perfluorohexanoic acid (PFHxA)	0.350	2.00	ng/L
	0.0530	0.200	ug/kg
Perfluoro-n-butanoic acid (PFBA)	0.330	8.00	ng/L
	0.109	0.800	ug/kg
Perfluorononanoic acid (PFNA)	0.520	2.00	ng/L
	0.189	0.200	ug/kg
Perfluorooctanesulfonic acid (PFOS)	0.820	1.86	ng/L
	0.167	0.186	ug/kg
Perfluorooctanoic acid (PFOA)	0.420	2.00	ng/L
	0.172	0.200	ug/kg
Perfluoropentanoic acid (PFPeA)	0.230	4.00	ng/L
	0.109	0.400	ug/kg
Perfluorotetradecanoic acid (PFTA)	0.690	2.00	ng/L
	0.103	0.200	ug/kg
Perfluorotridecanoic acid (PFTrDA)	0.740	2.00	ng/L
	0.125	0.200	ug/kg
Perfluoroundecanoic acid (PFUnA)	1.13	2.00	ng/L
	0.198	0.200	ug/kg

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-001C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-01	File ID:	QQQ41374.d
Sampled:	06/24/24 11:35	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 12:36
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	541.25 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

CAS NO.	COMPOUND	DILUTION	CONC. (ng/L)	Q
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1	5.35	
307-24-4	Perfluorohexanoic acid (PFHxA)	1	6.94	
375-85-9	Perfluoroheptanoic acid (PFHpA)	1	1.93	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1	0.892	J
335-67-1	Perfluorooctanoic acid (PFOA)	1	6.15	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1	1.72	U
375-95-1	Perfluorononanoic acid (PFNA)	1	1.85	U
335-76-2	Perfluorodecanoic acid (PFDA)	1	1.85	U
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1	1.85	U
307-55-1	Perfluorododecanoic acid (PFDoA)	1	1.85	U
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1	1.85	U
376-06-7	Perfluorotetradecanoic acid (PFTA)	1	1.85	U
2355-31-9	N-MeFOSAA	1	1.85	U
2991-50-6	N-EtFOSAA	1	1.85	U
2706-90-3	Perfluoropentanoic acid (PFPeA)	1	5.66	
754-91-6	Perfluoro-1-octanesulfonamide (FOSA)	1	1.85	U
375-92-8	Perfluoro-1-heptanesulfonic acid (PFHpS)	1	1.76	U
335-77-3	Perfluoro-1-decanesulfonic acid (PFDS)	1	1.78	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	1	7.02	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	1	7.09	U
375-22-4	Perfluoro-n-butanoic acid (PFBA)	1	2.50	J
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1	3.29	U
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	1	3.70	U
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	1	3.70	U
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	1	3.70	U
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	1	1.74	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	1	6.93	U
13252-13-6	HFPO-DA (Gen-X)	1	7.39	U
763051-92-9	11CL-PF3OUdS	1	6.98	U
756426-58-1	9CL-PF3ONS	1	6.91	U
919005-14-4	ADONA	1	6.98	U
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1	1.79	U
68259-12-1	Perfluoro-1-nonanesulfonic acid (PFNS)	1	1.77	U
356-02-5	3-Perfluoropropyl propanoic acid (FPrPA)	1	4.62	U
914637-49-3	3-Perfluoropentyl propanoic acid (FPePA)	1	23.1	U
812-70-4	3-Perfluoroheptyl propanoic acid (FHpPA)	1	23.1	U
24448-09-7	N-MeFOSE	1	18.5	U
31506-32-8	N-MeFOSA	1	1.85	U
1691-99-2	N-EtFOSE	1	18.5	U
4151-50-2	N-EtFOSA	1	1.85	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-001C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-01	File ID:	QQQ41374.d
Sampled:	06/24/24 11:35	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 12:36
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	541.25 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
M3PFBS	21.5	28.4	132	25 - 150	
M5PFHxA	23.1	29.4	127	25 - 150	
M4PFHpA	23.1	31.9	138	25 - 150	
M3PFHxS	21.9	26.4	121	25 - 150	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	23.1	27.5	119	25 - 150	
M6PFDA	11.5	15.2	132	25 - 150	
M7PFUdA	11.5	14.4	124	25 - 150	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.5	10.6	91.7	25 - 150	
M2PFTeDA	11.5	8.69	75.2	10 - 150	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	92.4	113	122	25 - 150	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	22.1	26.3	119	25 - 150	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	46.2	58.4	126	25 - 150	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	23.1	29.5	128	10 - 150	
d3-N-MeFOSAA	46.2	52.4	113	25 - 150	
d5-N-EtFOSAA	46.2	54.9	119	25 - 150	
M2-6:2 FTS	43.9	50.7	115	25 - 200	
M2-8:2 FTS	44.3	46.2	104	25 - 200	
M9PFNA	11.5	14.3	124	25 - 150	
M2-4:2 FTS	43.3	54.5	126	25 - 150	
d-N-MeFOSA	23.1	17.2	74.4	25 - 150	
d-N-EtFOSA	23.1	12.6	54.5	25 - 150	
M3HFPO-DA	92.4	121	131	25 - 150	
d9-N-EtFOSE	231	164	70.9	25 - 150	
d7-N-MeFOSE	231	196	84.9	25 - 150	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
MPFOA	41842.33	7.950366	48987.36	7.829566	
MPFOS	10645.28	8.59805	11805.16	8.4773	

* Values outside of QC limits

Data File	QQQ41374.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 12:36:53 PM
Sample Name	24F1801-01	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

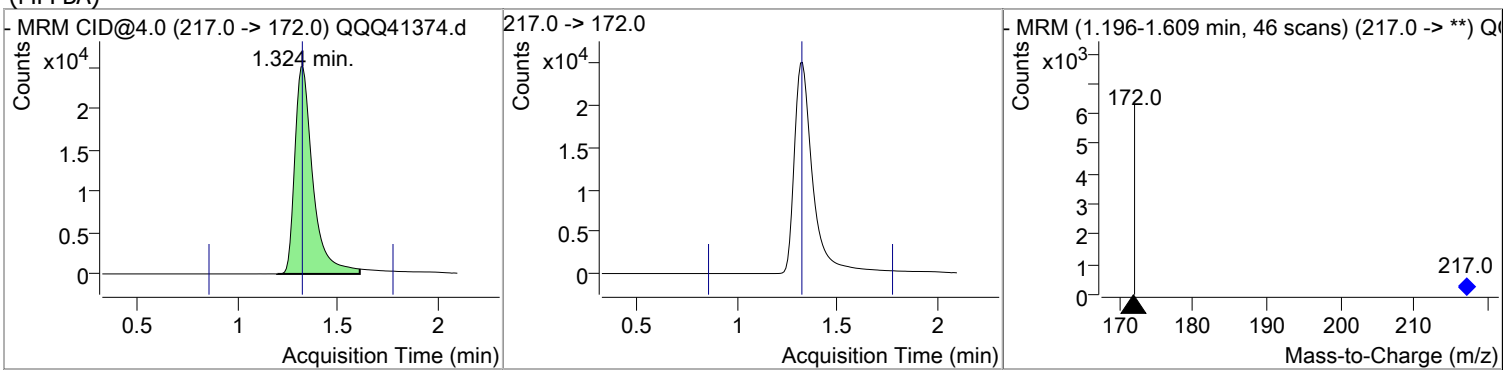
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
M3PFBA	1.317	216.0 -> 172.0	25845	5.0000	ng/ml		0.064
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.324	217.0 -> 172.0	158087	10.0000	ng/ml		0.073
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.765	268.0 -> 223.0	131220	5.0000	ng/ml		0.037
MPFHxA	6.391	315.0 -> 269.8	32544	2.5000	ng/ml		0.019
MPFHxS	7.354	403.0 -> 103.0	3757	2.3700	ng/ml		-0.028
M3PFBS-EIS	5.557	302.0 -> 79.9	20614	2.3300	ng/ml		0.028
M5PFHxA-EIS	6.390	318.0 -> 273.0	66144	2.5000	ng/ml		0.019
M2-4-2FTS-EIS	6.315	329.0 -> 309.0	26414	4.6900	ng/ml		0.019
M3PFHxS-EIS	7.354	402.0 -> 80.0	13546	2.3700	ng/ml		-0.028
M3-HFPO-DA-EIS	6.698	287.0 -> 169.0	47521	10.0000	ng/ml		0.009
M4PFHpA-EIS	7.244	367.0 -> 322.0	15925	2.5000	ng/ml		-0.019
M2-6-2FTS-EIS	7.893	429.0 -> 409.0	16450	4.7550	ng/ml		-0.037
MPFOA	7.950	417.0 -> 372.0	41842	2.5000	ng/ml		-0.047
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.950	421.0 -> 376.0	39634	2.5000	ng/ml		-0.047
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.588	507.0 -> 98.9	5639	2.3950	ng/ml		-0.037
MPFNA	8.563	468.0 -> 423.0	18347	1.2500	ng/ml		-0.037
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.562	472.0 -> 223.0	6050	1.2500	ng/ml		-0.028
MPFOS	8.598	503.0 -> 80.0	10645	2.3950	ng/ml		-0.028
M2-8-2FTS-EIS	9.052	529.0 -> 509.0	34674	4.8000	ng/ml		0.009
MPFDA	9.091	515.0 -> 469.8	12490	1.2500	ng/ml		0.009
M6PFDA-EIS	9.090	519.0 -> 473.9	22518	1.2500	ng/ml		0.009
d3-N-MeFOSAA-EIS	9.301	573.0 -> 418.8	28536	5.0000	ng/ml		0.019
M7PFUdA-EIS	9.562	570.0 -> 525.0	28773	1.2500	ng/ml		0.047
d5-N-EtFOSAA-EIS	9.551	589.0 -> 418.8	26411	5.0000	ng/ml		0.047
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.685	506.0 -> 78.0	20434	2.5000	ng/ml		0.037
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.986	615.0 -> 570.0	18668	1.2500	ng/ml		0.093
M2PFTeDA-EIS	10.682	715.0 -> 670.0	6833	1.2500	ng/ml		0.193
d7-NMeFOSE-EIS	10.446	623.0 -> 59.0	10890	25.0000	ng/ml		0.147
d3-NMeFOSA-EIS	10.487	515.0 -> 219.0	1202	2.5000	ng/ml		0.157
d9-NEtFOSE-EIS	10.711	639.0 -> 59.0	4052	25.0000	ng/ml		0.175
d5-NEtFOSA-EIS	10.760	531.0 -> 169.0	540	2.5000	ng/ml	m	0.184
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	217.0 -> 172.0	158087	12.2153	ng/ml		0.073
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	268.0 -> 223.0	131220	6.3205	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.557	302.0 -> 79.9	20612	3.0747	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.315	329.0 -> 309.0	26414	5.9017	ng/ml		0.019

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.390	318.0 -> 273.0	66103	3.1828	ng/ml		0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.698	287.0 -> 169.0	47484	13.0795	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.244	367.0 -> 322.0	15925	3.4521	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.354	402.0 -> 80.0	13391	2.8632	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.893	429.0 -> 409.0	16450	5.4880	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	421.0 -> 376.0	39635	2.9745	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.562	472.0 -> 223.0	6048	1.5468	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.588	507.0 -> 98.9	5551	2.8434	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.052	529.0 -> 509.0	35170	4.9964	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.090	519.0 -> 473.9	22518	1.6456	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.301	573.0 -> 418.8	28536	5.6731	ng/ml		0.019
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.551	589.0 -> 418.8	26409	5.9450	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.562	570.0 -> 525.0	28773	1.5535	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.685	506.0 -> 78.0	20432	3.1944	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.986	615.0 -> 570.0	18668	1.1465	ng/ml		0.093
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.446	623.0 -> 59.0	10890	21.2163	ng/ml		0.147
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.487	515.0 -> 219.0	1202	1.8590	ng/ml		0.157
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.682	715.0 -> 670.0	6833	0.9405	ng/ml		0.193
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.711	639.0 -> 59.0	4052	17.7330	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.760	531.0 -> 169.0	540	1.3633	ng/ml	m	0.184
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.320	213.0 -> 168.9	3749	0.2708	ng/ml		100
PFMPA	2.263	229.0 -> 85.0	10	0.0012	ng/ml		100
3:3FTCA	4.488	241.0 -> 177.0	1	0.0020	ng/ml	#	1
Perfluoro-n-pentanoic acid (PFPeA)	4.765	263.0 -> 219.0	15390	0.6129	ng/ml		100
PFMBA	5.523	279.0 -> 85.0	39	0.0035	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.558	298.9 -> 79.9	5220	0.5794	ng/ml		100
PFEESA	6.112	315.0 -> 135.0	24	0.0007	ng/ml	#	1
NFDHA	6.068	295.0 -> 201.1	7	0.0141	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.641	327.0 -> 307.0	11	0.0016	ng/ml		48

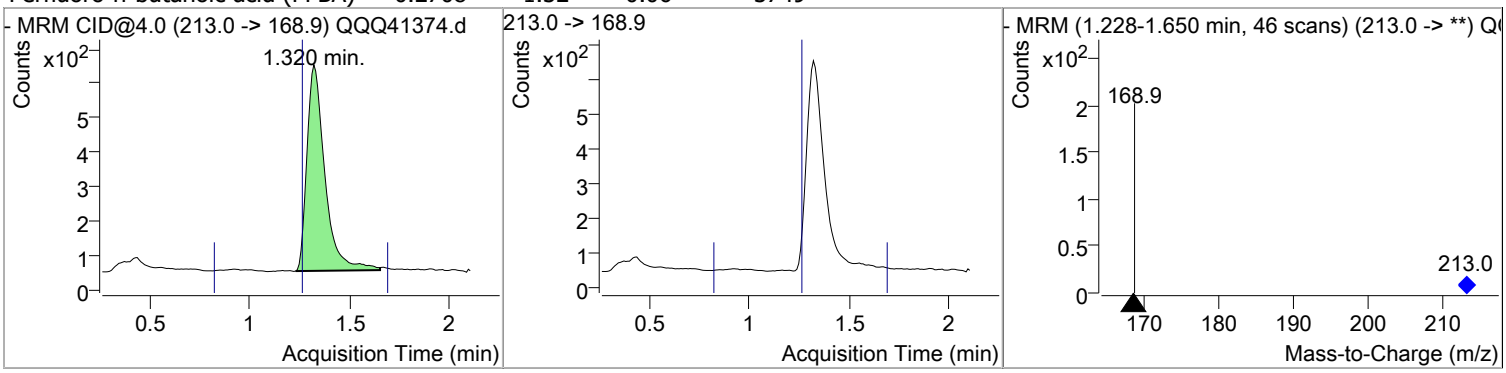
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.392	313.0 -> 268.9	22955	0.7512	ng/ml	#	97
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	348.9 -> 79.9	152	0.0211	ng/ml	#	27
HFPO-DA	6.560	285.0 -> 169.1	23	0.0558	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.253	363.0 -> 318.8	2938	0.2092	ng/ml		90
5-3FTCA	7.310	341.0 -> 217.0	133	0.0314	ng/ml	#	67
Perfluorohexanesulfonic acid (PFHxS)	7.355	398.9 -> 79.9	639	0.0966	ng/ml	m	89
ADONA	7.420	377.0 -> 85.0	5	0.0004	ng/ml	#	53
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.884	427.0 -> 407.0	15	0.0028	ng/ml		63
Perfluorooctanoic acid (PFOA)	7.951	413.0 -> 368.8	12035	0.6659	ng/ml	m	94
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.014	448.9 -> 80.0	39	0.0065	ng/ml	#	55
Perfluorononanoic acid (PFNA)	8.553	463.0 -> 418.8	139	0.0088	ng/ml	#	86
Perfluorooctanesulfonic acid (PFOS)	8.598	498.9 -> 79.9	226	0.0158	ng/ml	#	78
7-3FTCA	8.730	441.0 -> 337.0	205	0.0361	ng/ml		86
9-Cl-PF3ONS	8.865	531.0 -> 351.0	9	0.0003	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	527.0 -> 80.9	2	0.0012	ng/ml	#	1
Perfluorodecanoic acid (PFDA)	9.166	513.0 -> 468.8	48	0.0023	ng/ml	#	30
Perfluorononanesulfonate (L-PFNS)	9.098	548.9 -> 79.9	26	0.0062	ng/ml	#	70
N-MeFOSAA	8.995	570.0 -> 418.9	7	0.0013	ng/ml		87
Perfluoroundecanoic acid (PFUnA)	9.432	563.0 -> 519.0	150	0.0000	ng/ml	#	90
Perfluoro-1-decanesulfonate (L-PFDS)	9.615	598.9 -> 98.9	10	0.0048	ng/ml		100
N-EtFOSAA	9.450	584.0 -> 418.8	6	0.0013	ng/ml	#	71
Perfluoro-1-octanesulfonamide (FOSA)	9.694	497.9 -> 78.0	27	0.0023	ng/ml		100
11-Cl-PF3OUdS	9.706	631.0 -> 451.0	3	0.0001	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.086	613.0 -> 568.8	178	0.0147	ng/ml	#	91
Perfluorododecanesulfonic acid (PFDoS)	10.388	699.0 -> 80.0	8	0.0075	ng/ml	#	1
Perfluorotridecanoic acid (PFTrDA)	10.122	663.0 -> 618.8	23	0.0033	ng/ml		100
NMeFOSE	10.245	616.0 -> 59.0	2	0.0049	ng/ml		100
NMeFOSA	10.275	512.0 -> 169.0	4	0.0000	ng/ml	#	1
Perfluorotetradecanoic acid (PFTA)	10.645	713.0 -> 669.0	28	0.0054	ng/ml		72
NEtFOSE	10.564	630.0 -> 59.0	2	0.0043	ng/ml		100
NEtFOSA	10.486	526.0 -> 169.0	12	0.0446	ng/ml	#	8

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

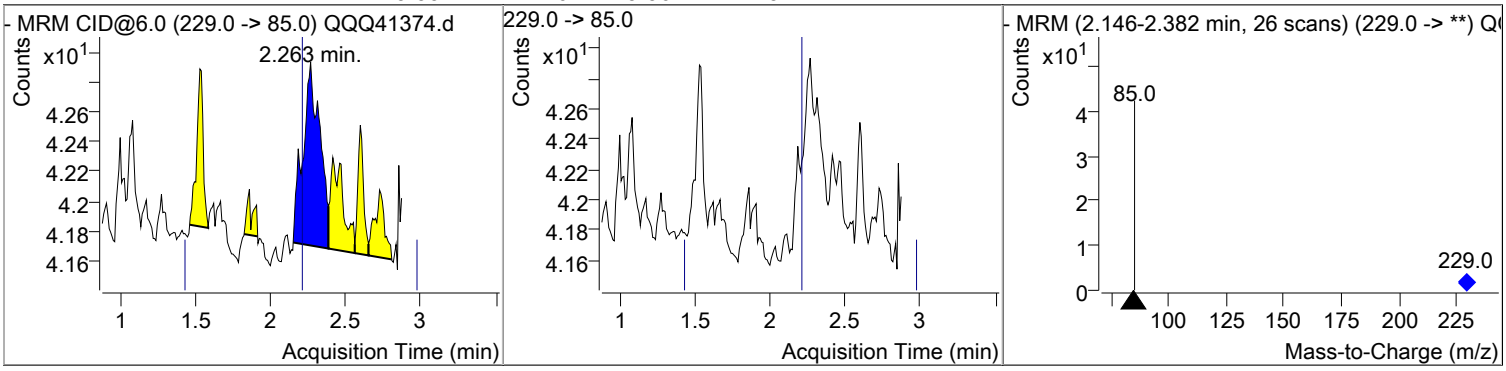
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	12.2153	1.32	0.07	158087				



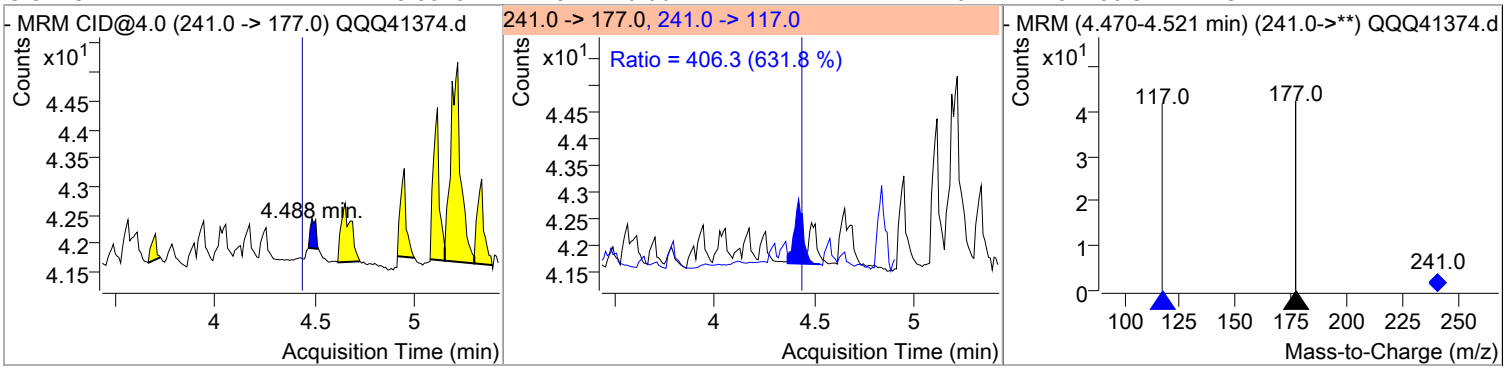
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.2708	1.32	0.06	3749				



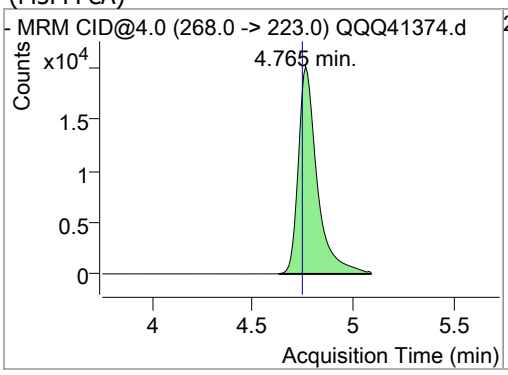
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0012	2.26	0.06	10				

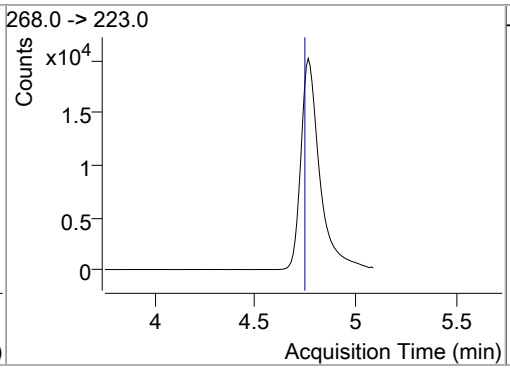


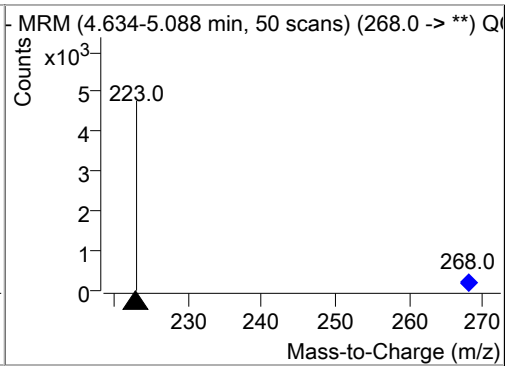
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0020	4.49	0.06	1	241.0 -> 117.0	406.3	51.4	77.2



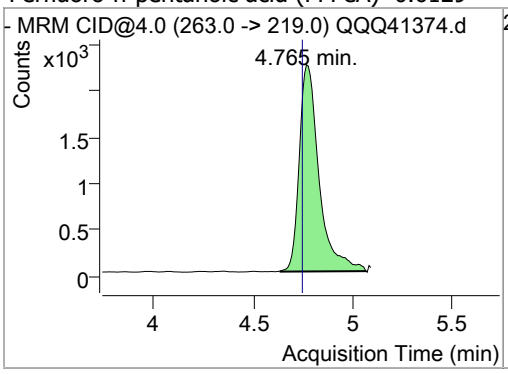
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	6.3205	4.76	0.04	131220				

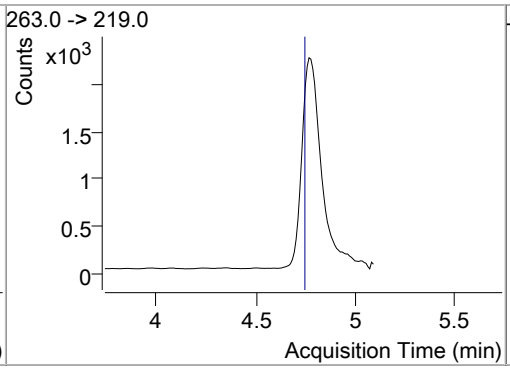


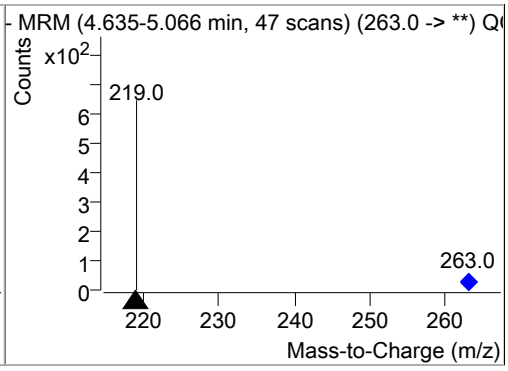




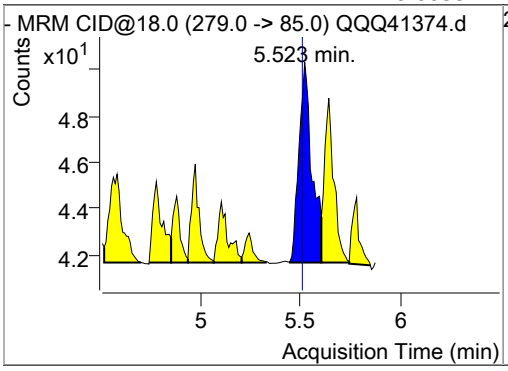
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.6129	4.77	0.03	15390				

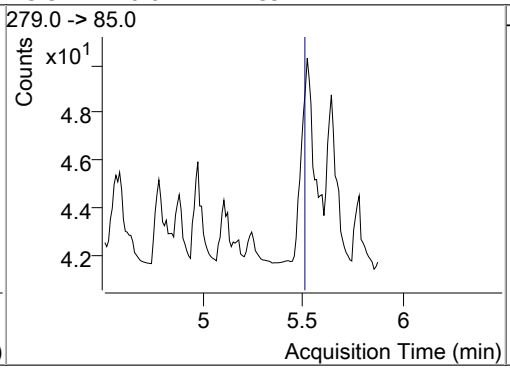


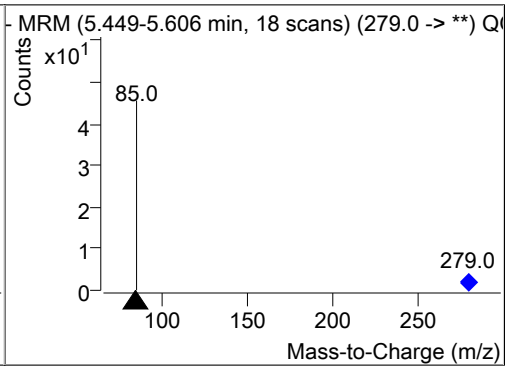




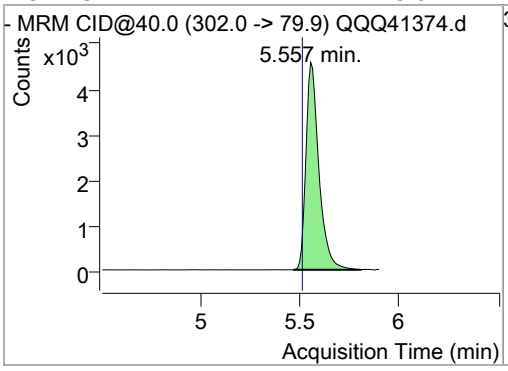
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0035	5.52	0.02	39				

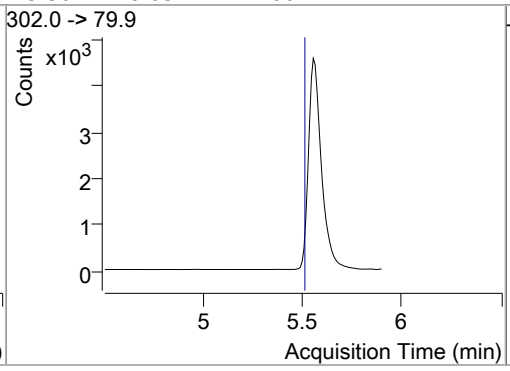


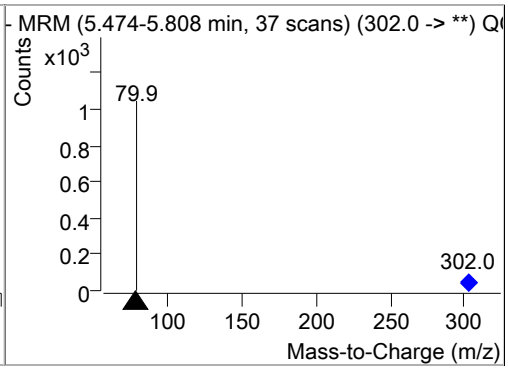




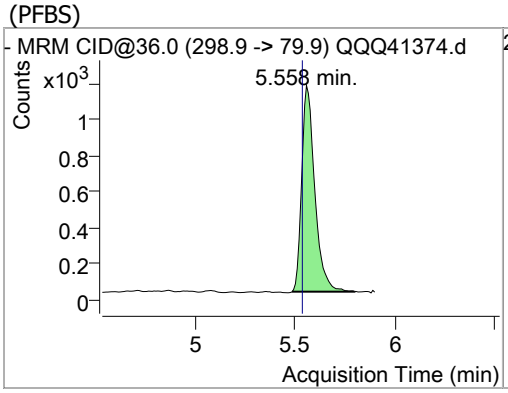
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.0747	5.56	0.03	20612				

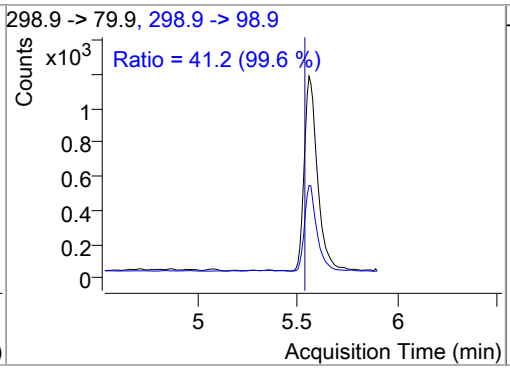


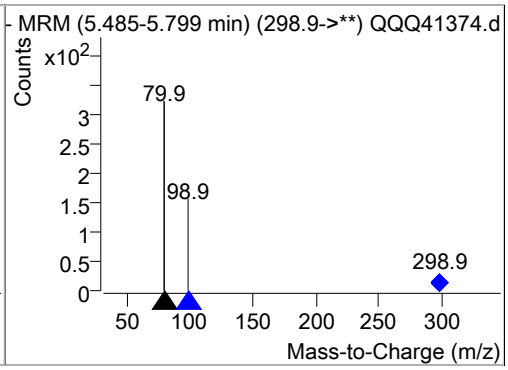




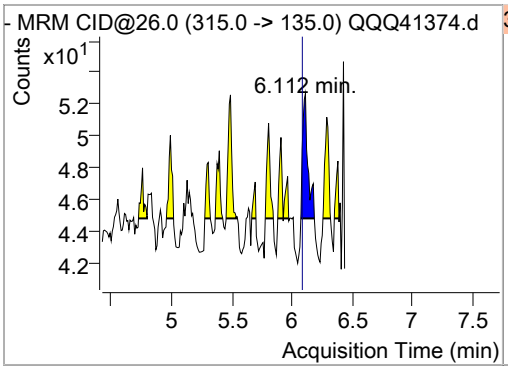
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.5794	5.56	0.03	5220	298.9 -> 98.9	41.2	33.1	49.7

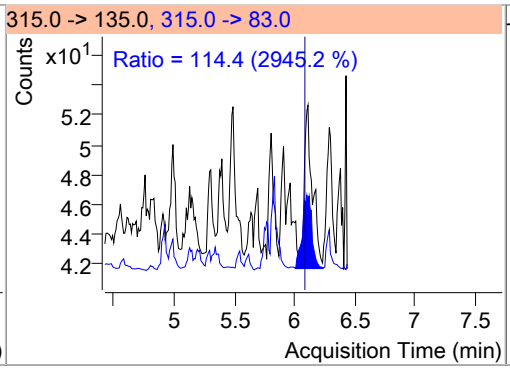


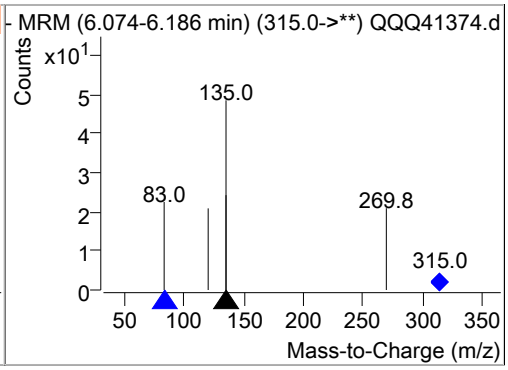




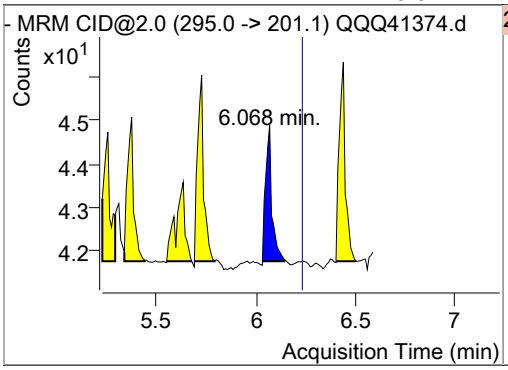
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0007	6.11	0.04	24	315.0 -> 83.0	114.4	3.1	4.7

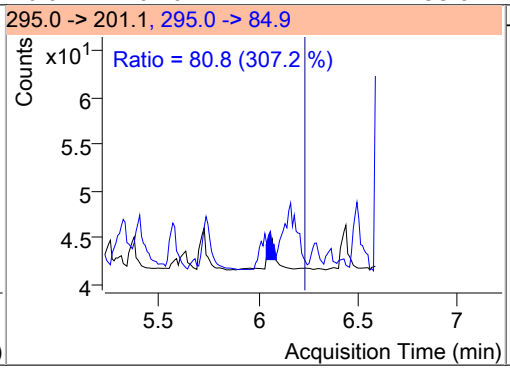


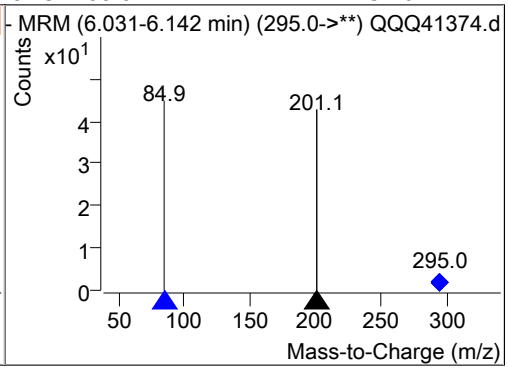




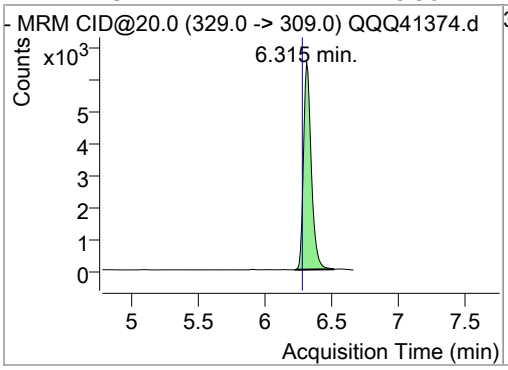
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0141	6.07	-0.16	7	295.0 -> 84.9	80.8	21.1	31.6

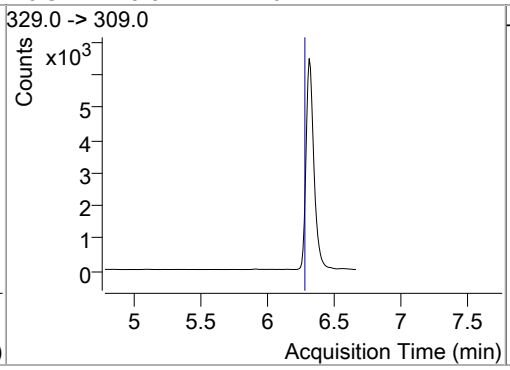


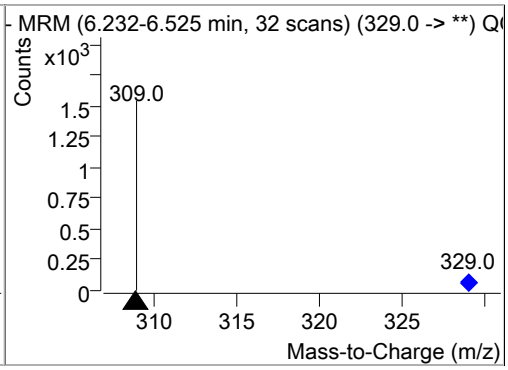




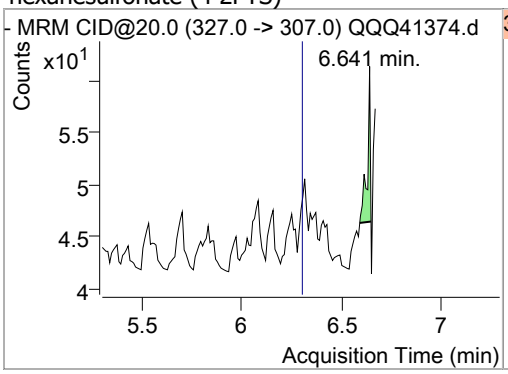
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	5.9017	6.32	0.02	26414				

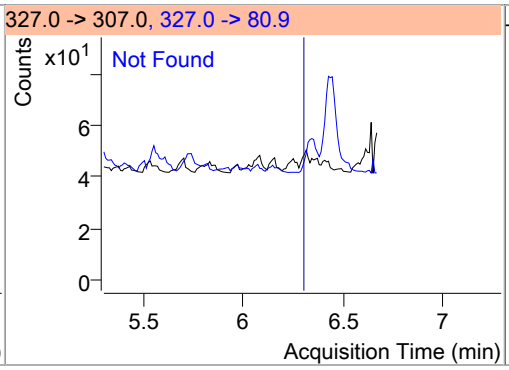


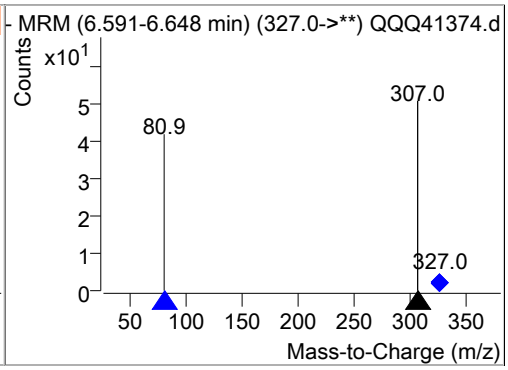




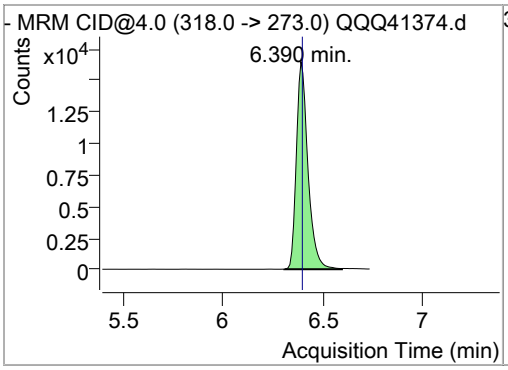
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0016	6.64	0.34	11	327.0 -> 80.9		21.5	32.2

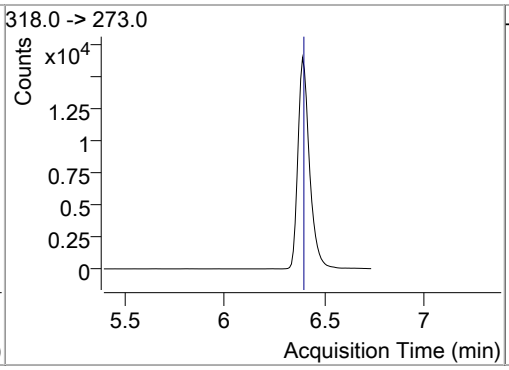


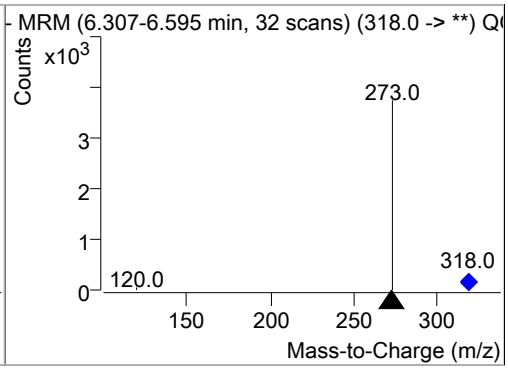




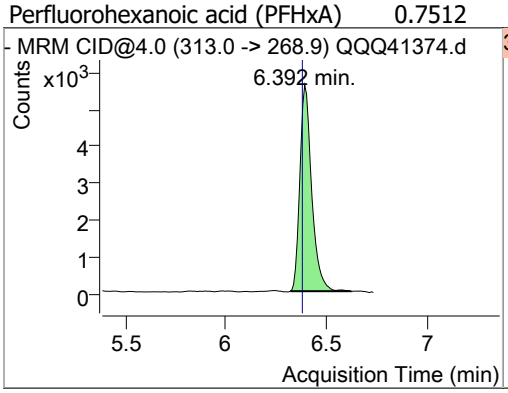
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.1828	6.39	0.02	66103				

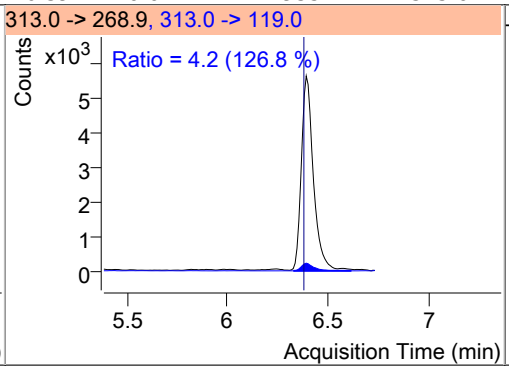


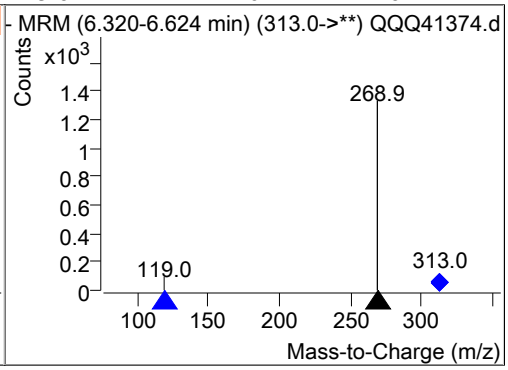




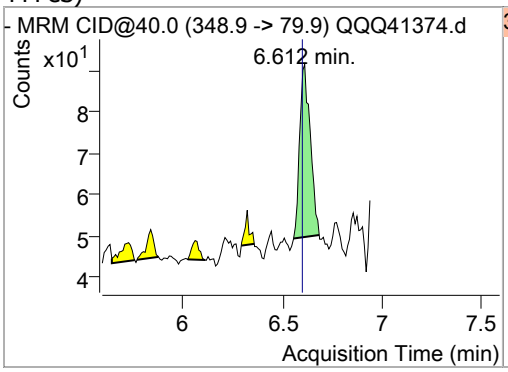
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.7512	6.39	0.02	22955	313.0 -> 119.0	4.2	2.6	4.0

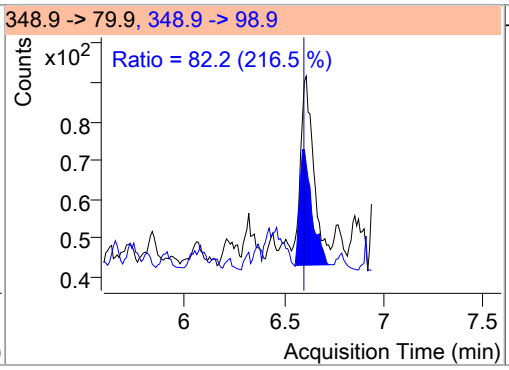


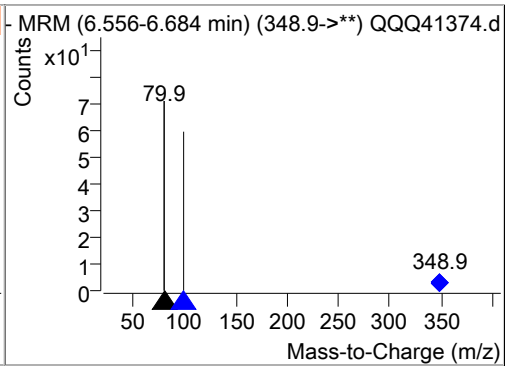




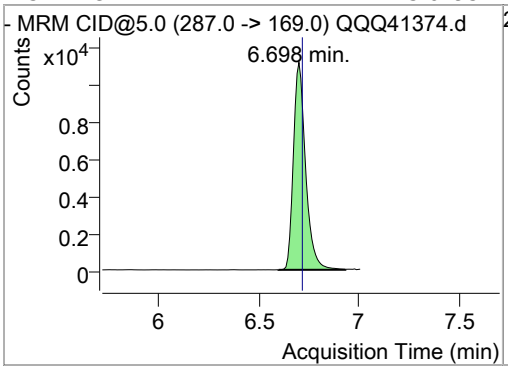
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0211	6.61	0.02	152	348.9 -> 98.9	82.2	30.4	45.6

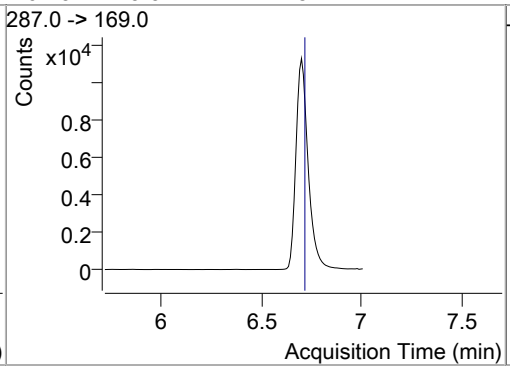


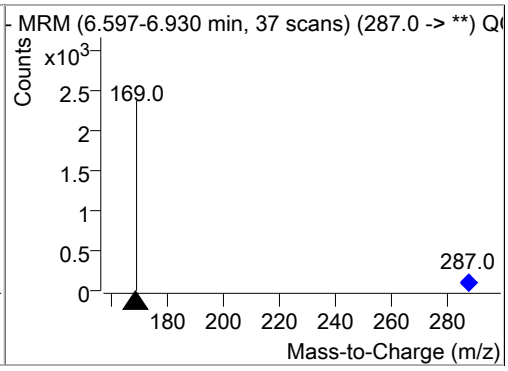




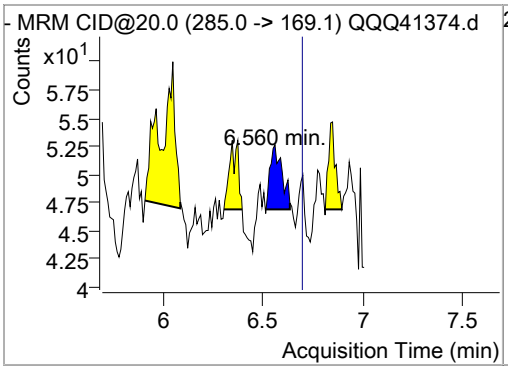
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	13.0795	6.70	0.01	47484				

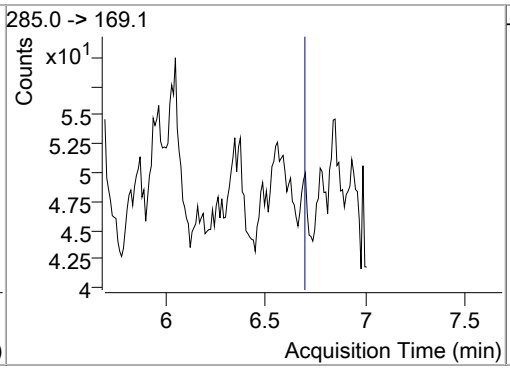


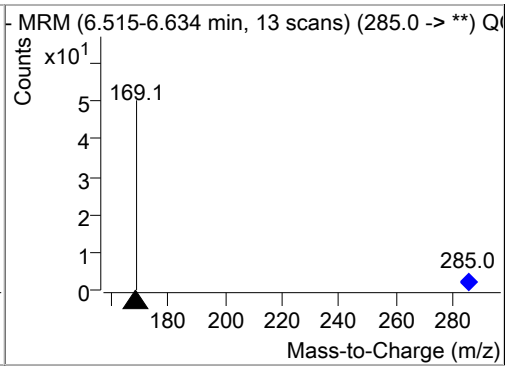




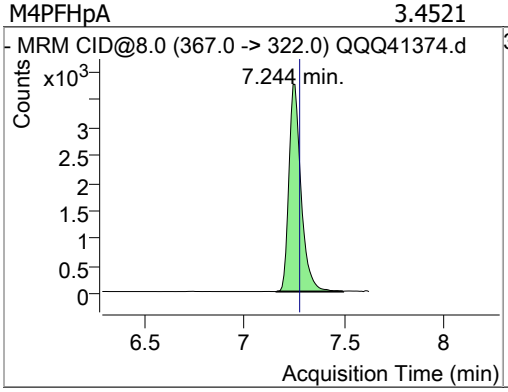
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	0.0558	6.56	-0.13	23				

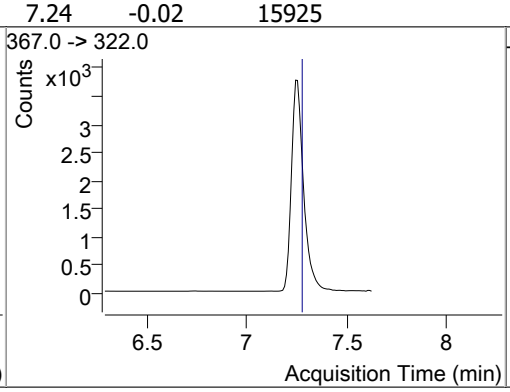


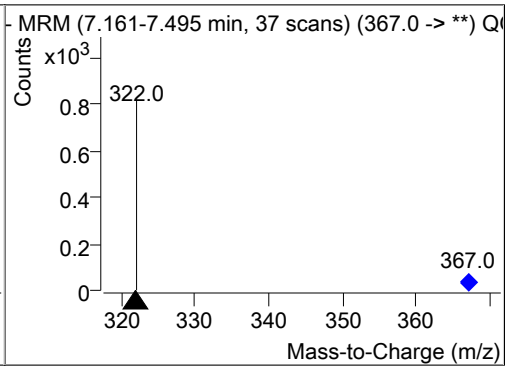




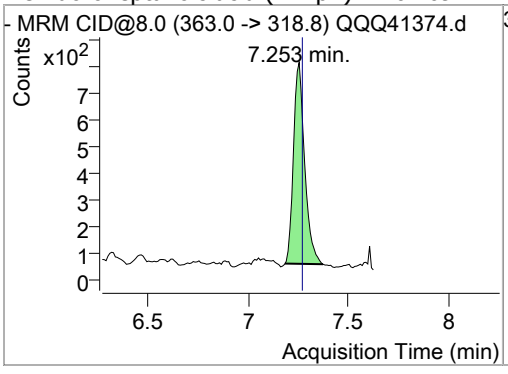
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.4521	7.24	-0.02	15925				

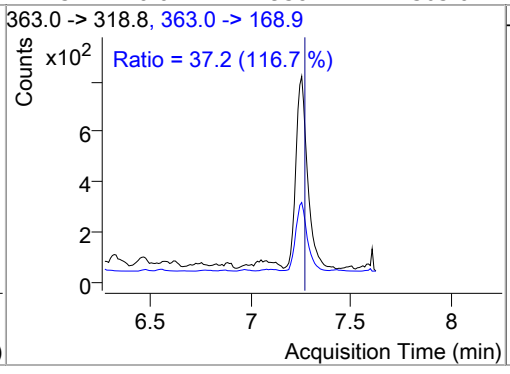


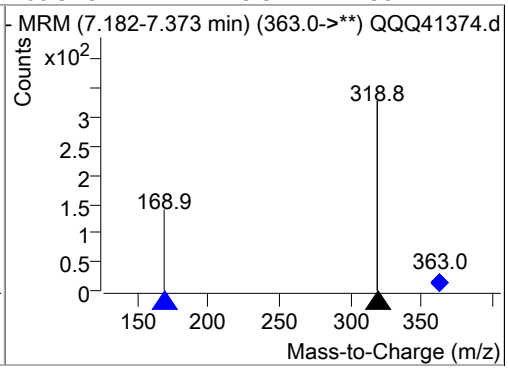




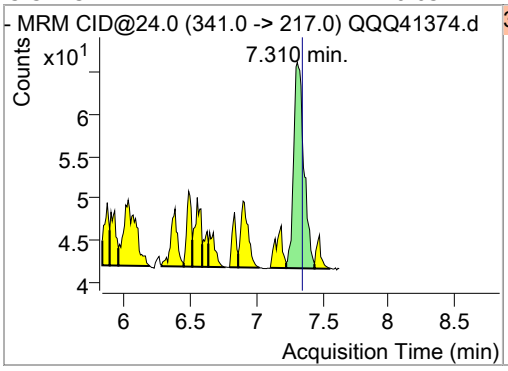
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.2092	7.25	-0.01	2938	363.0 -> 168.9	37.2	25.5	38.2

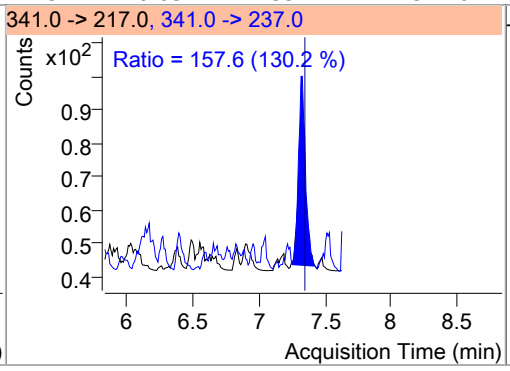


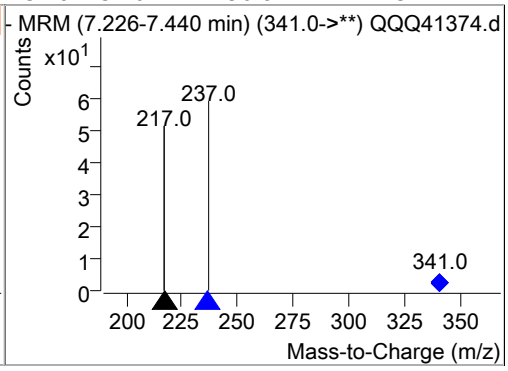




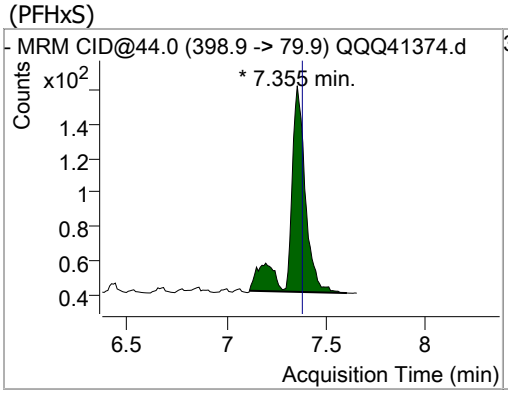
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.0314	7.31	-0.03	133	341.0 -> 237.0	157.6	96.8	145.2

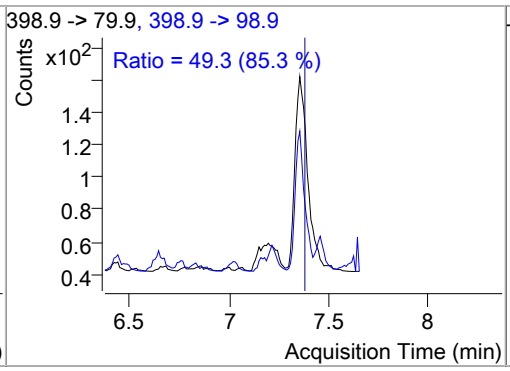


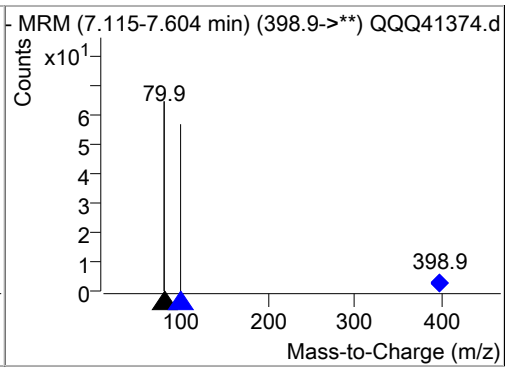




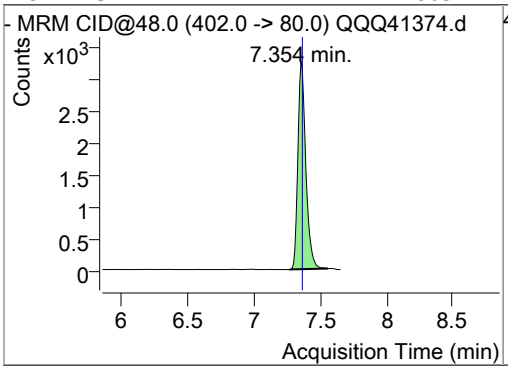
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0966	7.35	-0.02	639 (m)	398.9 -> 98.9	49.3	46.2	69.3

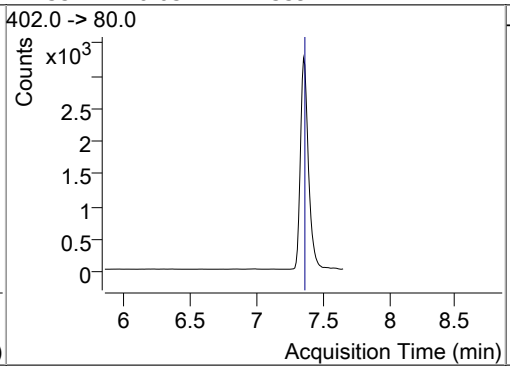


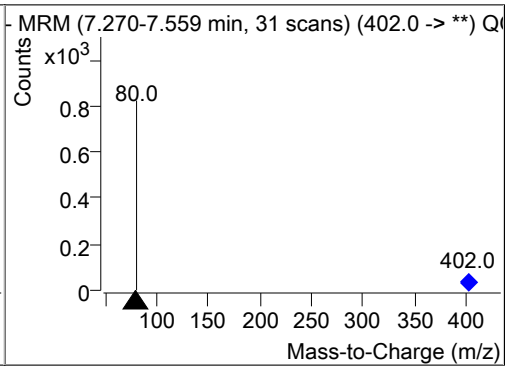




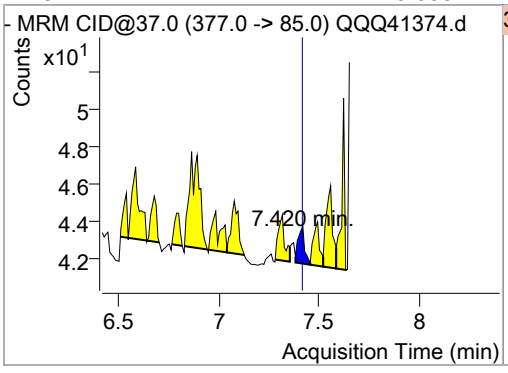
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.8632	7.35	-0.03	13391				

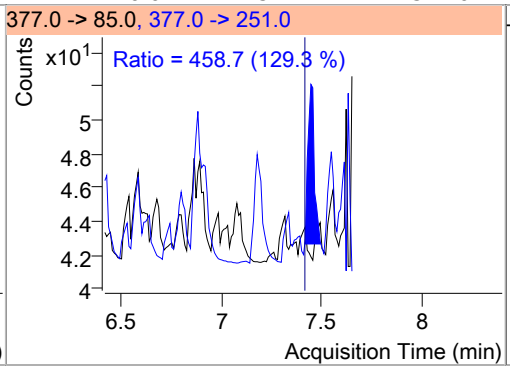


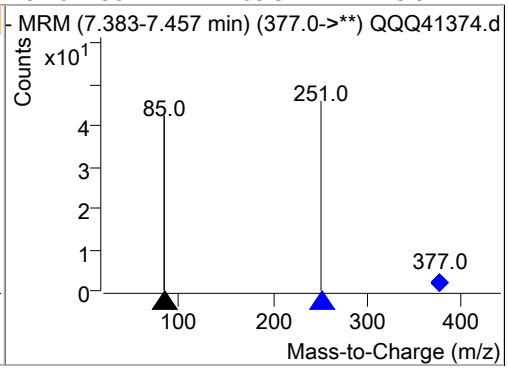




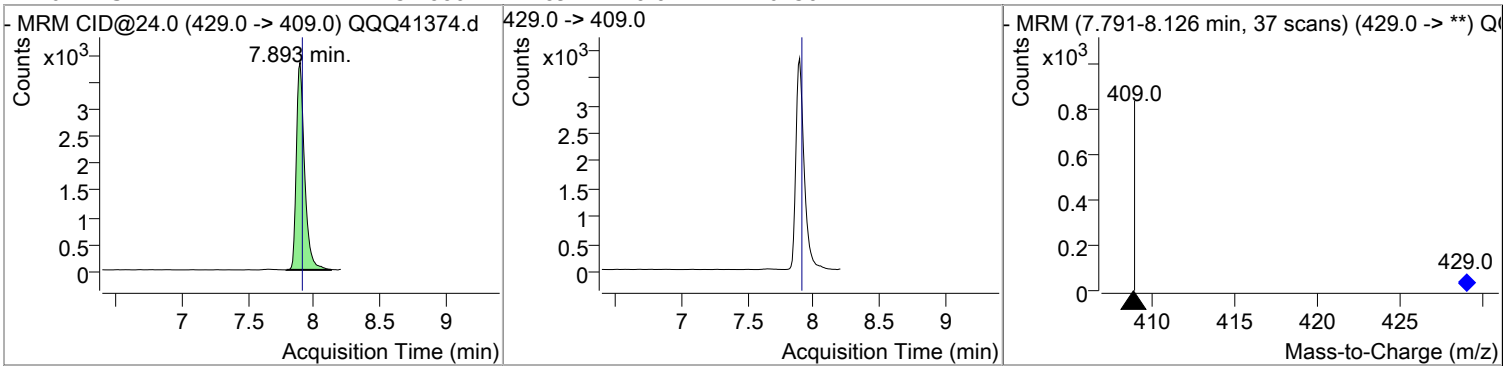
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0004	7.42	0.01	5	377.0 -> 251.0	458.7	283.9	425.9



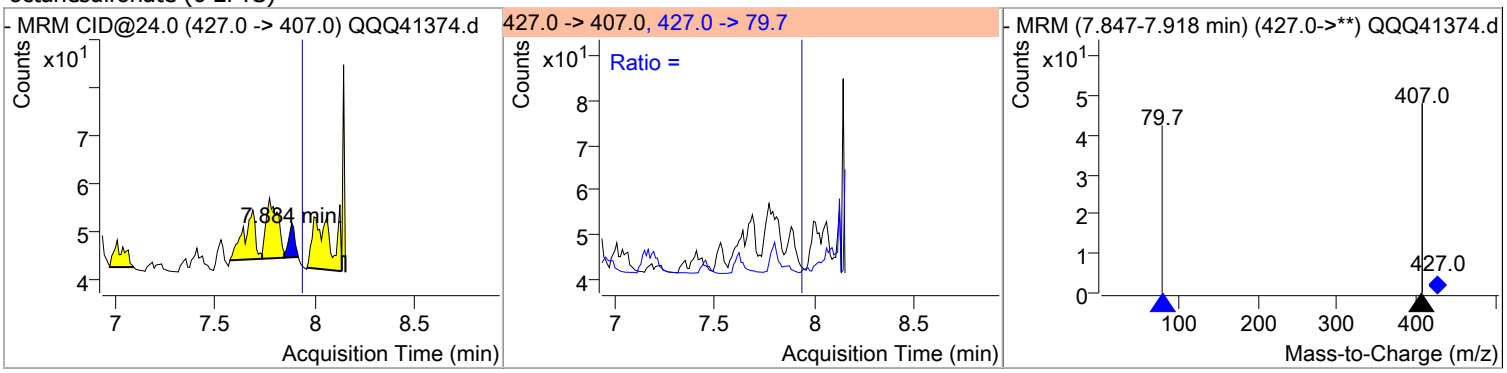




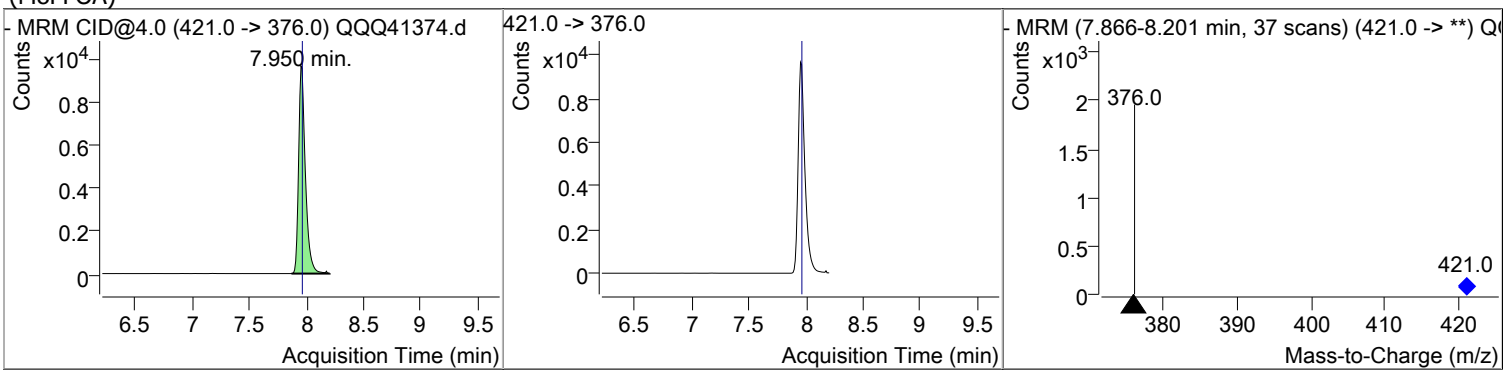
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.4880	7.89	-0.04	16450				



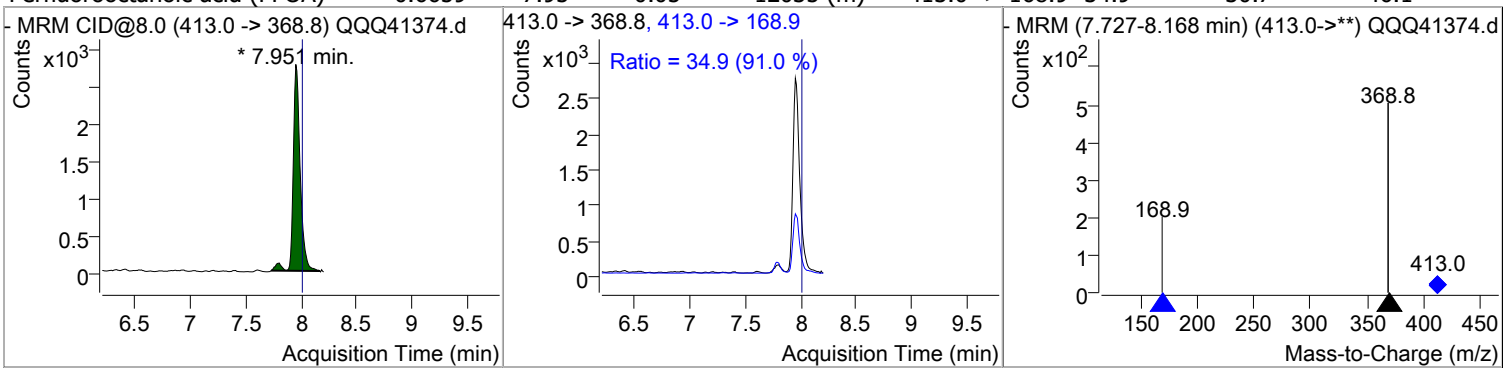
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0028	7.88	-0.05	15	427.0 -> 79.7		12.3	18.5



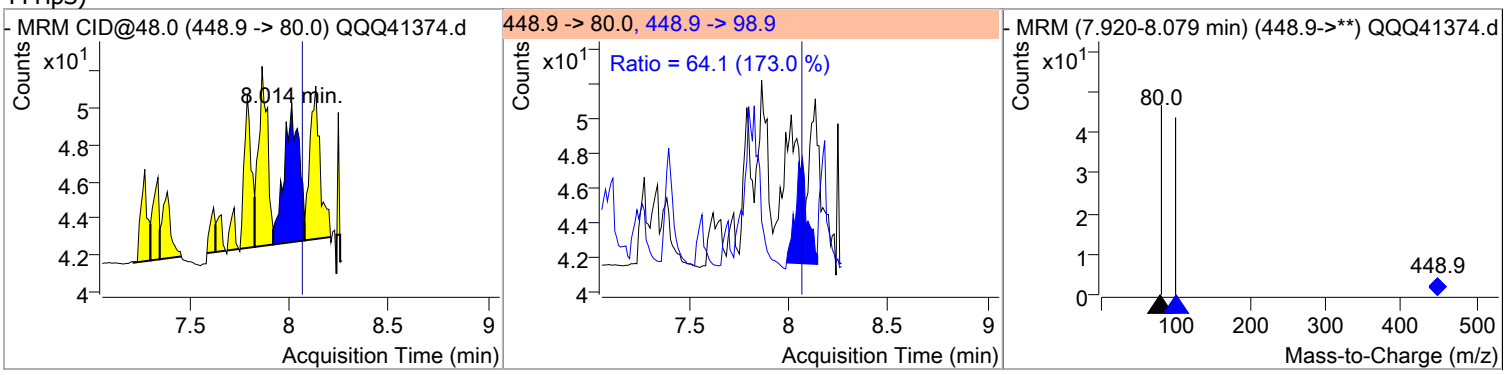
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.9745	7.95	-0.05	39635				



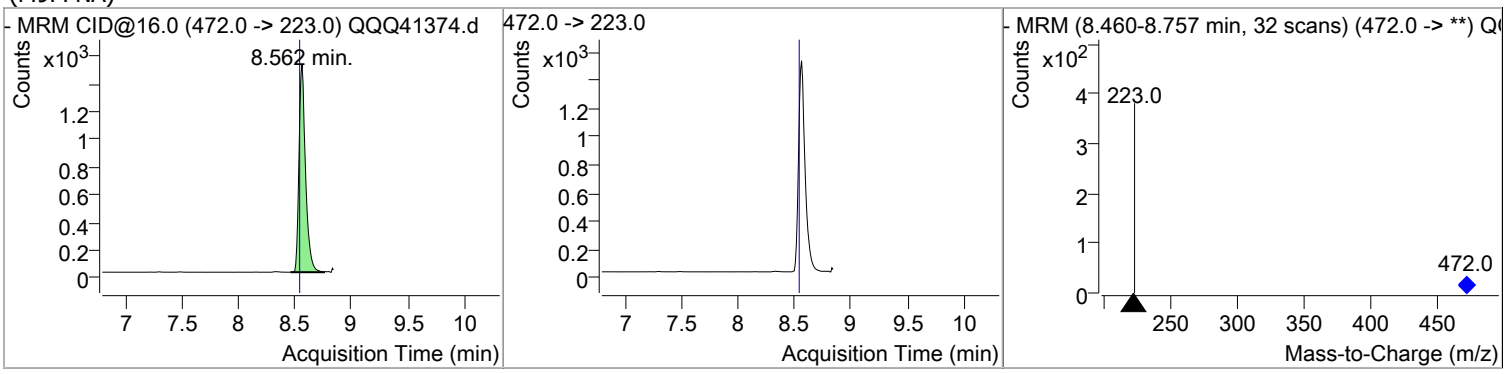
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.6659	7.95	-0.05	12035 (m)	413.0 -> 168.9	34.9	30.7	46.1



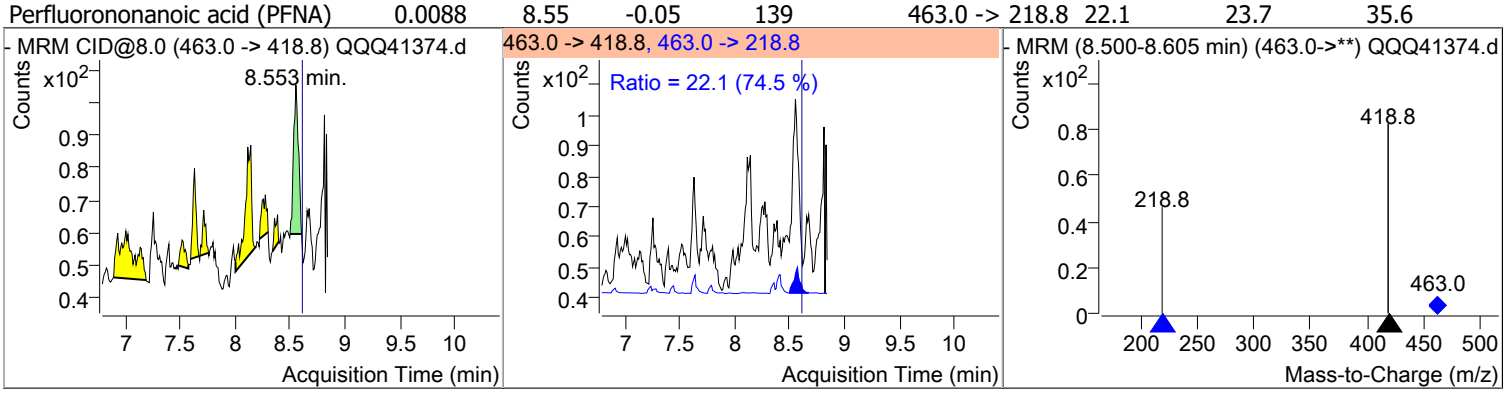
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0065	8.01	-0.05	39	448.9 -> 98.9	64.1	29.6	44.4



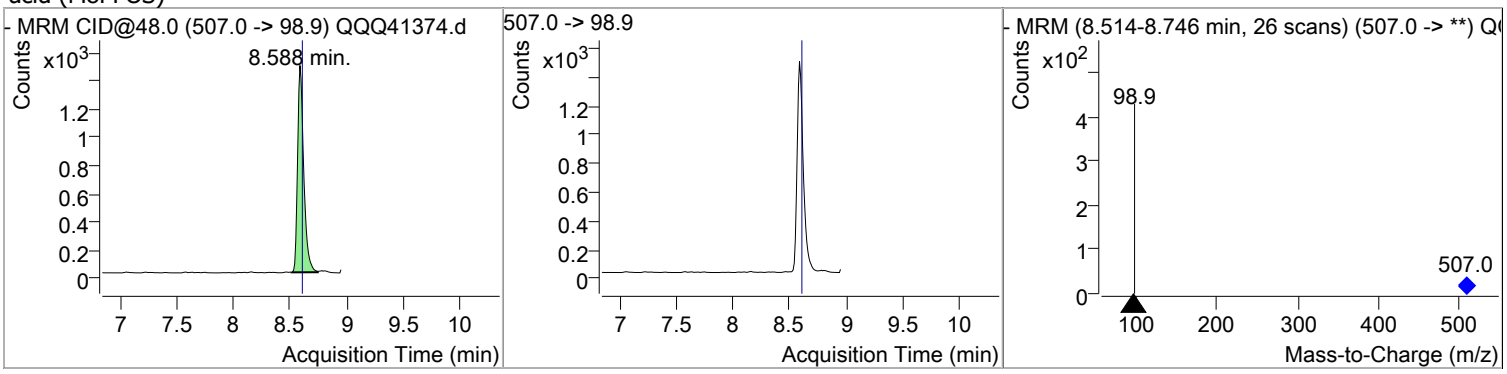
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.5468	8.56	-0.03	6048				



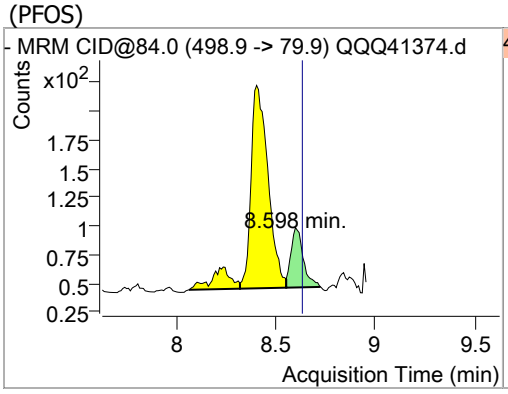
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0088	8.55	-0.05	139	463.0 -> 218.8	22.1	23.7	35.6

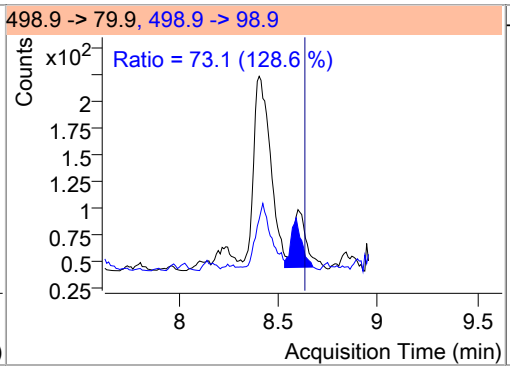


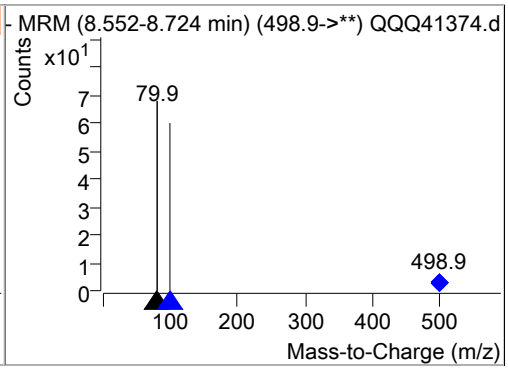
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.8434	8.59	-0.04	5551				



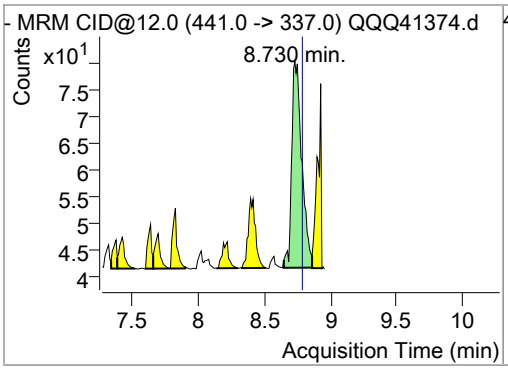
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0158	8.60	-0.03	226	498.9 -> 98.9	73.1	45.5	68.3

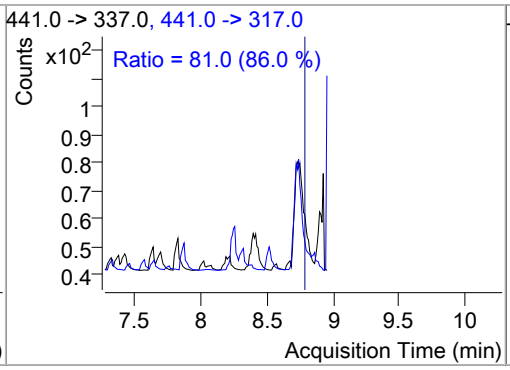


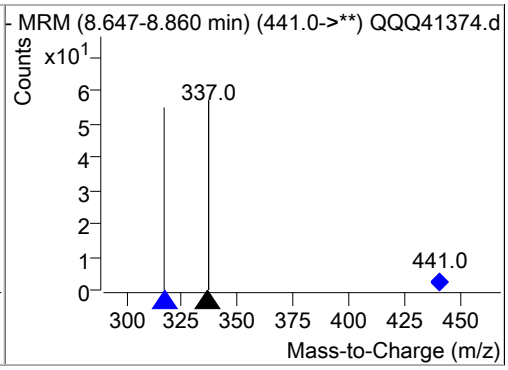




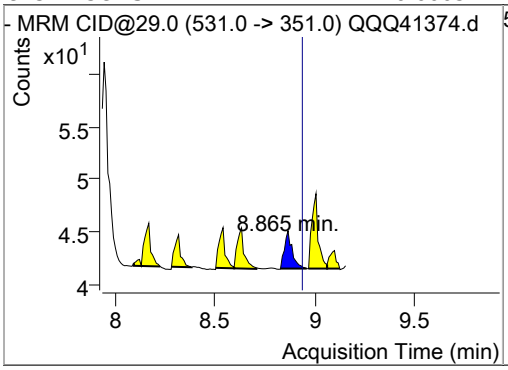
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.0361	8.73	-0.05	205	441.0 -> 317.0	81.0	75.4	113.1

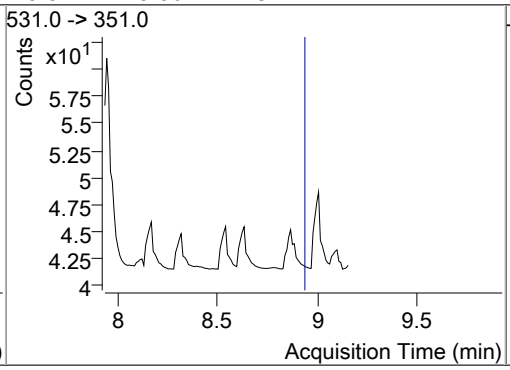


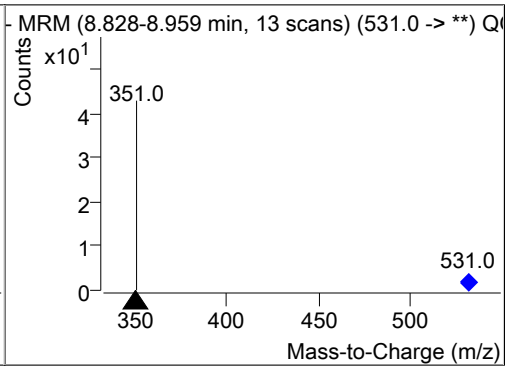




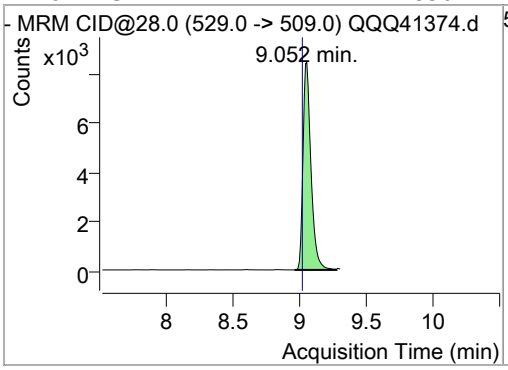
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0003	8.87	-0.06	9				

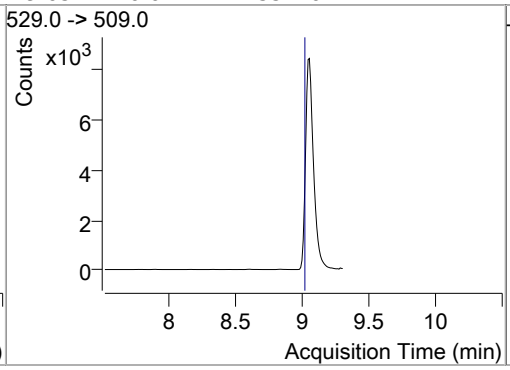


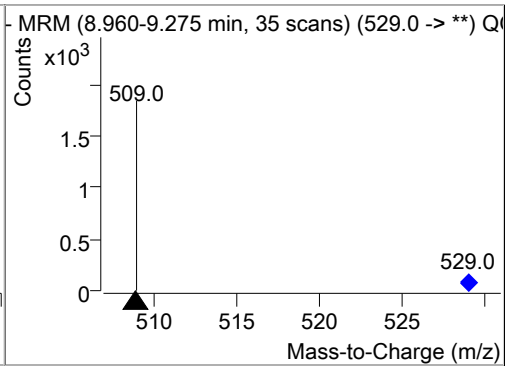




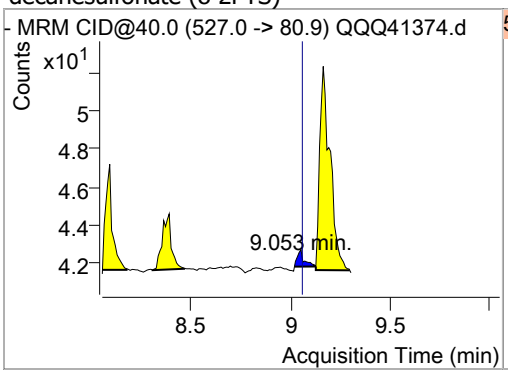
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.9964	9.05	0.01	35170				

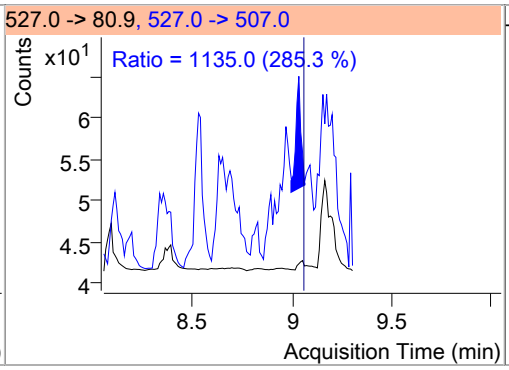


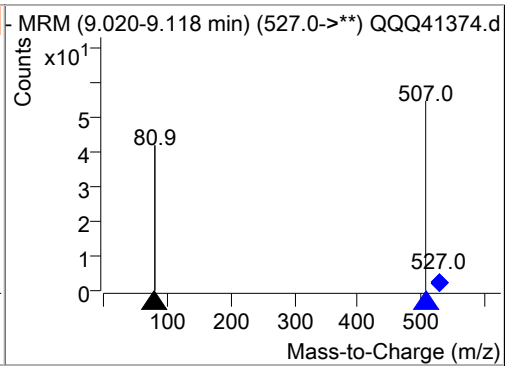




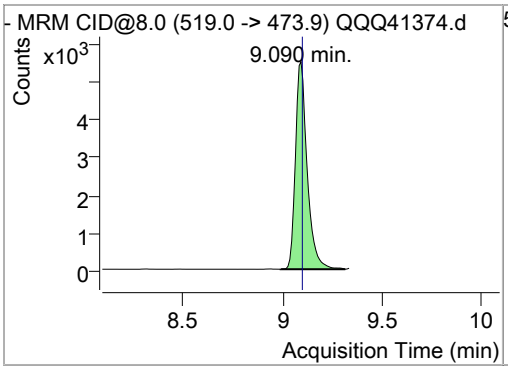
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0012	9.05	0.00	2	527.0 -> 507.0	1135.0	318.3	477.4

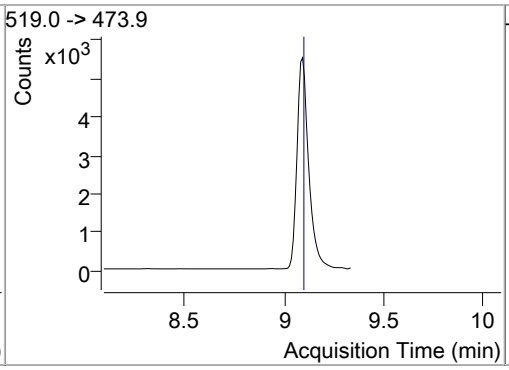


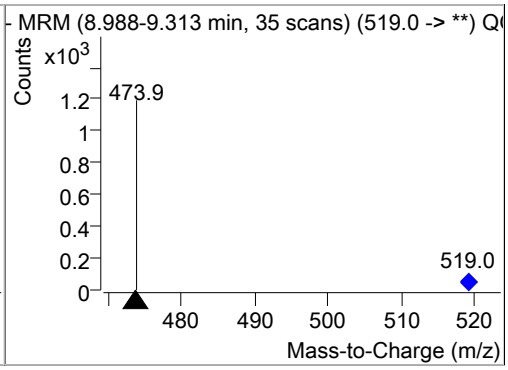




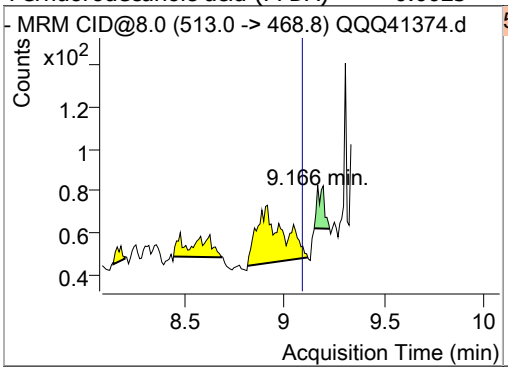
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.6456	9.09	0.01	22518				

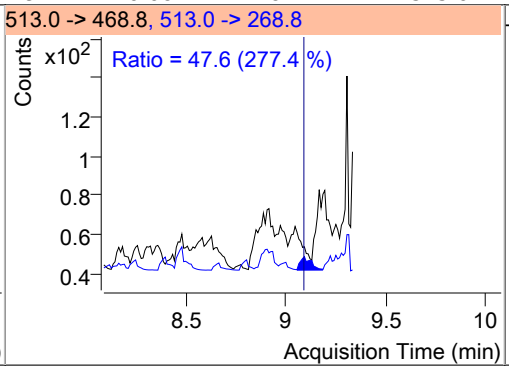


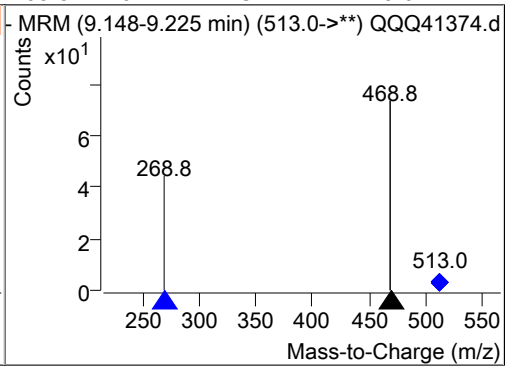




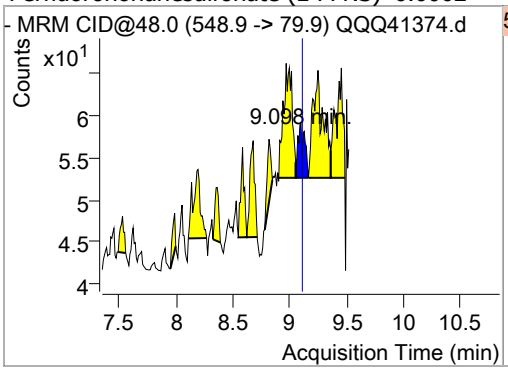
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0023	9.17	0.08	48	513.0 -> 268.8	47.6	13.7	20.6

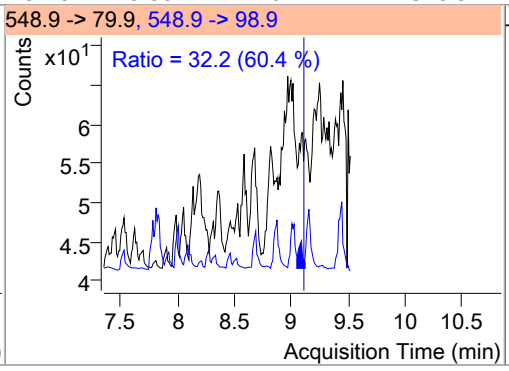


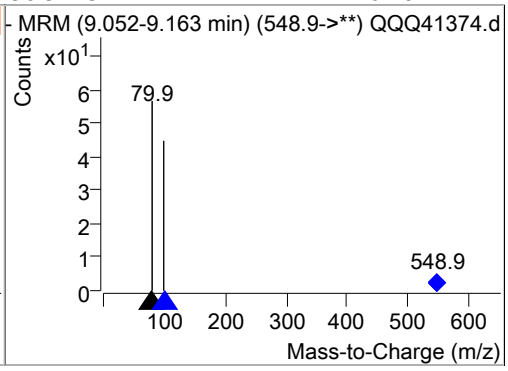




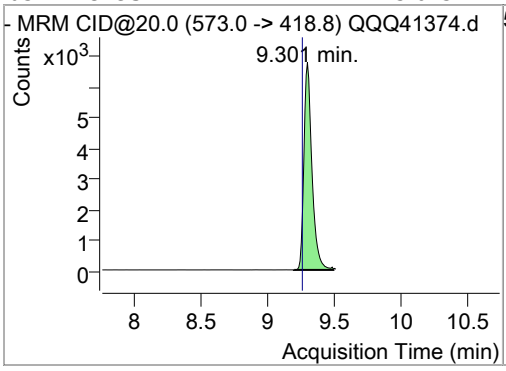
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0062	9.10	0.00	26	548.9 -> 98.9	32.2	42.7	64.0

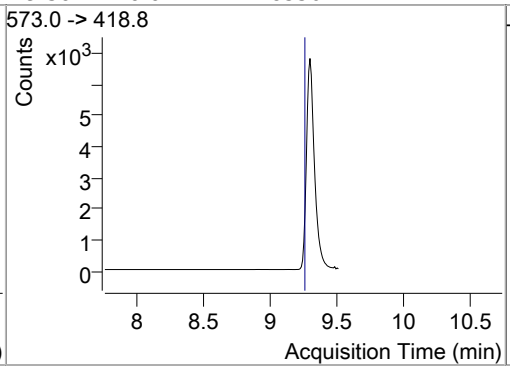


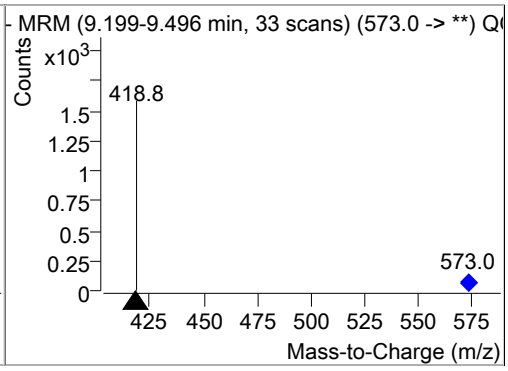




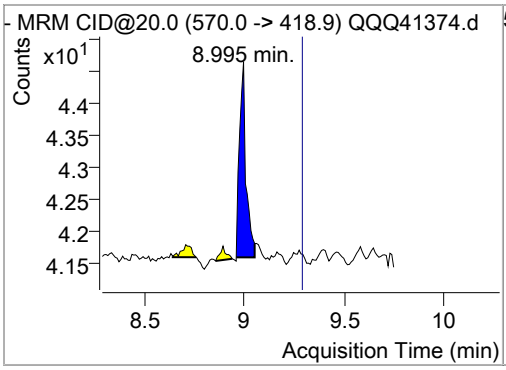
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.6731	9.30	0.02	28536				

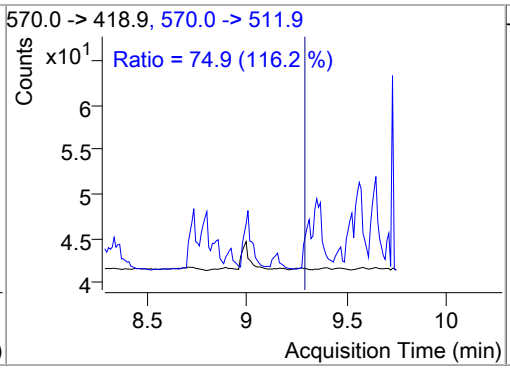


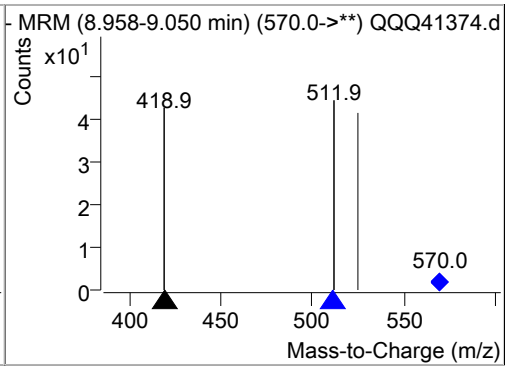




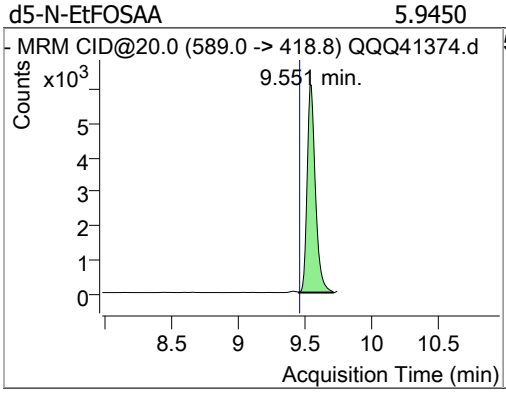
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0013	8.99	-0.29	7	570.0 -> 511.9	74.9	51.6	77.4

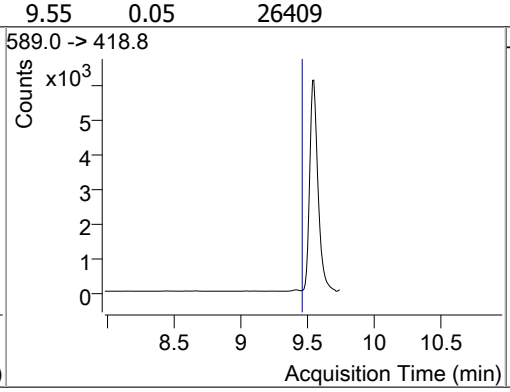


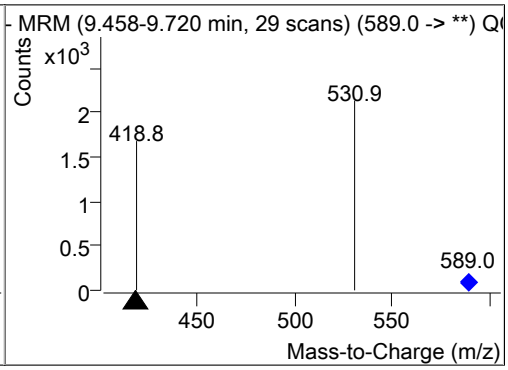




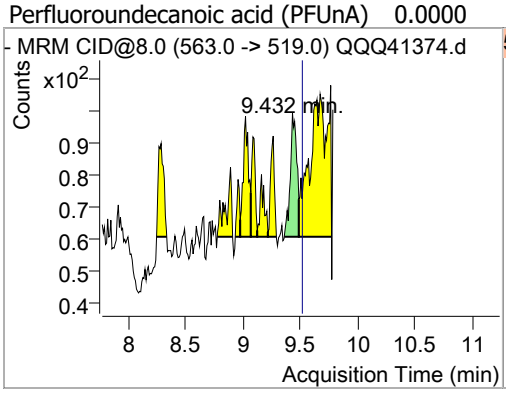
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.9450	9.55	0.05	26409				

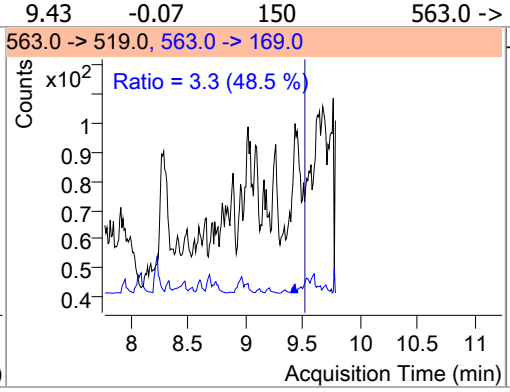


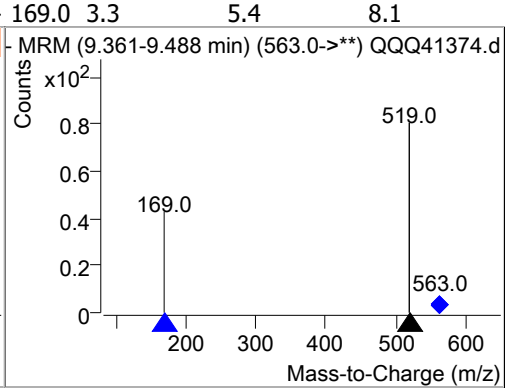




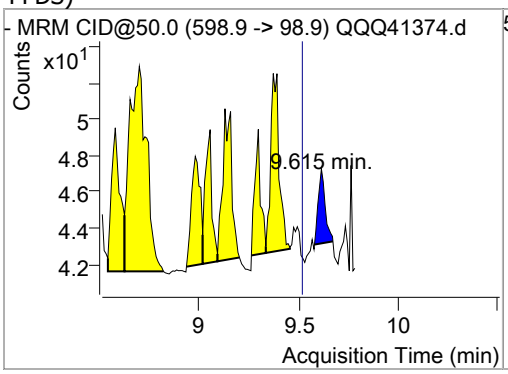
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.43	-0.07	150	563.0 -> 169.0	3.3	5.4	8.1

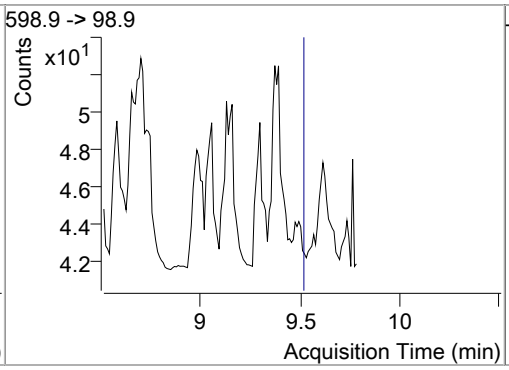


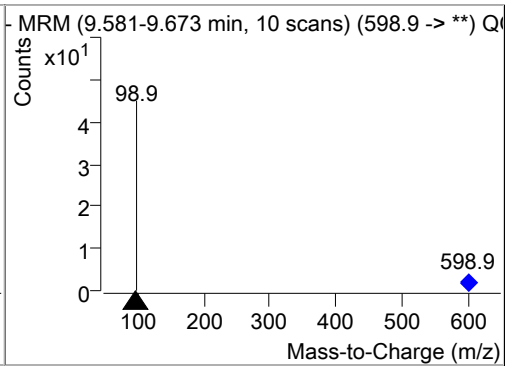




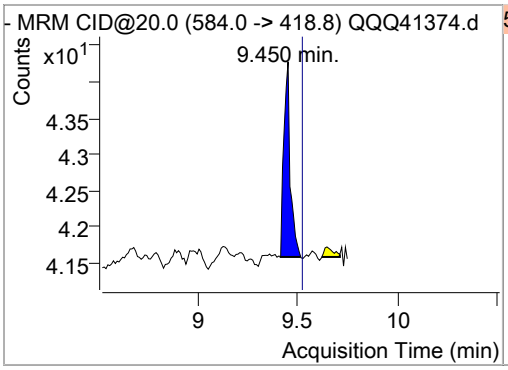
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0048	9.62	0.10	10				

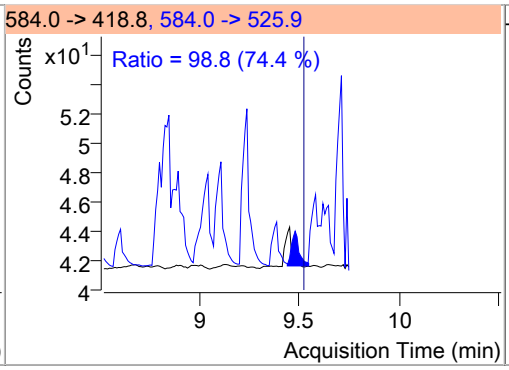


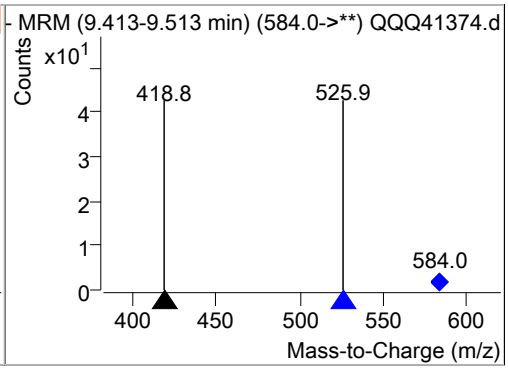




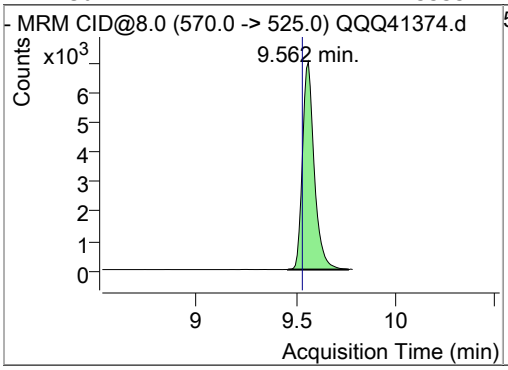
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0013	9.45	-0.06	6	584.0 -> 525.9	98.8	106.2	159.3

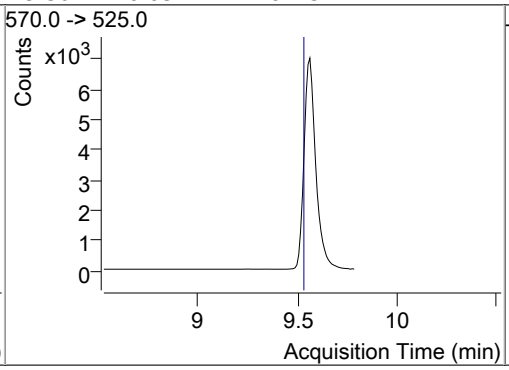


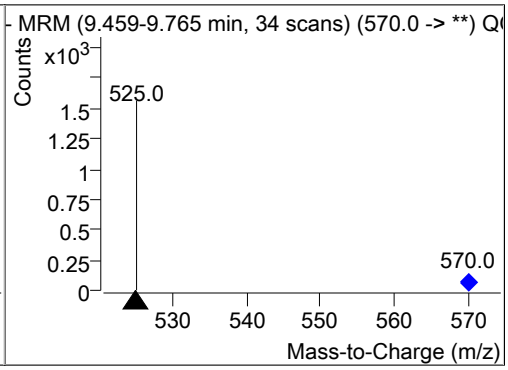




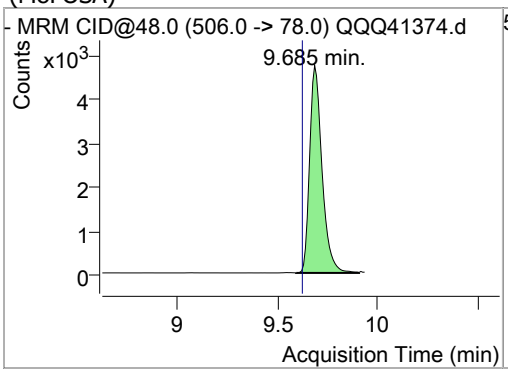
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.5535	9.56	0.05	28773				

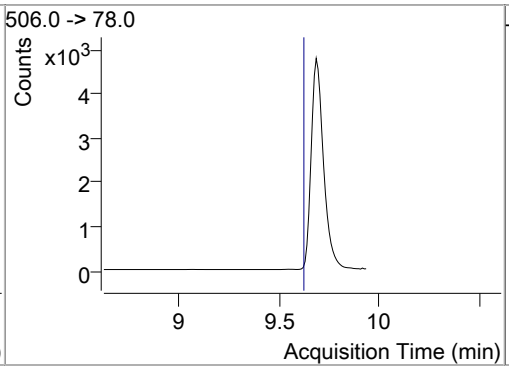


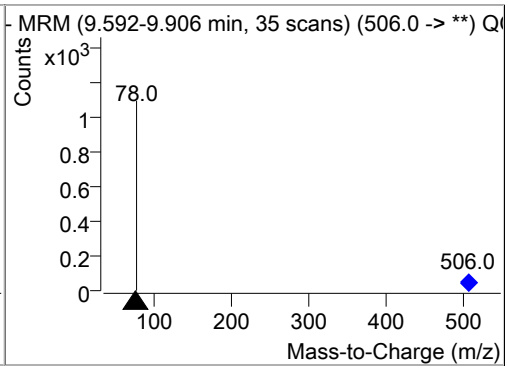




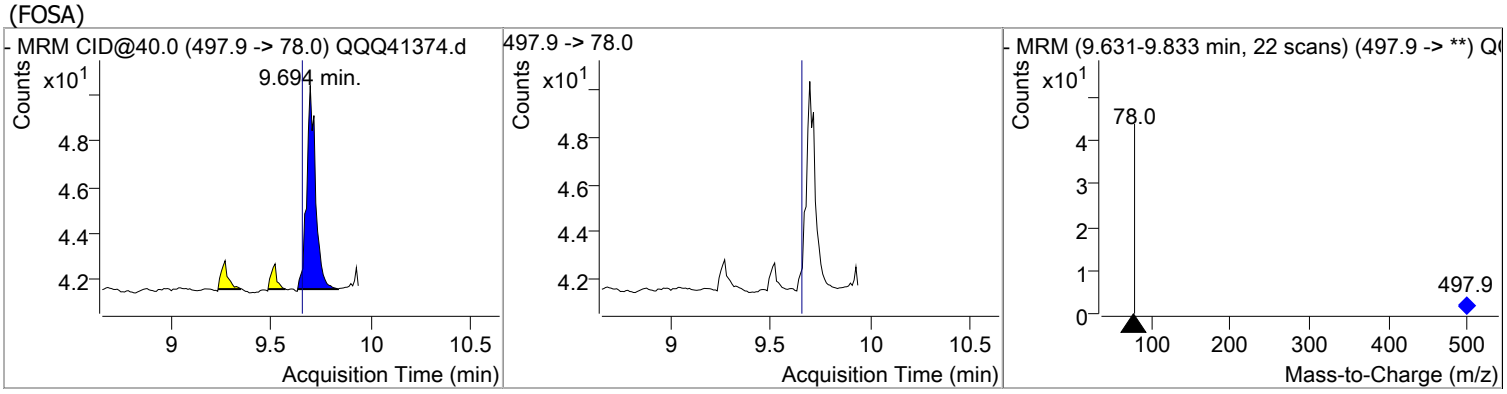
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	3.1944	9.68	0.04	20432				



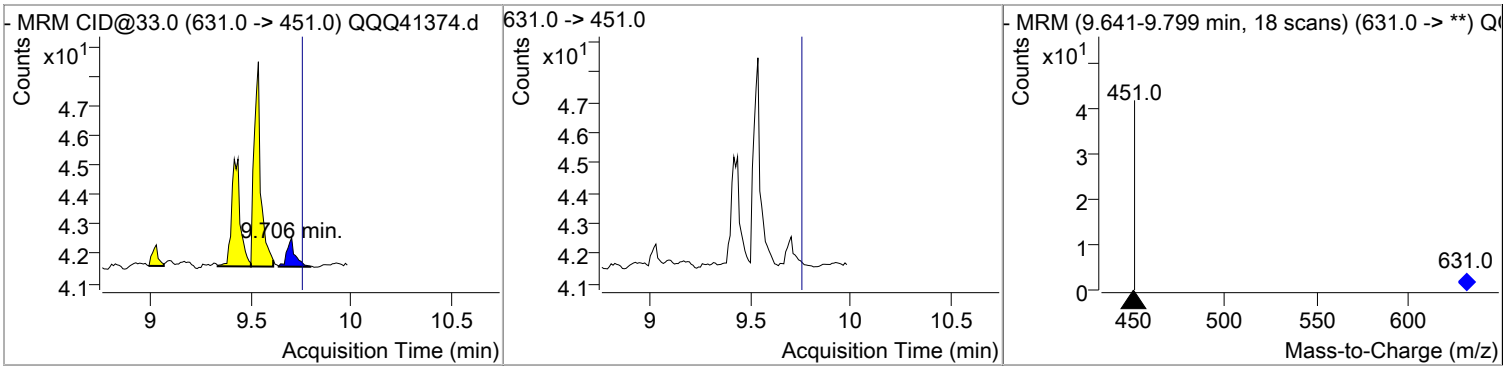




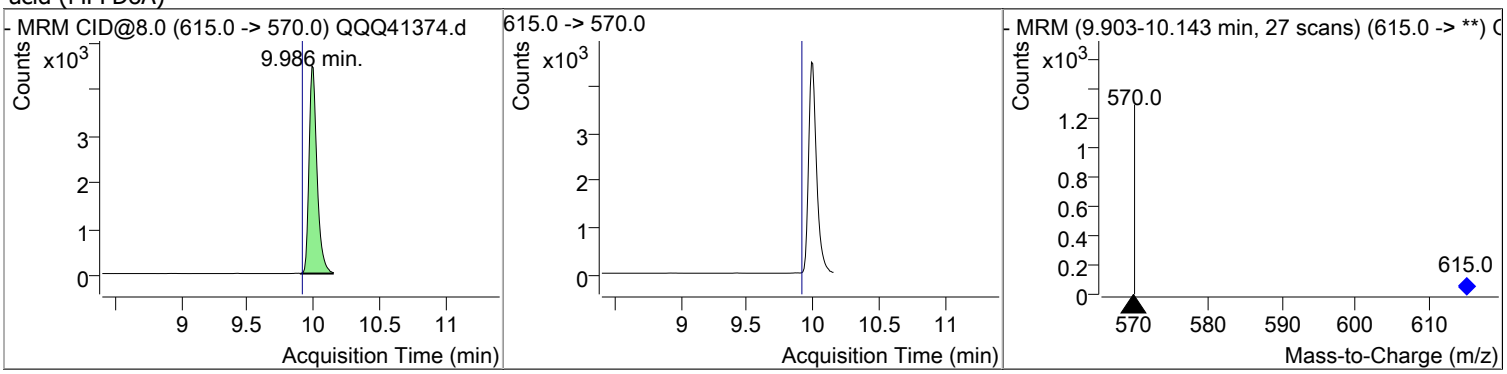
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0023	9.69	0.05	27				



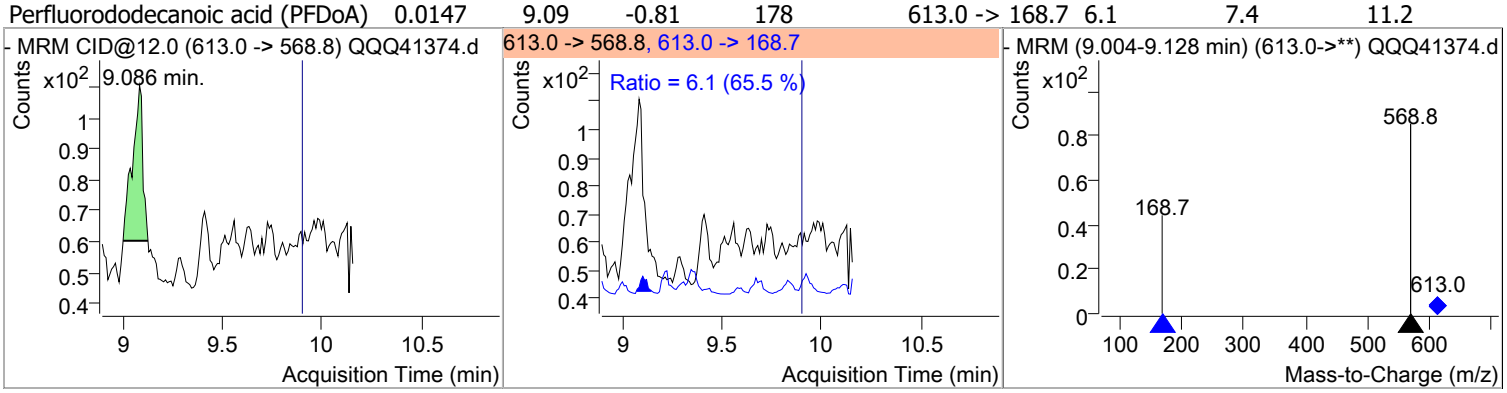
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0001	9.71	-0.05	3				



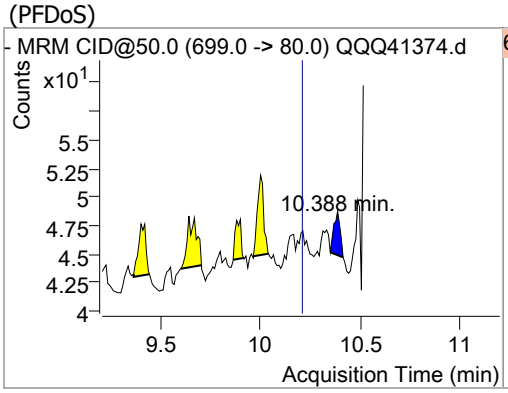
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.1465	9.99	0.09	18668				

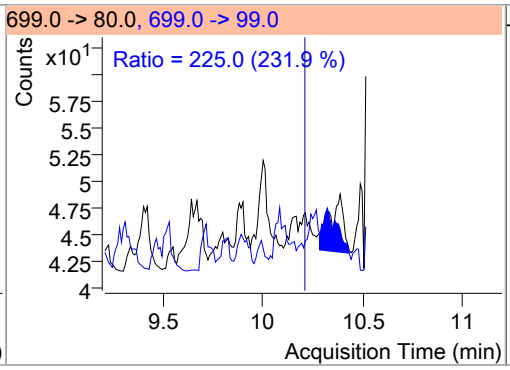


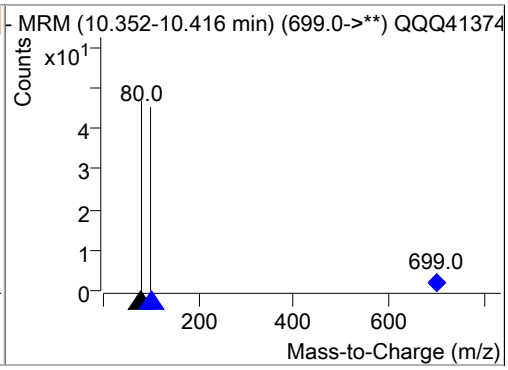
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0147	9.09	-0.81	178	613.0 -> 168.7	6.1	7.4	11.2



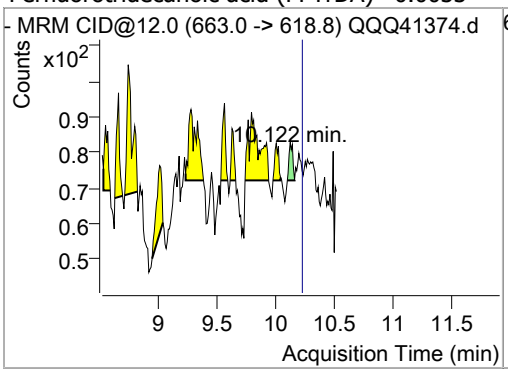
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0075	10.39	0.18	8	699.0 -> 99.0	225.0	77.6	116.4

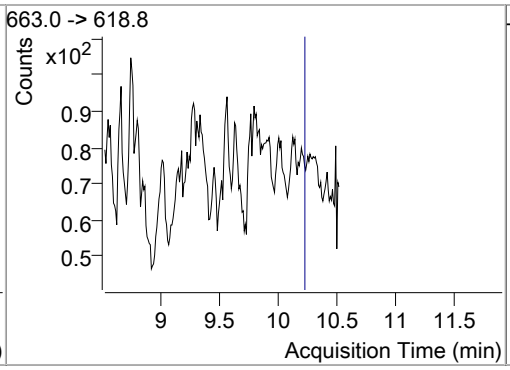


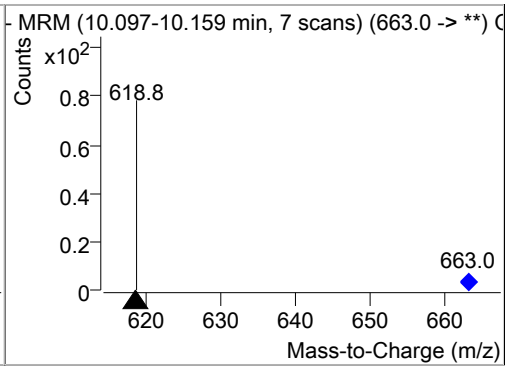




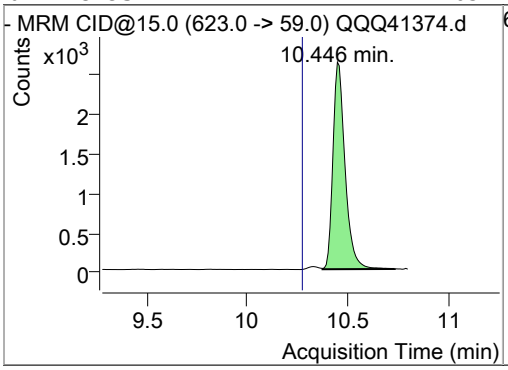
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0033	10.12	-0.09	23				

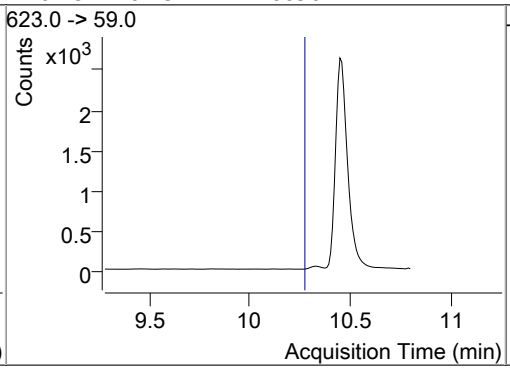


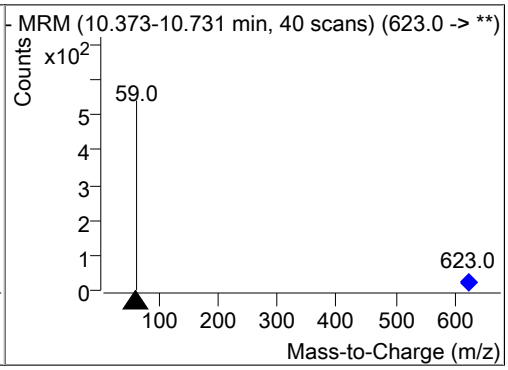




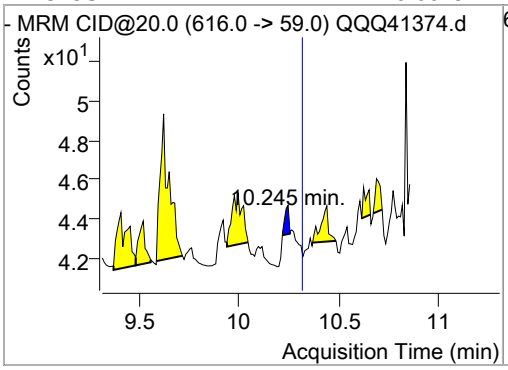
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	21.2163	10.45	0.15	10890				

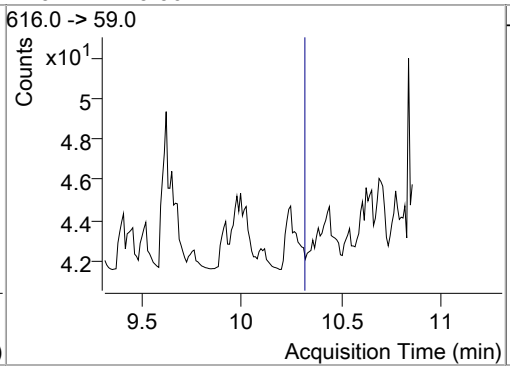


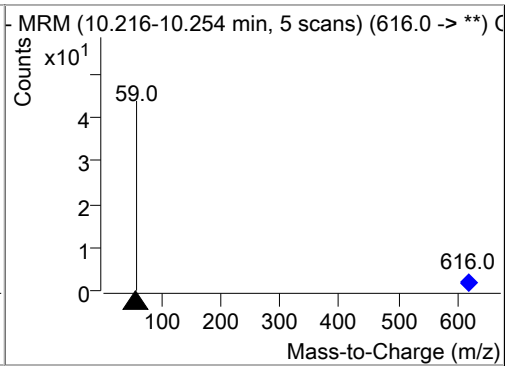




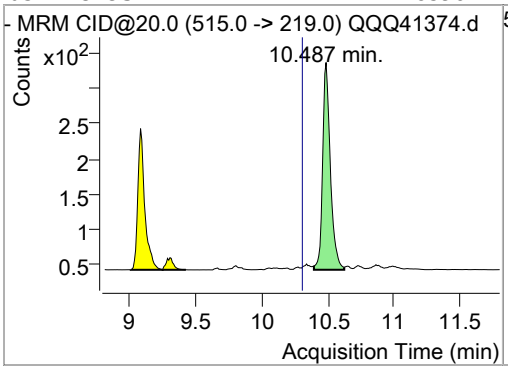
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0049	10.24	-0.06	2				

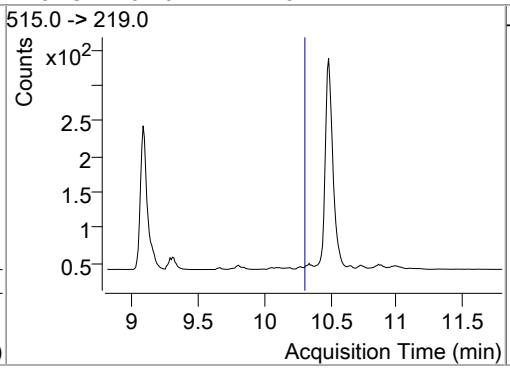


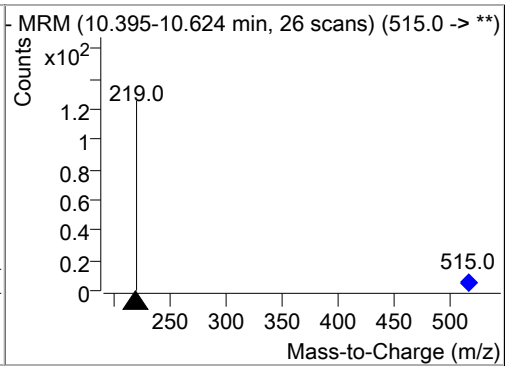




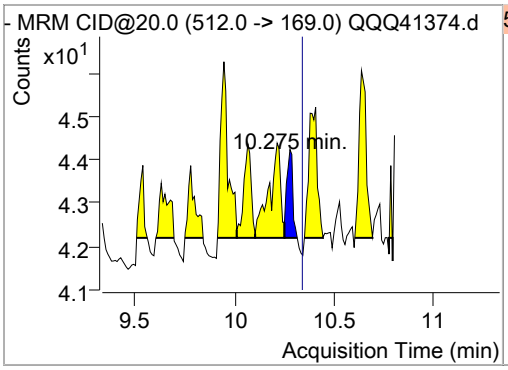
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	1.8590	10.49	0.16	1202				

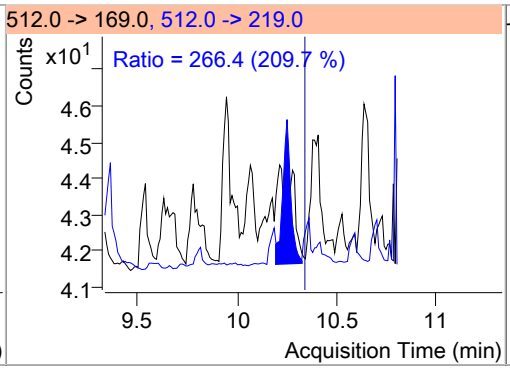


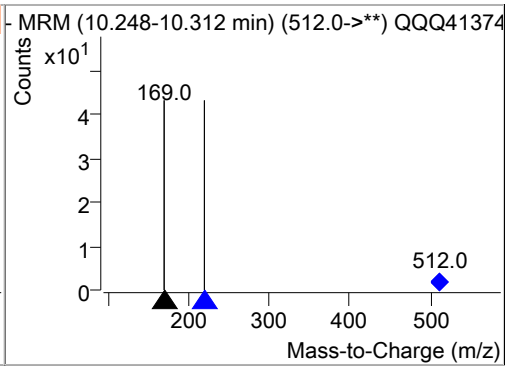




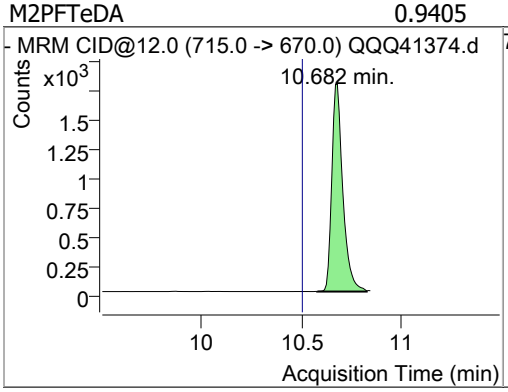
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.28	-0.06	4	512.0 -> 219.0	266.4	101.6	152.5

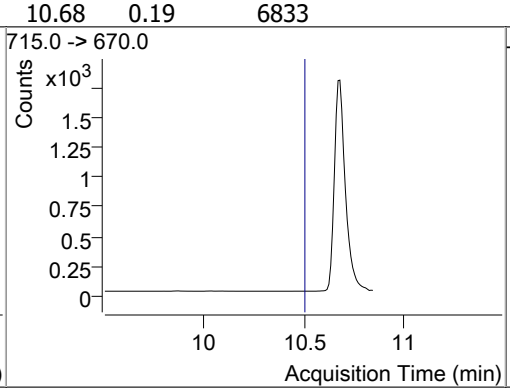


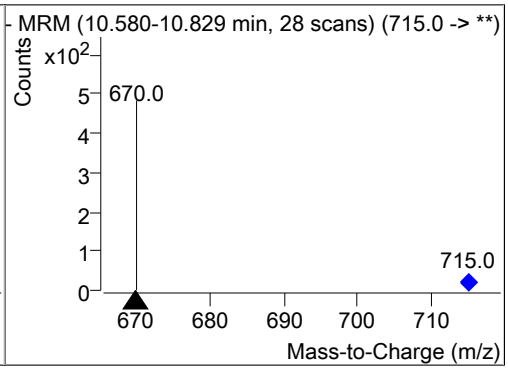




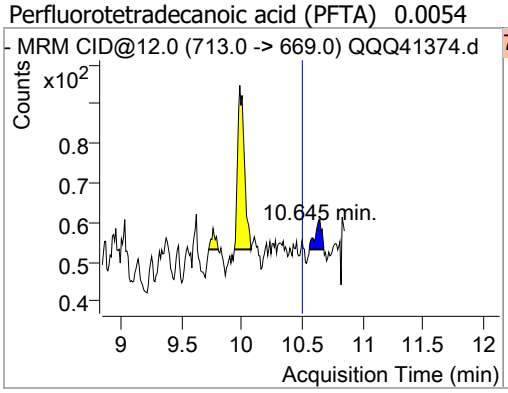
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	0.9405	10.68	0.19	6833				

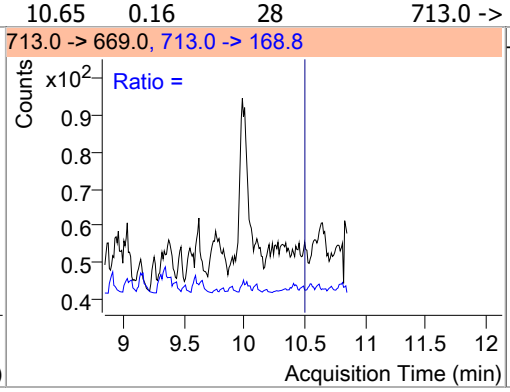


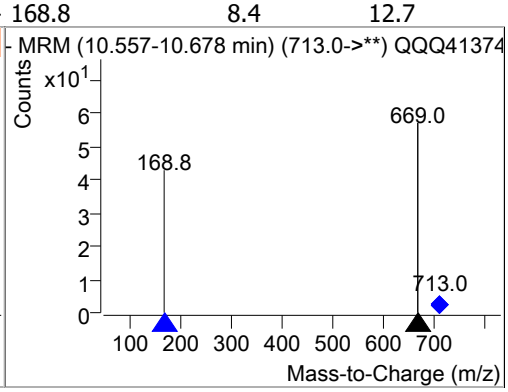




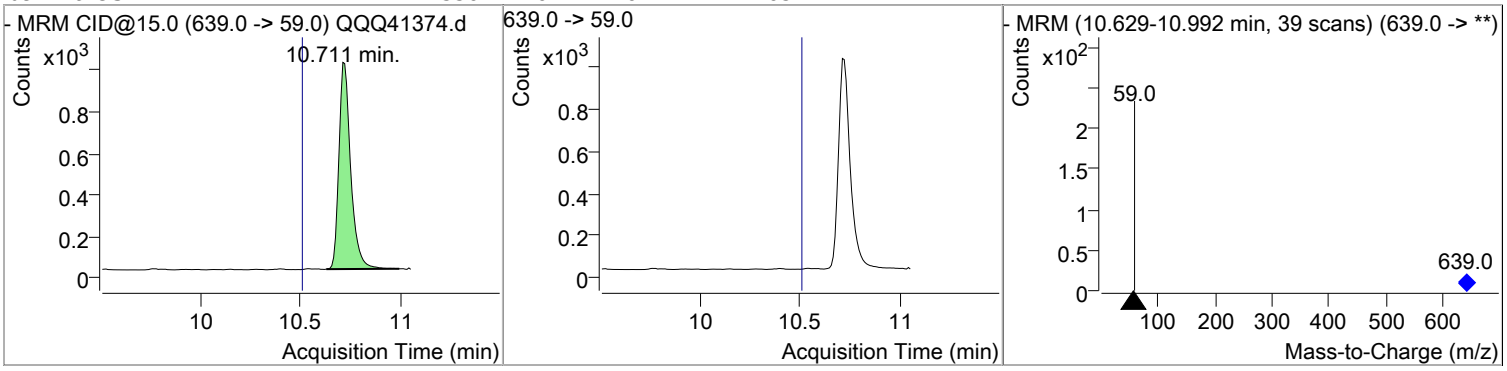
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0054	10.65	0.16	28	713.0 -> 168.8		8.4	12.7



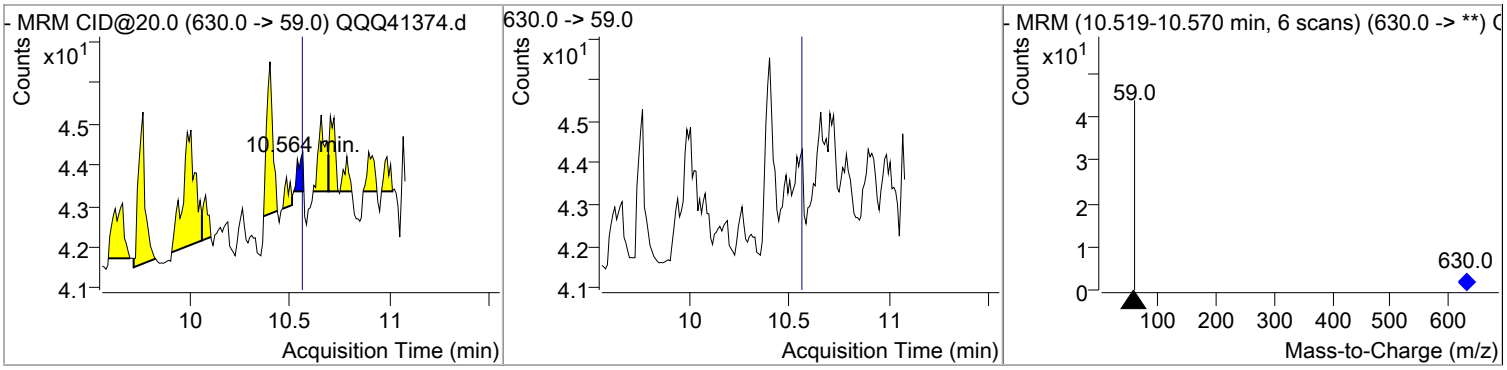




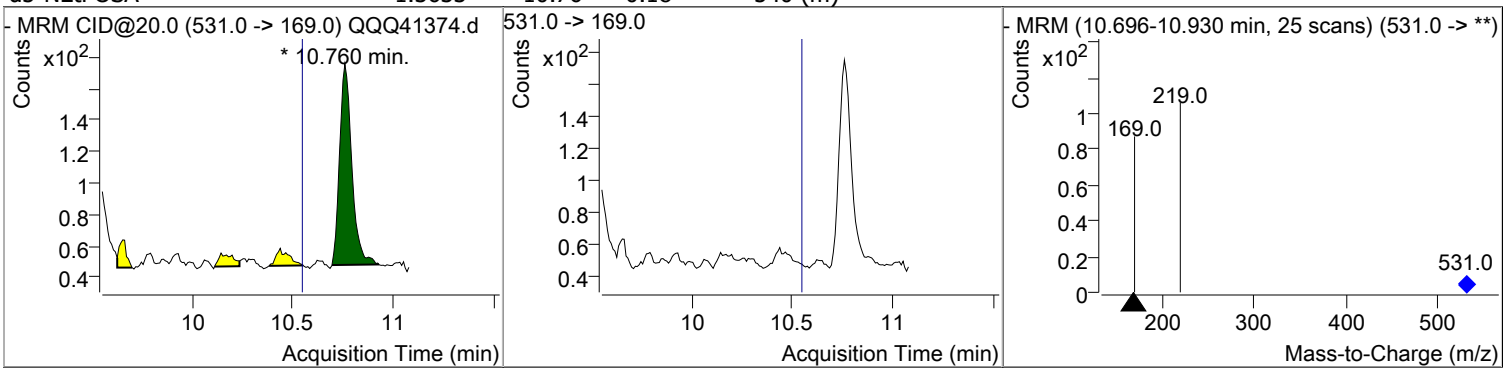
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	17.7330	10.71	0.17	4052				



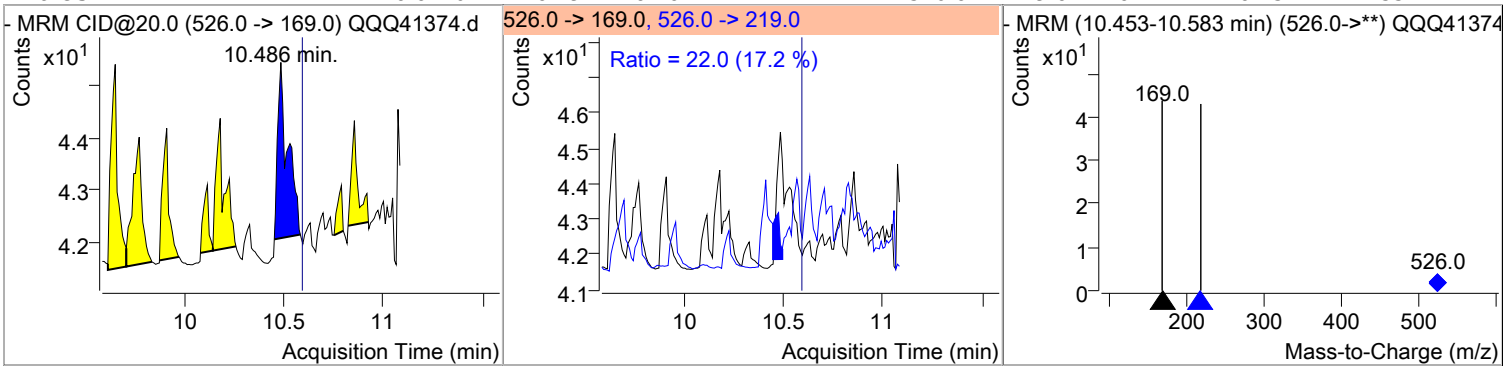
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0043	10.56	0.01	2				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	1.3633	10.76	0.18	540 (m)				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0446	10.49	-0.10	12	526.0 -> 219.0	22.0	102.3	153.4



Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 12:36:53 PM	**Data File**	QQQ41374.d
Sample Type	Sample	**Sampe Name**	24F1801-01
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	158087	25056	0.413			1.67			34946.51
Perfluoro-n-butanoic acid (PFBA)	1.320	3749	602	0.422			1.85			125.25
PFMPA	2.263	10	1	0.236			1.16			3.84
3:3FTCA	4.488	1	1	0.051			1.60			0.93
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	131220	20139	0.454			1.87			34990.07
Perfluoro-n-pentanoic acid (PFPeA)	4.765	15390	2220	0.431			1.91			579.18
PFMBA	5.523	39	9	0.157			1.61			11.30
M3PFBS	5.557	20612	4548	0.334			1.94			2301.24
Perfluorobutanesulfonic acid (PFBS)	5.558	5220	1143	0.314			1.86			71.00
PFEESA	6.112	24	8	0.112			1.98			2.13
NFDHA	6.068	7	3	0.110			1.15			7.81
M2-4-2FTS	6.315	26414	6464	0.293			1.67			9469.44
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.641	11	15	0.056			0.17			2.77
M5PFHxA	6.390	66103	16440	0.288			1.69			∞
Perfluorohexanoic acid (PFHxA)	6.392	22955	5587	0.304			1.63			246.46
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	152	42	0.128			1.47			8.36
M3-HFPO-DA	6.698	47484	11224	0.333			1.45			163.84
HFPO-DA	6.560	23	6	0.118			1.81			0.23
M4PFHpA	7.244	15925	3746	0.334			1.88			∞
Perfluoroheptanoic acid (PFHpA)	7.253	2938	756	0.191			1.27			35.20
5-3FTCA	7.310	133	25	0.214			1.70			56.51
Perfluorohexanesulfonic acid (PFHxS)	7.355	639	120	0.488			2.01			129.49
M3PFHxS	7.354	13391	3224	0.288			1.71			8768.60

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.420	5	2	0.074			0.32			0.06
M2-6-2FTS	7.893	16450	3816	0.334			1.54			∞
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.884	15	7	0.071			0.65			0.57
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	39635	9615	0.335			1.90			135975.37
Perfluorooctanoic acid (PFOA)	7.951	12035	2738	0.440			1.86			36.14
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.014	39	8	0.158			0.81			4.20
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.562	6048	1500	0.297			1.50			9891.49
Perfluorononanoic acid (PFNA)	8.553	139	46	0.105			1.11			4.59
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.588	5551	1466	0.232			1.77			2290.77
Perfluorooctanesulfonic acid (PFOS)	8.598	226	52	0.172			1.30			5.93
7-3FTCA	8.730	205	39	0.214			2.58			12.34
9-Cl-PF3ONS	8.865	9	4	0.131			1.57			25.55
M2-8-2FTS	9.052	35170	8429	0.315			1.46			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	2	1	0.098			2.12			3.59
M6PFDA	9.090	22518	5510	0.325			1.44			81.94
Perfluorodecanoic acid (PFDA)	9.166	48	21	0.078			3.65			1.34
Perfluorononanesulfonate (L-PFNS)	9.098	26	6	0.111			1.11			0.88
d3-N-MeFOSAA	9.301	28536	6785	0.297			1.59			∞
N-MeFOSAA	8.995	7	3	0.092			1.31			17.23
d5-N-EtFOSAA	9.551	26409	6085	0.262			1.35			∞
Perfluoroundecanoic acid (PFUnA)	9.432	150	39	0.127			1.26			1.80
Perfluoro-1-decanesulfonate (L-PFDS)	9.615	10	4	0.092			1.78			2.02
N-EtFOSAA	9.450	6	3	0.101			1.10			15.34
M7PFUdA	9.562	28773	7008	0.305			1.35			49297.73
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.685	20432	4754	0.314			1.67			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.694	27	9	0.201			1.60			59.06
11-Cl-PF3OUdS	9.706	3	1	0.158			1.60			6.10
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.986	18668	4478	0.240			1.82			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.086	178	50	0.125			0.48			4.51
Perfluorododecanesulfonic acid (PFDoS)	10.388	8	4	0.064			0.28			0.90
Perfluorotridecanoic acid (PFTrDA)	10.122	23	11	0.062			1.63			0.41
d7-NMeFOSE	10.446	10890	2604	0.358			1.79			131.18
NMeFOSE	10.245	2	1	0.038			0.35			0.63
d3-NMeFOSA	10.487	1202	296	0.230			1.59			94.32
NMeFOSA	10.275	4	2	0.064			0.77			1.54
M2PFTeDA	10.682	6833	1770	0.249			1.41			21592.56
Perfluorotetradecanoic acid (PFTA)	10.645	28	8	0.121			0.36			0.58
d9-NEtFOSE	10.711	4052	992	0.364			1.92			496.60
NEtFOSE	10.564	2	1	0.051			0.13			1.20
d5-NEtFOSA	10.760	540	128	0.234			1.51			28.00
NEtFOSA	10.486	12	3	0.131			3.07			3.51

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-002C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-02	File ID:	QQQ41375.d
Sampled:	06/24/24 15:30	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 12:52
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	505.21 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

CAS NO.	COMPOUND	DILUTION	CONC. (ng/L)	Q
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1	0.636	J
307-24-4	Perfluorohexanoic acid (PFHxA)	1	0.606	J
375-85-9	Perfluoroheptanoic acid (PFHpA)	1	1.98	U
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1	1.81	U
335-67-1	Perfluorooctanoic acid (PFOA)	1	0.417	J
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1	1.84	U
375-95-1	Perfluorononanoic acid (PFNA)	1	1.98	U
335-76-2	Perfluorodecanoic acid (PFDA)	1	1.98	U
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1	1.98	U
307-55-1	Perfluorododecanoic acid (PFDoA)	1	1.98	U
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1	1.98	U
376-06-7	Perfluorotetradecanoic acid (PFTA)	1	1.98	U
2355-31-9	N-MeFOSAA	1	1.98	U
2991-50-6	N-EtFOSAA	1	1.98	U
2706-90-3	Perfluoropentanoic acid (PFPeA)	1	0.651	J
754-91-6	Perfluoro-1-octanesulfonamide (FOSA)	1	1.98	U
375-92-8	Perfluoro-1-heptanesulfonic acid (PFHpS)	1	1.89	U
335-77-3	Perfluoro-1-decanesulfonic acid (PFDS)	1	1.91	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	1	2.45	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	1	7.60	U
375-22-4	Perfluoro-n-butanoic acid (PFBA)	1	2.14	J
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1	3.52	U
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	1	3.96	U
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	1	3.96	U
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	1	3.96	U
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	1	1.86	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	1	7.42	U
13252-13-6	HFPO-DA (Gen-X)	1	7.92	U
763051-92-9	11CL-PF3OUdS	1	7.48	U
756426-58-1	9CL-PF3ONS	1	7.40	U
919005-14-4	ADONA	1	7.48	U
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1	1.92	U
68259-12-1	Perfluoro-1-nonanesulfonic acid (PFNS)	1	1.90	U
356-02-5	3-Perfluoropropyl propanoic acid (FPrPA)	1	4.95	U
914637-49-3	3-Perfluoropentyl propanoic acid (FPePA)	1	24.7	U
812-70-4	3-Perfluoroheptyl propanoic acid (FHpPA)	1	24.7	U
24448-09-7	N-MeFOSE	1	19.8	U
31506-32-8	N-MeFOSA	1	1.98	U
1691-99-2	N-EtFOSE	1	19.8	U
4151-50-2	N-EtFOSA	1	1.98	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-002C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-02	File ID:	QQQ41375.d
Sampled:	06/24/24 15:30	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 12:52
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	505.21 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
M3PFBS	23.1	35.7	155	25 - 150	*
M5PFHxA	24.7	34.7	140	25 - 150	
M4PFHpA	24.7	34.5	140	25 - 150	
M3PFHxS	23.5	32.8	140	25 - 150	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	24.7	31.4	127	25 - 150	
M6PFDA	12.4	13.4	108	25 - 150	
M7PFUdA	12.4	9.51	76.9	25 - 150	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	12.4	4.91	39.7	25 - 150	
M2PFTeDA	12.4	2.82	22.8	10 - 150	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	99.0	134	135	25 - 150	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	23.7	27.6	117	25 - 150	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	49.5	69.7	141	25 - 150	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	24.7	25.3	102	10 - 150	
d3-N-MeFOSAA	49.5	45.3	91.6	25 - 150	
d5-N-EtFOSAA	49.5	40.3	81.5	25 - 150	
M2-6:2 FTS	47.1	56.2	120	25 - 200	
M2-8:2 FTS	47.5	51.2	108	25 - 200	
M9PFNA	12.4	16.0	129	25 - 150	
M2-4:2 FTS	46.4	81.0	174	25 - 150	*
d-N-MeFOSA	24.7	6.66	26.9	25 - 150	
d-N-EtFOSA	24.7	4.28	17.3	25 - 150	*
M3HFPO-DA	99.0	145	147	25 - 150	
d9-N-EtFOSE	247	21.1	8.54	25 - 150	*
d7-N-MeFOSE	247	38.2	15.4	25 - 150	*

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
MPFOA	38130.11	7.913116	48987.36	7.829566	
MPFOS	9853.048	8.561017	11805.16	8.4773	

* Values outside of QC limits

Data File	QQQ41375.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 12:52:59 PM
Sample Name	24F1801-02	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

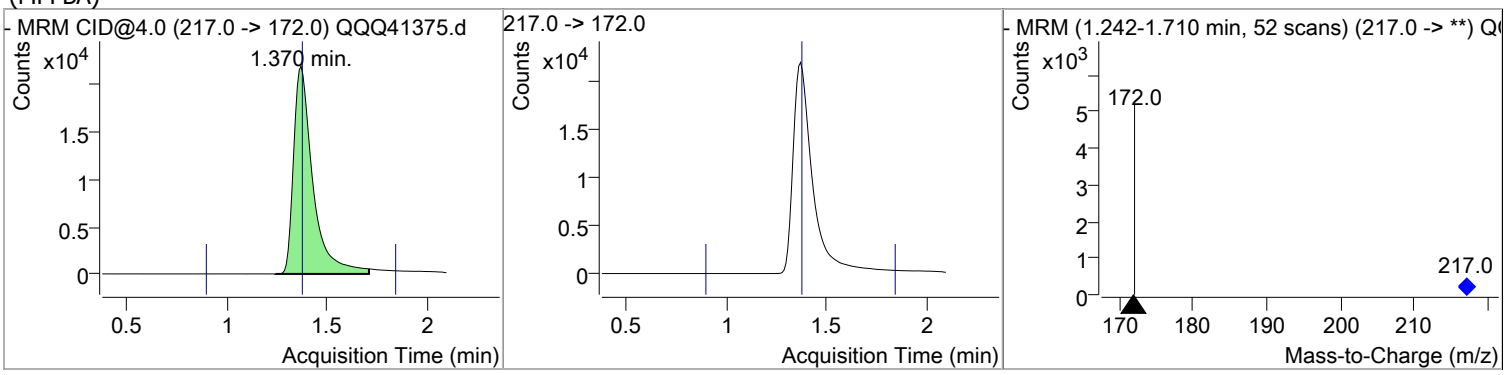
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
M3PFBA	1.372	216.0 -> 172.0	21770	5.0000	ng/ml		0.119
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.370	217.0 -> 172.0	147263	10.0000	ng/ml		0.119
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.820	268.0 -> 223.0	134116	5.0000	ng/ml		0.092
MPFHxA	6.354	315.0 -> 269.8	29852	2.5000	ng/ml		-0.019
MPFHxS	7.307	403.0 -> 103.0	3270	2.3700	ng/ml		-0.075
M3PFBS-EIS	5.557	302.0 -> 79.9	21040	2.3300	ng/ml		0.028
M5PFHxA-EIS	6.353	318.0 -> 273.0	66870	2.5000	ng/ml		-0.019
M2-4-2FTS-EIS	6.278	329.0 -> 309.0	31904	4.6900	ng/ml		-0.019
M3PFHxS-EIS	7.308	402.0 -> 80.0	13480	2.3700	ng/ml		-0.075
M3-HFPO-DA-EIS	6.652	287.0 -> 169.0	48803	10.0000	ng/ml		-0.037
M4PFHpA-EIS	7.198	367.0 -> 322.0	14769	2.5000	ng/ml		-0.065
M2-6-2FTS-EIS	7.847	429.0 -> 409.0	14826	4.7550	ng/ml		-0.084
MPFOA	7.913	417.0 -> 372.0	38130	2.5000	ng/ml		-0.084
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.913	421.0 -> 376.0	38559	2.5000	ng/ml		-0.084
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.560	507.0 -> 98.9	5029	2.3950	ng/ml		-0.065
MPFNA	8.526	468.0 -> 423.0	18233	1.2500	ng/ml		-0.074
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.525	472.0 -> 223.0	6266	1.2500	ng/ml		-0.065
MPFOS	8.561	503.0 -> 80.0	9853	2.3950	ng/ml		-0.065
M2-8-2FTS-EIS	9.024	529.0 -> 509.0	31675	4.8000	ng/ml		-0.019
MPFDA	9.063	515.0 -> 469.8	12366	1.2500	ng/ml		-0.019
M6PFDA-EIS	9.063	519.0 -> 473.9	18283	1.2500	ng/ml		-0.018
d3-N-MeFOSAA-EIS	9.282	573.0 -> 418.8	21321	5.0000	ng/ml		0.000
M7PFUdA-EIS	9.543	570.0 -> 525.0	17624	1.2500	ng/ml		0.028
d5-N-EtFOSAA-EIS	9.533	589.0 -> 418.8	16761	5.0000	ng/ml		0.028
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.676	506.0 -> 78.0	15157	2.5000	ng/ml		0.028
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.986	615.0 -> 570.0	7995	1.2500	ng/ml		0.093
M2PFTeDA-EIS	10.682	715.0 -> 670.0	2052	1.2500	ng/ml		0.193
d7-NMeFOSE-EIS	10.446	623.0 -> 59.0	1790	25.0000	ng/ml		0.147
d3-NMeFOSA-EIS	10.487	515.0 -> 219.0	403	2.5000	ng/ml		0.157
d9-NEtFOSE-EIS	10.720	639.0 -> 59.0	451	25.0000	ng/ml		0.184
d5-NEtFOSA-EIS	10.760	531.0 -> 169.0	159	2.5000	ng/ml	m	0.184
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.370	217.0 -> 172.0	147263	13.5085	ng/ml		0.119
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.820	268.0 -> 223.0	134116	7.0425	ng/ml		0.092
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.557	302.0 -> 79.9	21041	3.6062	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.278	329.0 -> 309.0	31876	8.1828	ng/ml		-0.019

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.353	318.0 -> 273.0	66870	3.5101	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.652	287.0 -> 169.0	48803	14.6550	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.198	367.0 -> 322.0	14769	3.4902	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.308	402.0 -> 80.0	13480	3.3113	ng/ml		-0.075
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.847	429.0 -> 409.0	14825	5.6826	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	421.0 -> 376.0	38560	3.1755	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.525	472.0 -> 223.0	6266	1.6125	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.560	507.0 -> 98.9	5042	2.7904	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.024	529.0 -> 509.0	31666	5.1687	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.063	519.0 -> 473.9	18283	1.3495	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.282	573.0 -> 418.8	21321	4.5796	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.533	589.0 -> 418.8	16762	4.0767	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.543	570.0 -> 525.0	17624	0.9611	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	506.0 -> 78.0	15157	2.5602	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.986	615.0 -> 570.0	7995	0.4959	ng/ml		0.093
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.446	623.0 -> 59.0	1834	3.8601	ng/ml		0.147
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.487	515.0 -> 219.0	403	0.6731	ng/ml		0.157
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.682	715.0 -> 670.0	2052	0.2853	ng/ml		0.193
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.720	639.0 -> 59.0	452	2.1346	ng/ml		0.184
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.760	531.0 -> 169.0	159	0.4328	ng/ml	m	0.184
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.365	213.0 -> 168.9	2786	0.2160	ng/ml		100
PFMPA	2.190	229.0 -> 85.0	2	0.0003	ng/ml		100
3:3FTCA	4.442	241.0 -> 177.0	5	0.0106	ng/ml	#	42
Perfluoro-n-pentanoic acid (PFPeA)	4.821	263.0 -> 219.0	1688	0.0658	ng/ml		100
PFMBA	5.486	279.0 -> 85.0	19	0.0017	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.558	298.9 -> 79.9	591	0.0643	ng/ml		89
PFEESA	6.066	315.0 -> 135.0	5	0.0001	ng/ml		88
NFDHA	6.040	295.0 -> 201.1	8	0.0160	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.269	327.0 -> 307.0	55	0.0064	ng/ml	#	89

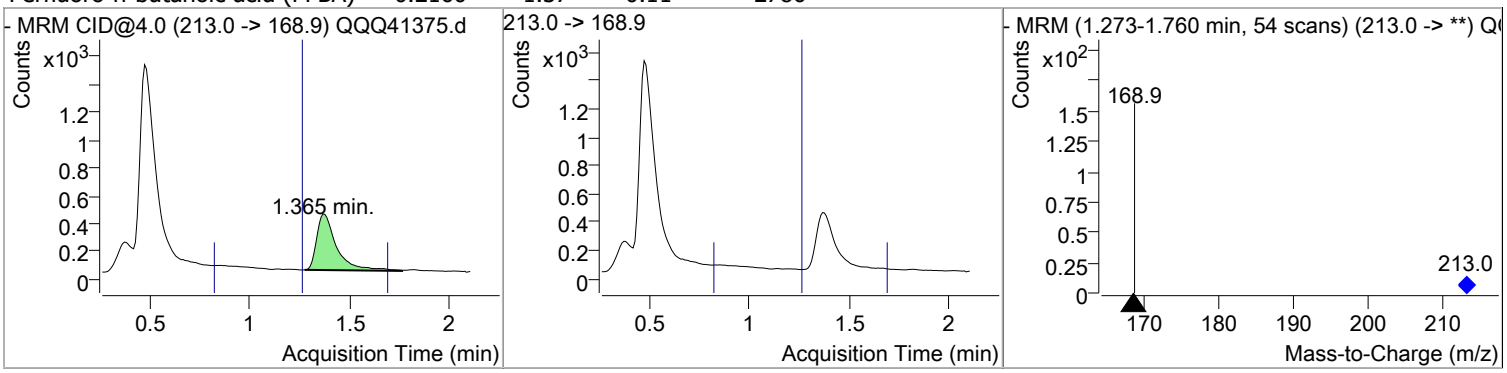
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.355	313.0 -> 268.9	1893	0.0613	ng/ml	#	97
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.565	348.9 -> 79.9	65	0.0091	ng/ml		37
HFPO-DA	6.828	285.0 -> 169.1	13	0.0303	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.198	363.0 -> 318.8	783	0.0601	ng/ml		90
5-3FTCA	7.254	341.0 -> 217.0	118	0.0277	ng/ml		90
Perfluorohexanesulfonic acid (PFHxS)	7.308	398.9 -> 79.9	128	0.0195	ng/ml	#	66
ADONA	7.346	377.0 -> 85.0	2	0.0002	ng/ml		1
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	427.0 -> 407.0	1218	0.2477	ng/ml	#	85
Perfluorooctanoic acid (PFOA)	7.913	413.0 -> 368.8	2263	0.0421	ng/ml	#m	66
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.023	448.9 -> 80.0	27	0.0050	ng/ml	#	33
Perfluorononanoic acid (PFNA)	8.526	463.0 -> 418.8	497	0.0306	ng/ml	#	81
Perfluorooctanesulfonic acid (PFOS)	8.571	498.9 -> 79.9	178	0.0108	ng/ml		90
7-3FTCA	8.721	441.0 -> 337.0	146	0.0255	ng/ml	#	56
9-Cl-PF3ONS	8.921	531.0 -> 351.0	27	0.0009	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.062	527.0 -> 80.9	21	0.0137	ng/ml		1
Perfluorodecanoic acid (PFDA)	9.110	513.0 -> 468.8	279	0.0167	ng/ml	#	67
Perfluorononanesulfonate (L-PFNS)	9.107	548.9 -> 79.9	22	0.0059	ng/ml	#	57
N-MeFOSAA	9.255	570.0 -> 418.9	0	0.0001	ng/ml	#	1
Perfluoroundecanoic acid (PFUnA)	9.488	563.0 -> 519.0	47	0.0000	ng/ml	#	61
Perfluoro-1-decanesulfonate (L-PFDS)	9.513	598.9 -> 98.9	23	0.0125	ng/ml		100
N-EtFOSAA	9.552	584.0 -> 418.8	8	0.0027	ng/ml	#	42
Perfluoro-1-octanesulfonamide (FOSA)	9.676	497.9 -> 78.0	256	0.0296	ng/ml		100
11-Cl-PF3OUdS	9.818	631.0 -> 451.0	3	0.0001	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.987	613.0 -> 568.8	53	0.0101	ng/ml	#	87
Perfluorododecanesulfonic acid (PFDoS)	10.158	699.0 -> 80.0	7	0.0067	ng/ml	#	1
Perfluorotridecanoic acid (PFTrDA)	9.817	663.0 -> 618.8	0		ng/ml	md	1
NMeFOSE	10.254	616.0 -> 59.0	4	0.0707	ng/ml		100
NMeFOSA	10.404	512.0 -> 169.0	4	0.0000	ng/ml	#	37
Perfluorotetradecanoic acid (PFTA)	10.618	713.0 -> 669.0	17	0.0107	ng/ml	#	35
NEtFOSE	10.546	630.0 -> 59.0	2	0.0602	ng/ml		100
NEtFOSA	10.577	526.0 -> 169.0	3	0.0434	ng/ml	#	33

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

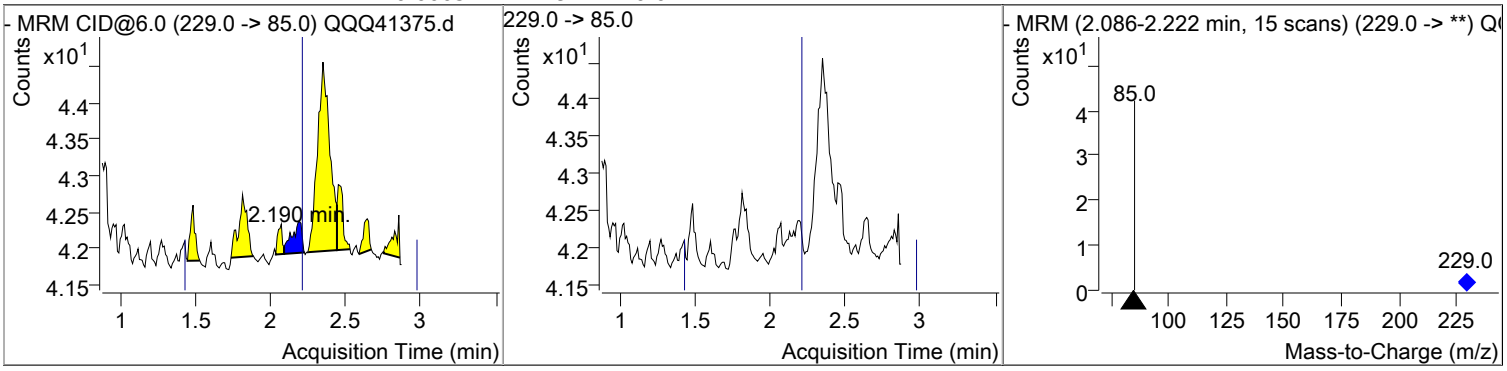
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	13.5085	1.37	0.12	147263				



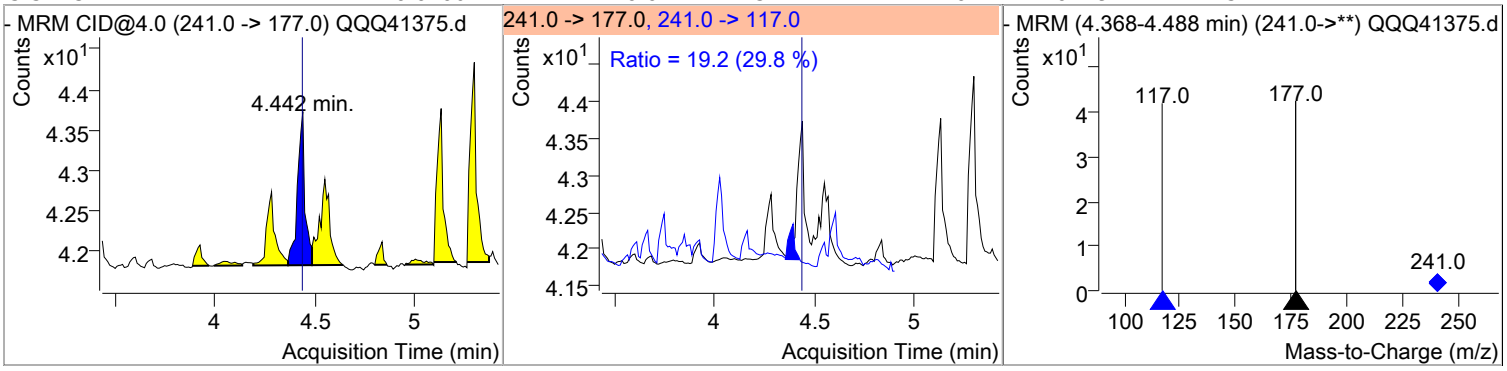
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.2160	1.37	0.11	2786				



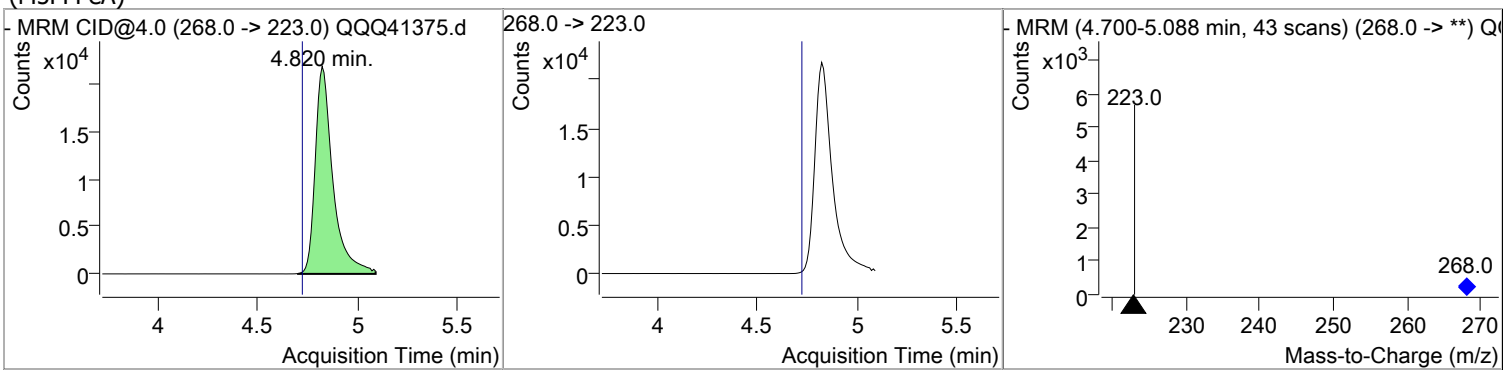
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0003	2.19	-0.01	2				



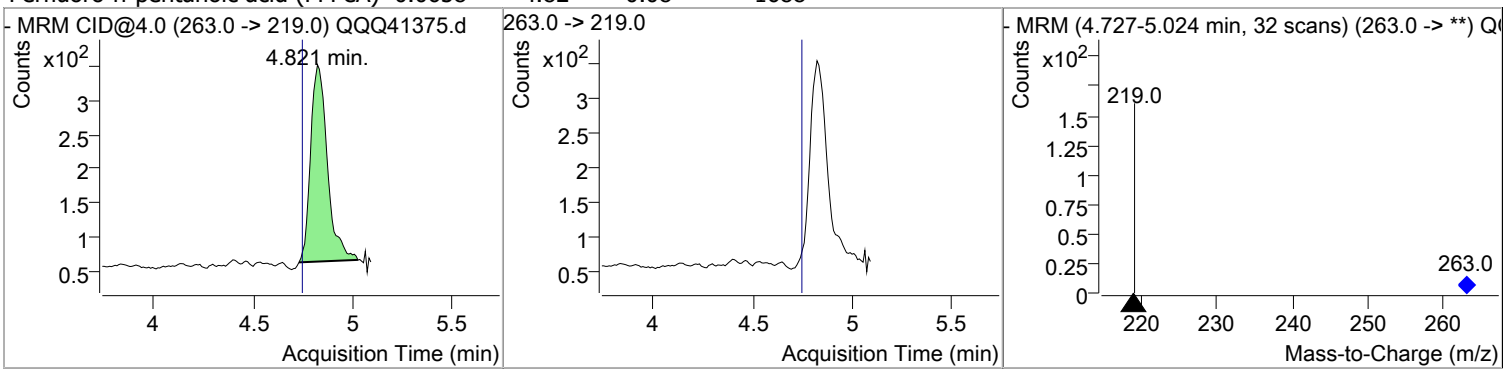
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0106	4.44	0.01	5	241.0 -> 117.0	19.2	51.4	77.2



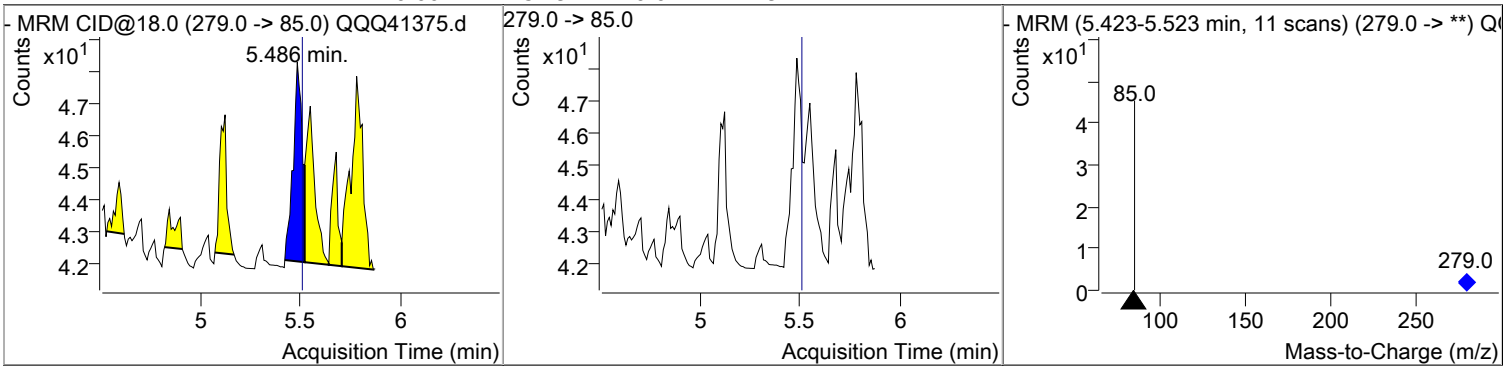
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	7.0425	4.82	0.09	134116				



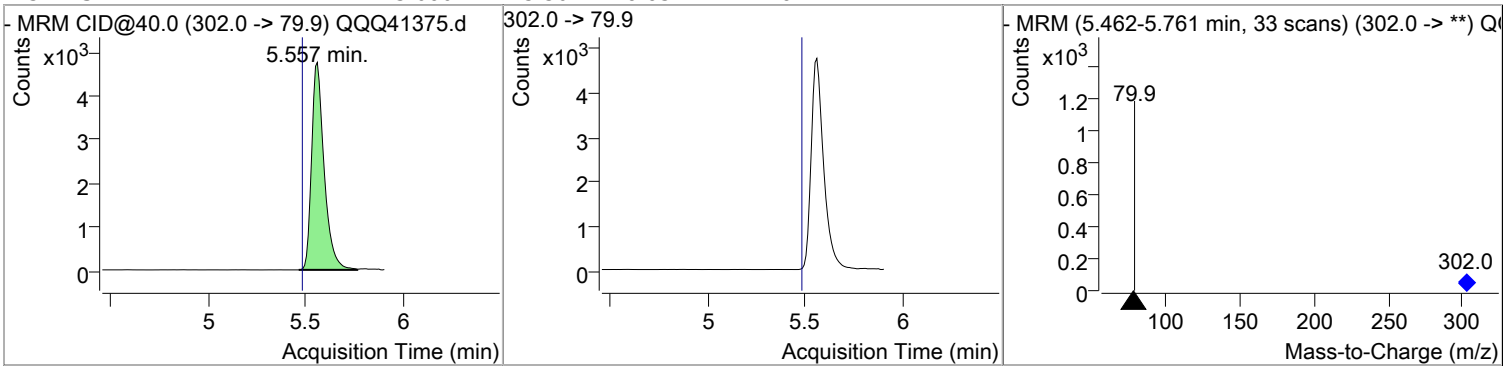
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0658	4.82	0.08	1688				



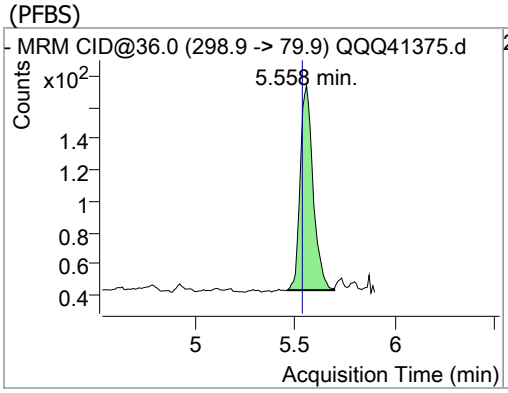
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0017	5.49	-0.02	19				

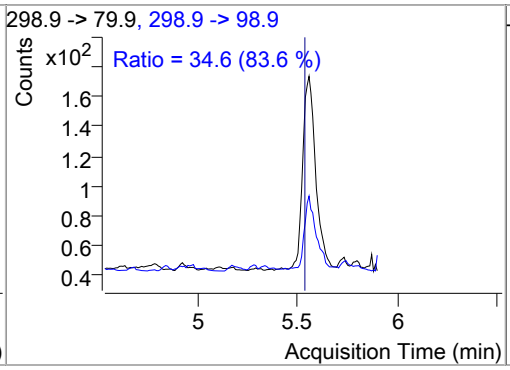


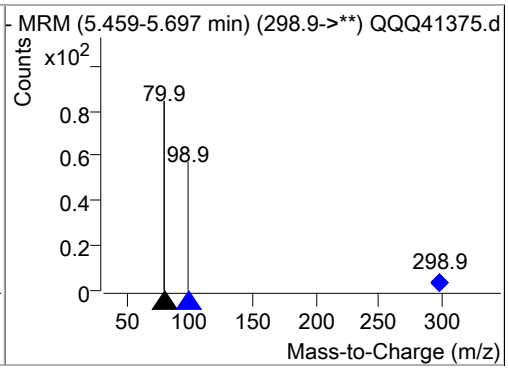
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.6062	5.56	0.03	21041				



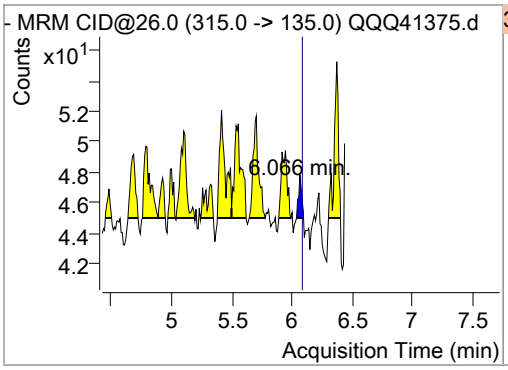
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0643	5.56	0.03	591	298.9 -> 98.9	34.6	33.1	49.7

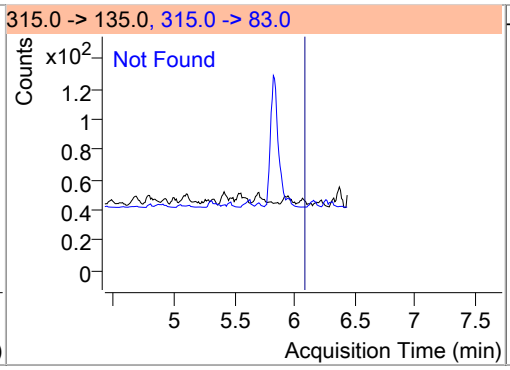


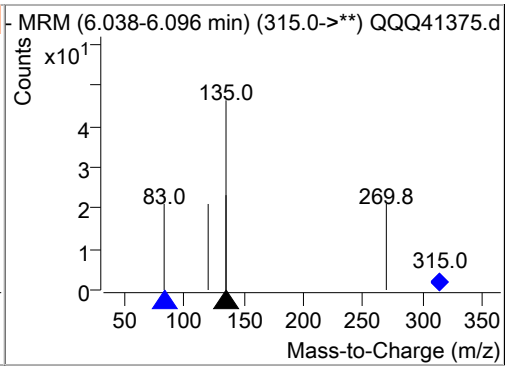




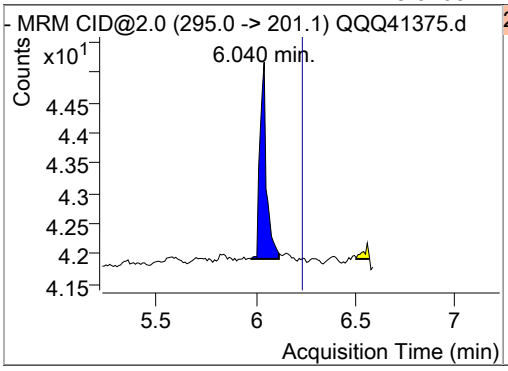
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0001	6.07	-0.01	5	315.0 -> 83.0		3.1	4.7

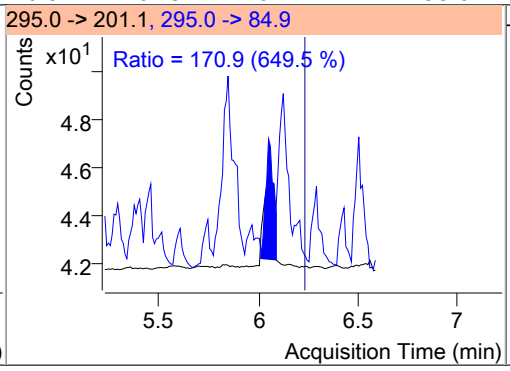


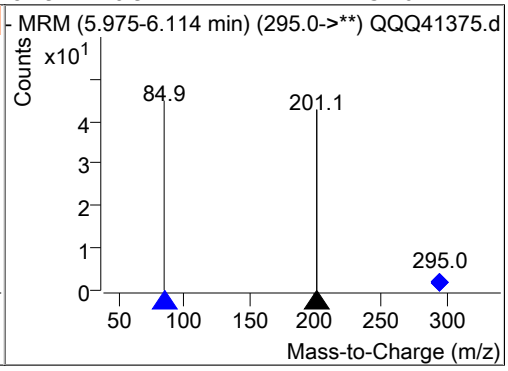




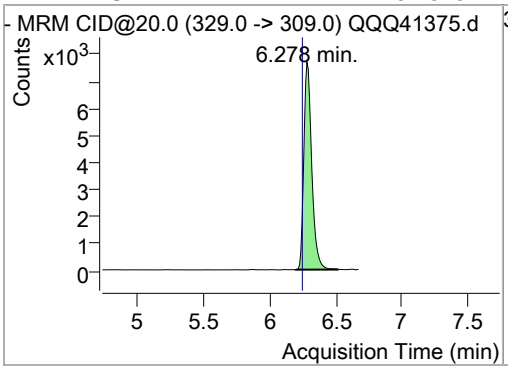
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0160	6.04	-0.19	8	295.0 -> 84.9	170.9	21.1	31.6

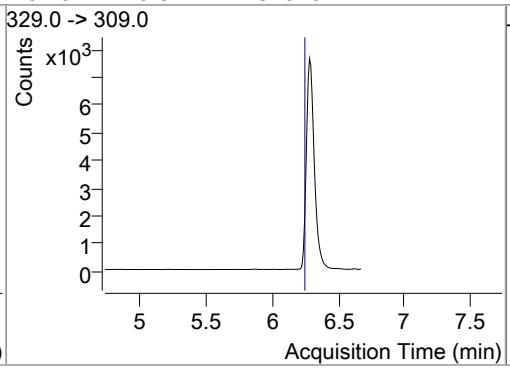


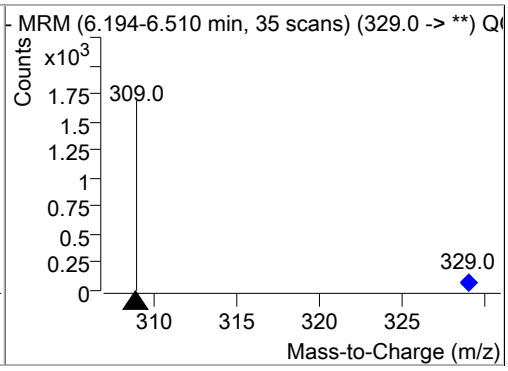




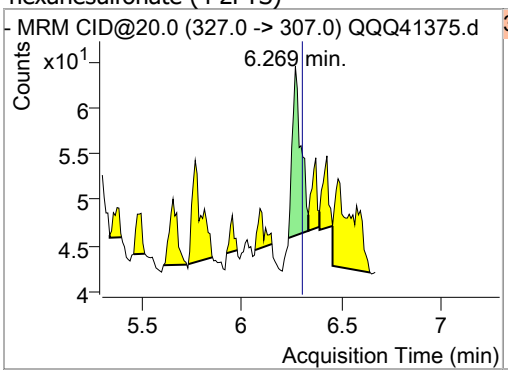
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	8.1828	6.28	-0.02	31876				

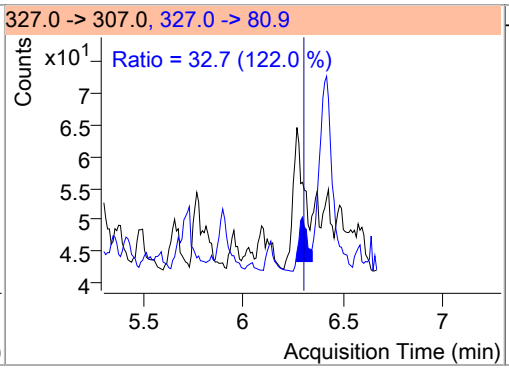


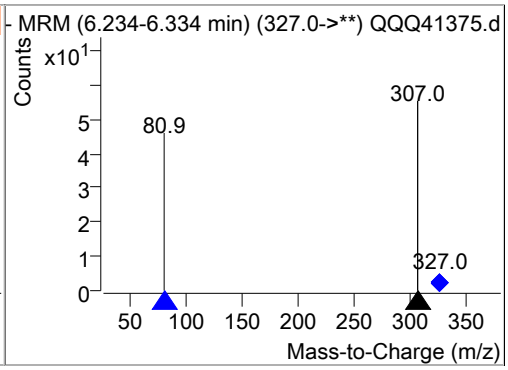




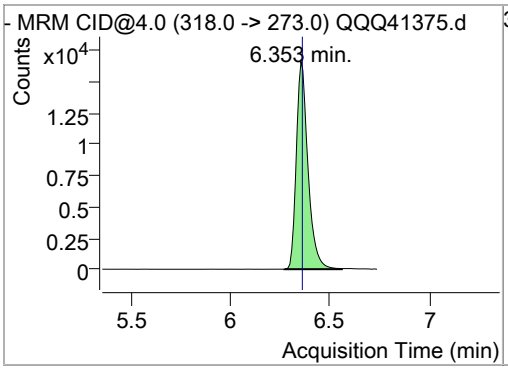
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0064	6.27	-0.03	55	327.0 -> 80.9	32.7	21.5	32.2

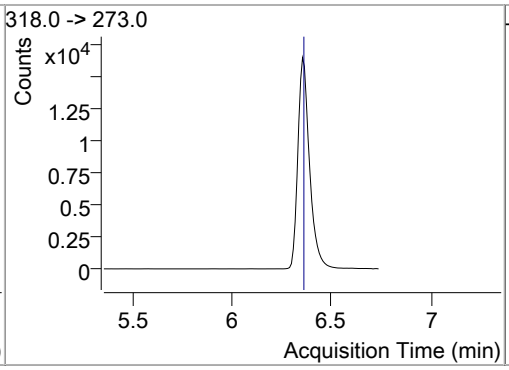


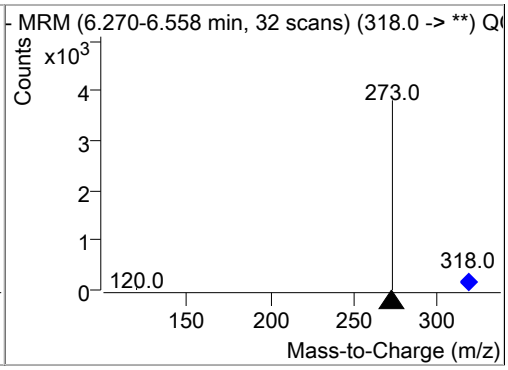




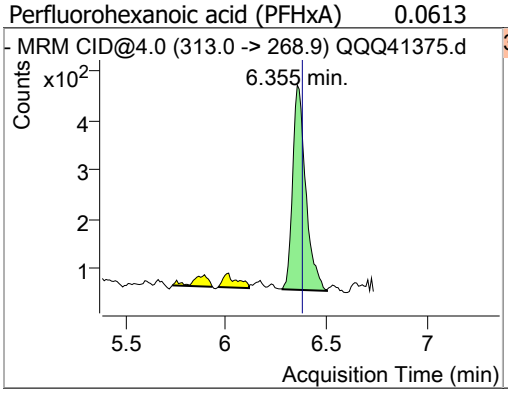
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.5101	6.35	-0.02	66870				

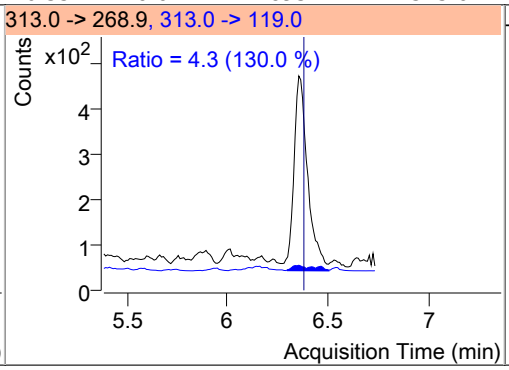


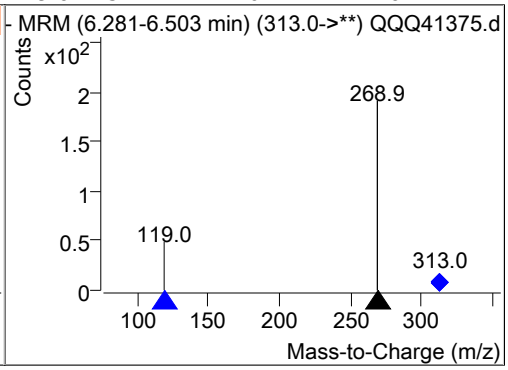




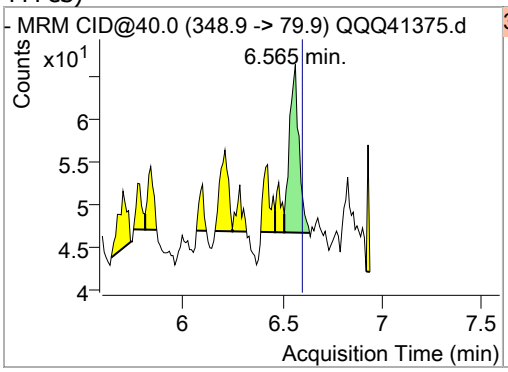
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0613	6.35	-0.02	1893	313.0 -> 119.0	4.3	2.6	4.0

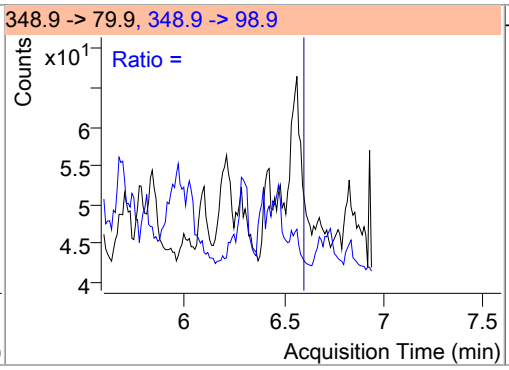


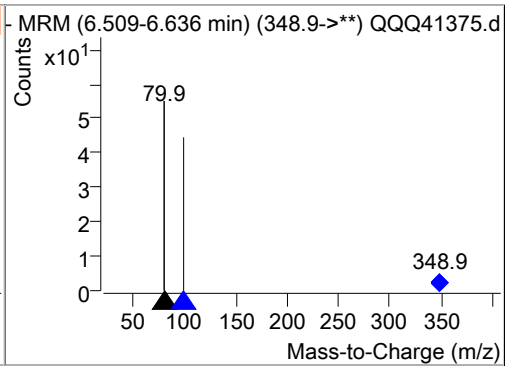




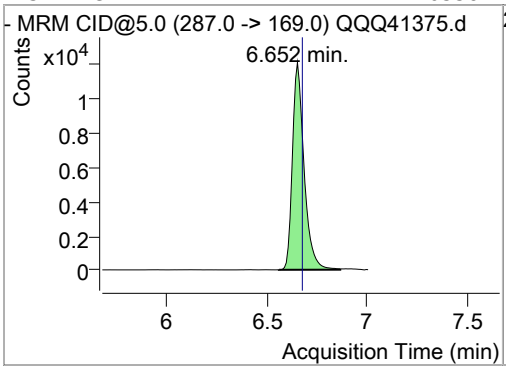
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0091	6.56	-0.03	65	348.9 -> 98.9		30.4	45.6

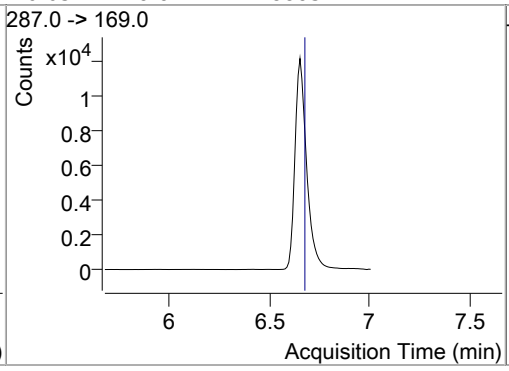


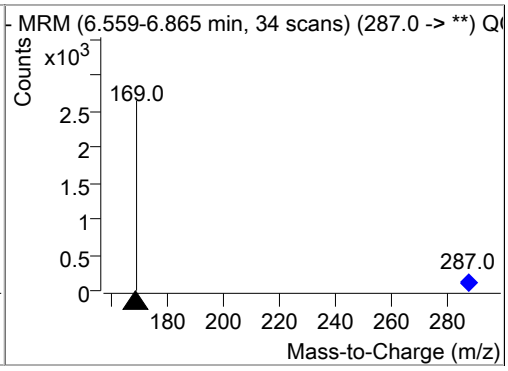




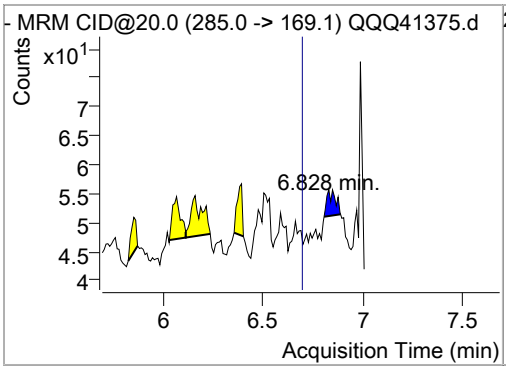
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	14.6550	6.65	-0.04	48803				

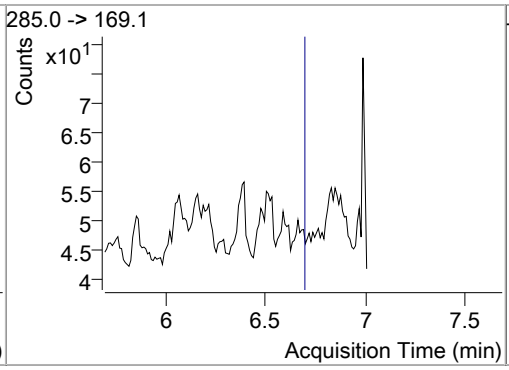


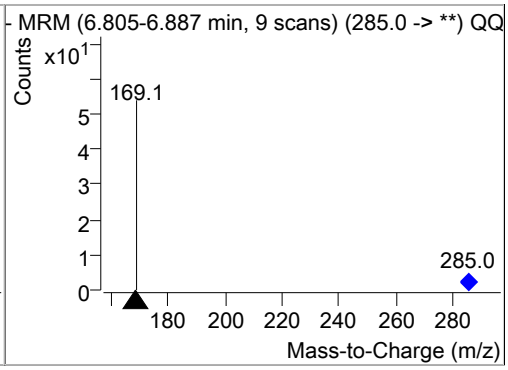




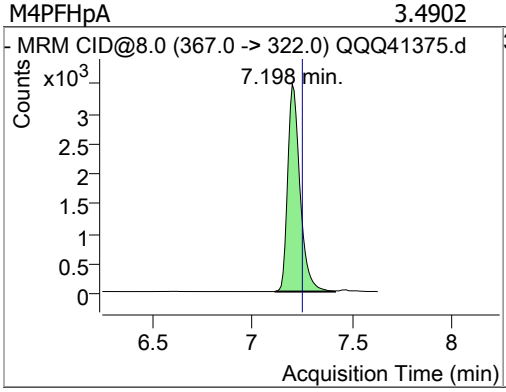
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	0.0303	6.83	0.14	13				

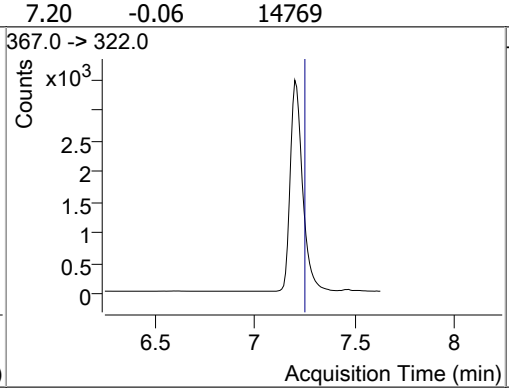


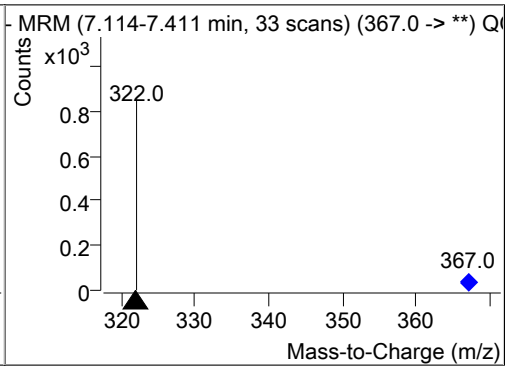




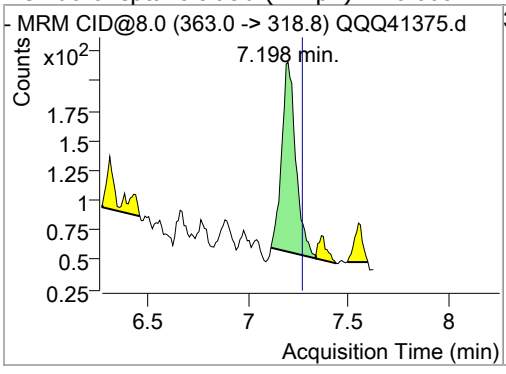
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.4902	7.20	-0.06	14769				

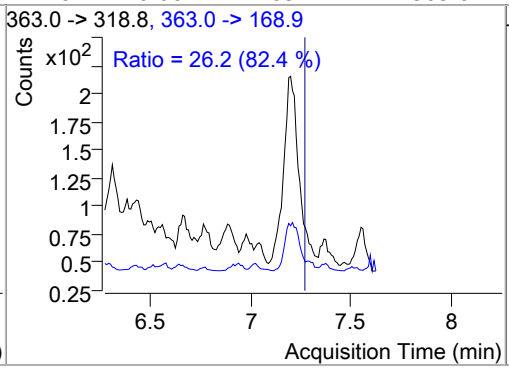


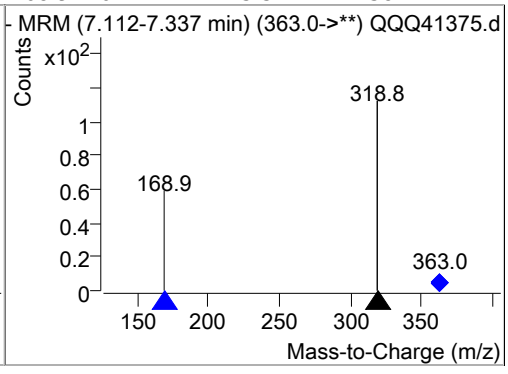




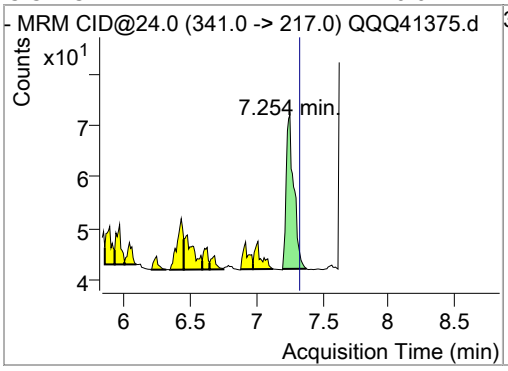
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0601	7.20	-0.06	783	363.0 -> 168.9	26.2	25.5	38.2

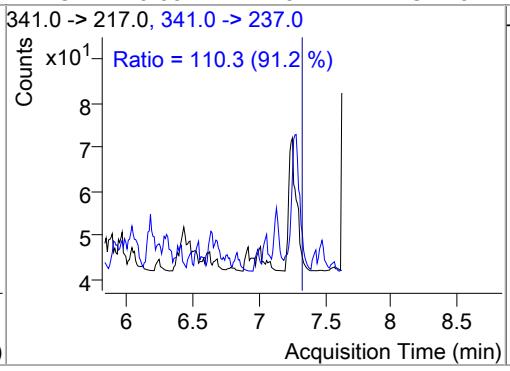


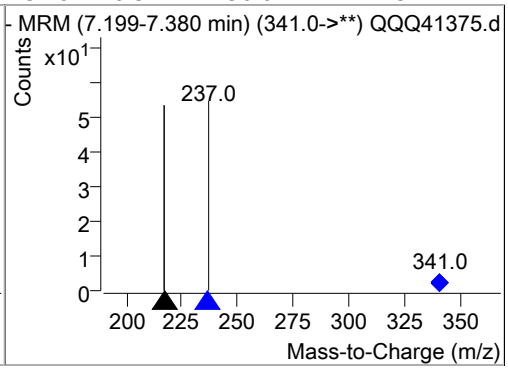




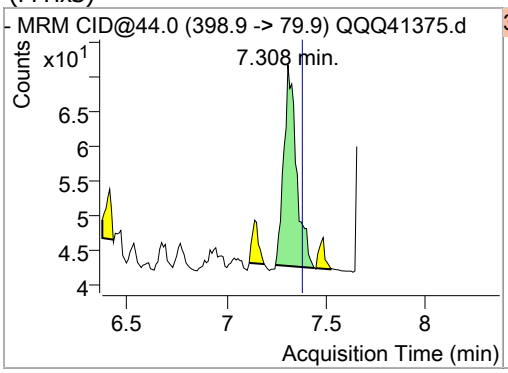
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.0277	7.25	-0.08	118	341.0 -> 237.0	110.3	96.8	145.2

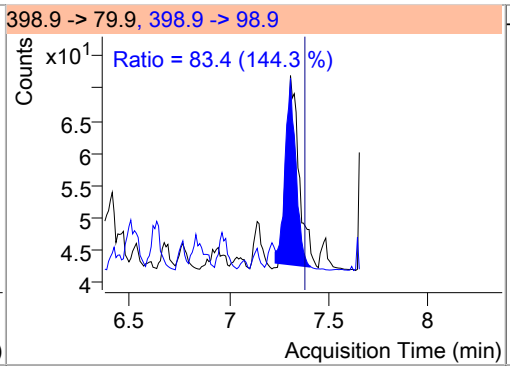


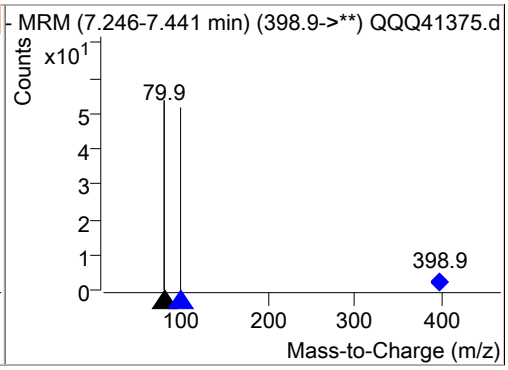




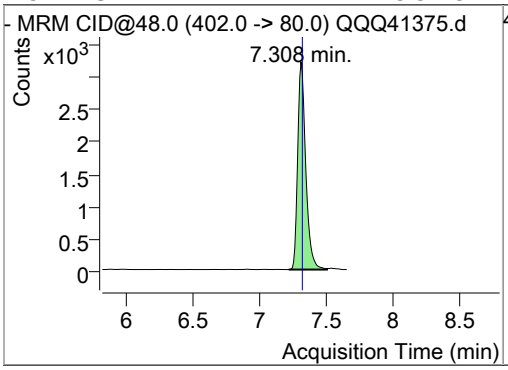
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0195	7.31	-0.07	128	398.9 -> 98.9	83.4	46.2	69.3

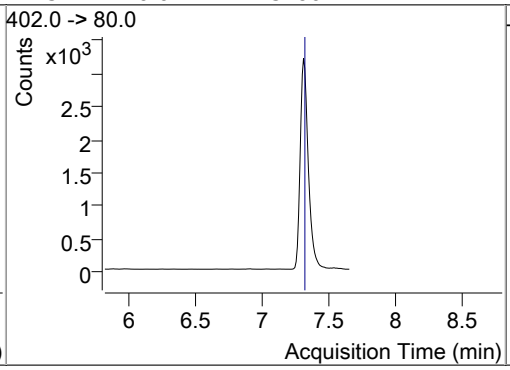


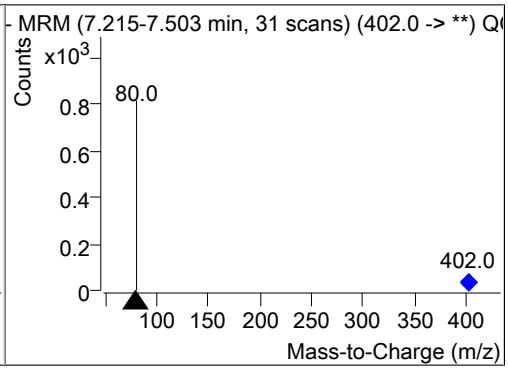




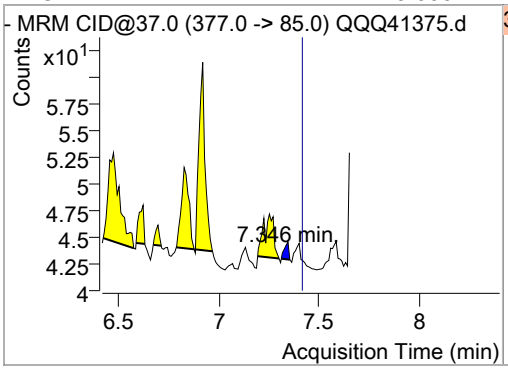
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	3.3113	7.31	-0.07	13480				

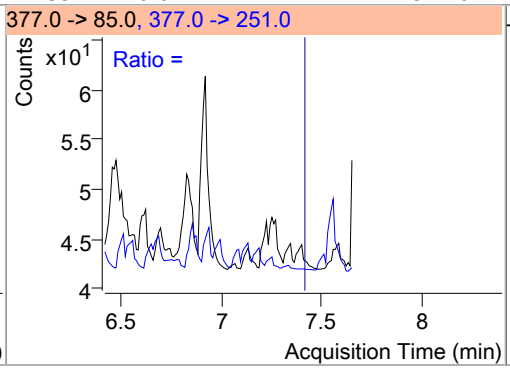


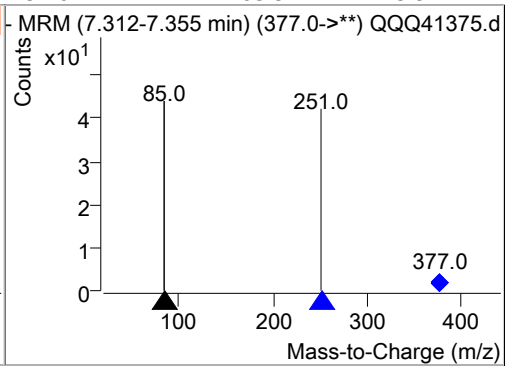




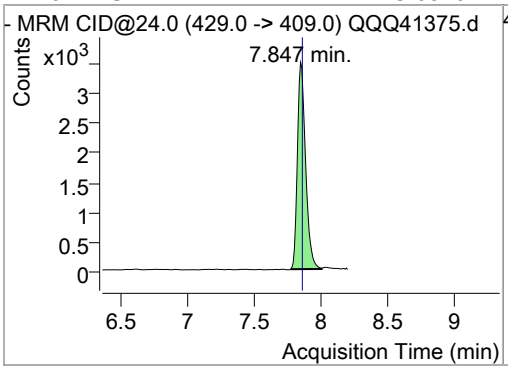
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0002	7.35	-0.07	2	377.0 -> 251.0		283.9	425.9

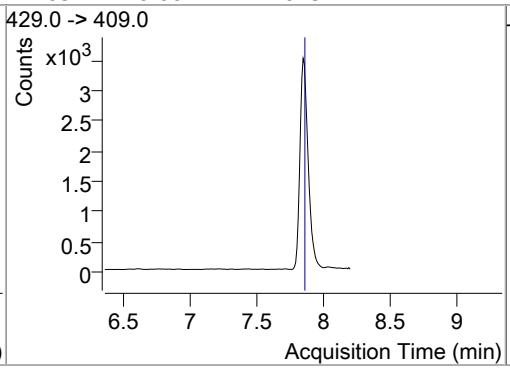


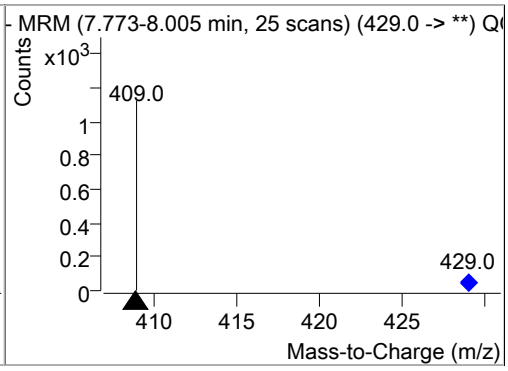




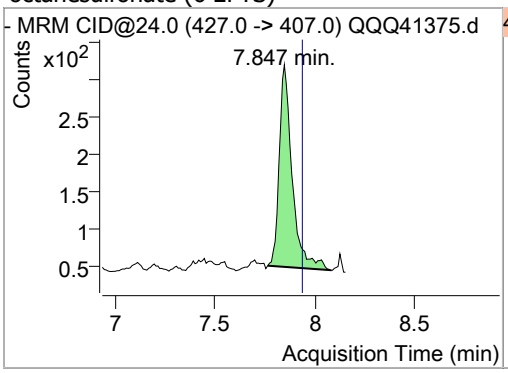
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.6826	7.85	-0.08	14825				

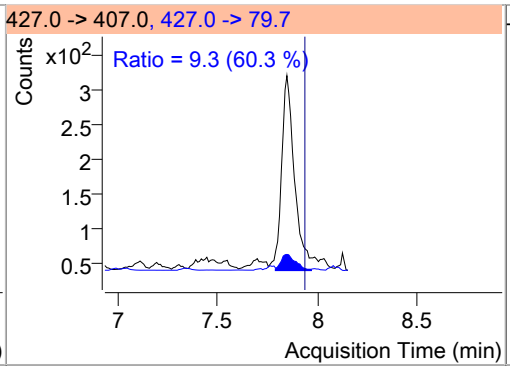


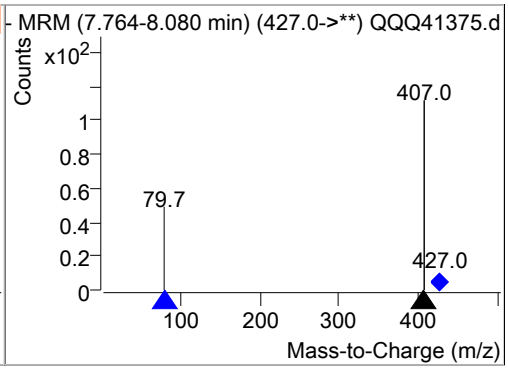




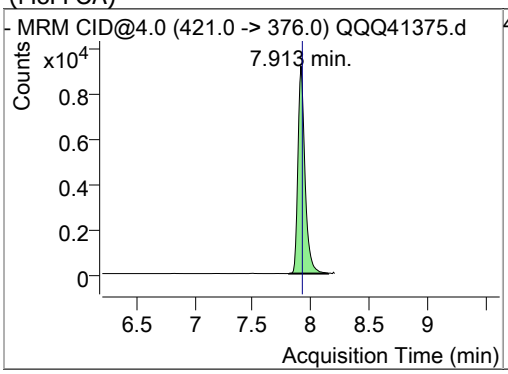
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.2477	7.85	-0.08	1218	427.0 -> 79.7	9.3	12.3	18.5

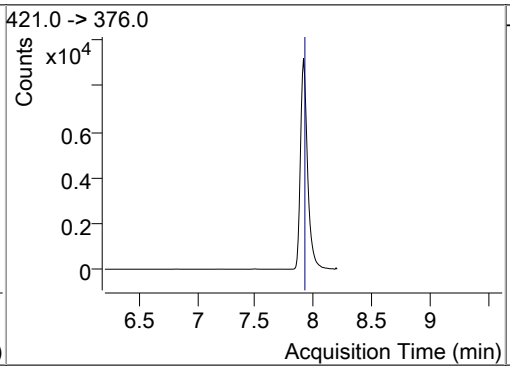


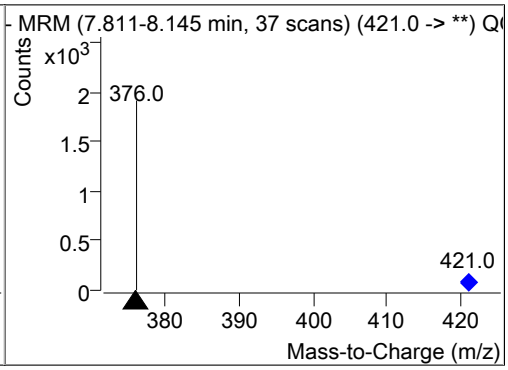




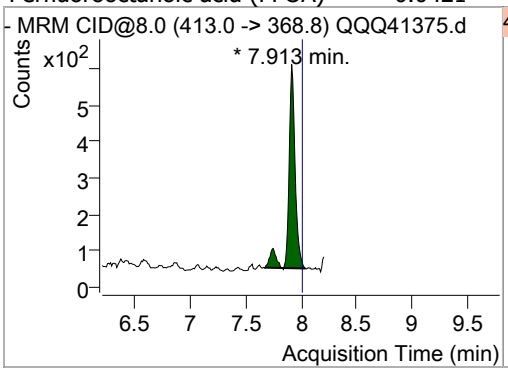
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	3.1755	7.91	-0.08	38560				

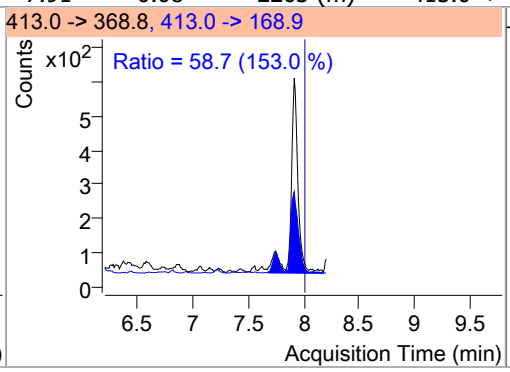


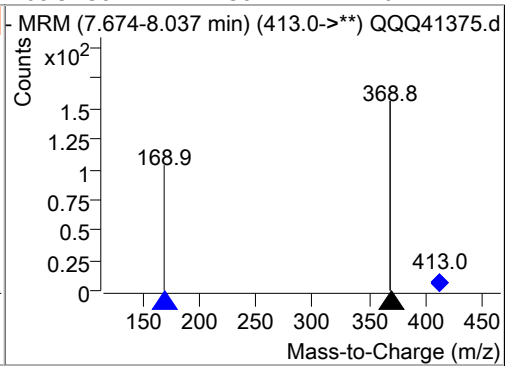




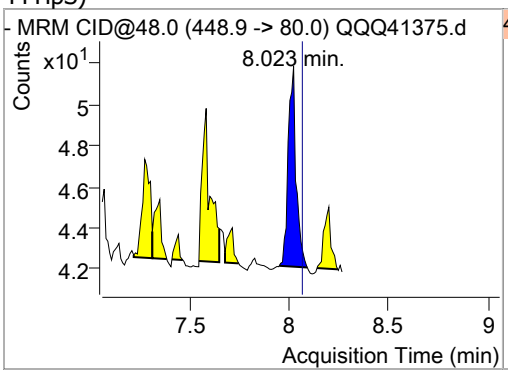
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0421	7.91	-0.08	2263 (m)	413.0 -> 168.9	58.7	30.7	46.1

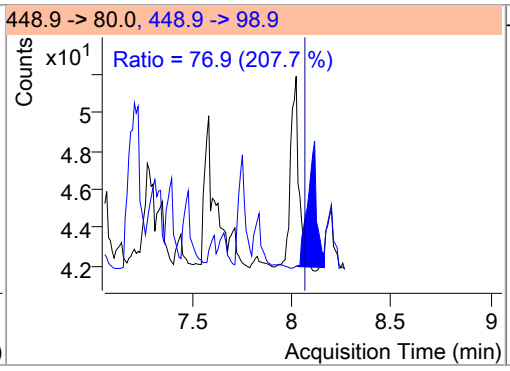


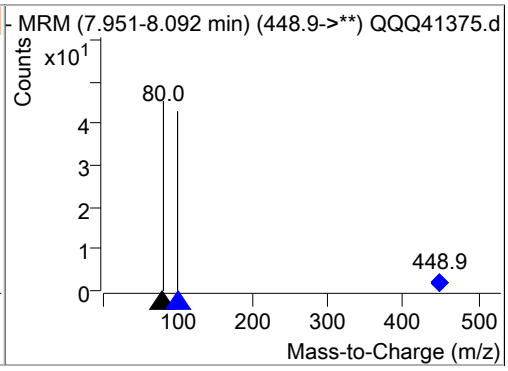




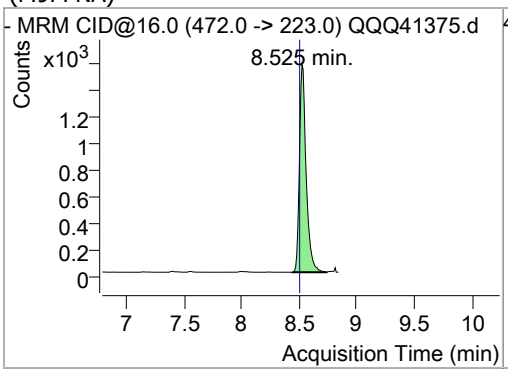
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0050	8.02	-0.04	27	448.9 -> 98.9	76.9	29.6	44.4

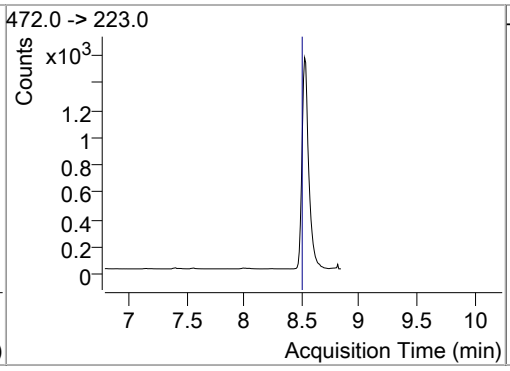


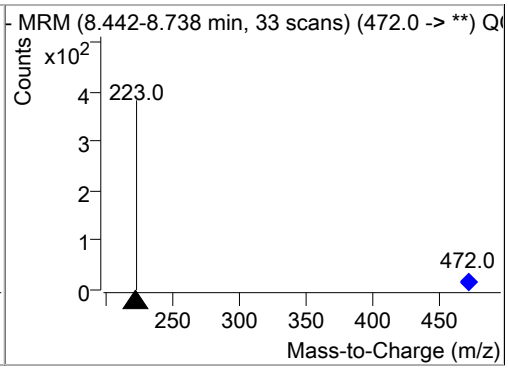




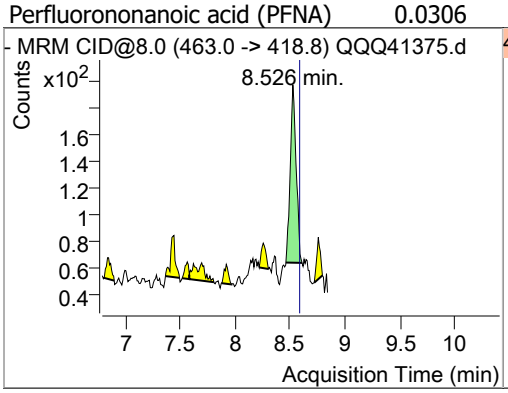
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.6125	8.53	-0.06	6266				

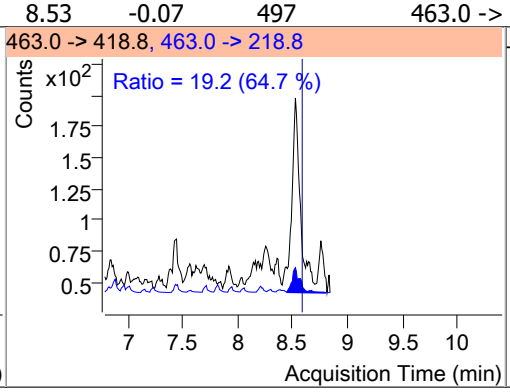


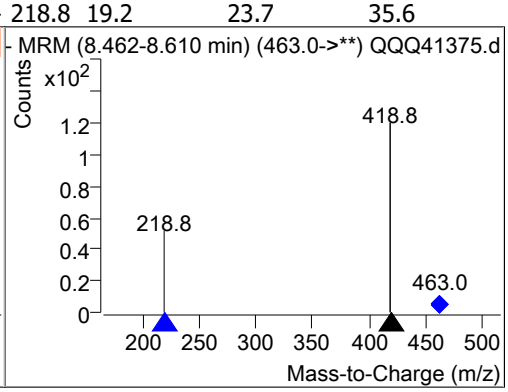




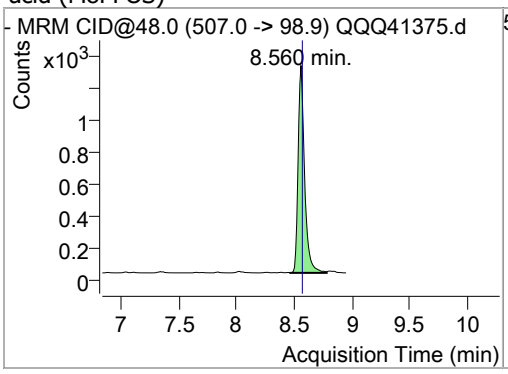
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0306	8.53	-0.07	497	463.0 -> 218.8	19.2	23.7	35.6

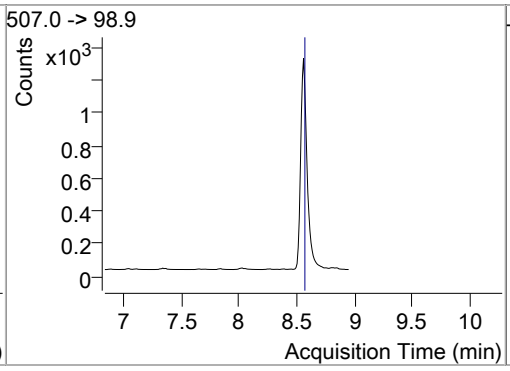


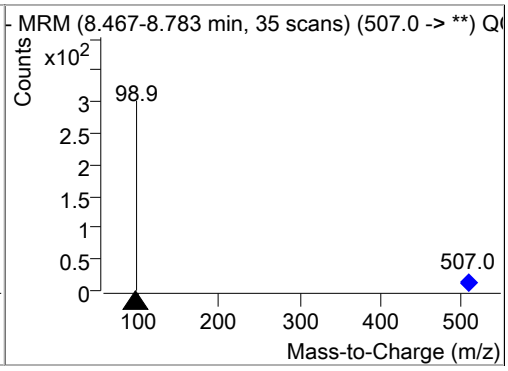




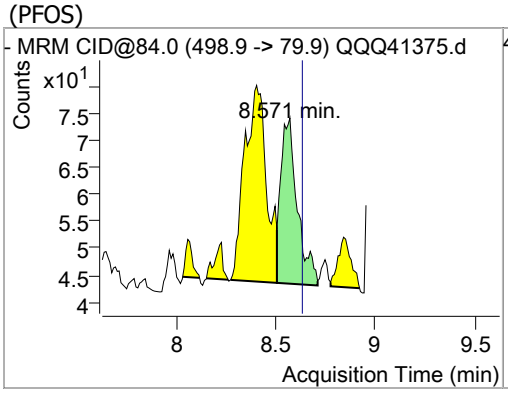
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.7904	8.56	-0.06	5042				

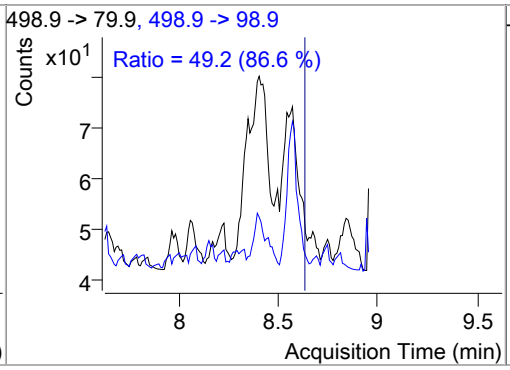


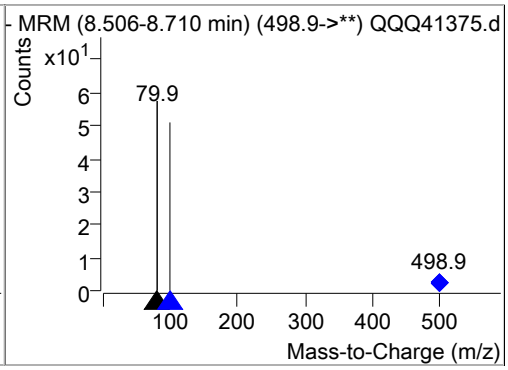




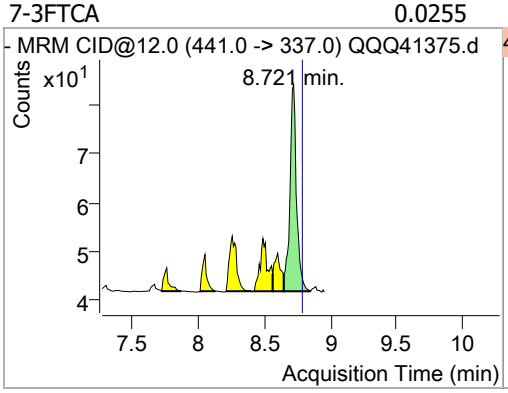
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0108	8.57	-0.06	178	498.9 -> 98.9	49.2	45.5	68.3

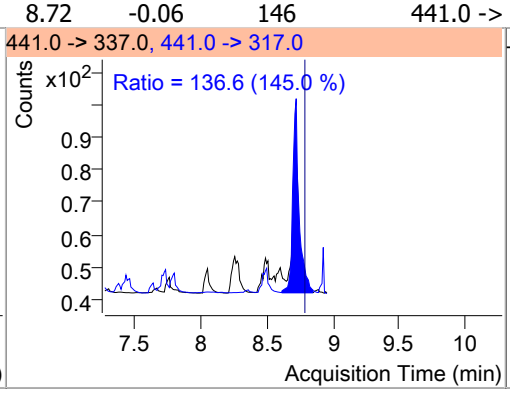


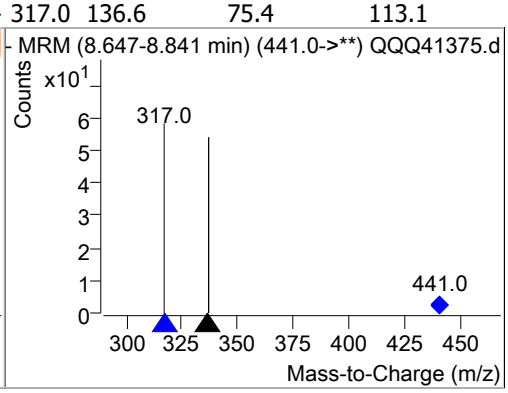




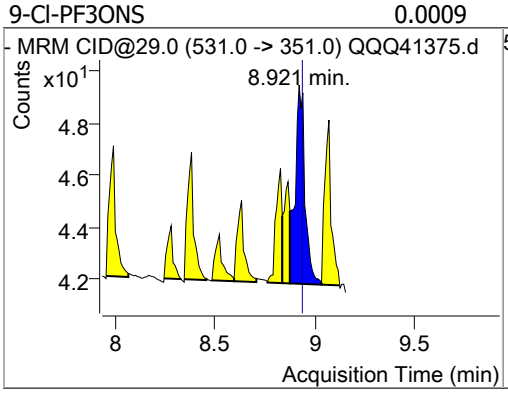
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.0255	8.72	-0.06	146	441.0 -> 317.0	136.6	75.4	113.1

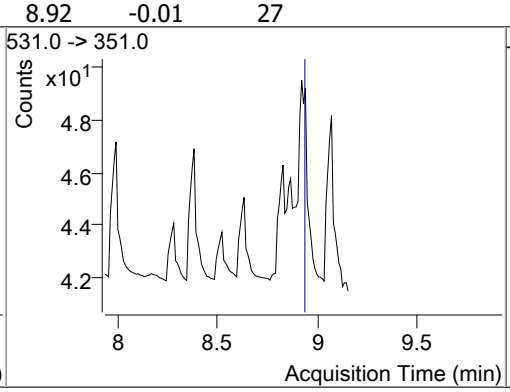


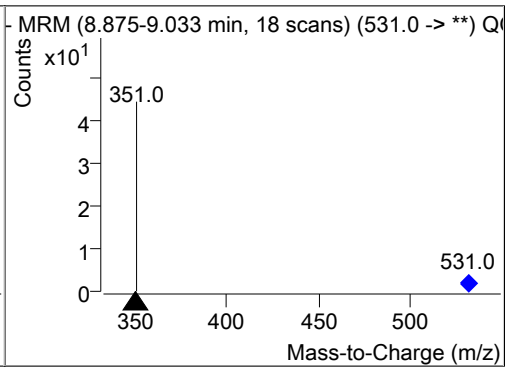




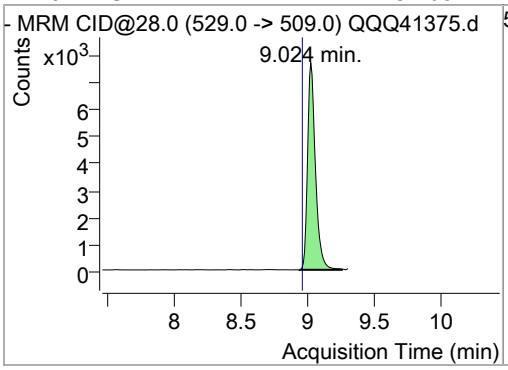
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0009	8.92	-0.01	27				

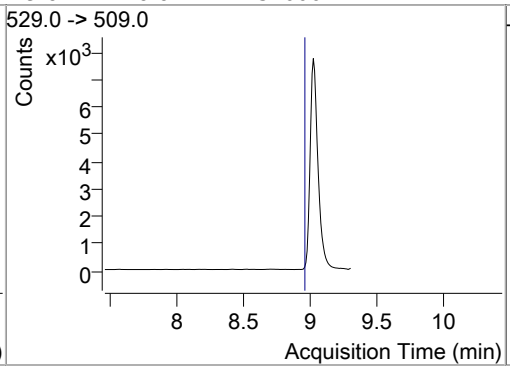


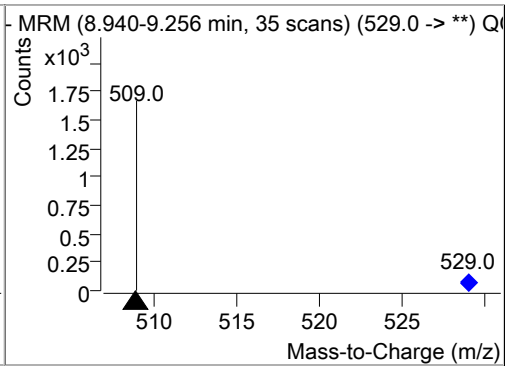




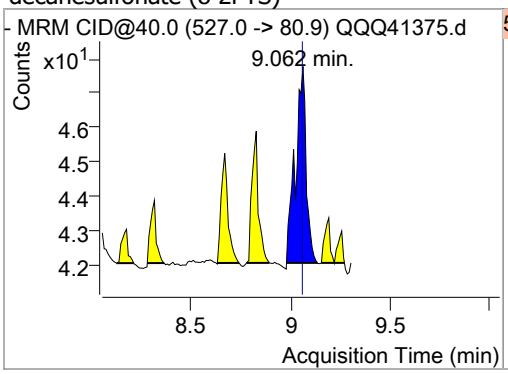
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	5.1687	9.02	-0.02	31666				

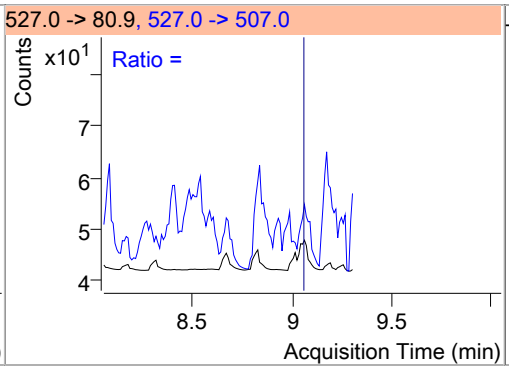


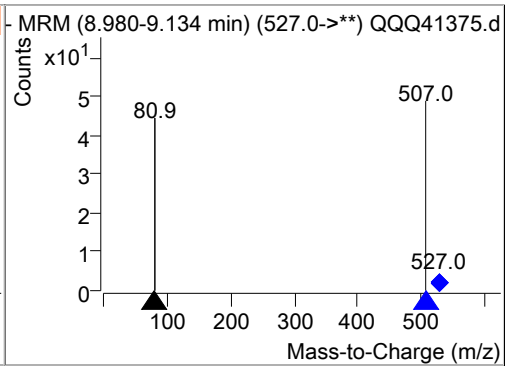




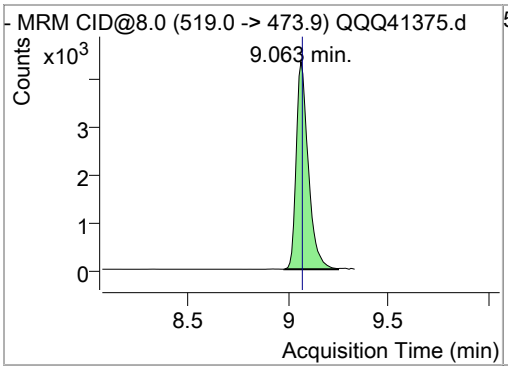
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0137	9.06	0.01	21	527.0 -> 507.0		318.3	477.4

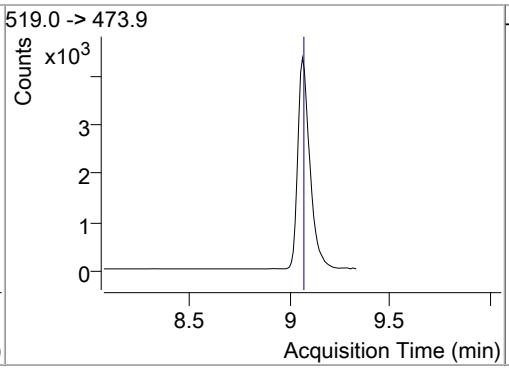


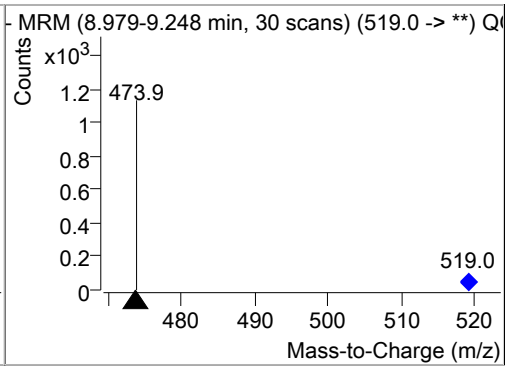




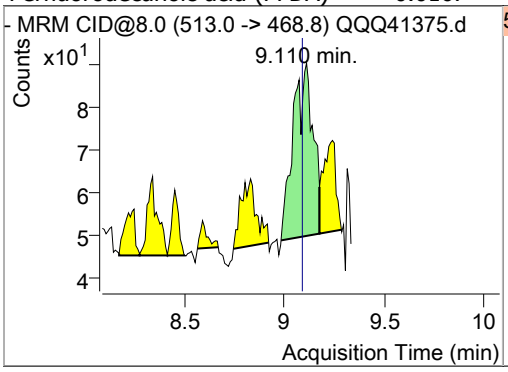
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.3495	9.06	-0.02	18283				

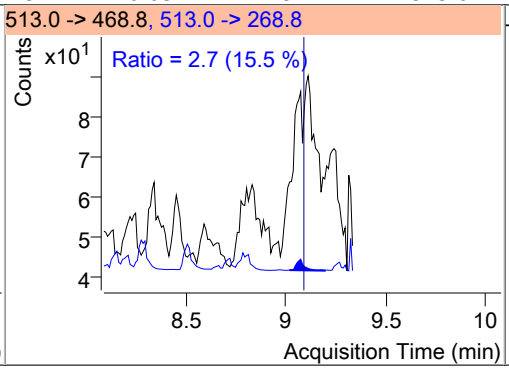


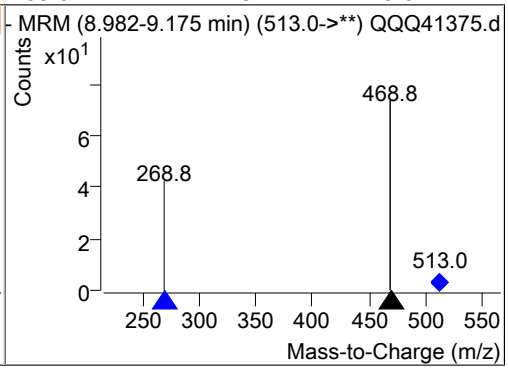




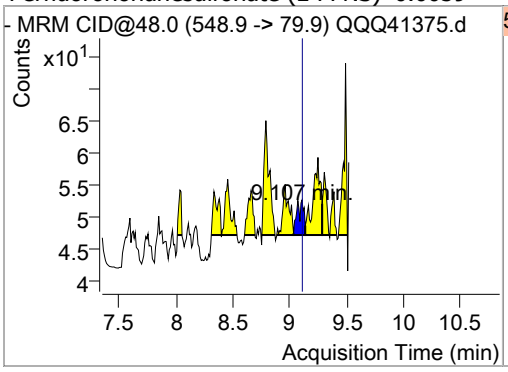
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0167	9.11	0.03	279	513.0 -> 268.8	2.7	13.7	20.6

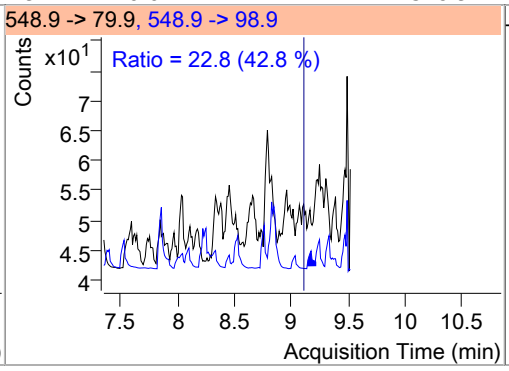


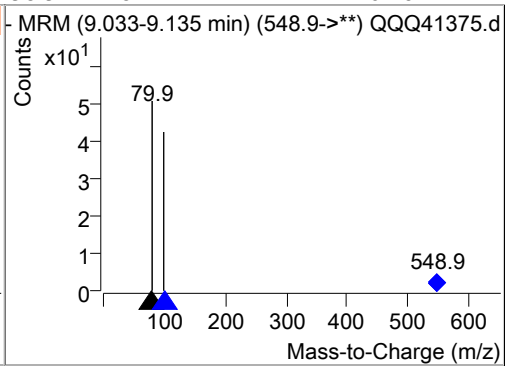




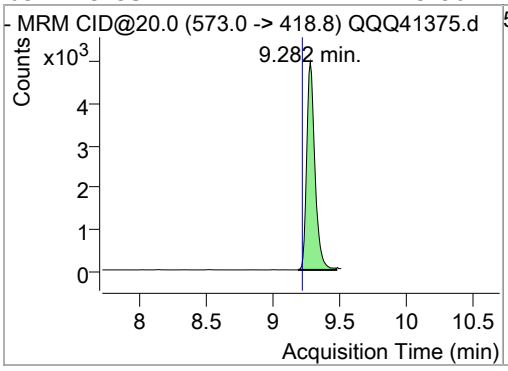
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0059	9.11	0.01	22	548.9 -> 98.9	22.8	42.7	64.0

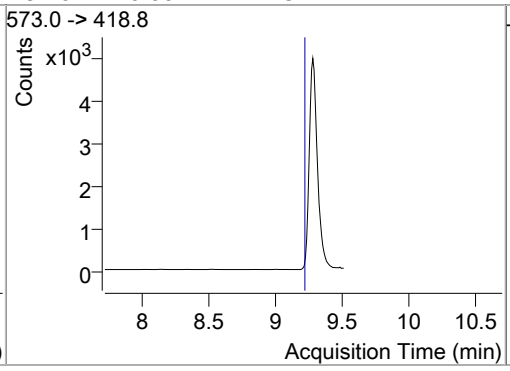


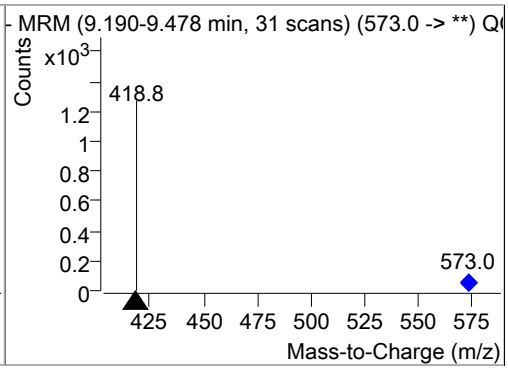




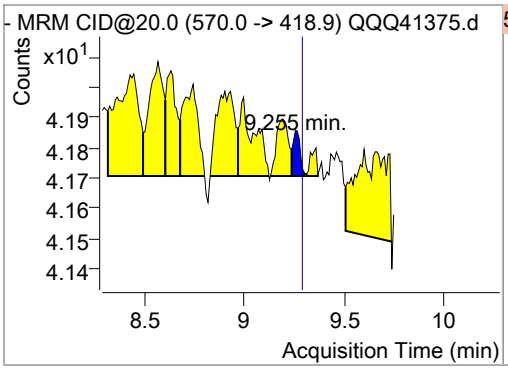
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.5796	9.28	0.00	21321				

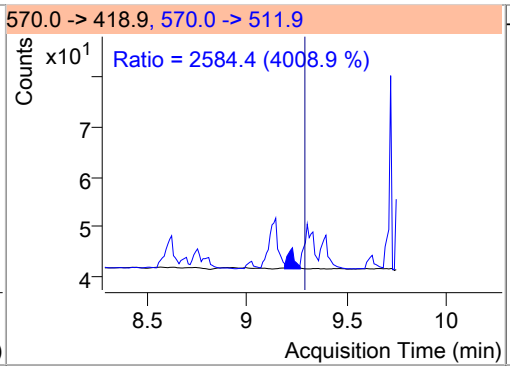


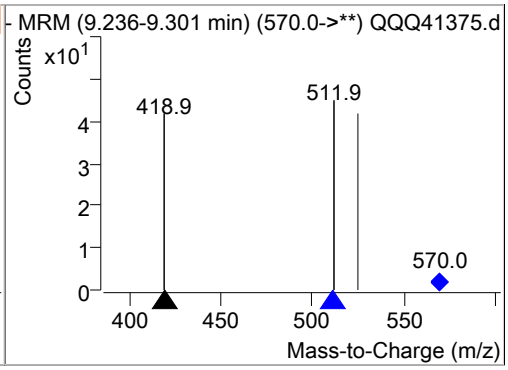




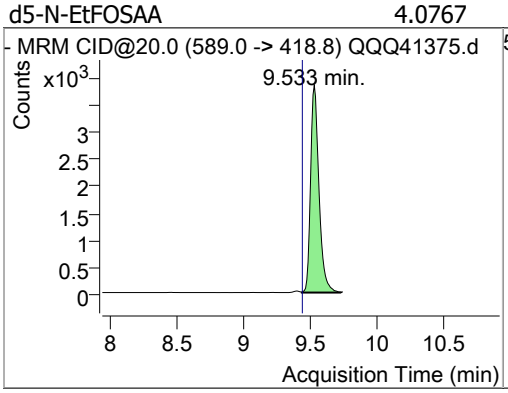
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0001	9.25	-0.03	0	570.0 -> 511.9	2584.4	51.6	77.4

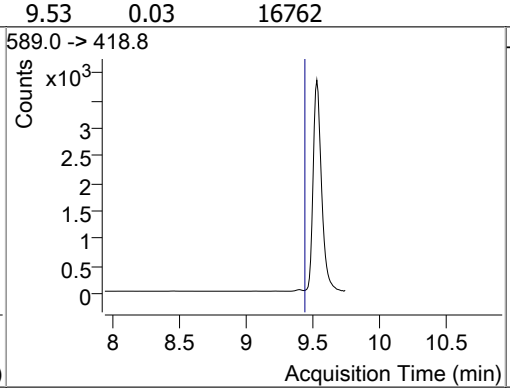


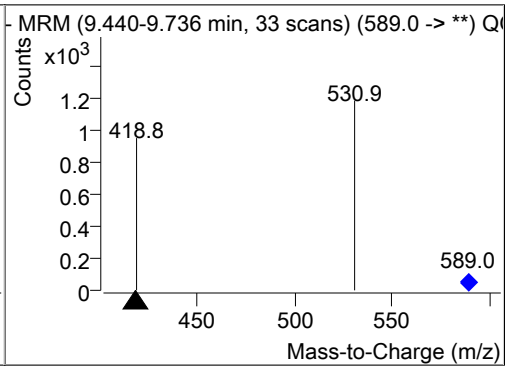




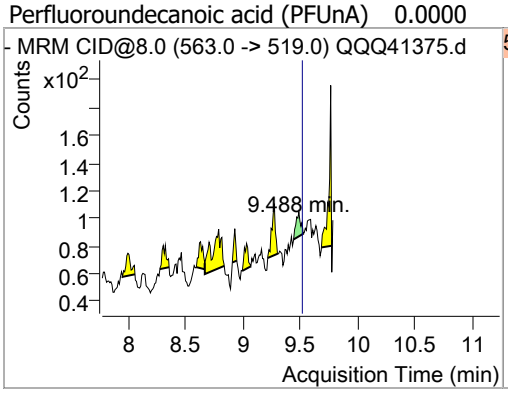
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.0767	9.53	0.03	16762				

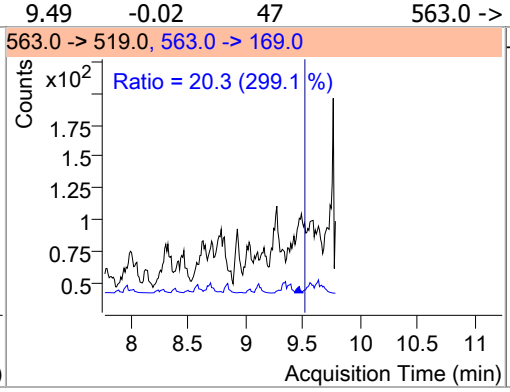


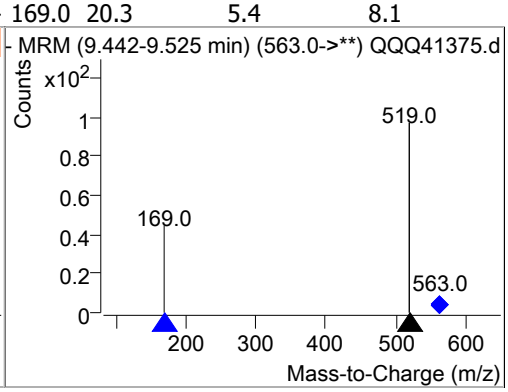




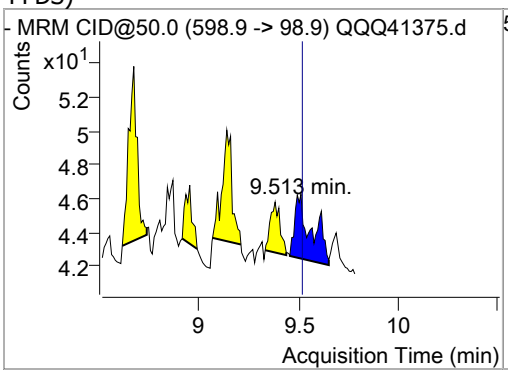
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.49	-0.02	47	563.0 -> 169.0	20.3	5.4	8.1

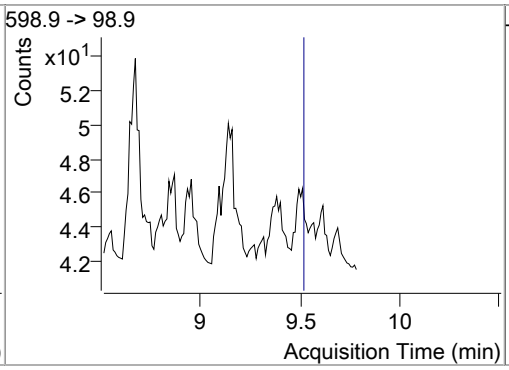


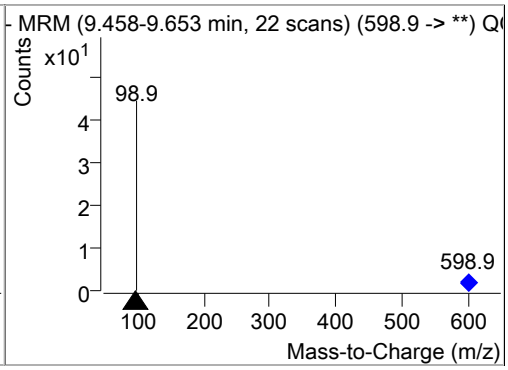




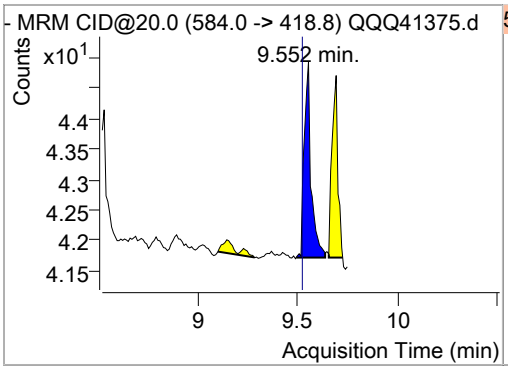
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0125	9.51	0.00	23				

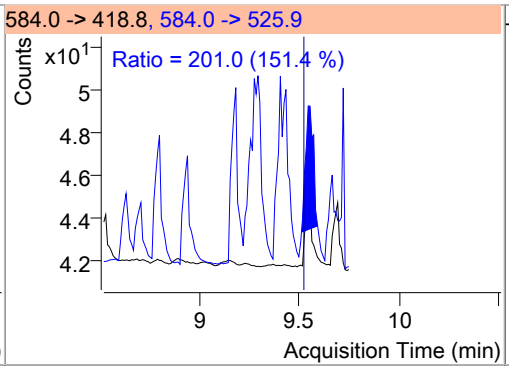


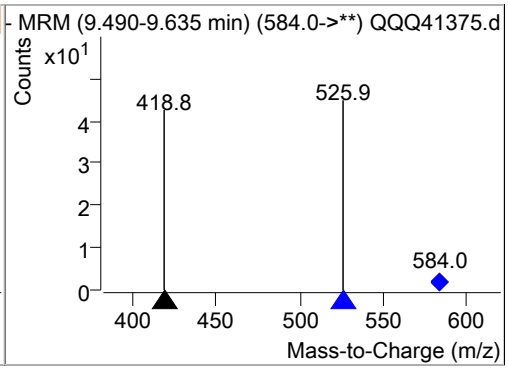




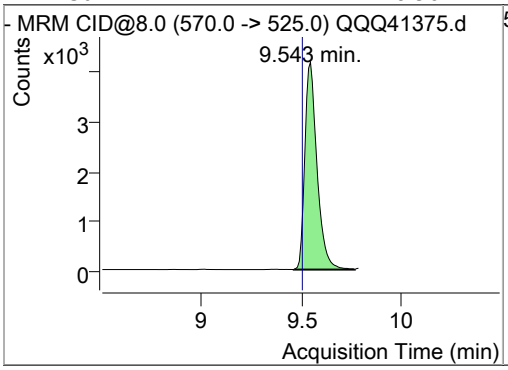
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0027	9.55	0.04	8	584.0 -> 525.9	201.0	106.2	159.3

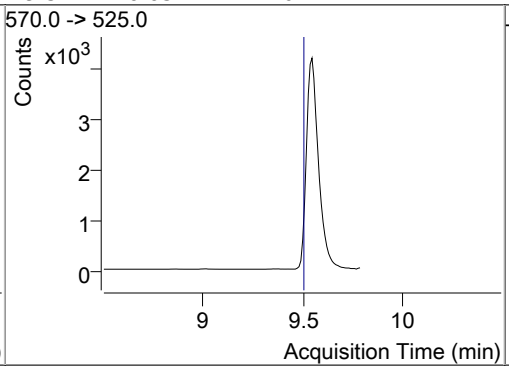


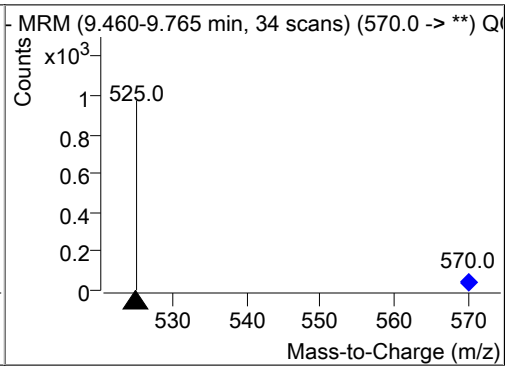




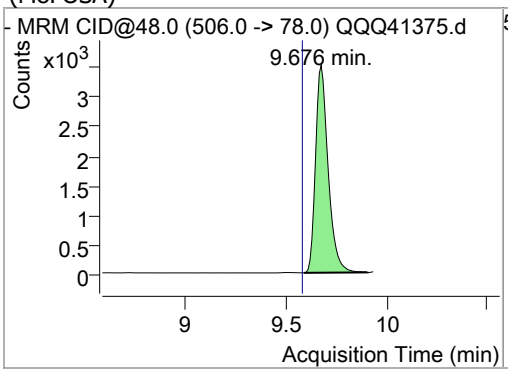
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	0.9611	9.54	0.03	17624				

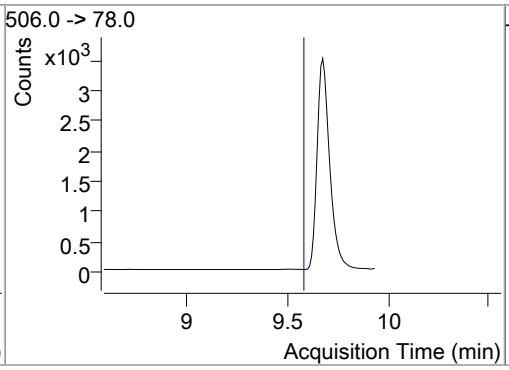


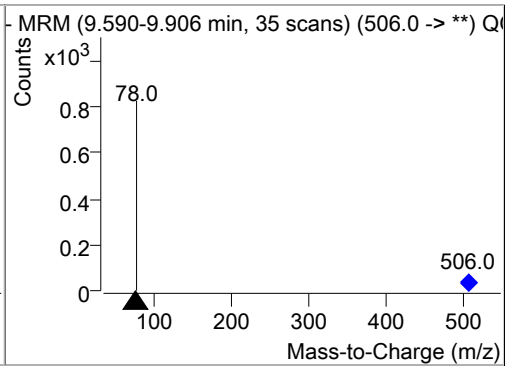




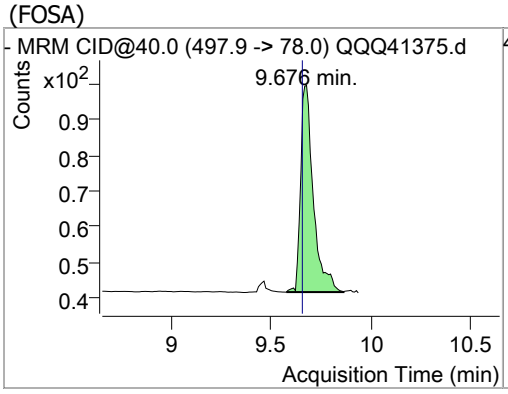
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5602	9.68	0.03	15157				

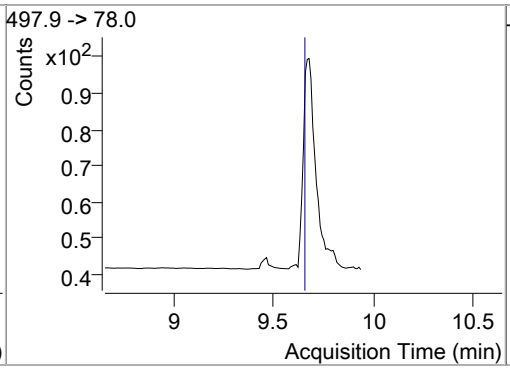


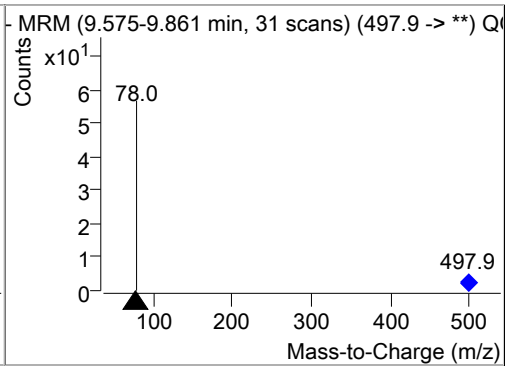




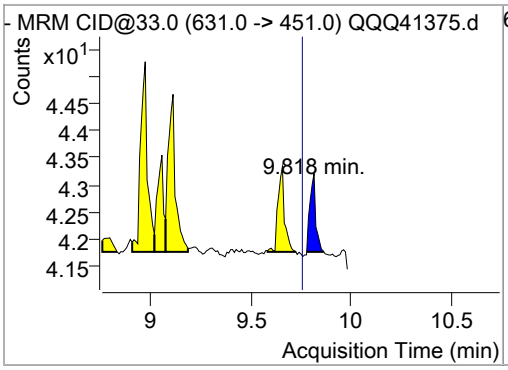
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0296	9.68	0.03	256				

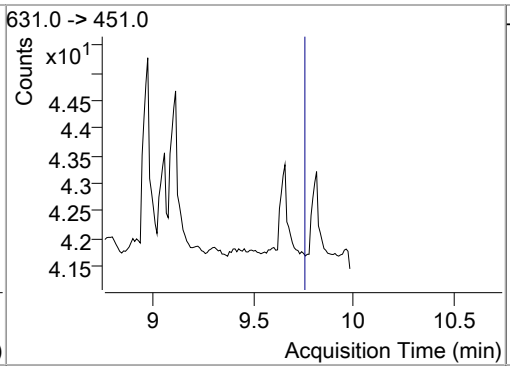


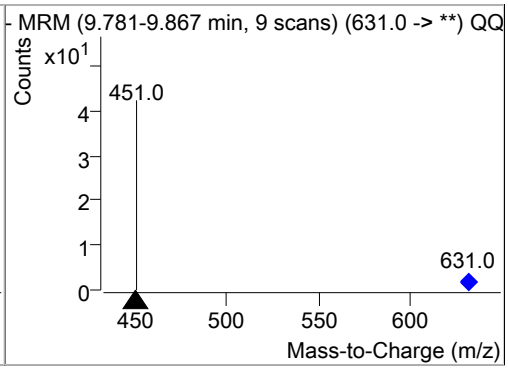




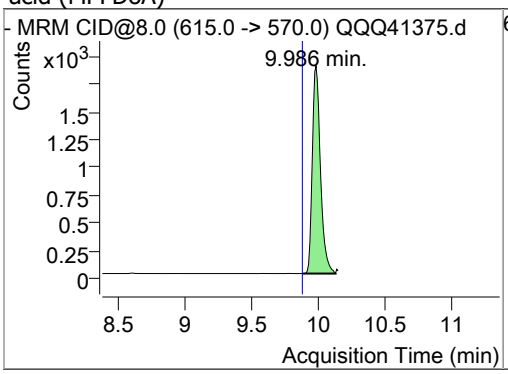
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0001	9.82	0.07	3				

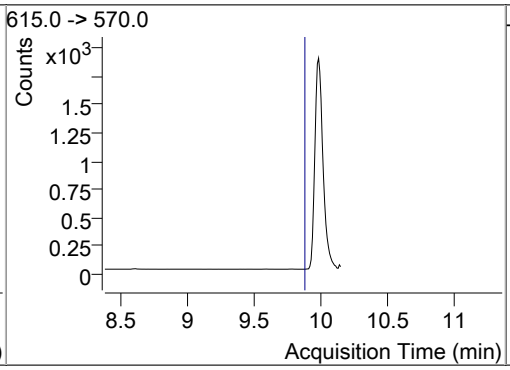


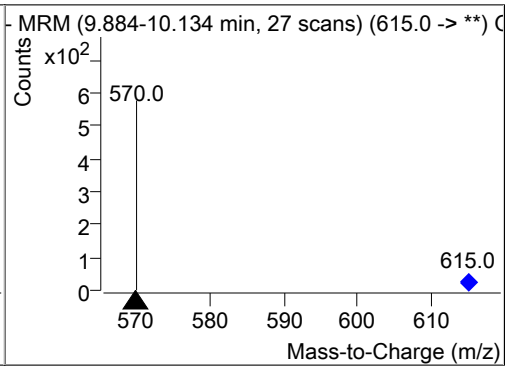




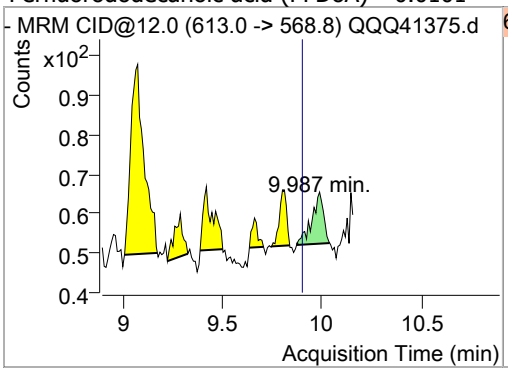
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	0.4959	9.99	0.09	7995				

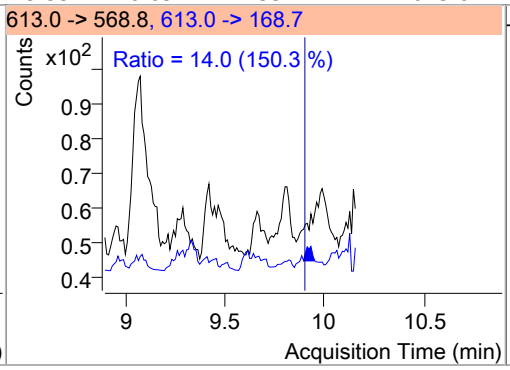


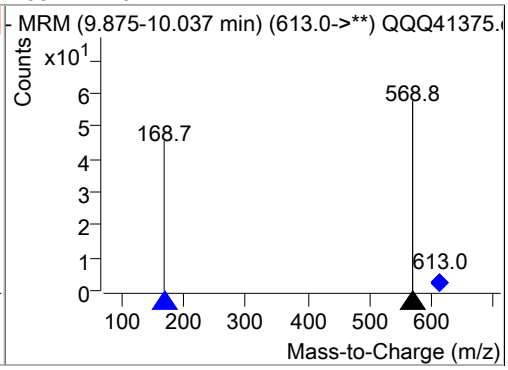




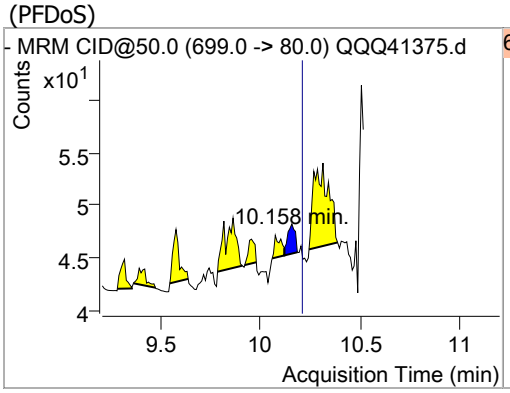
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0101	9.99	0.09	53	613.0 -> 168.7	14.0	7.4	11.2

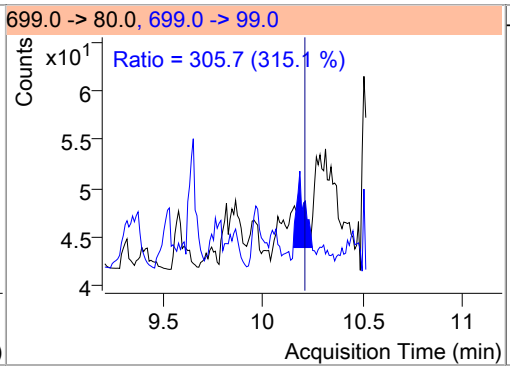


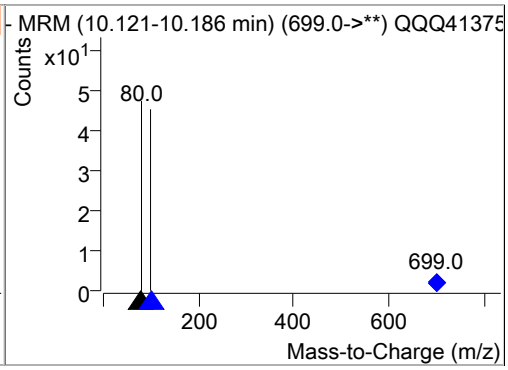




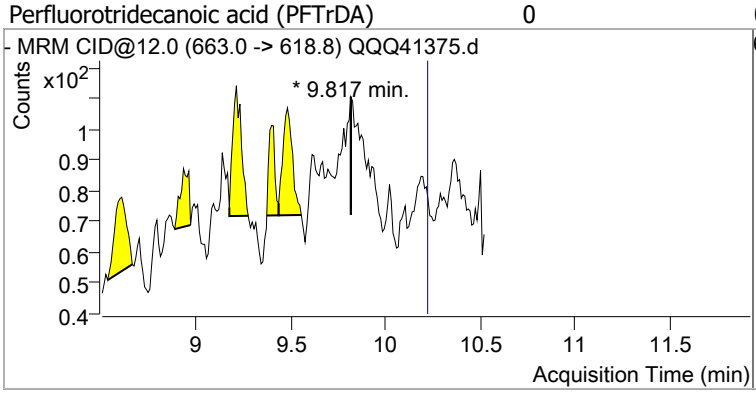
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0067	10.16	-0.05	7	699.0 -> 99.0	305.7	77.6	116.4

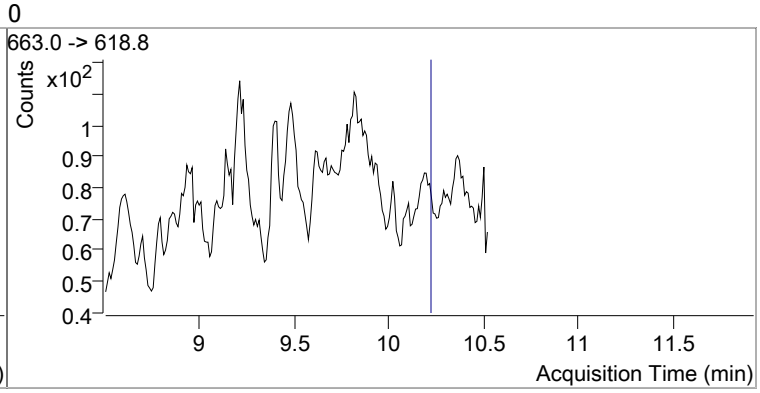




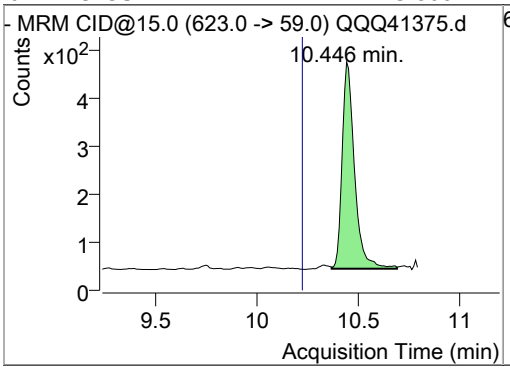


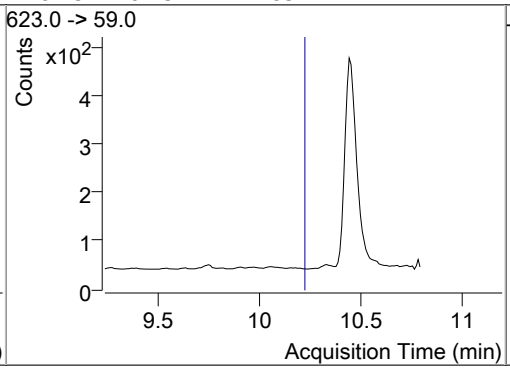
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)		0		0				

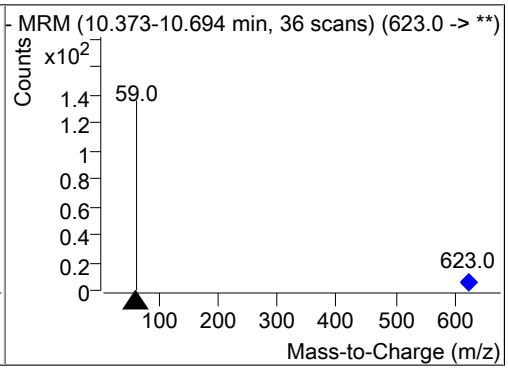




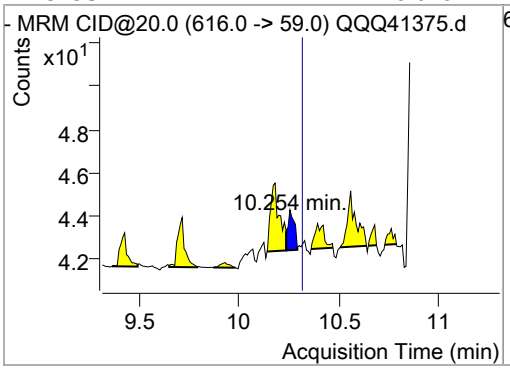
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	3.8601	10.45	0.15	1834				

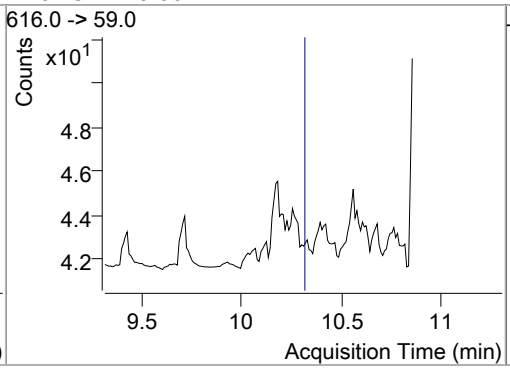


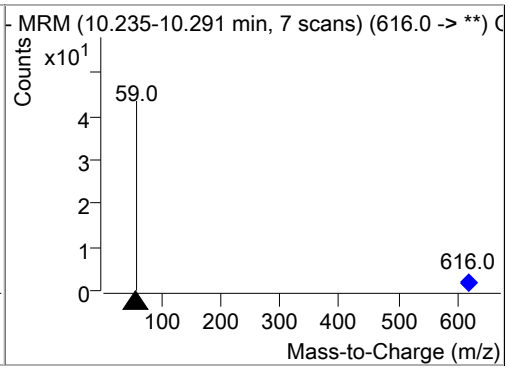




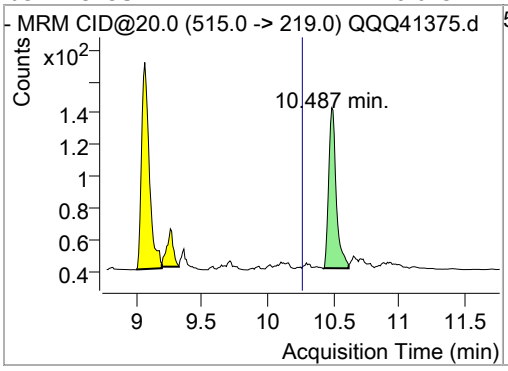
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0707	10.25	-0.06	4				

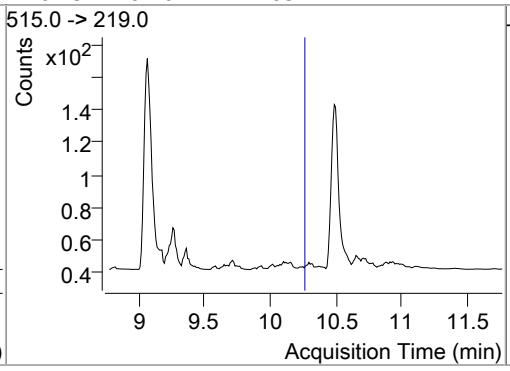


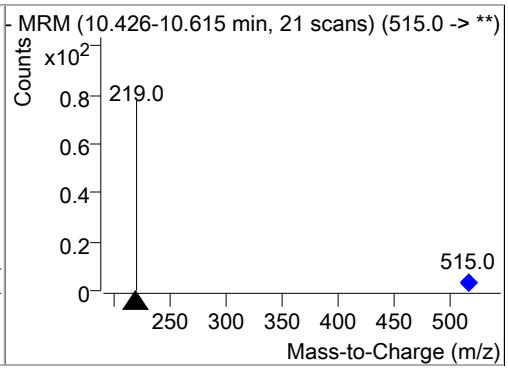




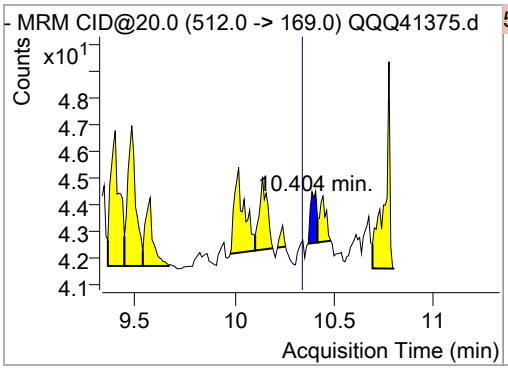
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	0.6731	10.49	0.16	403				

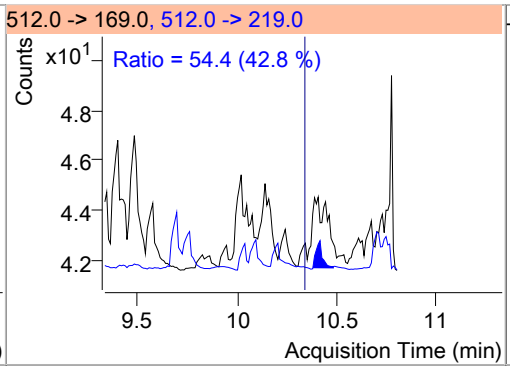


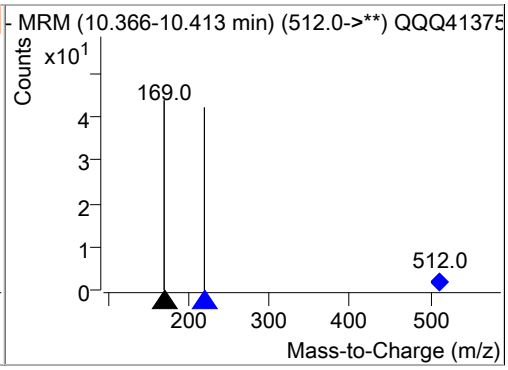




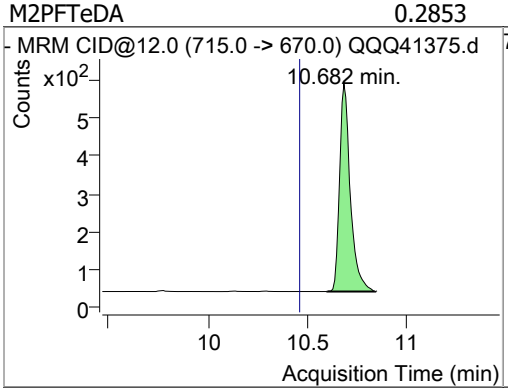
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.40	0.07	4	512.0 -> 219.0	54.4	101.6	152.5

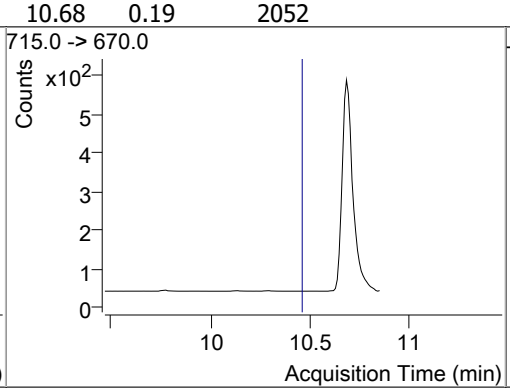


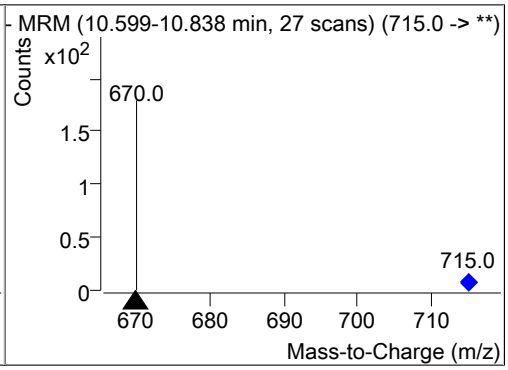




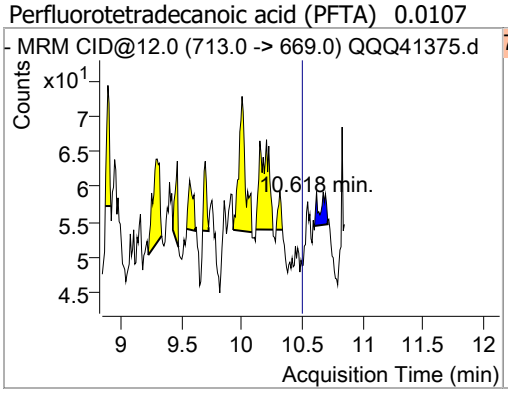
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	0.2853	10.68	0.19	2052				

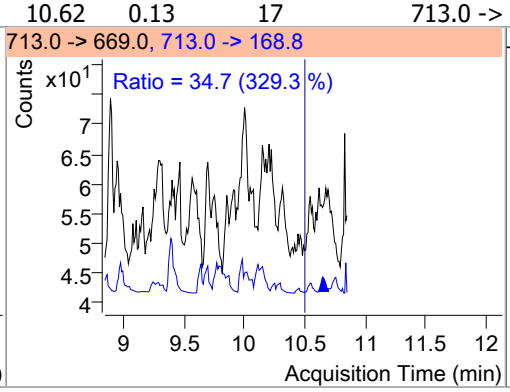


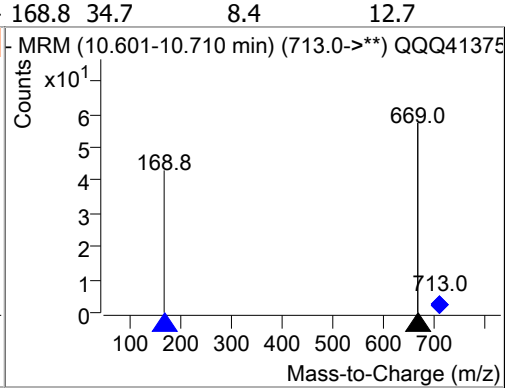




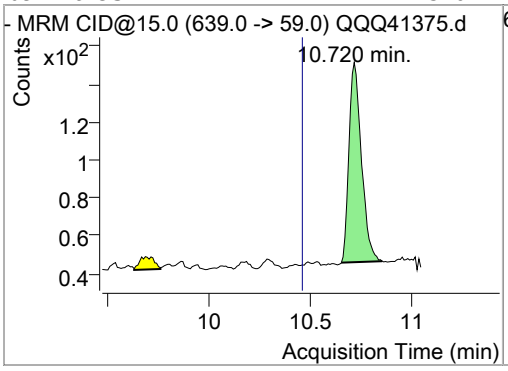
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0107	10.62	0.13	17	713.0 -> 168.8	34.7	8.4	12.7

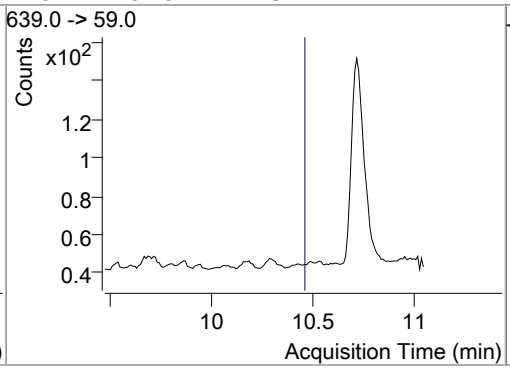


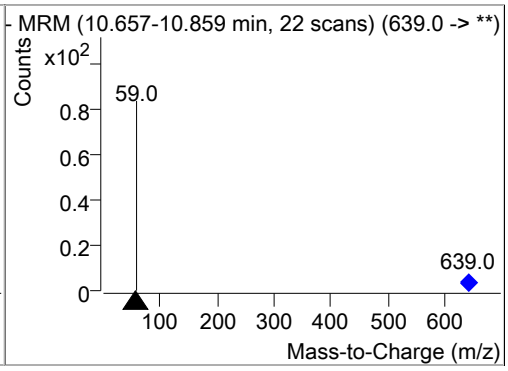




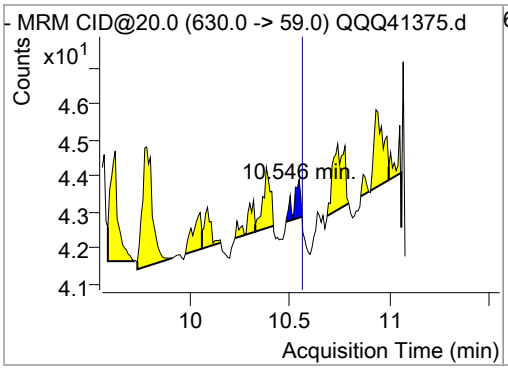
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	2.1346	10.72	0.18	452				

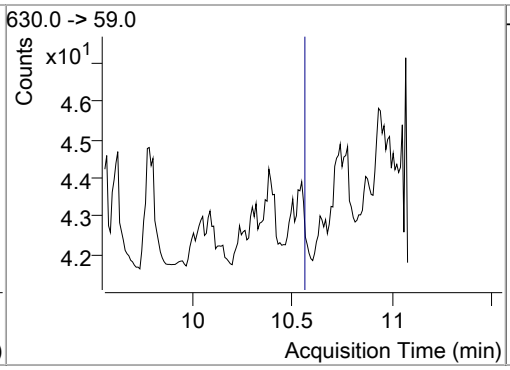


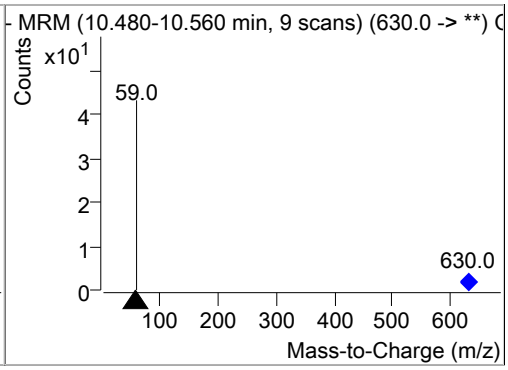




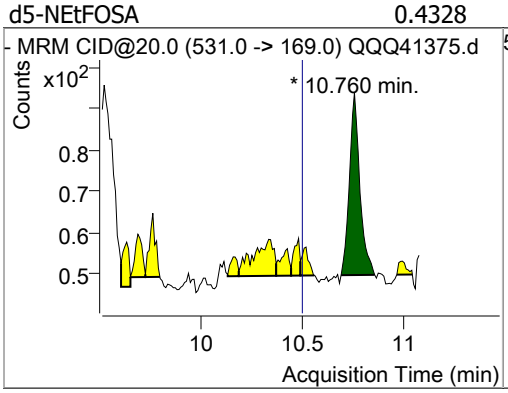
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0602	10.55	-0.01	2				

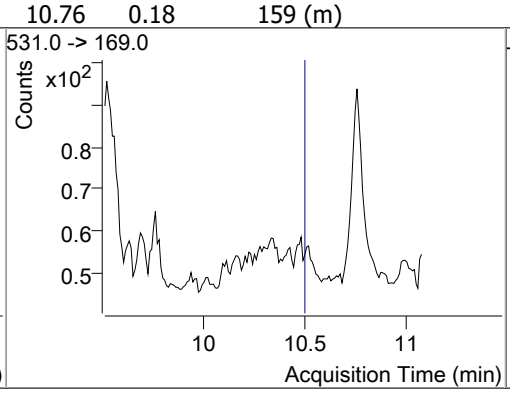


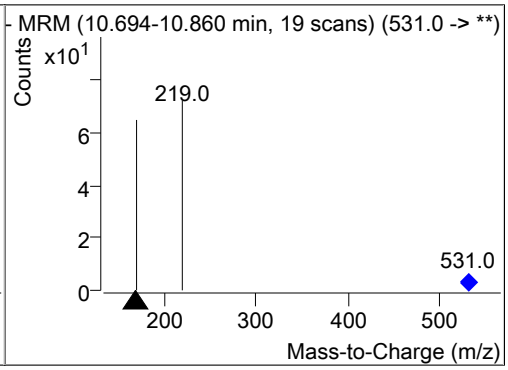




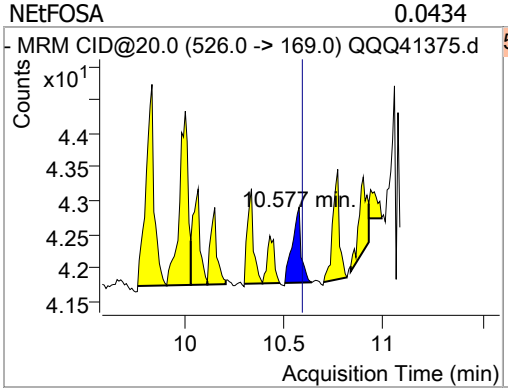
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	0.4328	10.76	0.18	159 (m)				

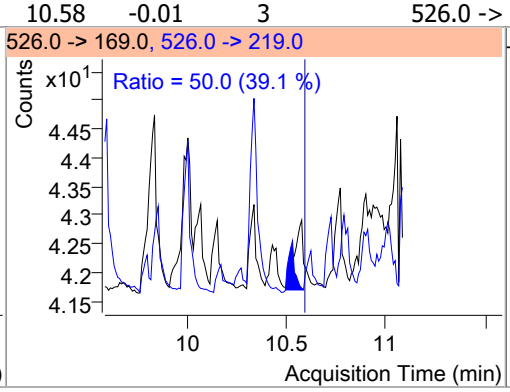


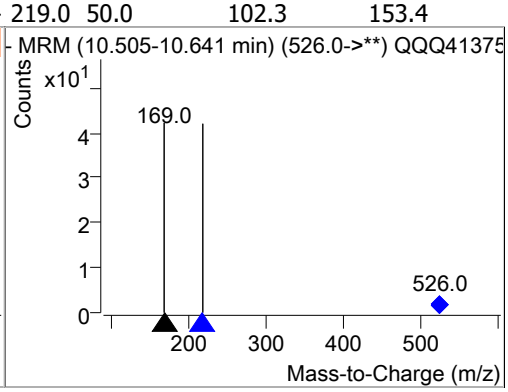




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0434	10.58	-0.01	3	526.0 -> 219.0	50.0	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 12:52:59 PM	**Data File**	QQQ41375.d
Sample Type	Sample	**Sampe Name**	24F1801-02
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.370	147263	21891	0.468			2.04			16262.87
Perfluoro-n-butanoic acid (PFBA)	1.365	2786	404	0.487			2.37			31.23
PFMPA	2.190	2	0	0.136			0.24			1.15
3:3FTCA	4.442	5	2	0.120			0.71			23.94
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.820	134116	21710	0.389			1.90			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.821	1688	288	0.296			1.91			6.22
PFMBA	5.486	19	6	0.099			0.66			6.53
M3PFBS	5.557	21041	4723	0.300			1.55			20653.16
Perfluorobutanesulfonic acid (PFBS)	5.558	591	131	0.238			1.46			112.20
PFEESA	6.066	5	3	0.058			1.13			0.14
NFDHA	6.040	8	3	0.139			1.19			13.73
M2-4-2FTS	6.278	31876	7648	0.316			1.68			1958.14
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.269	55	18	0.100			2.16			6.74
M5PFHxA	6.353	66870	16518	0.288			1.67			1659.95
Perfluorohexanoic acid (PFHxA)	6.355	1893	416	0.222			2.03			29.89
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.565	65	20	0.127			0.65			6.64
M3-HFPO-DA	6.652	48803	12121	0.306			1.59			3339.97
HFPO-DA	6.828	13	5	0.082			2.73			0.72
M4PFHpA	7.198	14769	3454	0.297			1.80			25304.76
Perfluoroheptanoic acid (PFHpA)	7.198	783	159	0.225			1.20			7.14
5-3FTCA	7.254	118	30	0.181			1.60			68.68
Perfluorohexanesulfonic acid (PFHxS)	7.308	128	29	0.196			1.93			1.26
M3PFHxS	7.308	13480	3193	0.288			1.64			8574.57

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.346	2	2	0.043			0.25			0.60
M2-6-2FTS	7.847	14825	3472	0.232			1.73			854.07
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	1218	272	0.316			1.62			∞
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	38560	9177	0.334			1.56			∞
Perfluorooctanoic acid (PFOA)	7.913	2263	559	0.363			1.49			41.10
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.023	27	10	0.141			0.84			11.74
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.525	6266	1545	0.297			1.76			25636.22
Perfluorononanoic acid (PFNA)	8.526	497	134	0.148			1.14			3.96
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.560	5042	1293	0.315			1.53			∞
Perfluorooctanesulfonic acid (PFOS)	8.571	178	31	0.204			1.07			0.76
7-3FTCA	8.721	146	42	0.195			0.87			282.65
9-Cl-PF3ONS	8.921	27	8	0.159			1.28			10.09
M2-8-2FTS	9.024	31666	7745	0.317			1.70			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.062	21	6	0.155			0.56			6.58
M6PFDA	9.063	18283	4349	0.269			1.78			∞
Perfluorodecanoic acid (PFDA)	9.110	279	40	0.193			0.86			1.40
Perfluorononanesulfonate (L-PFNS)	9.107	22	6	0.102			1.15			1.44
d3-N-MeFOSAA	9.282	21321	4944	0.288			1.54			24441.02
N-MeFOSAA	9.255	0	0	0.065			1.11			1.56
d5-N-EtFOSAA	9.533	16762	3828	0.296			1.52			∞
Perfluoroundecanoic acid (PFUnA)	9.488	47	17	0.083			2.67			0.62
Perfluoro-1-decanesulfonate (L-PFDS)	9.513	23	4	0.195			2.37			0.94
N-EtFOSAA	9.552	8	3	0.145			1.30			22.12
M7PFUdA	9.543	17624	4161	0.305			1.51			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	15157	3483	0.317			1.52			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.676	256	58	0.286			1.66			43.80
11-Cl-PF3OUdS	9.818	3	1	0.086			0.88			8.82
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.986	7995	1874	0.250			1.49			16507.33

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.987	53	13	0.162			0.63			1.30
Perfluorododecanesulfonic acid (PFDoS)	10.158	7	3	0.065			0.48			0.37
Perfluorotridecanoic acid (PFTrDA)	9.817	0	111	0.000			1.00			4.21
d7-NMeFOSE	10.446	1834	433	0.321			1.80			129.63
NMeFOSE	10.254	4	2	0.055			1.31			3.37
d3-NMeFOSA	10.487	403	101	0.189			1.76			43.83
NMeFOSA	10.404	4	2	0.048			0.52			2.38
M2PFTeDA	10.682	2052	548	0.239			1.71			20886.49
Perfluorotetradecanoic acid (PFTA)	10.618	17	5	0.109			7.04			0.49
d9-NEtFOSE	10.720	452	106	0.202			1.62			40.58
NEtFOSE	10.546	2	1	0.080			0.23			1.14
d5-NEtFOSA	10.760	159	44	0.166			1.32			5.22
NEtFOSA	10.577	3	1	0.136			0.56			4.25

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-003C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-03	File ID:	QQQ41378.d
Sampled:	06/24/24 14:25	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 13:41
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	557.57 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

CAS NO.	COMPOUND	DILUTION	CONC. (ng/L)	Q
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1	1.59	U
307-24-4	Perfluorohexanoic acid (PFHxA)	1	1.79	U
375-85-9	Perfluoroheptanoic acid (PFHpA)	1	1.79	U
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1	1.64	U
335-67-1	Perfluorooctanoic acid (PFOA)	1	1.79	U
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1	1.67	U
375-95-1	Perfluorononanoic acid (PFNA)	1	1.79	U
335-76-2	Perfluorodecanoic acid (PFDA)	1	1.79	U
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1	1.79	U
307-55-1	Perfluorododecanoic acid (PFDoA)	1	1.79	U
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1	1.79	U
376-06-7	Perfluorotetradecanoic acid (PFTA)	1	1.79	U
2355-31-9	N-MeFOSAA	1	1.79	U
2991-50-6	N-EtFOSAA	1	1.79	U
2706-90-3	Perfluoropentanoic acid (PFPeA)	1	3.59	U
754-91-6	Perfluoro-1-octanesulfonamide (FOSA)	1	1.79	U
375-92-8	Perfluoro-1-heptanesulfonic acid (PFHpS)	1	1.71	U
335-77-3	Perfluoro-1-decanesulfonic acid (PFDS)	1	1.73	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	1	5.74	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	1	6.89	U
375-22-4	Perfluoro-n-butanoic acid (PFBA)	1	7.17	U
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1	3.19	U
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	1	3.59	U
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	1	3.59	U
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	1	3.59	U
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	1	1.69	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	1	6.73	U
13252-13-6	HFPO-DA (Gen-X)	1	7.17	U
763051-92-9	11CL-PF3OUdS	1	6.78	U
756426-58-1	9CL-PF3ONS	1	6.71	U
919005-14-4	ADONA	1	6.78	U
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1	1.74	U
68259-12-1	Perfluoro-1-nonanesulfonic acid (PFNS)	1	1.72	U
356-02-5	3-Perfluoropropyl propanoic acid (FPrPA)	1	4.48	U
914637-49-3	3-Perfluoropentyl propanoic acid (FPePA)	1	22.4	U
812-70-4	3-Perfluoroheptyl propanoic acid (FHpPA)	1	22.4	U
24448-09-7	N-MeFOSE	1	17.9	U
31506-32-8	N-MeFOSA	1	1.79	U
1691-99-2	N-EtFOSE	1	17.9	U
4151-50-2	N-EtFOSA	1	1.79	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-003C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-03	File ID:	QQQ41378.d
Sampled:	06/24/24 14:25	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 13:41
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	557.57 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
M3PFBS	20.9	28.3	136	25 - 150	
M5PFHxA	22.4	29.6	132	25 - 150	
M4PFHpA	22.4	28.8	128	25 - 150	
M3PFHxS	21.3	29.0	137	25 - 150	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	22.4	28.7	128	25 - 150	
M6PFDA	11.2	12.3	109	25 - 150	
M7PFUdA	11.2	11.9	106	25 - 150	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.2	9.47	84.4	25 - 150	
M2PFTeDA	11.2	5.18	46.2	10 - 150	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	89.7	92.3	103	25 - 150	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	21.5	24.6	114	25 - 150	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	44.8	60.0	134	25 - 150	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	22.4	26.1	116	10 - 150	
d3-N-MeFOSAA	44.8	44.0	98.1	25 - 150	
d5-N-EtFOSAA	44.8	44.0	98.2	25 - 150	
M2-6:2 FTS	42.6	33.0	77.4	25 - 200	
M2-8:2 FTS	43.0	37.1	86.2	25 - 200	
M9PFNA	11.2	14.1	126	25 - 150	
M2-4:2 FTS	42.1	31.9	75.8	25 - 150	
d-N-MeFOSA	22.4	13.9	61.9	25 - 150	
d-N-EtFOSA	22.4	10.5	47.0	25 - 150	
M3HFPO-DA	89.7	98.8	110	25 - 150	
d9-N-EtFOSE	224	84.3	37.6	25 - 150	
d7-N-MeFOSE	224	145	64.5	25 - 150	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
MPFOA	35872.53	7.88525	44351.86	7.9131	
MPFOS	9693.676	8.523933	12610.34	8.542467	

* Values outside of QC limits

Data File	QQQ41378.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 1:41:33 PM
Sample Name	24F1801-03	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

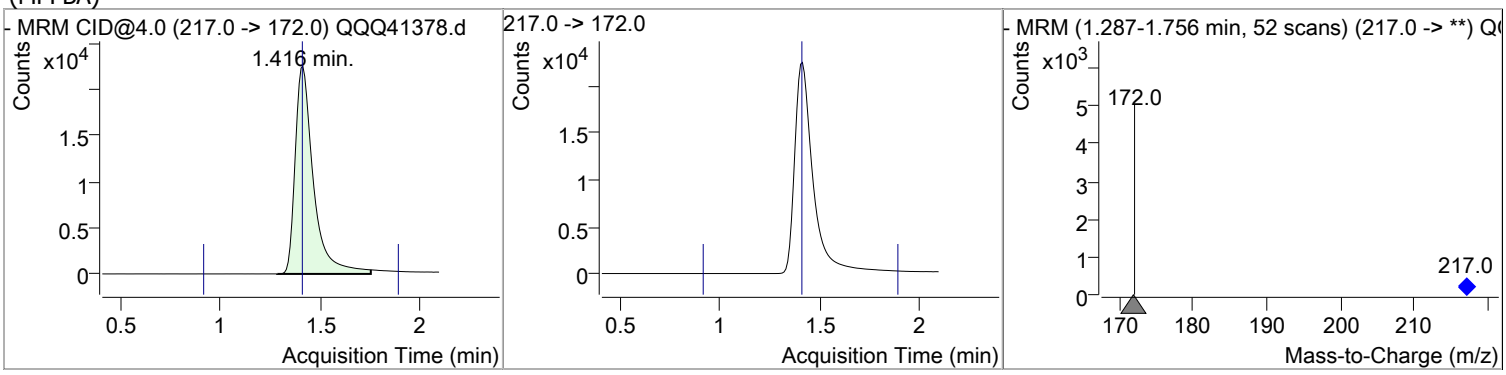
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
M3PFBA	1.409	216.0 -> 172.0	27709	5.0000	ng/ml		0.156
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.416	217.0 -> 172.0	142838	10.0000	ng/ml		0.165
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.839	268.0 -> 223.0	138567	5.0000	ng/ml		0.111
MPFHxA	6.364	315.0 -> 269.8	32483	2.5000	ng/ml		-0.009
MPFHxS	7.298	403.0 -> 103.0	3078	2.3700	ng/ml		-0.084
M3PFBS-EIS	5.566	302.0 -> 79.9	17357	2.3300	ng/ml		0.037
M5PFHxA-EIS	6.363	318.0 -> 273.0	68393	2.5000	ng/ml		-0.009
M2-4-2FTS-EIS	6.288	329.0 -> 309.0	13084	4.6900	ng/ml		-0.009
M3PFHxS-EIS	7.299	402.0 -> 80.0	12409	2.3700	ng/ml		-0.084
M3-HFPO-DA-EIS	6.652	287.0 -> 169.0	39908	10.0000	ng/ml		-0.037
M4PFHpA-EIS	7.189	367.0 -> 322.0	14766	2.5000	ng/ml		-0.074
M2-6-2FTS-EIS	7.828	429.0 -> 409.0	9039	4.7550	ng/ml		-0.102
MPFOA	7.885	417.0 -> 372.0	35873	2.5000	ng/ml		-0.112
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.894	421.0 -> 376.0	36600	2.5000	ng/ml		-0.102
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.523	507.0 -> 98.9	4872	2.3950	ng/ml		-0.102
MPFNA	8.488	468.0 -> 423.0	17201	1.2500	ng/ml		-0.111
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.488	472.0 -> 223.0	5755	1.2500	ng/ml		-0.102
MPFOS	8.524	503.0 -> 80.0	9694	2.3950	ng/ml		-0.102
M2-8-2FTS-EIS	8.987	529.0 -> 509.0	23851	4.8000	ng/ml		-0.056
MPFDA	9.026	515.0 -> 469.8	13184	1.2500	ng/ml		-0.056
M6PFDA-EIS	9.016	519.0 -> 473.9	19750	1.2500	ng/ml		-0.065
d3-N-MeFOSAA-EIS	9.236	573.0 -> 418.8	22469	5.0000	ng/ml		-0.046
M7PFUdA-EIS	9.497	570.0 -> 525.0	25996	1.2500	ng/ml		-0.018
d5-N-EtFOSAA-EIS	9.495	589.0 -> 418.8	19863	5.0000	ng/ml		-0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.639	506.0 -> 78.0	17060	2.5000	ng/ml		-0.009
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.940	615.0 -> 570.0	18147	1.2500	ng/ml		0.047
M2PFTeDA-EIS	10.654	715.0 -> 670.0	4411	1.2500	ng/ml		0.166
d7-NMeFOSE-EIS	10.428	623.0 -> 59.0	7535	25.0000	ng/ml		0.129
d3-NMeFOSA-EIS	10.468	515.0 -> 219.0	917	2.5000	ng/ml		0.138
d9-NEtFOSE-EIS	10.702	639.0 -> 59.0	1956	25.0000	ng/ml		0.166
d5-NEtFOSA-EIS	10.742	531.0 -> 169.0	423	2.5000	ng/ml	m	0.166
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.416	217.0 -> 172.0	142840	10.2943	ng/ml		0.165
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.839	268.0 -> 223.0	138567	6.6870	ng/ml		0.111
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.566	302.0 -> 79.9	17358	3.1604	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.288	329.0 -> 309.0	13036	3.5552	ng/ml		-0.009

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.363	318.0 -> 273.0	68393	3.2992	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.652	287.0 -> 169.0	39908	11.0132	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.189	367.0 -> 322.0	14766	3.2067	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.299	402.0 -> 80.0	12409	3.2386	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.828	429.0 -> 409.0	9034	3.6791	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.894	421.0 -> 376.0	36601	3.2039	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.488	472.0 -> 223.0	5755	1.5700	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.523	507.0 -> 98.9	4873	2.7413	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.987	529.0 -> 509.0	23851	4.1359	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.016	519.0 -> 473.9	19745	1.3670	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.236	573.0 -> 418.8	22469	4.9056	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.495	589.0 -> 418.8	19863	4.9105	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.497	570.0 -> 525.0	25996	1.3297	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.639	506.0 -> 78.0	16929	2.9065	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	615.0 -> 570.0	18141	1.0555	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.428	623.0 -> 59.0	7535	16.1209	ng/ml		0.129
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.468	515.0 -> 219.0	911	1.5479	ng/ml		0.138
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.654	715.0 -> 670.0	4426	0.5772	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.702	639.0 -> 59.0	1956	9.3992	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.742	531.0 -> 169.0	423	1.1747	ng/ml	m	0.166
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.421	213.0 -> 168.9	126	0.0101	ng/ml		100
PFMPA	2.272	229.0 -> 85.0	1	0.0001	ng/ml		100
3:3FTCA	4.267	241.0 -> 177.0	1	0.0028	ng/ml		93
Perfluoro-n-pentanoic acid (PFPeA)	4.691	263.0 -> 219.0	12	0.0005	ng/ml		100
PFMBA	5.467	279.0 -> 85.0	7	0.0006	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.576	298.9 -> 79.9	5	0.0006	ng/ml	#	65
PFEESA	6.066	315.0 -> 135.0	33	0.0009	ng/ml	#	63
NFDHA	6.095	295.0 -> 201.1	6	0.0130	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.279	327.0 -> 307.0	13	0.0036	ng/ml	#	34

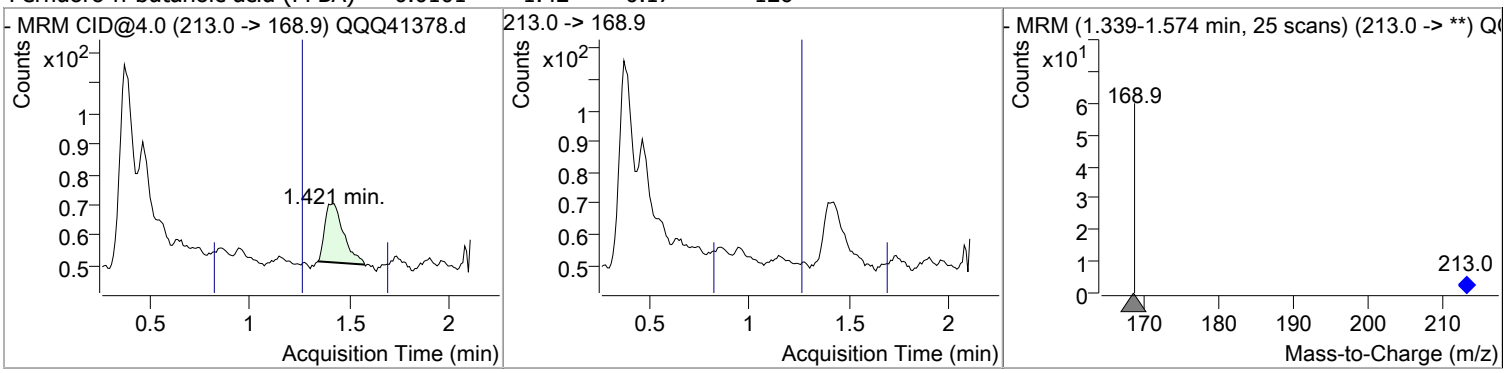
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.364	313.0 -> 268.9	884	0.0280	ng/ml	#	95
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.556	348.9 -> 79.9	32	0.0049	ng/ml	#	65
HFPO-DA	6.541	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.300	363.0 -> 318.8	37	0.0028	ng/ml		43
5-3FTCA	7.263	341.0 -> 217.0	75	0.0171	ng/ml	#	61
Perfluorohexanesulfonic acid (PFHxS)	7.336	398.9 -> 79.9	55	0.0091	ng/ml	#	63
ADONA	7.337	377.0 -> 85.0	42	0.0048	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.829	427.0 -> 407.0	1918	0.6399	ng/ml	#	88
Perfluorooctanoic acid (PFOA)	8.071	413.0 -> 368.8	15	0.0000	ng/ml	#	76
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.042	448.9 -> 80.0	4	0.0007	ng/ml	#	1
Perfluorononanoic acid (PFNA)	8.628	463.0 -> 418.8	51	0.0034	ng/ml		45
Perfluorooctanesulfonic acid (PFOS)	8.580	498.9 -> 79.9	17	0.0000	ng/ml		23
7-3FTCA	8.814	441.0 -> 337.0	32	0.0054	ng/ml		3
9-Cl-PF3ONS	8.903	531.0 -> 351.0	7	0.0003	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.979	527.0 -> 80.9	7	0.0058	ng/ml		1
Perfluorodecanoic acid (PFDA)	9.119	513.0 -> 468.8	13	0.0007	ng/ml	#	12
Perfluorononanesulfonate (L-PFNS)	9.024	548.9 -> 79.9	6	0.0016	ng/ml	#	1
N-MeFOSAA	9.460	570.0 -> 418.9	0	0.0001	ng/ml		18
Perfluoroundecanoic acid (PFUnA)	9.618	563.0 -> 519.0	162	0.0000	ng/ml		99
Perfluoro-1-decanesulfonate (L-PFDS)	9.513	598.9 -> 98.9	33	0.0188	ng/ml		100
N-EtFOSAA	9.376	584.0 -> 418.8	11	0.0033	ng/ml	#	1
Perfluoro-1-octanesulfonamide (FOSA)	9.667	497.9 -> 78.0	27	0.0028	ng/ml		100
11-Cl-PF3OUdS	9.762	631.0 -> 451.0	19	0.0011	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.950	613.0 -> 568.8	29	0.0025	ng/ml		74
Perfluorododecanesulfonic acid (PFDoS)	10.232	699.0 -> 80.0	14	0.0151	ng/ml	#	37
Perfluorotridecanoic acid (PFTrDA)	10.454	663.0 -> 618.8	107	0.0240	ng/ml		100
NMeFOSE	10.291	616.0 -> 59.0	6	0.0228	ng/ml		100
NMeFOSA	10.321	512.0 -> 169.0	26	0.0110	ng/ml	#	14
Perfluorotetradecanoic acid (PFTA)	10.498	713.0 -> 669.0	17	0.0048	ng/ml	#	52
NEtFOSE	10.564	630.0 -> 59.0	5	0.0288	ng/ml		100
NEtFOSA	10.623	526.0 -> 169.0	1	0.0065	ng/ml	#	27

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

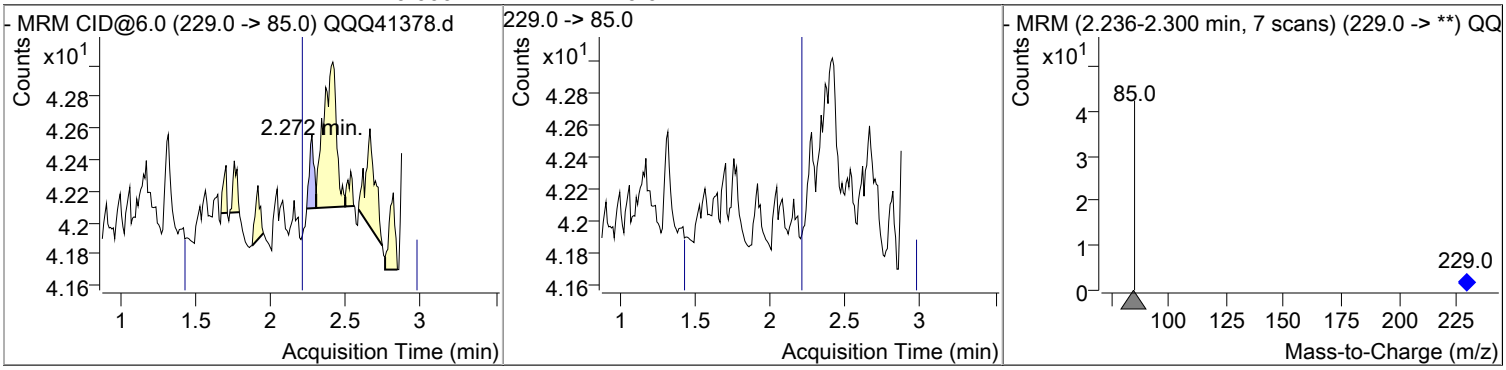
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.2943	1.42	0.17	142840				



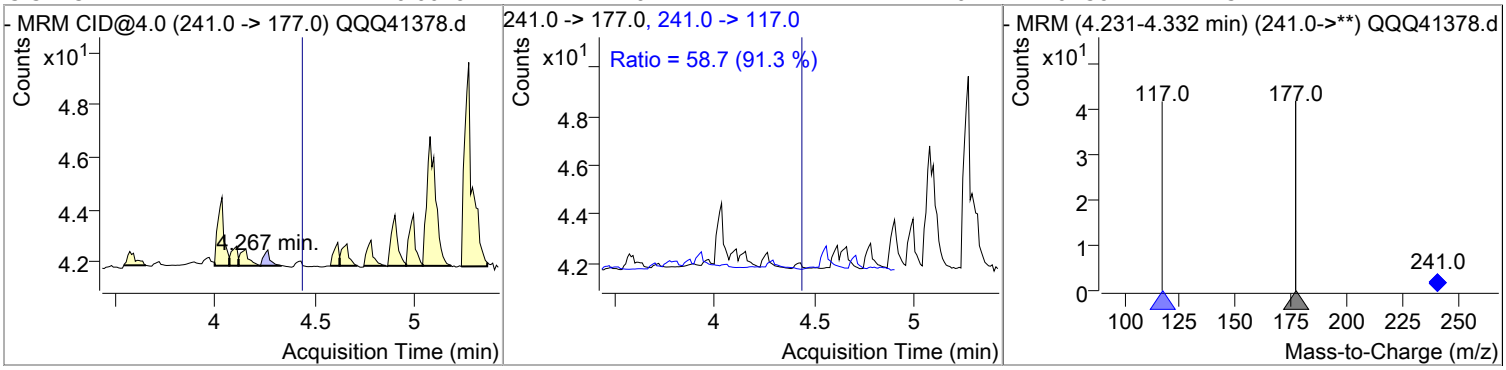
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0101	1.42	0.17	126				



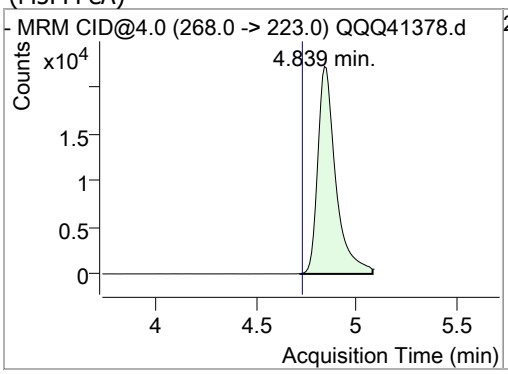
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0001	2.27	0.07	1				

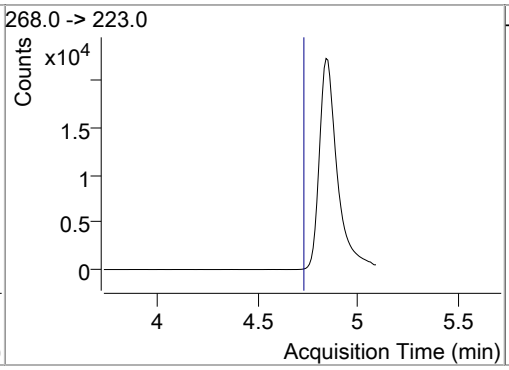


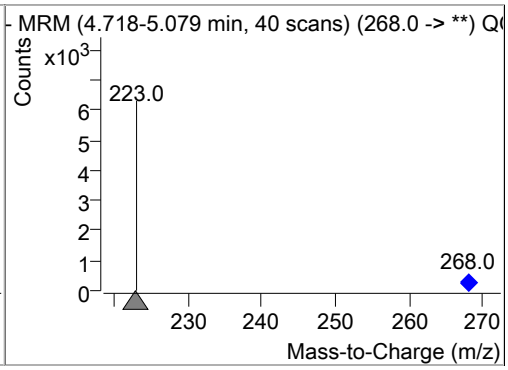
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0028	4.27	-0.17	1	241.0 -> 117.0	58.7	51.4	77.2



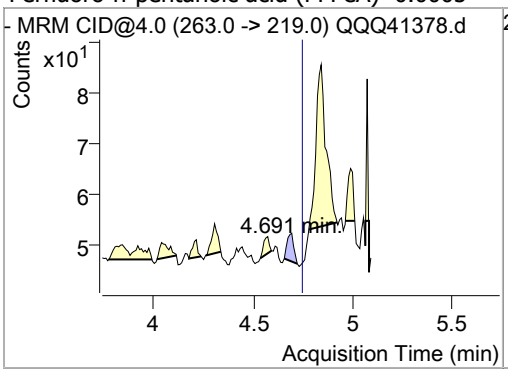
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	6.6870	4.84	0.11	138567				

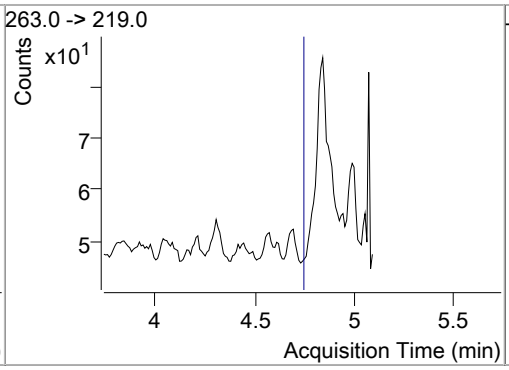


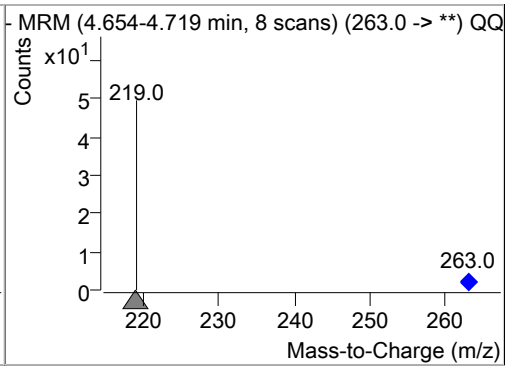




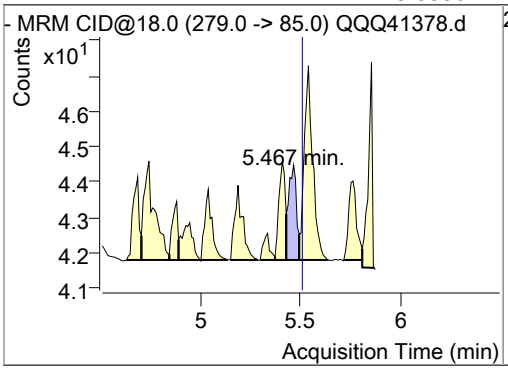
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0005	4.69	-0.05	12				

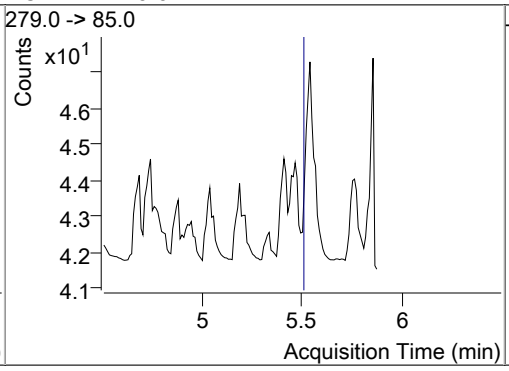


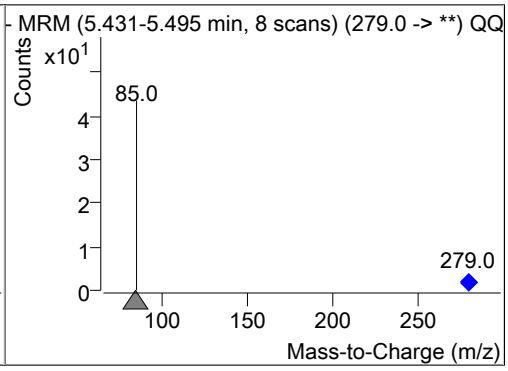




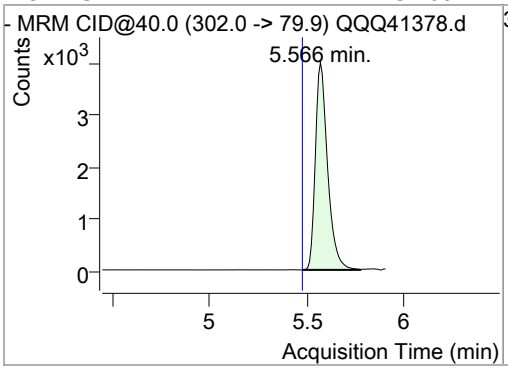
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0006	5.47	-0.04	7				

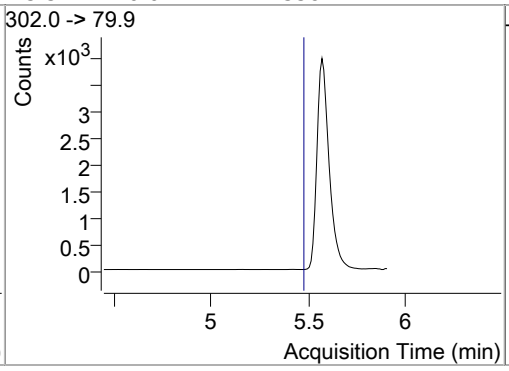


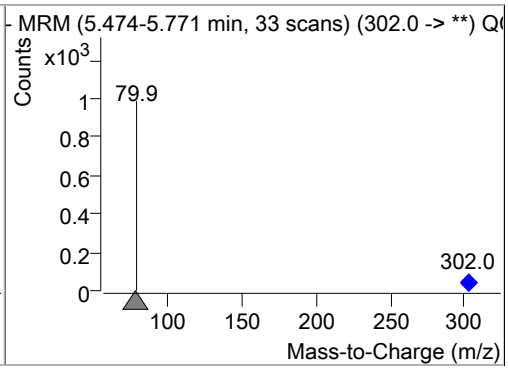




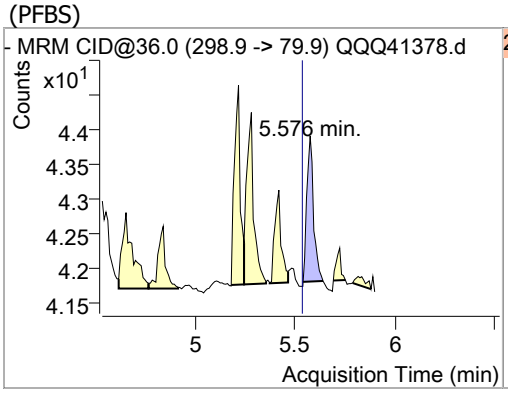
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.1604	5.57	0.04	17358				

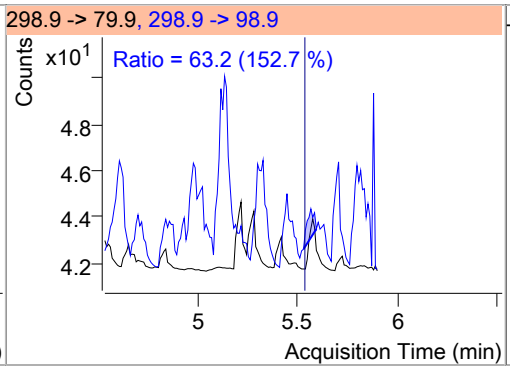


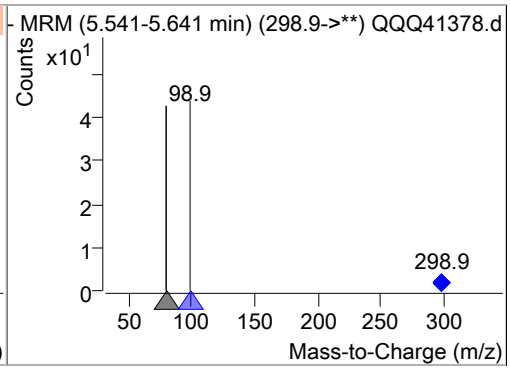




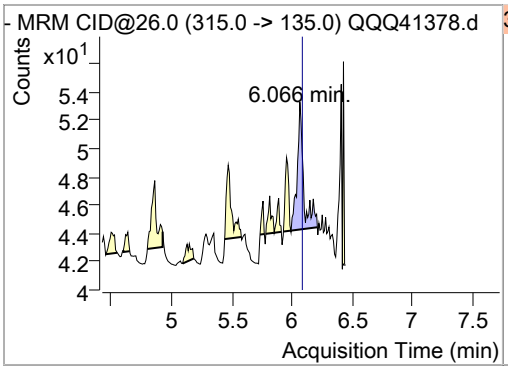
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0006	5.58	0.05	5	298.9 -> 98.9	63.2	33.1	49.7

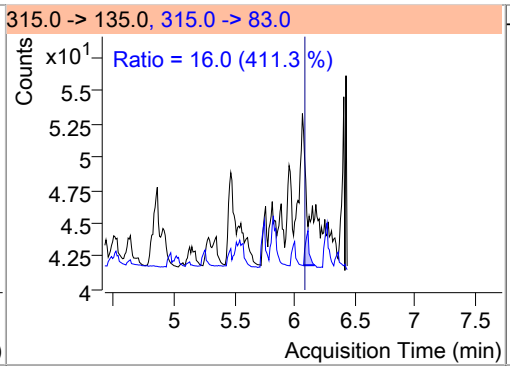


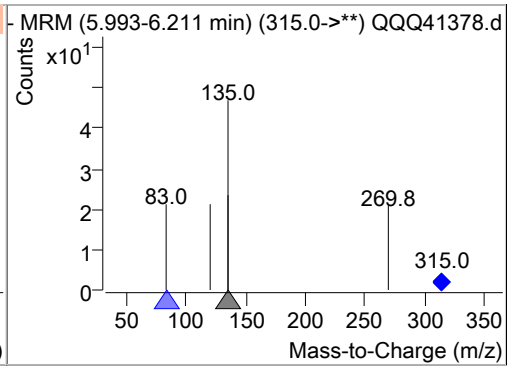




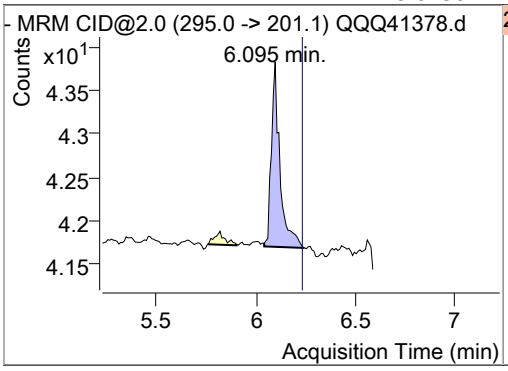
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0009	6.07	-0.01	33	315.0 -> 83.0	16.0	3.1	4.7

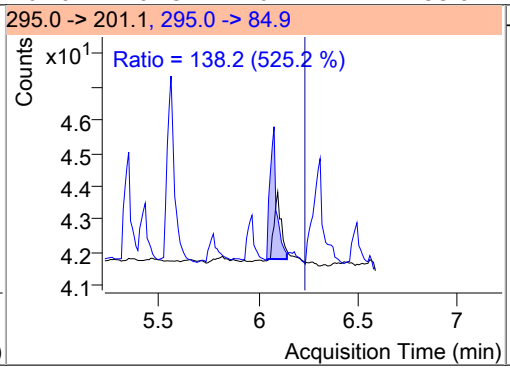


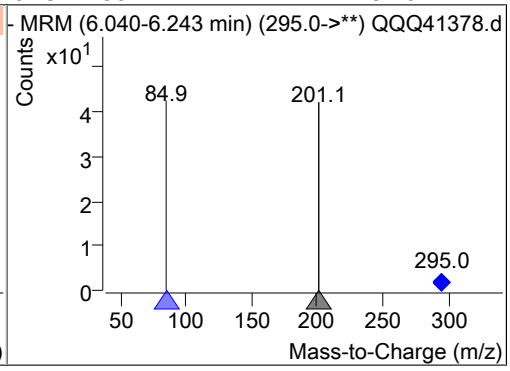




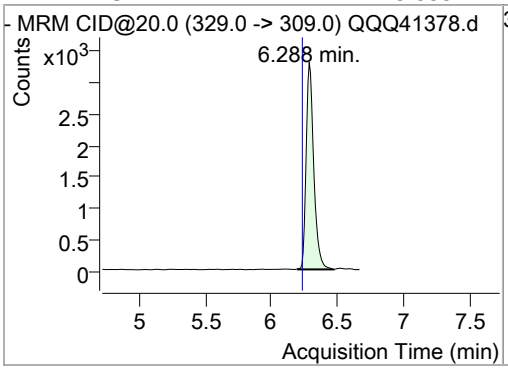
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0130	6.10	-0.13	6	295.0 -> 84.9	138.2	21.1	31.6

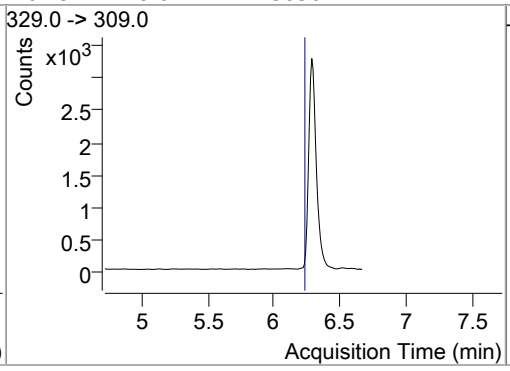


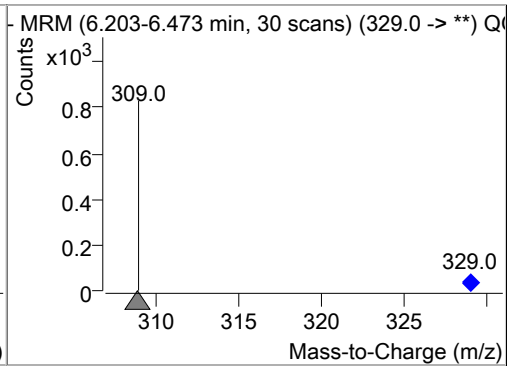




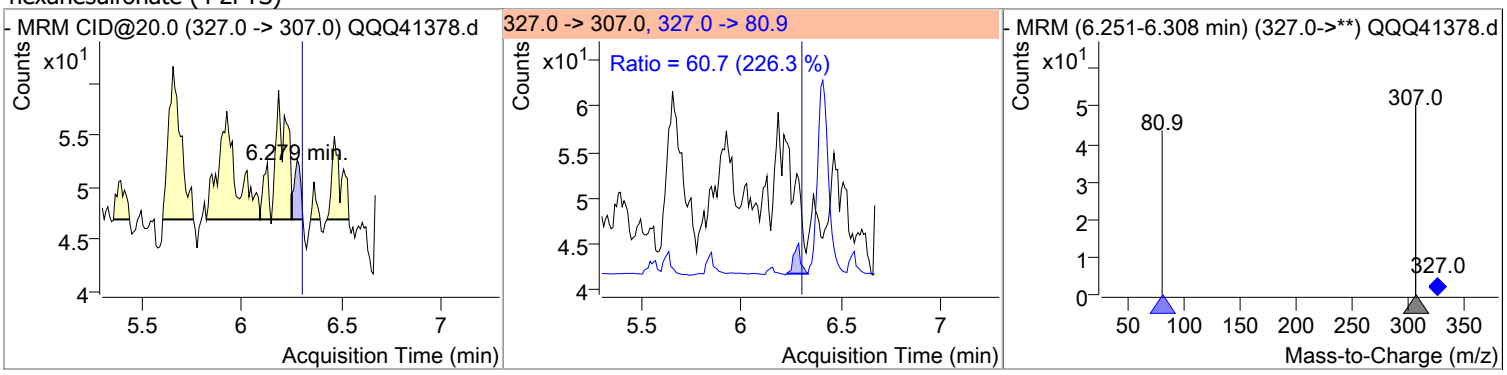
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	3.5552	6.29	-0.01	13036				



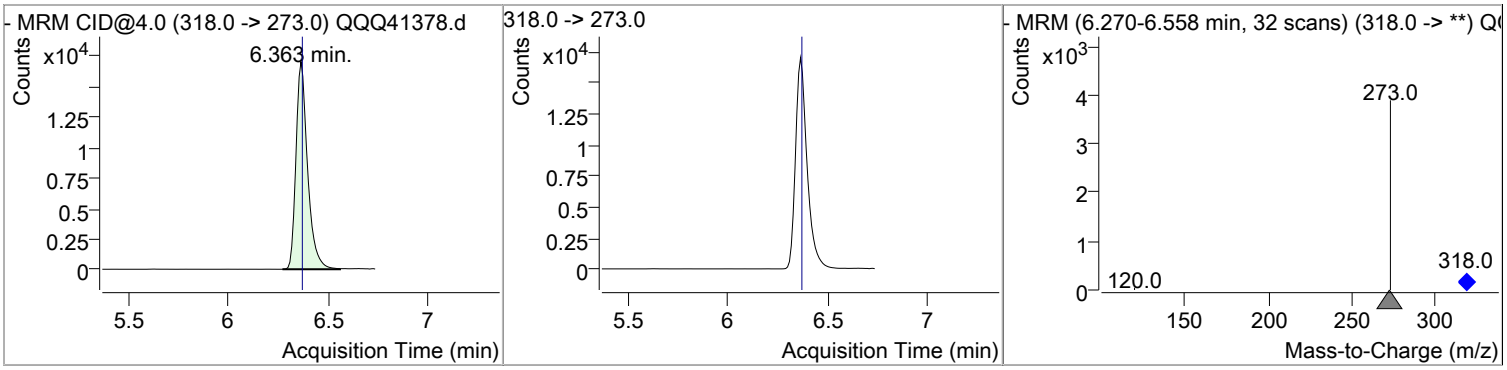




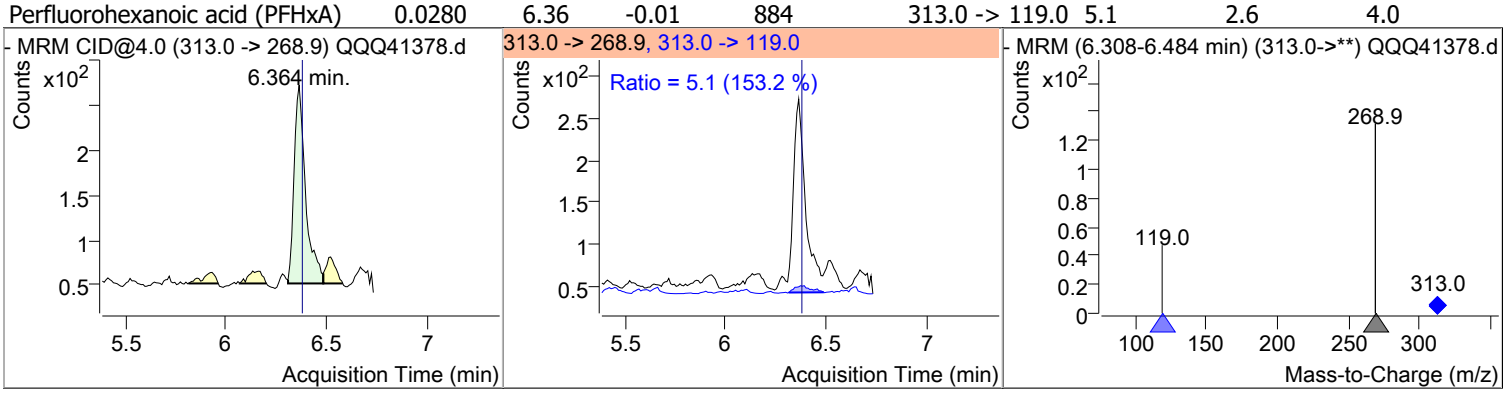
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0036	6.28	-0.02	13	327.0 -> 80.9	60.7	21.5	32.2



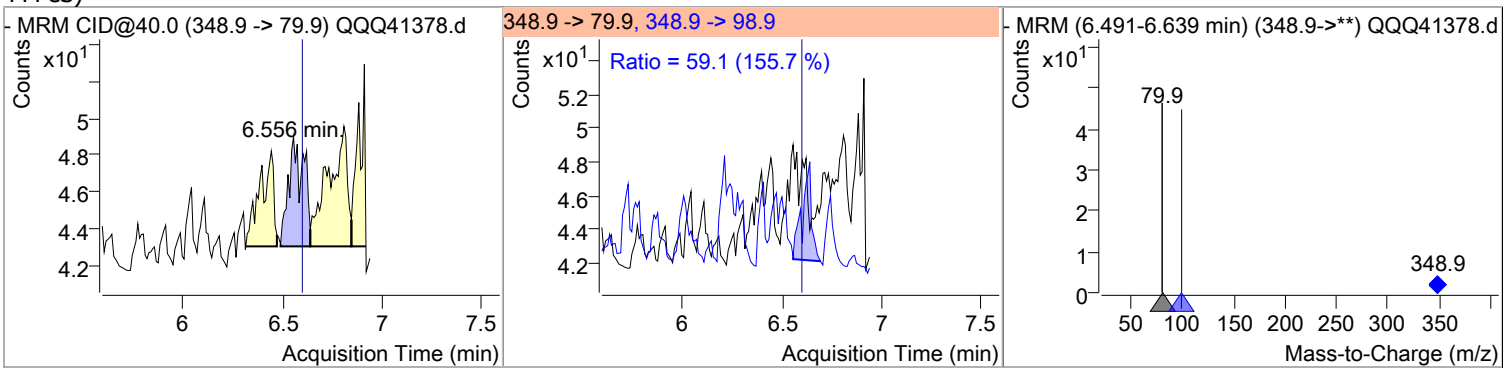
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.2992	6.36	-0.01	68393				



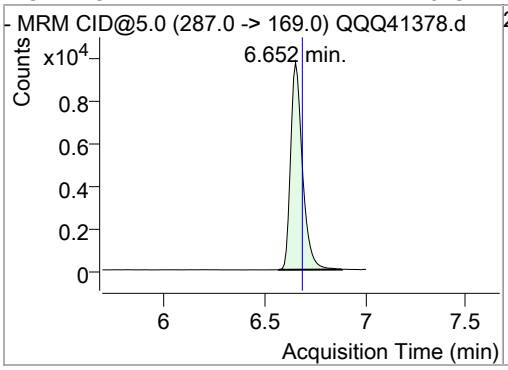
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0280	6.36	-0.01	884	313.0 -> 119.0	5.1	2.6	4.0

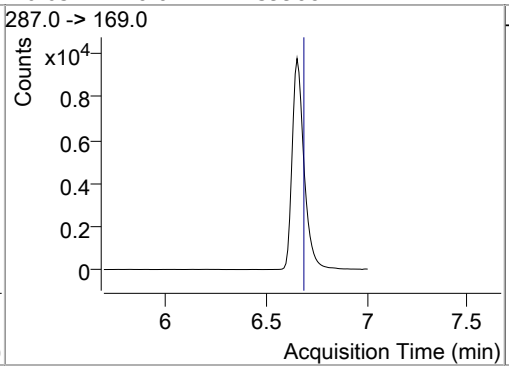


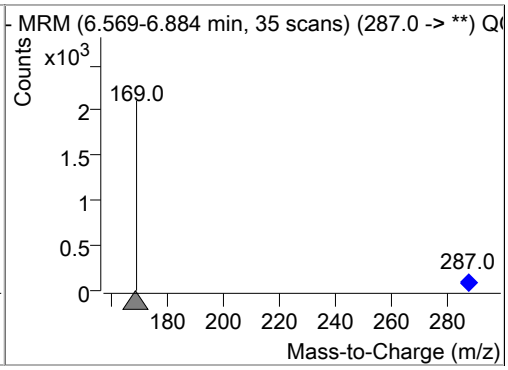
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0049	6.56	-0.04	32	348.9 -> 98.9	59.1	30.4	45.6



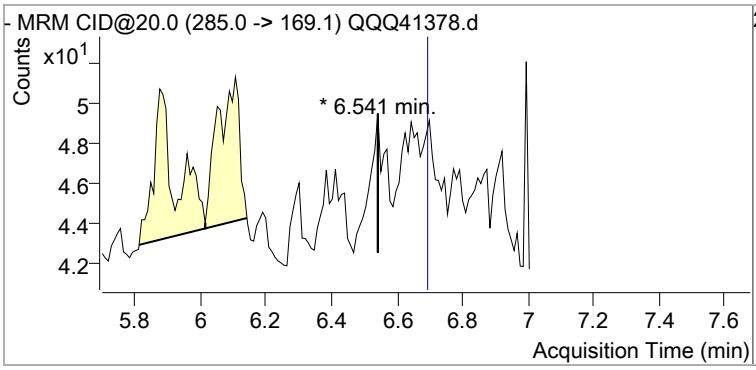
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	11.0132	6.65	-0.04	39908				

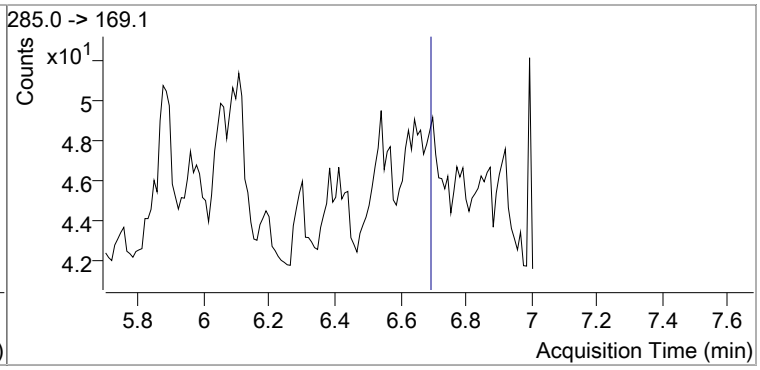




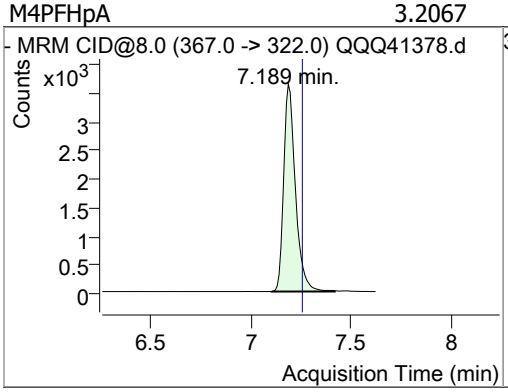


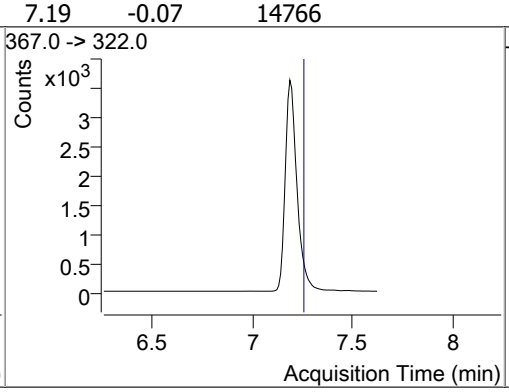
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

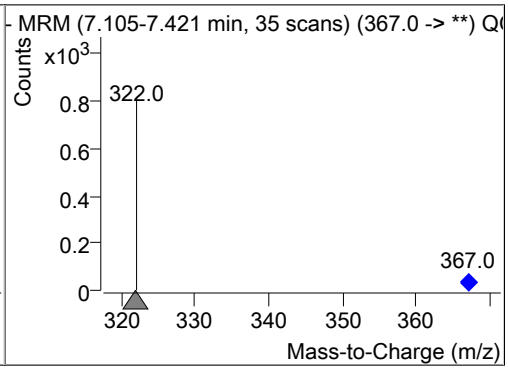




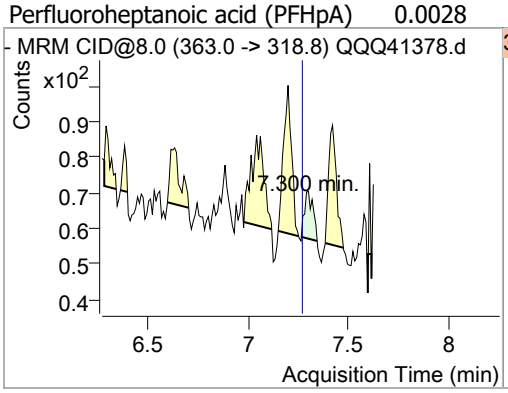
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.2067	7.19	-0.07	14766				

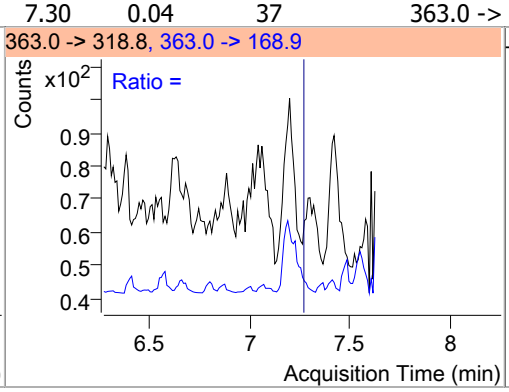


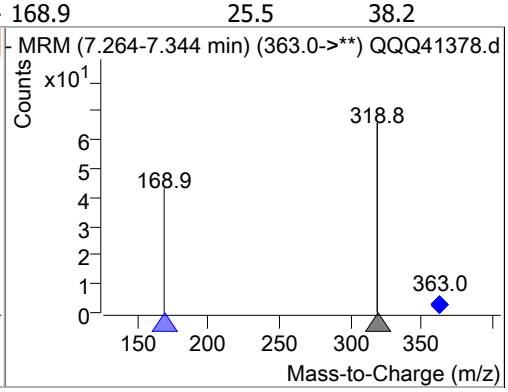




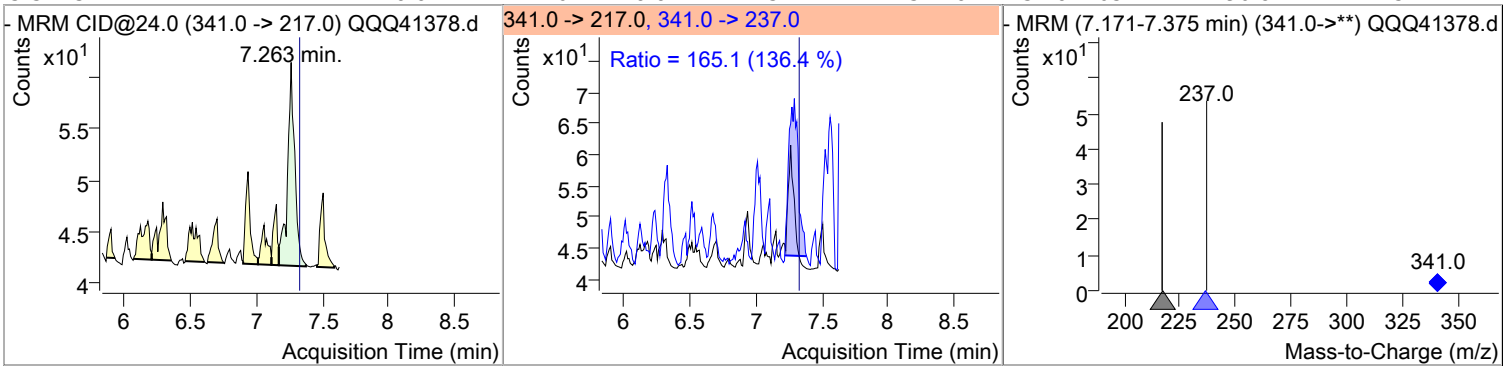
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0028	7.30	0.04	37	363.0 -> 168.9		25.5	38.2



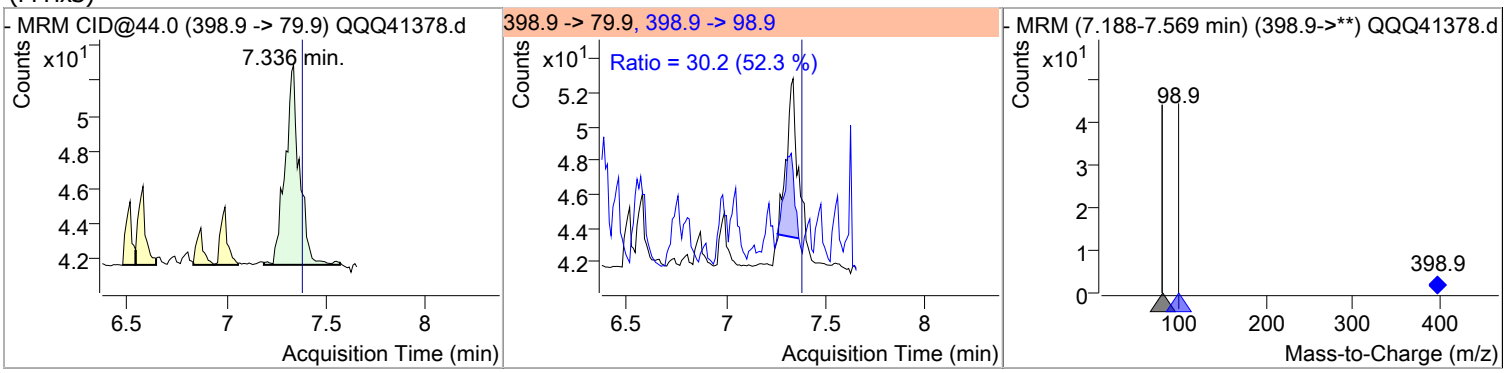




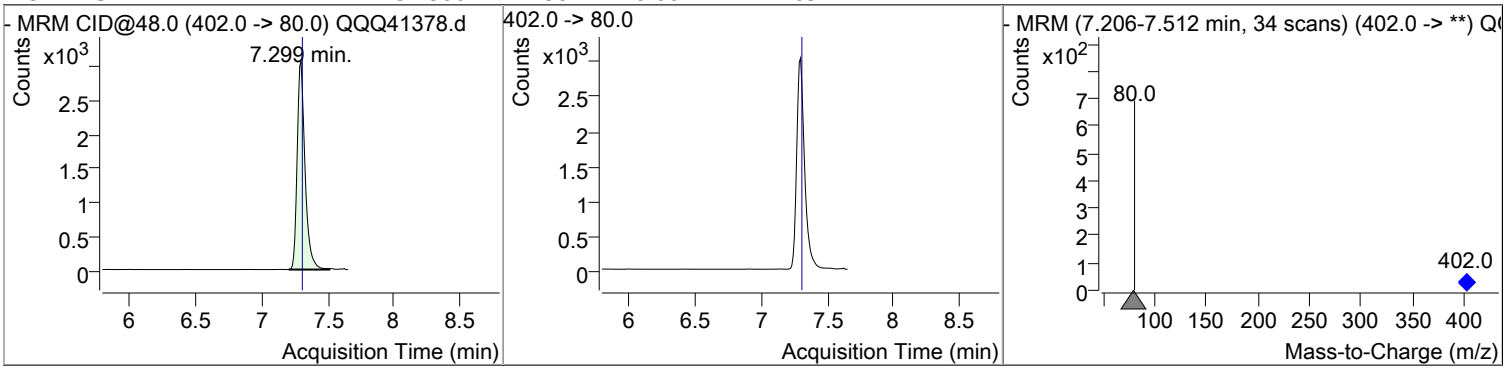
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.0171	7.26	-0.07	75	341.0 -> 237.0	165.1	96.8	145.2



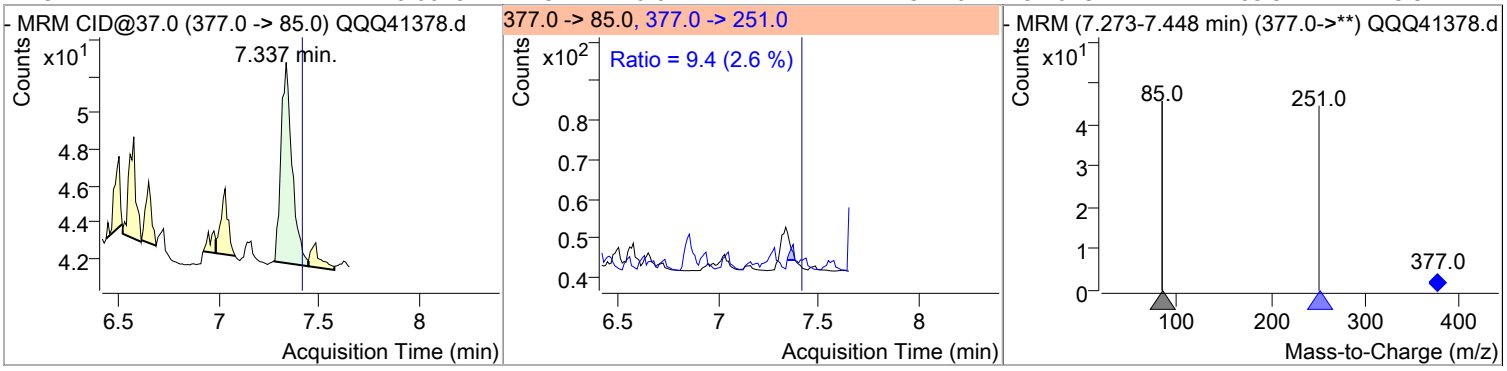
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0091	7.34	-0.04	55	398.9 -> 98.9	30.2	46.2	69.3



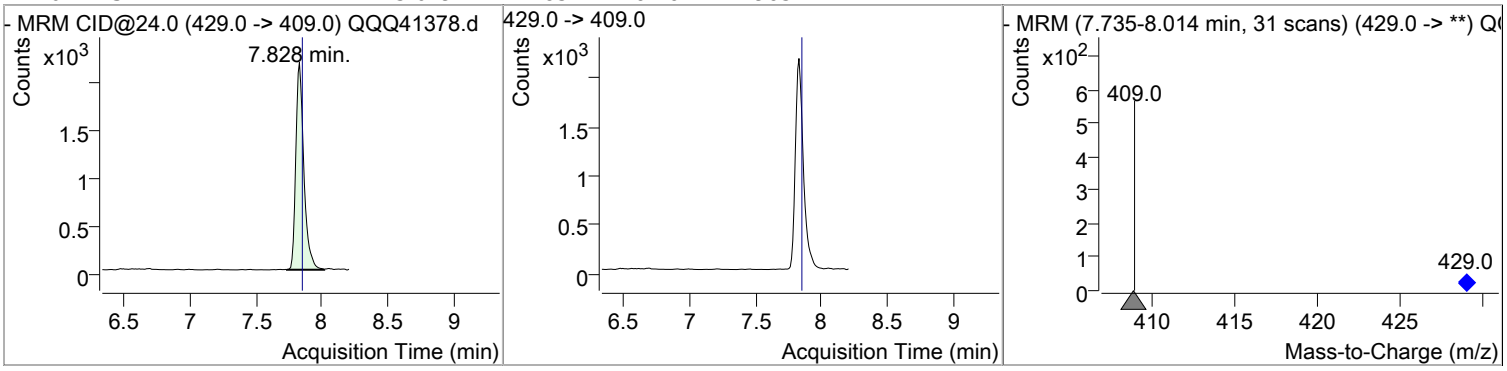
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	3.2386	7.30	-0.08	12409				



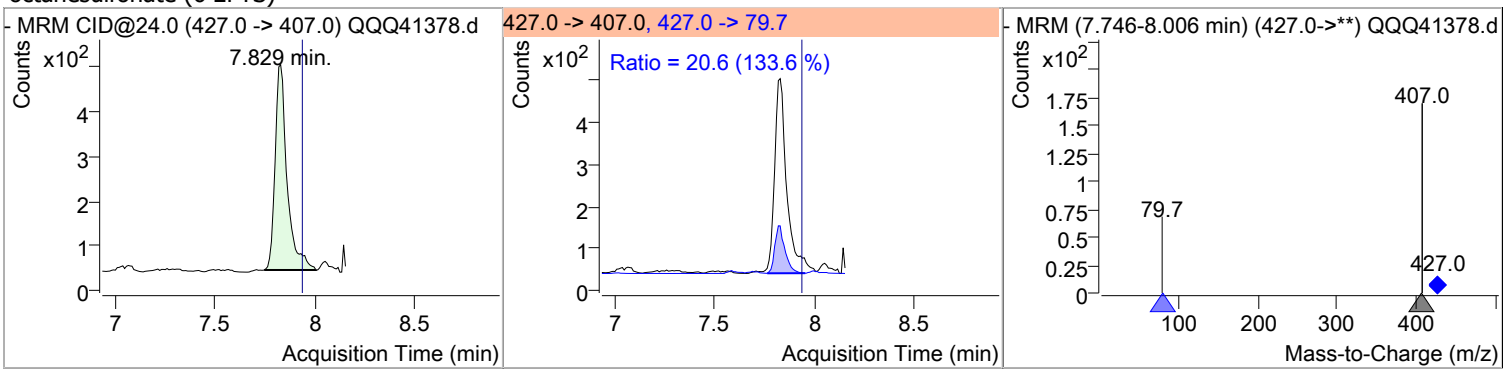
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0048	7.34	-0.07	42	377.0 -> 251.0	9.4	283.9	425.9



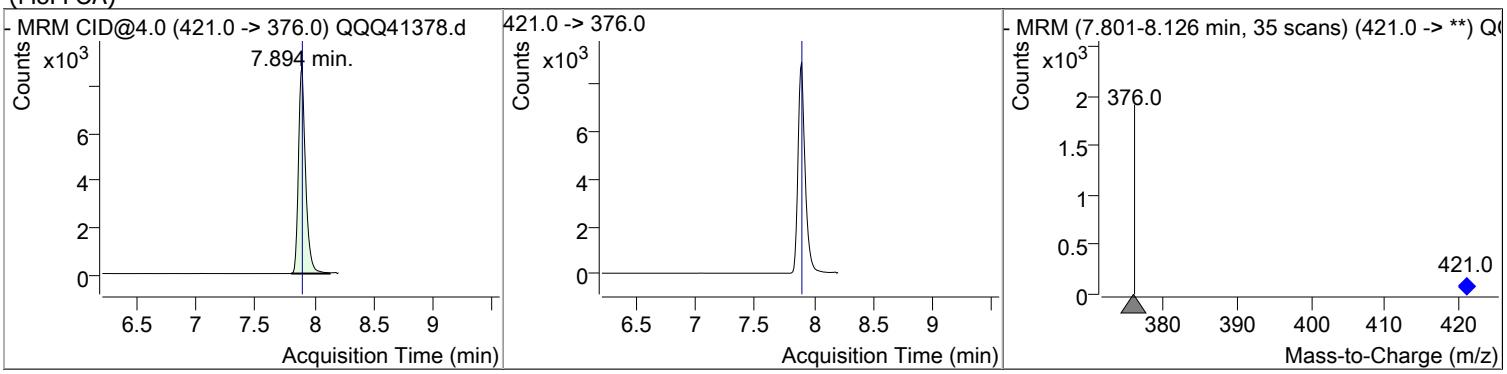
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	3.6791	7.83	-0.10	9034				



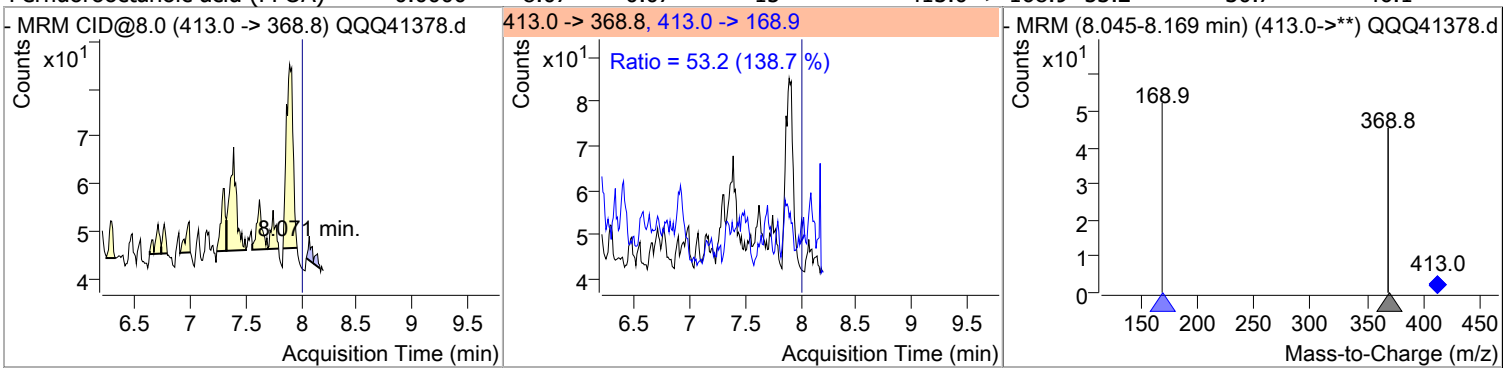
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.6399	7.83	-0.10	1918	427.0 -> 79.7	20.6	12.3	18.5



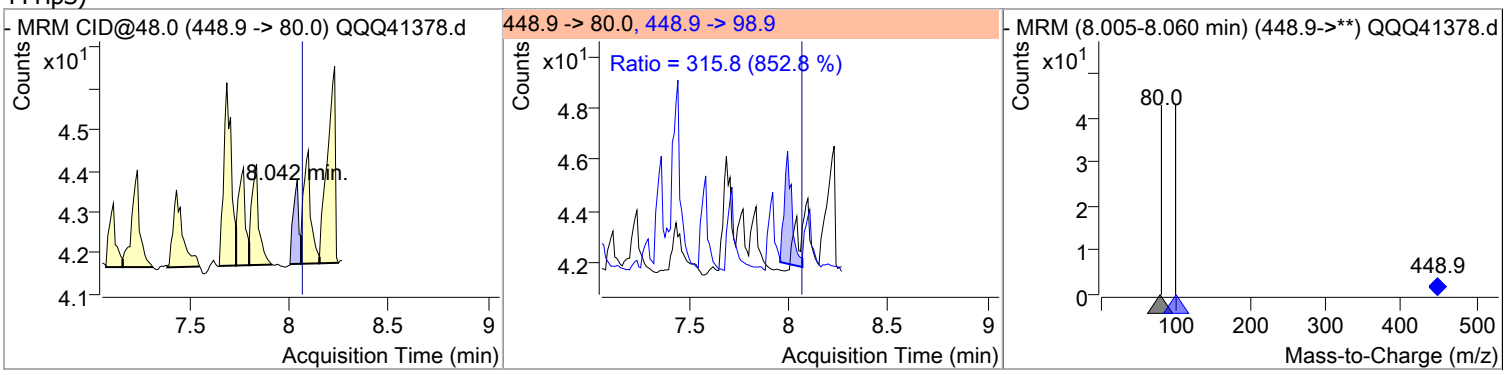
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	3.2039	7.89	-0.10	36601				



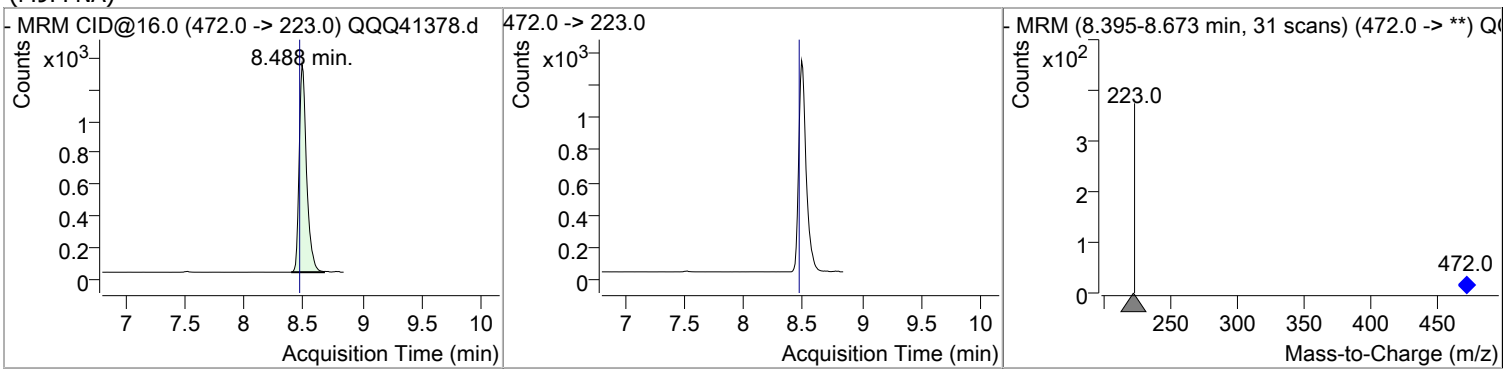
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	8.07	0.07	15	413.0 -> 168.9	53.2	30.7	46.1



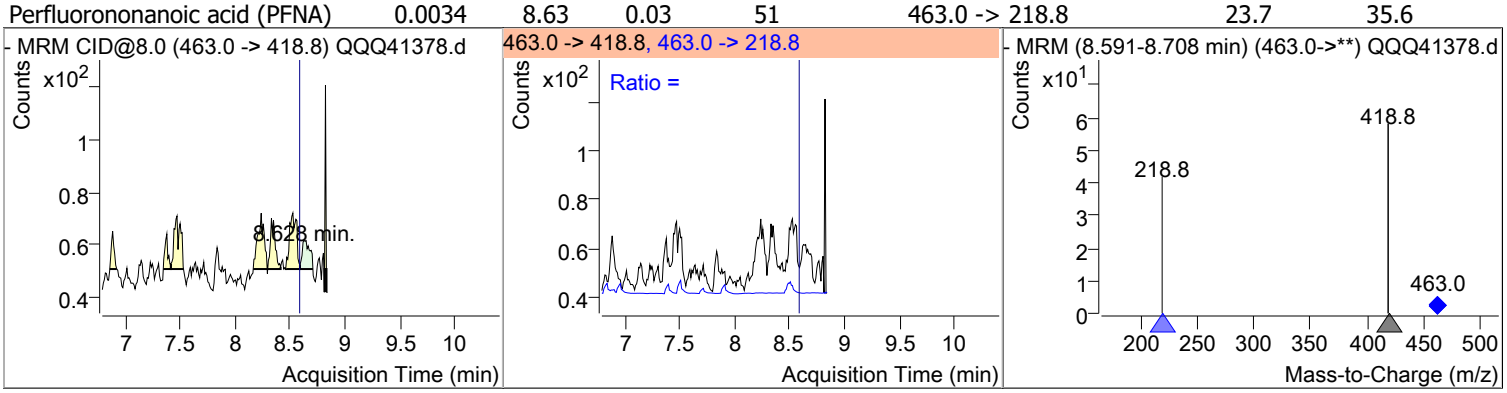
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0007	8.04	-0.02	4	448.9 -> 98.9	315.8	29.6	44.4



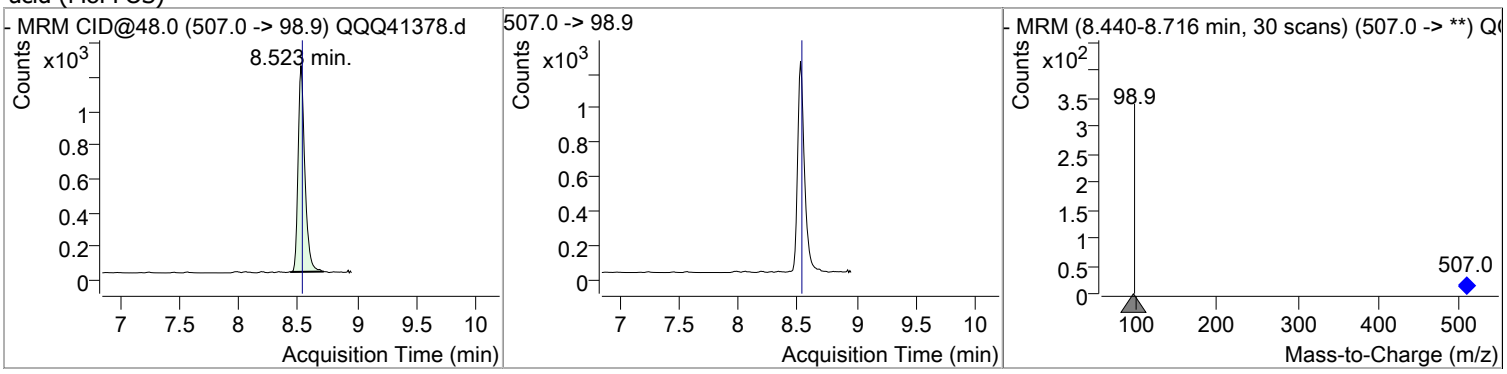
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.5700	8.49	-0.10	5755				



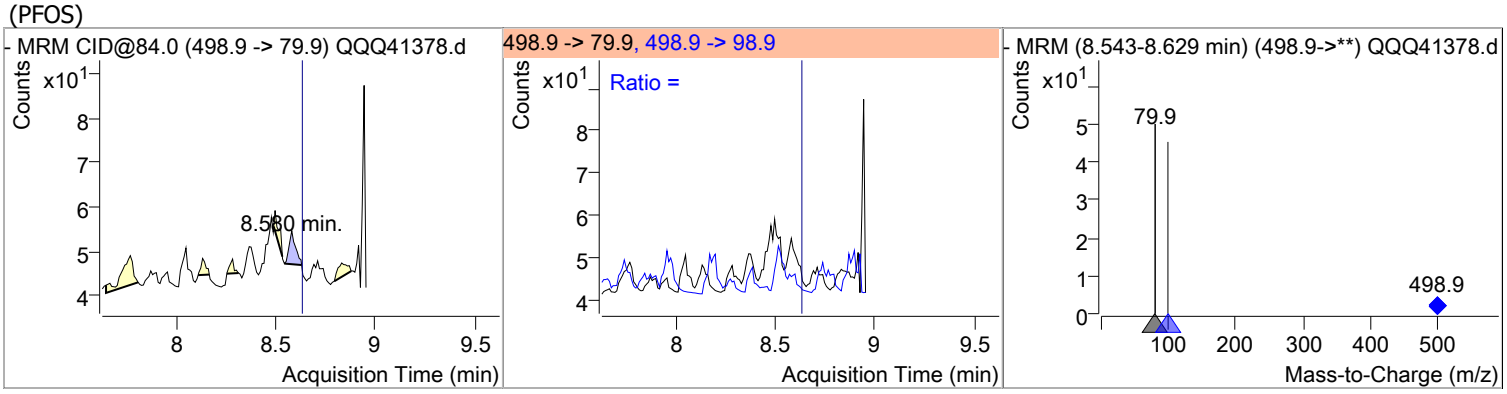
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0034	8.63	0.03	51	463.0 -> 218.8		23.7	35.6



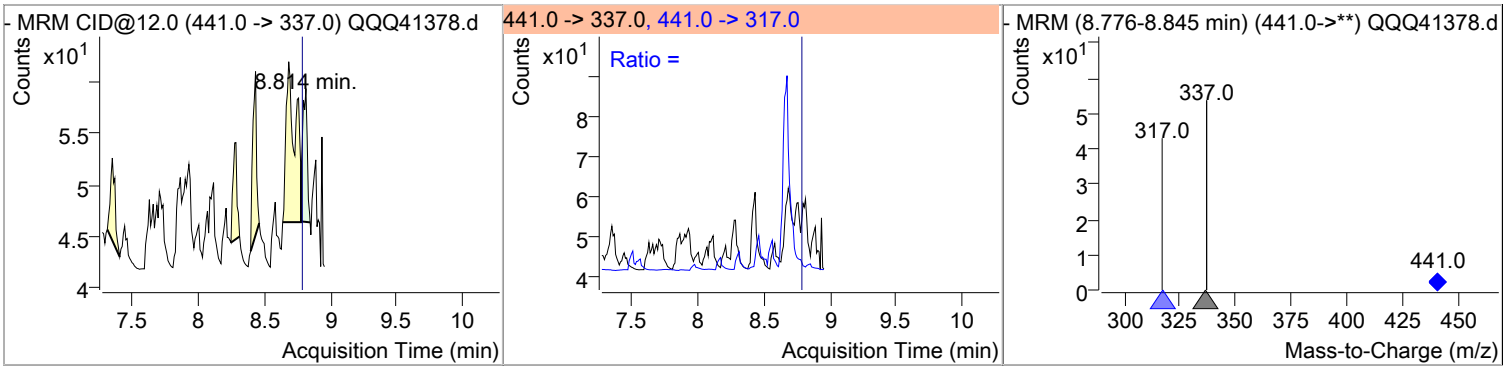
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.7413	8.52	-0.10	4873				



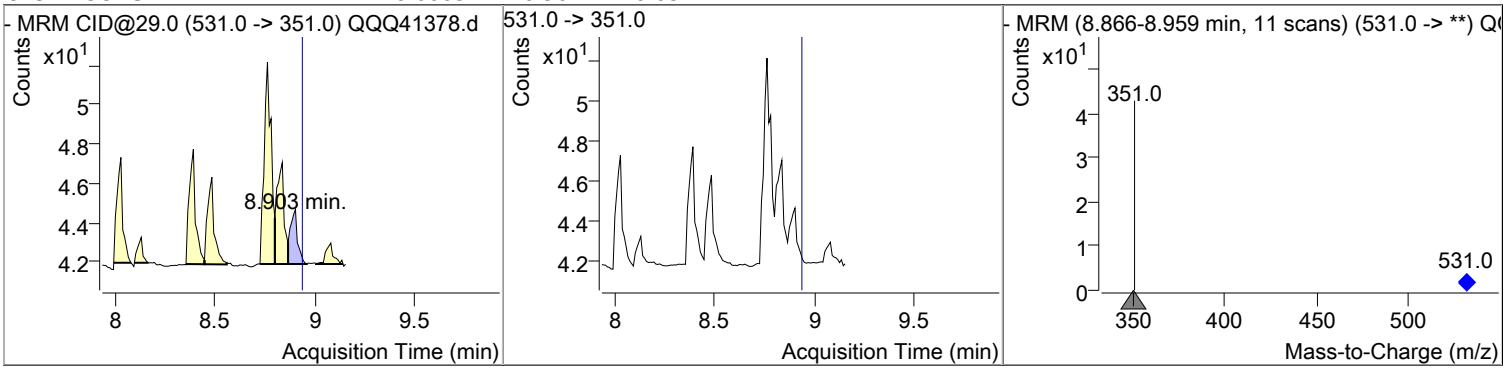
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.58	-0.05	17	498.9 -> 98.9		45.5	68.3



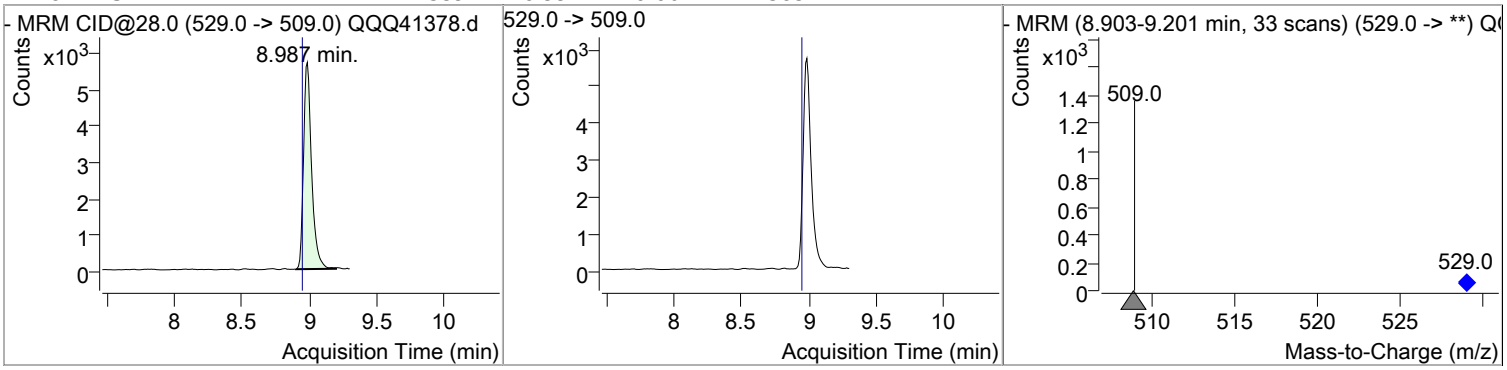
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.0054	8.81	0.04	32	441.0 -> 317.0		75.4	113.1



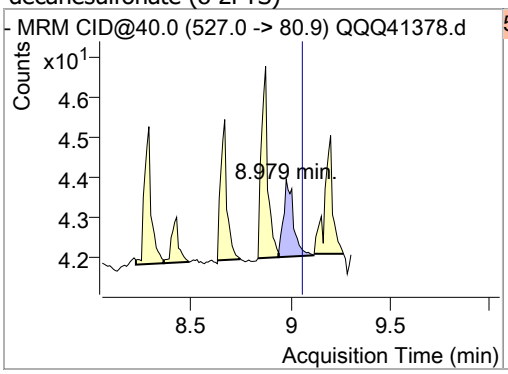
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0003	8.90	-0.03	7				

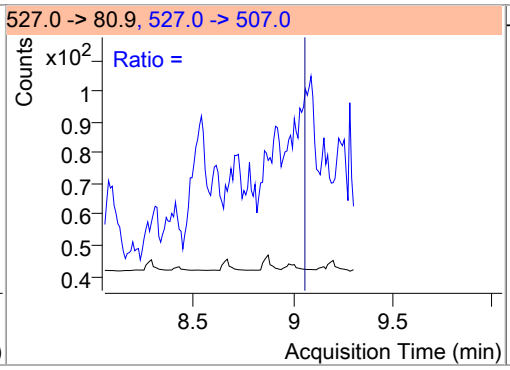


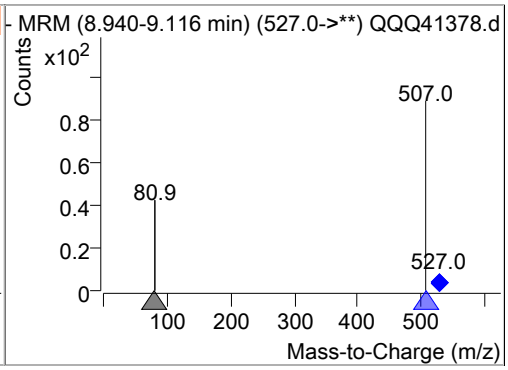
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.1359	8.99	-0.06	23851				



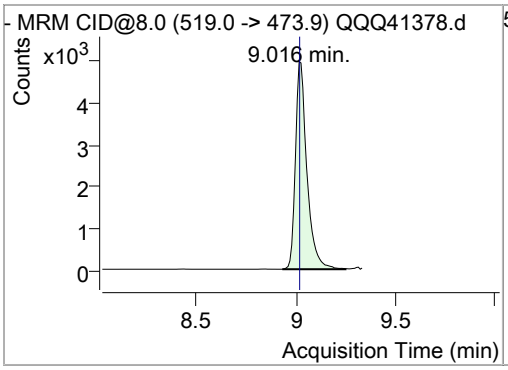
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0058	8.98	-0.07	7	527.0 -> 507.0		318.3	477.4

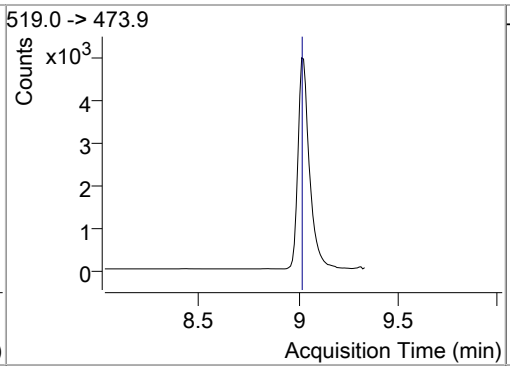


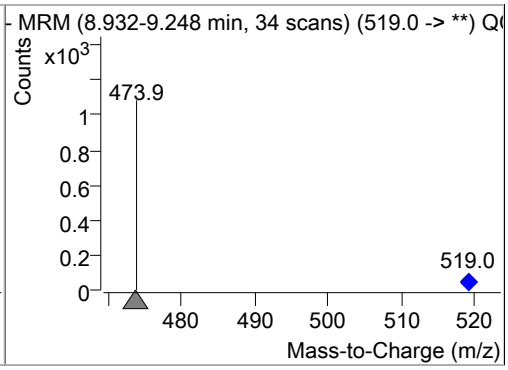




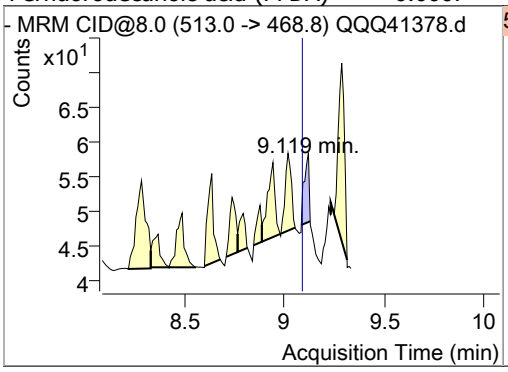
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.3670	9.02	-0.07	19745				

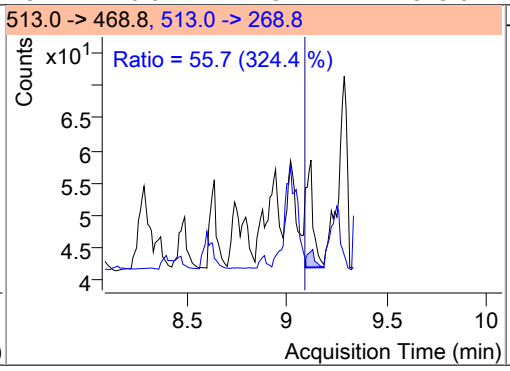


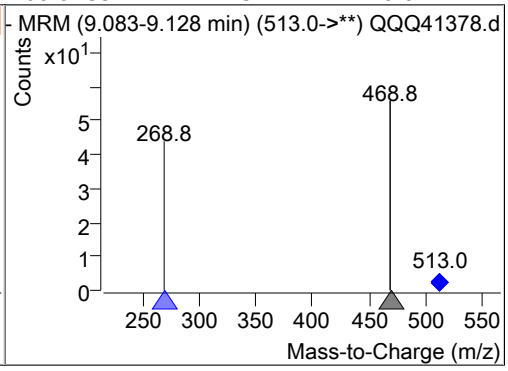




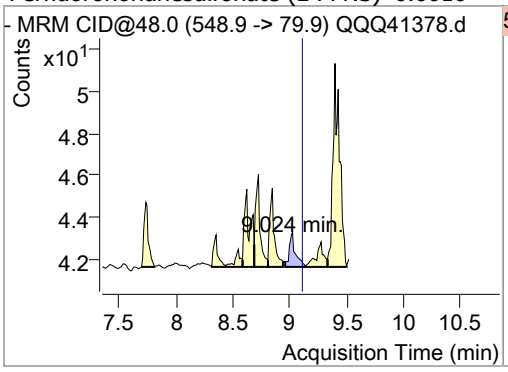
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0007	9.12	0.04	13	513.0 -> 268.8	55.7	13.7	20.6

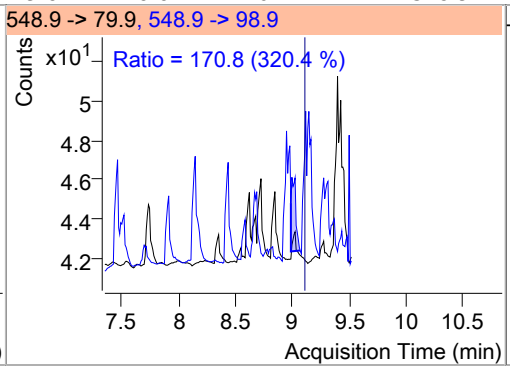


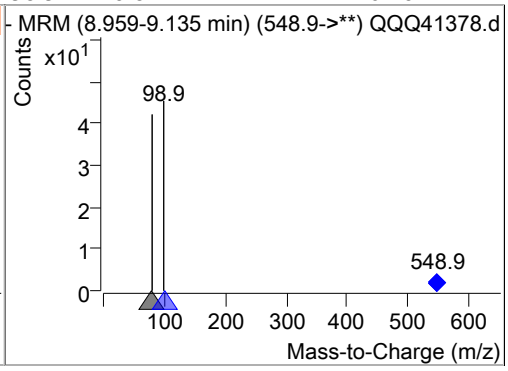




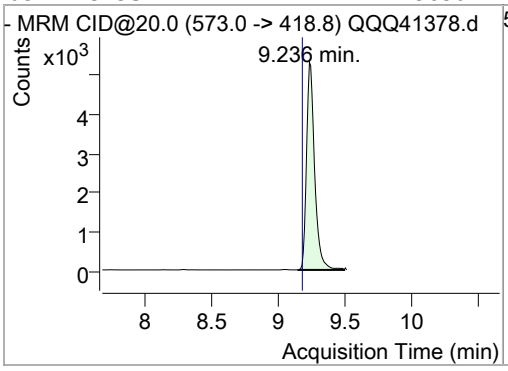
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0016	9.02	-0.07	6	548.9 -> 98.9	170.8	42.7	64.0

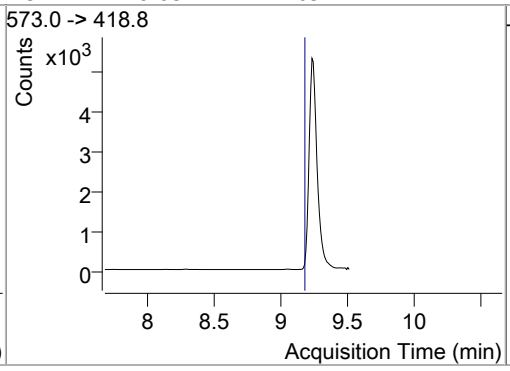


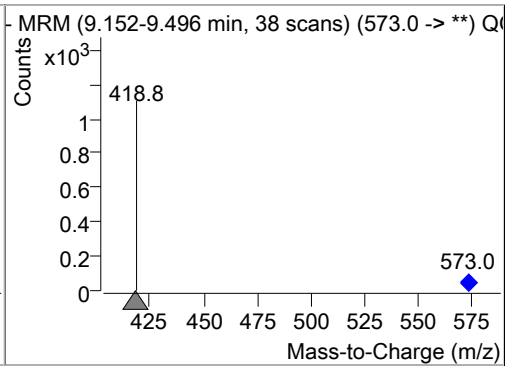




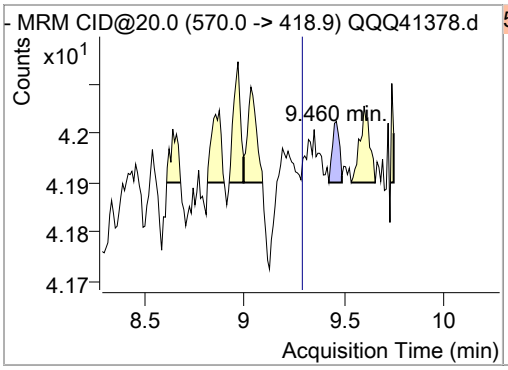
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.9056	9.24	-0.05	22469				

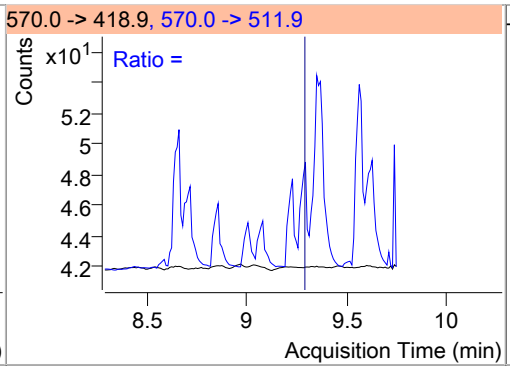


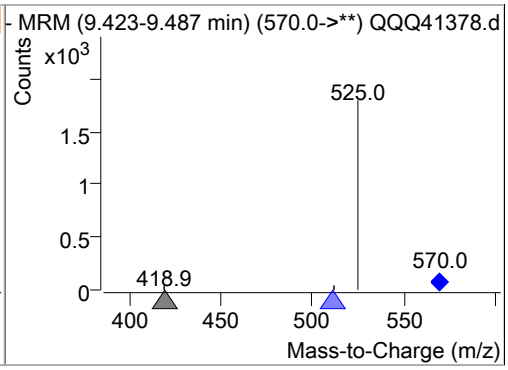




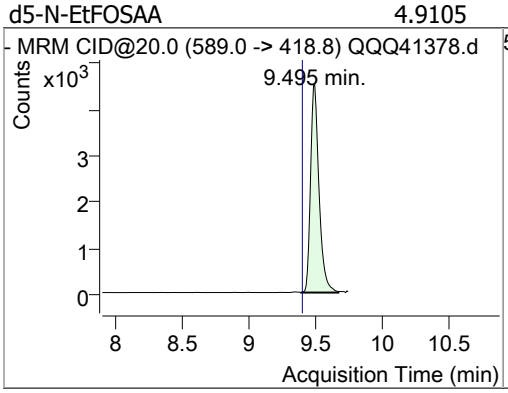
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0001	9.46	0.18	0	570.0 -> 511.9		51.6	77.4

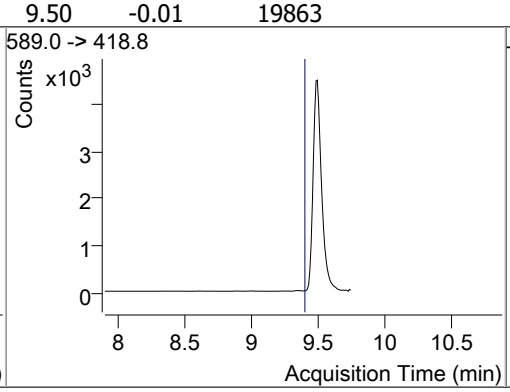


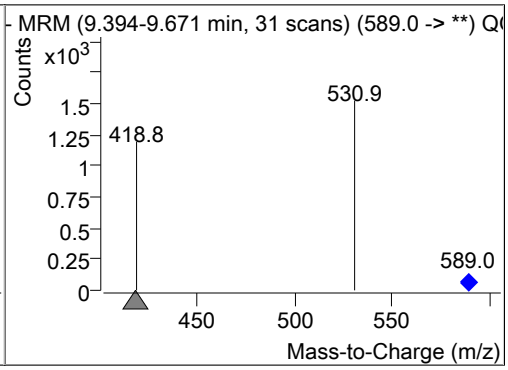




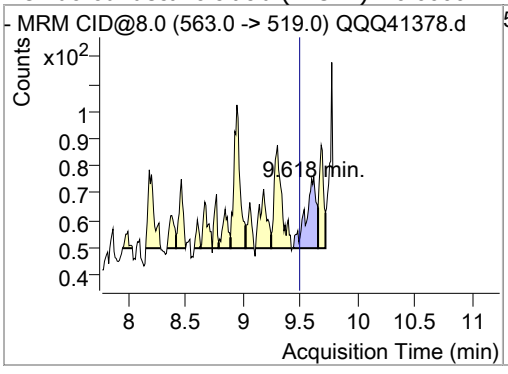
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.9105	9.50	-0.01	19863				

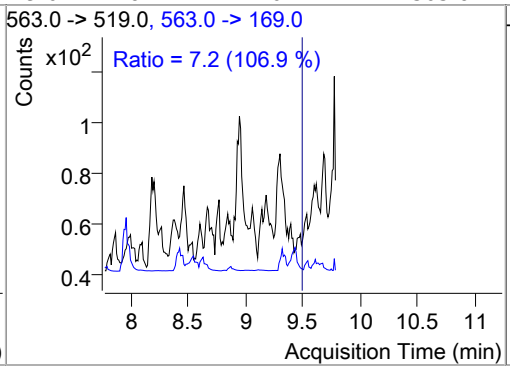


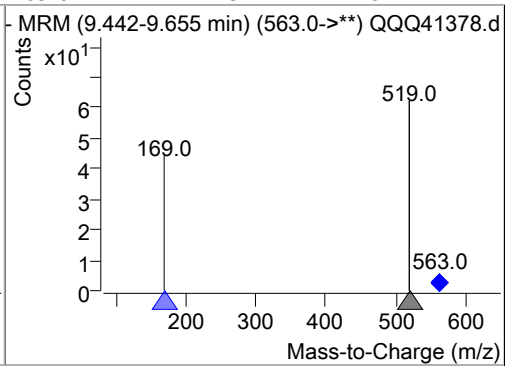




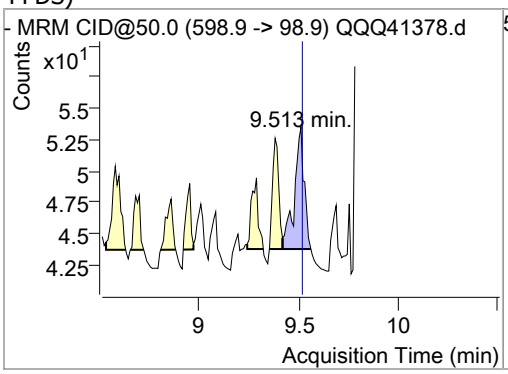
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.62	0.11	162	563.0 -> 169.0	7.2	5.4	8.1

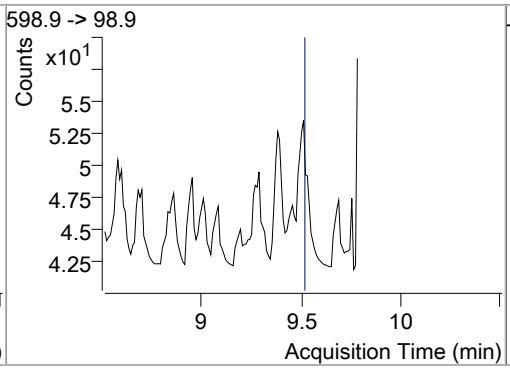


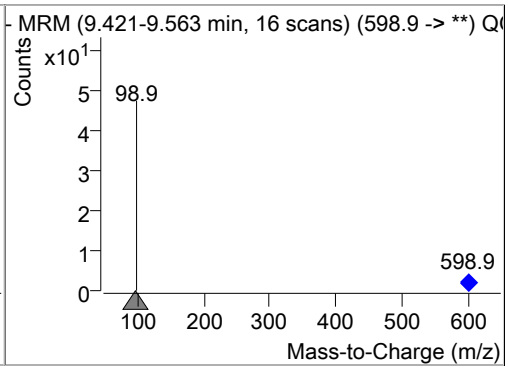




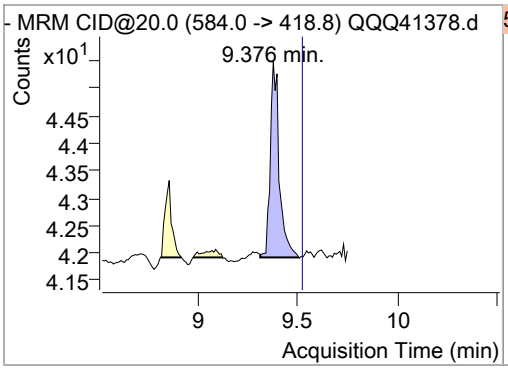
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0188	9.51	0.00	33				

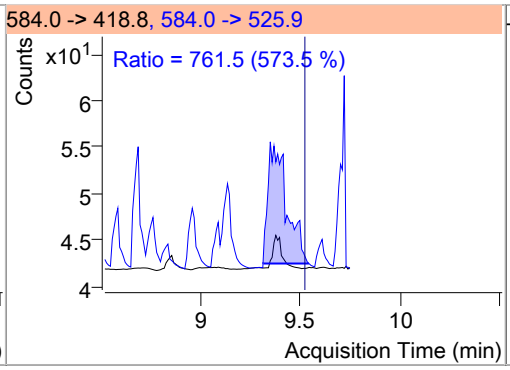


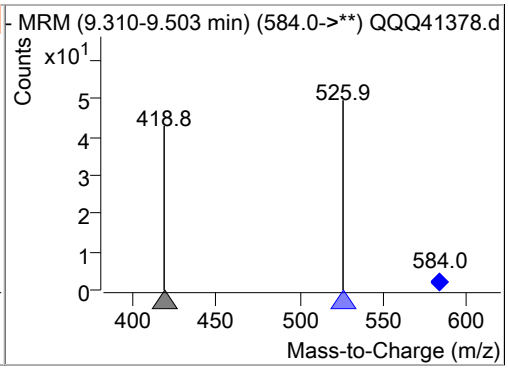




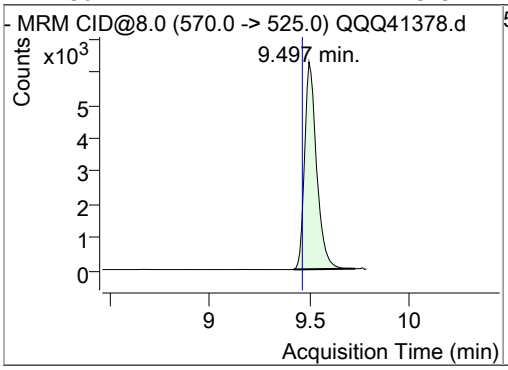
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0033	9.38	-0.14	11	584.0 -> 525.9	761.5	106.2	159.3

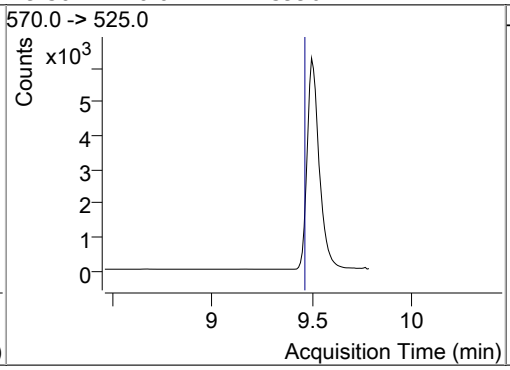


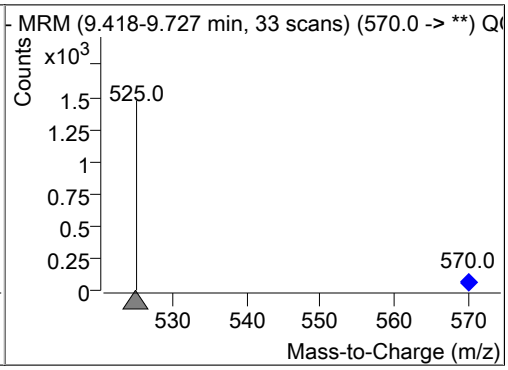




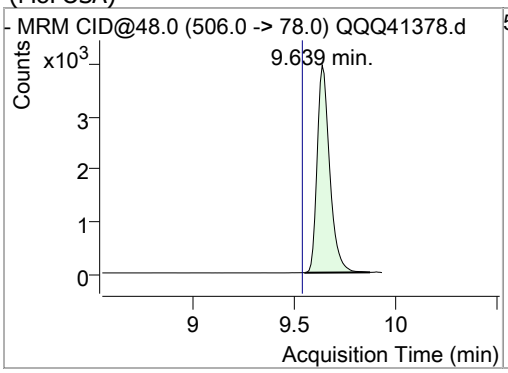
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.3297	9.50	-0.02	25996				

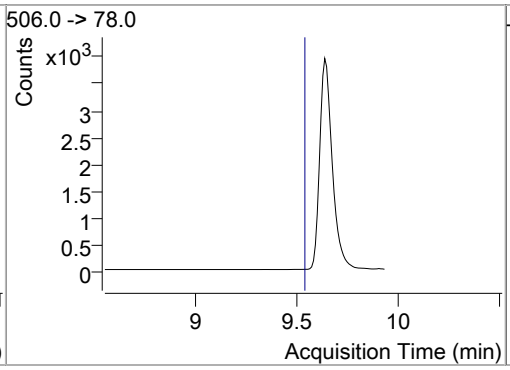


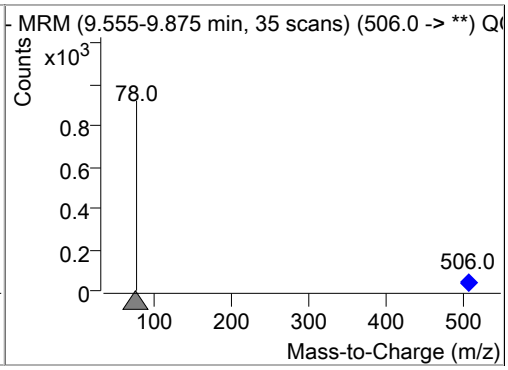




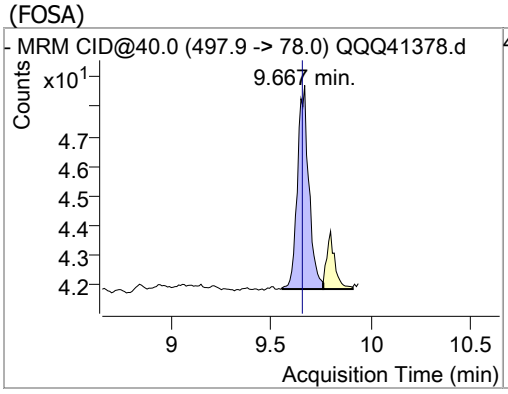
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.9065	9.64	-0.01	16929				

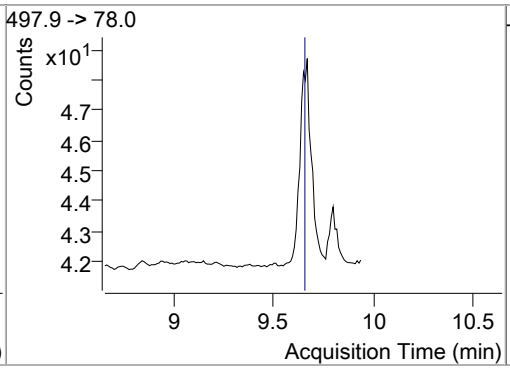


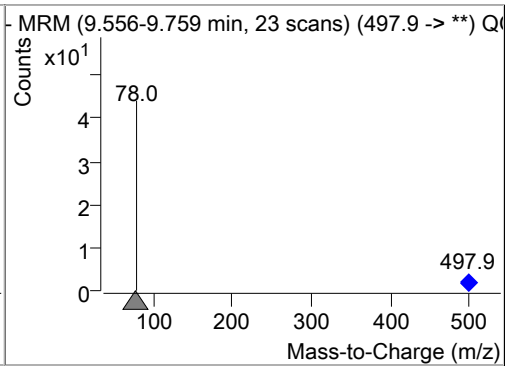




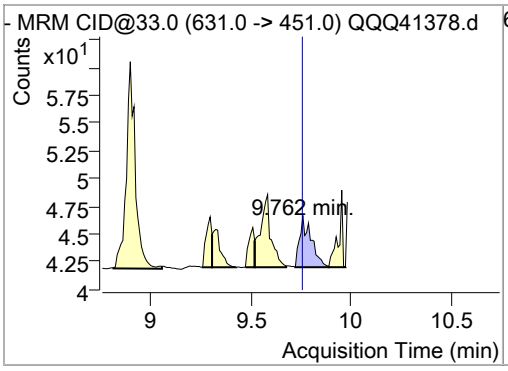
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0028	9.67	0.02	27				

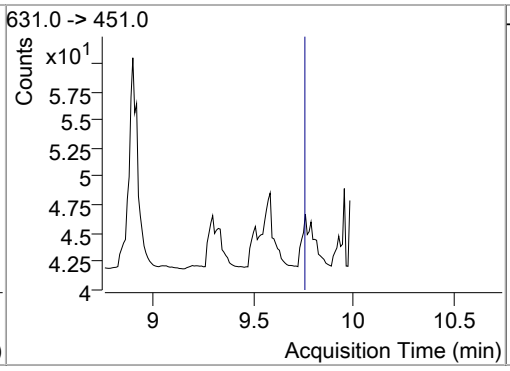


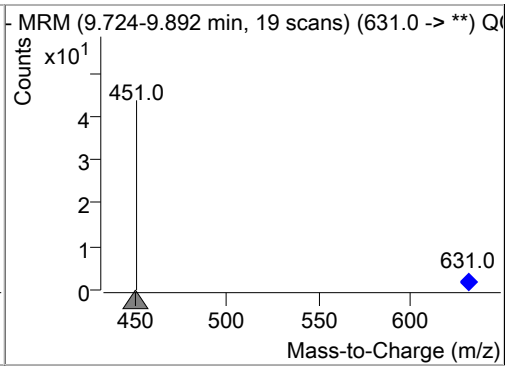




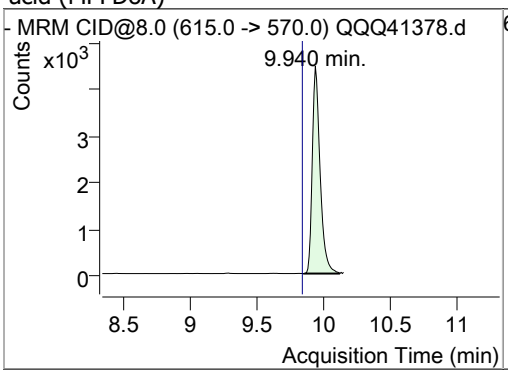
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0011	9.76	0.01	19				

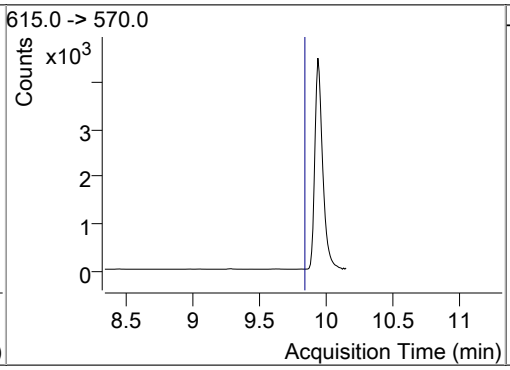


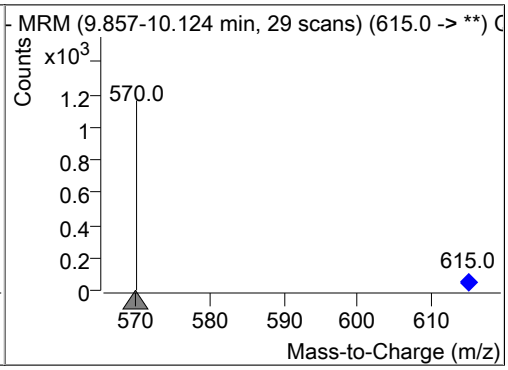




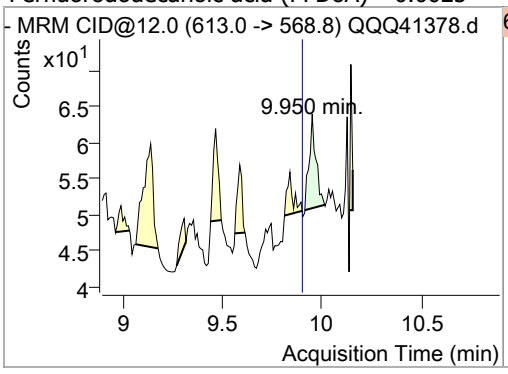
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.0555	9.94	0.05	18141				

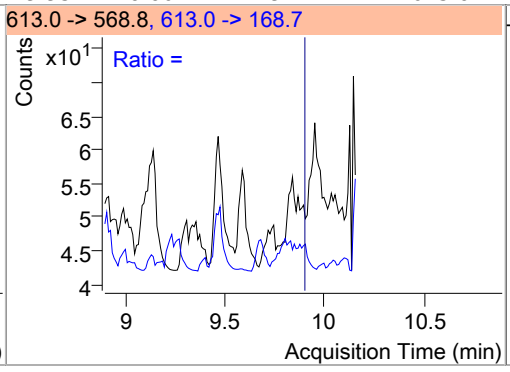


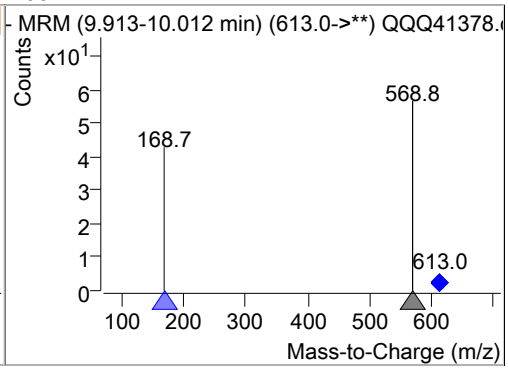




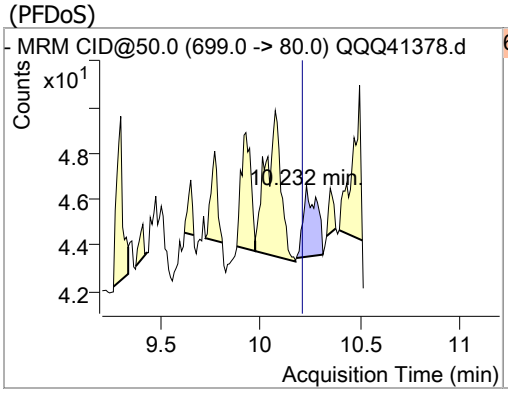
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0025	9.95	0.06	29	613.0 -> 168.7	7.4	11.2	

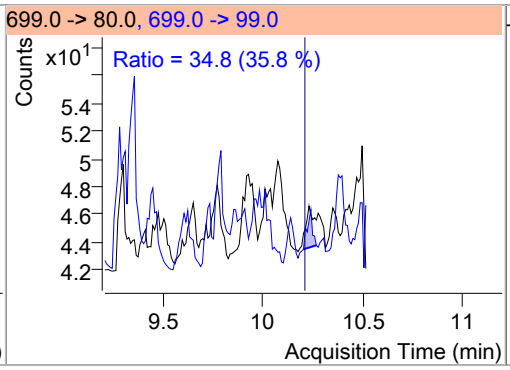


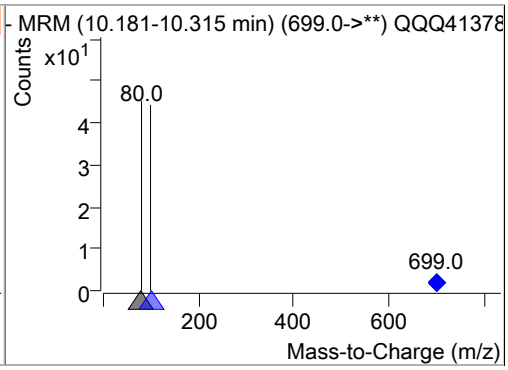




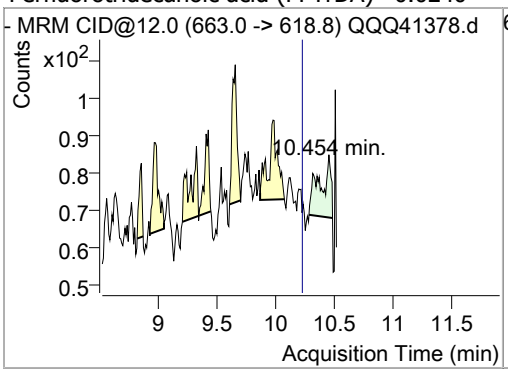
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0151	10.23	0.03	14	699.0 -> 99.0	34.8	77.6	116.4

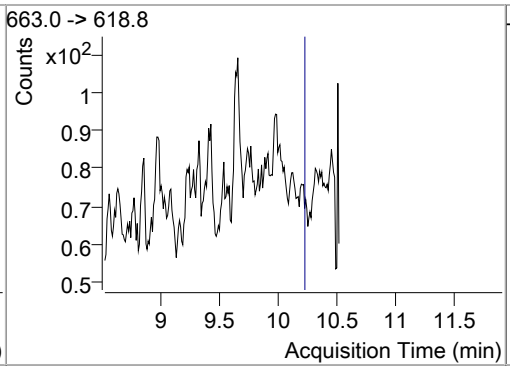


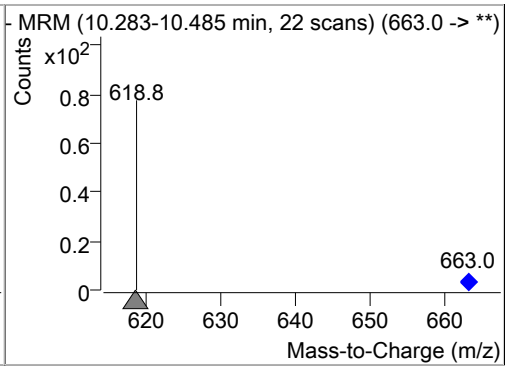




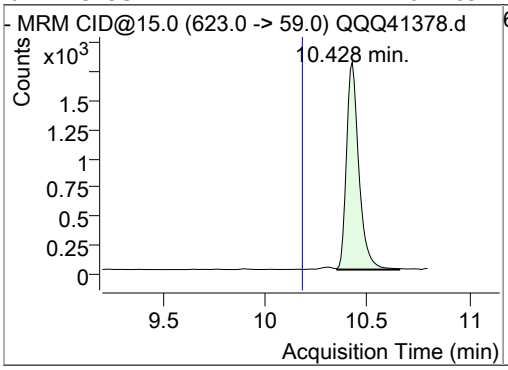
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0240	10.45	0.24	107				

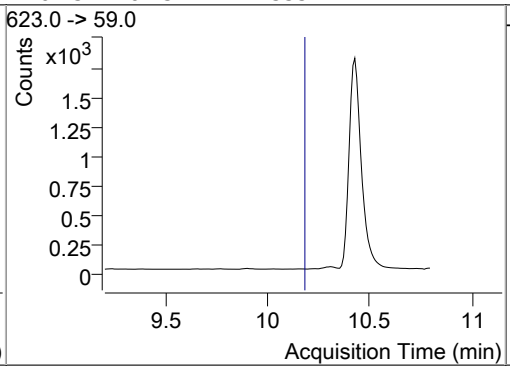


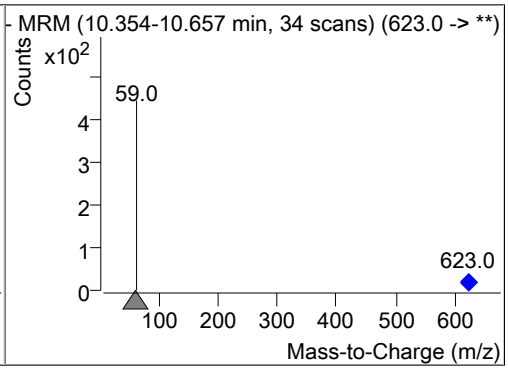




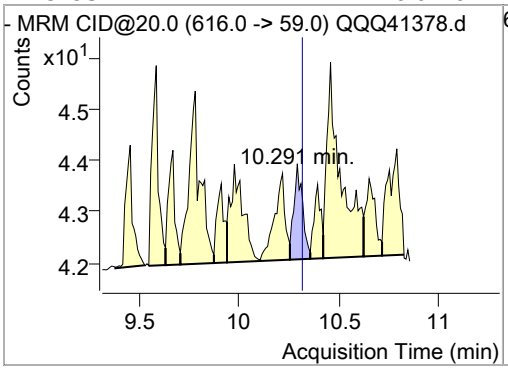
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	16.1209	10.43	0.13	7535				

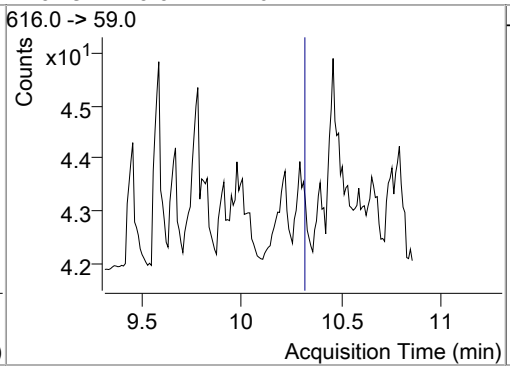


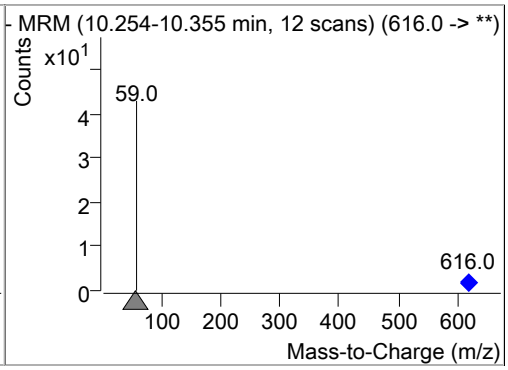




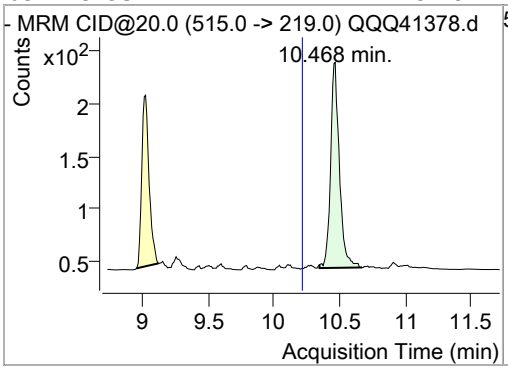
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0228	10.29	-0.02	6				

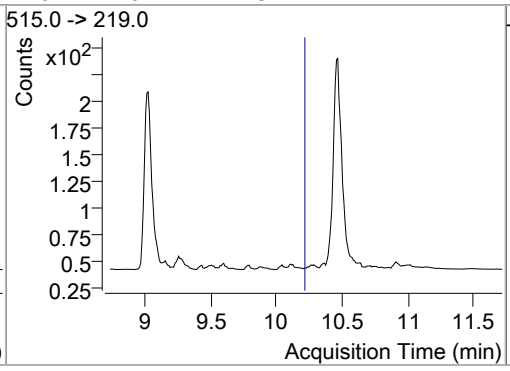


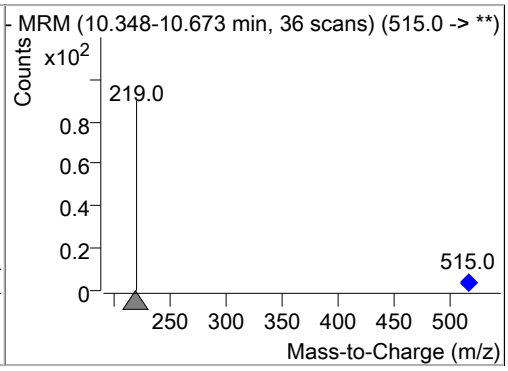




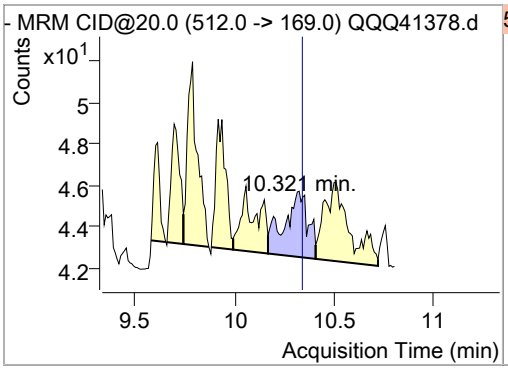
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	1.5479	10.47	0.14	911				

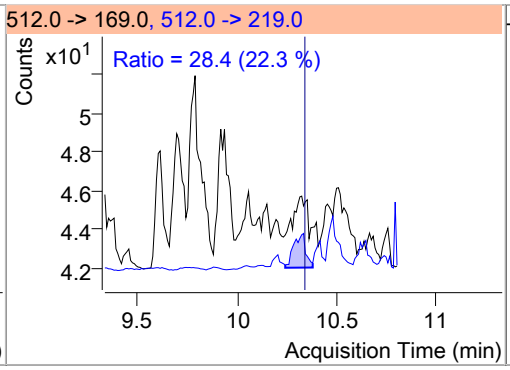


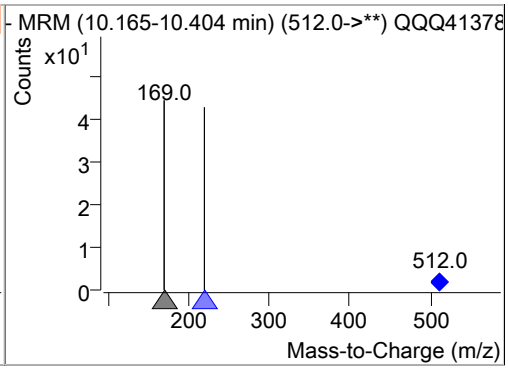




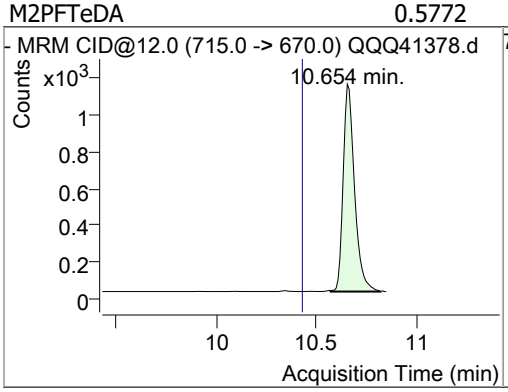
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0110	10.32	-0.01	26	512.0 -> 219.0	28.4	101.6	152.5

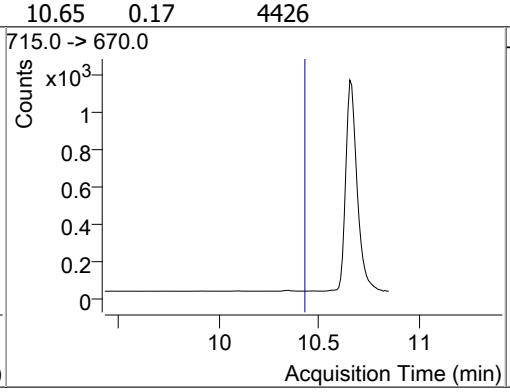


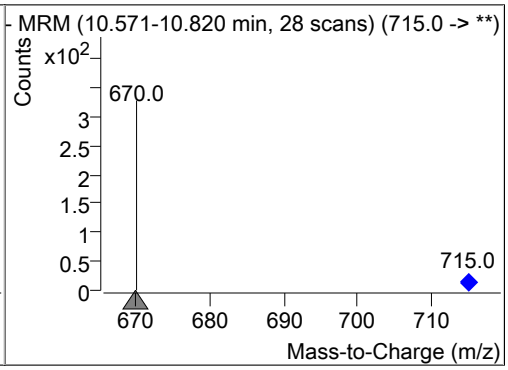




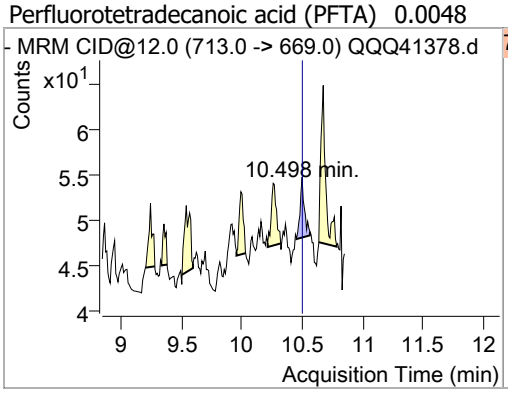
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	0.5772	10.65	0.17	4426				

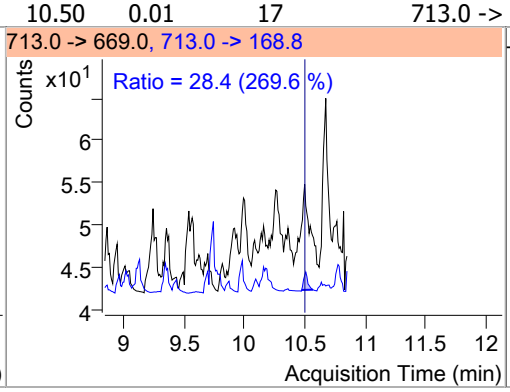


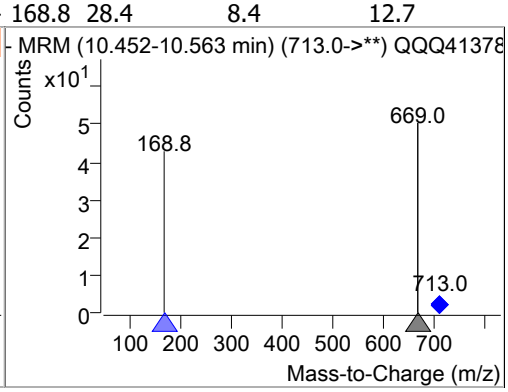




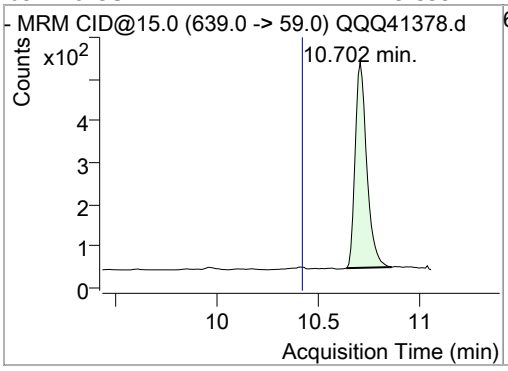
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0048	10.50	0.01	17	713.0 -> 168.8	28.4	8.4	12.7

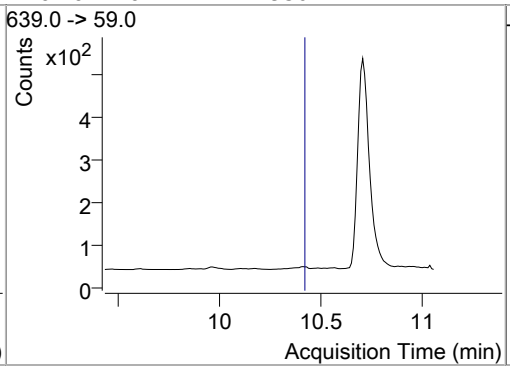


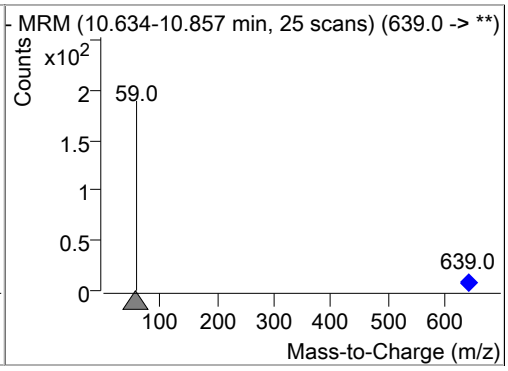




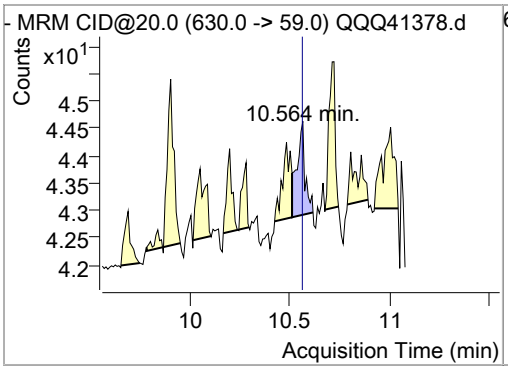
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	9.3992	10.70	0.17	1956				

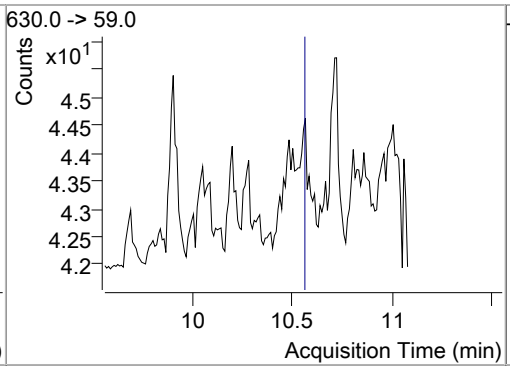


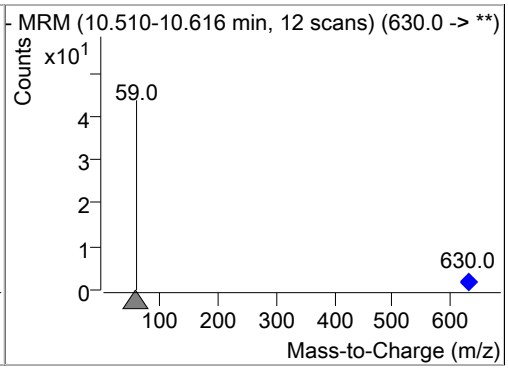




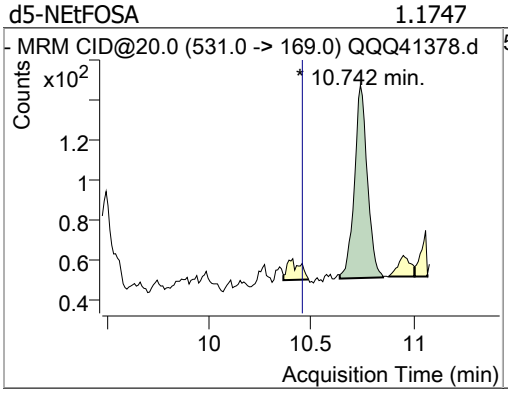
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0288	10.56	0.01	5				

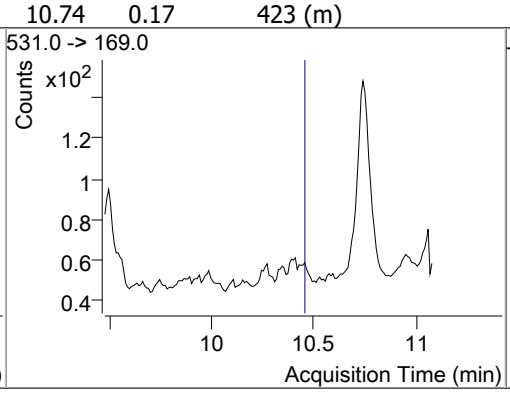


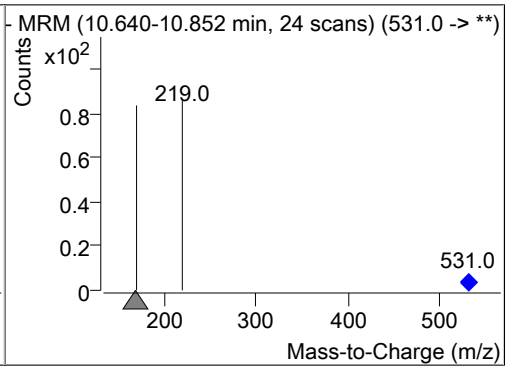




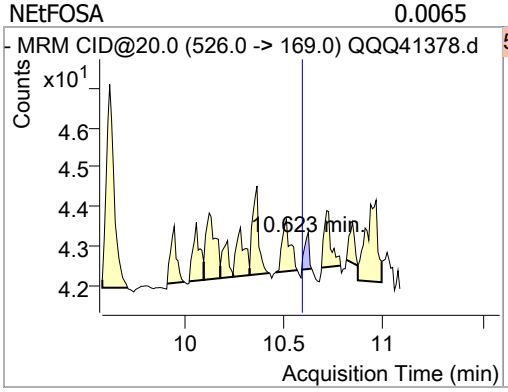
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	1.1747	10.74	0.17	423 (m)				

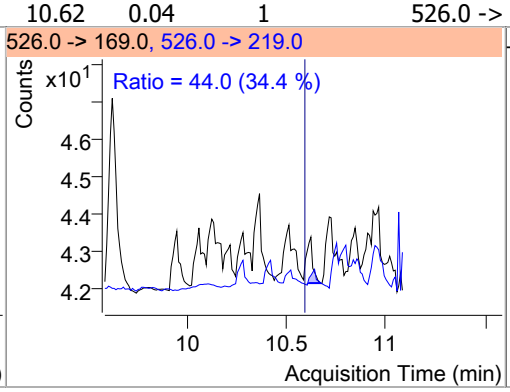


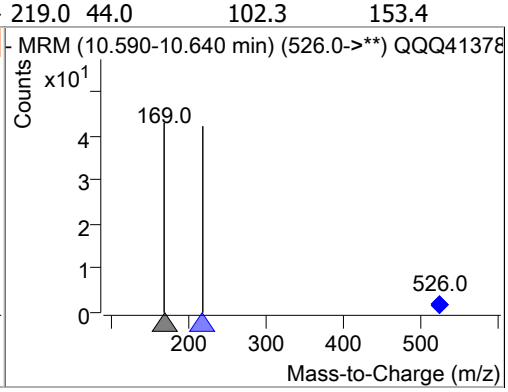




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0065	10.62	0.04	1	526.0 -> 219.0	44.0	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 1:41:33 PM	**Data File**	QQQ41378.d
Sample Type	Sample	**Sampe Name**	24F1801-03
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.416	142840	22417	0.468			1.77			16734.12
Perfluoro-n-butanoic acid (PFBA)	1.421	126	19	0.234			1.72			5.13
PFMPA	2.272	1	0	0.063			1.40			1.41
3:3FTCA	4.267	1	1	0.101			1.05			5.56
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.839	138567	22197	0.361			1.99			14091.65
Perfluoro-n-pentanoic acid (PFPeA)	4.691	12	6	0.065			0.59			1.14
PFMBA	5.467	7	3	0.065			1.00			19.71
M3PFBS	5.566	17358	3980	0.297			1.68			∞
Perfluorobutanesulfonic acid (PFBS)	5.576	5	2	0.100			1.42			21.41
PFEESA	6.066	33	9	0.218			0.67			3.29
NFDHA	6.095	6	2	0.203			1.72			12.59
M2-4-2FTS	6.288	13036	3257	0.270			1.66			504.92
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.279	13	6	0.057			0.95			0.32
M5PFHxA	6.363	68393	17005	0.288			1.56			∞
Perfluorohexanoic acid (PFHxA)	6.364	884	221	0.176			2.15			24.84
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.556	32	6	0.149			3.66			1.53
M3-HFPO-DA	6.652	39908	9740	0.315			1.67			291.06
HFPO-DA	6.541	0	50	0.000			1.00			3.04
M4PFHpA	7.189	14766	3618	0.316			1.72			58914.27
Perfluoroheptanoic acid (PFHpA)	7.300	37	13	0.080			1.18			0.73
5-3FTCA	7.263	75	20	0.204			0.71			9.18
Perfluorohexanesulfonic acid (PFHxS)	7.336	55	11	0.381			0.85			15.58
M3PFHxS	7.299	12409	3006	0.307			1.38			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.337	42	11	0.175			1.49			12.49
M2-6-2FTS	7.828	9034	2160	0.279			1.53			266.32
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.829	1918	457	0.259			1.48			129.31
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.894	36601	8848	0.325			1.30			46576.40
Perfluorooctanoic acid (PFOA)	8.071	15	5	0.124			1.33			0.79
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.042	4	2	0.055			0.53			10.55
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.488	5755	1317	0.278			1.78			13724.95
Perfluorononanoic acid (PFNA)	8.628	51	11	0.118			1.43			0.92
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.523	4873	1224	0.277			1.59			∞
Perfluorooctanesulfonic acid (PFOS)	8.580	17	8	0.087			1.72			0.34
7-3FTCA	8.814	32	13	0.069			0.22			0.58
9-Cl-PF3ONS	8.903	7	3	0.094			0.77			25.35
M2-8-2FTS	8.987	23851	5697	0.298			1.46			175.50
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.979	7	2	0.175			2.18			1.61
M6PFDA	9.016	19745	4937	0.317			2.10			∞
Perfluorodecanoic acid (PFDA)	9.119	13	10	0.045			0.24			11.64
Perfluorononanesulfonate (L-PFNS)	9.024	6	2	0.176			0.81			5.16
d3-N-MeFOSAA	9.236	22469	5294	0.344			1.81			∞
N-MeFOSAA	9.460	0	0	0.065			0.24			0.55
d5-N-EtFOSAA	9.495	19863	4483	0.278			1.38			593.57
Perfluoroundecanoic acid (PFUnA)	9.618	162	26	0.213			0.29			5.97
Perfluoro-1-decanesulfonate (L-PFDS)	9.513	33	10	0.142			0.42			2.00
N-EtFOSAA	9.376	11	4	0.193			1.99			17.48
M7PFUdA	9.497	25996	6247	0.309			1.83			67998.03
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.639	16929	3928	0.320			1.69			58411.13
Perfluoro-1-octanesulfonamide (FOSA)	9.667	27	7	0.203			0.93			56.65
11-Cl-PF3OUdS	9.762	19	5	0.167			2.81			22.56
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	18141	4462	0.268			1.75			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.950	29	13	0.099			1.57			1.69
Perfluorododecanesulfonic acid (PFDoS)	10.232	14	3	0.134			2.26			0.97
Perfluorotridecanoic acid (PFTrDA)	10.454	107	17	0.202			0.18			0.14
d7-NMeFOSE	10.428	7535	1789	0.303			1.45			∞
NMeFOSE	10.291	6	2	0.101			1.30			3.86
d3-NMeFOSA	10.468	911	196	0.324			1.12			24.35
NMeFOSA	10.321	26	3	0.239			0.43			1.30
M2PFTeDA	10.654	4426	1126	0.249			1.79			104.55
Perfluorotetradecanoic acid (PFTA)	10.498	17	7	0.111			1.79			0.53
d9-NEtFOSE	10.702	1956	493	0.222			1.63			144.10
NEtFOSE	10.564	5	2	0.105			0.77			0.35
d5-NEtFOSA	10.742	423	96	0.212			1.09			22.65
NEtFOSA	10.623	1	1	0.050			0.29			0.82

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-004C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-04	File ID:	QQQ41381.d
Sampled:	06/24/24 14:25	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 14:30
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	544.91 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

CAS NO.	COMPOUND	DILUTION	CONC. (ng/L)	Q
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1	1.62	U
307-24-4	Perfluorohexanoic acid (PFHxA)	1	1.84	U
375-85-9	Perfluoroheptanoic acid (PFHpA)	1	1.84	U
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	1	1.68	U
335-67-1	Perfluorooctanoic acid (PFOA)	1	1.84	U
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	1	1.71	U
375-95-1	Perfluorononanoic acid (PFNA)	1	1.84	U
335-76-2	Perfluorodecanoic acid (PFDA)	1	1.84	U
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1	1.84	U
307-55-1	Perfluorododecanoic acid (PFDoA)	1	1.84	U
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	1	1.84	U
376-06-7	Perfluorotetradecanoic acid (PFTA)	1	1.84	U
2355-31-9	N-MeFOSAA	1	1.84	U
2991-50-6	N-EtFOSAA	1	1.84	U
2706-90-3	Perfluoropentanoic acid (PFPeA)	1	3.67	U
754-91-6	Perfluoro-1-octanesulfonamide (FOSA)	1	1.84	U
375-92-8	Perfluoro-1-heptanesulfonic acid (PFHpS)	1	1.75	U
335-77-3	Perfluoro-1-decanesulfonic acid (PFDS)	1	1.77	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	1	5.65	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	1	7.05	U
375-22-4	Perfluoro-n-butanoic acid (PFBA)	1	7.34	U
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1	3.27	U
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	1	3.67	U
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	1	3.67	U
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	1	3.67	U
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	1	1.73	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	1	6.88	U
13252-13-6	HFPO-DA (Gen-X)	1	7.34	U
763051-92-9	11CL-PF3OUdS	1	6.94	U
756426-58-1	9CL-PF3ONS	1	6.86	U
919005-14-4	ADONA	1	6.94	U
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	1	1.78	U
68259-12-1	Perfluoro-1-nonanesulfonic acid (PFNS)	1	1.76	U
356-02-5	3-Perfluoropropyl propanoic acid (FPrPA)	1	4.59	U
914637-49-3	3-Perfluoropentyl propanoic acid (FPePA)	1	22.9	U
812-70-4	3-Perfluoroheptyl propanoic acid (FHpPA)	1	22.9	U
24448-09-7	N-MeFOSE	1	18.4	U
31506-32-8	N-MeFOSA	1	1.84	U
1691-99-2	N-EtFOSE	1	18.4	U
4151-50-2	N-EtFOSA	1	1.84	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA 1633 Draft 3

240625028-004C

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Ground Water	Laboratory ID:	24F1801-04	File ID:	QQQ41381.d
Sampled:	06/24/24 14:25	Prepared:	07/08/24 17:39	Analyzed:	07/10/24 14:30
Solids:		Preparation:	EPA 1633 Prep	Initial/Final:	544.91 mL / 5 mL
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019
Instrument:	LCQQQ				

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
M3PFBS	21.4	27.5	128	25 - 150	
M5PFHxA	22.9	30.6	133	25 - 150	
M4PFHpA	22.9	29.3	128	25 - 150	
M3PFHxS	21.7	27.3	125	25 - 150	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	22.9	29.6	129	25 - 150	
M6PFDA	11.5	13.4	117	25 - 150	
M7PFUdA	11.5	13.5	118	25 - 150	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	11.5	10.3	90.1	25 - 150	
M2PFTeDA	11.5	7.11	62.0	10 - 150	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	91.8	116	127	25 - 150	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	22.0	26.8	122	25 - 150	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	45.9	63.3	138	25 - 150	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	22.9	23.7	103	10 - 150	
d3-N-MeFOSAA	45.9	43.8	95.5	25 - 150	
d5-N-EtFOSAA	45.9	44.5	97.0	25 - 150	
M2-6:2 FTS	43.6	29.1	66.7	25 - 200	
M2-8:2 FTS	44.0	33.1	75.2	25 - 200	
M9PFNA	11.5	13.4	117	25 - 150	
M2-4:2 FTS	43.0	24.0	55.7	25 - 150	
d-N-MeFOSA	22.9	5.97	26.0	25 - 150	
d-N-EtFOSA	22.9	3.28	14.3	25 - 150	*
M3HFPO-DA	91.8	44.7	48.7	25 - 150	
d9-N-EtFOSE	229	68.3	29.8	25 - 150	
d7-N-MeFOSE	229	105	46.0	25 - 150	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
MPFOA	28854.28	7.9038	44351.86	7.9131	
MPFOS	9296.026	8.533183	12610.34	8.542467	

* Values outside of QC limits

Data File	QQQ41381.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 2:30:01 PM
Sample Name	24F1801-04	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

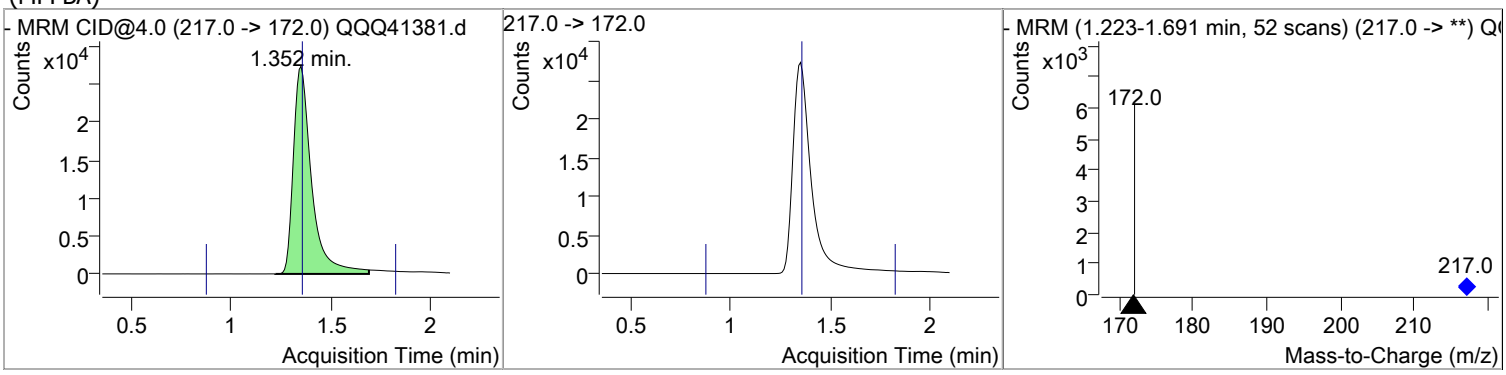
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.354	216.0 -> 172.0	27351	5.0000	ng/ml	0.101
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.352	217.0 -> 172.0	173373	10.0000	ng/ml	0.101
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.802	268.0 -> 223.0	131035	5.0000	ng/ml	0.074
MPFHxA	6.373	315.0 -> 269.8	29789	2.5000	ng/ml	0.000
MPFHxS	7.317	403.0 -> 103.0	3118	2.3700	ng/ml	-0.066
M3PFBS-EIS	5.566	302.0 -> 79.9	16657	2.3300	ng/ml	0.037
M5PFHxA-EIS	6.381	318.0 -> 273.0	63416	2.5000	ng/ml	0.009
M2-4-2FTS-EIS	6.306	329.0 -> 309.0	9678	4.6900	ng/ml	0.009
M3PFHxS-EIS	7.317	402.0 -> 80.0	11531	2.3700	ng/ml	-0.065
M3-HFPO-DA-EIS	6.671	287.0 -> 169.0	16177	10.0000	ng/ml	-0.019
M4PFHpA-EIS	7.207	367.0 -> 322.0	13493	2.5000	ng/ml	-0.056
M2-6-2FTS-EIS	7.847	429.0 -> 409.0	7896	4.7550	ng/ml	-0.084
MPFOA	7.904	417.0 -> 372.0	28854	2.5000	ng/ml	-0.093
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.913	421.0 -> 376.0	29637	2.5000	ng/ml	-0.084
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.533	507.0 -> 98.9	4916	2.3950	ng/ml	-0.093
MPFNA	8.507	468.0 -> 423.0	17623	1.2500	ng/ml	-0.093
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.506	472.0 -> 223.0	5517	1.2500	ng/ml	-0.084
MPFOS	8.533	503.0 -> 80.0	9296	2.3950	ng/ml	-0.093
M2-8-2FTS-EIS	8.997	529.0 -> 509.0	21329	4.8000	ng/ml	-0.046
MPFDA	9.035	515.0 -> 469.8	11601	1.2500	ng/ml	-0.047
M6PFDA-EIS	9.025	519.0 -> 473.9	18593	1.2500	ng/ml	-0.056
d3-N-MeFOSAA-EIS	9.245	573.0 -> 418.8	20980	5.0000	ng/ml	-0.037
M7PFUdA-EIS	9.496	570.0 -> 525.0	25348	1.2500	ng/ml	-0.019
d5-N-EtFOSAA-EIS	9.486	589.0 -> 418.8	18818	5.0000	ng/ml	-0.019
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.629	506.0 -> 78.0	14407	2.5000	ng/ml	-0.019
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.930	615.0 -> 570.0	17036	1.2500	ng/ml	0.037
M2PFTeDA-EIS	10.626	715.0 -> 670.0	5229	1.2500	ng/ml	0.138
d7-NMeFOSE-EIS	10.400	623.0 -> 59.0	5150	25.0000	ng/ml	0.101
d3-NMeFOSA-EIS	10.431	515.0 -> 219.0	364	2.5000	ng/ml	0.101
d9-NEtFOSE-EIS	10.665	639.0 -> 59.0	1486	25.0000	ng/ml	0.129
d5-NEtFOSA-EIS	10.696	531.0 -> 169.0	140	2.5000	ng/ml	0.120
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.352	217.0 -> 172.0	173379	12.6588	ng/ml	0.101
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.802	268.0 -> 223.0	131035	6.8954	ng/ml	0.074
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.566	302.0 -> 79.9	16657	2.9939	ng/ml	0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.306	329.0 -> 309.0	9703	2.6122	ng/ml	0.009

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.381	318.0 -> 273.0	63416	3.3359	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.671	287.0 -> 169.0	16177	4.8681	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.207	367.0 -> 322.0	13493	3.1954	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.317	402.0 -> 80.0	11533	2.9711	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.847	429.0 -> 409.0	7891	3.1720	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	421.0 -> 376.0	29631	3.2247	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.506	472.0 -> 223.0	5503	1.4652	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.533	507.0 -> 98.9	4984	2.9237	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.997	529.0 -> 509.0	21083	3.6089	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.025	519.0 -> 473.9	18590	1.4626	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.245	573.0 -> 418.8	20982	4.7768	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.486	589.0 -> 418.8	18818	4.8511	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.496	570.0 -> 525.0	25348	1.4734	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.629	506.0 -> 78.0	14407	2.5793	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.930	615.0 -> 570.0	17036	1.1264	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.400	623.0 -> 59.0	5150	11.4889	ng/ml		0.101
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.431	515.0 -> 219.0	367	0.6503	ng/ml		0.101
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.626	715.0 -> 670.0	5229	0.7749	ng/ml		0.138
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.665	639.0 -> 59.0	1486	7.4442	ng/ml		0.129
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.696	531.0 -> 169.0	124	0.3579	ng/ml	m	0.120
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.347	213.0 -> 168.9	107	0.0070	ng/ml		100
PFMPA	2.309	229.0 -> 85.0	5	0.0007	ng/ml		100
3:3FTCA	4.488	241.0 -> 177.0	6	0.0138	ng/ml	#	54
Perfluoro-n-pentanoic acid (PFPeA)	4.802	263.0 -> 219.0	224	0.0089	ng/ml		100
PFMBA	5.541	279.0 -> 85.0	12	0.0011	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.549	298.9 -> 79.9	17	0.0023	ng/ml	#	1
PFEESA	6.084	315.0 -> 135.0	10	0.0003	ng/ml		88
NFDHA	6.383	295.0 -> 201.1	1	0.0012	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.316	327.0 -> 307.0	33	0.0127	ng/ml	#	1

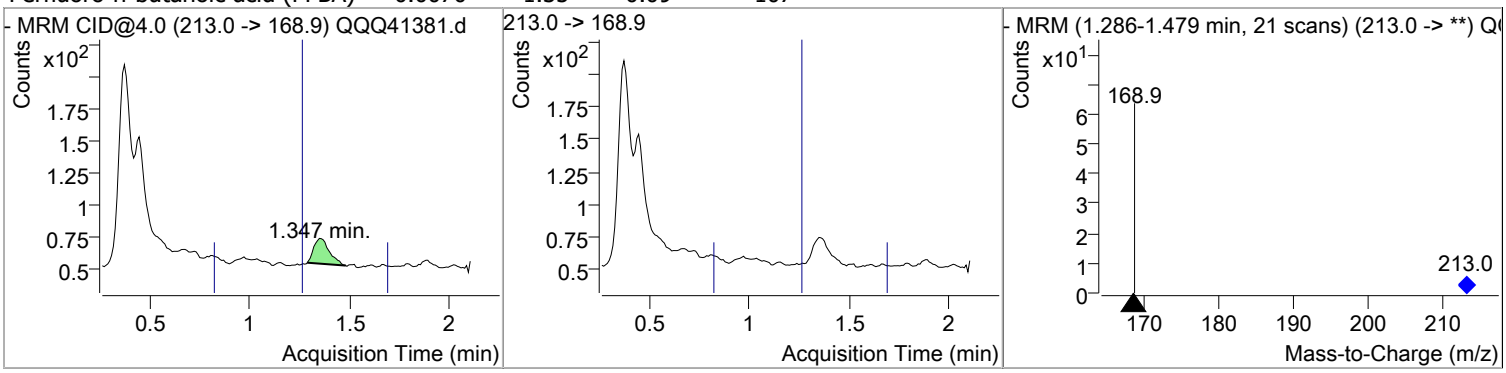
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.383	313.0 -> 268.9	708	0.0242	ng/ml		98
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.667	348.9 -> 79.9	7	0.0012	ng/ml		37
HFPO-DA	6.606	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.216	363.0 -> 318.8	220	0.0185	ng/ml		89
5-3FTCA	7.282	341.0 -> 217.0	46	0.0114	ng/ml	#	1
Perfluorohexanesulfonic acid (PFHxS)	7.336	398.9 -> 79.9	58	0.0103	ng/ml	#	61
ADONA	7.383	377.0 -> 85.0	16	0.0046	ng/ml	#	56
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	427.0 -> 407.0	1612	0.6158	ng/ml		98
Perfluorooctanoic acid (PFOA)	8.053	413.0 -> 368.8	14	0.0000	ng/ml		37
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.069	448.9 -> 80.0	12	0.0023	ng/ml	#	1
Perfluorononanoic acid (PFNA)	8.655	463.0 -> 418.8	17	0.0012	ng/ml	#	85
Perfluorooctanesulfonic acid (PFOS)	8.580	498.9 -> 79.9	65	0.0000	ng/ml	#	67
7-3FTCA	8.702	441.0 -> 337.0	262	0.0481	ng/ml	#	59
9-Cl-PF3ONS	8.978	531.0 -> 351.0	11	0.0012	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	527.0 -> 80.9	8	0.0077	ng/ml	#	1
Perfluorodecanoic acid (PFDA)	9.138	513.0 -> 468.8	48	0.0028	ng/ml	#	64
Perfluorononanesulfonate (L-PFNS)	9.107	548.9 -> 79.9	24	0.0066	ng/ml	#	49
N-MeFOSAA	9.227	570.0 -> 418.9	4	0.0011	ng/ml	#	1
Perfluoroundecanoic acid (PFUnA)	9.488	563.0 -> 519.0	35	0.0000	ng/ml	#	1
Perfluoro-1-decanesulfonate (L-PFDS)	9.560	598.9 -> 98.9	22	0.0124	ng/ml		100
N-EtFOSAA	9.496	584.0 -> 418.8	2	0.0008	ng/ml	#	1
Perfluoro-1-octanesulfonamide (FOSA)	9.648	497.9 -> 78.0	34	0.0042	ng/ml		100
11-Cl-PF3OUdS	9.790	631.0 -> 451.0	31	0.0045	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.931	613.0 -> 568.8	51	0.0046	ng/ml		74
Perfluorododecanesulfonic acid (PFDoS)	10.103	699.0 -> 80.0	5	0.0054	ng/ml	#	1
Perfluorotridecanoic acid (PFTrDA)	10.048	663.0 -> 618.8	65	0.0122	ng/ml		100
NMeFOSE	10.420	616.0 -> 59.0	0		ng/ml	md	1
NMeFOSA	10.312	512.0 -> 169.0	18	0.0744	ng/ml	#	5
Perfluorotetradecanoic acid (PFTA)	10.387	713.0 -> 669.0	21	0.0051	ng/ml	#	56
NEtFOSE	10.564	630.0 -> 59.0	6	0.0431	ng/ml		100
NEtFOSA	10.632	526.0 -> 169.0	3	0.0477	ng/ml	#	54

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

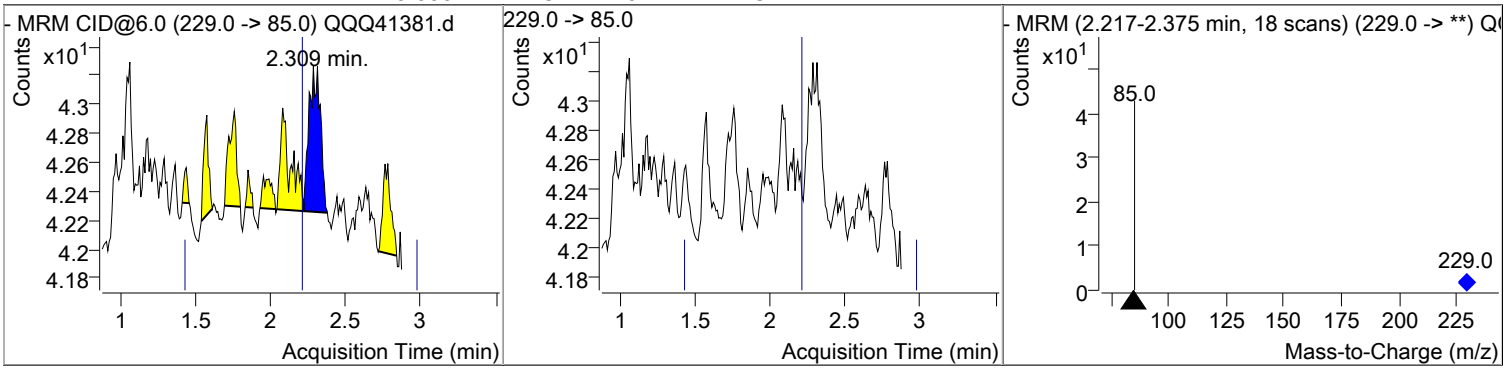
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	12.6588	1.35	0.10	173379				



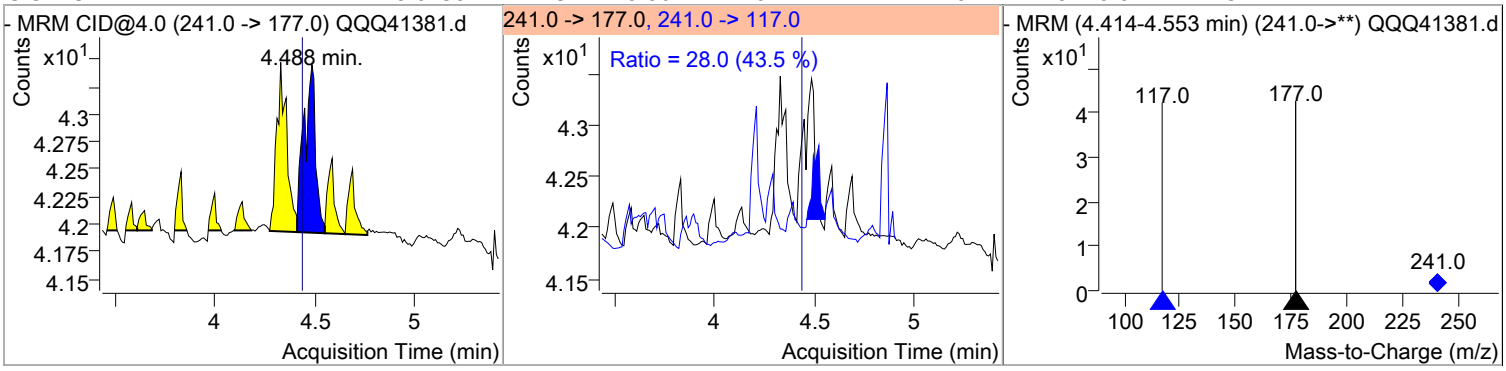
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0070	1.35	0.09	107				



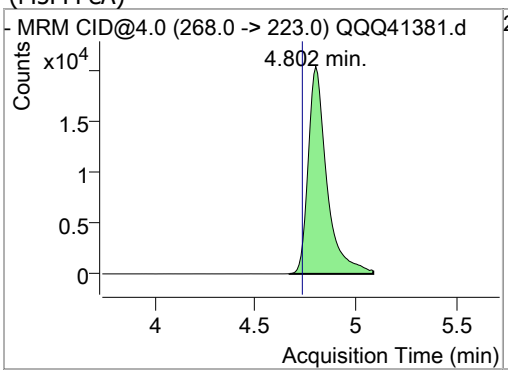
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0007	2.31	0.11	5				

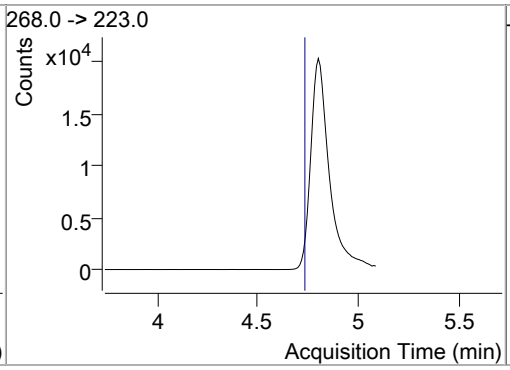


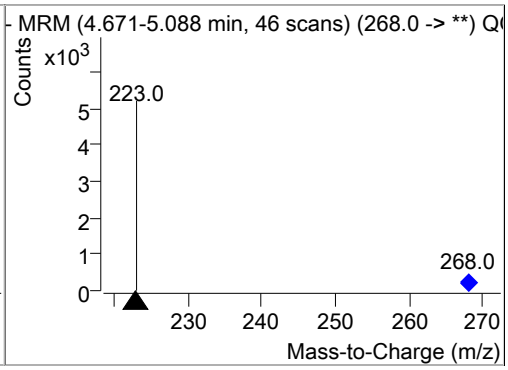
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0138	4.49	0.06	6	241.0 -> 117.0	28.0	51.4	77.2



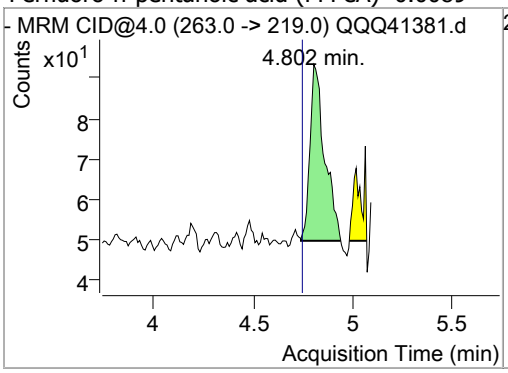
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	6.8954	4.80	0.07	131035				

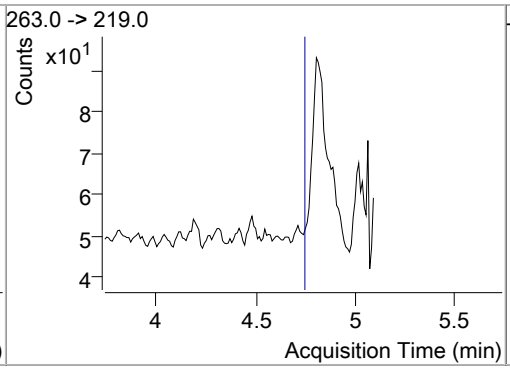


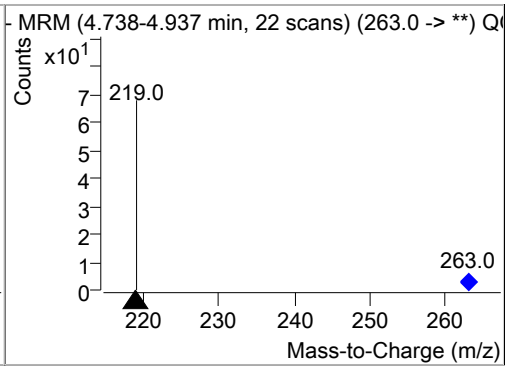




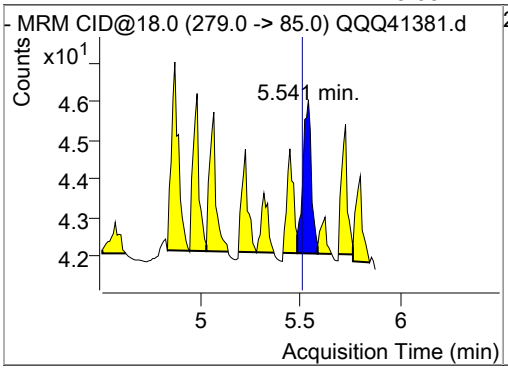
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0089	4.80	0.06	224				

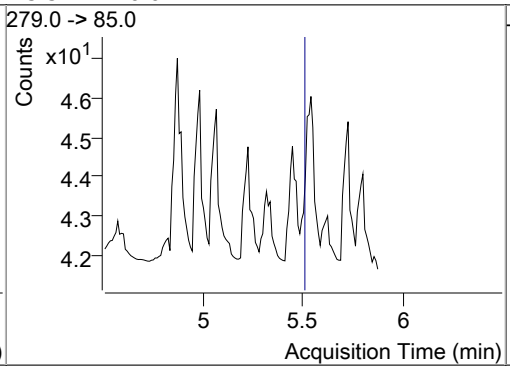


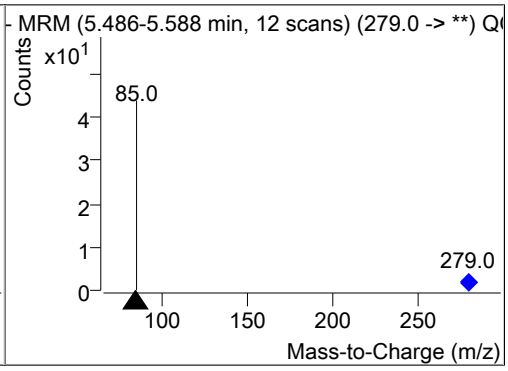




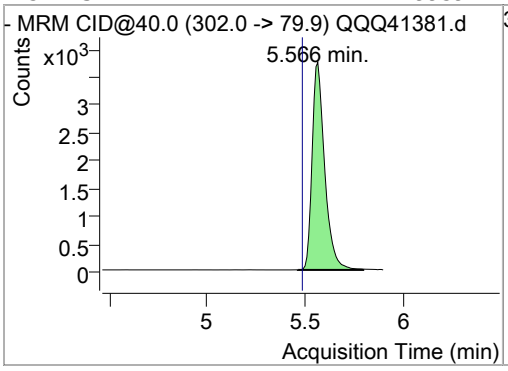
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0011	5.54	0.04	12				

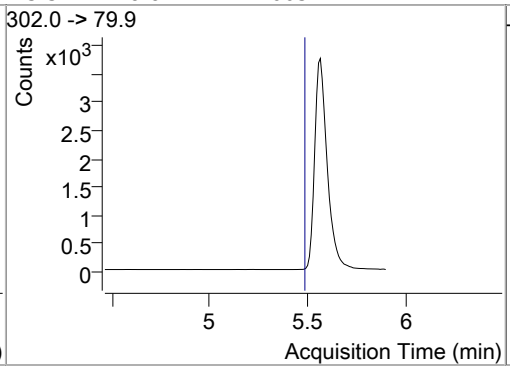


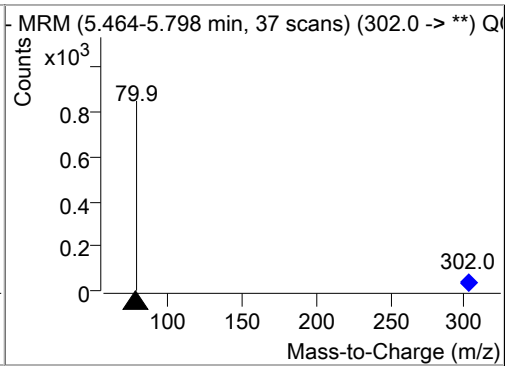




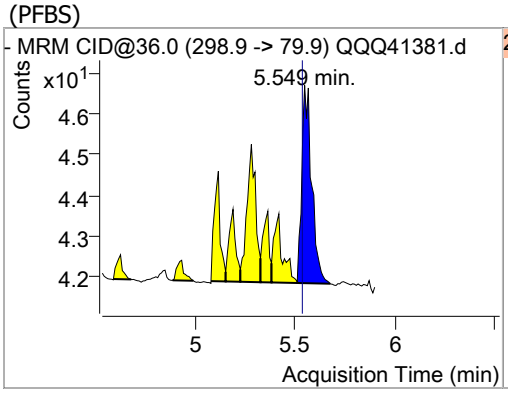
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.9939	5.57	0.04	16657				

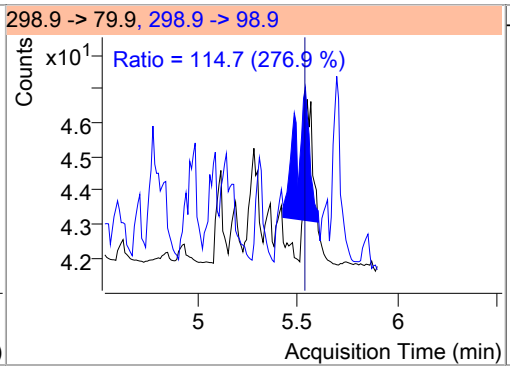


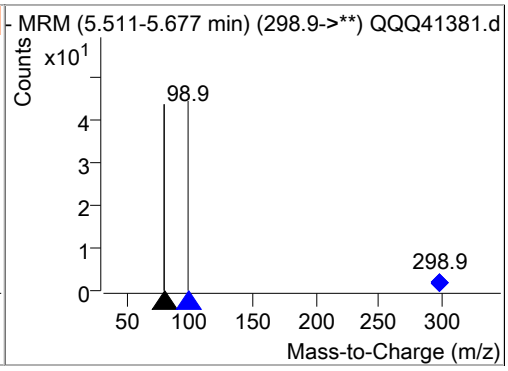




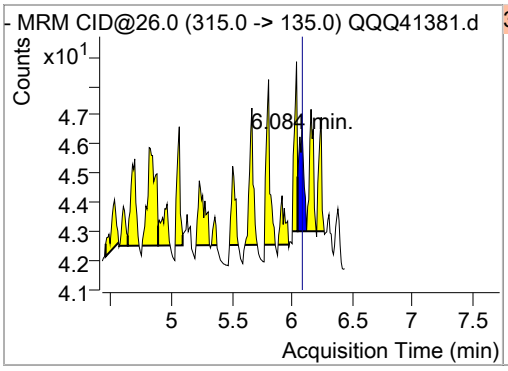
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0023	5.55	0.02	17	298.9 -> 98.9	114.7	33.1	49.7

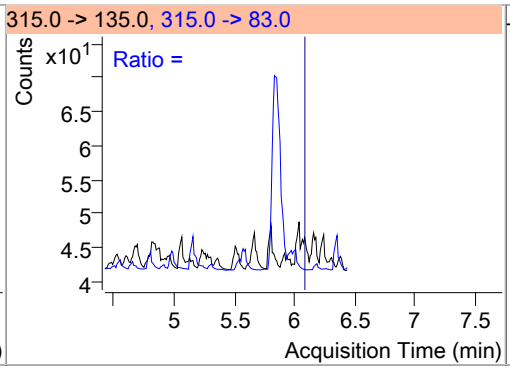


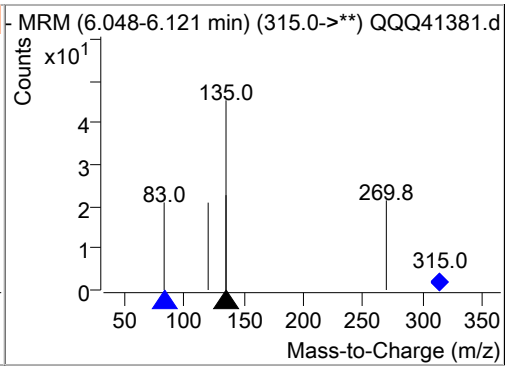




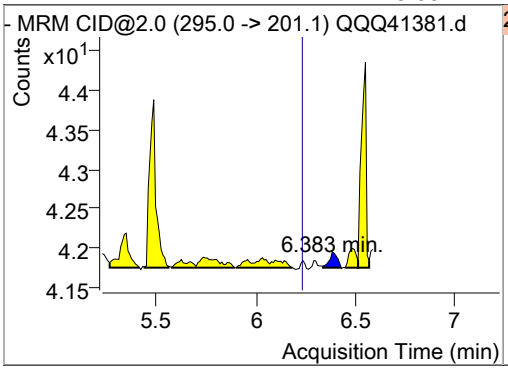
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0003	6.08	0.01	10	315.0 -> 83.0		3.1	4.7

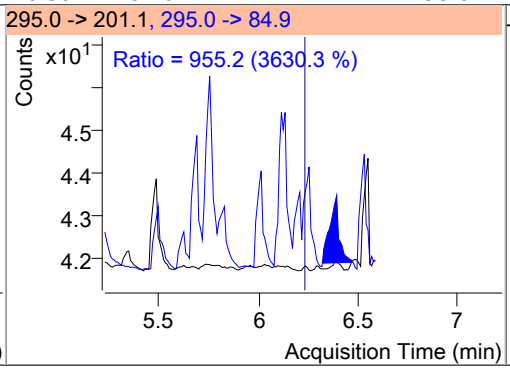


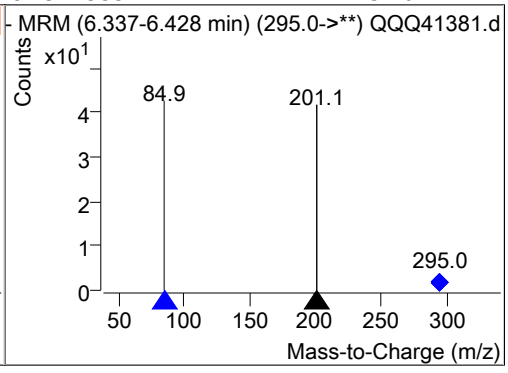




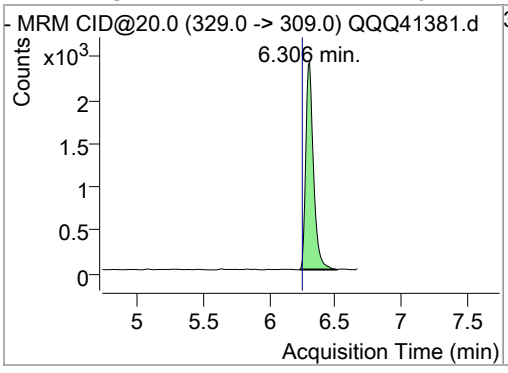
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0012	6.38	0.16	1	295.0 -> 84.9	955.2	21.1	31.6

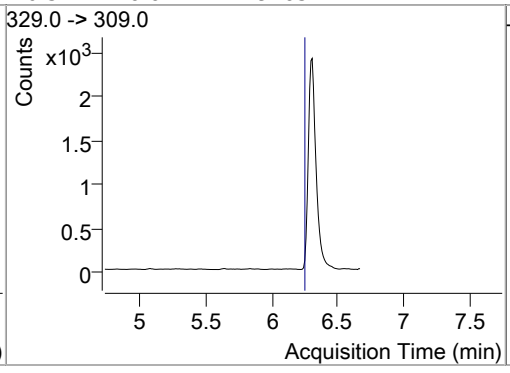


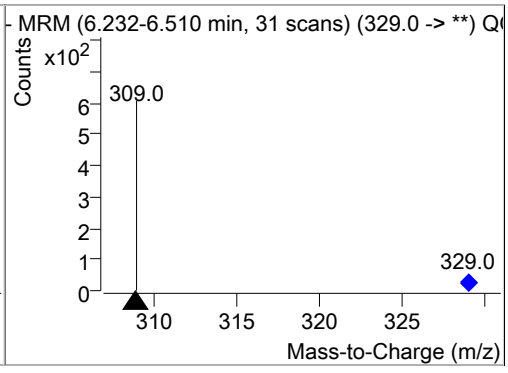




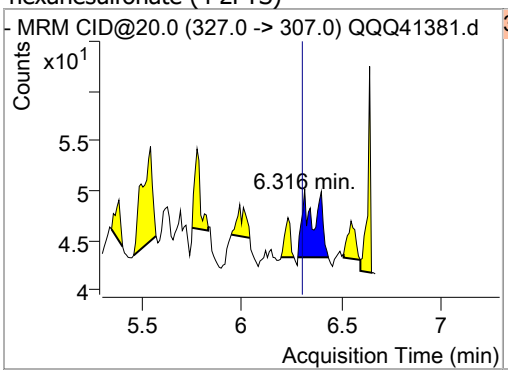
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	2.6122	6.31	0.01	9703				

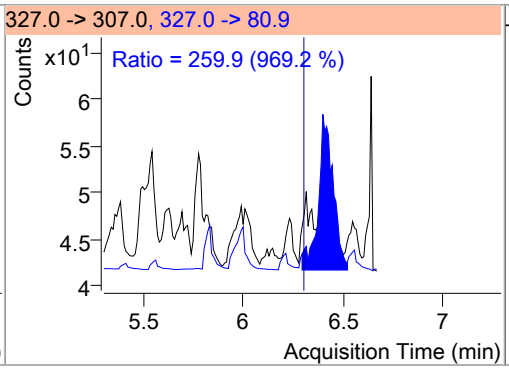


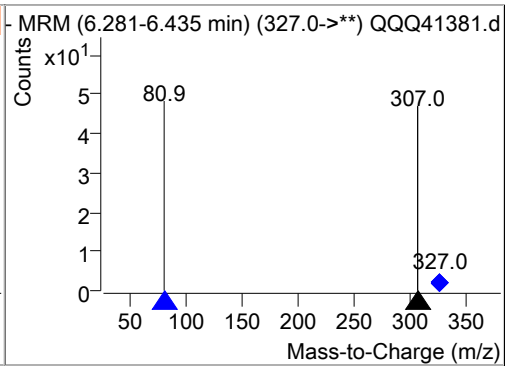




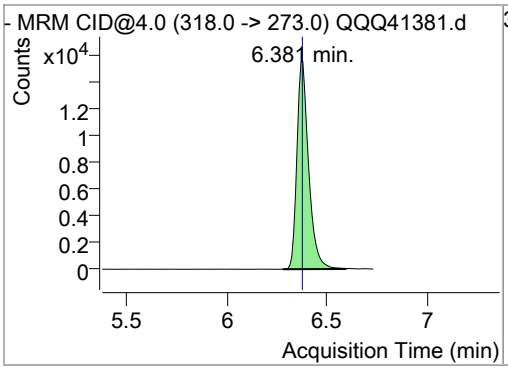
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0127	6.32	0.02	33	327.0 -> 80.9	259.9	21.5	32.2

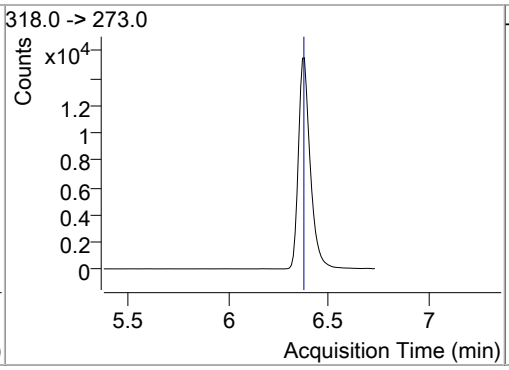


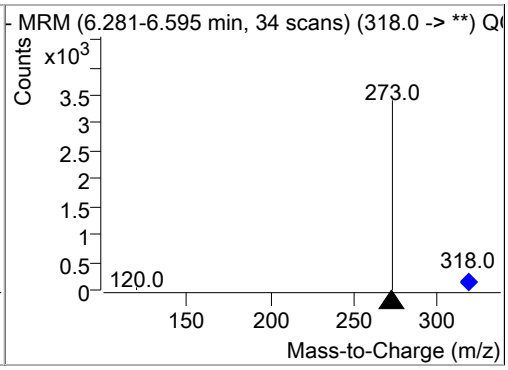




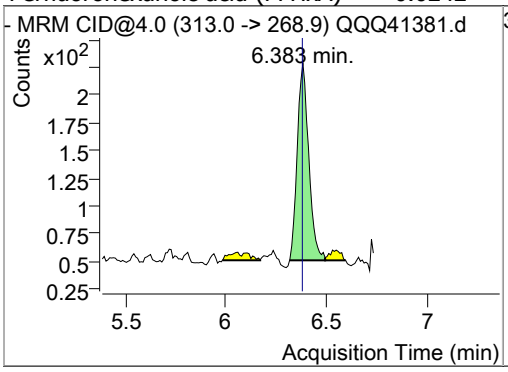
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.3359	6.38	0.01	63416				

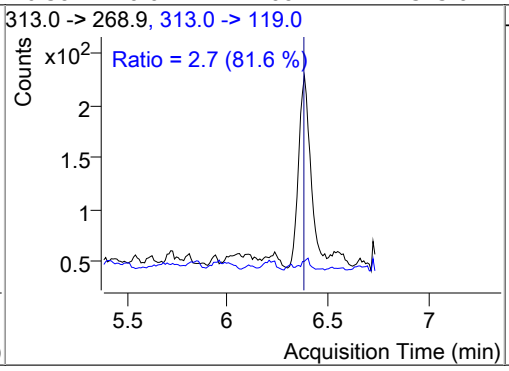


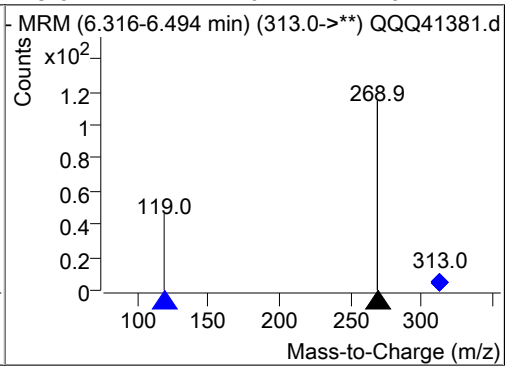




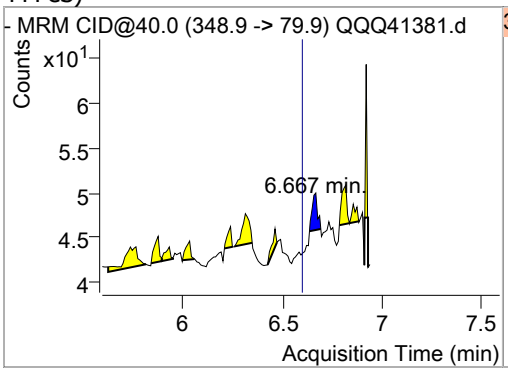
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0242	6.38	0.01	708	313.0 -> 119.0	2.7	2.6	4.0

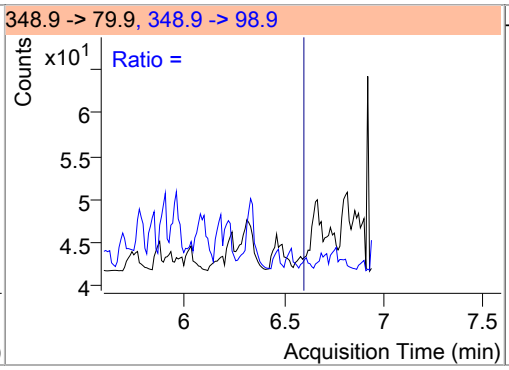


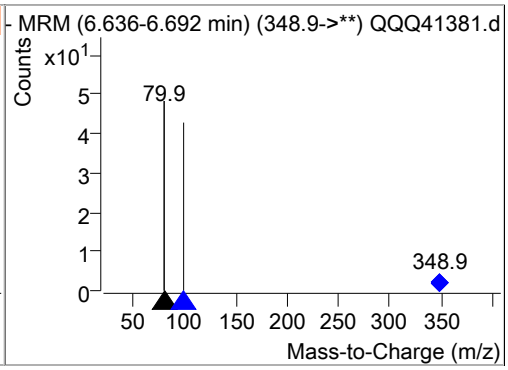




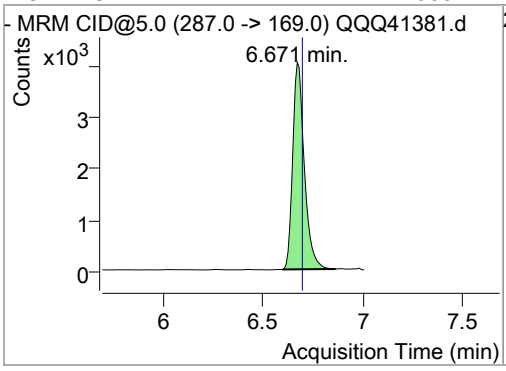
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0012	6.67	0.07	7	348.9 -> 98.9		30.4	45.6

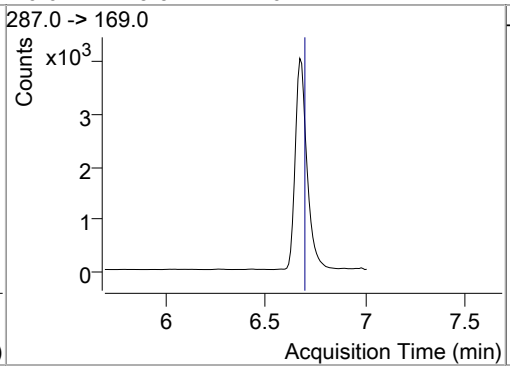


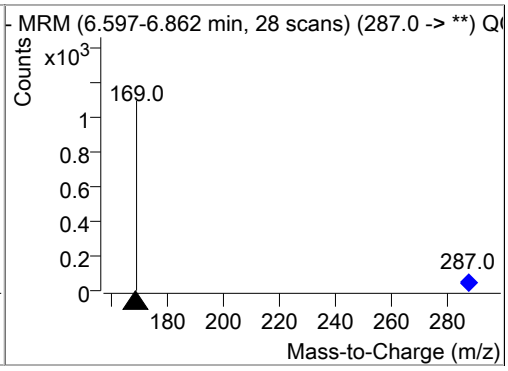




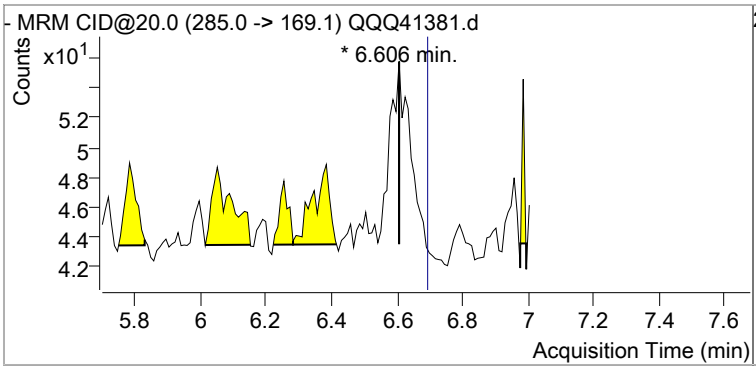
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	4.8681	6.67	-0.02	16177				

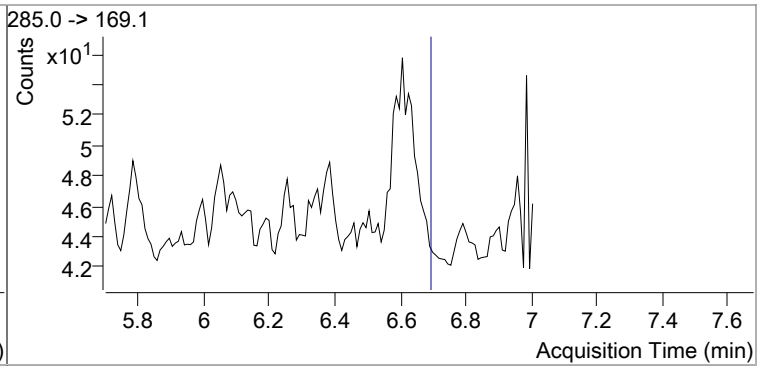




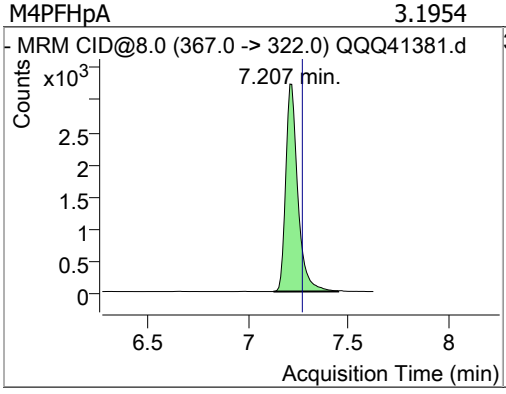


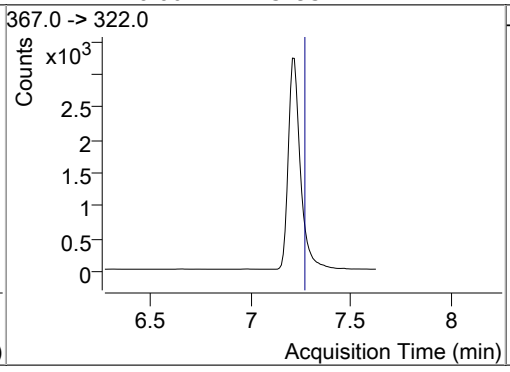
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

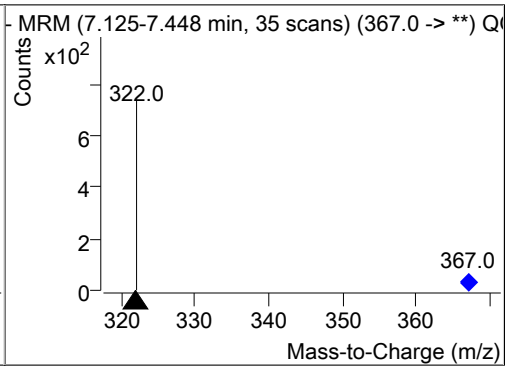




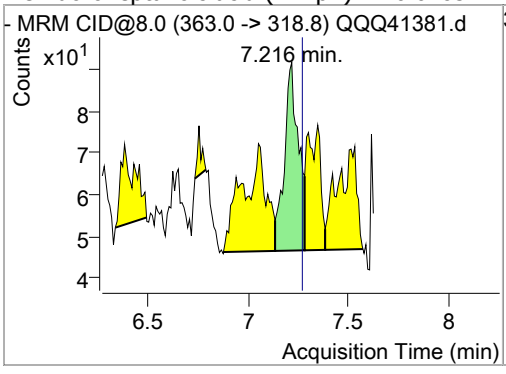
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.1954	7.21	-0.06	13493				

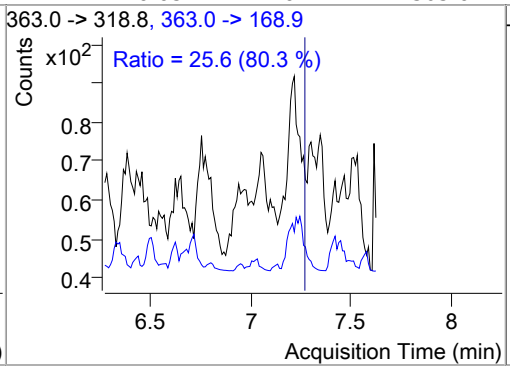


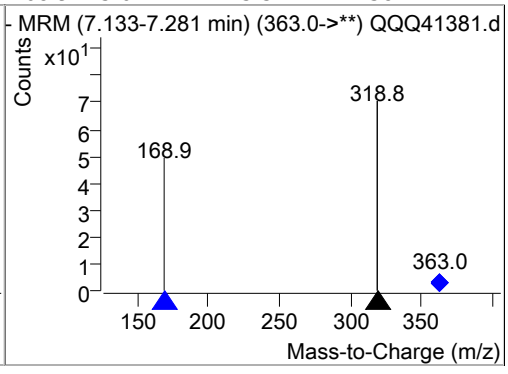




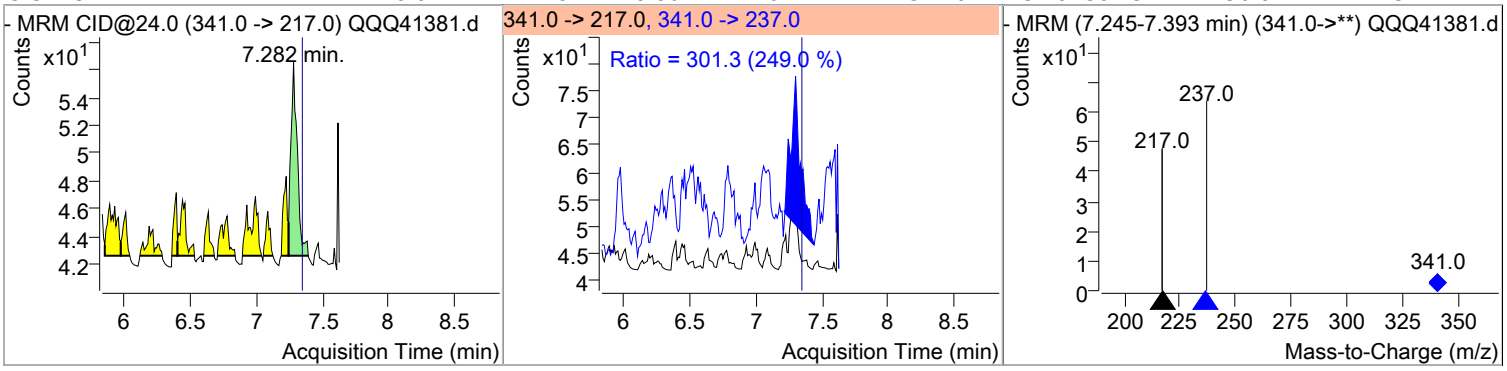
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0185	7.22	-0.05	220	363.0 -> 168.9	25.6	25.5	38.2



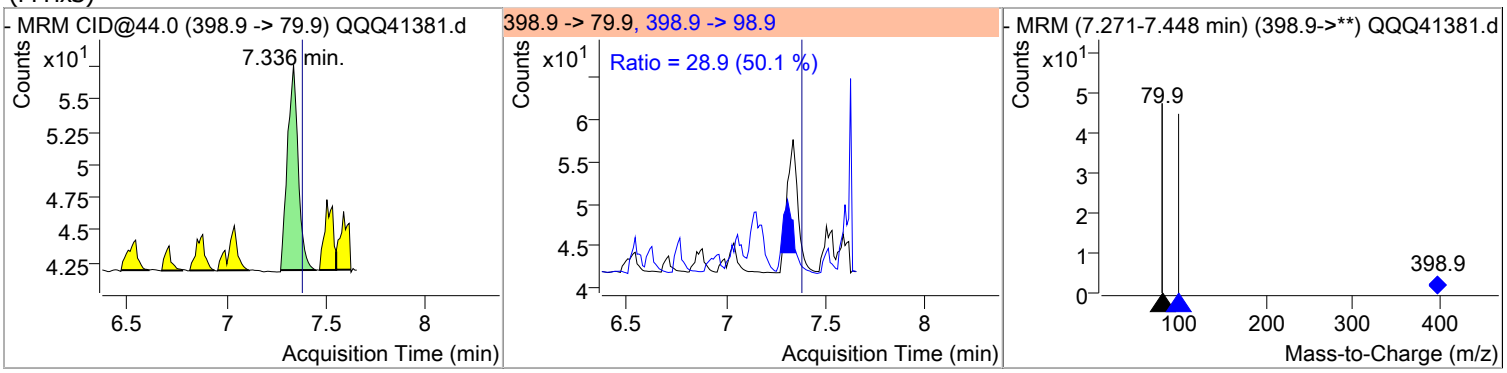




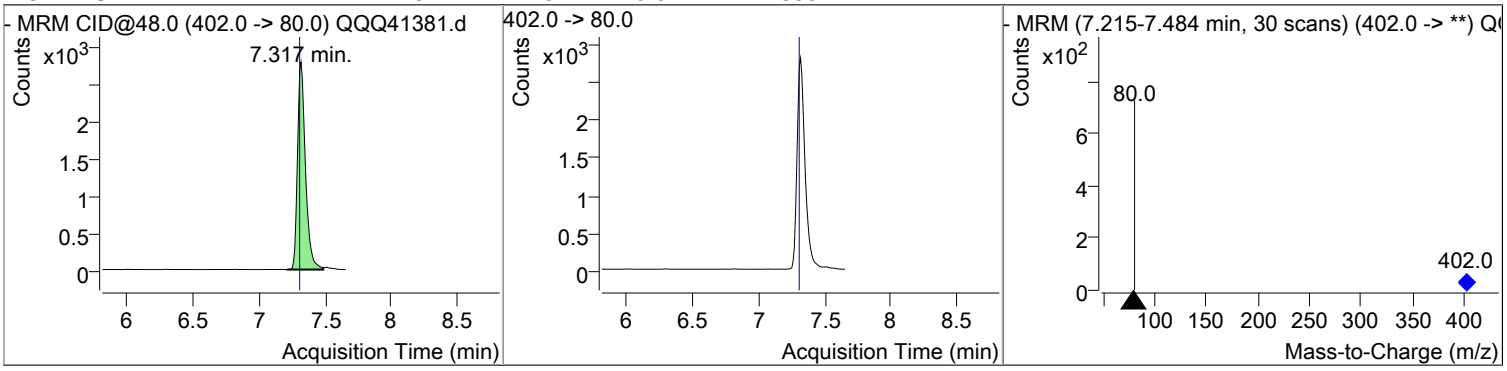
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.0114	7.28	-0.06	46	341.0 -> 237.0	301.3	96.8	145.2



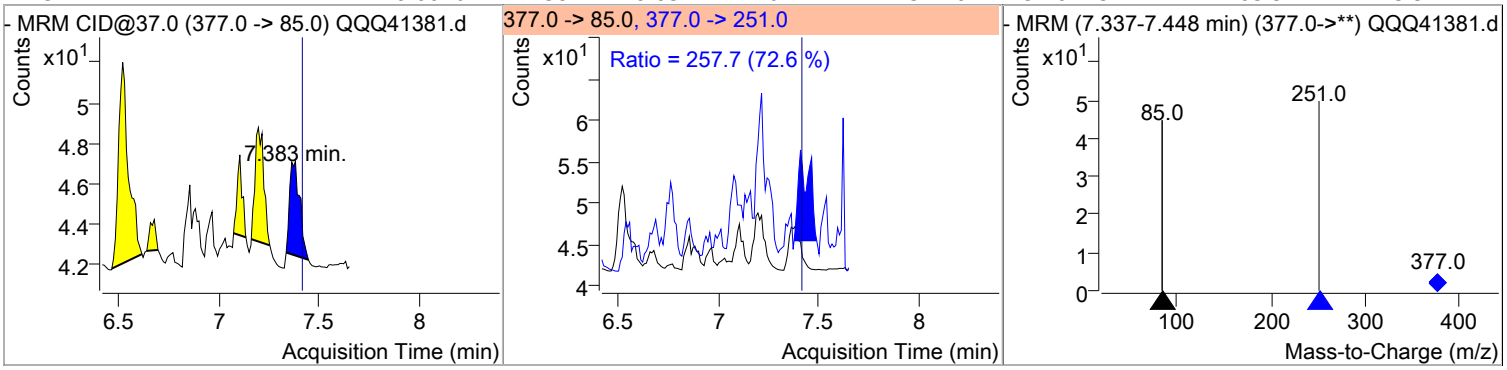
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0103	7.34	-0.04	58	398.9 -> 98.9	28.9	46.2	69.3



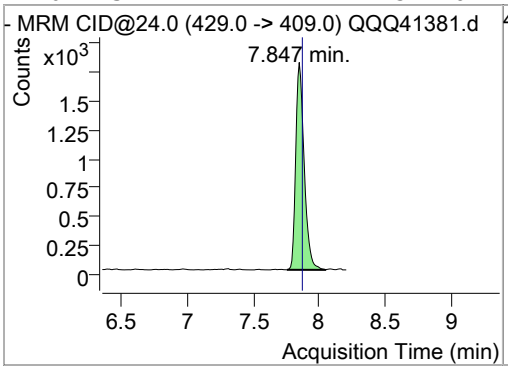
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.9711	7.32	-0.07	11533				

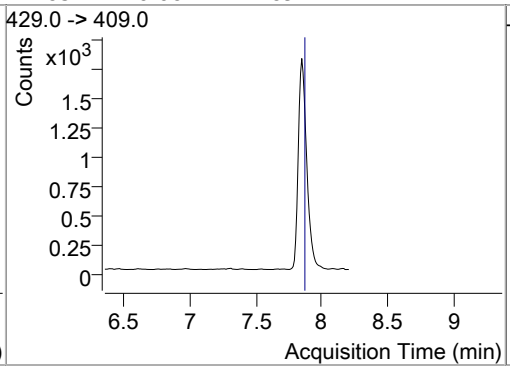


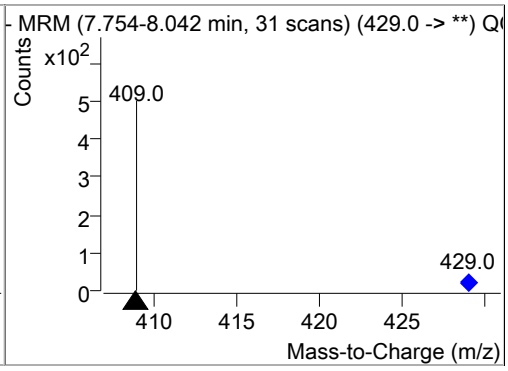
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0046	7.38	-0.03	16	377.0 -> 251.0	257.7	283.9	425.9



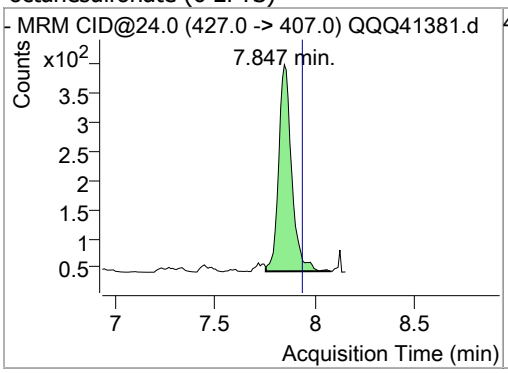
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	3.1720	7.85	-0.08	7891				

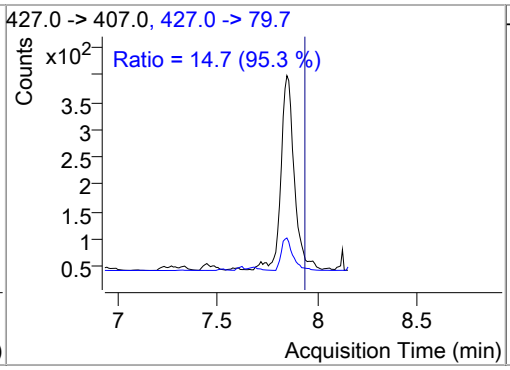


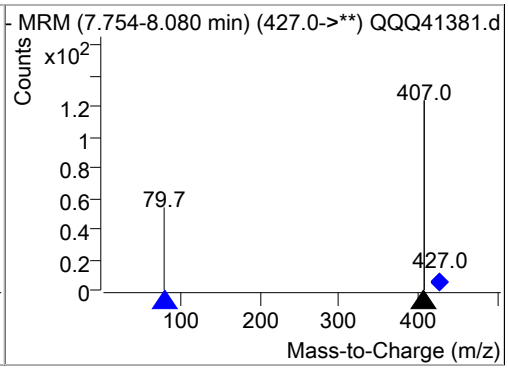




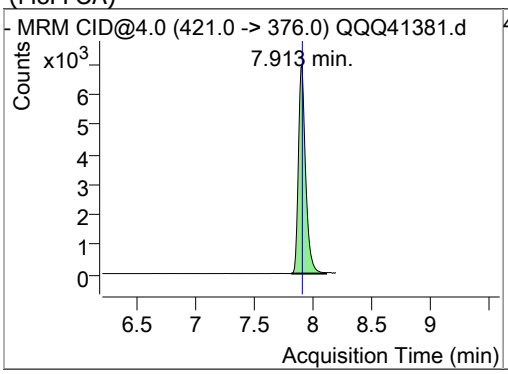
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.6158	7.85	-0.08	1612	427.0 -> 79.7	14.7	12.3	18.5

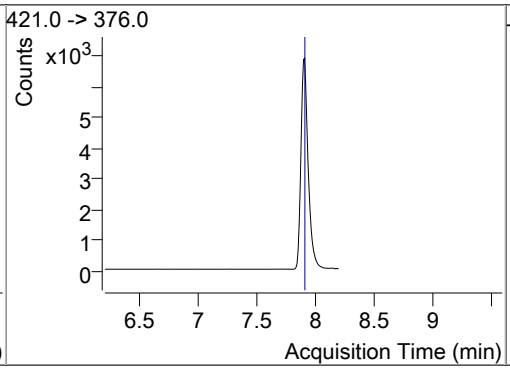


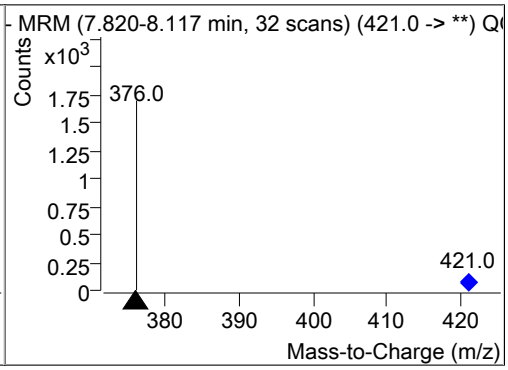




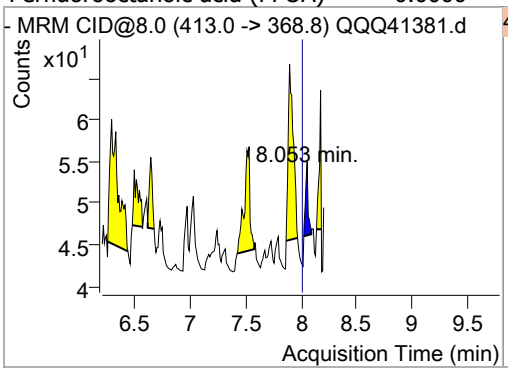
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	3.2247	7.91	-0.08	29631				

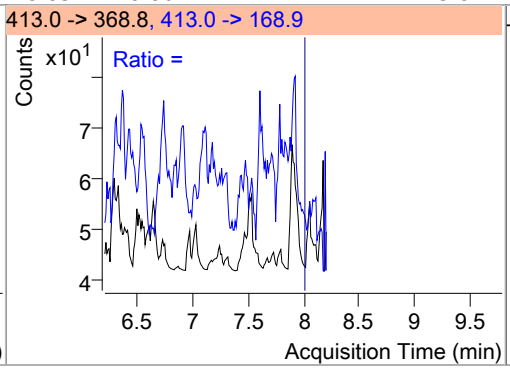


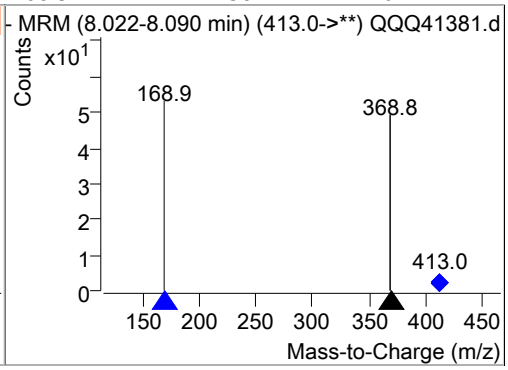




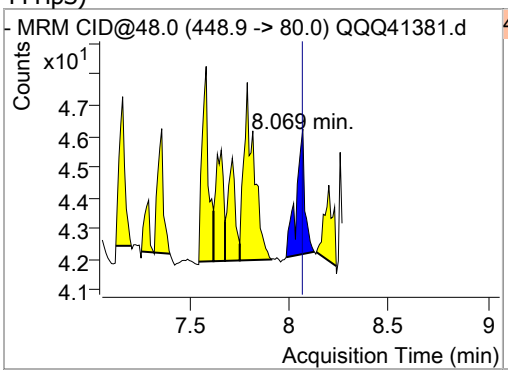
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	8.05	0.06	14	413.0 -> 168.9		30.7	46.1

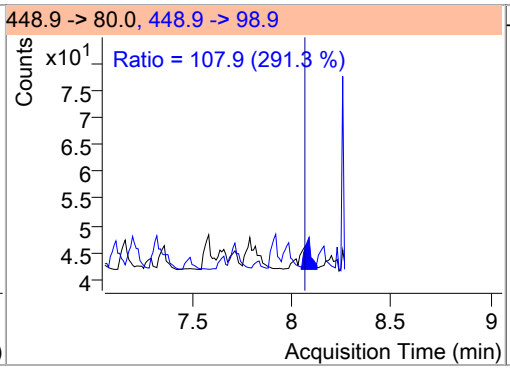


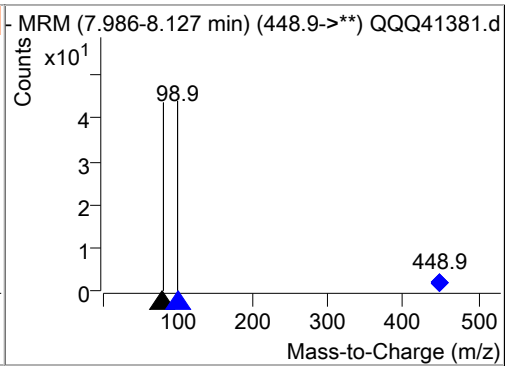




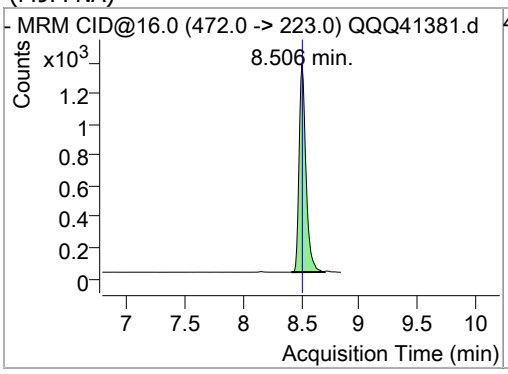
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0023	8.07	0.01	12	448.9 -> 98.9	107.9	29.6	44.4

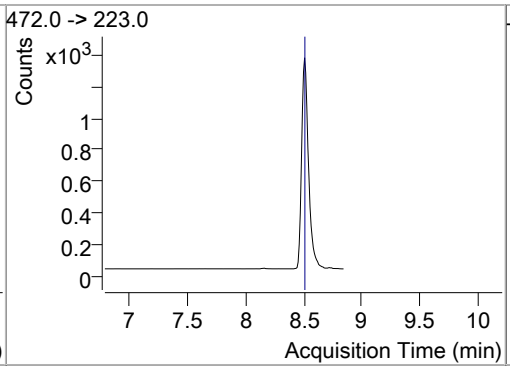


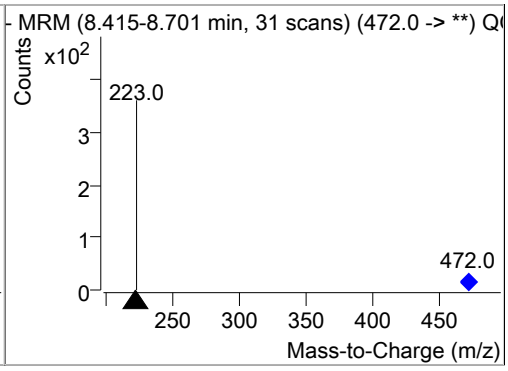




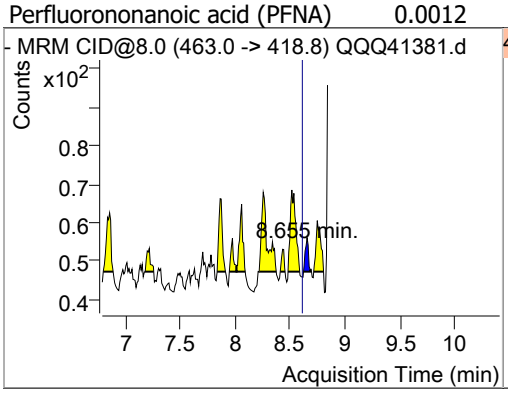
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.4652	8.51	-0.08	5503				

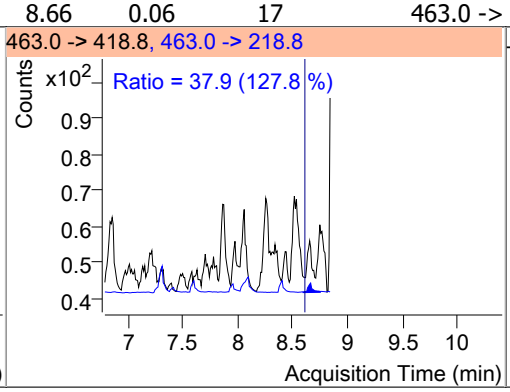


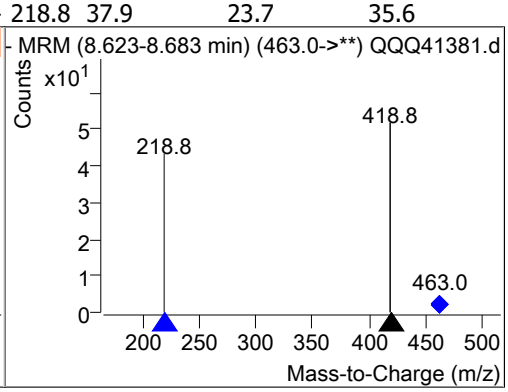




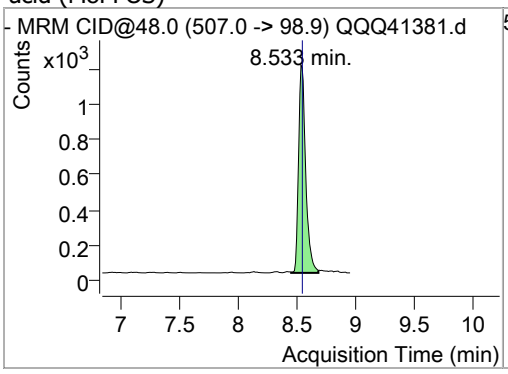
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0012	8.66	0.06	17	463.0 -> 218.8	37.9	23.7	35.6

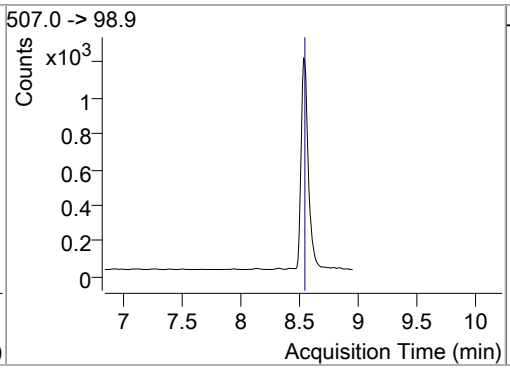


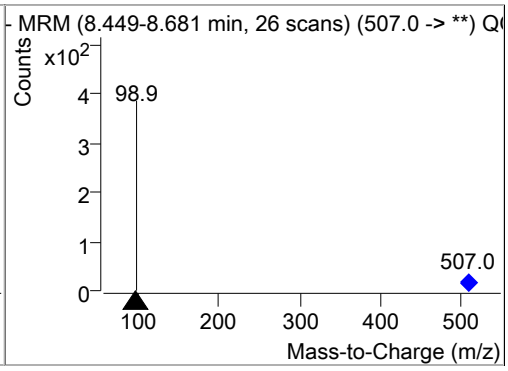




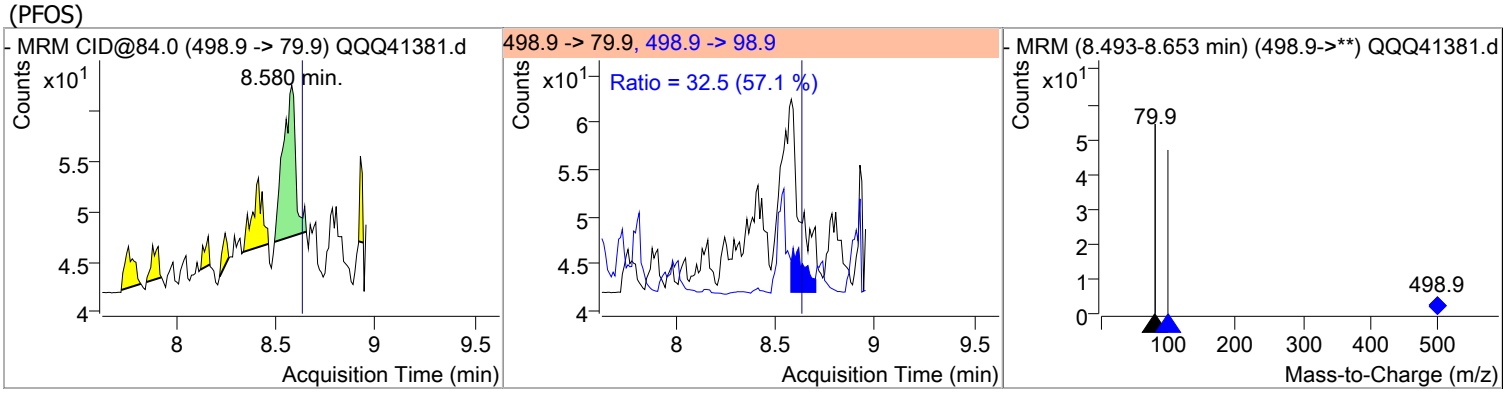
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.9237	8.53	-0.09	4984				



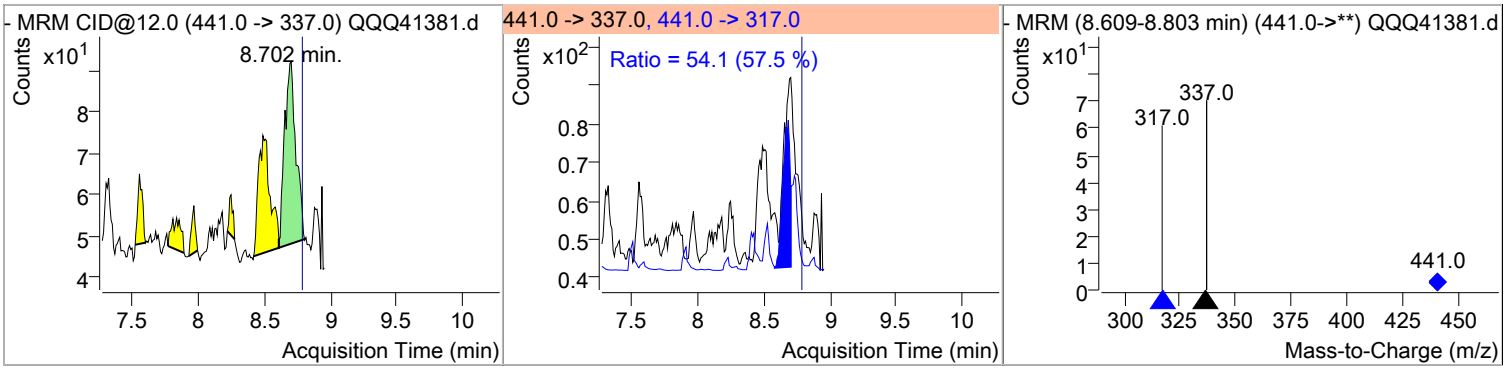




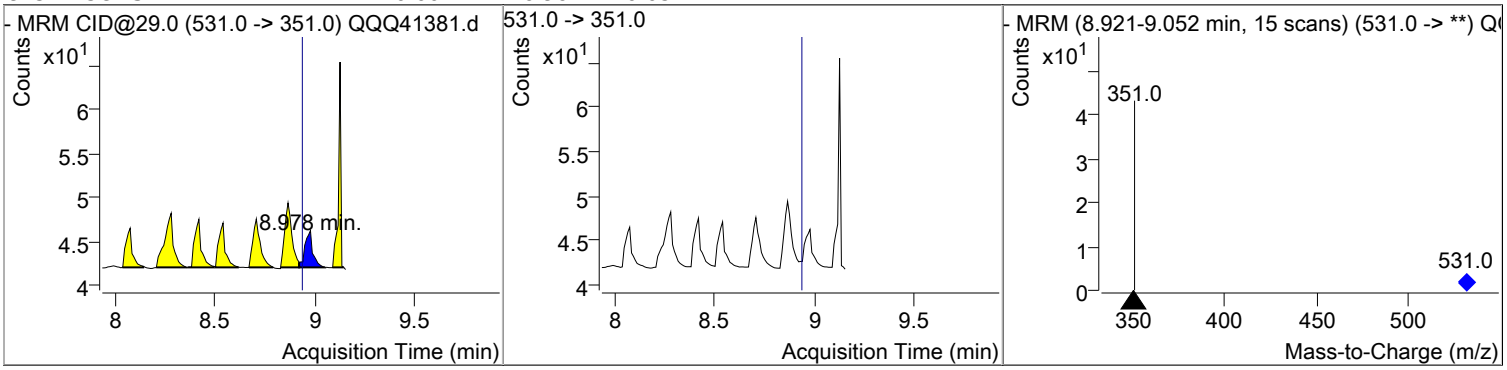
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.58	-0.05	65	498.9 -> 98.9	32.5	45.5	68.3



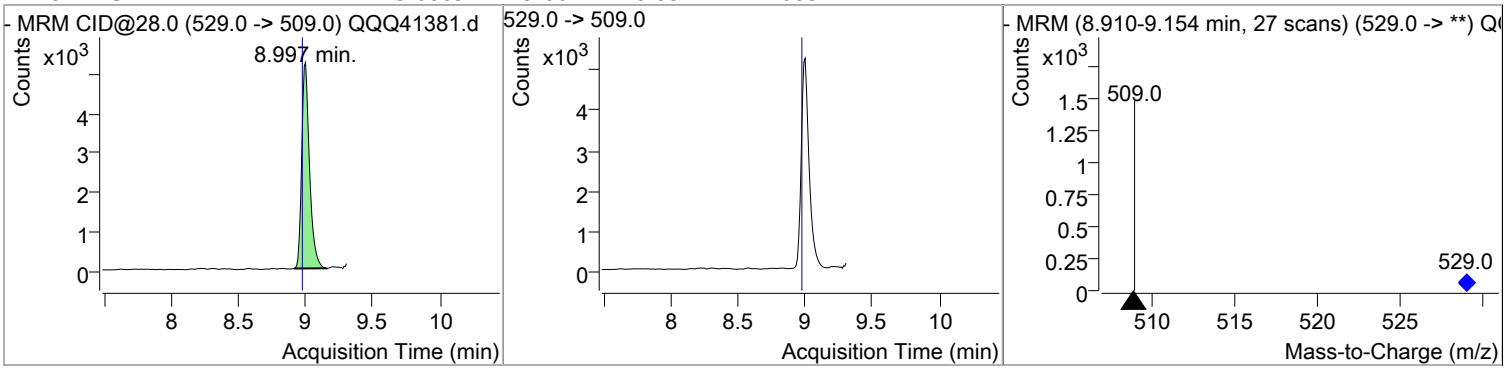
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.0481	8.70	-0.07	262	441.0 -> 317.0	54.1	75.4	113.1



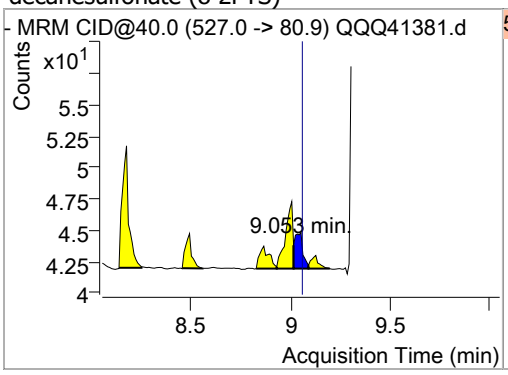
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0012	8.98	0.05	11				

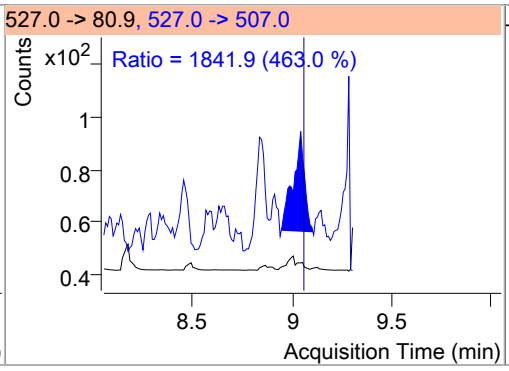


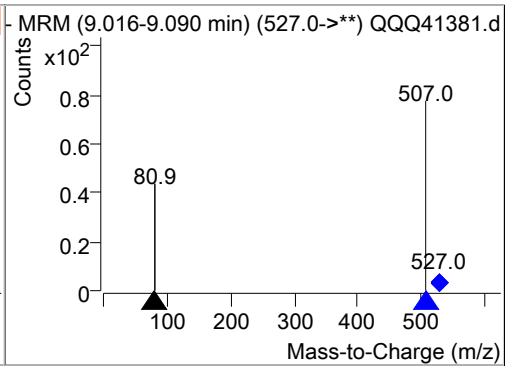
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	3.6089	9.00	-0.05	21083				



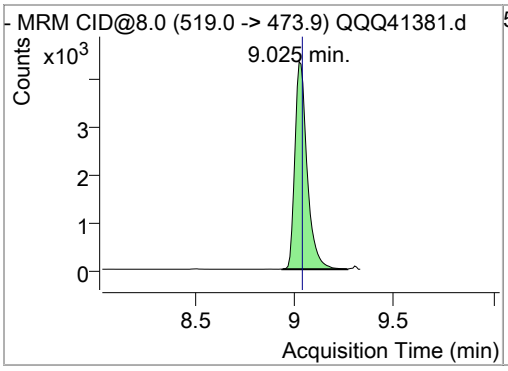
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0077	9.05	0.00	8	527.0 -> 507.0	1841.9	318.3	477.4

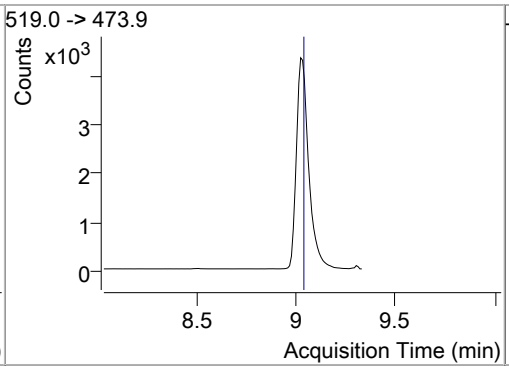


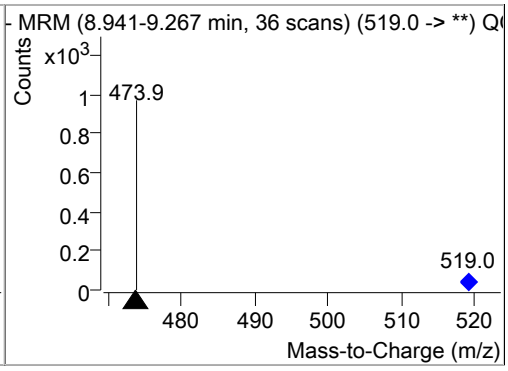




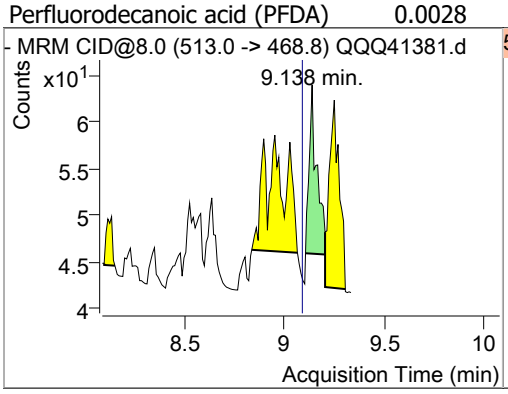
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.4626	9.03	-0.06	18590				

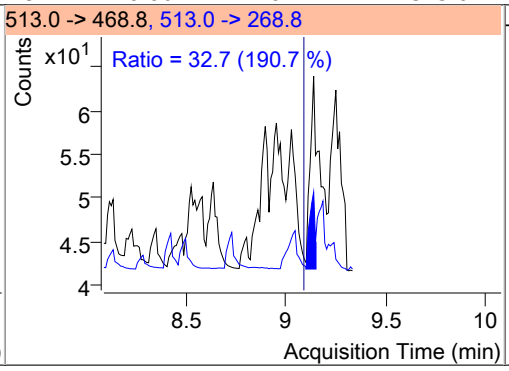


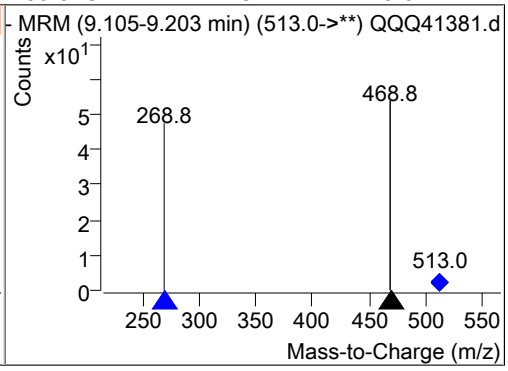




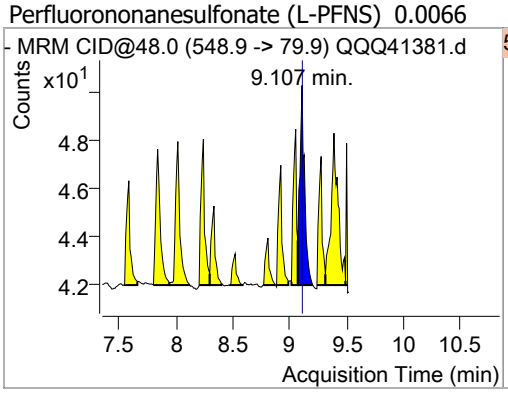
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0028	9.14	0.06	48	513.0 -> 268.8	32.7	13.7	20.6

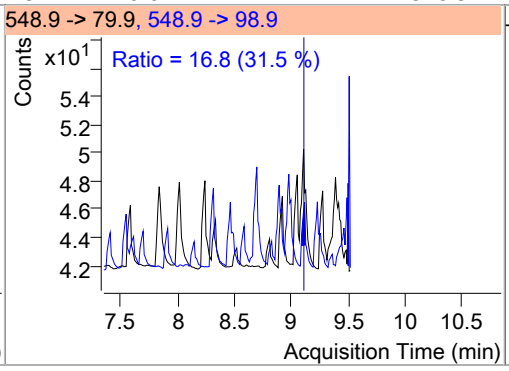


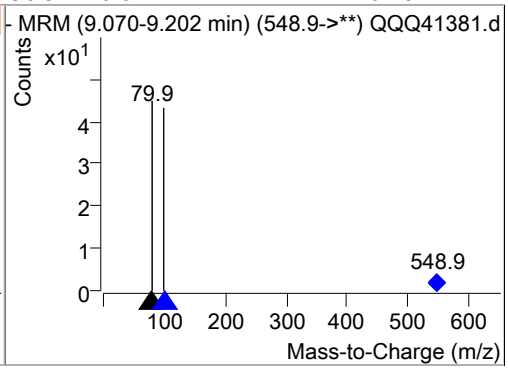




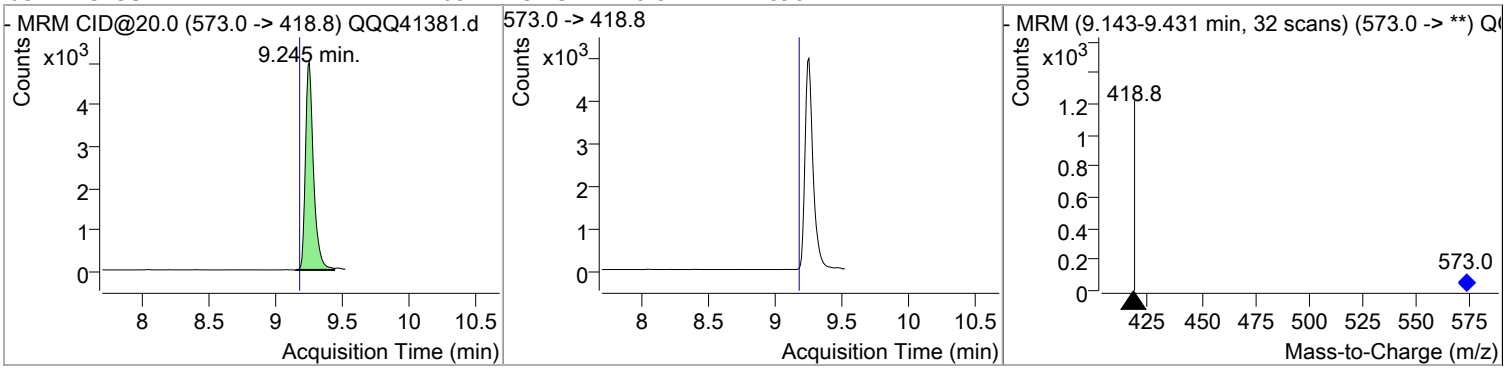
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0066	9.11	0.01	24	548.9 -> 98.9	16.8	42.7	64.0



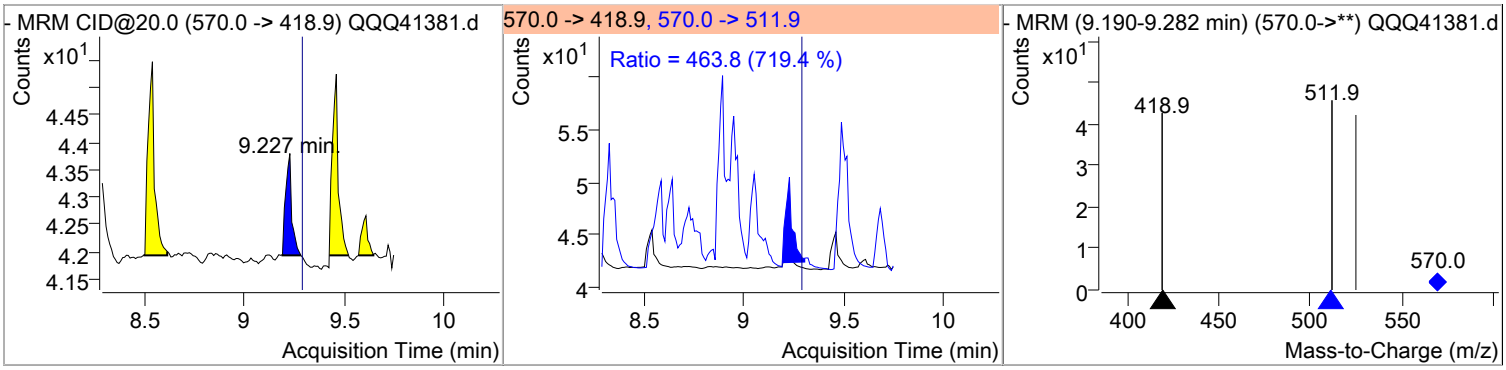




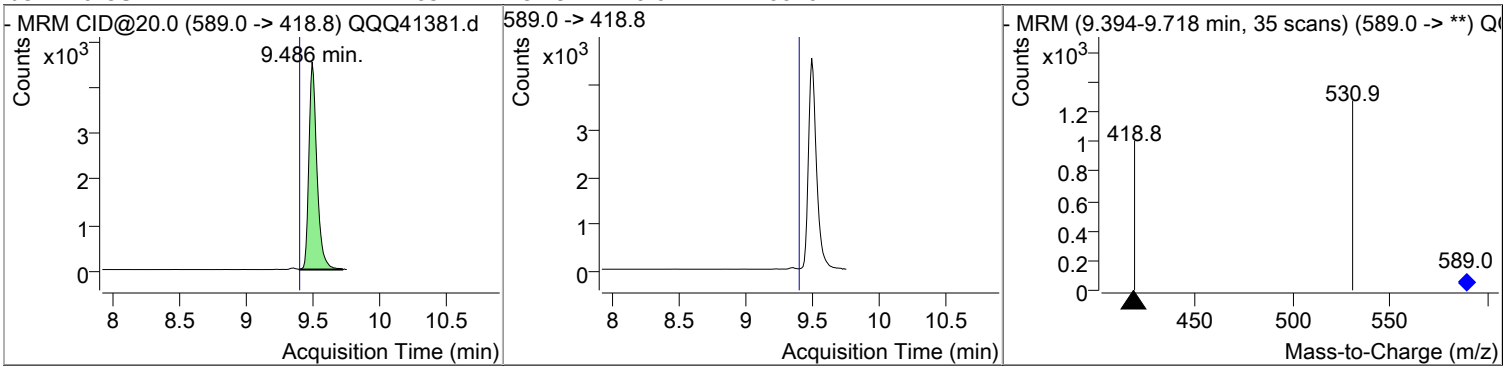
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.7768	9.25	-0.04	20982				



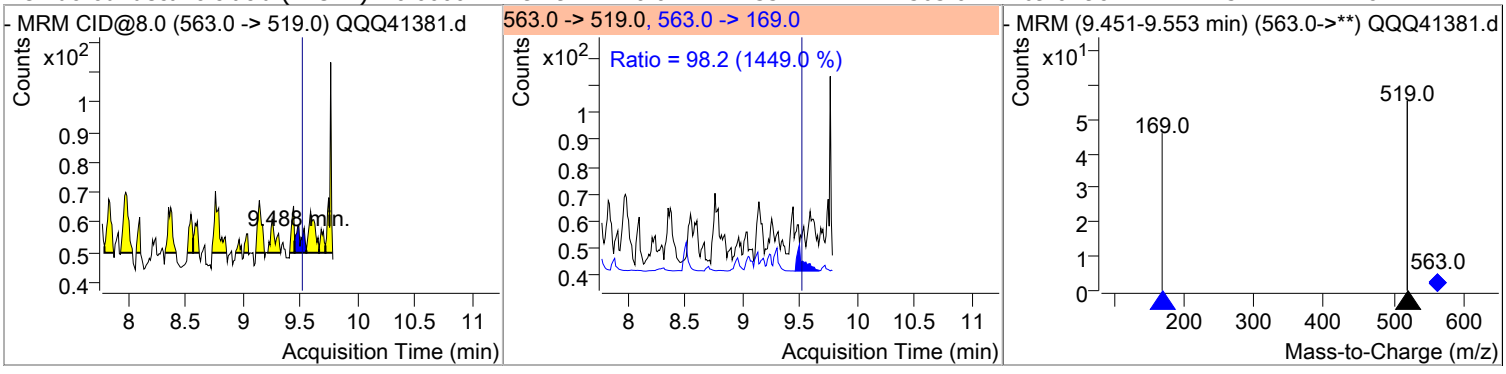
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0011	9.23	-0.06	4	570.0 -> 511.9	463.8	51.6	77.4



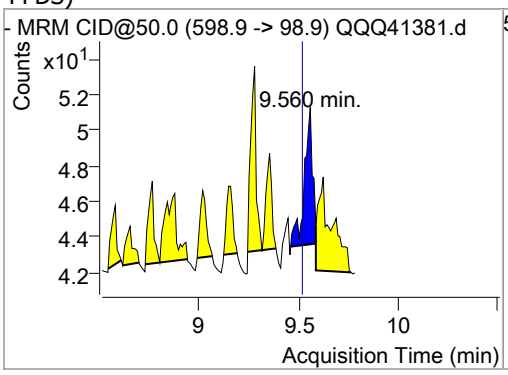
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.8511	9.49	-0.02	18818				

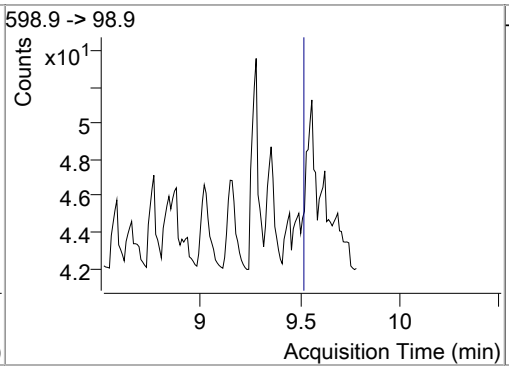


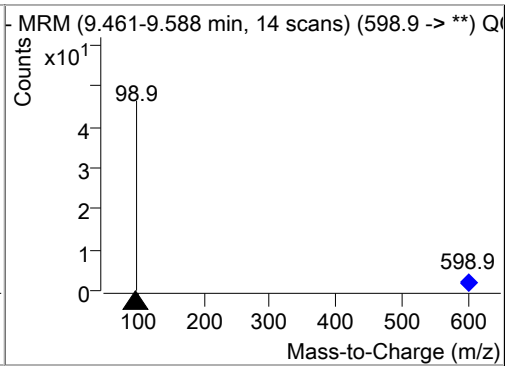
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.49	-0.02	35	563.0 -> 169.0	98.2	5.4	8.1



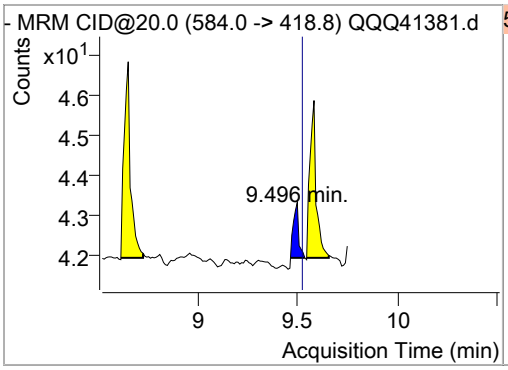
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0124	9.56	0.05	22				

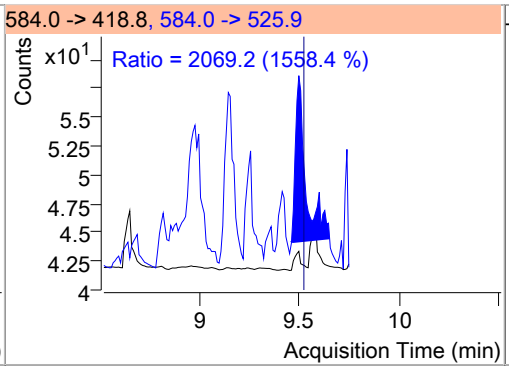


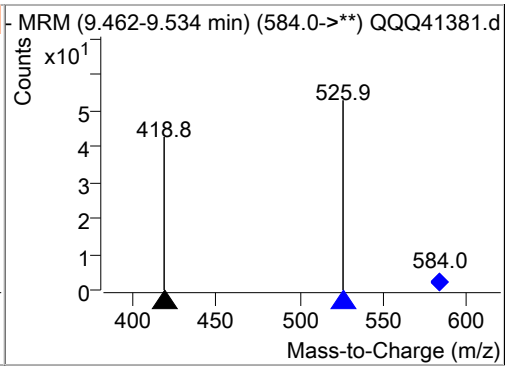




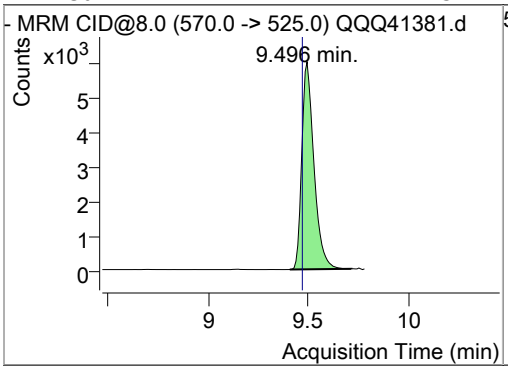
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0008	9.50	-0.02	2	584.0 -> 525.9	2069.2	106.2	159.3

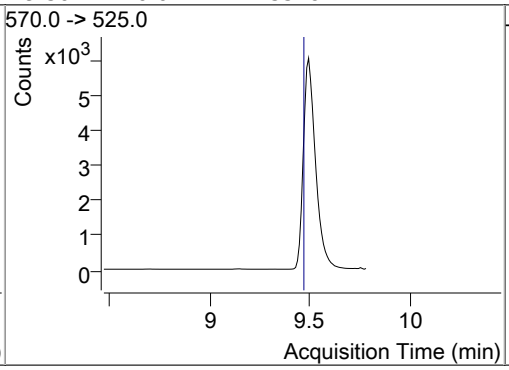


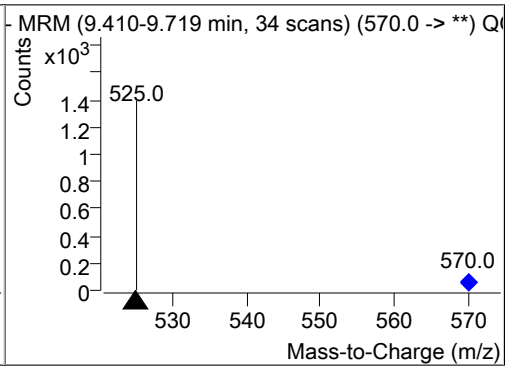




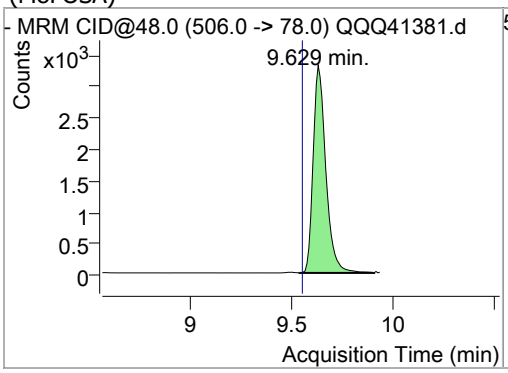
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.4734	9.50	-0.02	25348				

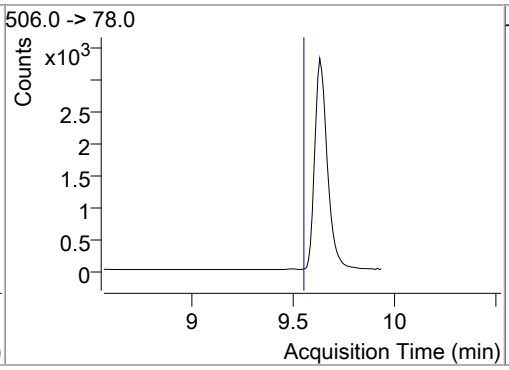


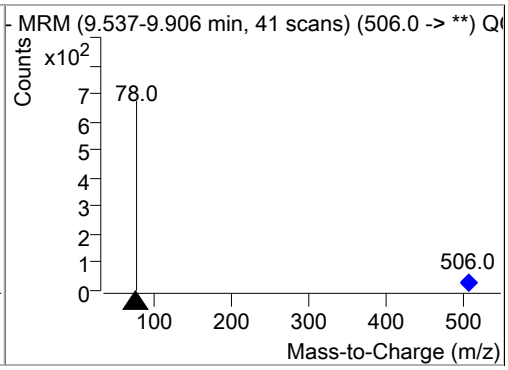




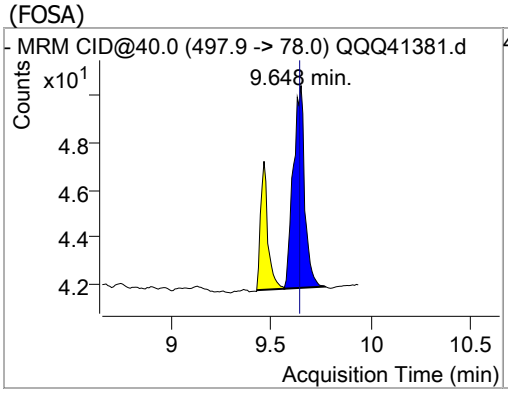
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5793	9.63	-0.02	14407				

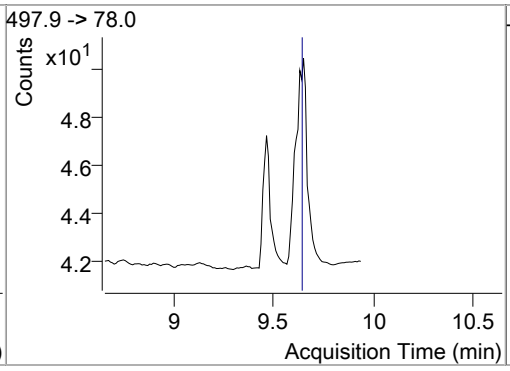


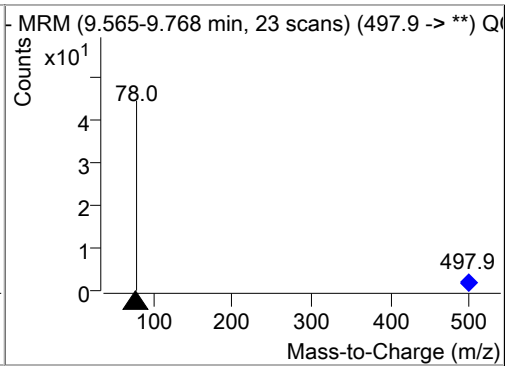




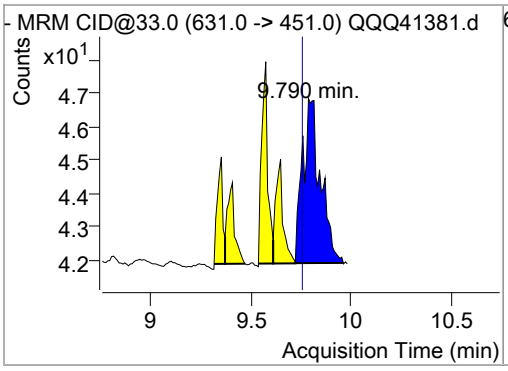
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0042	9.65	0.00	34				

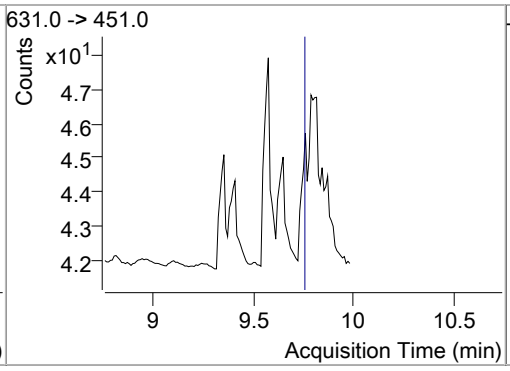


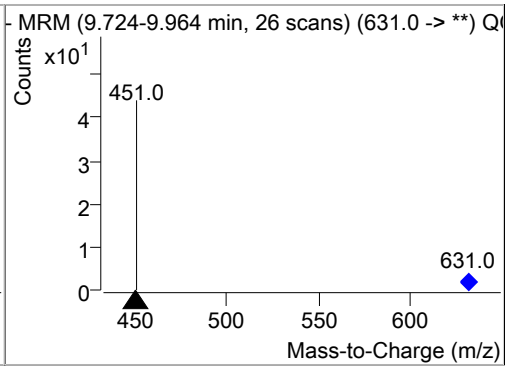




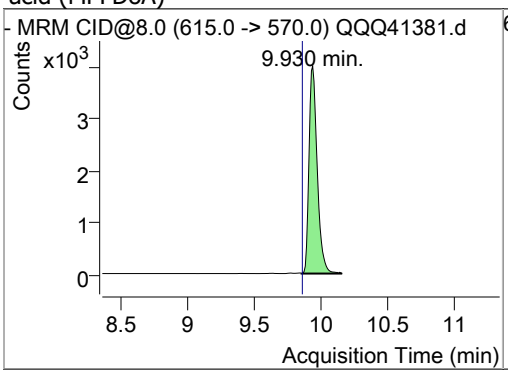
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0045	9.79	0.04	31				

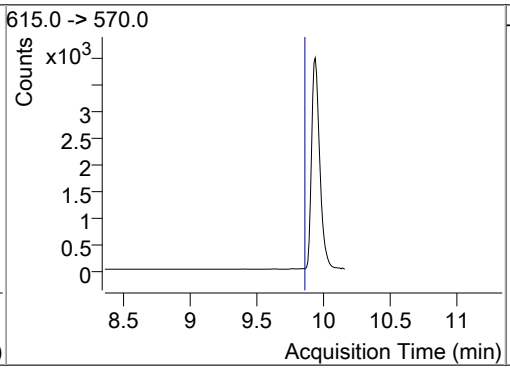


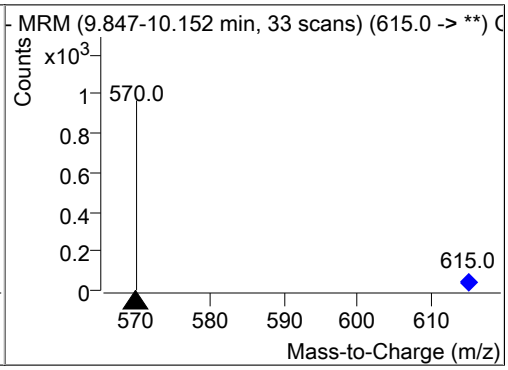




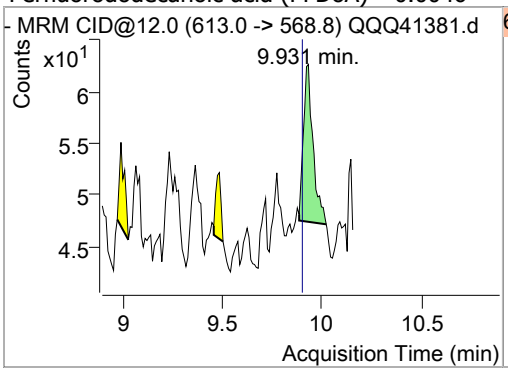
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.1264	9.93	0.04	17036				

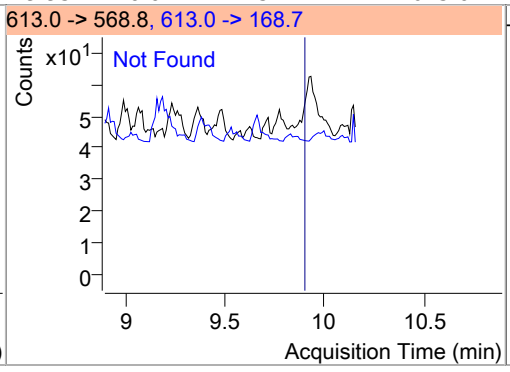


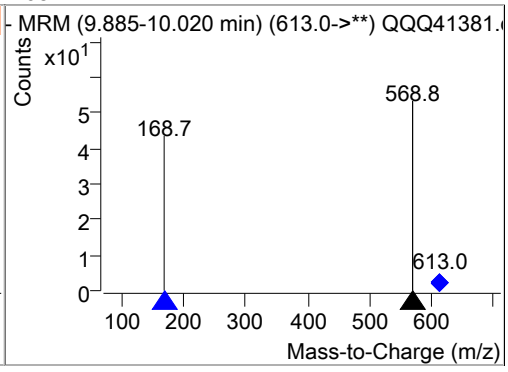




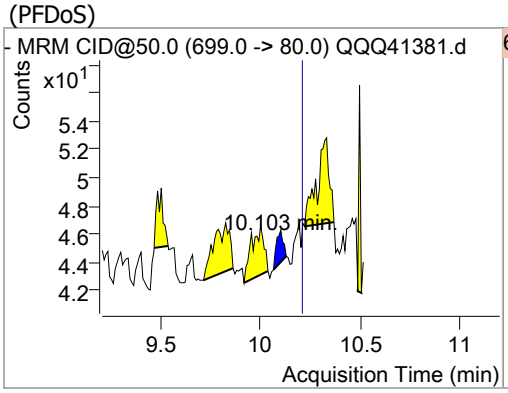
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0046	9.93	0.04	51	613.0 -> 168.7	7.4	11.2	

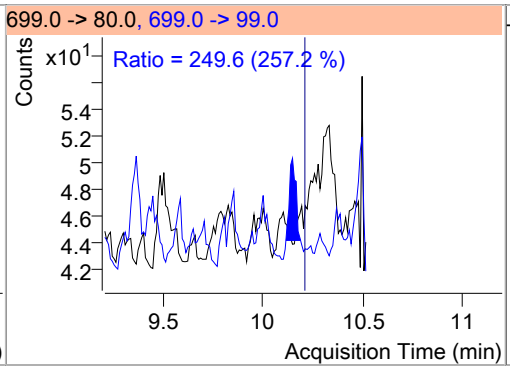


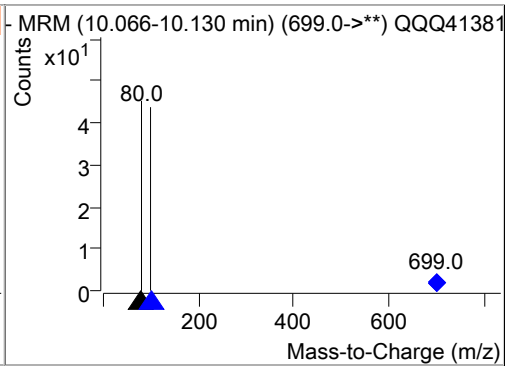




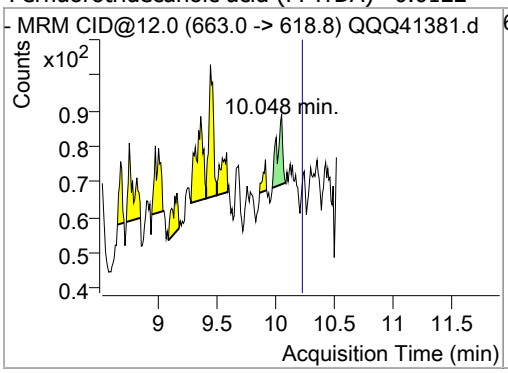
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0054	10.10	-0.10	5	699.0 -> 99.0	249.6	77.6	116.4

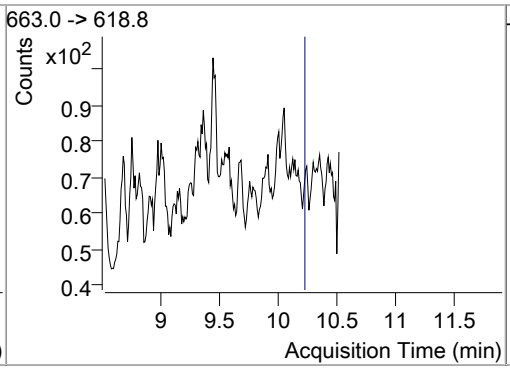


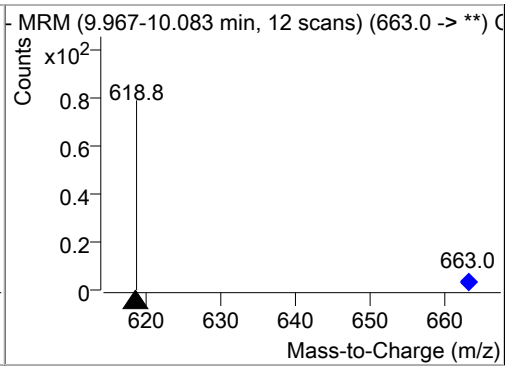




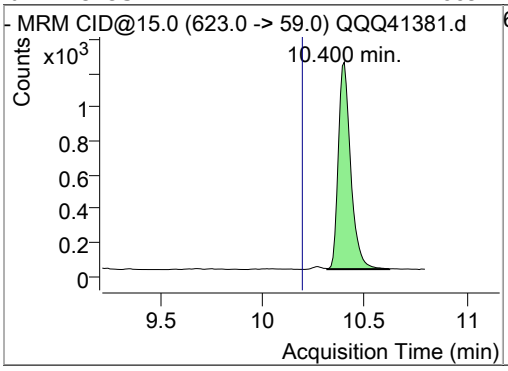
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0122	10.05	-0.17	65				

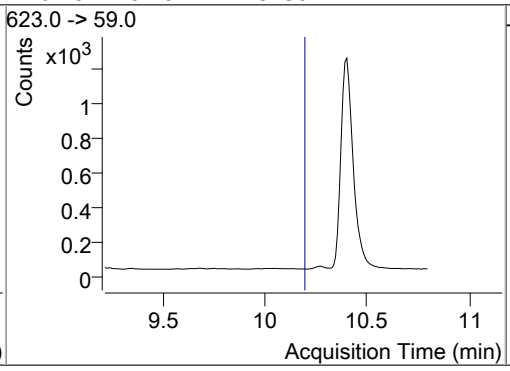


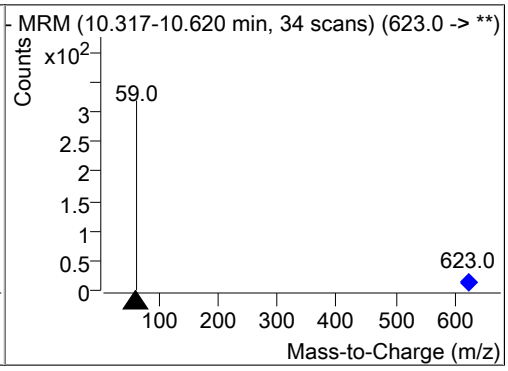




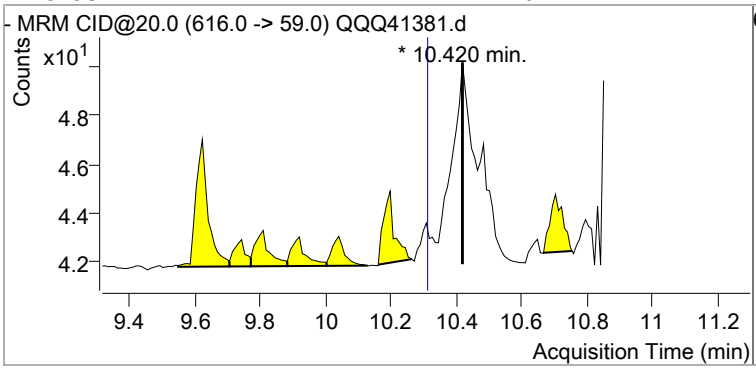
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	11.4889	10.40	0.10	5150				

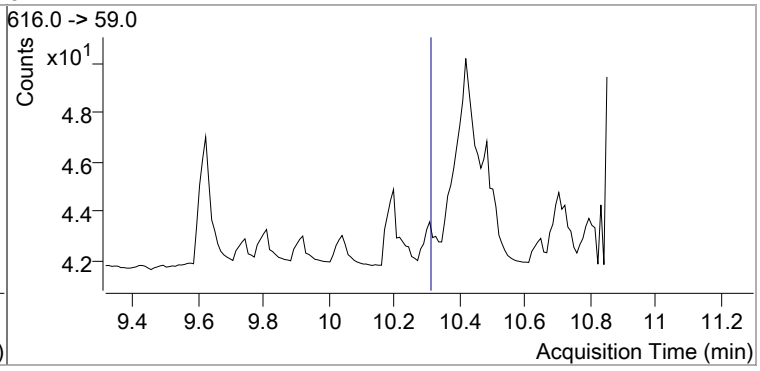




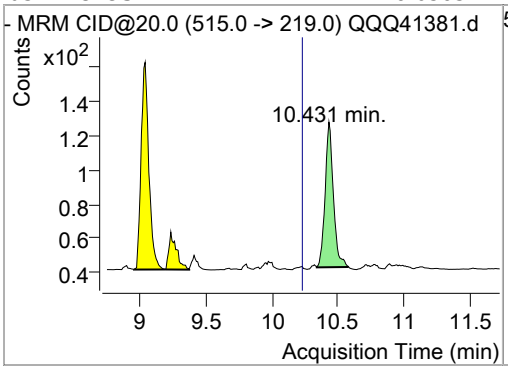


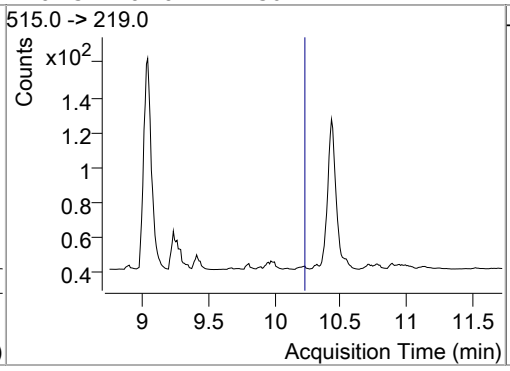
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE		0		0				

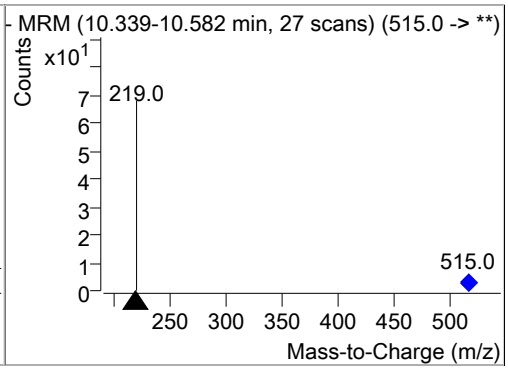




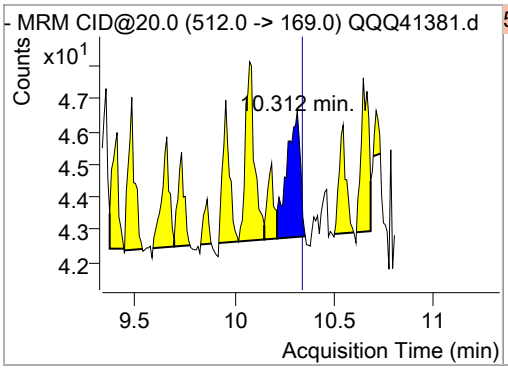
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	0.6503	10.43	0.10	367				

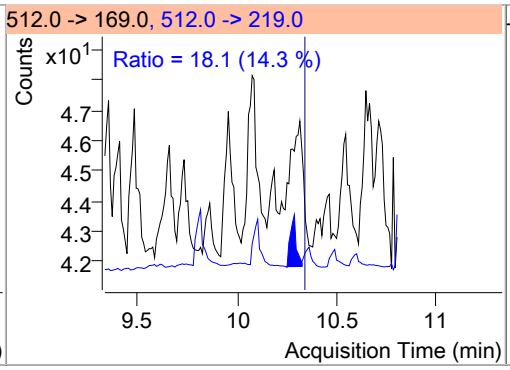


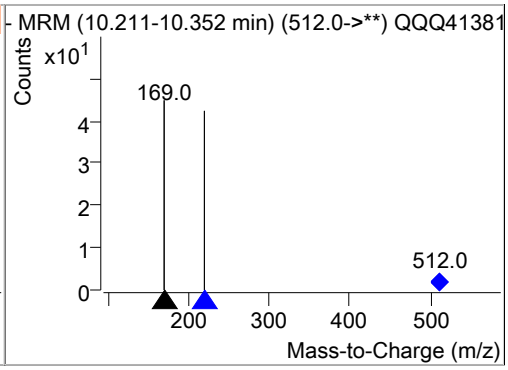




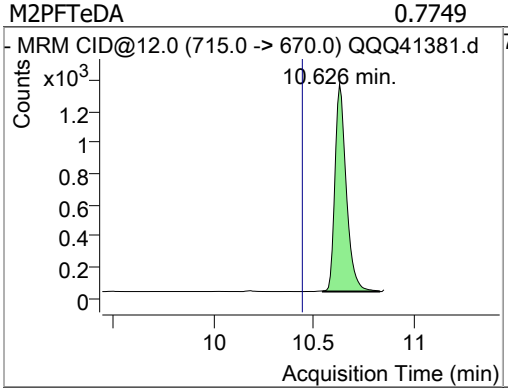
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0744	10.31	-0.02	18	512.0 -> 219.0	18.1	101.6	152.5

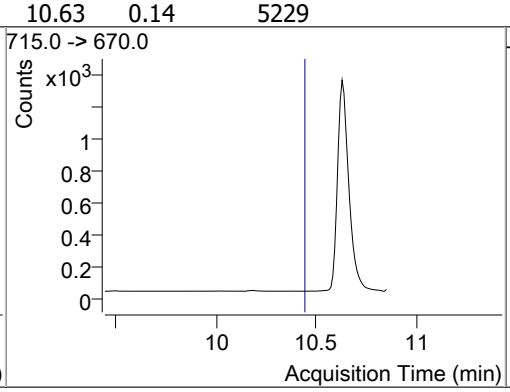


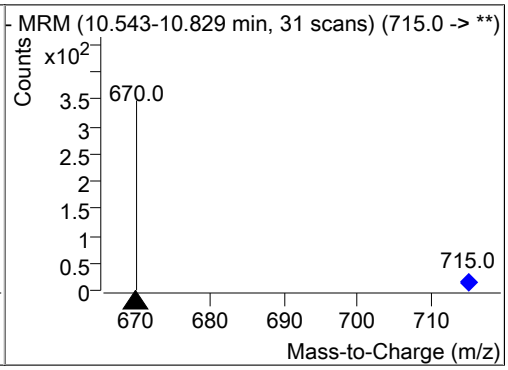




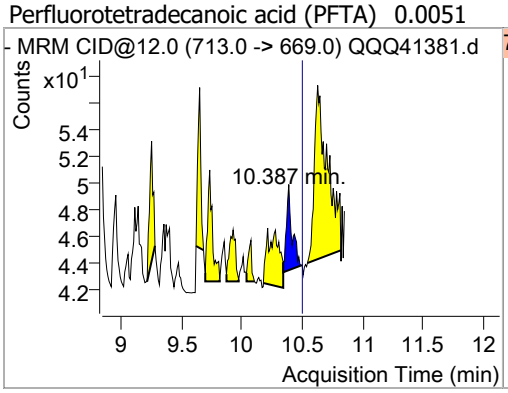
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	0.7749	10.63	0.14	5229				

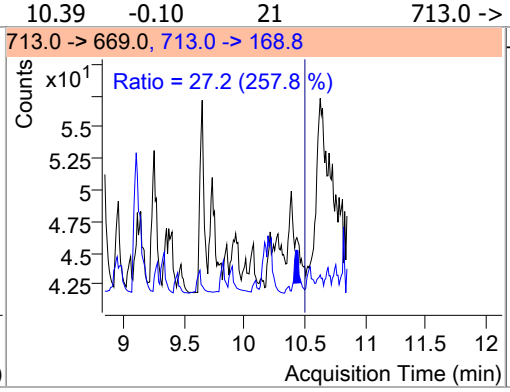


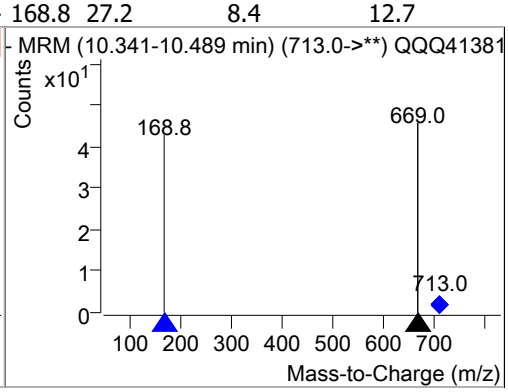




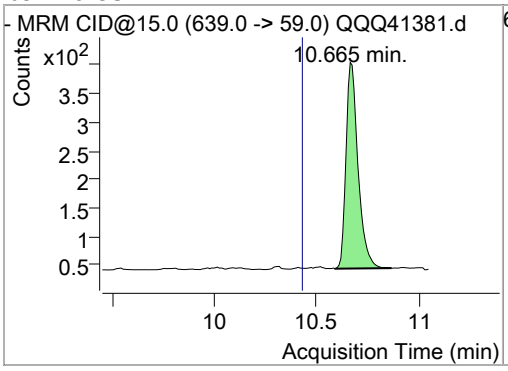
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0051	10.39	-0.10	21	713.0 -> 168.8	27.2	8.4	12.7

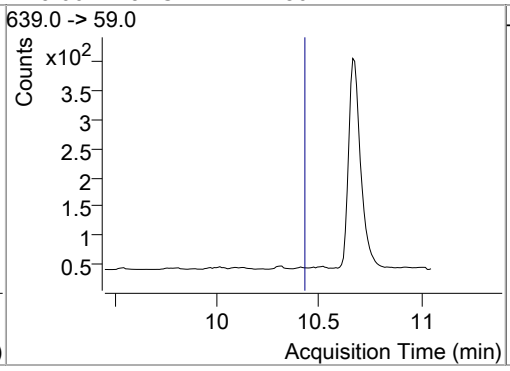


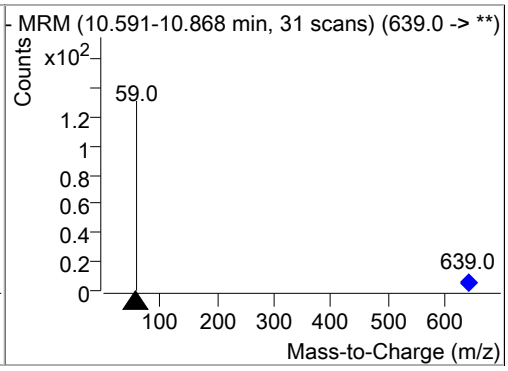




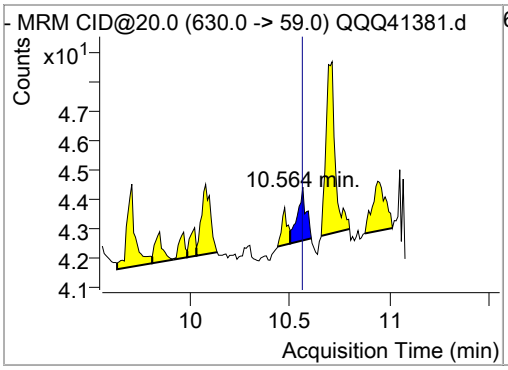
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	7.4442	10.66	0.13	1486				

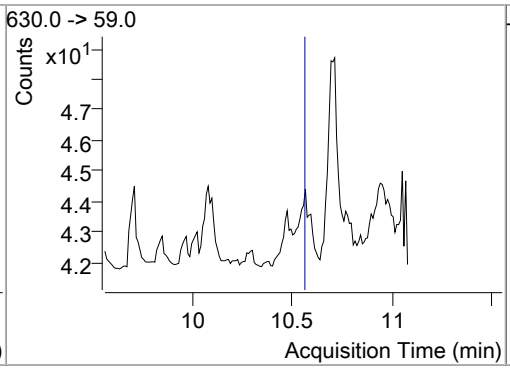


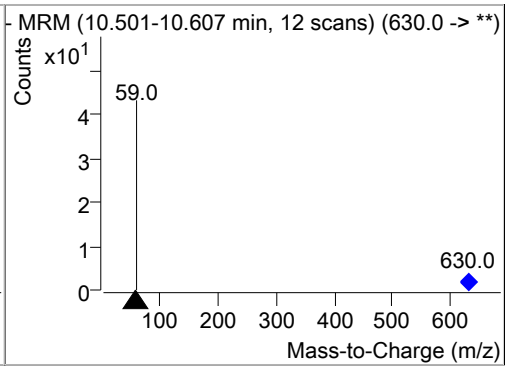




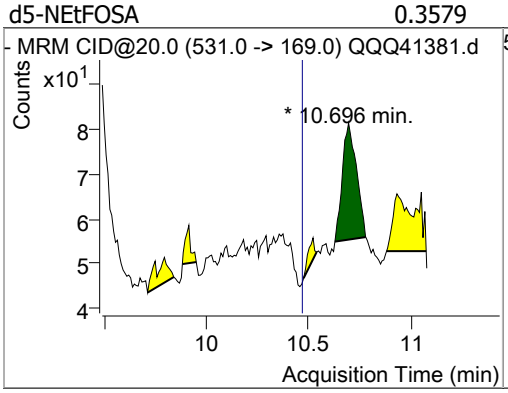
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0431	10.56	0.01	6				

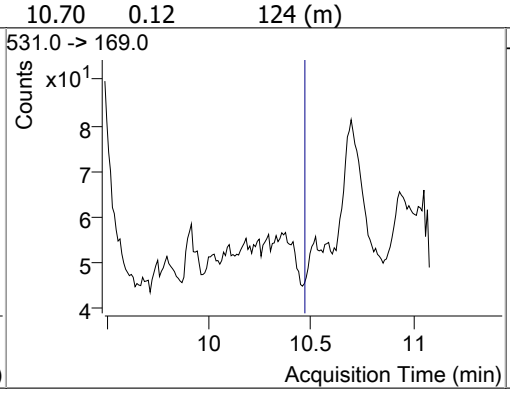


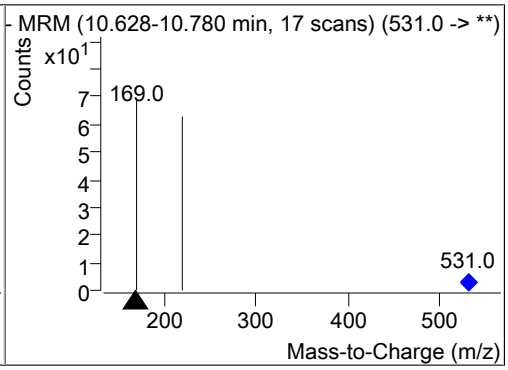




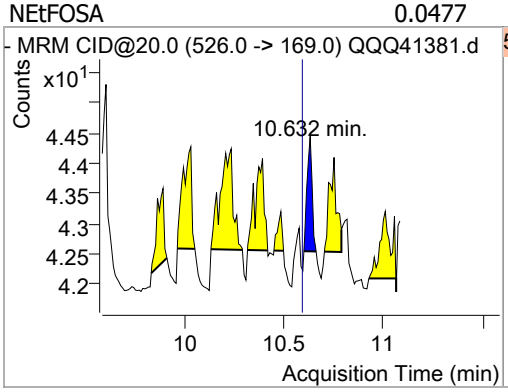
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	0.3579	10.70	0.12	124 (m)				

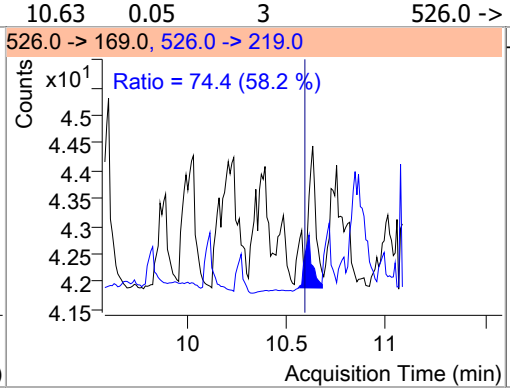


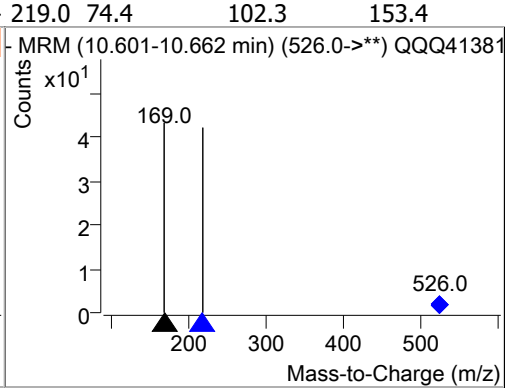




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0477	10.63	0.05	3	526.0 -> 219.0	74.4	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 2:30:01 PM	**Data File**	QQQ41381.d
Sample Type	Sample	**Sampe Name**	24F1801-04
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.352	173379	27304	0.468			1.75			41260.05
Perfluoro-n-butanoic acid (PFBA)	1.347	107	20	0.193			1.82			7.21
PFMPA	2.309	5	1	0.158			0.57			1.63
3:3FTCA	4.488	6	2	0.138			0.62			13.96
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.802	131035	20284	0.417			1.79			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.802	224	44	0.200			2.78			0.98
PFMBA	5.541	12	4	0.102			0.62			5.95
M3PFBS	5.566	16657	3730	0.334			1.57			193.07
Perfluorobutanesulfonic acid (PFBS)	5.549	17	5	0.166			2.20			43.54
PFEESA	6.084	10	4	0.074			0.92			3.47
NFDHA	6.383	1	0	0.091			0.57			1.25
M2-4-2FTS	6.306	9703	2389	0.279			1.39			320.92
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.316	33	7	0.153			3.41			1.21
M5PFHxA	6.381	63416	15475	0.315			1.35			33545.92
Perfluorohexanoic acid (PFHxA)	6.383	708	178	0.177			1.22			41.58
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.667	7	4	0.057			0.80			1.36
M3-HFPO-DA	6.671	16177	4023	0.265			1.67			927.68
HFPO-DA	6.606	0	56	0.000			1.00			7.51
M4PFHpA	7.207	13493	3207	0.324			1.86			60848.90
Perfluoroheptanoic acid (PFHpA)	7.216	220	45	0.148			0.47			2.61
5-3FTCA	7.282	46	14	0.148			1.27			2.40
Perfluorohexanesulfonic acid (PFHxS)	7.336	58	16	0.176			0.96			45.34
M3PFHxS	7.317	11533	2774	0.270			1.60			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.383	16	5	0.111			1.10			4.72
M2-6-2FTS	7.847	7891	1790	0.288			1.62			349.58
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	1612	355	0.325			1.48			∞
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	29631	6916	0.297			1.33			∞
Perfluorooctanoic acid (PFOA)	8.053	14	9	0.068			1.14			0.40
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.069	12	4	0.141			0.47			4.73
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.506	5503	1344	0.287			1.55			18048.88
Perfluorononanoic acid (PFNA)	8.655	17	9	0.060			0.80			0.95
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.533	4984	1177	0.232			1.98			∞
Perfluorooctanesulfonic acid (PFOS)	8.580	65	15	0.160			0.90			1.69
7-3FTCA	8.702	262	44	0.193			1.11			3.72
9-Cl-PF3ONS	8.978	11	4	0.131			0.71			45.76
M2-8-2FTS	8.997	21083	5217	0.244			1.41			337.21
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	8	3	0.074			0.99			18.98
M6PFDA	9.025	18590	4348	0.326			1.96			∞
Perfluorodecanoic acid (PFDA)	9.138	48	18	0.098			2.40			2.85
Perfluorononanesulfonate (L-PFNS)	9.107	24	8	0.132			1.22			67.99
d3-N-MeFOSAA	9.245	20982	4972	0.288			1.48			10688.68
N-MeFOSAA	9.227	4	2	0.092			0.97			9.38
d5-N-EtFOSAA	9.486	18818	4504	0.324			1.64			∞
Perfluoroundecanoic acid (PFUnA)	9.488	35	9	0.102			2.01			0.46
Perfluoro-1-decanesulfonate (L-PFDS)	9.560	22	8	0.126			0.91			3.99
N-EtFOSAA	9.496	2	1	0.072			0.86			1.18
M7PFUdA	9.496	25348	6008	0.309			1.64			22788.33
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.629	14407	3297	0.369			1.65			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.648	34	9	0.203			0.73			97.75
11-Cl-PF3OUdS	9.790	31	5	0.240			1.91			43.40
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.930	17036	3968	0.305			1.55			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.931	51	15	0.136			1.47			1.30
Perfluorododecanesulfonic acid (PFDoS)	10.103	5	2	0.065			1.21			0.83
Perfluorotridecanoic acid (PFTrDA)	10.048	65	20	0.116			0.34			1.26
d7-NMeFOSE	10.400	5150	1223	0.303			1.44			∞
NMeFOSE	10.420	0	50	0.000			1.00			4.06
d3-NMeFOSA	10.431	367	84	0.243			1.13			255.68
NMeFOSA	10.312	18	4	0.141			0.27			4.69
M2PFTeDA	10.626	5229	1334	0.285			1.67			40.50
Perfluorotetradecanoic acid (PFTA)	10.387	21	6	0.147			2.42			2.41
d9-NEtFOSE	10.665	1486	361	0.277			1.93			186.10
NEtFOSE	10.564	6	2	0.106			0.50			0.45
d5-NEtFOSA	10.696	124	26	0.151			1.32			5.44
NEtFOSA	10.632	3	2	0.061			0.74			3.83

FORM VI

INITIAL CALIBRATION DATA

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801

Client: Adirondack Environmental Services, Inc.
Project: 240625028

Calibration: SF40019
Instrument: LCQQQ

Calibration Date: 06/11/24 08:00

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
11CL-PF3OUdS	0.756	0.8417496	1.89	0.8250174	4.72	0.8476695	9.45	0.8328232	18.9	0.8560079	47.2	0.8878833
1H,1H,2H,2H-Perfluorodecan esulfonic acid (8:2 FTS)	0.768	0.302117	1.92	0.2586641	4.8	0.2510494	9.6	0.2446878	19.2	0.2231815	48	0.1717028
1H,1H,2H,2H-Perfluorohexan esulfonic acid (4:2 FTS)	0.75	1.445225	1.88	1.32964	4.69	1.274501	9.38	1.235863	18.8	1.030217	46.9	0.7978462
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.76	1.419502	1.9	1.389534	4.75	1.37748	9.5	1.27446	19	1.140309	47.5	0.9340306
3-Perfluoroheptyl propanoic acid (FHpPA)	5	0.2517383	12.5	0.2472201	31.2	0.2305151	62.6	0.2283899	125	0.2312229	312	0.2133815
3-Perfluoropentyl propanoic acid (FPePA)	5	0.1356379	12.5	0.1294081	31.2	0.1238096	62.6	0.1263869	125	0.126228	312	0.1239779
3-Perfluoropropyl propanoic acid (FPrPA)	1	1.285161E-02	2.5	1.330201E-02	6.24	1.209559E-02	12.5	1.250465E-02	25	1.249329E-02	62.4	1.262671E-02
9CL-PF3ONS	0.748	1.213245	1.87	1.281953	4.68	1.355778	9.35	1.345106	18.7	1.361465	46.8	1.440194
ADONA	0.756	0.5363559	1.89	0.5156992	4.72	0.5357072	9.45	0.5278366	18.9	0.5574327	47.2	0.5775994
d3-N-MeFOSAA	5	1.021237	5	0.9368813	5	0.9619665	5	0.9890246	5	1.073165	5	1.103036
d5-N-EtFOSAA	5	0.8957917	5	0.8155212	5	0.8482488	5	0.8660777	5	0.9758302	5	0.9233782
d7-N-MeFOSE	25	7.618086E-02	25	7.732176E-02	25	7.335488E-02	25	7.656581E-02	25	9.177936E-02	25	8.480472E-02
d9-N-EtFOSE	25	3.161162E-02	25	3.153488E-02	25	3.160527E-02	25	3.175591E-02	25	0.0345621	25	3.324123E-02
d-N-EtFOSA	2.5	4.954239E-02	2.5	5.164928E-02	2.5	5.022035E-02	2.5	0.0523744	2.5	6.102858E-02	2.5	5.389933E-02
d-N-MeFOSA	2.5	0.1069469	2.5	9.696486E-02	2.5	9.655299E-02	2.5	0.1001523	2.5	0.1084131	2.5	0.119645
HFPO-DA (Gen-X)	0.8	2.271525E-02	2	0.0214826	5	2.007558E-02	10	2.112232E-02	20	2.236678E-02	50	2.379738E-02
M2-4:2 FTS	4.69	2.936833	4.69	3.217458	4.69	3.69079	4.69	3.243768	4.69	4.292762	4.69	4.455338
M2-6:2 FTS	4.76	2.662897	4.76	2.757494	4.76	3.275841	4.76	2.973425	4.76	3.818885	4.76	3.726935
M2-8:2 FTS	4.8	4.093521	4.8	4.16239	4.8	5.16529	4.8	4.523156	4.8	5.644977	4.8	6.146763
M2PFTeDA	1.25	0.4874433	1.25	0.4649605	1.25	0.4327513	1.25	0.522573	1.25	0.5661216	1.25	0.5296587
M3HFPO-DA	10	0.287906	10	0.3002983	10	0.2857792	10	0.2906126	10	0.3082383	10	0.2735562
M3PFBS	2.33	4.294608	2.33	4.424531	2.33	5.035728	2.33	4.490717	2.33	5.332129	2.33	4.558771
M3PFHxS	2.37	2.85469	2.37	3.064164	2.37	3.532779	2.37	3.170279	2.37	3.411305	2.37	3.091066
M4PFHpA	2.5	0.4385777	2.5	0.4638624	2.5	0.4281909	2.5	0.4054169	2.5	0.4544321	2.5	0.4367977
M5PFHxA	2.5	1.61505	2.5	1.627909	2.5	1.554737	2.5	1.61662	2.5	1.741917	2.5	1.707624
M6PFDA	1.25	1.463293	1.25	1.470383	1.25	1.558181	1.25	1.646304	1.25	1.741013	1.25	1.544089
M7PFUdA	1.25	1.681584	1.25	1.675848	1.25	1.669948	1.25	1.648478	1.25	1.803387	1.25	1.806342
M9PFNA	1.25	0.2876865	1.25	0.2631954	1.25	0.2790662	1.25	0.2781032	1.25	0.2534364	1.25	0.2899284
N-EtFOSA	0.2	1.446307	0.5	1.449529	1.25	1.34705	2.5	1.281211	5	1.238317	12.5	1.304919

FORM VI

INITIAL CALIBRATION DATA

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford

Client: Adirondack Environmental Services, Inc.

Calibration: SF40019

SDG: 24F1801

Project: 240625028

Instrument: LCQQQ

Calibration Date: 06/11/24 08:00

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
N-EtFOSAA	0.2	1.010421	0.5	1.082417	1.25	0.9397068	2.5	0.8763464	5	0.8673541	12.5	0.9261678
N-EtFOSE	2	2.132745	5	2.10895	12.5	1.977114	25	1.972098	50	2.039745	125	2.030007
N-MeFOSA	0.2	0.652308	0.5	0.8406648	1.25	0.8169963	2.5	0.8214227	5	0.790782	12.5	0.7511984
N-MeFOSAA	0.2	0.9218336	0.5	0.9360935	1.25	0.868022	2.5	0.871806	5	0.854581	12.5	0.8657547
N-MeFOSE	2	0.8591074	5	0.8687948	12.5	0.9067589	25	0.8133092	50	0.7794857	125	0.8482508
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	0.356	1.328474	0.89	1.259246	2.22	1.249249	4.45	1.222201	8.9	1.264698	22.2	1.218358
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5	1.036468	2.5	0.9735314	2.5	1.03621	2.5	1.006126	2.5	1.077281	2.5	1.130103
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.4	0.4754175	2.4	0.4580594	2.4	0.4460059	2.4	0.4587378	2.4	0.5495739	2.4	0.5030513
Perfluoro-1-decanesulfonic acid (PFDS)	0.193	0.736601	0.482	0.8462398	1.21	0.7863056	2.41	0.7598538	4.82	0.6932726	12.1	0.7246069
Perfluoro-1-heptanesulfonic acid (PFHpS)	0.191	2.724249	0.476	2.729787	1.19	2.624164	2.38	2.54101	4.76	2.287431	11.9	2.514709
Perfluoro-1-nonanesulfonic acid (PFNS)	0.192	0.1667676	0.481	0.1763599	1.2	0.1634619	2.4	0.1669413	4.81	0.1580418	12	0.1689549
Perfluoro-1-octanesulfonamide (FOSA)	0.2	1.645125	0.5	1.411174	1.25	1.320668	2.5	1.350205	5	1.325635	12.5	1.321957
Perfluoro-1-pentanesulfonate (PFPeS)	0.188	1.409195	0.47	1.342495	1.18	1.416291	2.35	1.268087	4.7	1.409377	11.8	1.333414
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	0.4	1.917582E-02	1	1.908475E-02	2.5	1.654214E-02	5	1.417709E-02	10	1.406491E-02	25	1.498253E-02
Perfluoro-4-oxapentanoic acid (PFMPA)	0.4	0.2732439	1	0.2568731	2.5	0.2458922	5	0.2475369	10	0.2535351	25	0.2573139
Perfluoro-5-oxahexanoic acid (PFMBA)	0.4	0.456255	1	0.4030895	2.5	0.4044922	5	0.4069078	10	0.4100826	25	0.4082408
Perfluorobutanesulfonic acid (PFBS)	0.177	1.265081	0.444	1.117437	1.11	1.142539	2.22	1.089618	4.44	1.046742	11.1	1.08362
Perfluorodecanoic acid (PFDA)	0.2	1.242611	0.5	1.131137	1.25	1.034523	2.5	1.028566	5	0.9688502	12.5	1.057826
Perfluorododecanesulfonic acid (PFDoS)	0.194	0.6794376	0.485	0.4936884	1.21	0.389177	2.42	0.3972945	4.85	0.4047264	12.1	0.3899824
Perfluorododecanoic acid (PFDoA)	0.2	0.9298378	0.5	0.9231386	1.25	0.9914595	2.5	0.8216495	5	0.7959183	12.5	0.8438479
Perfluoroheptanoic acid (PFHpA)	0.2	2.219421	0.5	2.283905	1.25	2.172705	2.5	2.442311	5	2.339385	12.5	2.289223
Perfluorohexanesulfonic acid (PFHxS)	0.183	1.618903	0.457	1.436291	1.14	1.429133	2.28	1.292747	4.57	1.350836	11.4	1.287577
Perfluorohexanoic acid (PFHxA)	0.2	1.252973	0.5	1.078841	1.25	1.18513	2.5	1.139151	5	1.116357	12.5	1.146298

FORM VI

INITIAL CALIBRATION DATA

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Instrument: LCQQQ
Calibration Date: 06/11/24 08:00

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	1.315449	1.25	1.347807	1.25	1.057263	1.25	1.389372	1.25	1.630837	1.25	1.441279
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10	2.530443	10	2.611225	10	2.424937	10	2.496647	10	2.786472	10	2.626299
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5	1.481896	5	1.527633	5	1.496306	5	1.490151	5	1.631306	5	1.568335
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.5	0.747179	2.5	0.7397382	2.5	0.7102569	2.5	0.6989216	2.5	0.8589963	2.5	0.7123822
Perfluoro-n-butanoic acid (PFBA)	0.8	0.9485018	2	0.9028141	5	0.8992892	10	0.8887539	20	0.8780993	50	0.8928249
Perfluorononanoic acid (PFNA)	0.2	4.155722	0.5	3.521283	1.25	3.040228	2.5	3.277941	5	3.492736	12.5	3.559257
Perfluorooctanesulfonic acid (PFOS)	0.186	3.678911	0.464	3.057149	1.16	2.611843	2.32	2.493571	4.64	2.313785	11.6	2.364381
Perfluorooctanoic acid (PFOA)	0.2	1.435761	0.5	1.229604	1.25	1.161105	2.5	1.240876	5	1.073386	12.5	1.190538
Perfluoropentanoic acid (PFPeA)	0.4	1.068768	1	0.9883498	2.5	0.9981181	5	0.9972254	10	0.972274	25	0.9846453
Perfluorotetradecanoic acid (PFTA)	0.2	1.072728	0.5	1.152193	1.25	1.072843	2.5	1.028474	5	1.020803	12.5	0.9964453
Perfluorotridecanoic acid (PFTrDA)	0.2	1.630882	0.5	1.426987	1.25	1.638711	2.5	1.432998	5	1.571122	12.5	1.458467
Perfluoroundecanoic acid (PFUnA)	0.2	0.8512088	0.5	0.926064	1.25	0.862385	2.5	0.952307	5	0.9357847	12.5	0.8527501

FORM VI INITIAL CALIBRATION DATA (Continued)

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Instrument: LCQQQ
Calibration Date: 06/11/24 08:00

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
11CL-PF3OUdS	94.5	0.8689574	236	0.9129998								
1H,1H,2H,2H-Perfluorodecan esulfonic acid (8:2 FTS)	96	~~0.1237933~~	240	~~6.837007E-02~~								
1H,1H,2H,2H-Perfluorohexan esulfonic acid (4:2 FTS)	93.8	~~0.6047542~~	234	~~0.3241697~~								
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	95	~~0.6772623~~	238	~~0.3534443~~								
3-Perfluoroheptyl propanoic acid (FHpPA)	624	0.2009483	1560	0.1574644								
3-Perfluoropentyl propanoic acid (FPePA)	624	0.124491	1560	0.10288								
3-Perfluoropropyl propanoic acid (FPrPA)	125	1.359466E-02	312	1.346872E-02								
9CL-PF3ONS	93.5	1.45808	234	1.497206								
ADONA	94.5	0.5993467	236	0.598142								
d3-N-MeFOSAA	5	0.9243605	5	1.12249								
d5-N-EtFOSAA	5	0.715613	5	0.7873859								
d7-N-MeFOSE	25	6.694376E-02	25	8.236001E-02								
d9-N-EtFOSE	25	2.720503E-02	25	3.130754E-02								
d-N-EtFOSA	2.5	4.590035E-02	2.5	5.829023E-02								
d-N-MeFOSA	2.5	9.225145E-02	2.5	0.1256921								
HFPO-DA (Gen-X)	100	2.388219E-02	250	2.372358E-02								
M2-4:2 FTS	4.69	~~4.911503~~	4.69	~~8.799581~~								
M2-6:2 FTS	4.76	~~4.264632~~	4.76	~~7.796023~~								
M2-8:2 FTS	4.8	~~7.458663~~	4.8	~~13.31316~~								
M2PFTeDA	1.25	0.5250992	1.25	0.5661815								
M3HFPO-DA	10	0.2263077	10	0.2115565								
M3PFBS	2.33	4.007367	2.33	4.014515								
M3PFHxS	2.37	2.754876	2.37	2.612886								
M4PFHpA	2.5	0.3328015	2.5	0.3767635								
M5PFHxA	2.5	1.406623	2.5	1.580539								
M6PFDA	1.25	1.329521	1.25	1.280499								
M7PFUdA	1.25	1.564531	1.25	1.473811								
M9PFNA	1.25	0.2475612	1.25	0.2818551								
N-EtFOSA	25	1.265899	78	0.9703165								

FORM VI INITIAL CALIBRATION DATA (Continued)

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Instrument: LCQQQ
Calibration Date: 06/11/24 08:00

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
N-EtFOSAA	25	0.9387836	62.5	0.9544036								
N-EtFOSE	250	1.992368	780	1.692193								
N-MeFOSA	25	0.7973114	78	0.5492495								
N-MeFOSAA	25	0.8453745	62.5	0.8475836								
N-MeFOSE	250	0.8837211	780	0.6357802								
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	44.5	1.26529	111	1.121731								
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5	0.8926181	2.5	1.02668								
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.4	0.4291563	2.4	0.5720101								
Perfluoro-1-decanesulfonic acid (PFDS)	24.1	0.7178781	60.3	0.6174239								
Perfluoro-1-heptanesulfonic acid (PFHpS)	23.8	2.606093	59.6	2.17802								
Perfluoro-1-nonanesulfonic acid (PFNS)	24	0.1599577	60.1	0.1637933								
Perfluoro-1-octanesulfonamide (FOSA)	25	1.383203	62.5	1.324335								
Perfluoro-1-pentanesulfonate (PFPeS)	23.5	1.40152	58.8	1.624082								
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	50	1.533099E-02	125	1.252926E-02								
Perfluoro-4-oxapentanoic acid (PFMPA)	50	0.2689404	125	0.2801626								
Perfluoro-5-oxahexanoic acid (PFMBA)	50	0.4090721	125	0.388279								
Perfluorobutanesulfonic acid (PFBS)	22.2	1.136741	55.4	1.149729								
Perfluorodecanoic acid (PFDA)	25	1.143104	62.5	1.125063								
Perfluorododecanesulfonic acid (PFDoS)	24.2	0.3627868	60.6	0.3109011								
Perfluorododecanoic acid (PFDoA)	25	0.8353397	62.5	0.8205158								
Perfluoroheptanoic acid (PFHpA)	25	2.622263	62.5	2.595703								
Perfluorohexanesulfonic acid (PFHxS)	22.8	1.320517	57.1	1.432158								
Perfluorohexanoic acid (PFHxA)	25	1.231462	62.5	1.18117								

FORM VI INITIAL CALIBRATION DATA (Continued)

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Instrument: LCQQQ
Calibration Date: 06/11/24 08:00

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF	ng/mL	RF
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	1.313276	1.25	1.520624								
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10	2.295527	10	2.483094								
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5	1.337483	5	1.451171								
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.5	0.653045	2.5	0.6316667								
Perfluoro-n-butanoic acid (PFBA)	100	0.9085524	250	0.9108749								
Perfluorononanoic acid (PFNA)	25	3.350536	62.5	3.232062								
Perfluorooctanesulfonic acid (PFOS)	23.2	2.380703	58	2.148352								
Perfluorooctanoic acid (PFOA)	25	1.322916	62.5	1.37835								
Perfluoropentanoic acid (PFPeA)	50	1.003182	125	1.017724								
Perfluorotetradecanoic acid (PFTA)	25	1.010382	62.5	0.9752986								
Perfluorotridecanoic acid (PFTrDA)	25	1.374893	62.5	1.33926								
Perfluoroundecanoic acid (PFUnA)	25	0.8893177	62.5	0.9846133								

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Instrument: LCQQQ
Calibration Date: 06/11/24 08:00

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
11CL-PF3OUdS	0.8591385	3.442777	9.817696	0.1114651		0.9999532	0.995	
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	0.2419004	17.8063	9.066808	8.577469E-02		0.9999486	0.995	
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	1.185549	19.71242	6.298944	0.1105941		0.9987338	0.995	
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	1.255886	14.96913	7.921586	0.1285283		0.9995829	0.995	
3-Perfluoroheptyl propanoic acid (FHpPA)	0.2201101	13.70779	8.7276	9.283789E-02		0.9999754	0.995	
3-Perfluoropentyl propanoic acid (FPePA)	0.1241024	7.593224	7.32484	0.1353122		0.999768	0.995	
3-Perfluoropropyl propanoic acid (FPrPA)	1.286716E-02	4.159135	4.481463	0.342714		0.999778	0.995	
9CL-PF3ONS	1.369128	6.878334	8.936253	0.111221		0.9999741	0.995	
ADONA	0.556015	5.823299	7.407521	0.1322674		0.999905	0.995	
d3-N-MeFOSAA	1.01652	7.483999	9.304604	0.1319562			20	
d5-N-EtFOSAA	0.8534808	9.564779	9.546608	0.1270686			20	
d7-N-MeFOSE	7.866389E-02	9.625226	10.39784	0.1551733			20	
d9-N-EtFOSE	3.160295E-02	6.647914	10.63852	0.1489675			20	
d-N-EtFOSA	5.286311E-02	9.195458	10.67725	0.1595523			20	
d-N-MeFOSA	0.1058273	11.14946	10.43133	0.1486093			20	
HFPO-DA (Gen-X)	2.239571E-02	6.287269	6.691712	0.1221946		0.999931	0.995	
M2-4:2 FTS	3.639491	17.04172	6.298503	0.1453217			20	
M2-6:2 FTS	3.202579	15.30985	7.9212	0.1287487			20	
M2-8:2 FTS	4.956016	16.87555	9.064858	8.320478E-02			20	
M2PFTeDA	0.5118486	9.20994	10.59178	0.1590167			20	
M3HFPO-DA	0.2730319	12.86633	6.687971	0.1373119			20	
M3PFBS	4.519796	10.26268	5.537413	0.1076622			20	
M3PFHxS	3.061506	10.29386	7.375458	0.1622605			20	
M4PFHpA	0.4171053	10.49835	7.262489	0.1363984			20	
M5PFHxA	1.606377	6.335443	6.374235	0.1281273			20	
M6PFDA	1.50416	10.18073	9.099868	0.1097817			20	
M7PFUdA	1.665491	6.673079	9.5615	0.1023706			20	
M9PFNA	0.2726041	5.830319	8.5853	0.1009898			20	
N-EtFOSA	1.287944	11.69634	10.68768	0.1593929		0.9998818	0.995	
N-EtFOSAA	0.94945	7.368051	9.55405	0.1232357		0.9999618	0.995	

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Instrument: LCQQQ
Calibration Date: 06/11/24 08:00

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
N-EtFOSE	1.993152	6.776547	10.65293	0.1528769		0.9999765	0.995	
N-MeFOSA	0.7524916	13.43153	10.43529	0.1318007		0.9991185	0.995	
N-MeFOSAA	0.8763811	3.881826	9.309523	0.1004907		0.9999771	0.995	
N-MeFOSE	0.824401	10.43101	10.41497	0.1335327		0.999134	0.995	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.241156	4.746635	6.070592	0.1415351		0.9997386	0.995	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	1.022377	6.868228	9.663958	0.1110056			20	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	0.4865015	10.47948	8.6183	9.445828E-02			20	
Perfluoro-1-decanesulfonic acid (PFDS)	0.7352727	9.136838	9.562296	0.1242361		0.9998493	0.995	
Perfluoro-1-heptanesulfonic acid (PFHpS)	2.525683	7.851063	8.047335	0.1199714		0.9992923	0.995	
Perfluoro-1-nonanesulfonic acid (PFNS)	0.1655348	3.439809	9.11174	0.109746		0.9998618	0.995	
Perfluoro-1-octanesulfonamide (FOSA)	1.385288	7.949054	9.661908	0.1356201		0.9998584	0.995	
Perfluoro-1-pentanesulfonate (PFPeS)	1.400558	7.429523	6.596508	0.1506625		0.9999523	0.995	
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	1.573594E-02	15.17854	6.220718	0.1388919		0.9993625	0.995	
Perfluoro-4-oxapentanoic acid (PFMPA)	0.2604373	4.754935	2.269792	1.007631		0.9999654	0.995	
Perfluoro-5-oxahexanoic acid (PFMBA)	0.4108024	4.778835	5.511279	0.1174041		0.9999817	0.995	
Perfluorobutanesulfonic acid (PFBS)	1.128938	5.769899	5.538117	0.10658		0.9999149	0.995	
Perfluorodecanoic acid (PFDA)	1.09146	7.864646	9.098142	0.1194361		0.9996394	0.995	
Perfluorododecanesulfonic acid (PFDoS)	0.4284993	26.45252	10.29281	0.1346939		0.9999404	0.995	
Perfluorododecanoic acid (PFDoA)	0.8702134	7.927803	9.97057	0.107202		0.9999559	0.995	
Perfluoroheptanoic acid (PFHpA)	2.370614	7.063617	7.262733	0.1803069		0.9993834	0.995	
Perfluorohexanesulfonic acid (PFHxS)	1.39602	7.840767	7.373514	0.1351217		0.999962	0.995	
Perfluorohexanoic acid (PFHxA)	1.166423	4.979492	6.376708	0.1081002		0.9996865	0.995	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.376988	12.28397	9.969002	0.1137381			20	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	2.53183	5.800086	1.300046	1.304354			20	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	1.498035	5.746733	4.7717	0.2251848			20	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	0.7190232	9.595861	7.984846	0.1353768			20	
Perfluoro-n-butanoic acid (PFBA)	0.9037138	2.328478	1.300048	1.276341		0.9999857	0.995	
Perfluorononanoic acid (PFNA)	3.453721	9.613548	8.584741	0.1004131		0.9998907	0.995	
Perfluorooctanesulfonic acid (PFOS)	2.631087	19.09176	8.61695	8.332477E-02		0.9998872	0.995	

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Calibration:	SF40019	Instrument:	LCQQQ
		Calibration Date:	06/11/24 08:00

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Perfluorooctanoic acid (PFOA)	1.254067	9.497165	7.985379	0.1357737		0.9996486	0.995	
Perfluoropentanoic acid (PFPeA)	1.003786	2.938467	4.774406	0.2523468		0.9999913	0.995	
Perfluorotetradecanoic acid (PFTA)	1.041146	5.407567	10.5924	0.1521743		0.9999742	0.995	
Perfluorotridecanoic acid (PFTrDA)	1.484165	7.743541	10.30995	0.1346891		0.9997986	0.995	
Perfluoroundecanoic acid (PFUnA)	0.9068038	5.533865	9.56111	9.487126E-02		0.9998973	0.995	

Data File	QQQ40095.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 3:14:47 AM
Sample Name	SEQ-CAL1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	0.2 - 5.0 ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
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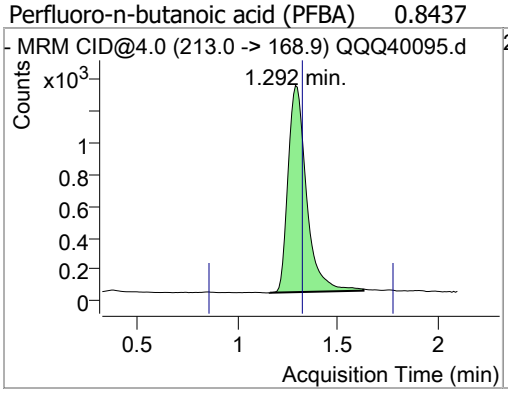
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.297	217.0 -> 172.0	110941	10.0000	ng/ml	-0.028
M3PFBA	1.299	216.0 -> 172.0	21923	5.0000	ng/ml	-0.018
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.783	268.0 -> 223.0	97718	5.0000	ng/ml	0.000
MPFHxA	6.382	315.0 -> 269.8	32971	2.5000	ng/ml	0.000
MPFHxS	7.391	403.0 -> 103.0	3984	2.3700	ng/ml	0.009
M3PFBS-EIS	5.548	302.0 -> 79.9	16822	2.3300	ng/ml	0.009
M5PFHxA-EIS	6.381	318.0 -> 273.0	53249	2.5000	ng/ml	0.000
M2-4-2FTS-EIS	6.306	329.0 -> 309.0	23155	4.6900	ng/ml	0.000
M3PFHxS-EIS	7.392	402.0 -> 80.0	11400	2.3700	ng/ml	0.009
M3-HFPO-DA-EIS	6.698	287.0 -> 169.0	37970	10.0000	ng/ml	0.000
M4PFHpA-EIS	7.272	367.0 -> 322.0	14460	2.5000	ng/ml	0.000
M2-6-2FTS-EIS	7.930	429.0 -> 409.0	21125	4.7550	ng/ml	0.009
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.997	421.0 -> 376.0	31857	2.5000	ng/ml	0.000
MPFOA	7.997	417.0 -> 372.0	42632	2.5000	ng/ml	0.009
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.625	507.0 -> 98.9	4775	2.3950	ng/ml	0.000
MPFNA	8.590	468.0 -> 423.0	19008	1.2500	ng/ml	0.000
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.590	472.0 -> 223.0	5468	1.2500	ng/ml	0.000
MPFOS	8.626	503.0 -> 80.0	9835	2.3950	ng/ml	0.000
M2-8-2FTS-EIS	9.071	529.0 -> 509.0	33031	4.8000	ng/ml	0.009
MPFDA	9.110	515.0 -> 469.8	10060	1.2500	ng/ml	0.000
M6PFDA-EIS	9.109	519.0 -> 473.9	14721	1.2500	ng/ml	0.009
d3-N-MeFOSAA-EIS	9.320	573.0 -> 418.8	21370	5.0000	ng/ml	0.009
d5-N-EtFOSAA-EIS	9.560	589.0 -> 418.8	18745	5.0000	ng/ml	0.009
M7PFUdA-EIS	9.571	570.0 -> 525.0	16917	1.2500	ng/ml	0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.676	506.0 -> 78.0	10844	2.5000	ng/ml	0.009
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.977	615.0 -> 570.0	13233	1.2500	ng/ml	0.009
M2PFTeDA-EIS	10.608	715.0 -> 670.0	4904	1.2500	ng/ml	0.018
d7-NMeFOSE-EIS	10.409	623.0 -> 59.0	7971	25.0000	ng/ml	0.018
d3-NMeFOSA-EIS	10.441	515.0 -> 219.0	1119	2.5000	ng/ml	0.009
d9-NEtFOSE-EIS	10.647	639.0 -> 59.0	3307	25.0000	ng/ml	0.009
d5-NEtFOSA-EIS	10.696	531.0 -> 169.0	518	2.5000	ng/ml	0.028
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	217.0 -> 172.0	110948	9.9945	ng/ml	-0.028
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	268.0 -> 223.0	97718	4.9461	ng/ml	0.000
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.548	302.0 -> 79.9	16822	2.3754	ng/ml	0.009
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.306	329.0 -> 309.0	23155	4.0347	ng/ml	0.000

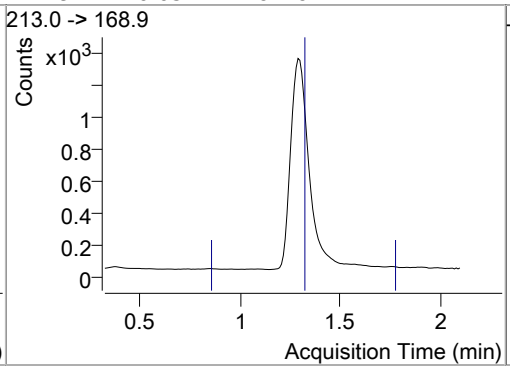
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.381	318.0 -> 273.0	53249	2.5135	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.698	287.0 -> 169.0	37970	10.5448	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.272	367.0 -> 322.0	14460	2.6287	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.392	402.0 -> 80.0	11374	2.3311	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.930	429.0 -> 409.0	21309	4.1574	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.997	421.0 -> 376.0	31854	2.5979	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	472.0 -> 223.0	5468	1.3192	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	507.0 -> 98.9	4775	2.4430	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.071	529.0 -> 509.0	33032	4.1299	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.109	519.0 -> 473.9	14721	1.2160	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.320	573.0 -> 418.8	21370	5.0232	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.560	589.0 -> 418.8	18745	5.2479	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.571	570.0 -> 525.0	16917	1.2621	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	506.0 -> 78.0	10844	2.5345	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	615.0 -> 570.0	13234	1.1941	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.696	531.0 -> 169.0	518	2.3430	ng/ml		0.460
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.409	623.0 -> 59.0	7971	24.2109	ng/ml		0.018
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.441	515.0 -> 219.0	1119	2.5264	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.608	715.0 -> 670.0	4904	1.1904	ng/ml		0.018
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.647	639.0 -> 59.0	3307	25.0069	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.292	213.0 -> 168.9	8418	0.8437	ng/ml		100
PFMPA	2.263	229.0 -> 85.0	2136	0.4240	ng/ml		100
3:3FTCA	4.498	241.0 -> 177.0	274	1.0113	ng/ml		99
Perfluoro-n-pentanoic acid (PFPeA)	4.784	263.0 -> 219.0	8355	0.4330	ng/ml		100
PFMBA	5.523	279.0 -> 85.0	3567	0.4355	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.549	298.9 -> 79.9	1507	0.2023	ng/ml		92
PFEESA	6.084	315.0 -> 135.0	10073	0.3586	ng/ml		98
NFDHA	6.235	295.0 -> 201.1	163	0.4651	ng/ml	m	93
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.307	327.0 -> 307.0	5020	0.8739	ng/ml		99

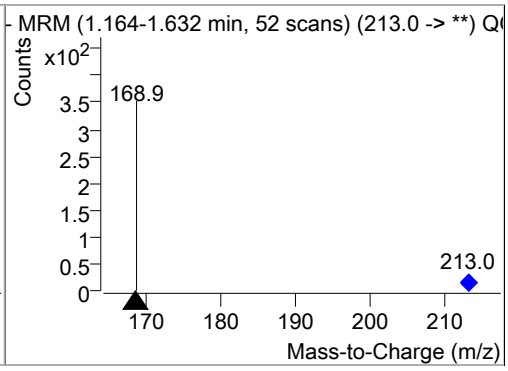
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.383	313.0 -> 268.9	5338	0.2060	ng/ml	#	97
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	348.9 -> 79.9	1208	0.2093	ng/ml	m	93
HFPO-DA	6.699	285.0 -> 169.1	276	0.7647	ng/ml	m	100
Perfluoroheptanoic acid (PFHpA)	7.281	363.0 -> 318.8	2567	0.1781	ng/ml	#m	88
5-3FTCA	7.338	341.0 -> 217.0	14445	5.0189	ng/ml		94
Perfluorohexanesulfonic acid (PFHxS)	7.383	398.9 -> 79.9	1351	0.2366	ng/ml	m	95
ADONA	7.420	377.0 -> 85.0	6158	0.6897	ng/ml		99
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.931	427.0 -> 407.0	4558	0.8238	ng/ml		98
Perfluorooctanoic acid (PFOA)	7.997	413.0 -> 368.8	3659	0.2335	ng/ml		94
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.060	448.9 -> 80.0	994	0.1887	ng/ml		97
Perfluorononanoic acid (PFNA)	8.591	463.0 -> 418.8	3636	0.2381	ng/ml	#m	85
Perfluorooctanesulfonic acid (PFOS)	8.617	498.9 -> 79.9	1307	0.1859	ng/ml	#m	75
7-3FTCA	8.739	441.0 -> 337.0	26810	5.4852	ng/ml		94
9-Cl-PF3ONS	8.949	531.0 -> 351.0	13783	0.6377	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	527.0 -> 80.9	1533	0.9001	ng/ml		88
Perfluorodecanoic acid (PFDA)	9.110	513.0 -> 468.8	2927	0.2244	ng/ml	#	90
Perfluorononanesulfonate (L-PFNS)	9.126	548.9 -> 79.9	626	0.2016	ng/ml	m	87
N-MeFOSAA	9.320	570.0 -> 418.9	788	0.2162	ng/ml	m	100
N-EtFOSAA	9.570	584.0 -> 418.8	758	0.2194	ng/ml	m	95
Perfluoroundecanoic acid (PFUnA)	9.572	563.0 -> 519.0	2304	0.2043	ng/ml	#	94
Perfluoro-1-decanesulfonate (L-PFDS)	9.569	598.9 -> 98.9	272	0.1848	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.676	497.9 -> 78.0	1427	0.2374	ng/ml		100
11-Cl-PF3OUdS	9.827	631.0 -> 451.0	9665	0.7466	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.977	613.0 -> 568.8	1969	0.2204	ng/ml	#	95
Perfluorododecanesulfonic acid (PFDoS)	10.305	699.0 -> 80.0	252	0.2524	ng/ml	#m	68
Perfluorotridecanoic acid (PFTrDA)	10.325	663.0 -> 618.8	1280	0.2269	ng/ml		100
NMeFOSE	10.429	616.0 -> 59.0	548	1.8930	ng/ml		100
NMeFOSA	10.450	512.0 -> 169.0	58	0.1560	ng/ml	#m	19
Perfluorotetradecanoic acid (PFTA)	10.609	713.0 -> 669.0	842	0.2095	ng/ml	#m	94
NEtFOSE	10.666	630.0 -> 59.0	564	2.1878	ng/ml		100
NEtFOSA	10.706	526.0 -> 169.0	60	0.2217	ng/ml	m	95

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

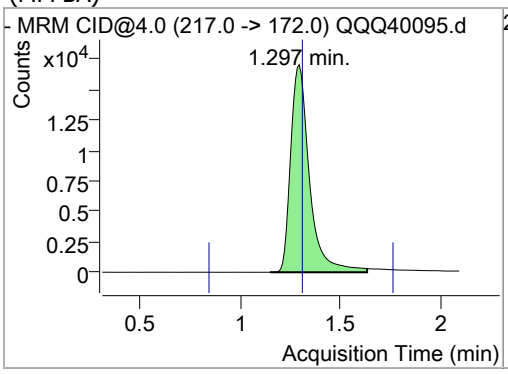
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.8437	1.29	-0.03	8418				

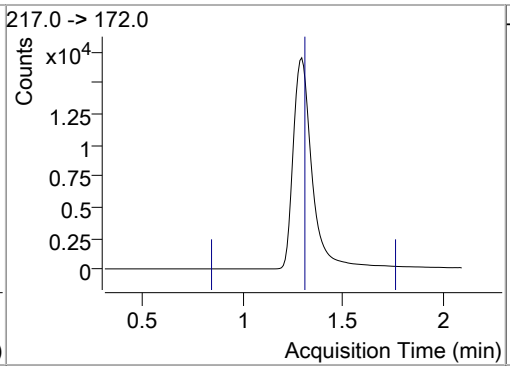


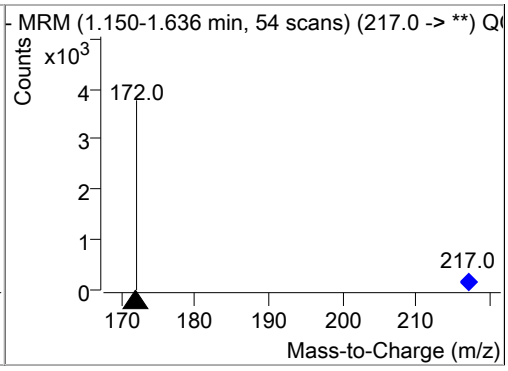




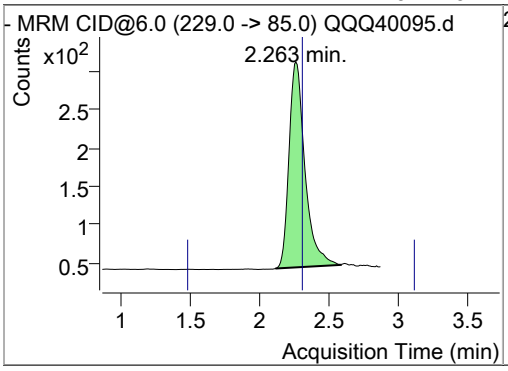
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	9.9945	1.30	-0.03	110948				

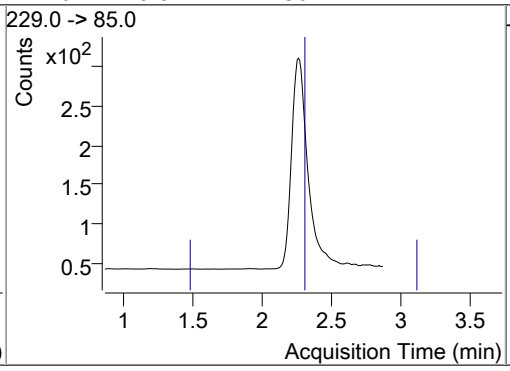


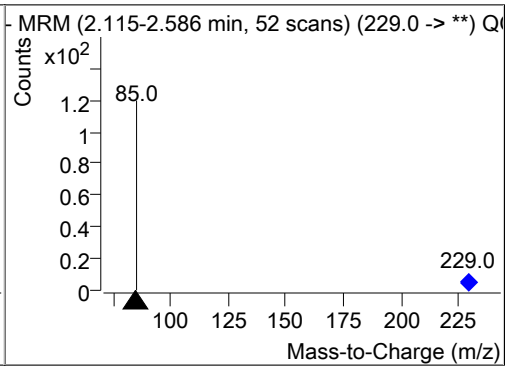




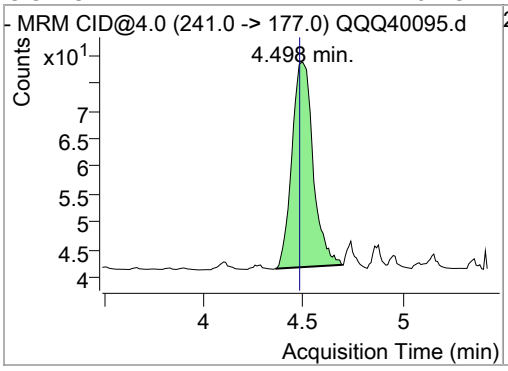
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.4240	2.26	-0.04	2136				

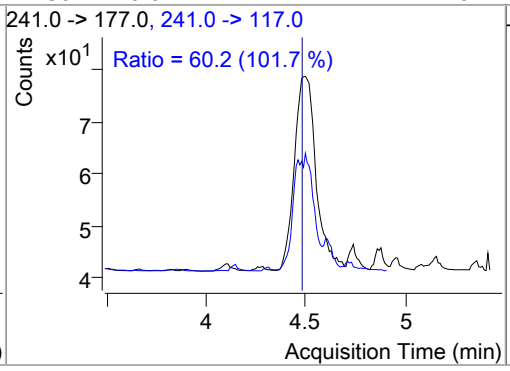


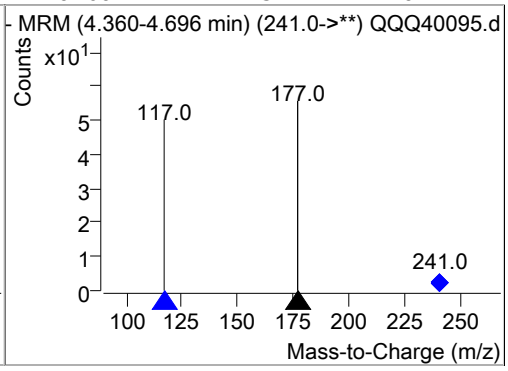




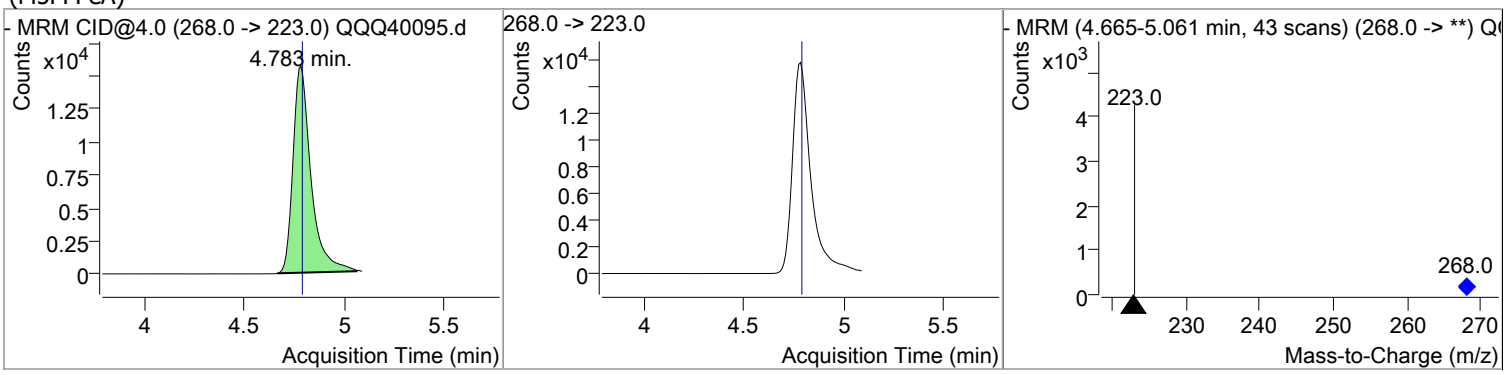
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	1.0113	4.50	0.01	274	241.0 -> 117.0	60.2	47.3	71.0



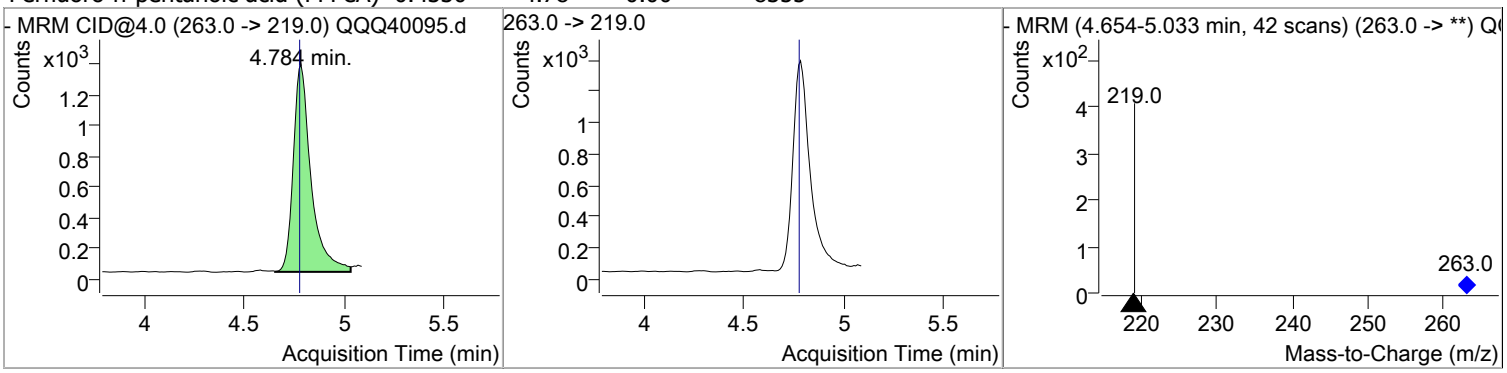




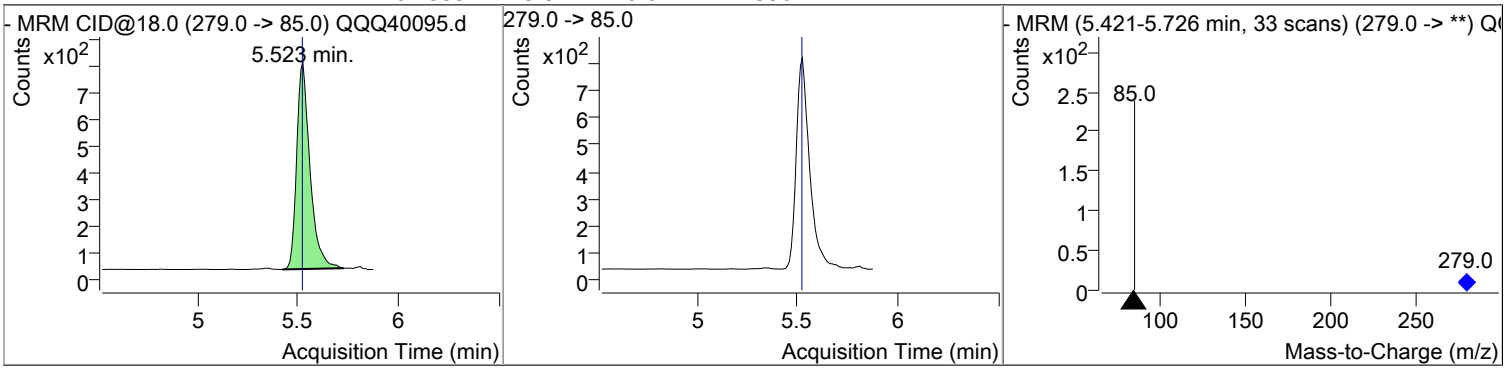
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.9461	4.78	0.00	97718				



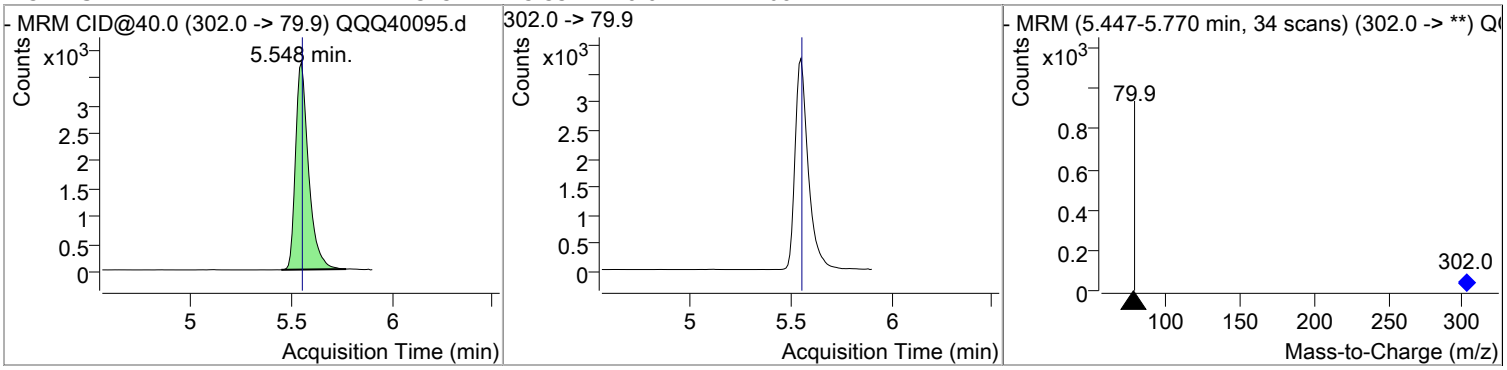
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.4330	4.78	0.00	8355				



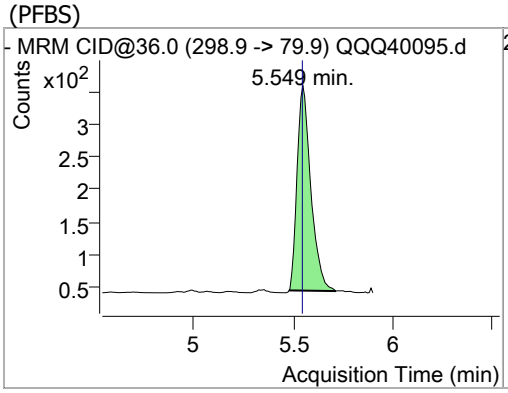
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.4355	5.52	0.01	3567				

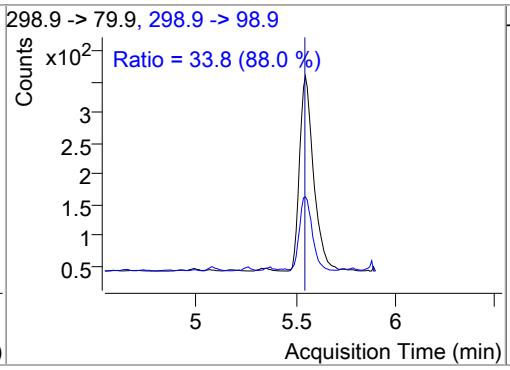


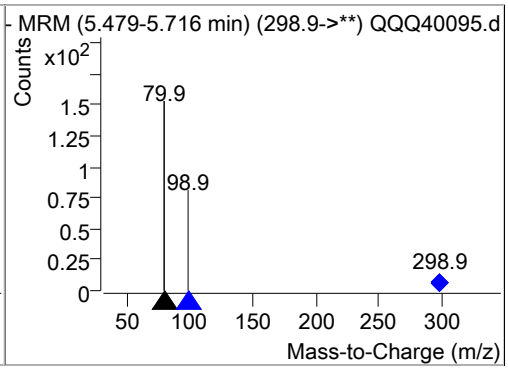
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.3754	5.55	0.01	16822				



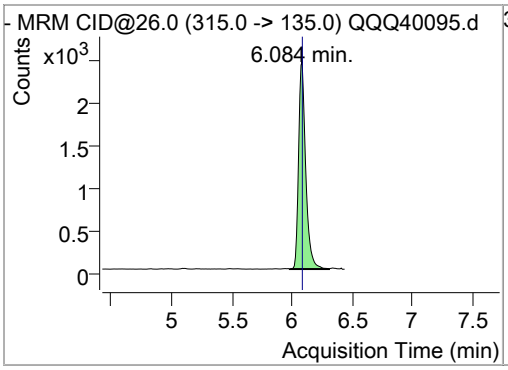
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.2023	5.55	0.01	1507	298.9 -> 98.9	33.8	30.7	46.0

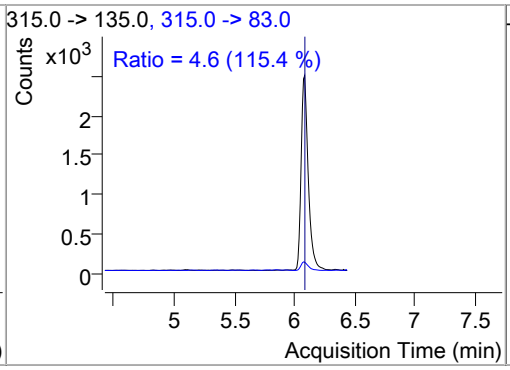


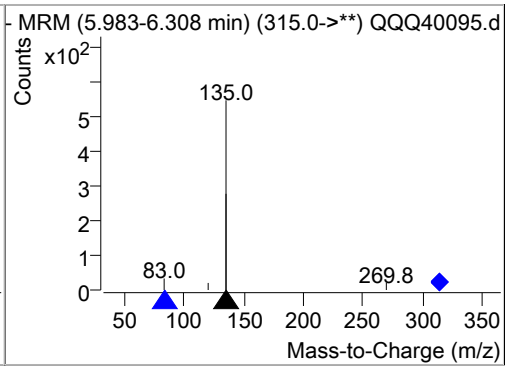




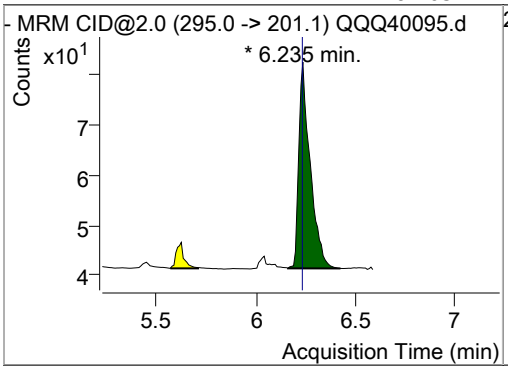
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.3586	6.08	0.01	10073	315.0 -> 83.0	4.6	3.2	4.8

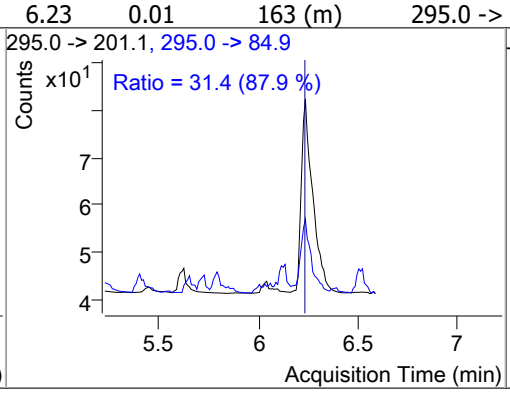


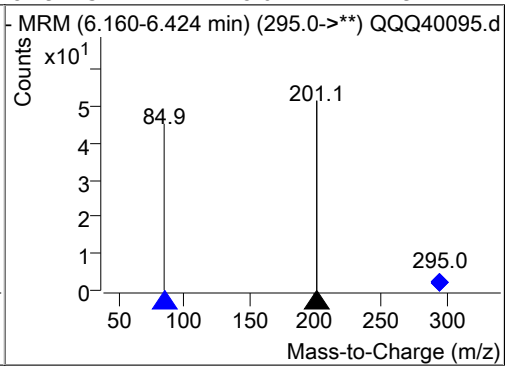




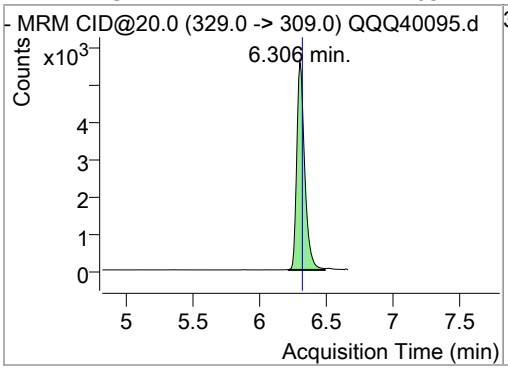
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.4651	6.23	0.01	163 (m)	295.0 -> 84.9	31.4	28.6	42.9

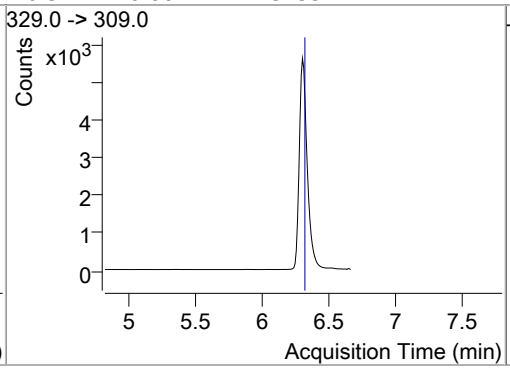


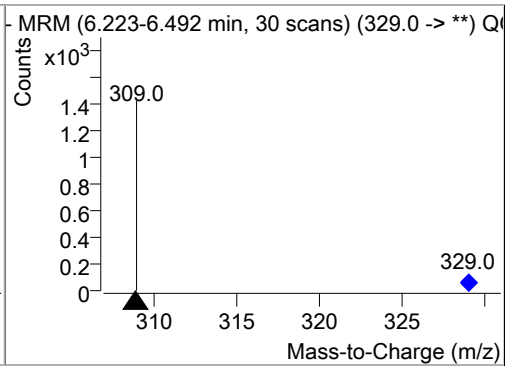




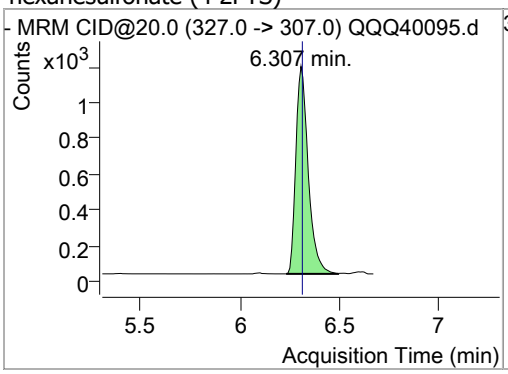
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.0347	6.31	0.00	23155				

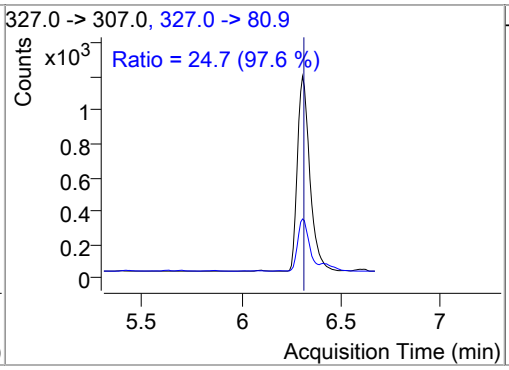


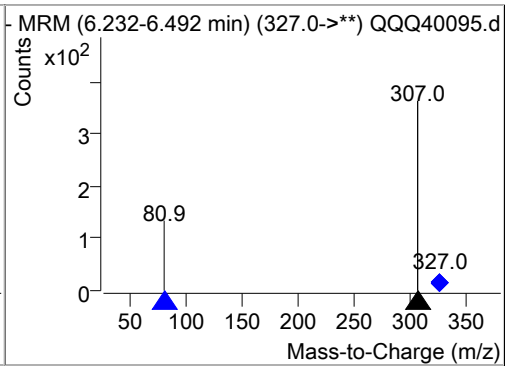




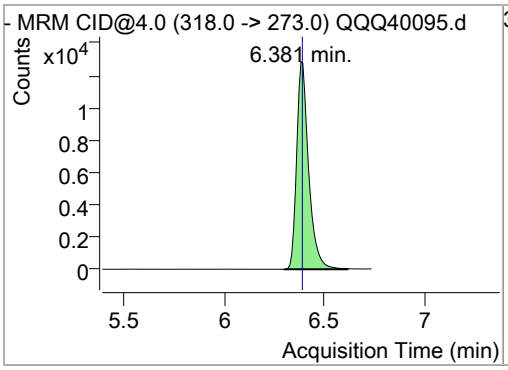
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.8739	6.31	0.00	5020	327.0 -> 80.9	24.7	20.3	30.4

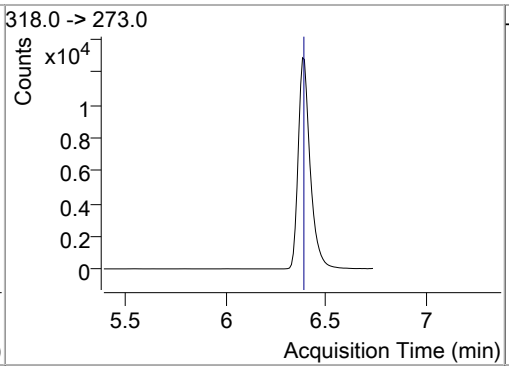


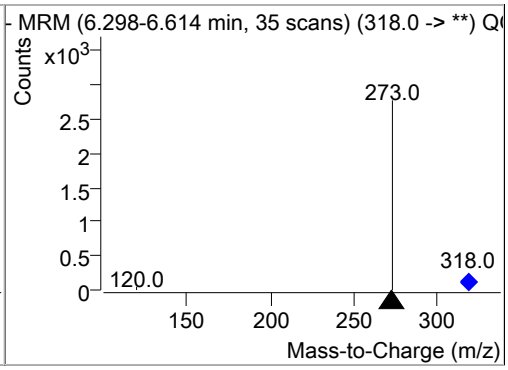




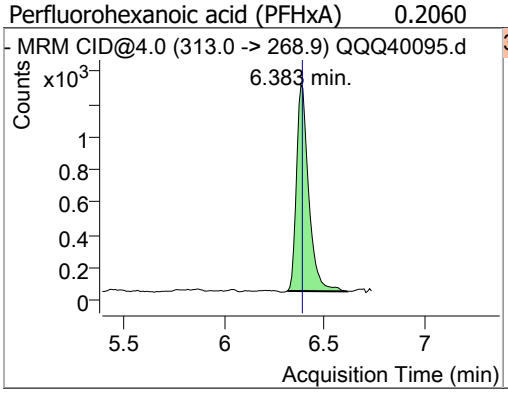
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.5135	6.38	0.00	53249				

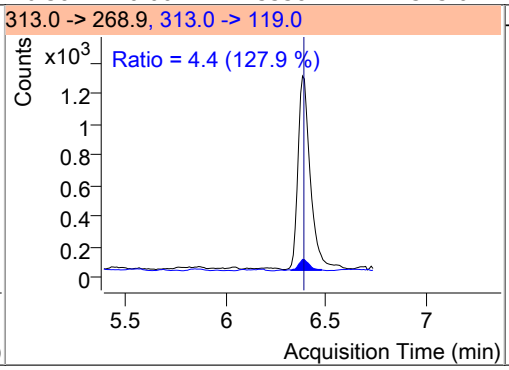


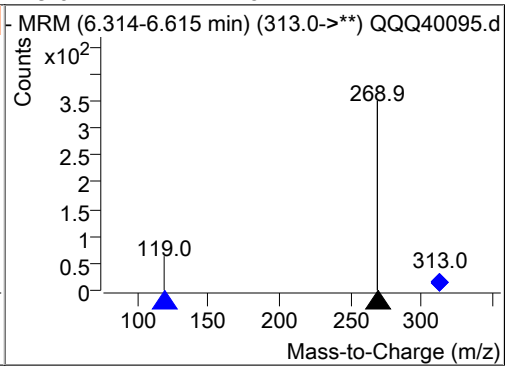




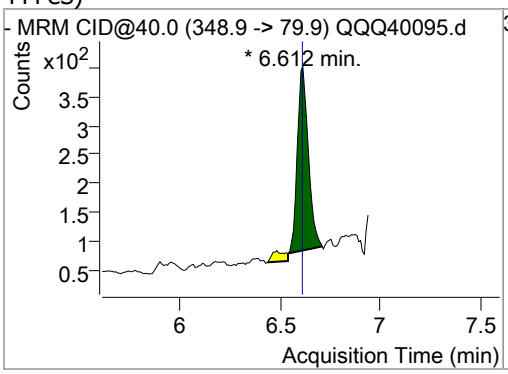
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.2060	6.38	0.00	5338	313.0 -> 119.0	4.4	2.8	4.2

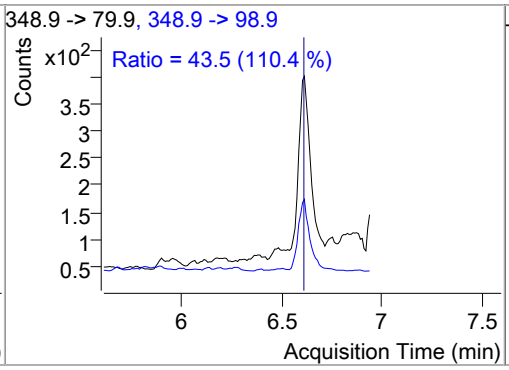


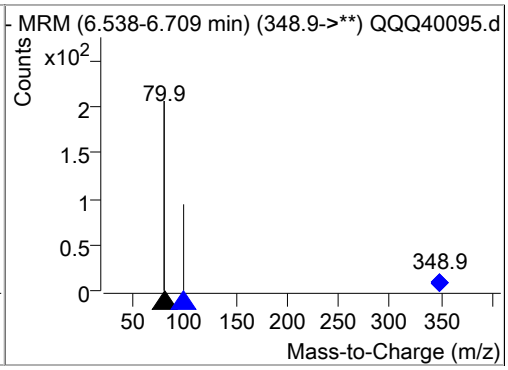




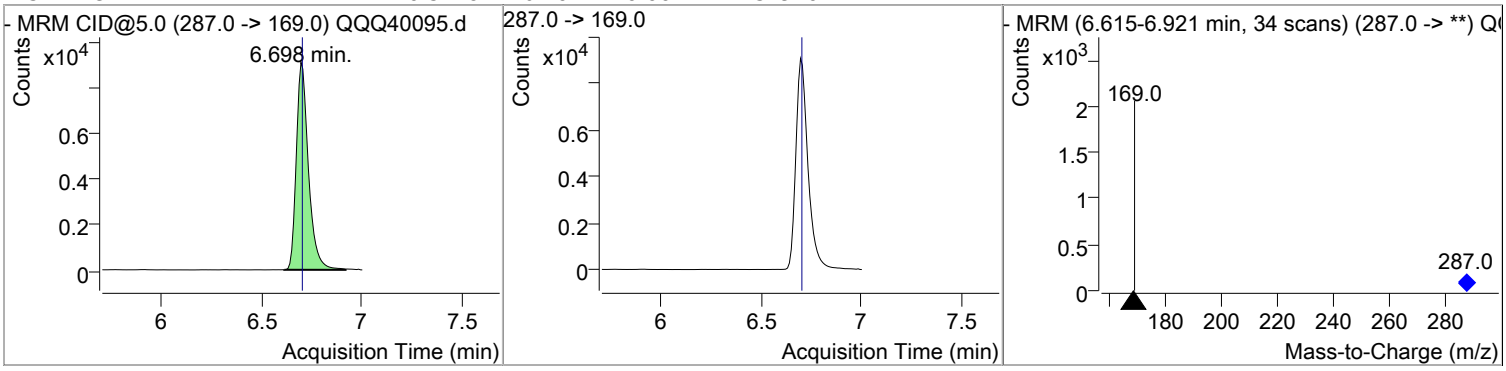
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.2093	6.61	0.01	1208 (m)	348.9 -> 98.9	43.5	31.5	47.3



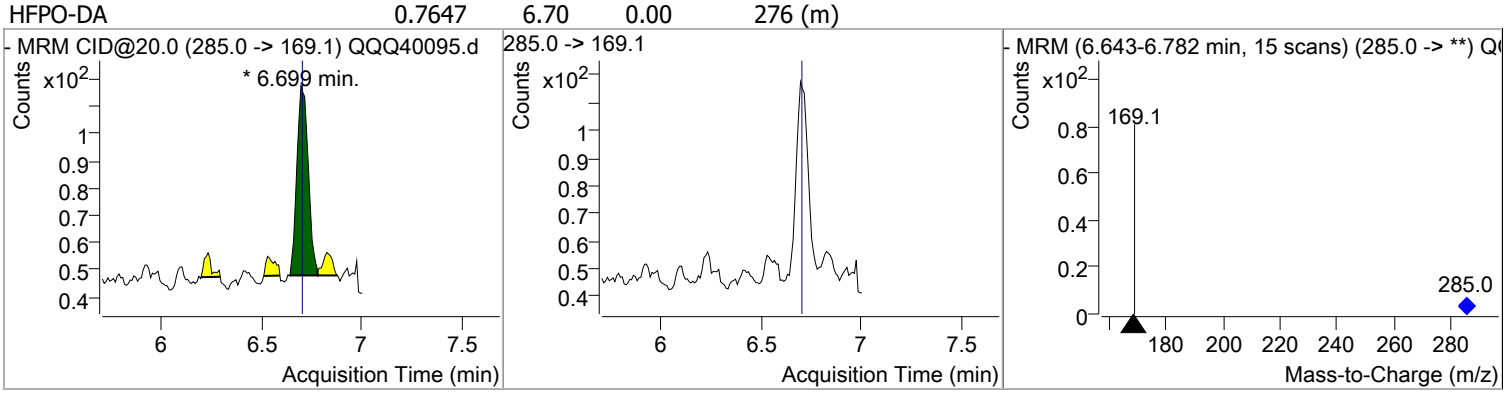




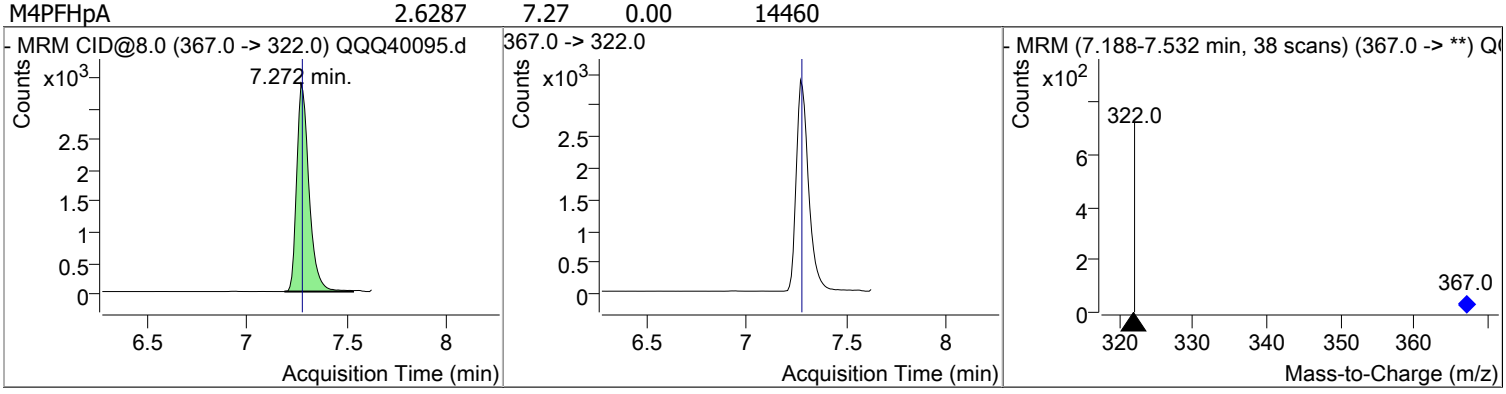
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.5448	6.70	0.00	37970				



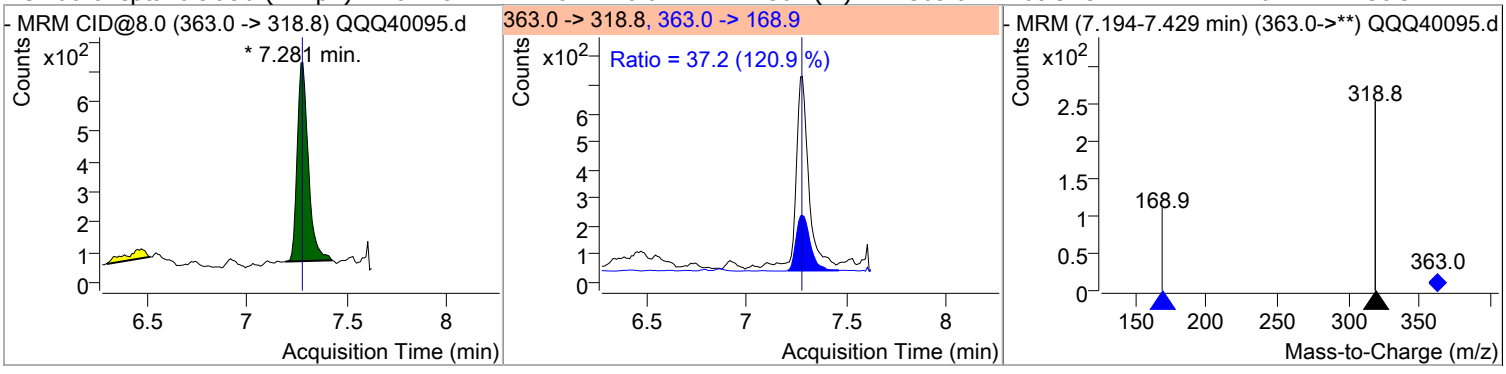
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	0.7647	6.70	0.00	276 (m)				



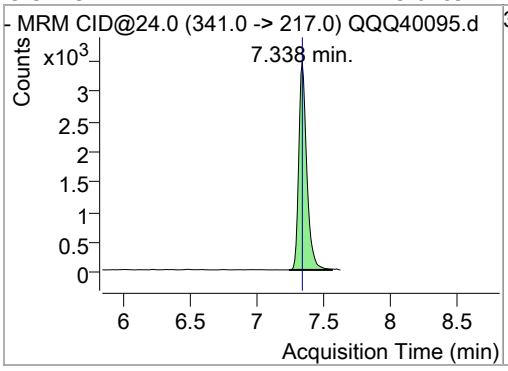
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.6287	7.27	0.00	14460				

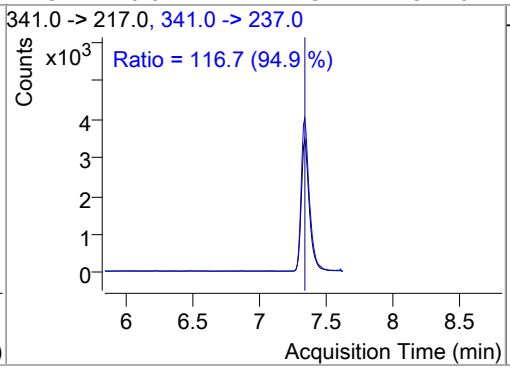


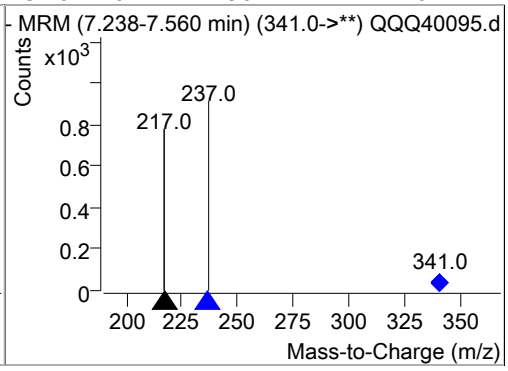
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.1781	7.28	0.01	2567 (m)	363.0 -> 168.9	37.2	24.6	36.9



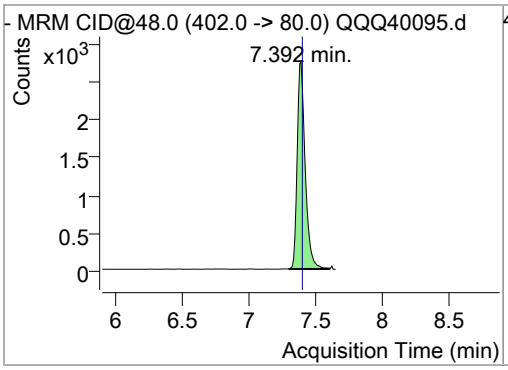
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	5.0189	7.34	0.01	14445	341.0 -> 237.0	116.7	98.4	147.6

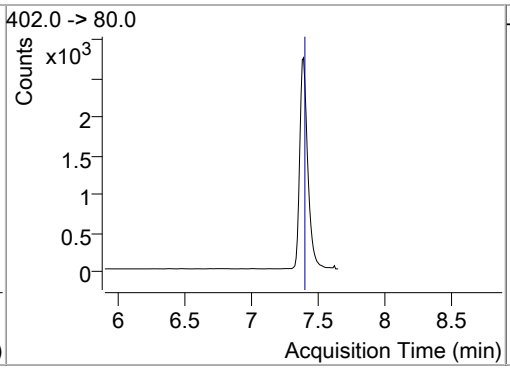


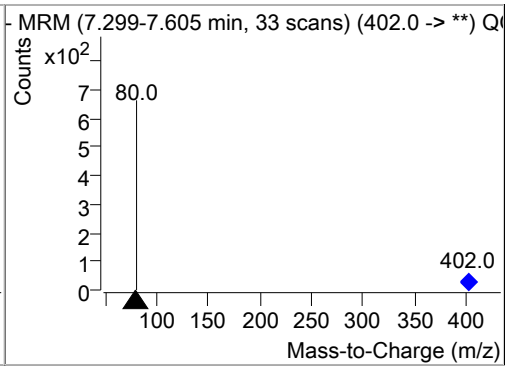




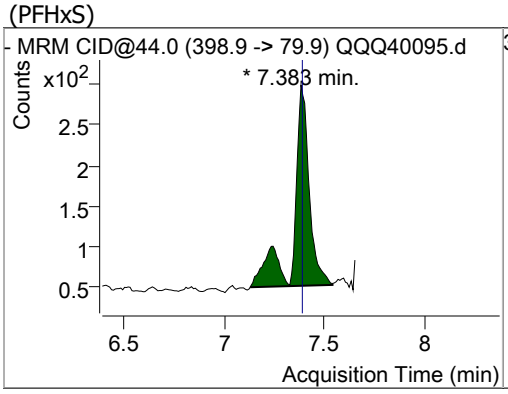
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.3311	7.39	0.01	11374				

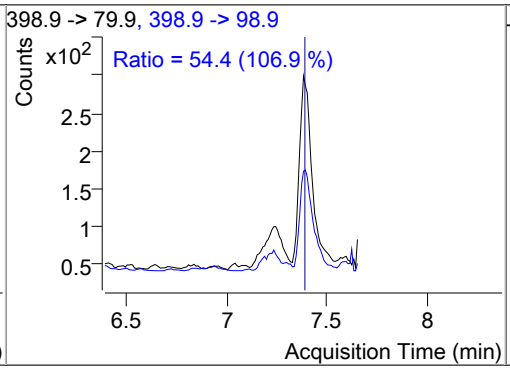


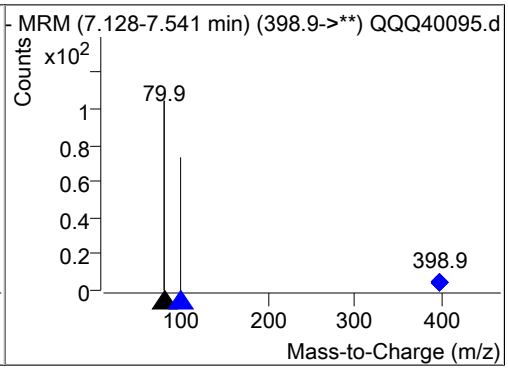




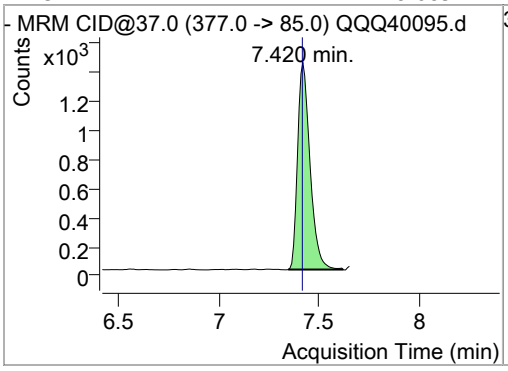
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.2366	7.38	0.00	1351 (m)	398.9 -> 98.9	54.4	40.7	61.1

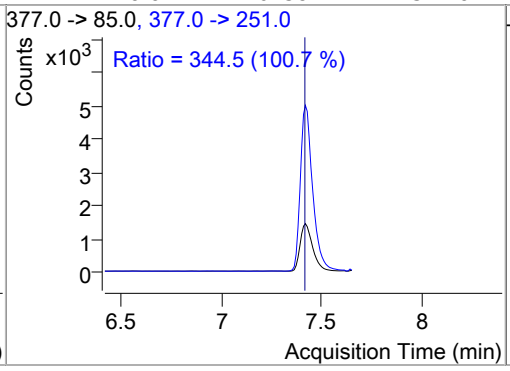


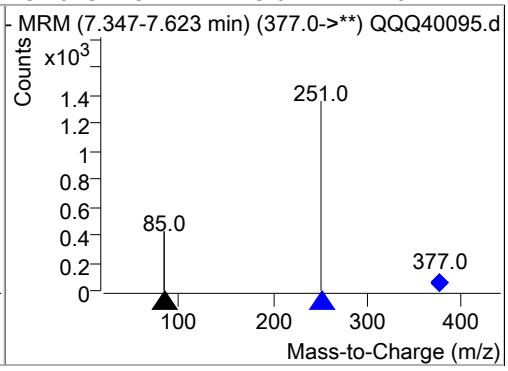




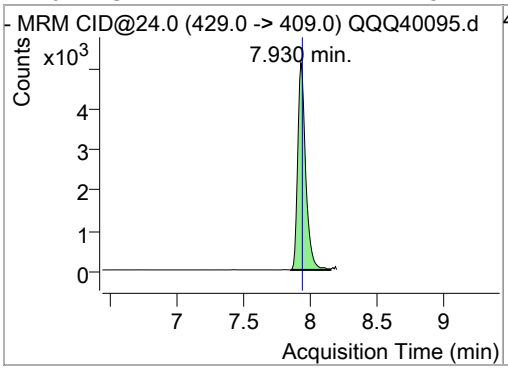
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.6897	7.42	0.01	6158	377.0 -> 251.0	344.5	273.6	410.4

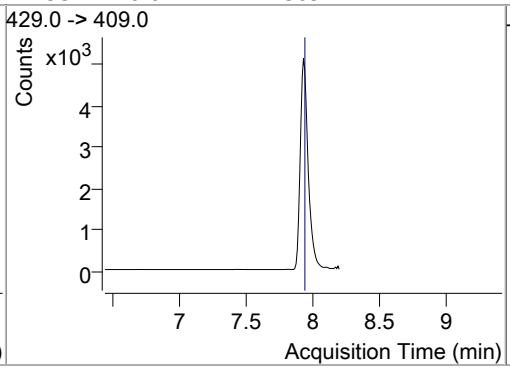


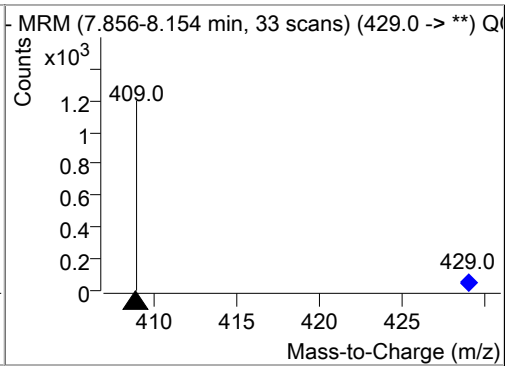




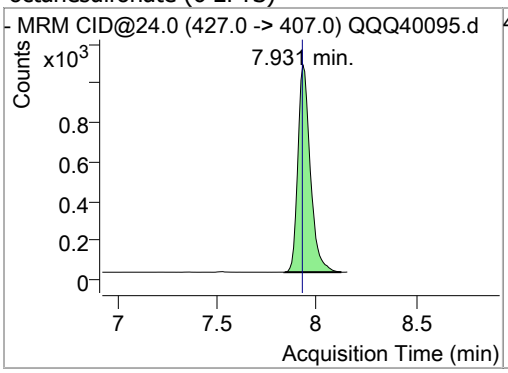
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.1574	7.93	0.01	21309				

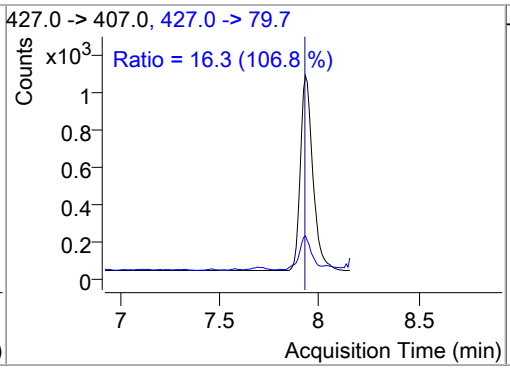


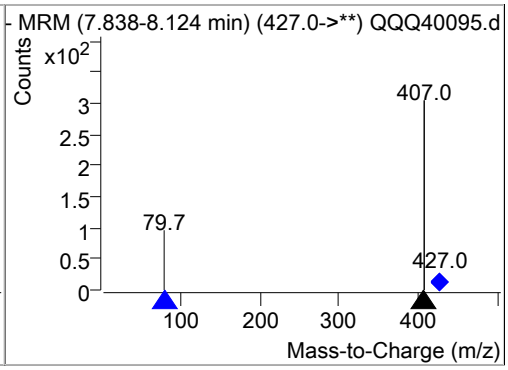




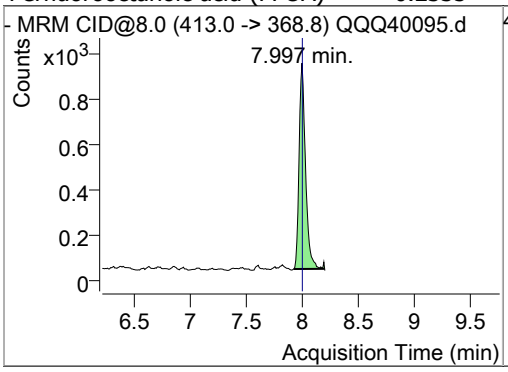
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.8238	7.93	0.01	4558	427.0 -> 79.7	16.3	12.2	18.4

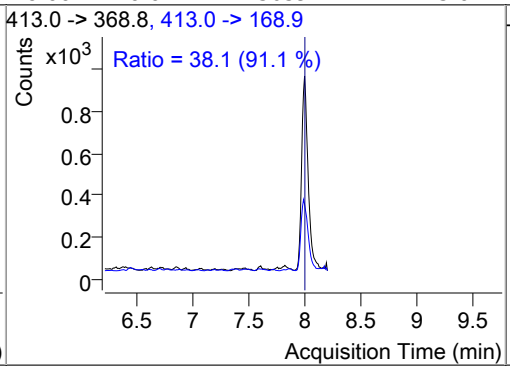


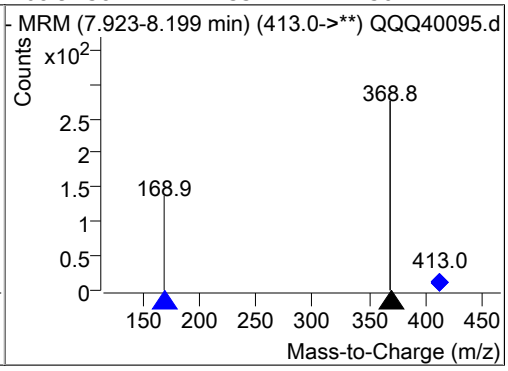




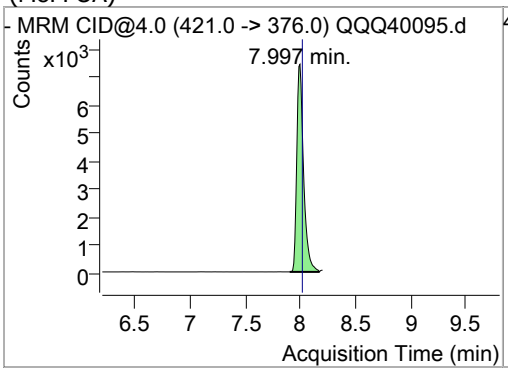
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.2335	8.00	0.01	3659	413.0 -> 168.9	38.1	33.4	50.1

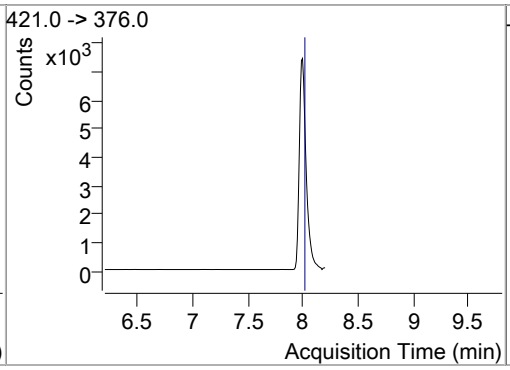


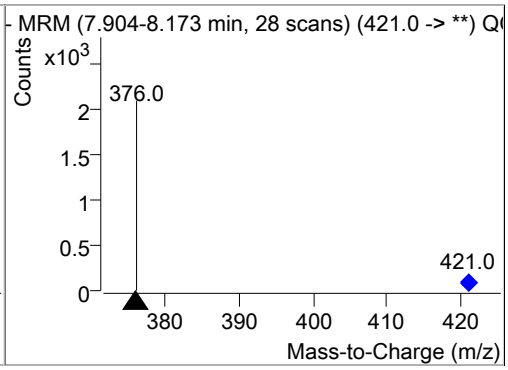




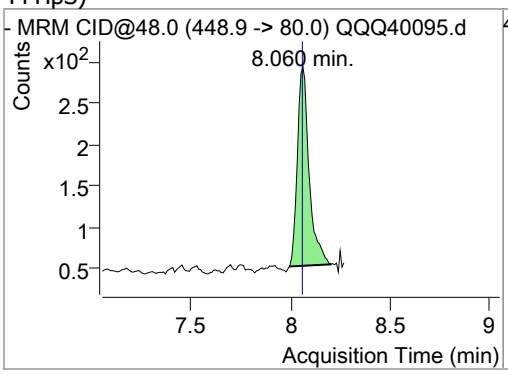
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.5979	8.00	0.00	31854				

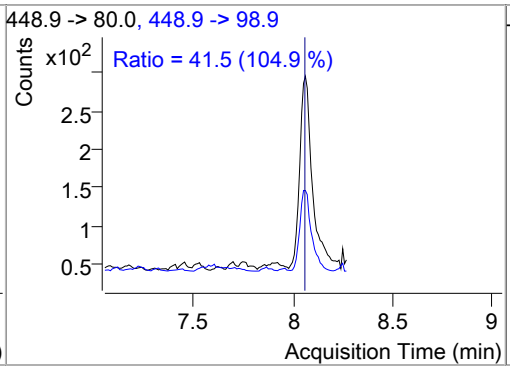


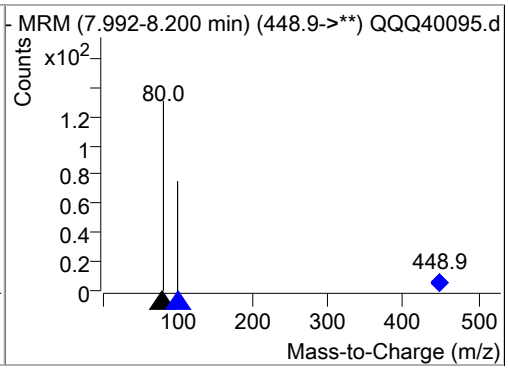




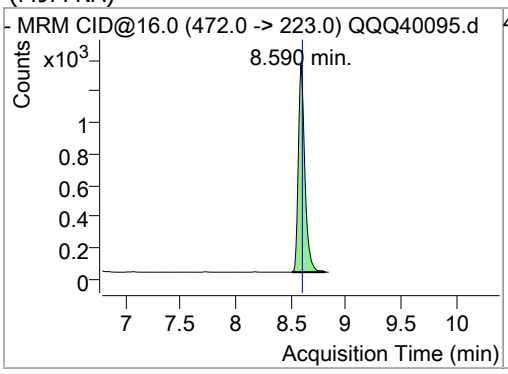
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.1887	8.06	0.01	994	448.9 -> 98.9	41.5	31.7	47.5

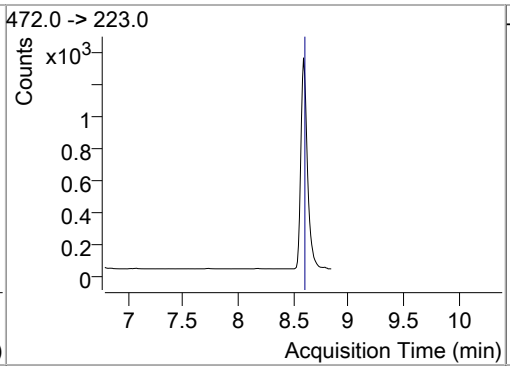


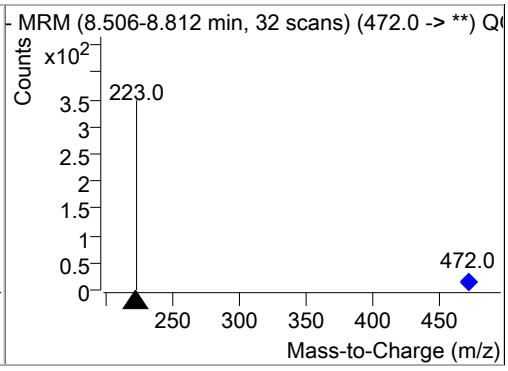




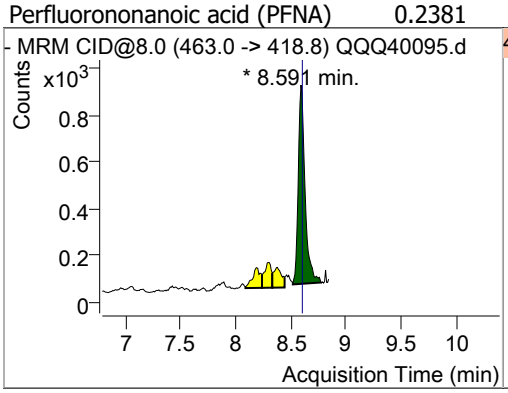
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.3192	8.59	0.00	5468				

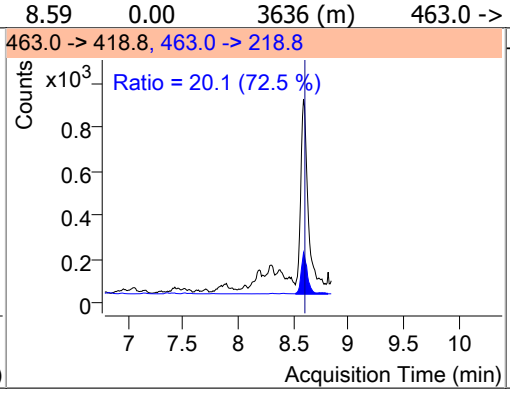


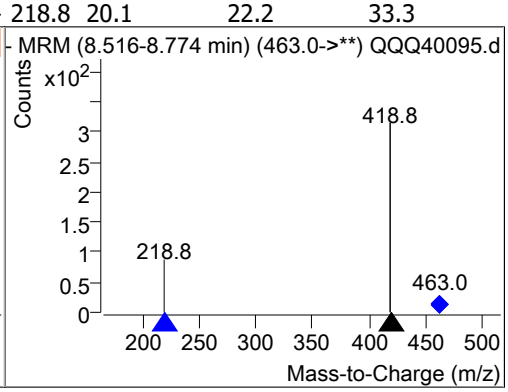




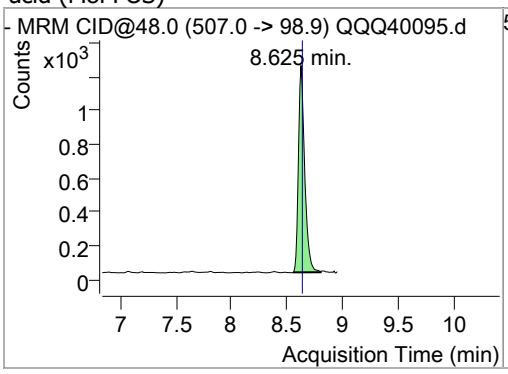
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.2381	8.59	0.00	3636 (m)	463.0 -> 218.8	20.1	22.2	33.3

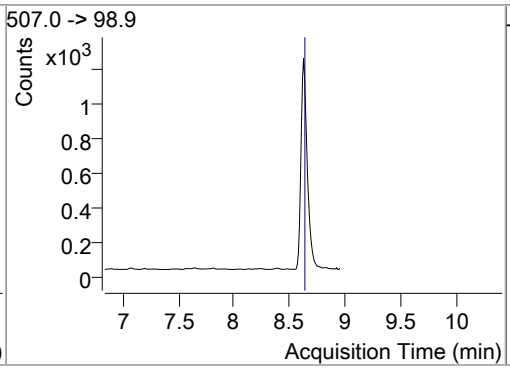


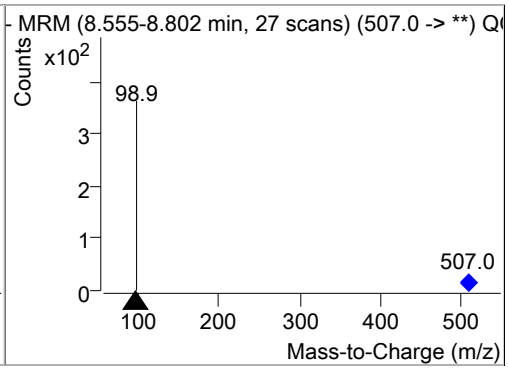




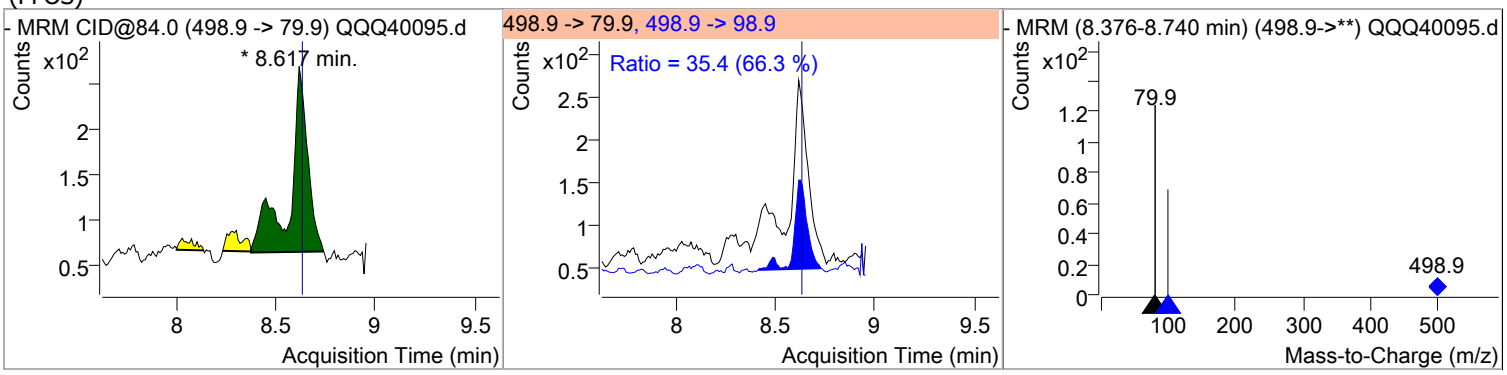
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.4430	8.63	0.00	4775				



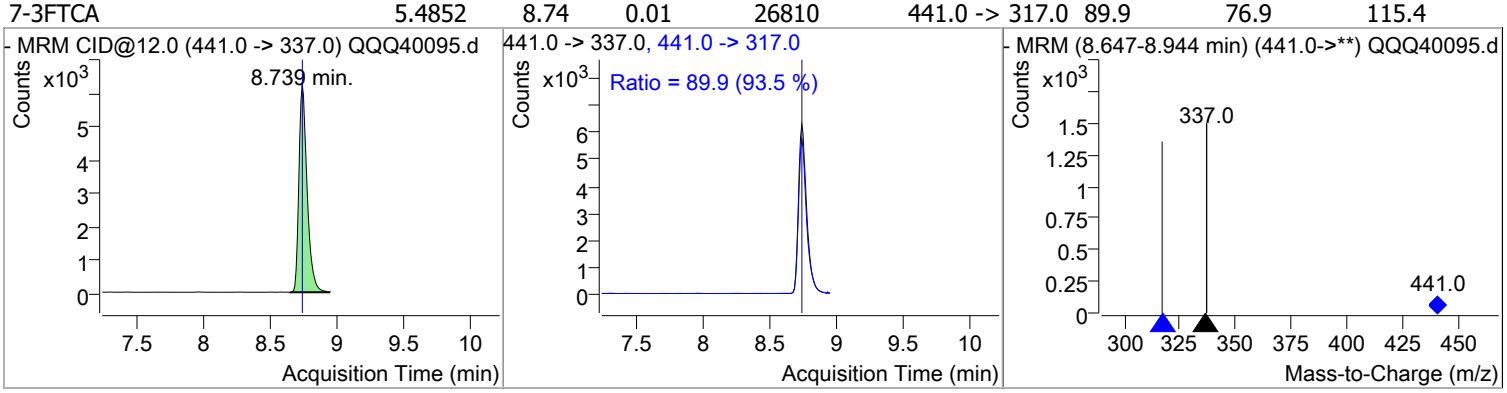




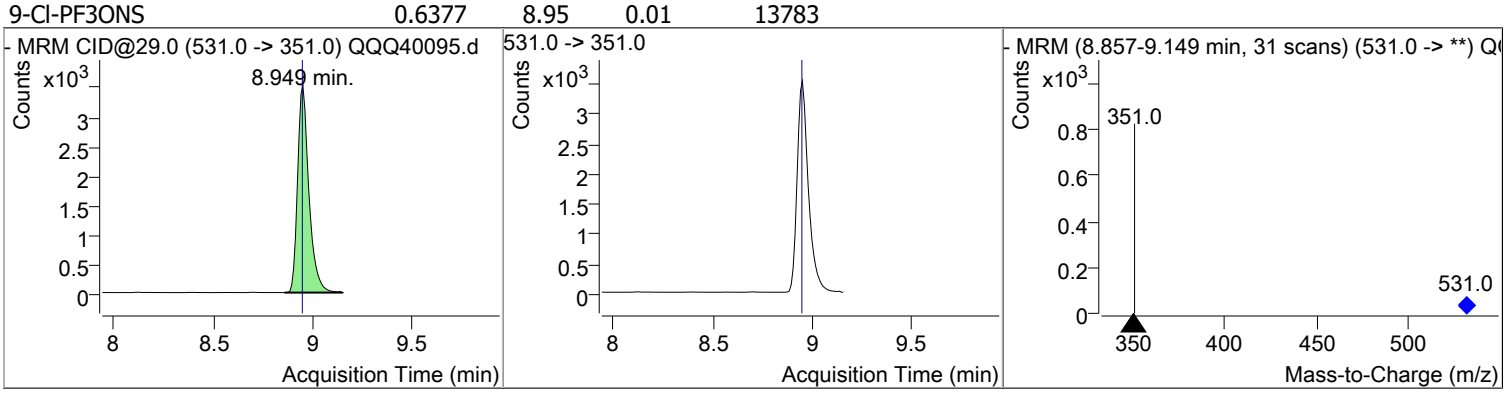
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.1859	8.62	-0.01	1307 (m)	498.9 -> 98.9	35.4	42.7	64.1



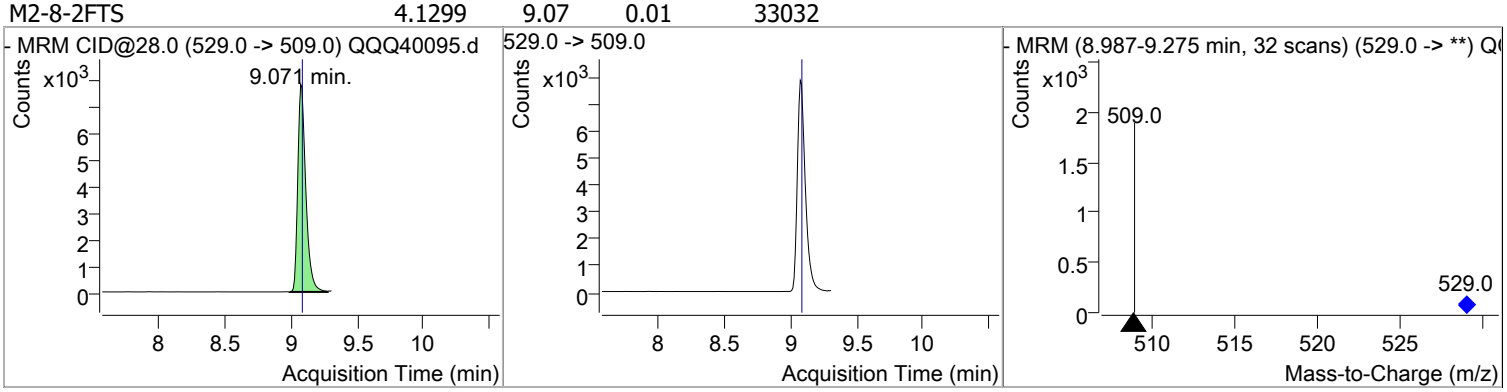
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	5.4852	8.74	0.01	26810	441.0 -> 317.0	89.9	76.9	115.4



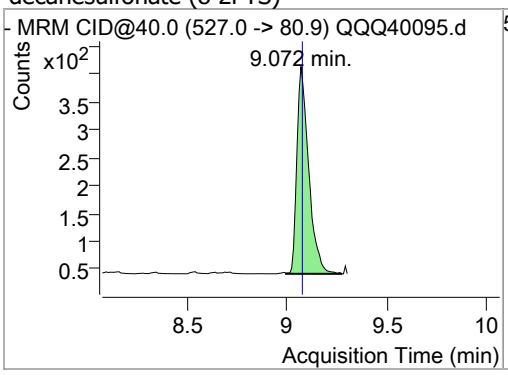
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9-Cl-PF3ONS	0.6377	8.95	0.01	13783				

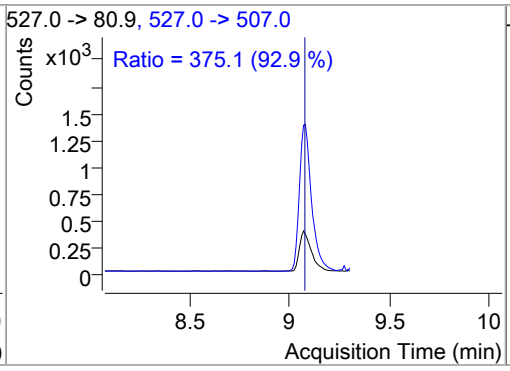


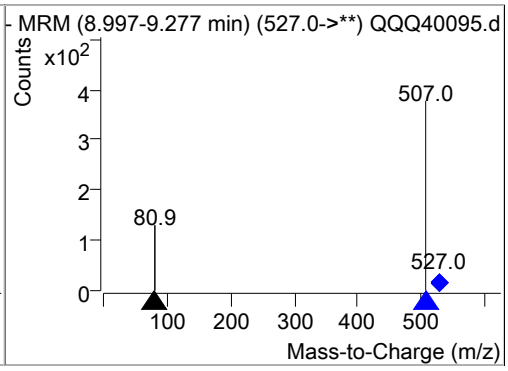
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.1299	9.07	0.01	33032				



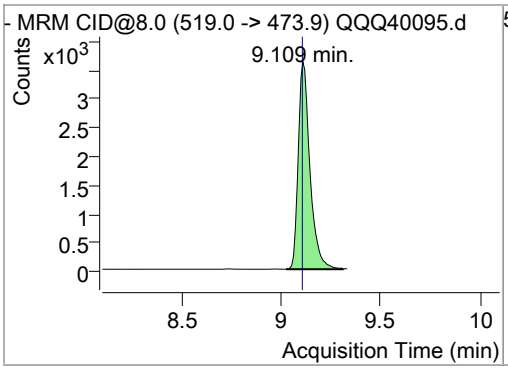
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.9001	9.07	0.00	1533	527.0 -> 507.0	375.1	323.1	484.6

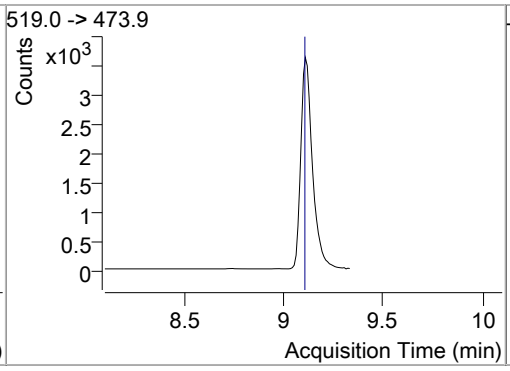


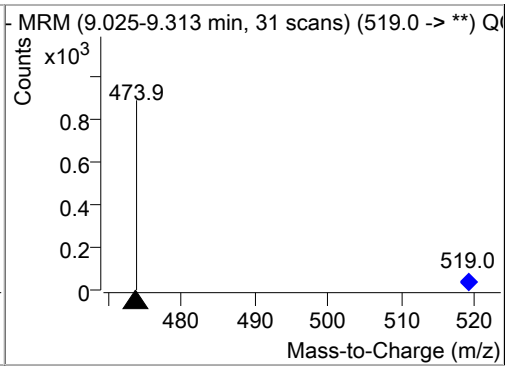




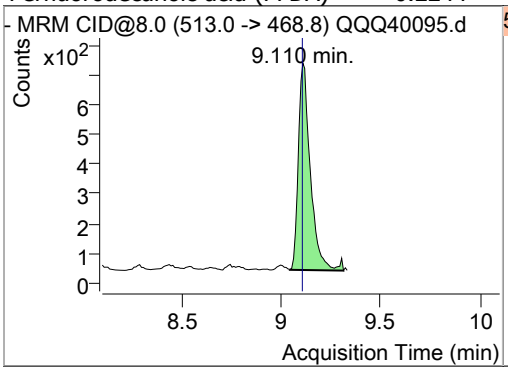
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2160	9.11	0.01	14721				

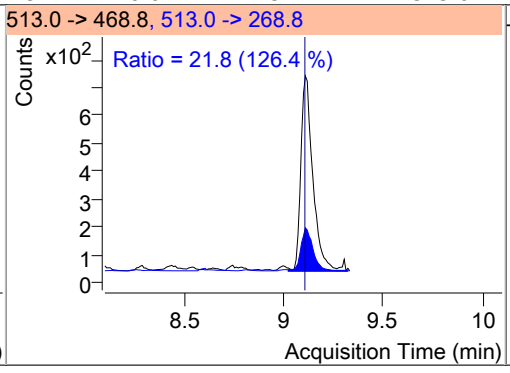


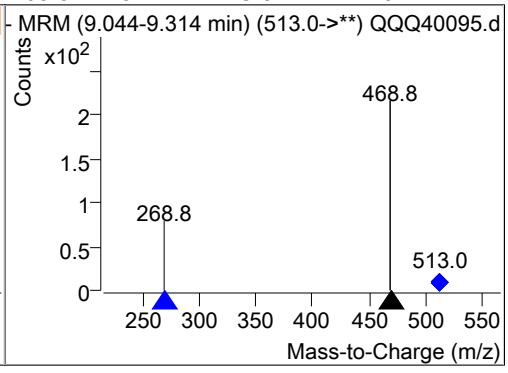




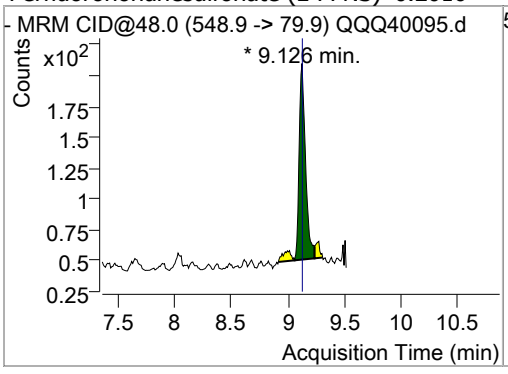
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.2244	9.11	0.01	2927	513.0 -> 268.8	21.8	13.8	20.7

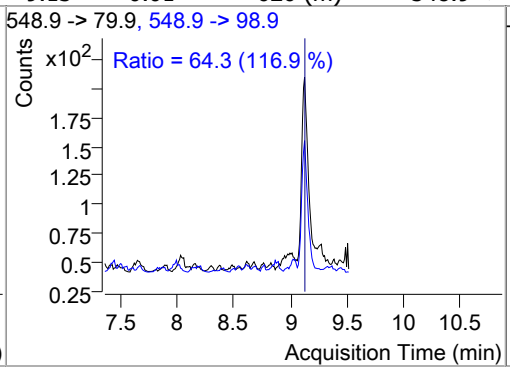


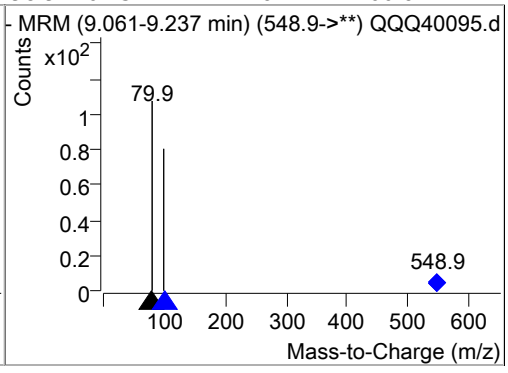




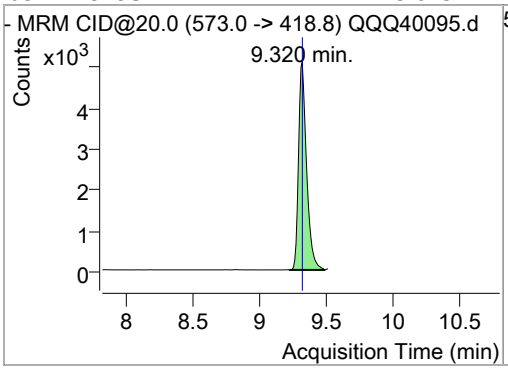
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.2016	9.13	0.01	626 (m)	548.9 -> 98.9	64.3	44.0	66.0

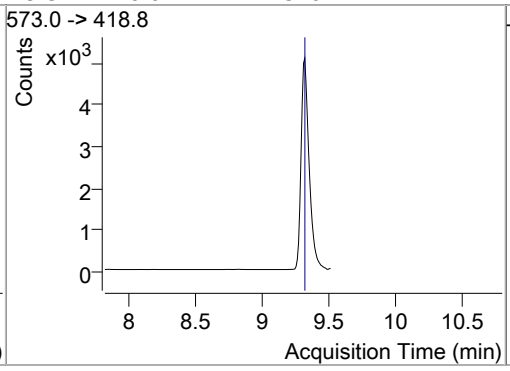


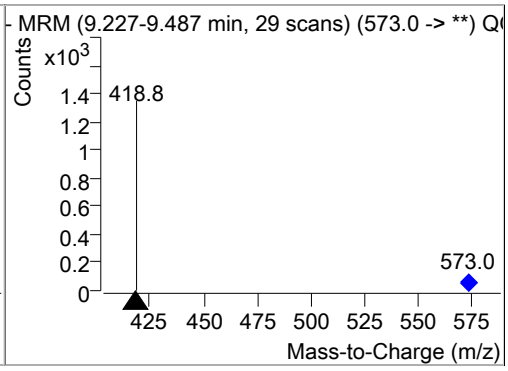




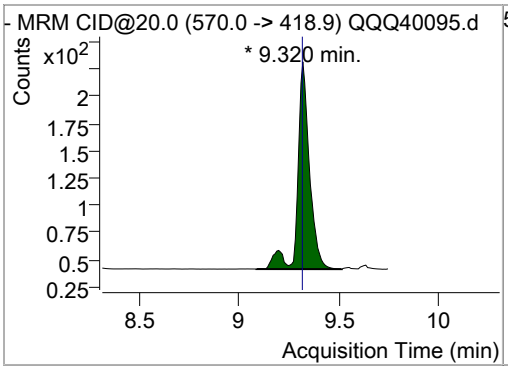
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.0232	9.32	0.01	21370				

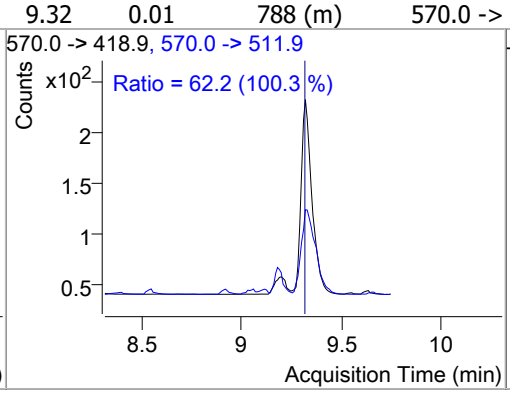


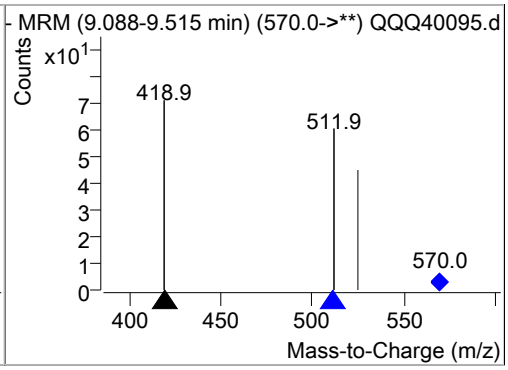




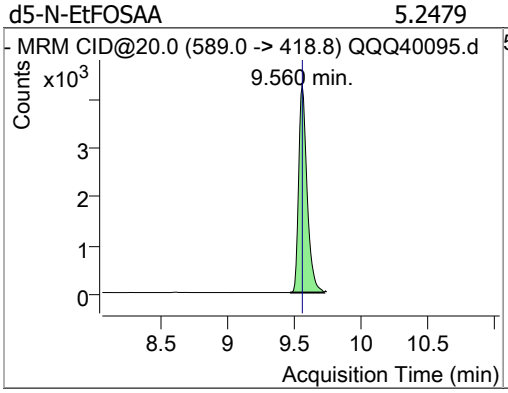
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.2162	9.32	0.01	788 (m)	570.0 -> 511.9	62.2	49.6	74.4

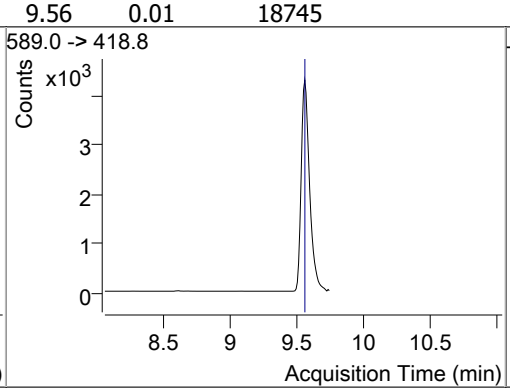


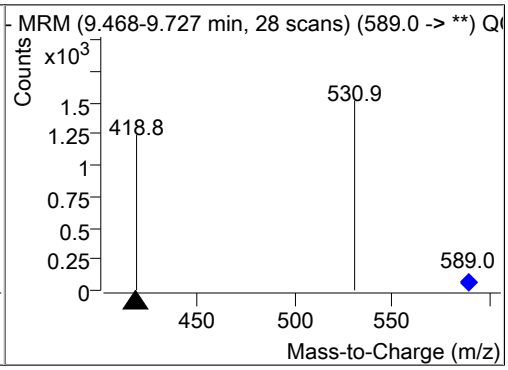




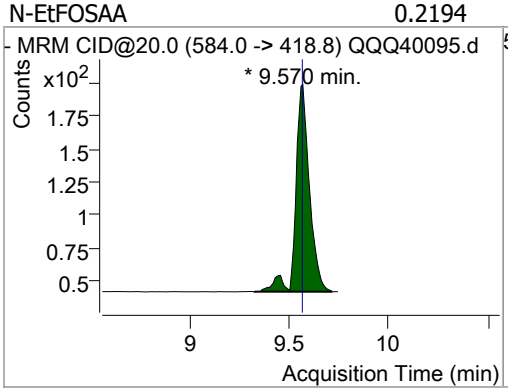
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.2479	9.56	0.01	18745				

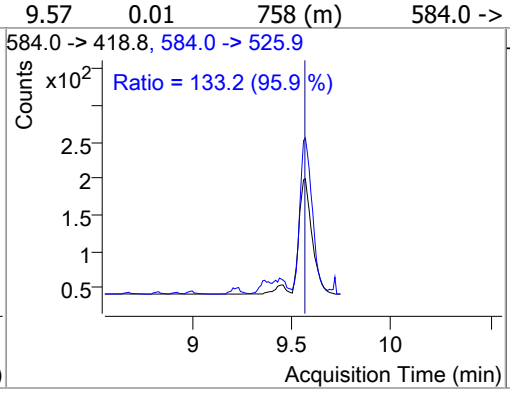


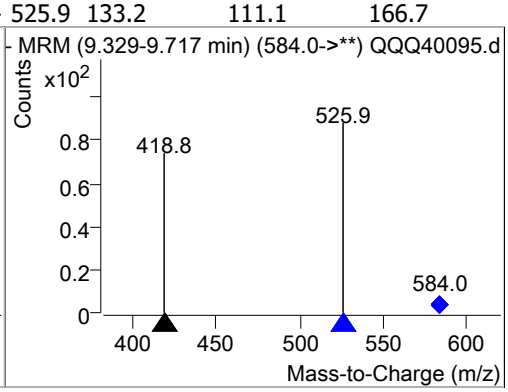




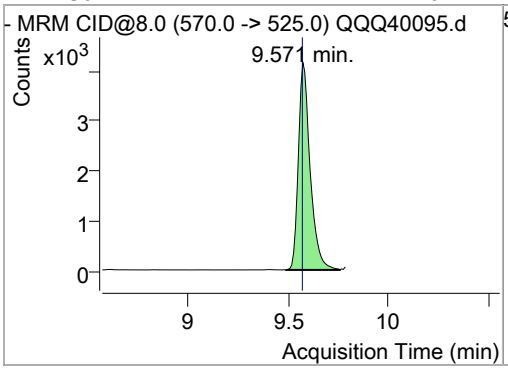
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.2194	9.57	0.01	758 (m)	584.0 -> 525.9	133.2	111.1	166.7

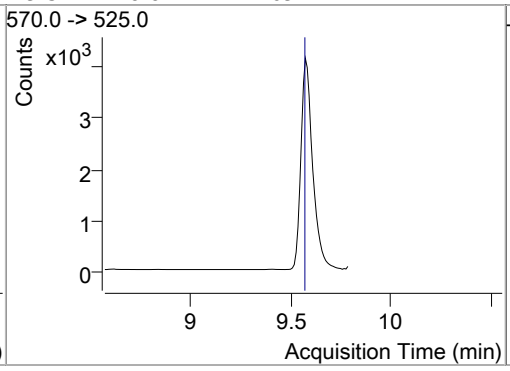


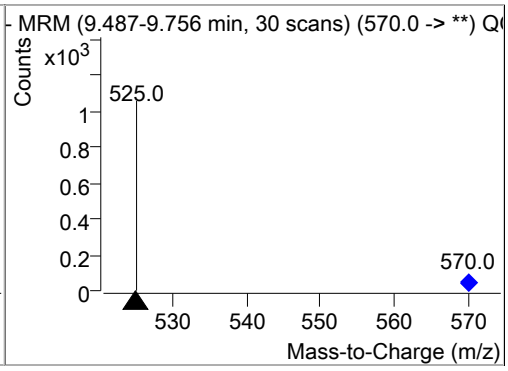




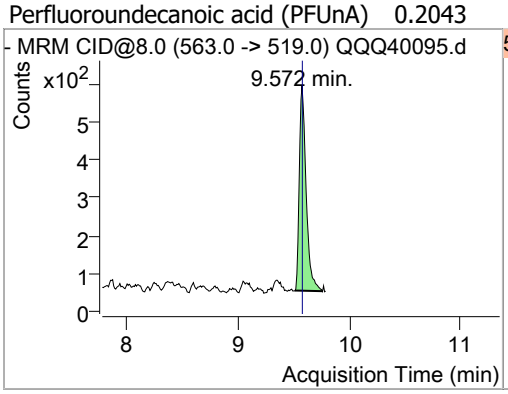
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2621	9.57	0.01	16917				

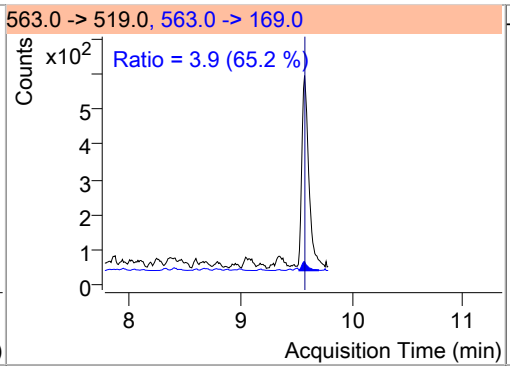


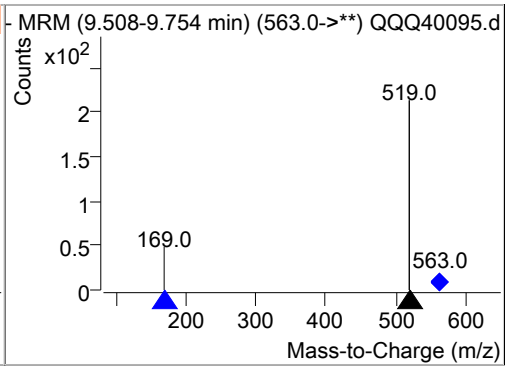




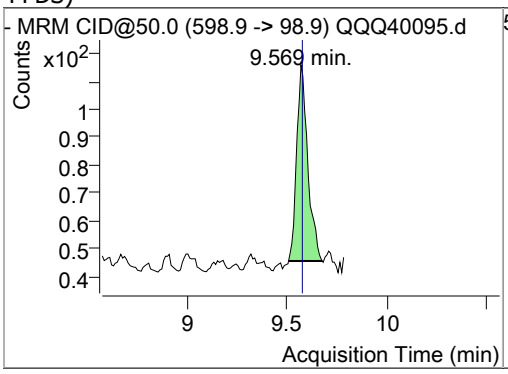
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.2043	9.57	0.01	2304	563.0 -> 169.0	3.9	4.8	7.2

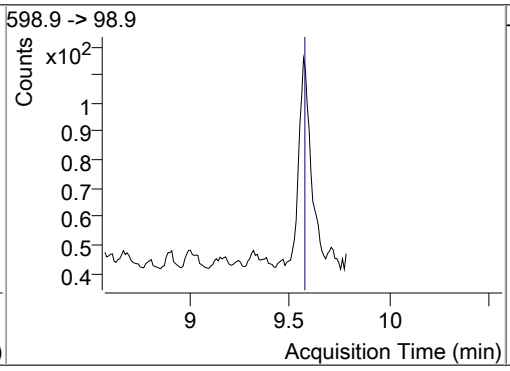


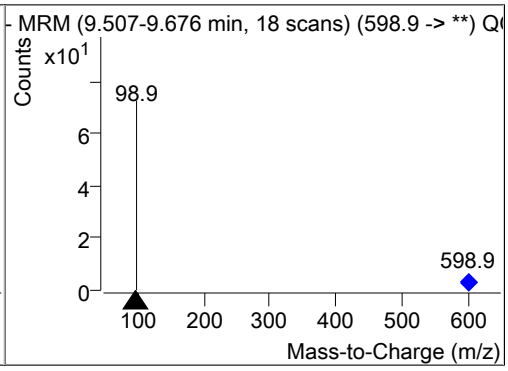




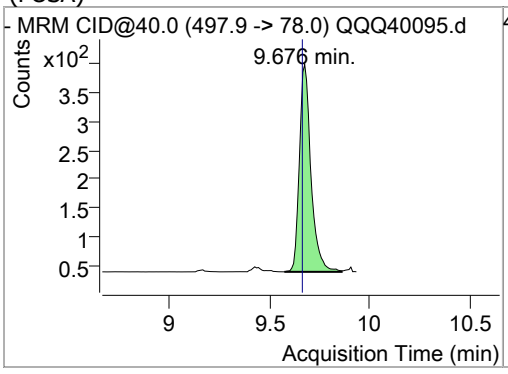
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.1848	9.57	0.00	272				

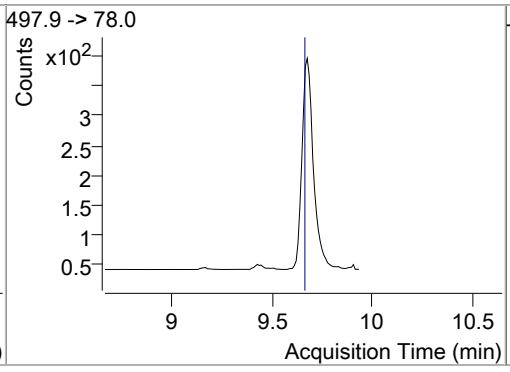


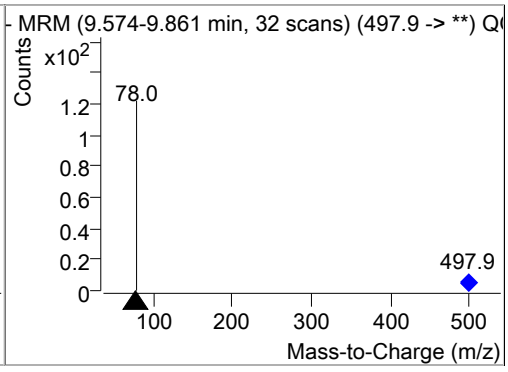




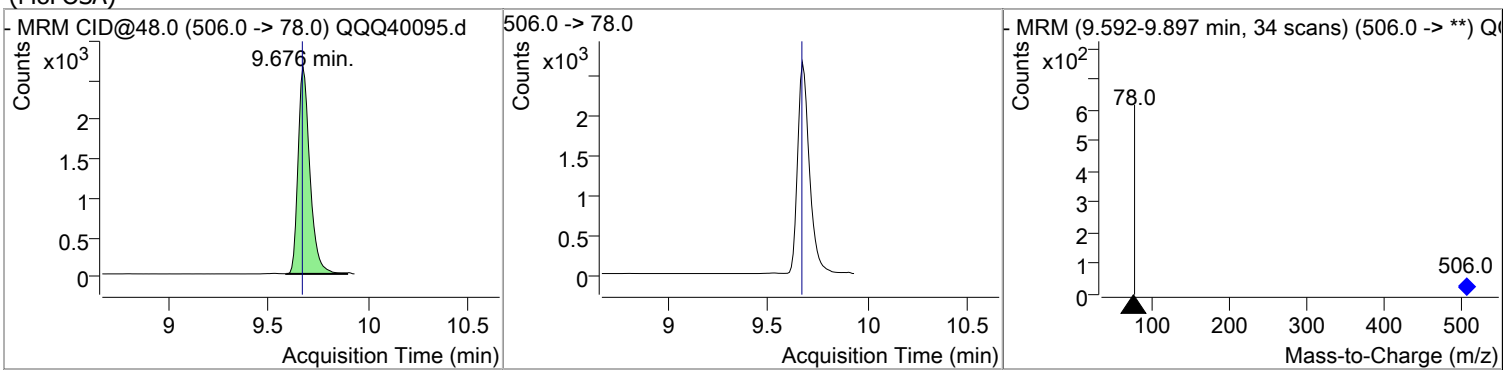
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.2374	9.68	0.02	1427				



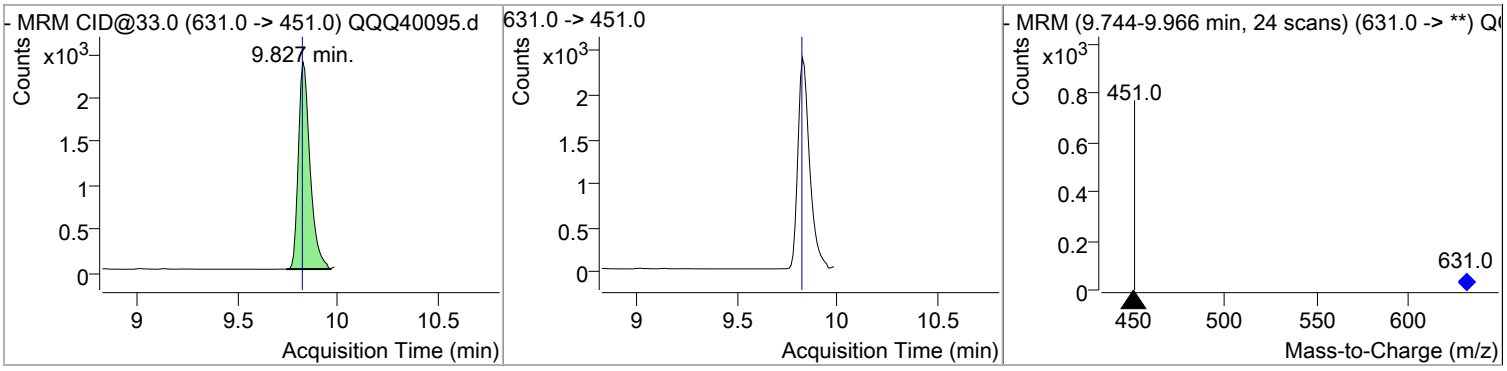




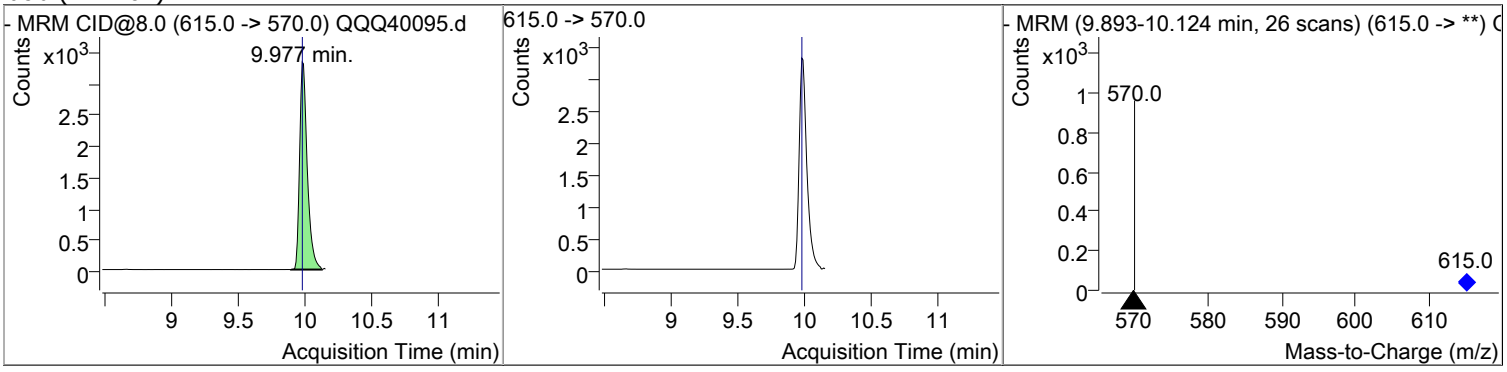
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5345	9.68	0.01	10844				



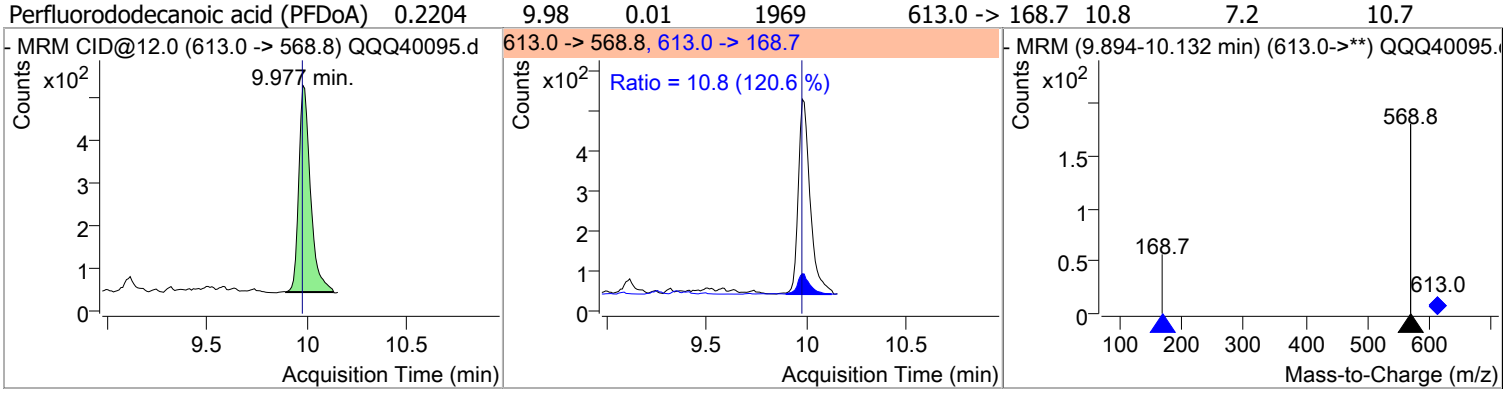
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.7466	9.83	0.01	9665				



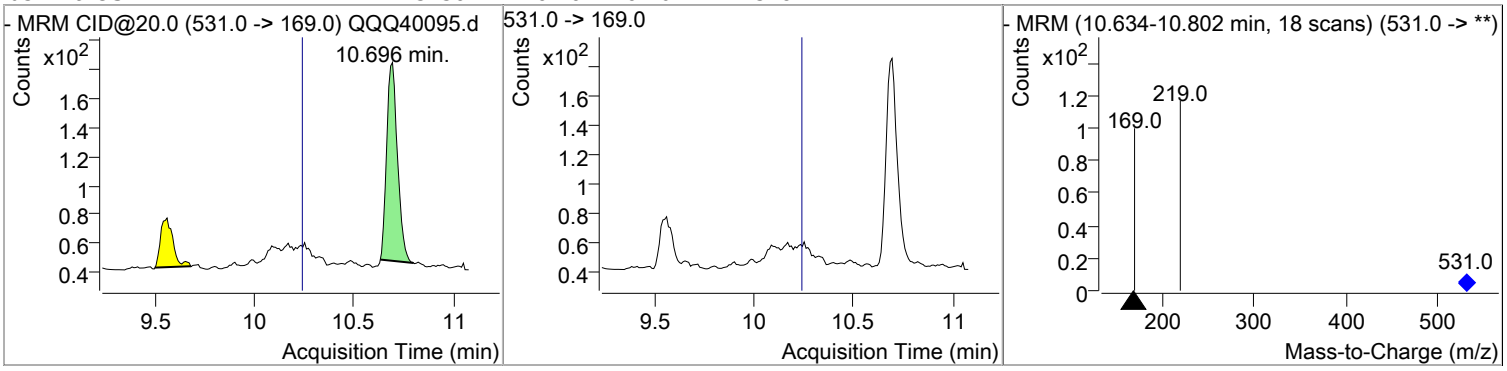
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.1941	9.98	0.01	13234				



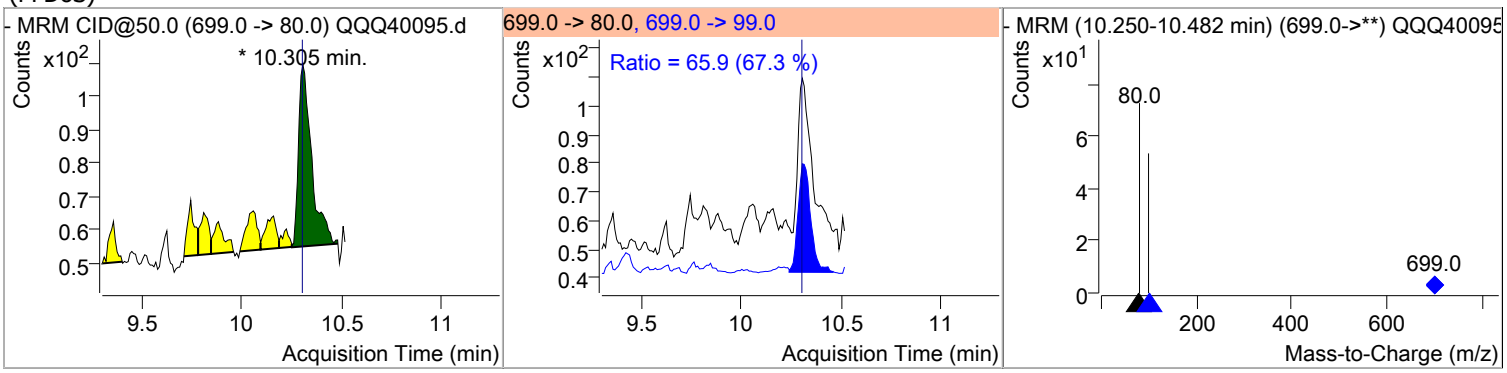
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.2204	9.98	0.01	1969	613.0 -> 168.7	10.8	7.2	10.7



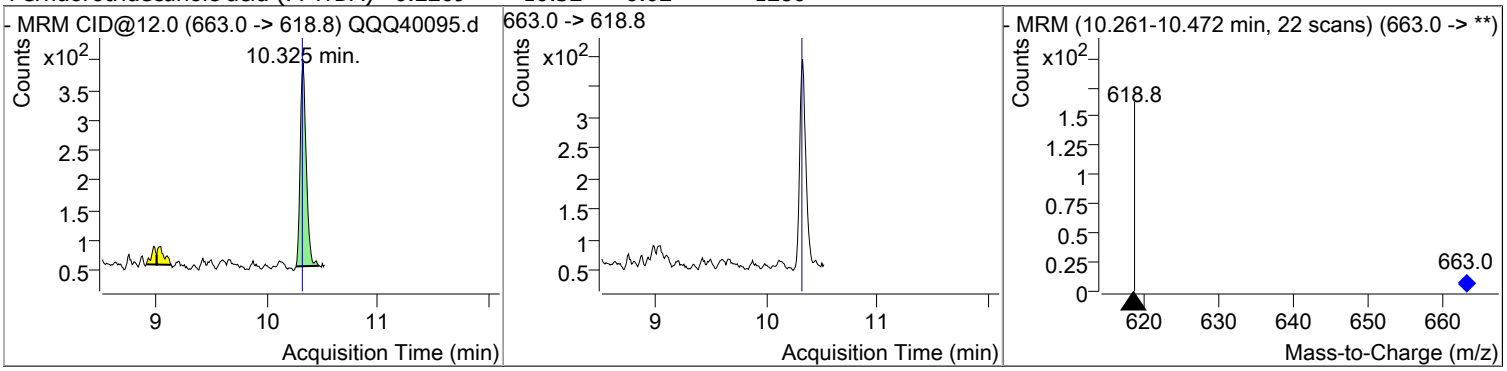
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.3430	10.70	0.46	518				



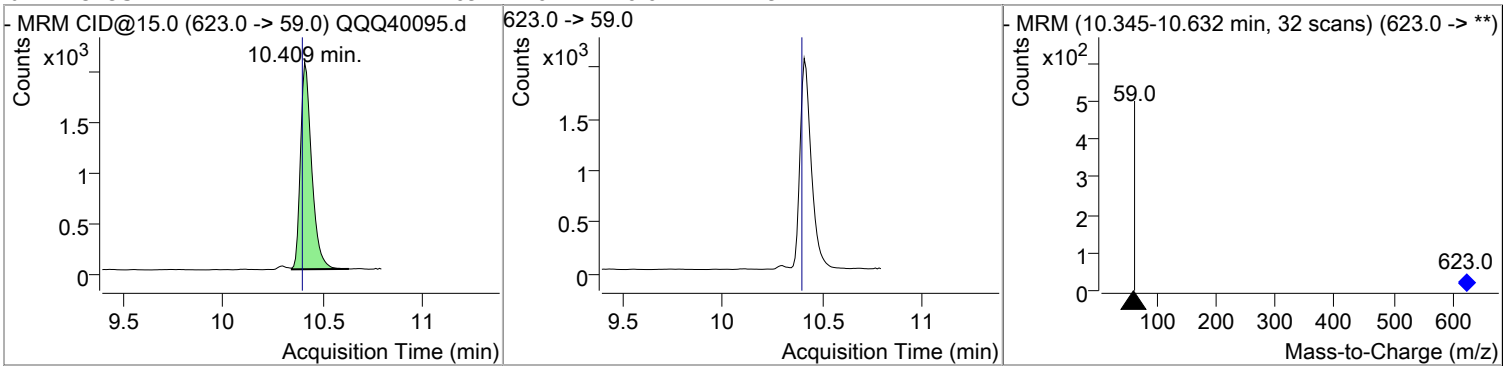
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.2524	10.31	0.01	252 (m)	699.0 -> 99.0	65.9	78.3	117.4



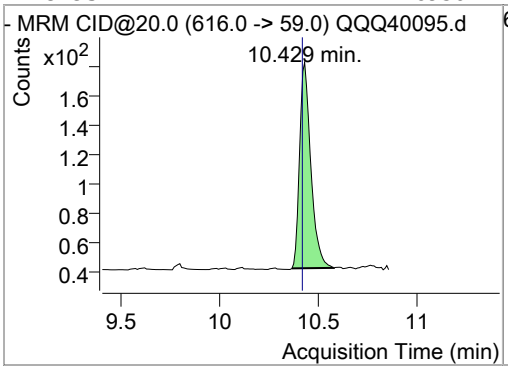
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.2269	10.32	0.02	1280				

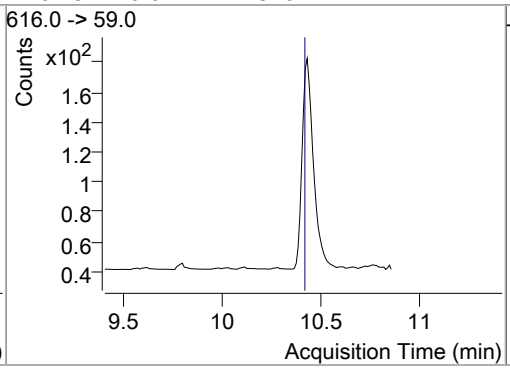


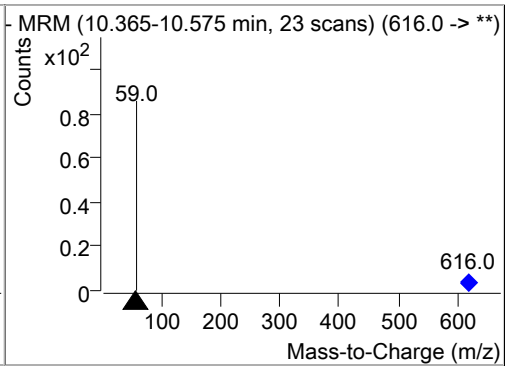
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	24.2109	10.41	0.02	7971				



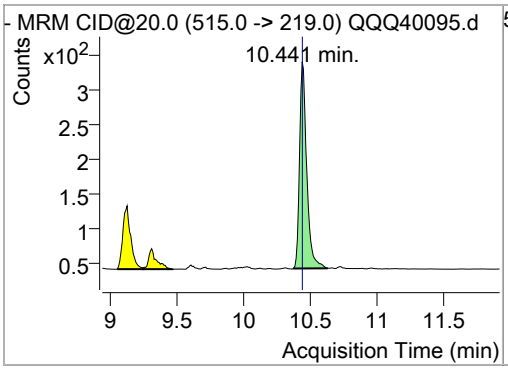
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	1.8930	10.43	0.02	548				

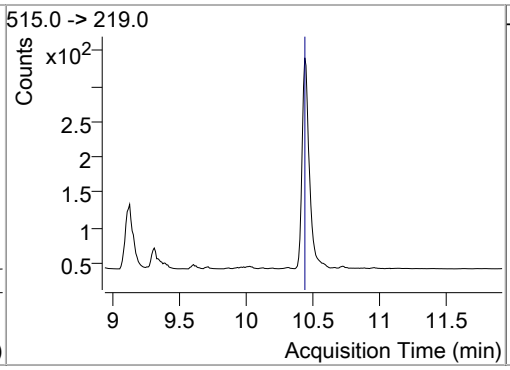


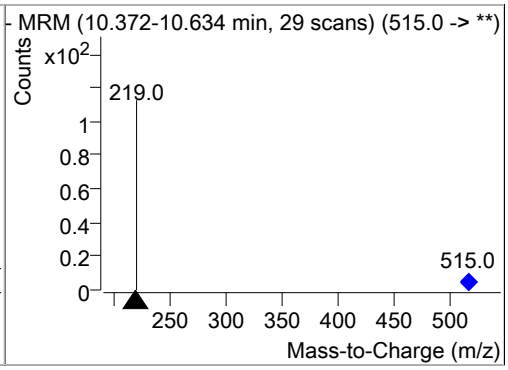




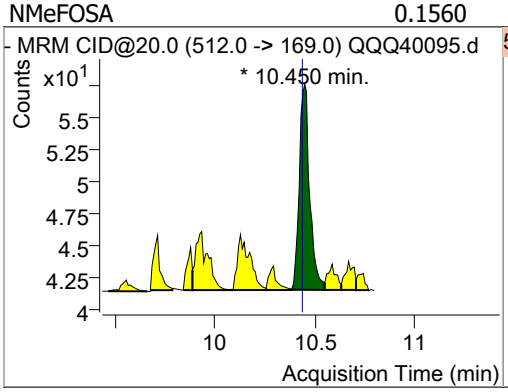
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.5264	10.44	0.01	1119				

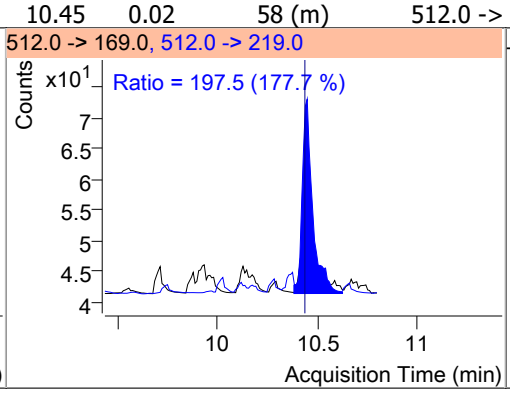


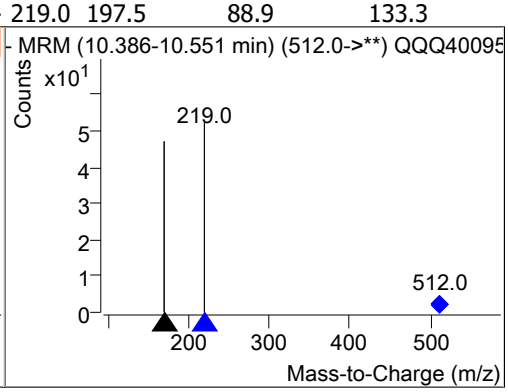




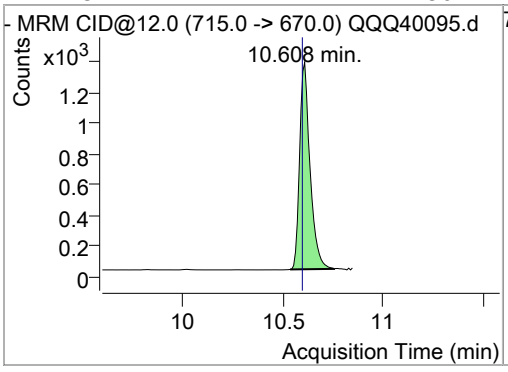
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.1560	10.45	0.02	58 (m)	512.0 -> 219.0	197.5	88.9	133.3

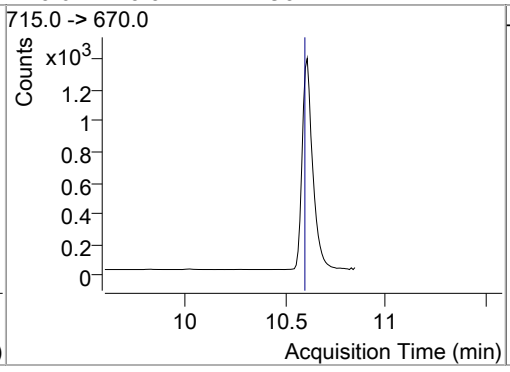


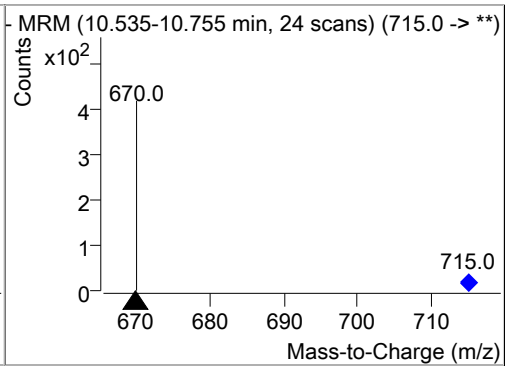




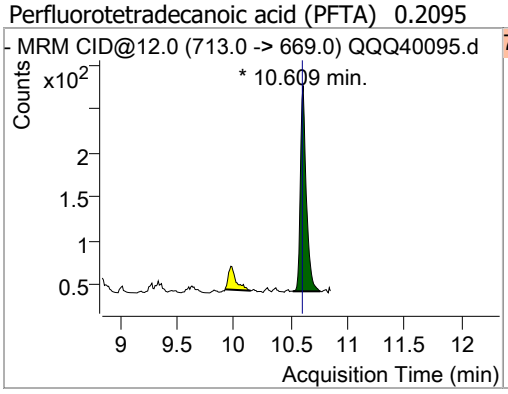
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.1904	10.61	0.02	4904				

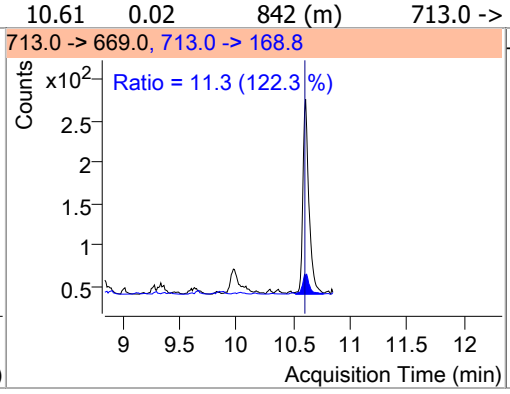


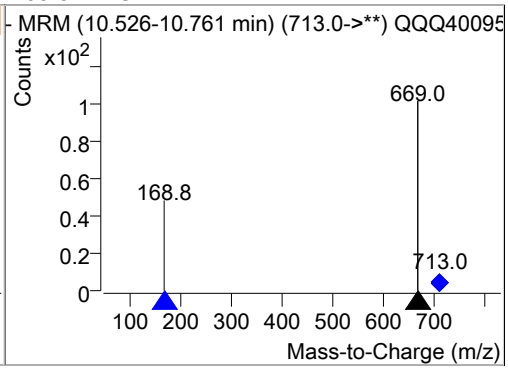




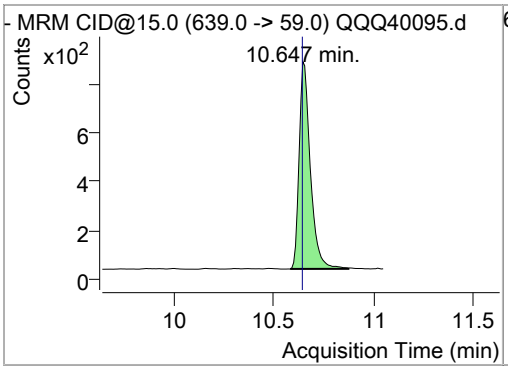
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.2095	10.61	0.02	842 (m)	713.0 -> 168.8	11.3	7.4	11.1

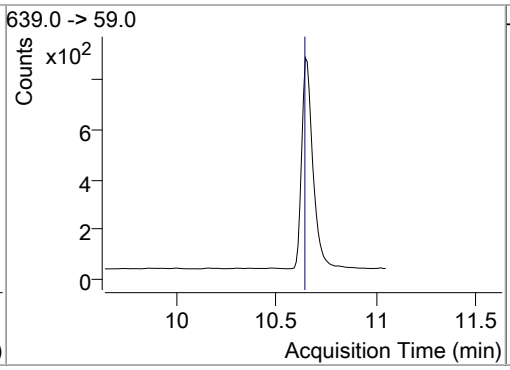


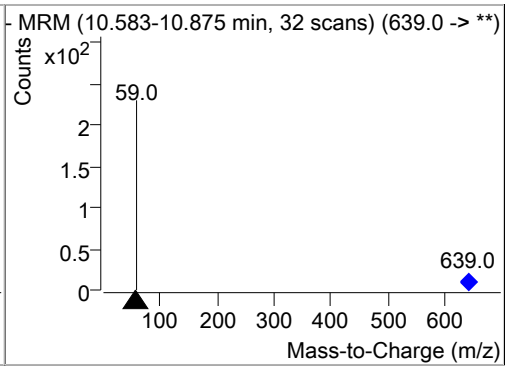




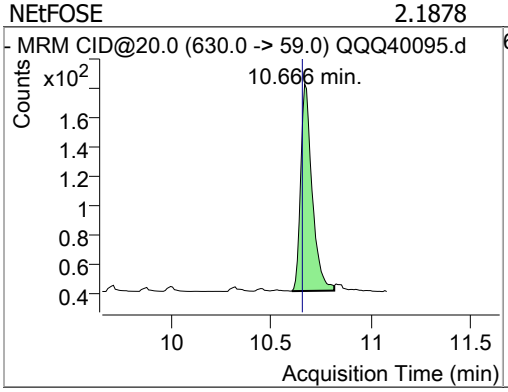
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	25.0069	10.65	0.01	3307				

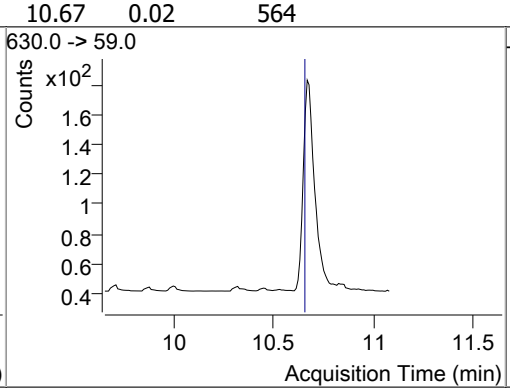


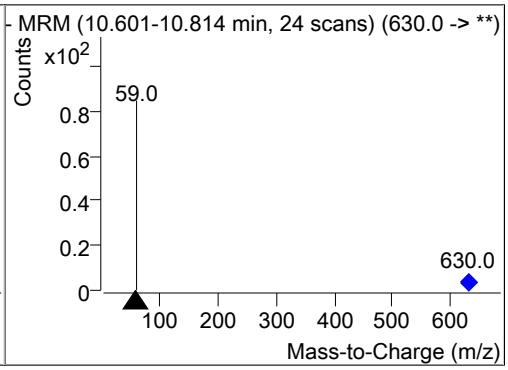




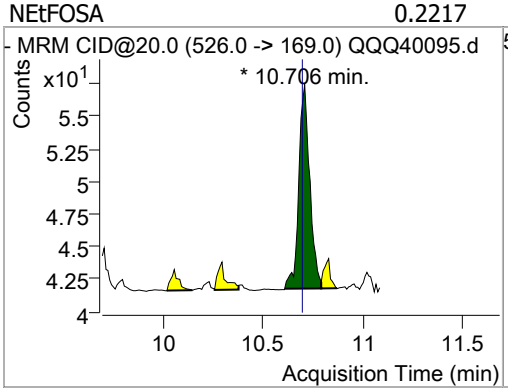
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	2.1878	10.67	0.02	564				

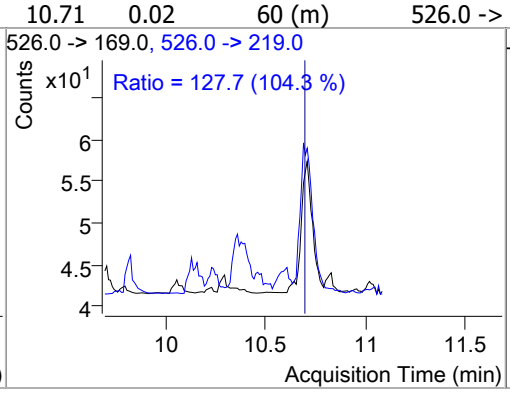


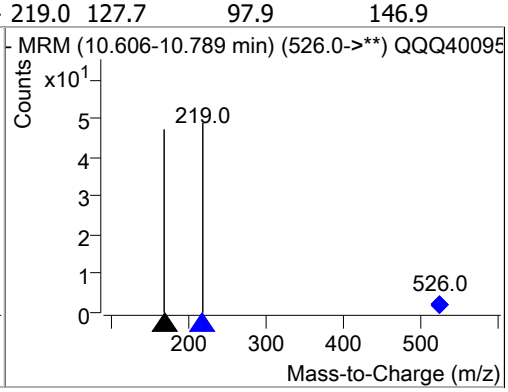




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.2217	10.71	0.02	60 (m)	526.0 -> 219.0	127.7	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 3:14:47 AM	**Data File**	QQQ40095.d
Sample Type	Cal	**Sampe Name**	SEQ-CAL1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.292	8418	1312	0.468			1.71			360.16
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	110948	16982	0.487			1.53			2985.54
PFMPA	2.263	2136	268	0.470			1.67			850.12
3:3FTCA	4.498	274	37	0.336			1.17			199.91
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	97718	15614	0.395			1.64			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.784	8355	1343	0.380			1.70			305.45
PFMBA	5.523	3567	775	0.305			1.54			1748.47
M3PFBS	5.548	16822	3734	0.323			1.60			∞
Perfluorobutanesulfonic acid (PFBS)	5.549	1507	314	0.237			1.69			28.96
PFEESA	6.084	10073	2458	0.325			1.38			803.36
NFDHA	6.235	163	41	0.264			2.61			148.86
M2-4-2FTS	6.306	23155	5581	0.269			1.71			∞
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.307	5020	1164	0.260			1.67			12696.46
M5PFHxA	6.381	53249	12815	0.316			1.85			177983.01
Perfluorohexanoic acid (PFHxA)	6.383	5338	1256	0.301			1.84			392.88
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	1208	316	0.171			1.39			9.07
M3-HFPO-DA	6.698	37970	9049	0.306			1.73			2031.81
HFPO-DA	6.699	276	70	0.138			1.50			11.53
M4PFHpA	7.272	14460	3366	0.344			1.89			31688.57
Perfluoroheptanoic acid (PFHpA)	7.281	2567	660	0.235			1.36			19.67
5-3FTCA	7.338	14445	3440	0.323			1.58			4338.05
M3PFHxS	7.392	11374	2717	0.307			1.43			∞
Perfluorohexanesulfonic acid (PFHxS)	7.383	1351	248	0.413			2.06			71.61

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.420	6158	1424	0.276			1.65			734.12
M2-6-2FTS	7.930	21309	5112	0.297			1.73			∞
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.931	4558	1053	0.286			1.62			451.98
Perfluorooctanoic acid (PFOA)	7.997	3659	916	0.277			1.41			126.60
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.997	31854	7428	0.269			1.56			29659.91
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.060	994	243	0.208			1.73			32.09
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	5468	1330	0.305			1.66			9523.58
Perfluorononanoic acid (PFNA)	8.591	3636	847	0.257			1.83			9.02
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	4775	1221	0.247			1.70			642.80
Perfluorooctanesulfonic acid (PFOS)	8.617	1307	204	0.364			0.44			3.34
7-3FTCA	8.739	26810	6240	0.297			1.74			12954.26
9-Cl-PF3ONS	8.949	13783	3507	0.292			1.50			33295.11
M2-8-2FTS	9.071	33032	7839	0.288			1.86			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	1533	372	0.280			2.25			∞
M6PFDA	9.109	14721	3606	0.288			1.80			∞
Perfluorodecanoic acid (PFDA)	9.110	2927	699	0.269			1.88			∞
Perfluorononanesulfonate (L-PFNS)	9.126	626	159	0.176			1.58			7.08
d3-N-MeFOSAA	9.320	21370	5082	0.260			1.54			48138.25
N-MeFOSAA	9.320	788	191	0.427			1.82			1482.48
d5-N-EtFOSAA	9.560	18745	4263	0.259			1.67			40319.97
N-EtFOSAA	9.570	758	158	0.389			1.44			483.08
M7PFUdA	9.571	16917	4126	0.268			1.80			∞
Perfluoroundecanoic acid (PFUnA)	9.572	2304	540	0.246			1.81			14.73
Perfluoro-1-decanesulfonate (L-PFDS)	9.569	272	70	0.169			1.79			6.85
Perfluoro-1-octanesulfonamide (FOSA)	9.676	1427	355	0.286			1.48			1351.54
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	10844	2640	0.305			1.66			∞
11-Cl-PF3OUdS	9.827	9665	2375	0.222			1.80			4812.33
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	13234	3306	0.231			2.02			39393.53

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.977	1969	483	0.239			1.86			137.38
d5-NEtFOSA	10.696	518	138	0.168			1.14			33.00
Perfluorododecanesulfonic acid (PFDoS)	10.305	252	54	0.232			3.10			7.60
Perfluorotridecanoic acid (PFTrDA)	10.325	1280	338	0.210			1.37			30.63
d7-NMeFOSE	10.409	7971	2037	0.287			1.81			∞
NMeFOSE	10.429	548	140	0.211			1.62			147.44
d3-NMeFOSA	10.441	1119	298	0.262			1.77			539.76
NMeFOSA	10.450	58	16	0.166			1.23			5.58
M2PFTeDA	10.608	4904	1354	0.221			1.48			6356.87
Perfluorotetradecanoic acid (PFTA)	10.609	842	233	0.235			1.61			121.79
d9-NEtFOSE	10.647	3307	846	0.292			2.07			631.66
NEtFOSE	10.666	564	141	0.213			1.98			∞
NEtFOSA	10.706	60	16	0.183			1.22			75.64

Data File	QQQ40096.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 3:30:51 AM
Sample Name	SEQ-CAL2	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	0.50 - 12.5 ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
Ref Library			

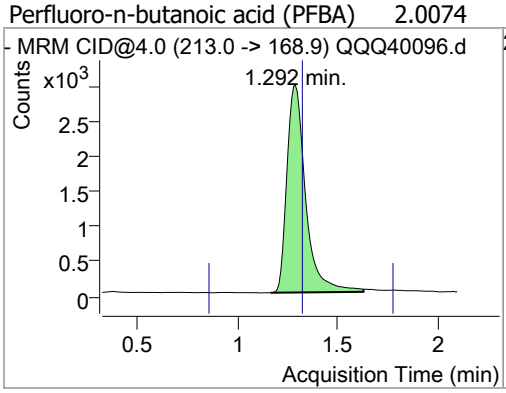
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.287	217.0 -> 172.0	107323	10.0000	ng/ml		-0.037
M3PFBA	1.290	216.0 -> 172.0	20550	5.0000	ng/ml		-0.028
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.765	268.0 -> 223.0	98061	5.0000	ng/ml		-0.018
MPFHxA	6.382	315.0 -> 269.8	32096	2.5000	ng/ml		0.000
MPFHxS	7.382	403.0 -> 103.0	3745	2.3700	ng/ml		0.000
M3PFBS-EIS	5.539	302.0 -> 79.9	16292	2.3300	ng/ml		0.000
M5PFHxA-EIS	6.381	318.0 -> 273.0	52249	2.5000	ng/ml		0.000
M2-4-2FTS-EIS	6.306	329.0 -> 309.0	23850	4.6900	ng/ml		0.000
M3PFHxS-EIS	7.382	402.0 -> 80.0	11476	2.3700	ng/ml		0.000
M3-HFPO-DA-EIS	6.689	287.0 -> 169.0	38553	10.0000	ng/ml		-0.009
M4PFHpA-EIS	7.272	367.0 -> 322.0	14888	2.5000	ng/ml		0.000
M2-6-2FTS-EIS	7.930	429.0 -> 409.0	20746	4.7550	ng/ml		0.009
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.987	421.0 -> 376.0	30705	2.5000	ng/ml		-0.009
MPFOA	7.987	417.0 -> 372.0	41506	2.5000	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.616	507.0 -> 98.9	4583	2.3950	ng/ml		-0.009
MPFNA	8.590	468.0 -> 423.0	18223	1.2500	ng/ml		0.000
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.590	472.0 -> 223.0	4796	1.2500	ng/ml		0.000
MPFOS	8.626	503.0 -> 80.0	9899	2.3950	ng/ml		0.000
M2-8-2FTS-EIS	9.062	529.0 -> 509.0	31573	4.8000	ng/ml		0.000
MPFDA	9.100	515.0 -> 469.8	9962	1.2500	ng/ml		-0.009
M6PFDA-EIS	9.100	519.0 -> 473.9	14648	1.2500	ng/ml		0.000
d3-N-MeFOSAA-EIS	9.301	573.0 -> 418.8	19733	5.0000	ng/ml		-0.010
d5-N-EtFOSAA-EIS	9.542	589.0 -> 418.8	17176	5.0000	ng/ml		-0.009
M7PFUdA-EIS	9.562	570.0 -> 525.0	16695	1.2500	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.666	506.0 -> 78.0	10252	2.5000	ng/ml		0.000
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.968	615.0 -> 570.0	13429	1.2500	ng/ml		0.000
M2PFTeDA-EIS	10.599	715.0 -> 670.0	4632	1.2500	ng/ml		0.009
d7-NMeFOSE-EIS	10.400	623.0 -> 59.0	8143	25.0000	ng/ml		0.009
d3-NMeFOSA-EIS	10.431	515.0 -> 219.0	1021	2.5000	ng/ml		0.000
d9-NEtFOSE-EIS	10.647	639.0 -> 59.0	3321	25.0000	ng/ml		0.009
d5-NEtFOSA-EIS	10.677	531.0 -> 169.0	544	2.5000	ng/ml	m	0.009
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.287	217.0 -> 172.0	107323	10.3136	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	268.0 -> 223.0	98061	5.0988	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.539	302.0 -> 79.9	16292	2.4473	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.306	329.0 -> 309.0	23847	4.4202	ng/ml		0.000

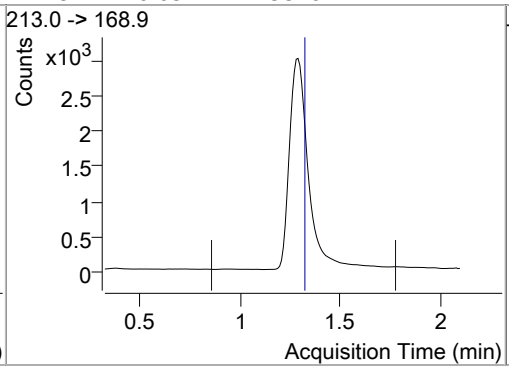
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.381	318.0 -> 273.0	52249	2.5335	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.689	287.0 -> 169.0	38553	10.9987	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.272	367.0 -> 322.0	14888	2.7802	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.382	402.0 -> 80.0	11476	2.5022	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.930	429.0 -> 409.0	20743	4.3051	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	421.0 -> 376.0	30704	2.5720	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	472.0 -> 223.0	4796	1.2069	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.616	507.0 -> 98.9	4631	2.3538	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.062	529.0 -> 509.0	31574	4.1993	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.100	519.0 -> 473.9	14648	1.2219	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.301	573.0 -> 418.8	19733	4.6083	ng/ml		-0.010
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.542	589.0 -> 418.8	17177	4.7776	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.562	570.0 -> 525.0	16695	1.2578	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	506.0 -> 78.0	10252	2.3806	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.968	615.0 -> 570.0	13427	1.2235	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.677	531.0 -> 169.0	544	2.4426	ng/ml	m	0.441
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.400	623.0 -> 59.0	8143	24.5735	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.431	515.0 -> 219.0	1021	2.2906	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.599	715.0 -> 670.0	4632	1.1355	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.647	639.0 -> 59.0	3321	24.9462	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.292	213.0 -> 168.9	19378	2.0074	ng/ml		100
PFMPA	2.254	229.0 -> 85.0	5038	0.9961	ng/ml		100
3:3FTCA	4.479	241.0 -> 177.0	695	2.5579	ng/ml		99
Perfluoro-n-pentanoic acid (PFPeA)	4.774	263.0 -> 219.0	19384	1.0010	ng/ml		100
PFMBA	5.514	279.0 -> 85.0	7905	0.9622	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.539	298.9 -> 79.9	3233	0.4481	ng/ml		99
PFEESA	6.075	315.0 -> 135.0	23423	0.8503	ng/ml		100
NFDHA	6.225	295.0 -> 201.1	399	1.1587	ng/ml		90
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	327.0 -> 307.0	11923	2.0338	ng/ml		100

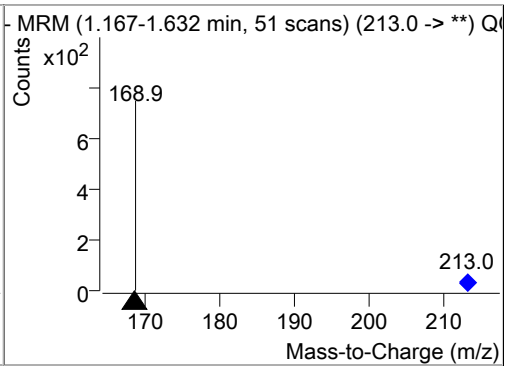
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.383	313.0 -> 268.9	11274	0.4435	ng/ml	#	96
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.602	348.9 -> 79.9	2897	0.4978	ng/ml		95
HFPO-DA	6.699	285.0 -> 169.1	663	1.8080	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.272	363.0 -> 318.8	6801	0.4580	ng/ml	m	100
5-3FTCA	7.328	341.0 -> 217.0	33807	11.9838	ng/ml		96
Perfluorohexanesulfonic acid (PFHxS)	7.383	398.9 -> 79.9	3013	0.5238	ng/ml	m	100
ADONA	7.411	377.0 -> 85.0	15031	1.6577	ng/ml		99
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.931	427.0 -> 407.0	10955	2.0310	ng/ml	#	89
Perfluorooctanoic acid (PFOA)	7.997	413.0 -> 368.8	7551	0.4997	ng/ml		93
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	448.9 -> 80.0	2382	0.4716	ng/ml		89
Perfluorononanoic acid (PFNA)	8.591	463.0 -> 418.8	6756	0.5046	ng/ml		96
Perfluorooctanesulfonic acid (PFOS)	8.626	498.9 -> 79.9	2601	0.4894	ng/ml	m	94
7-3FTCA	8.730	441.0 -> 337.0	64585	13.4888	ng/ml		100
9-Cl-PF3ONS	8.940	531.0 -> 351.0	36969	1.6840	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.062	527.0 -> 80.9	3136	1.9409	ng/ml		99
Perfluorodecanoic acid (PFDA)	9.101	513.0 -> 468.8	6628	0.5105	ng/ml		95
Perfluorononanesulfonate (L-PFNS)	9.107	548.9 -> 79.9	1664	0.5588	ng/ml		98
N-MeFOSAA	9.311	570.0 -> 418.9	1847	0.5489	ng/ml	m	90
N-EtFOSAA	9.552	584.0 -> 418.8	1859	0.5876	ng/ml	m	79
Perfluoroundecanoic acid (PFUnA)	9.562	563.0 -> 519.0	6184	0.5551	ng/ml		97
Perfluoro-1-decanesulfonate (L-PFDS)	9.560	598.9 -> 98.9	748	0.5307	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.667	497.9 -> 78.0	2894	0.5092	ng/ml		100
11-Cl-PF3OUdS	9.818	631.0 -> 451.0	24046	1.8287	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.968	613.0 -> 568.8	4959	0.5472	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.296	699.0 -> 80.0	439	0.5235	ng/ml	m	90
Perfluorotridecanoic acid (PFTrDA)	10.307	663.0 -> 618.8	2644	0.4965	ng/ml		100
NMeFOSE	10.420	616.0 -> 59.0	1415	4.7887	ng/ml		100
NMeFOSA	10.432	512.0 -> 169.0	172	0.5031	ng/ml	#	65
Perfluorotetradecanoic acid (PFTA)	10.590	713.0 -> 669.0	2135	0.5627	ng/ml	m	97
NEtFOSE	10.656	630.0 -> 59.0	1401	5.4062	ng/ml		100
NEtFOSA	10.688	526.0 -> 169.0	158	0.5558	ng/ml	m	91

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

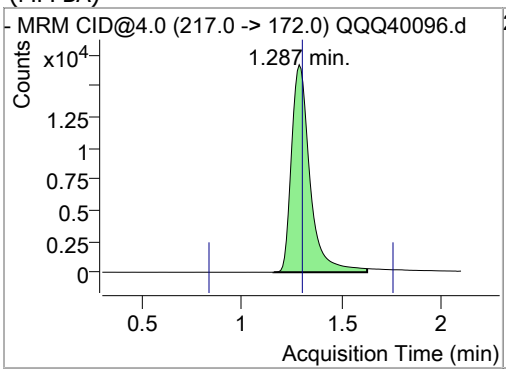
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	2.0074	1.29	-0.03	19378				

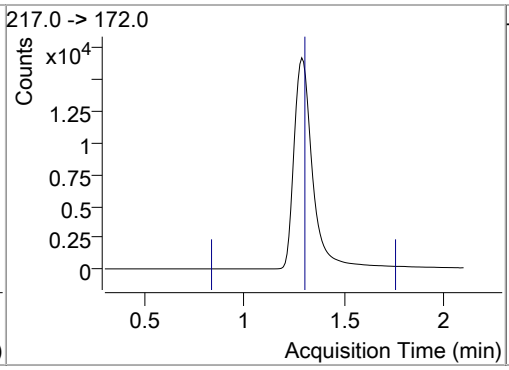


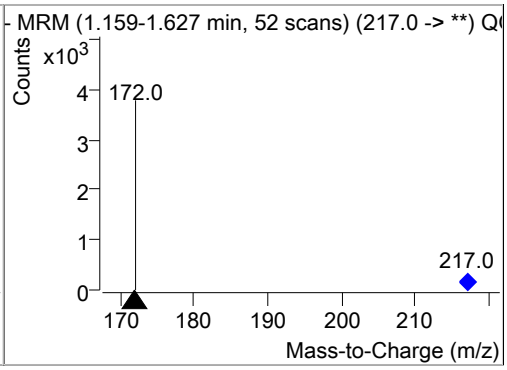




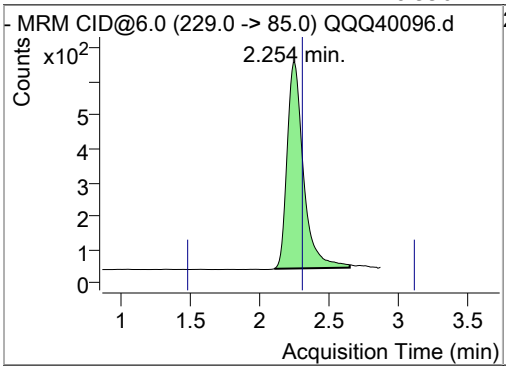
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.3136	1.29	-0.04	107323				

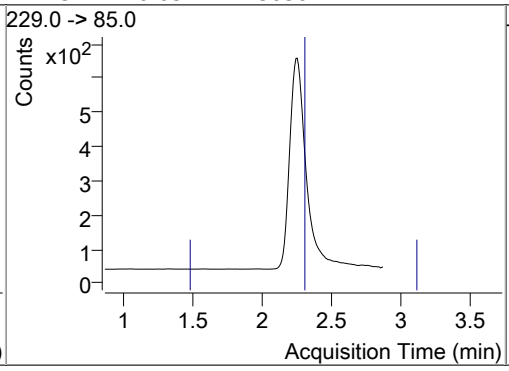


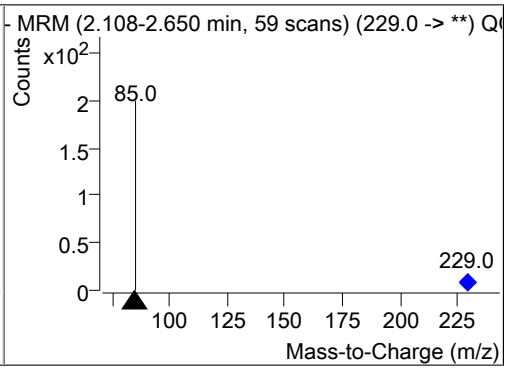




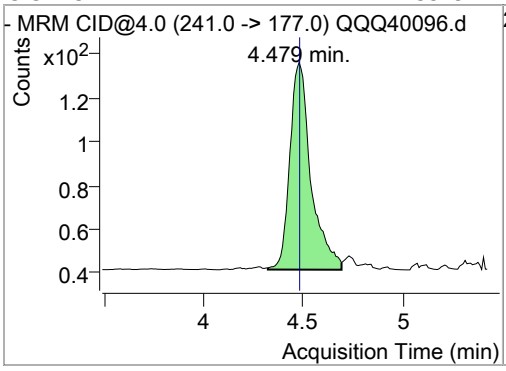
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.9961	2.25	-0.05	5038				

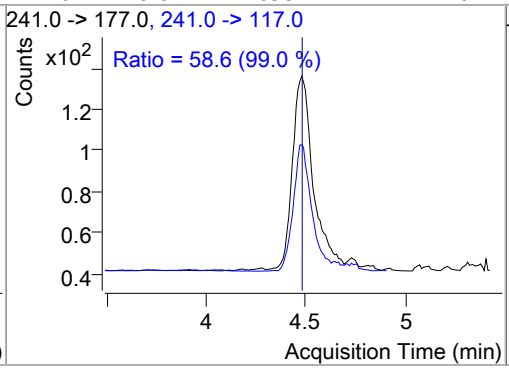


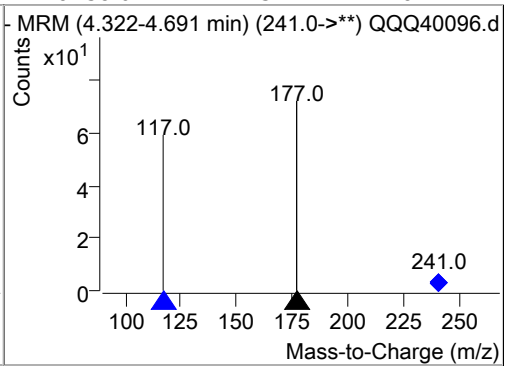




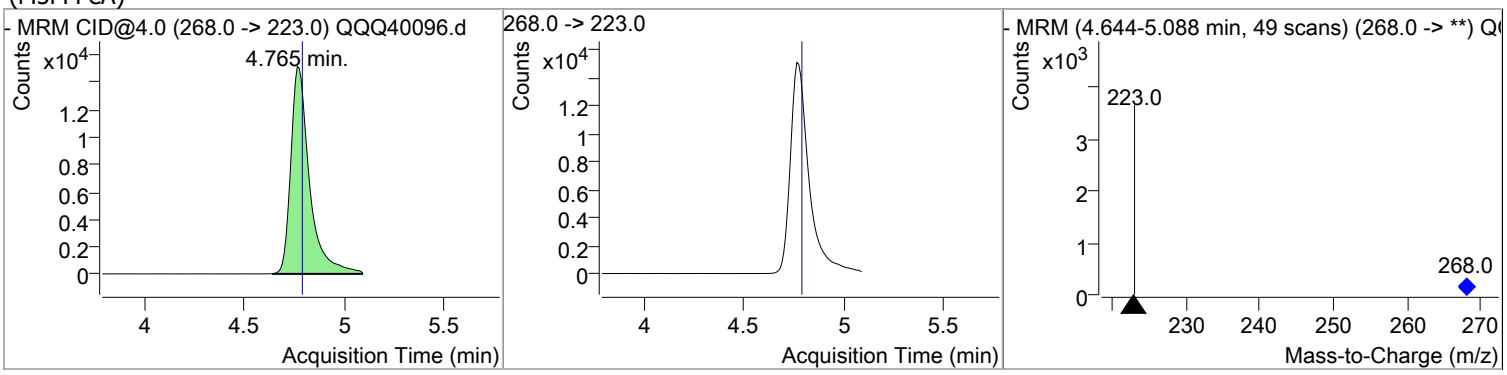
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	2.5579	4.48	-0.01	695	241.0 -> 117.0	58.6	47.3	71.0



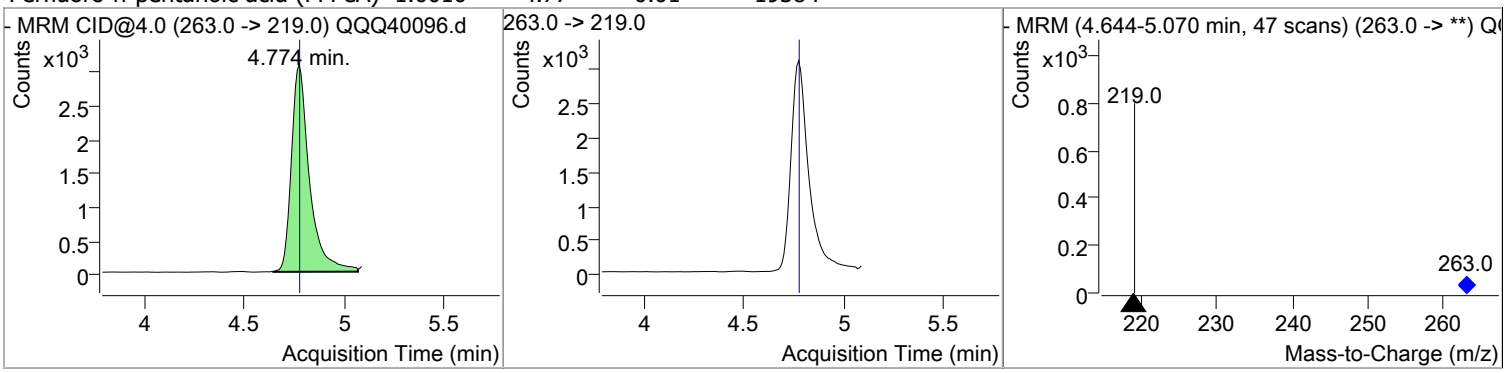




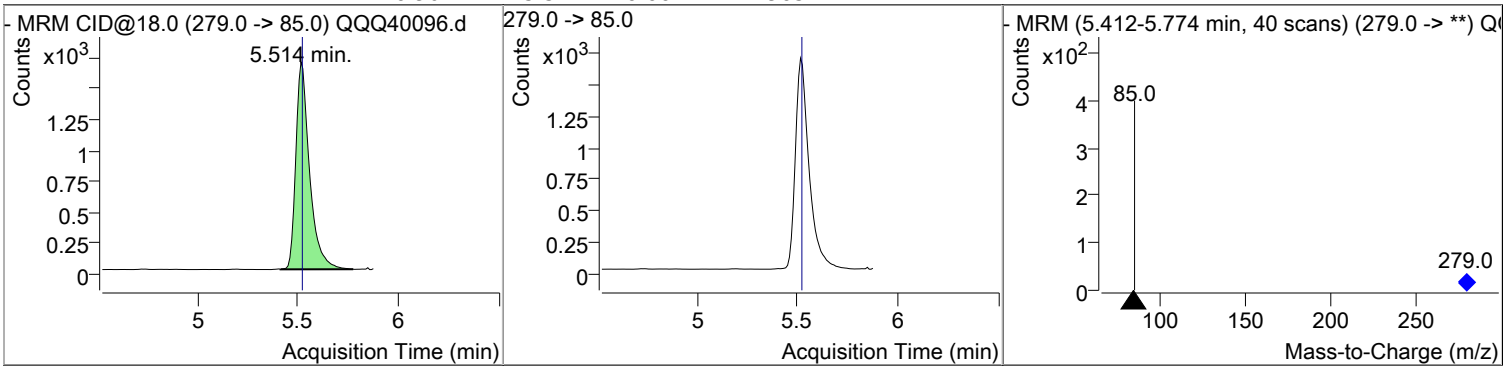
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.0988	4.76	-0.02	98061				



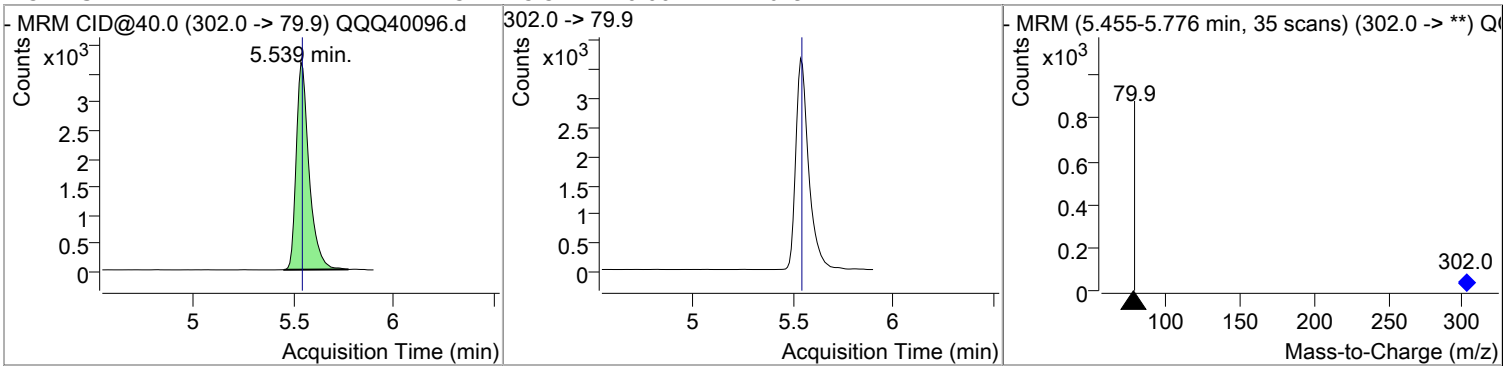
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	1.0010	4.77	-0.01	19384				



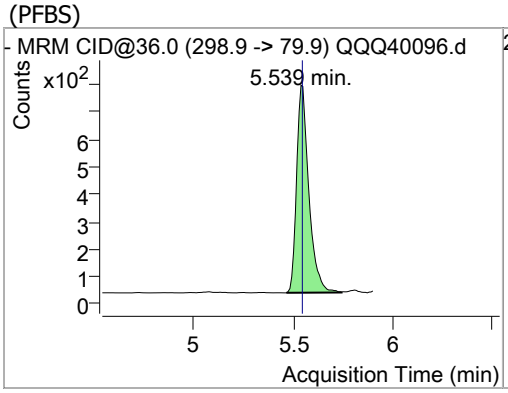
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.9622	5.51	0.00	7905				

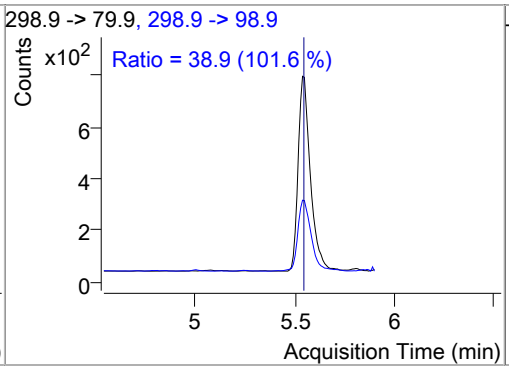


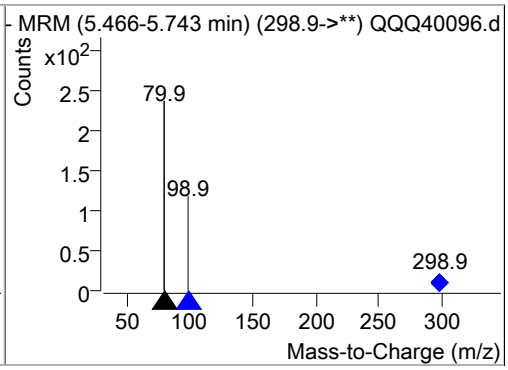
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.4473	5.54	0.00	16292				



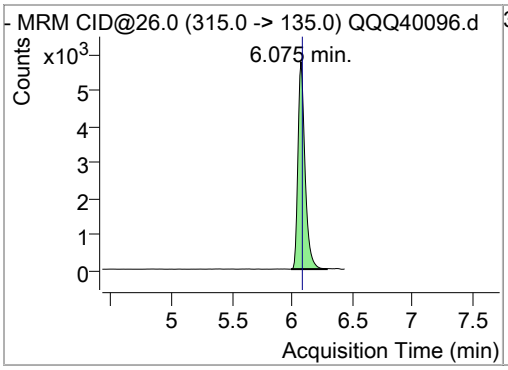
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.4481	5.54	0.00	3233	298.9 -> 98.9	38.9	30.7	46.0

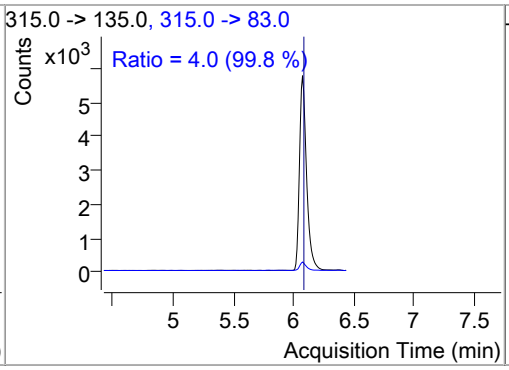


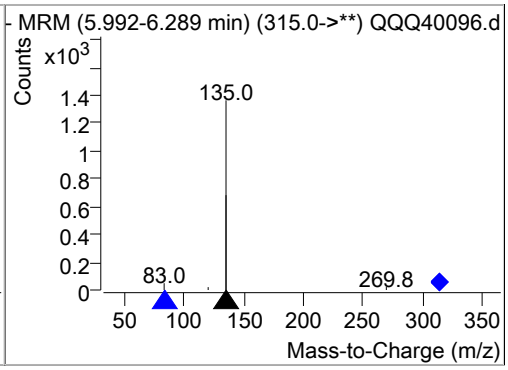




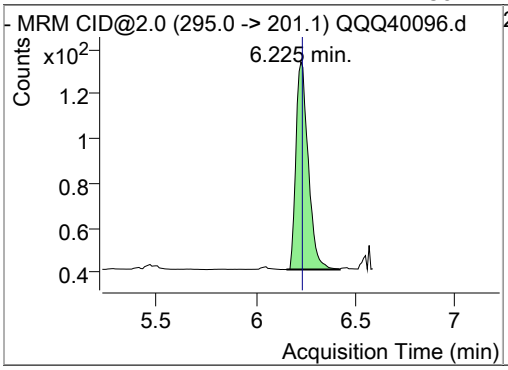
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.8503	6.08	0.00	23423	315.0 -> 83.0	4.0	3.2	4.8

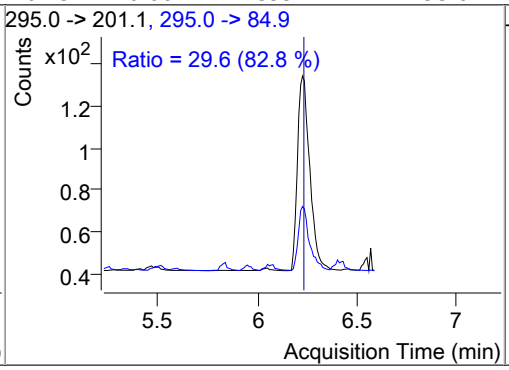


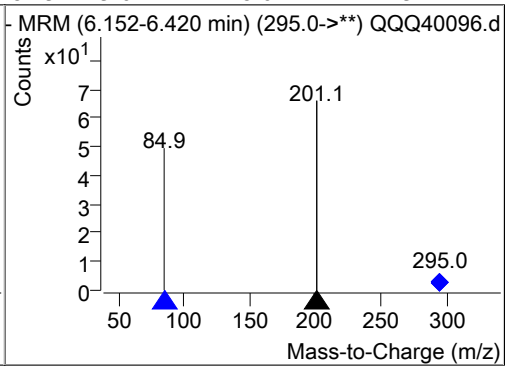




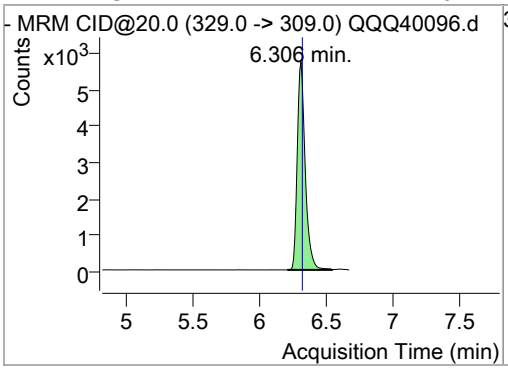
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	1.1587	6.23	0.00	399	295.0 -> 84.9	29.6	28.6	42.9

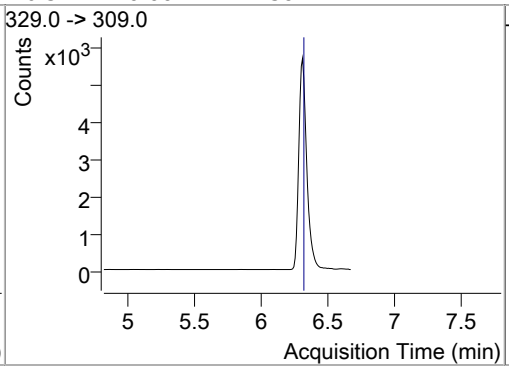


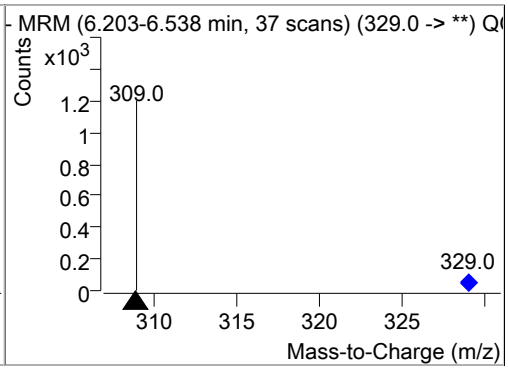




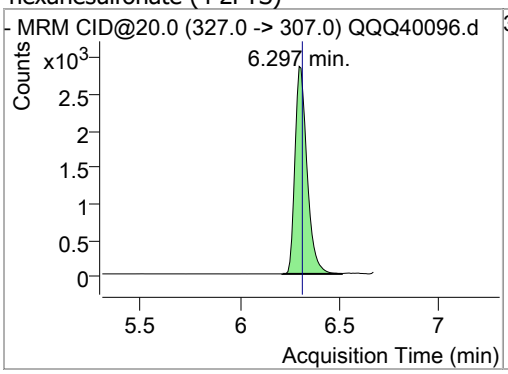
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.4202	6.31	0.00	23847				

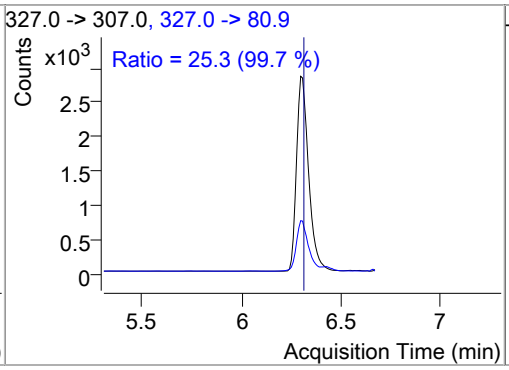


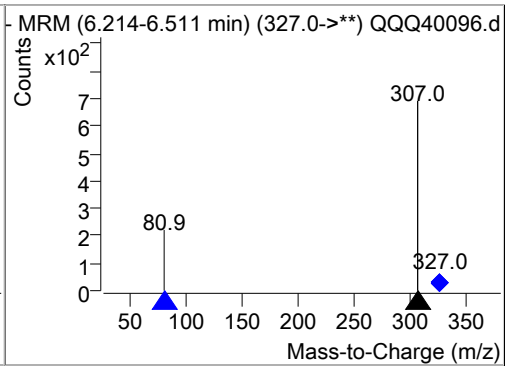




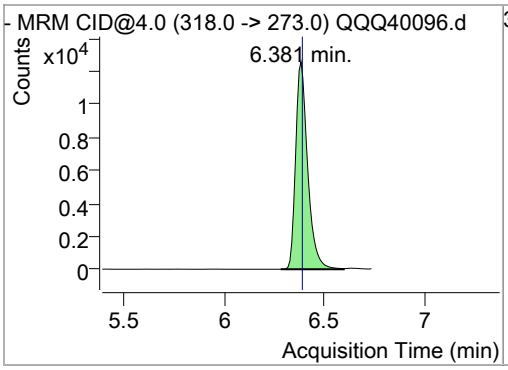
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	2.0338	6.30	-0.01	11923	327.0 -> 80.9	25.3	20.3	30.4

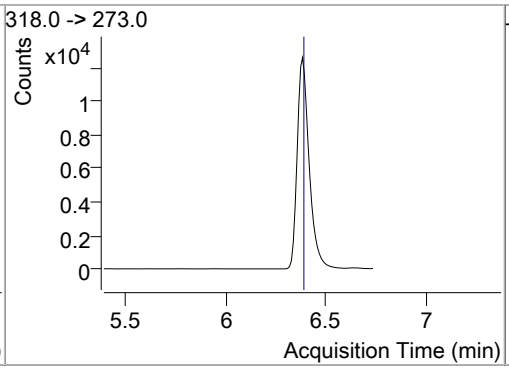


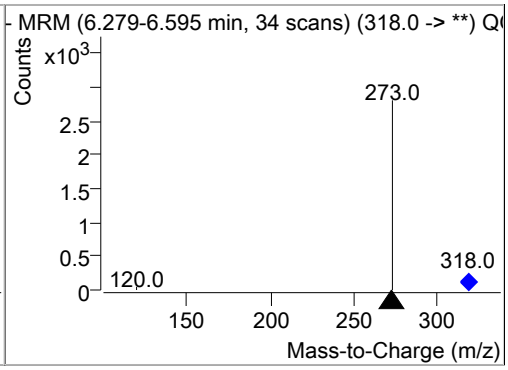




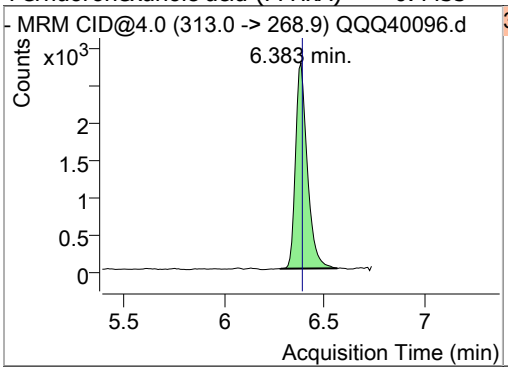
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.5335	6.38	0.00	52249				

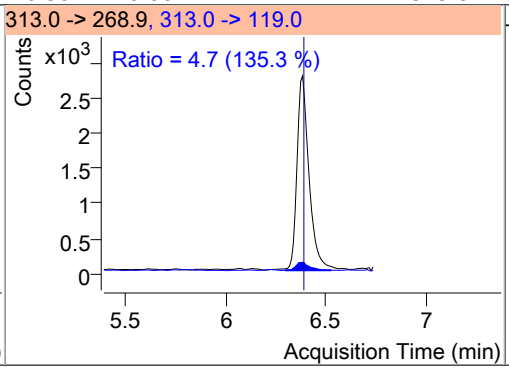


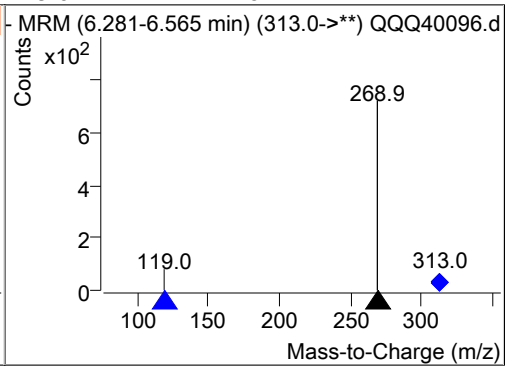




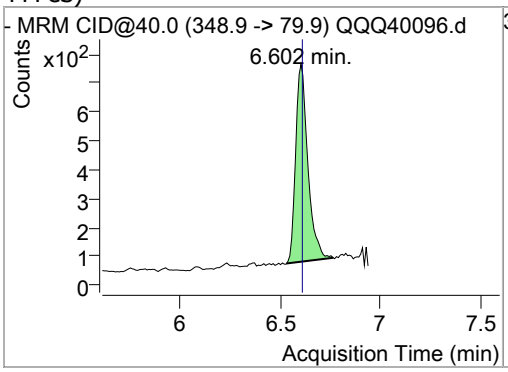
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.4435	6.38	0.00	11274	313.0 -> 119.0	4.7	2.8	4.2

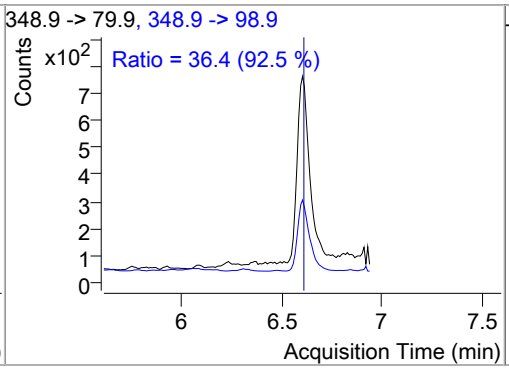


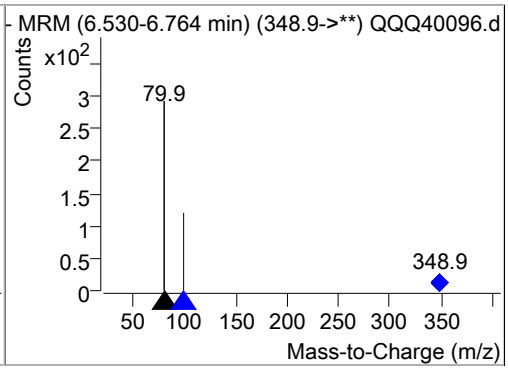




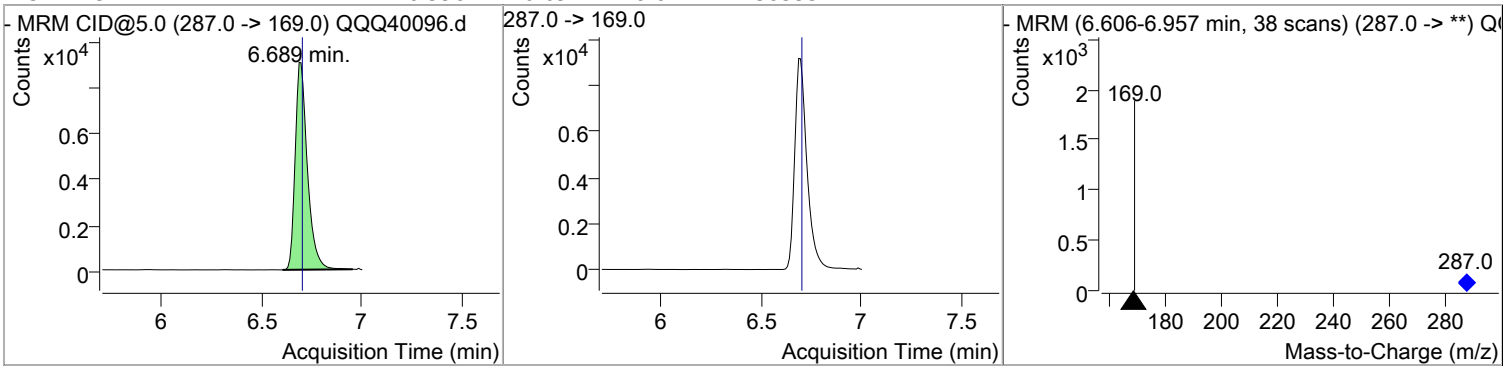
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.4978	6.60	0.00	2897	348.9 -> 98.9	36.4	31.5	47.3



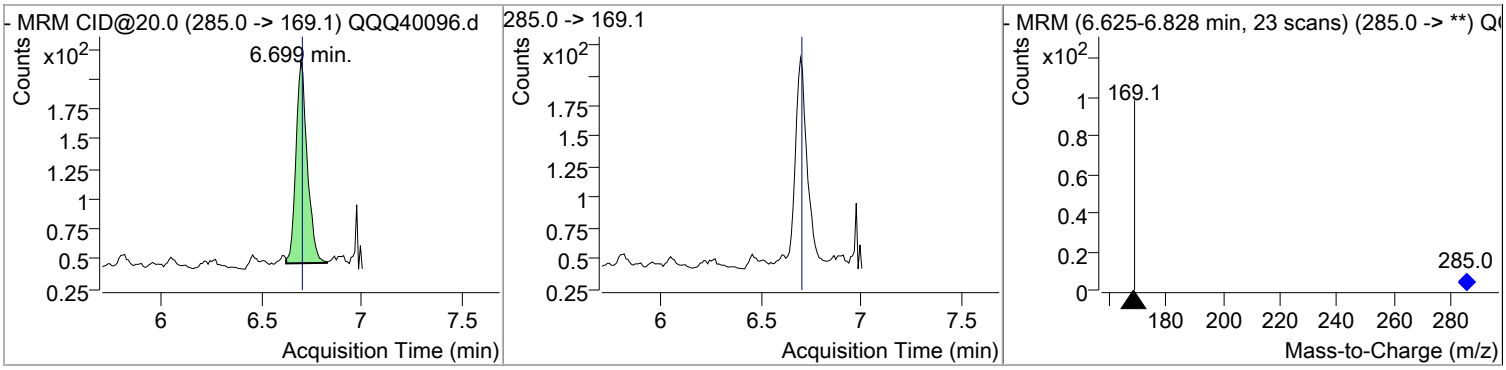




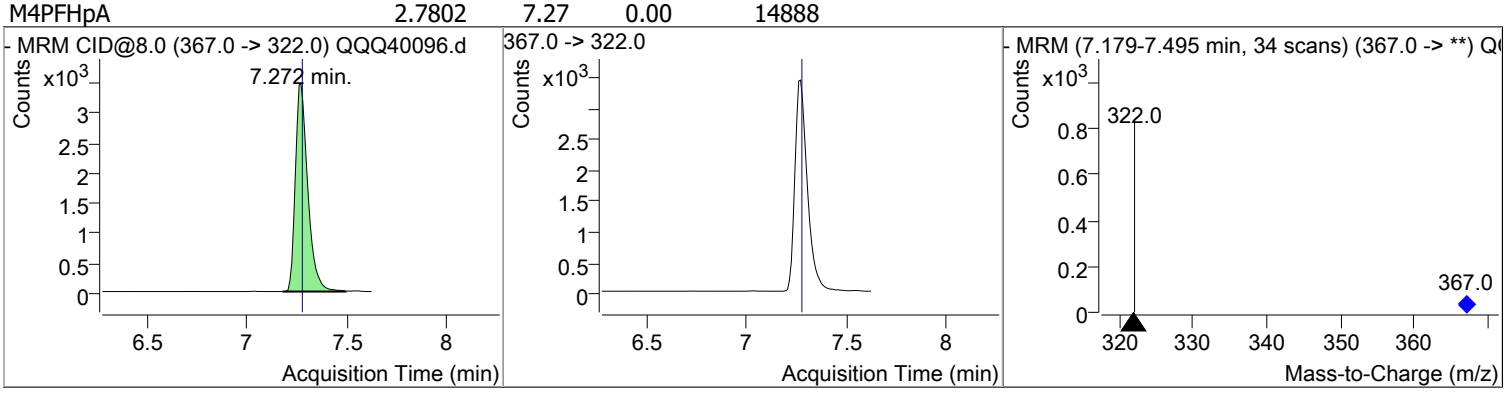
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.9987	6.69	-0.01	38553				



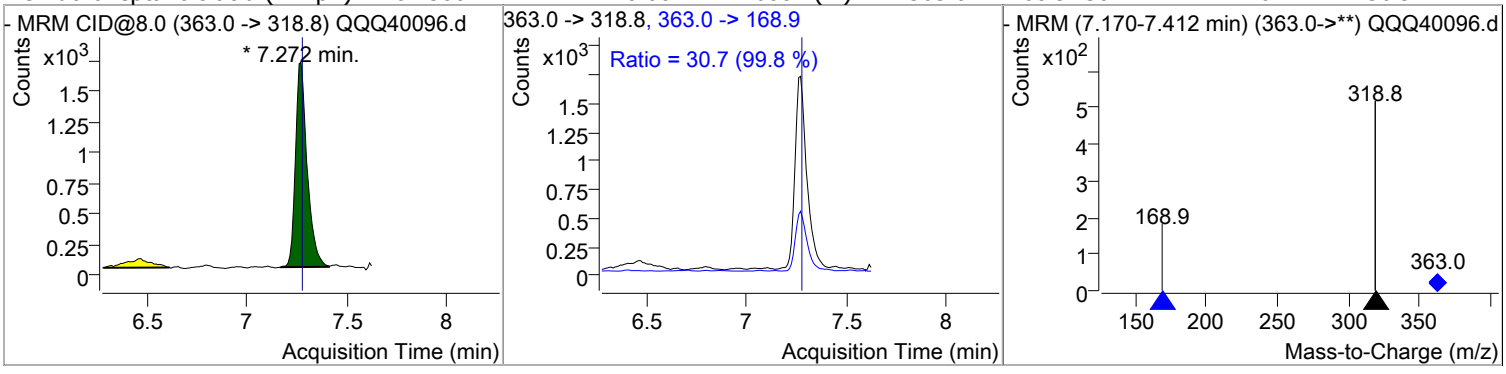
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	1.8080	6.70	0.00	663				



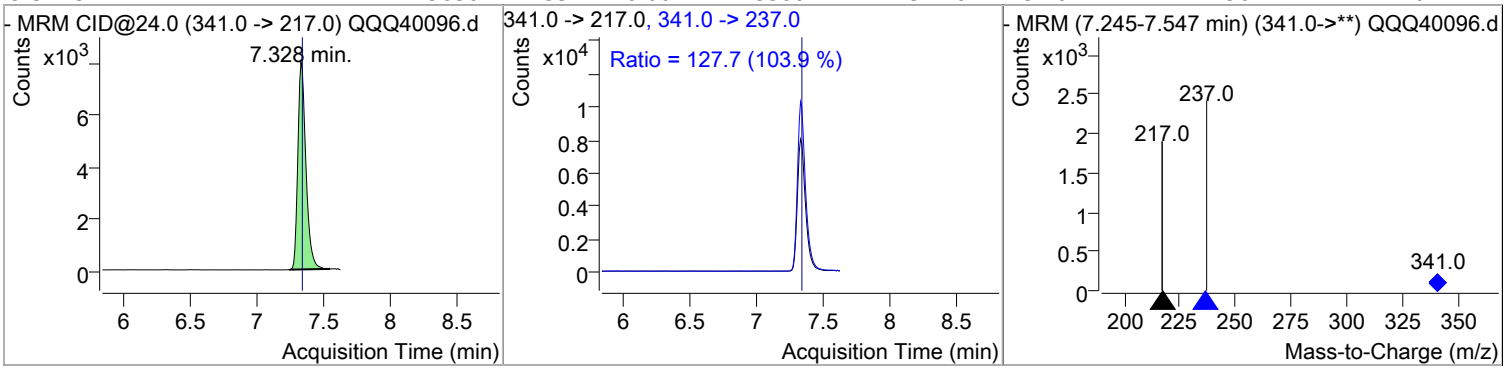
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.7802	7.27	0.00	14888				



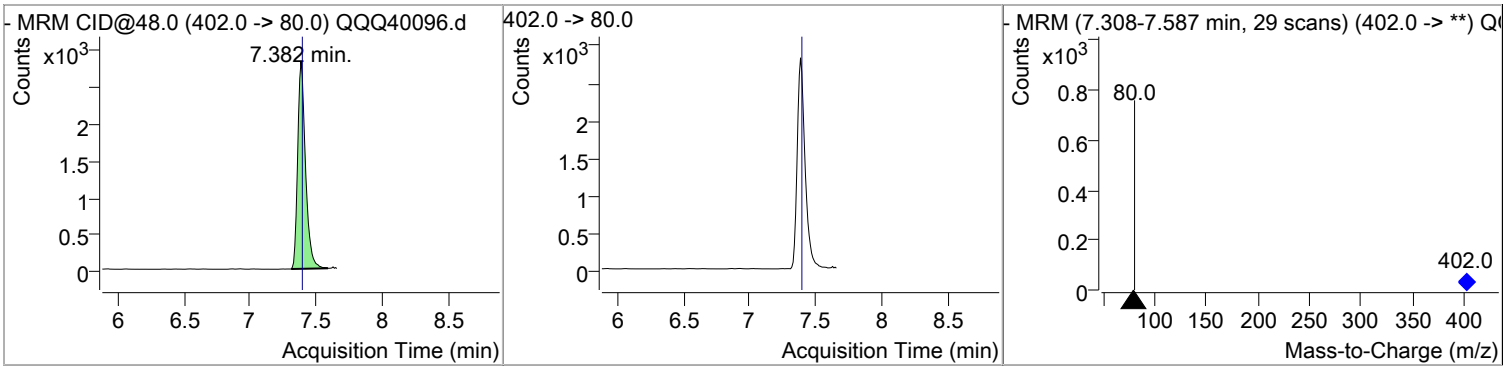
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.4580	7.27	0.00	6801 (m)	363.0 -> 168.9	30.7	24.6	36.9



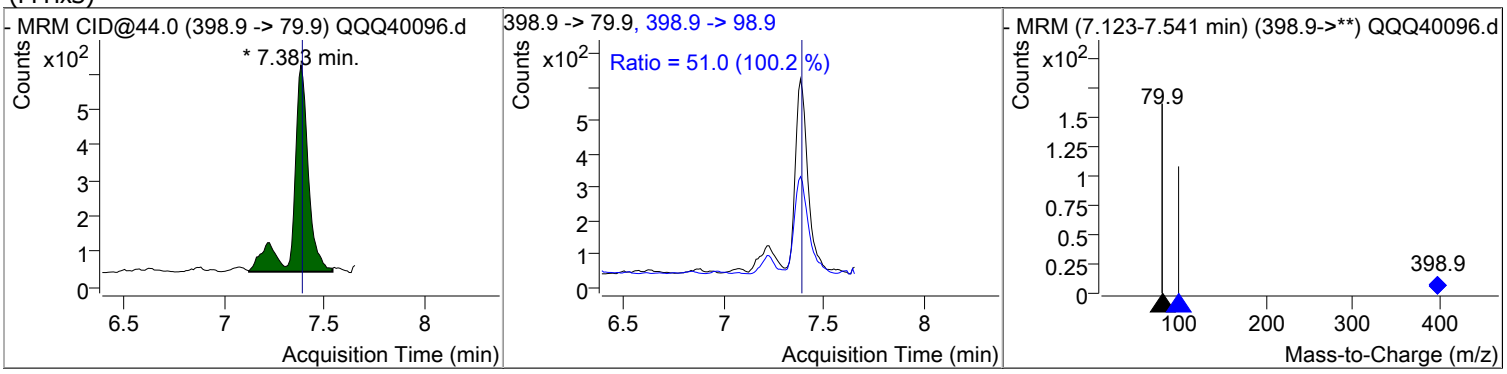
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	11.9838	7.33	0.00	33807	341.0 -> 237.0	127.7	98.4	147.6



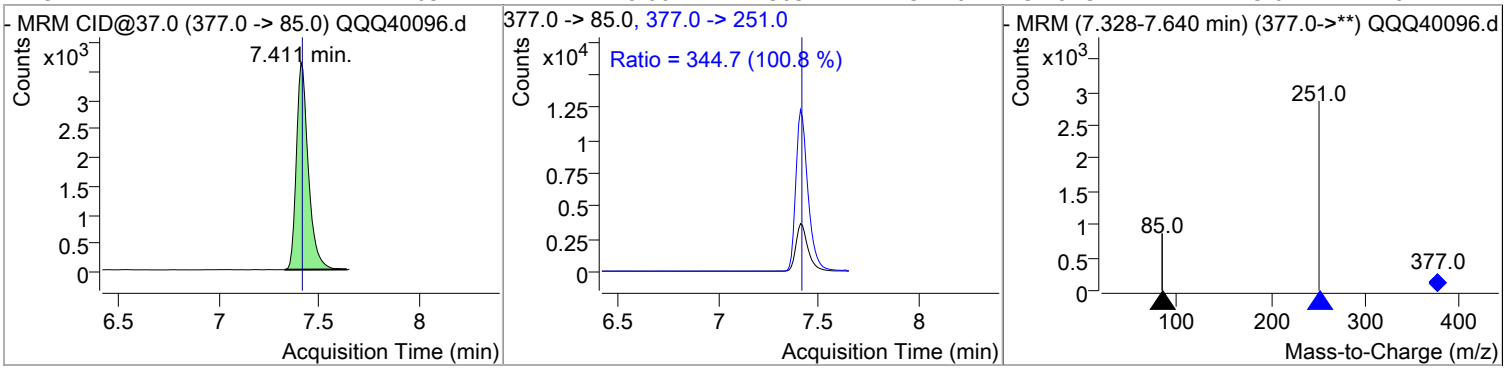
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.5022	7.38	0.00	11476				



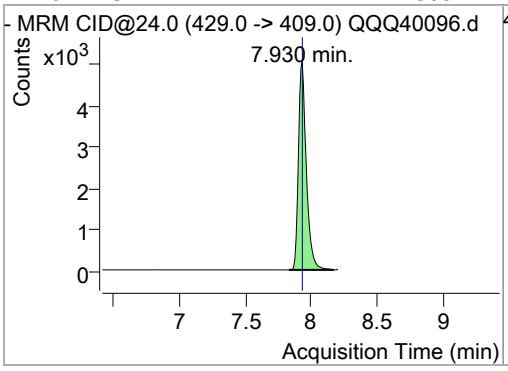
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.5238	7.38	0.00	3013 (m)	398.9 -> 98.9	51.0	40.7	61.1

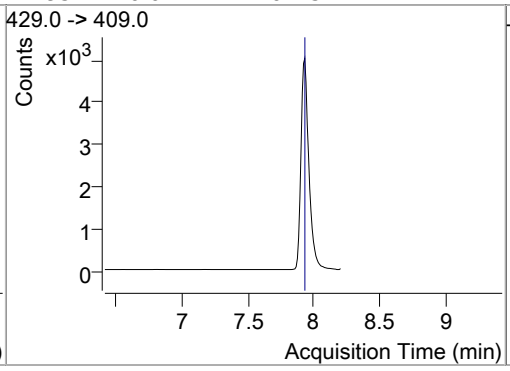


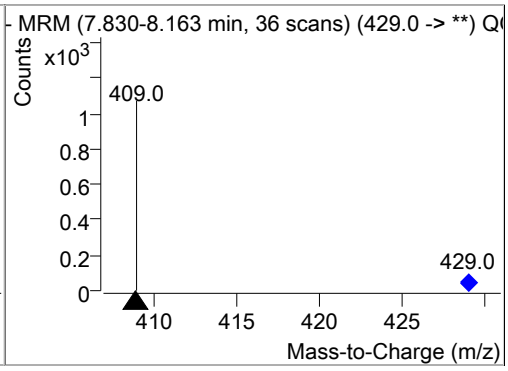
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	1.6577	7.41	0.00	15031	377.0 -> 251.0	344.7	273.6	410.4



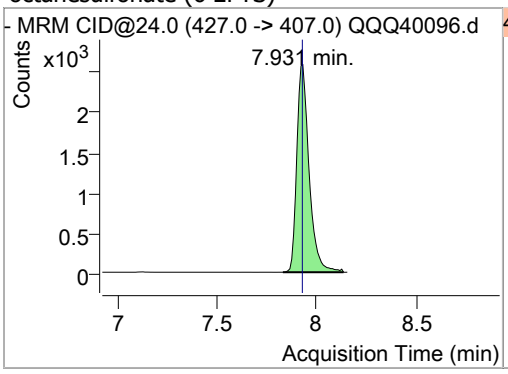
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.3051	7.93	0.01	20743				

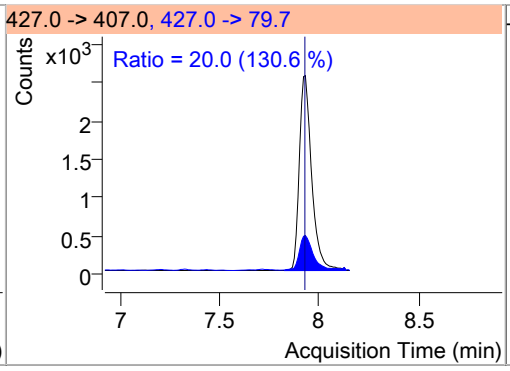


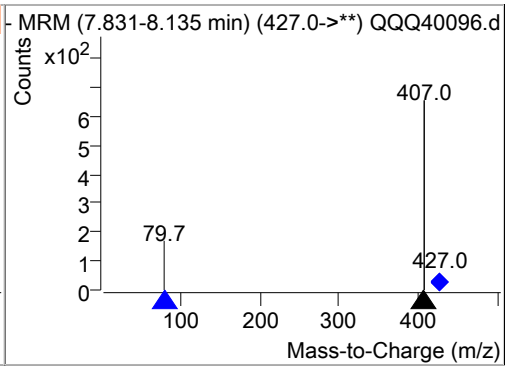




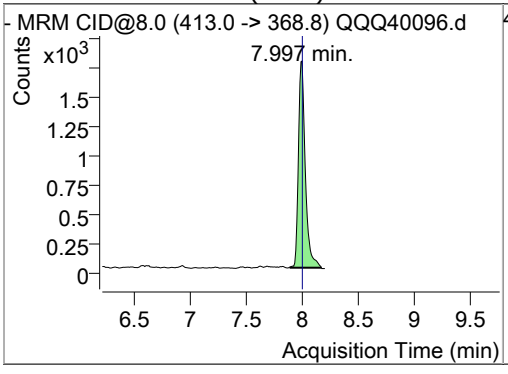
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	2.0310	7.93	0.01	10955	427.0 -> 79.7	20.0	12.2	18.4

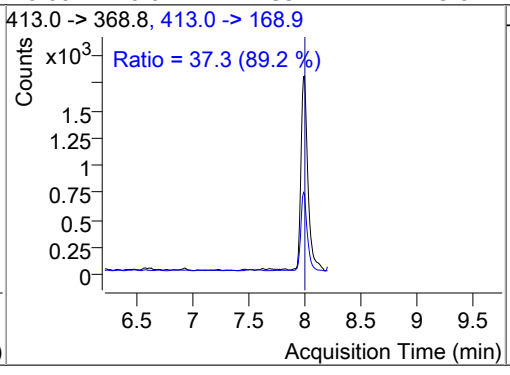


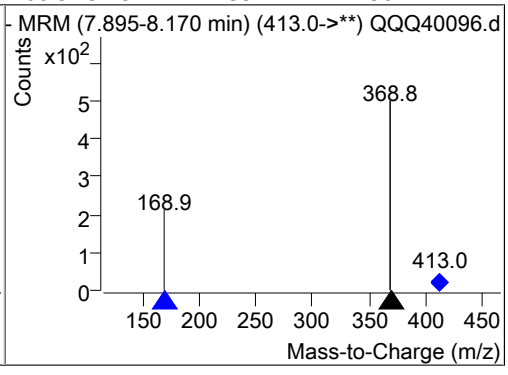




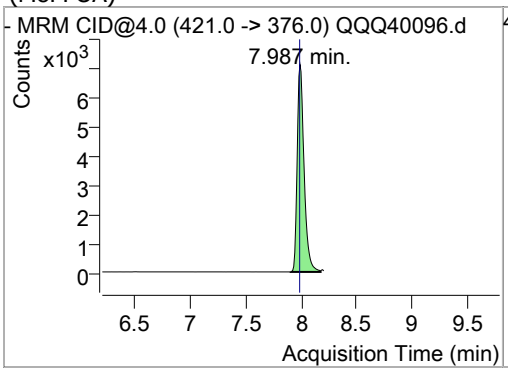
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.4997	8.00	0.01	7551	413.0 -> 168.9	37.3	33.4	50.1

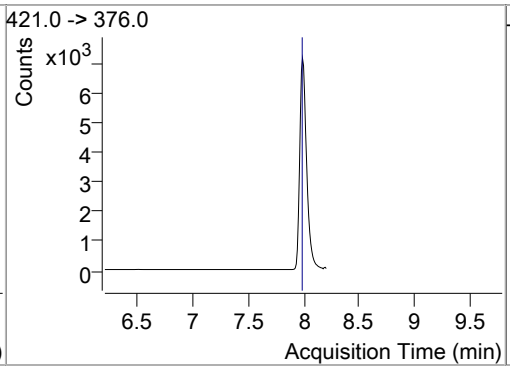


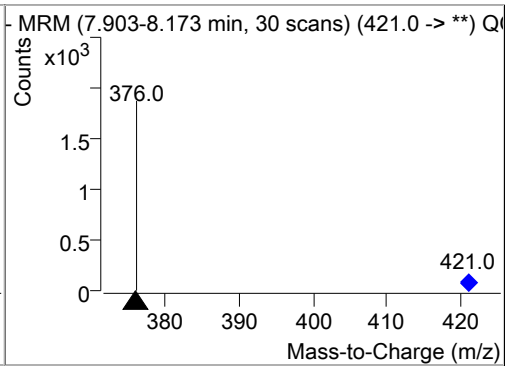




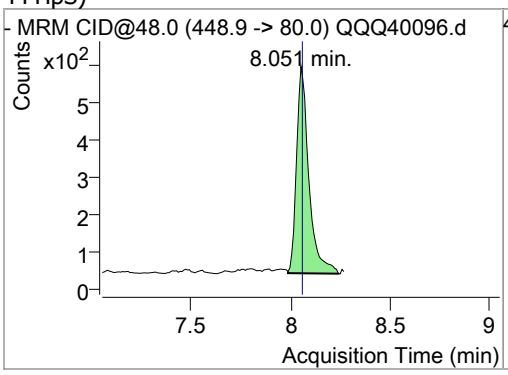
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.5720	7.99	-0.01	30704				

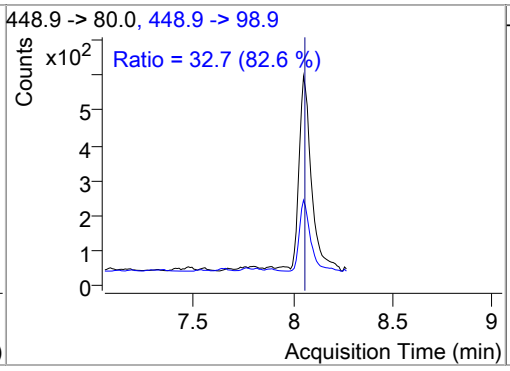


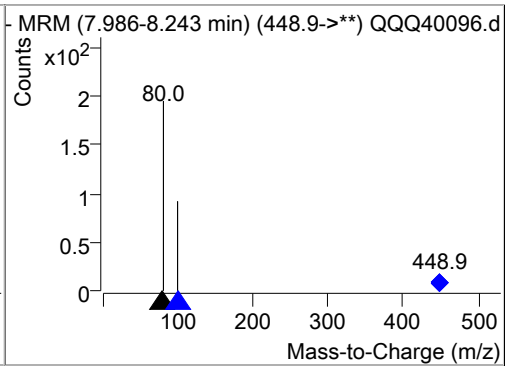




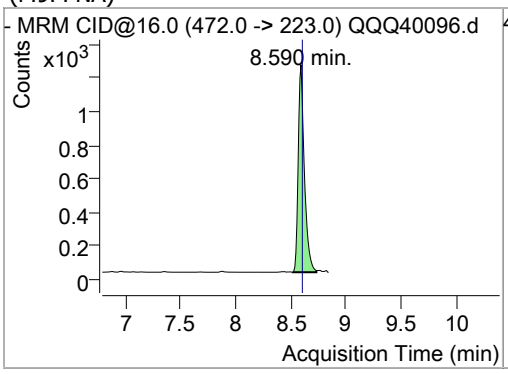
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.4716	8.05	0.00	2382	448.9 -> 98.9	32.7	31.7	47.5

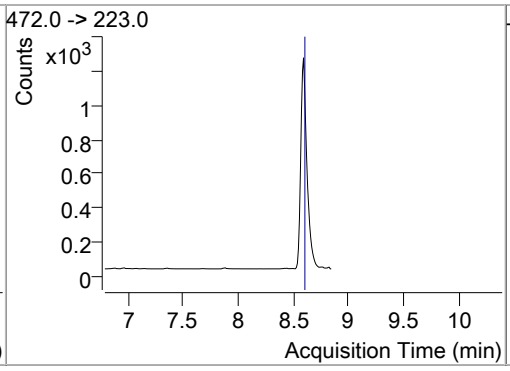


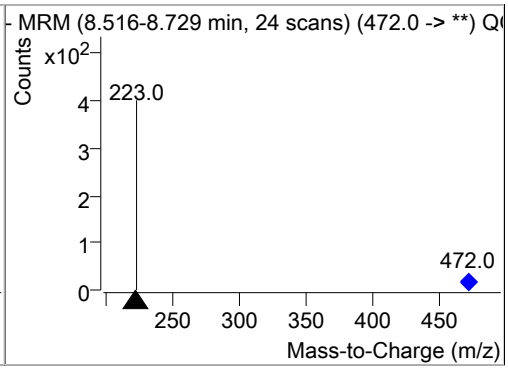




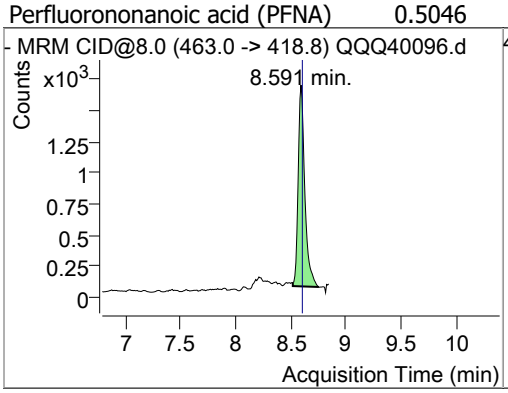
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2069	8.59	0.00	4796				

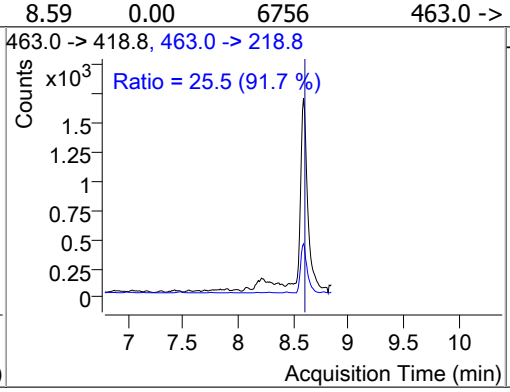


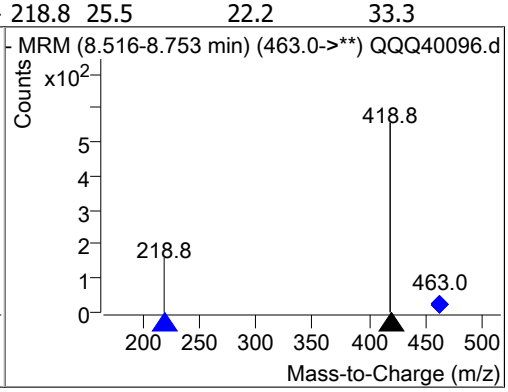




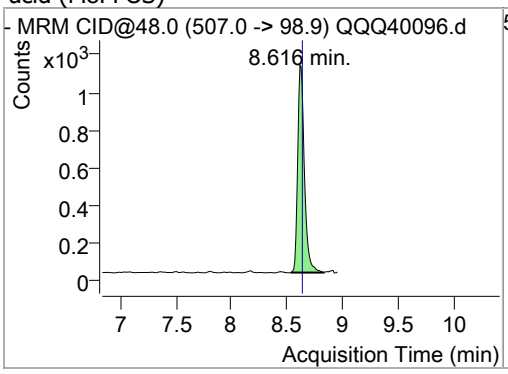
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.5046	8.59	0.00	6756	463.0 -> 218.8	25.5	22.2	33.3

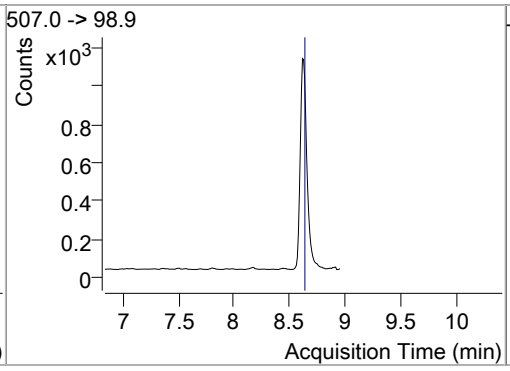


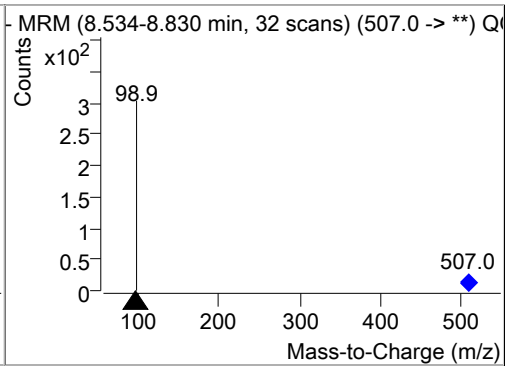




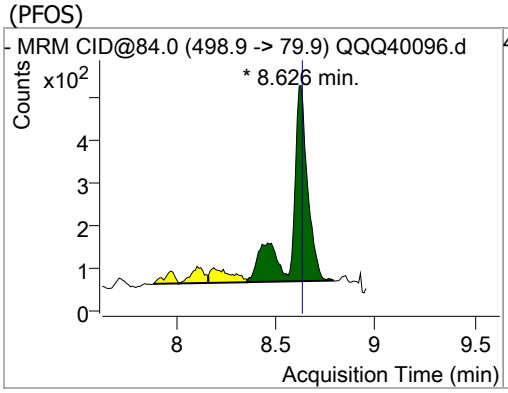
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.3538	8.62	-0.01	4631				

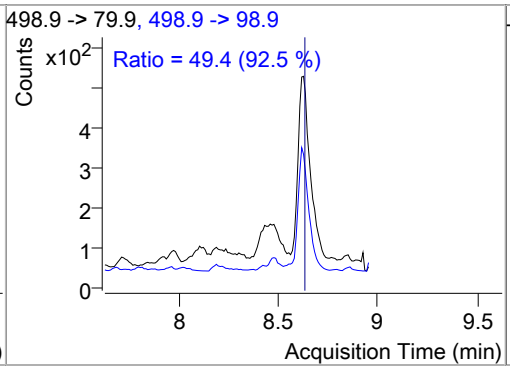


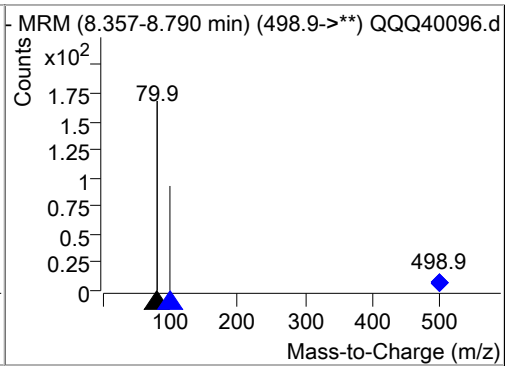




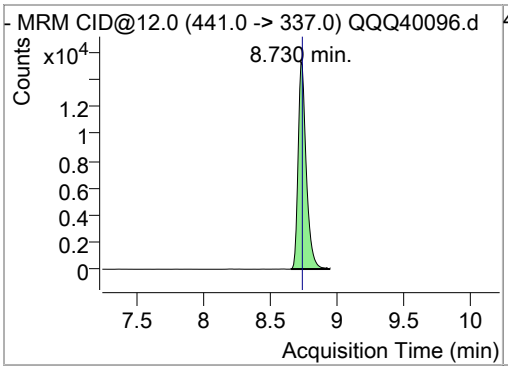
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.4894	8.63	0.00	2601 (m)	498.9 -> 98.9	49.4	42.7	64.1

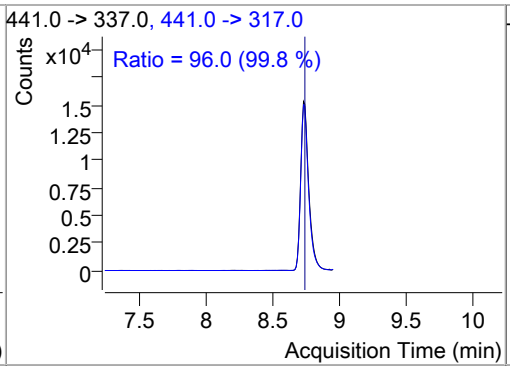


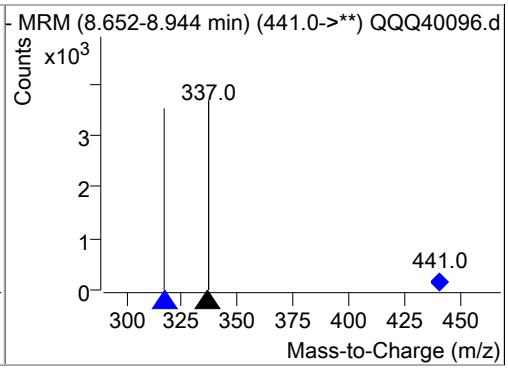




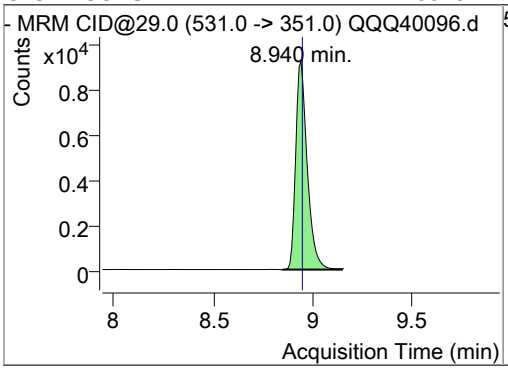
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	13.4888	8.73	0.00	64585	441.0 -> 317.0	96.0	76.9	115.4

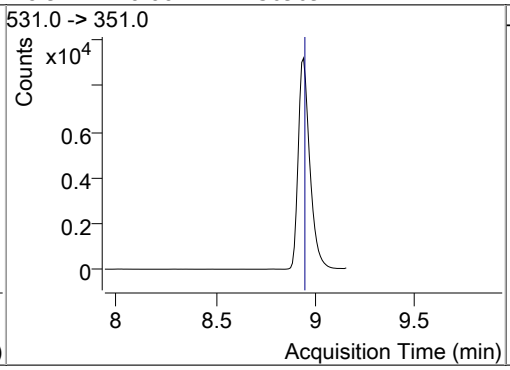


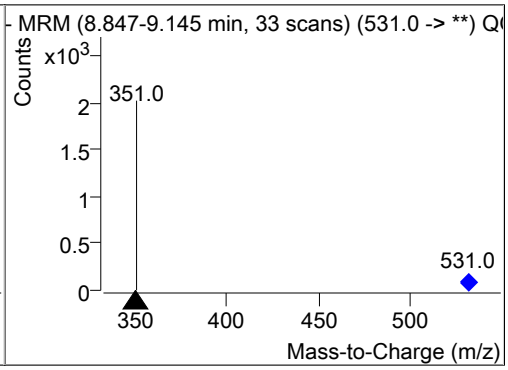




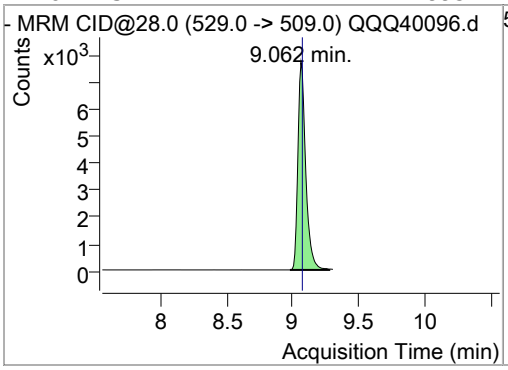
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	1.6840	8.94	0.00	36969				

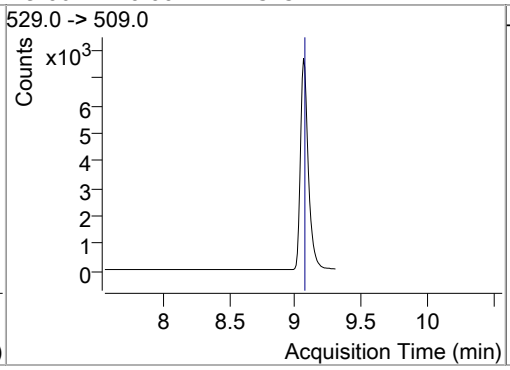


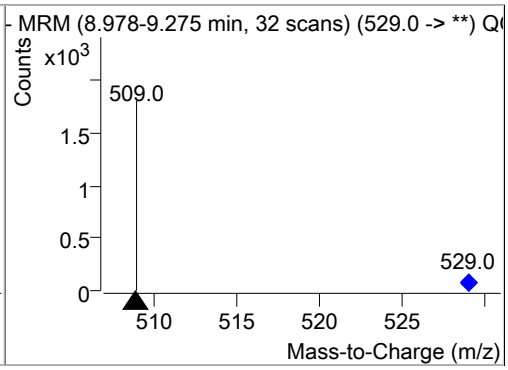




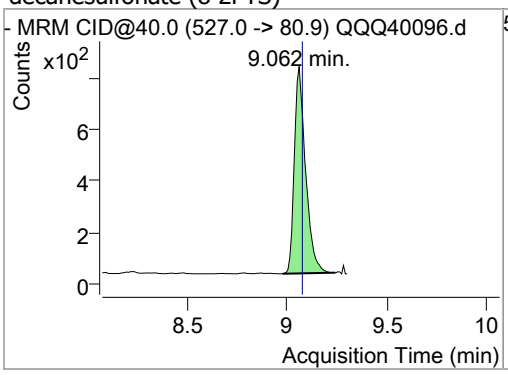
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.1993	9.06	0.00	31574				

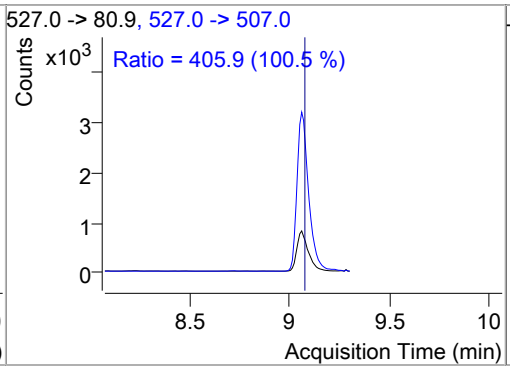


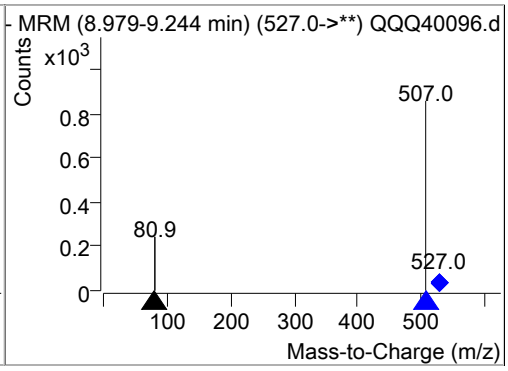




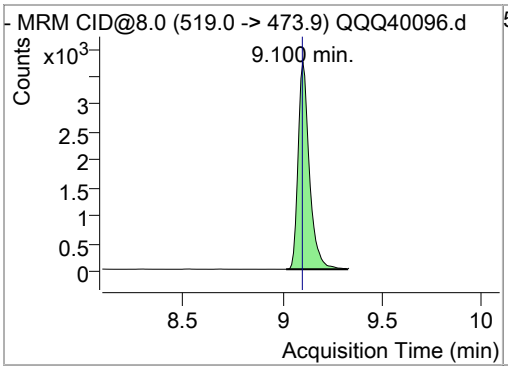
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	1.9409	9.06	-0.01	3136	527.0 -> 507.0	405.9	323.1	484.6

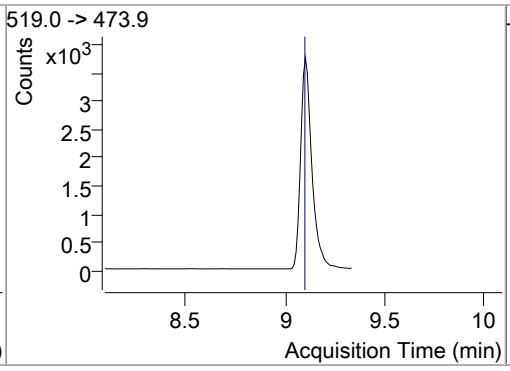


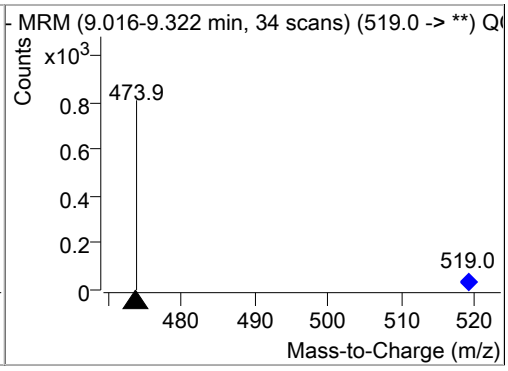




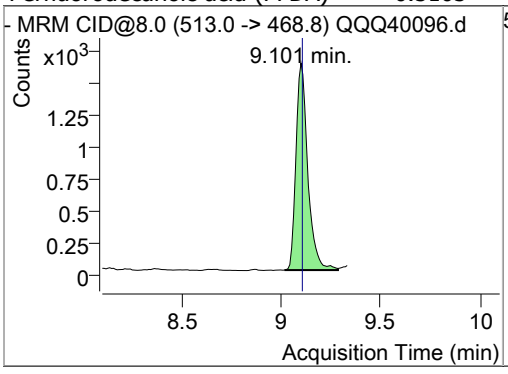
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2219	9.10	0.00	14648				

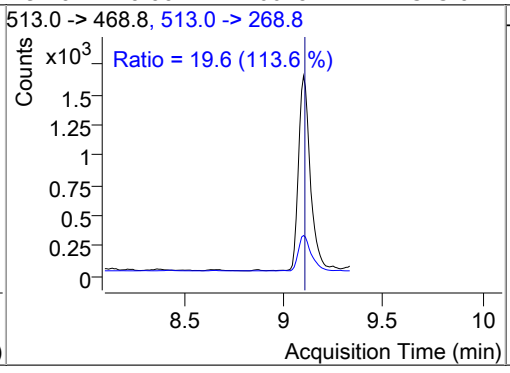


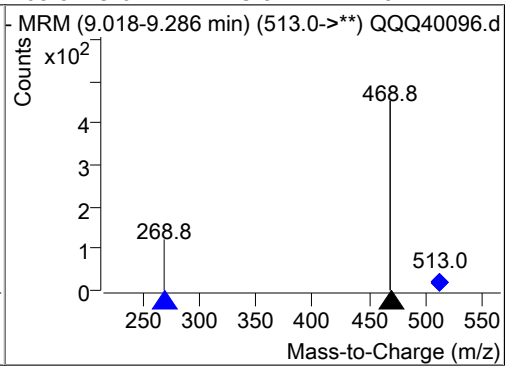




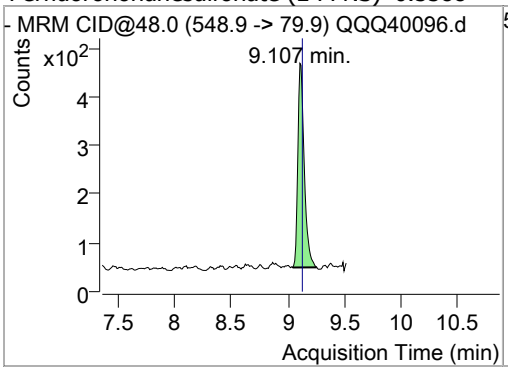
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.5105	9.10	0.00	6628	513.0 -> 268.8	19.6	13.8	20.7

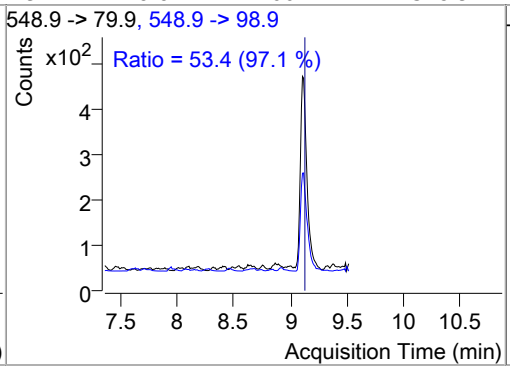


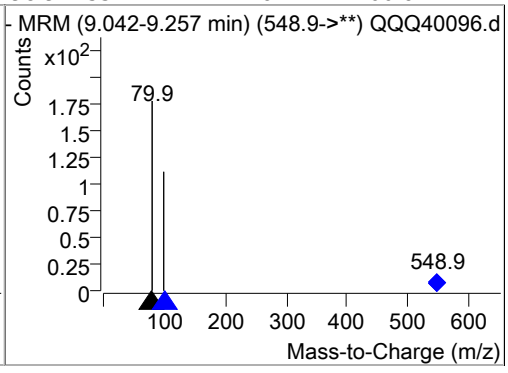




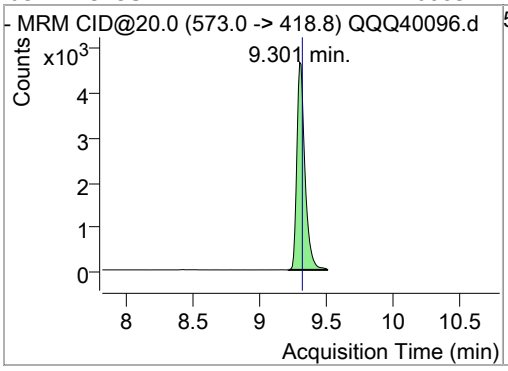
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.5588	9.11	-0.01	1664	548.9 -> 98.9	53.4	44.0	66.0

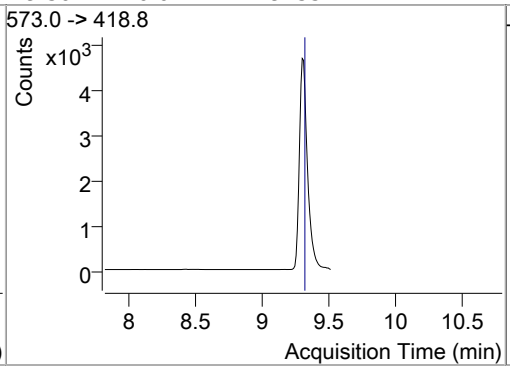


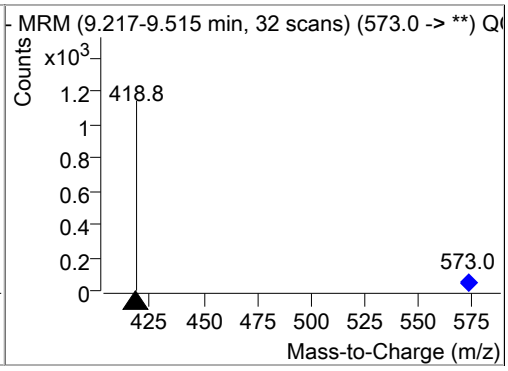




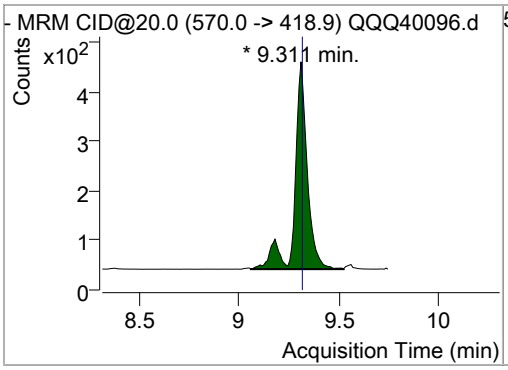
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.6083	9.30	-0.01	19733				

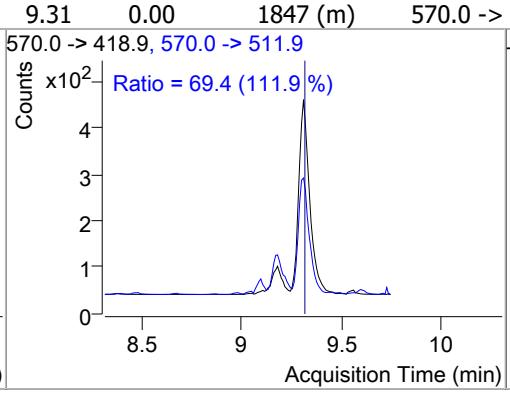


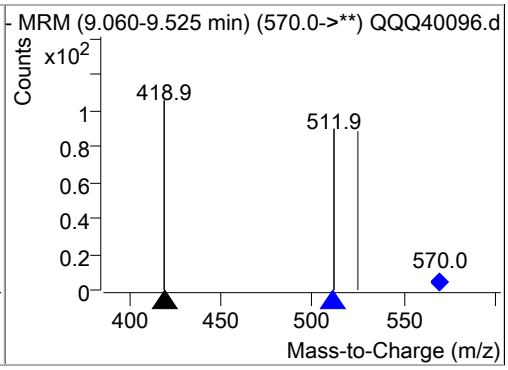




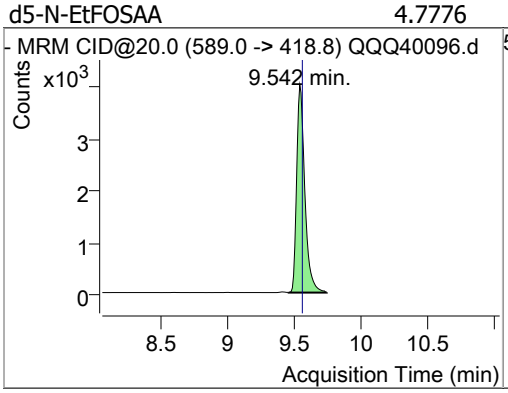
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.5489	9.31	0.00	1847 (m)	570.0 -> 511.9	69.4	49.6	74.4

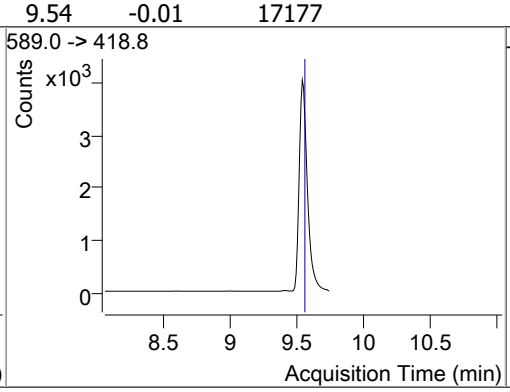


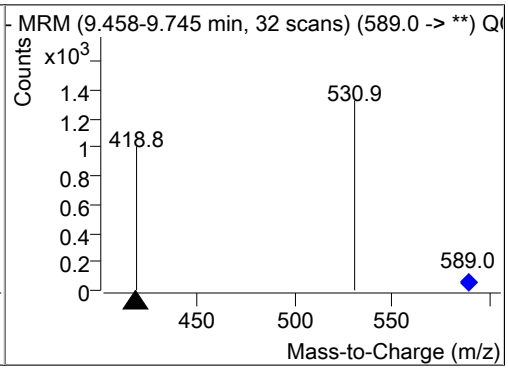




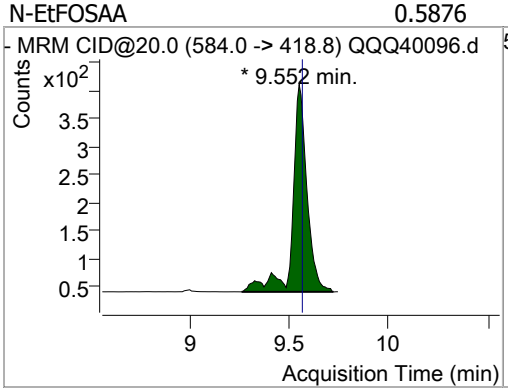
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.7776	9.54	-0.01	17177				

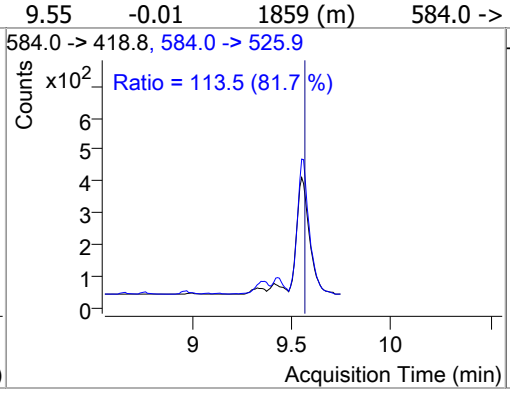


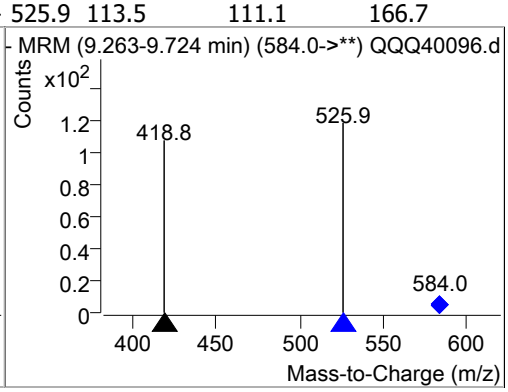




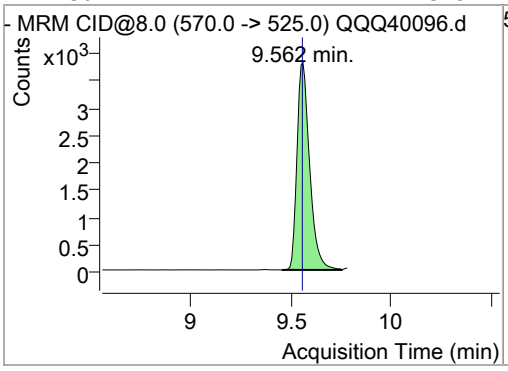
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.5876	9.55	-0.01	1859 (m)	584.0 -> 525.9	113.5	111.1	166.7

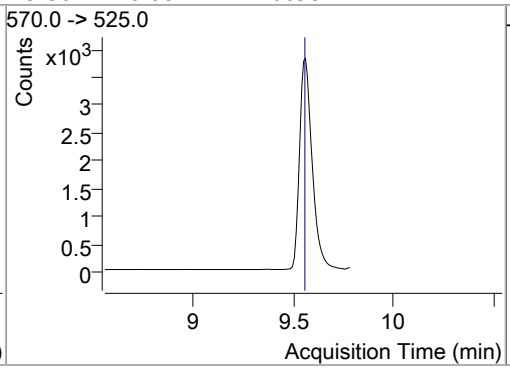


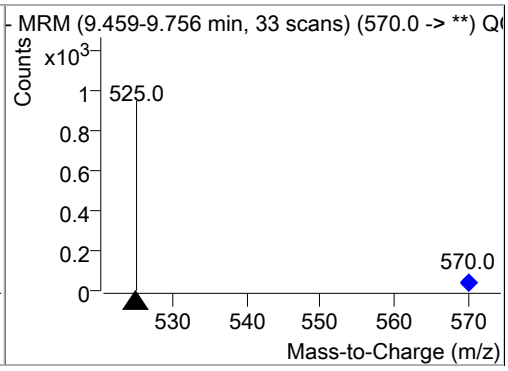




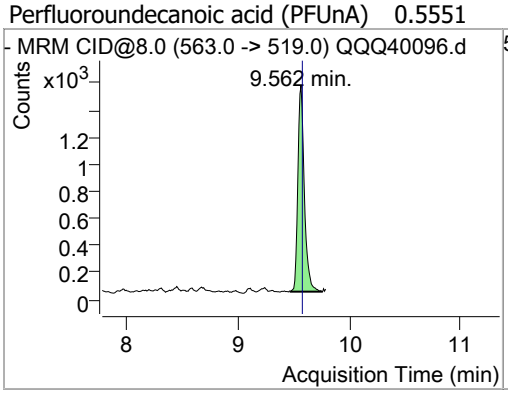
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2578	9.56	0.00	16695				

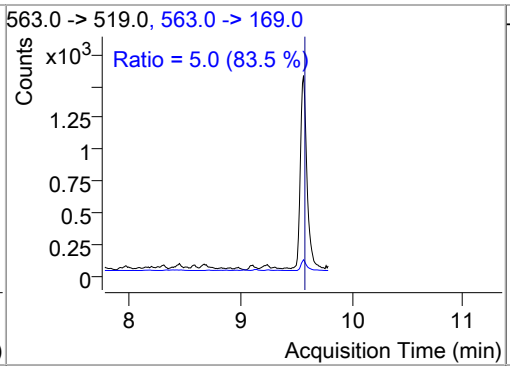


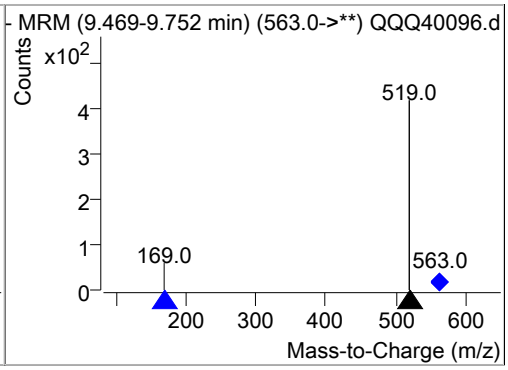




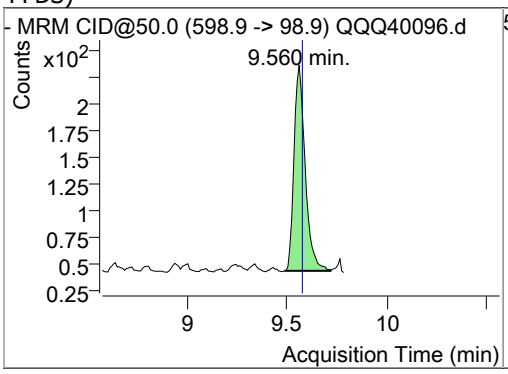
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.5551	9.56	0.00	6184	563.0 -> 169.0	5.0	4.8	7.2

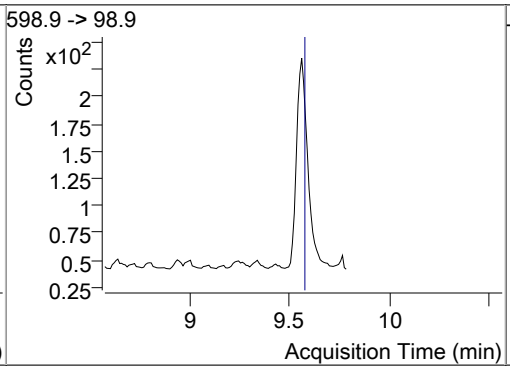


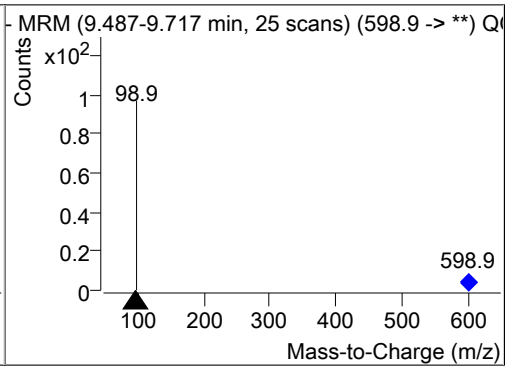




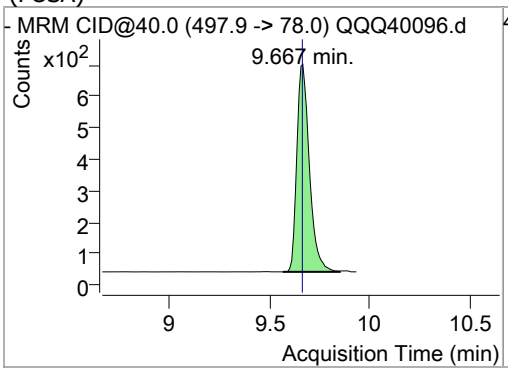
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.5307	9.56	-0.01	748				

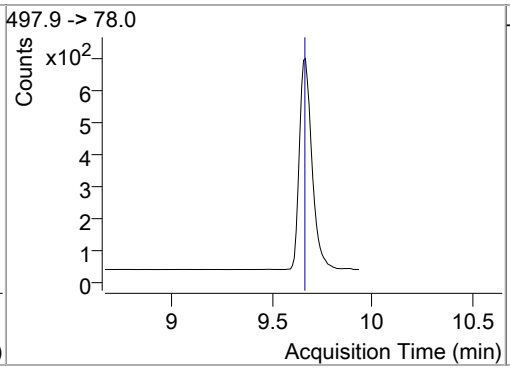


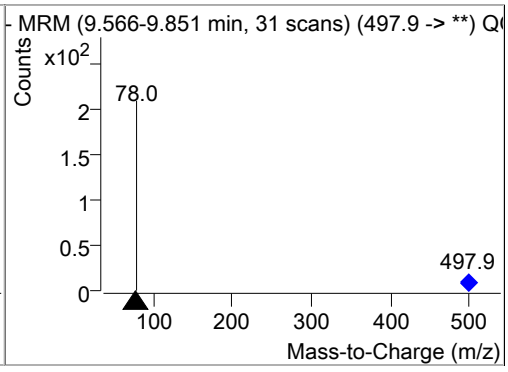




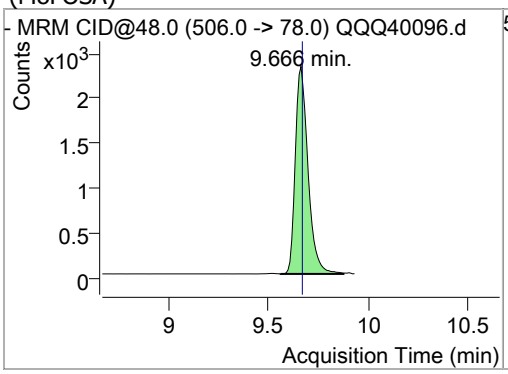
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.5092	9.67	0.01	2894				

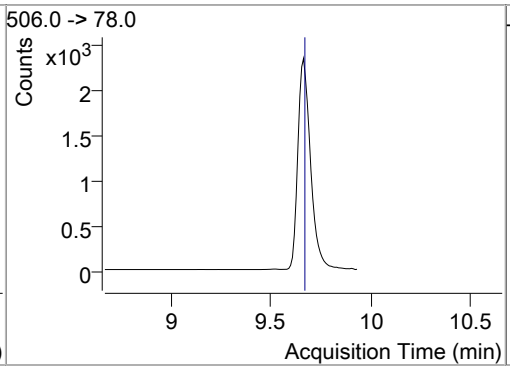


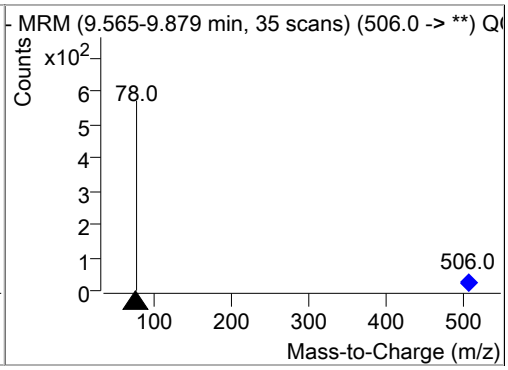




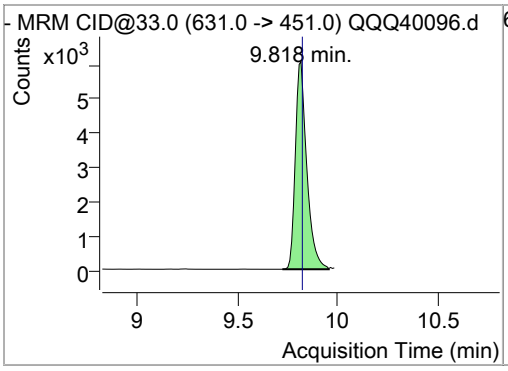
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.3806	9.67	0.00	10252				

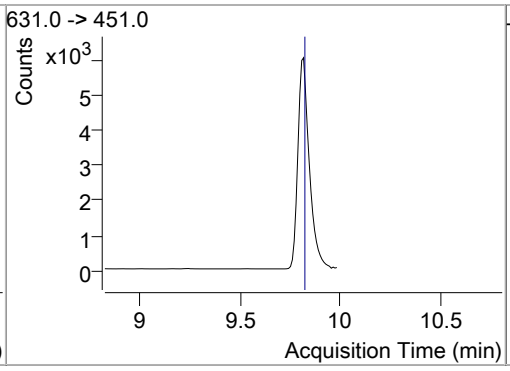


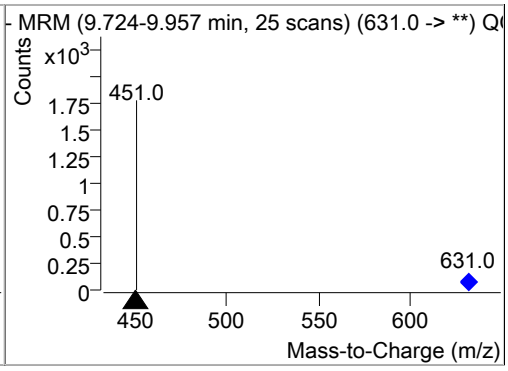




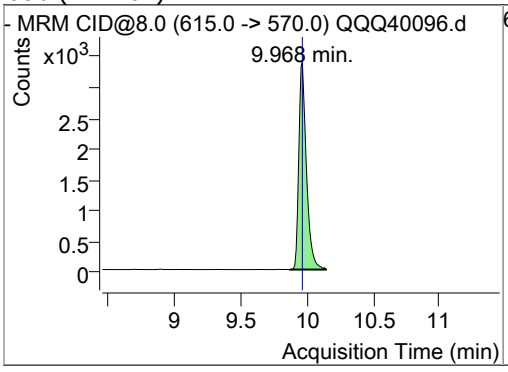
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	1.8287	9.82	0.00	24046				

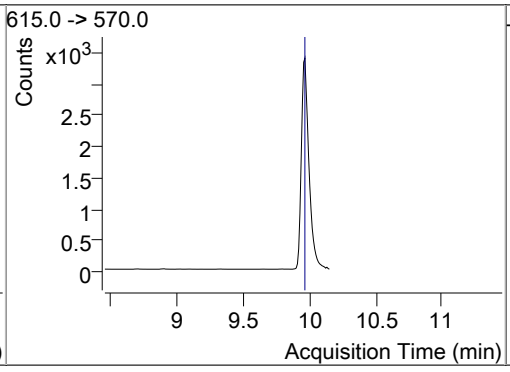


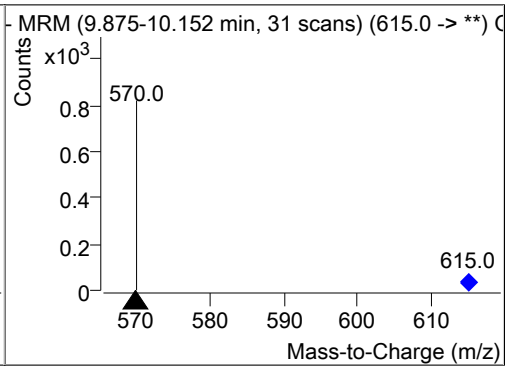




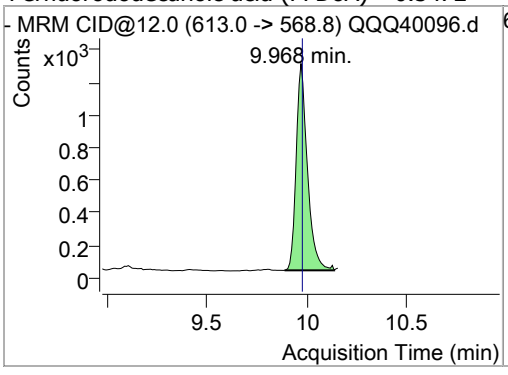
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.2235	9.97	0.00	13427				

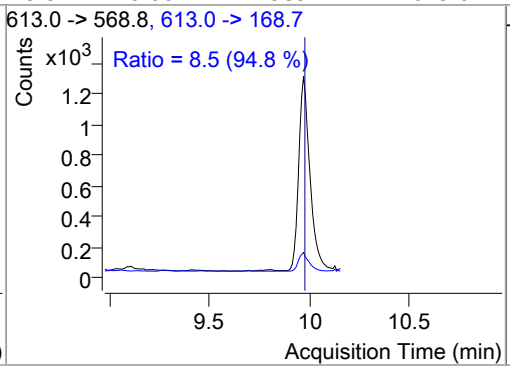


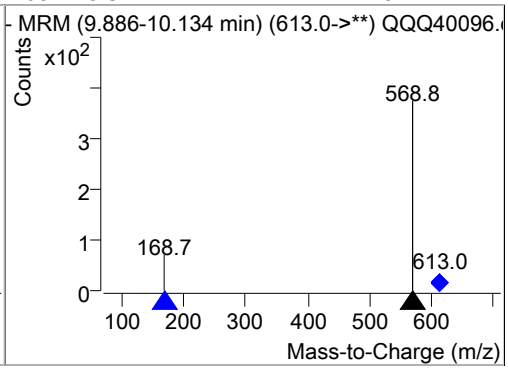




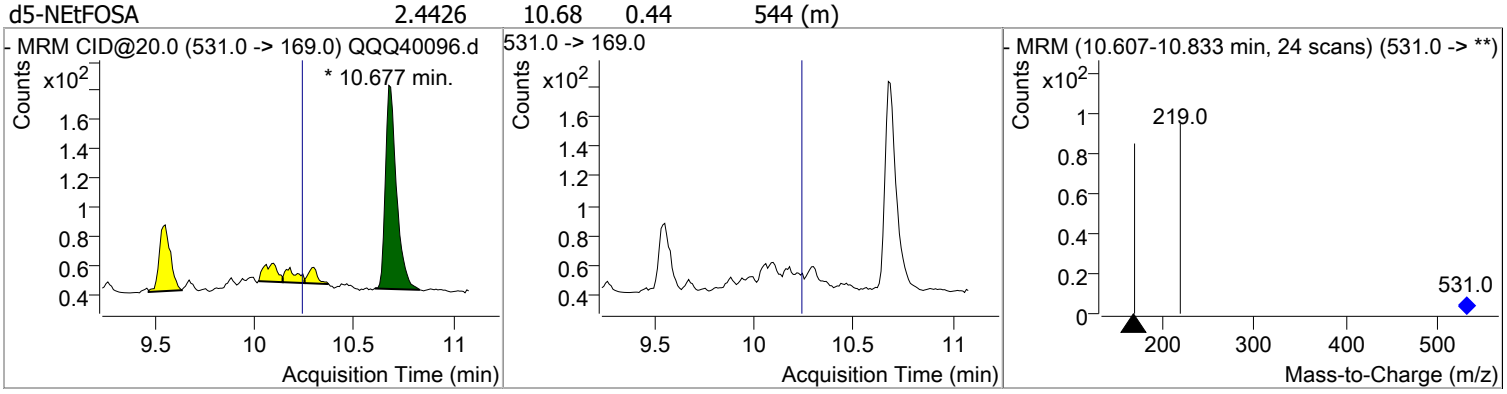
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.5472	9.97	0.00	4959	613.0 -> 168.7	8.5	7.2	10.7



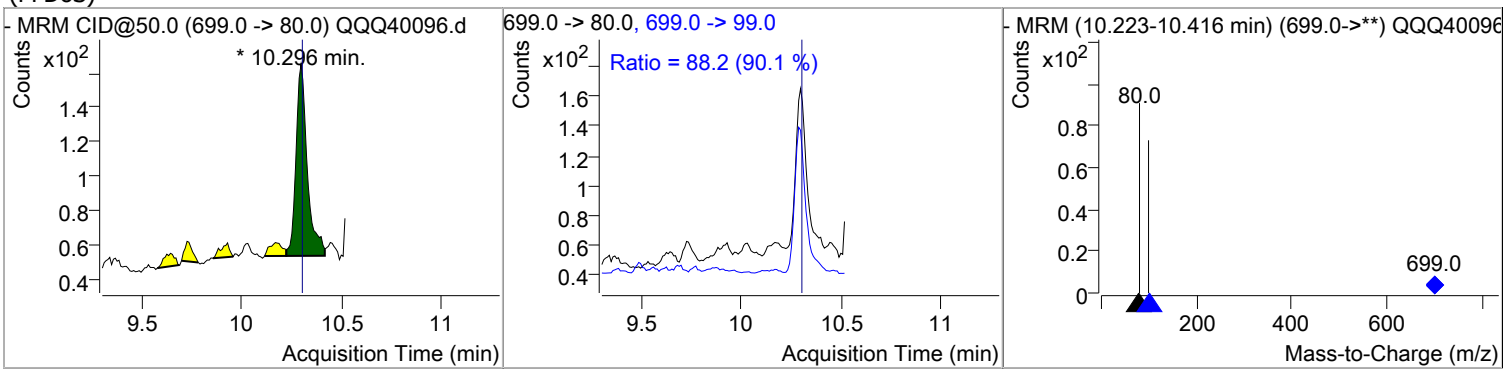




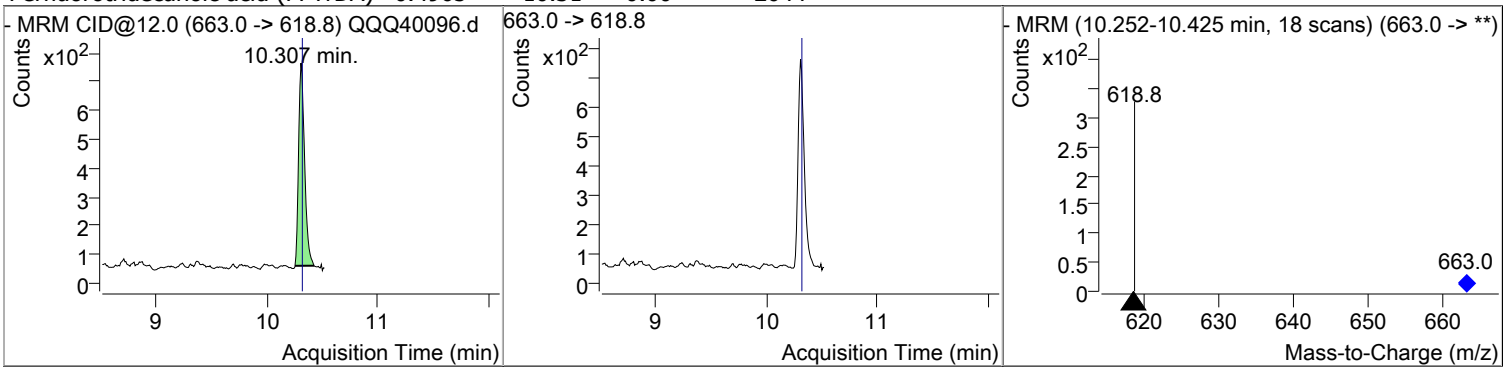
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.4426	10.68	0.44	544 (m)				



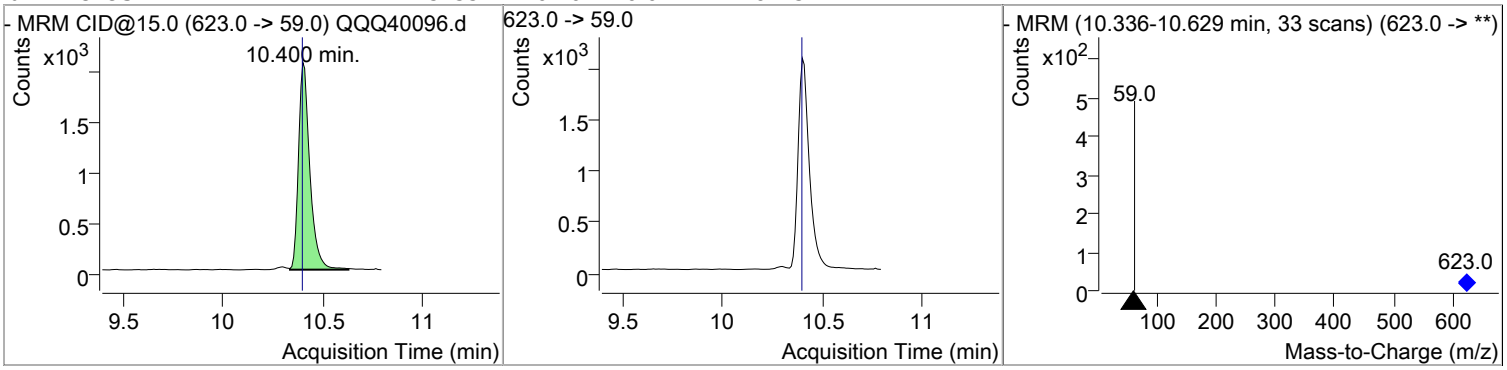
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.5235	10.30	0.00	439 (m)	699.0 -> 99.0	88.2	78.3	117.4



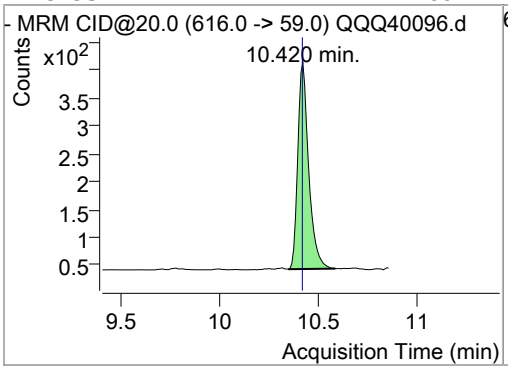
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.4965	10.31	0.00	2644				

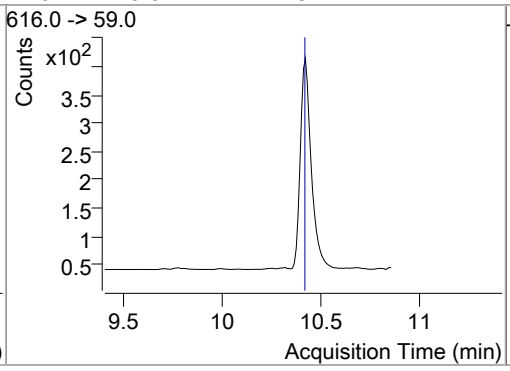


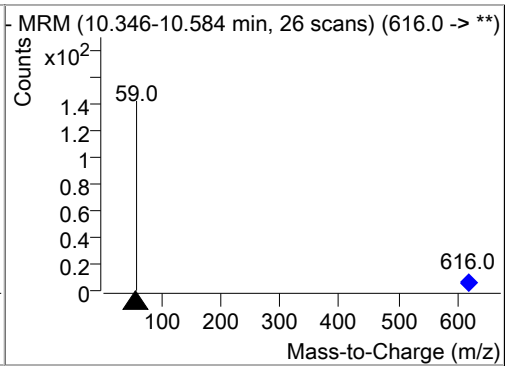
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	24.5735	10.40	0.01	8143				



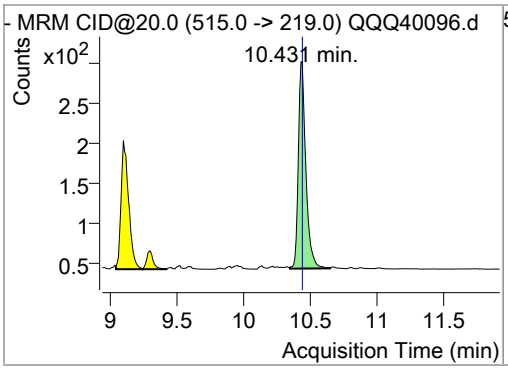
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	4.7887	10.42	0.01	1415				

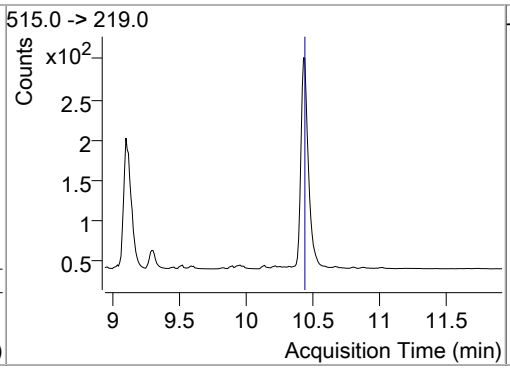


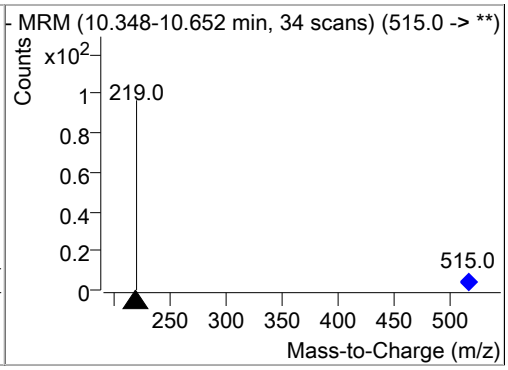




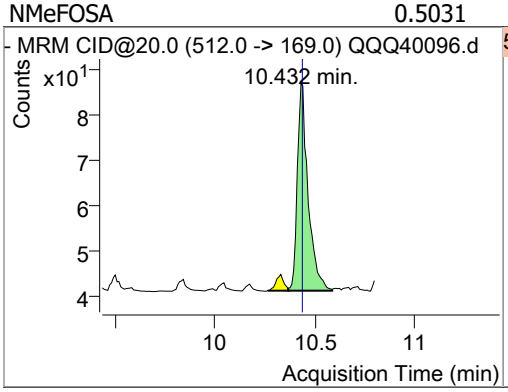
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.2906	10.43	0.00	1021				

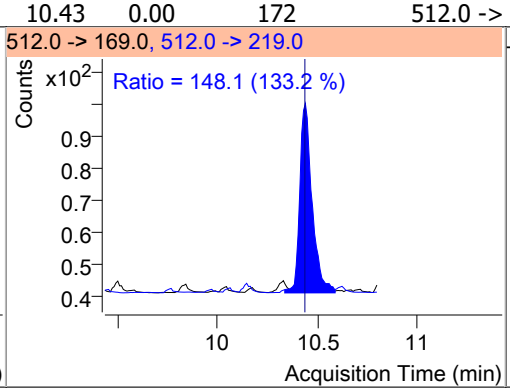


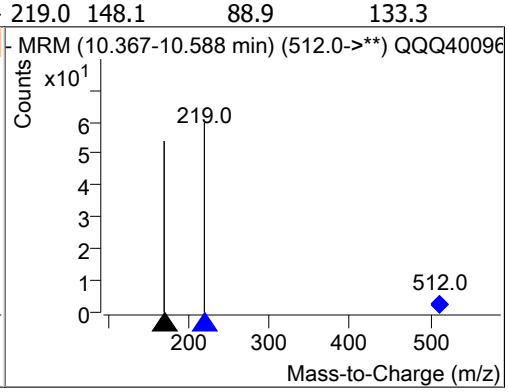




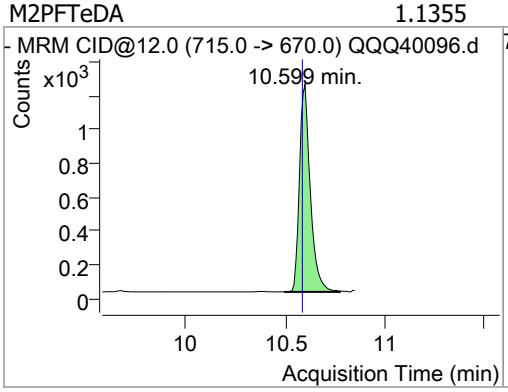
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.5031	10.43	0.00	172	512.0 -> 219.0	148.1	88.9	133.3

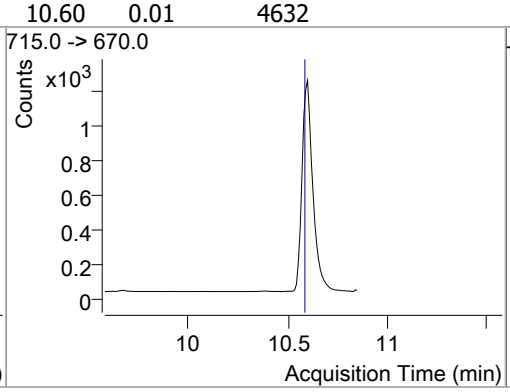


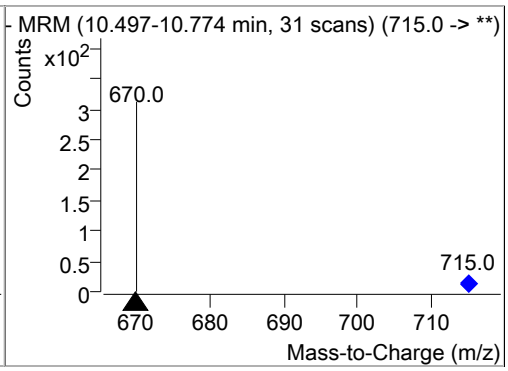




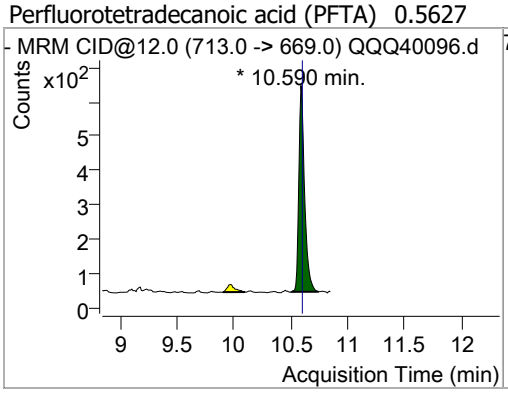
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.1355	10.60	0.01	4632				

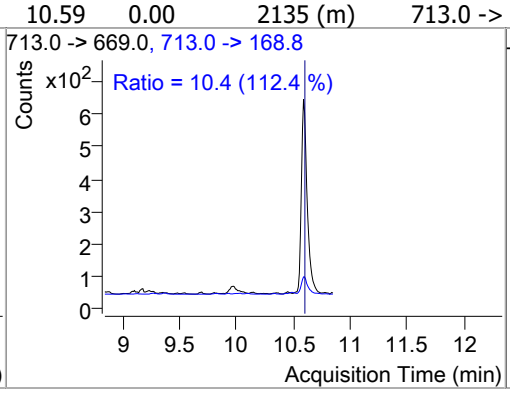


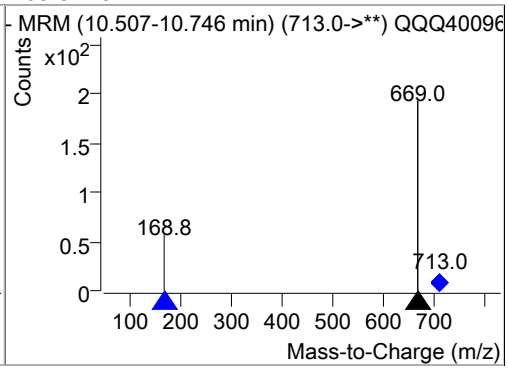




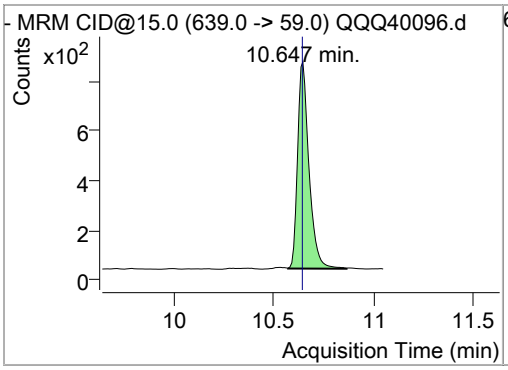
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.5627	10.59	0.00	2135 (m)	713.0 -> 168.8	10.4	7.4	11.1

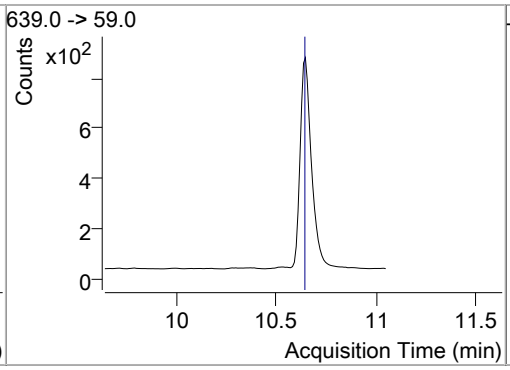


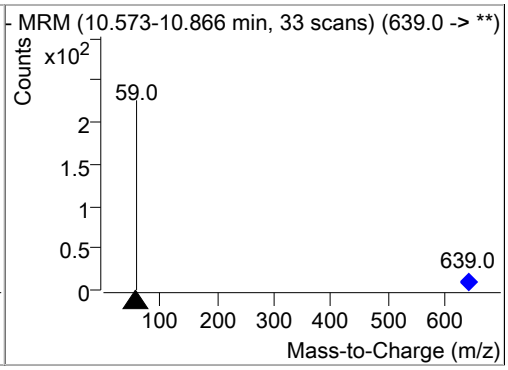




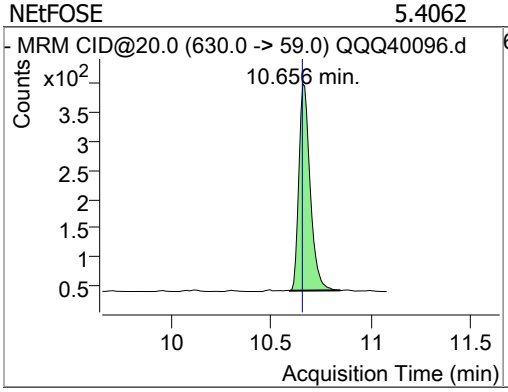
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	24.9462	10.65	0.01	3321				

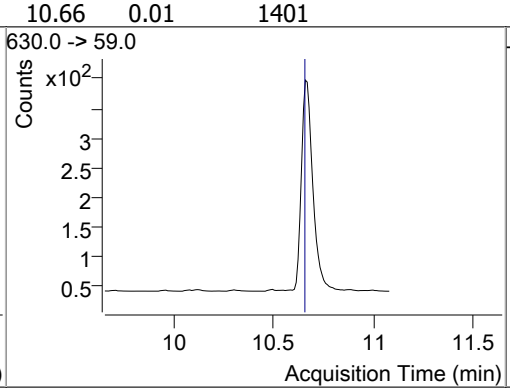


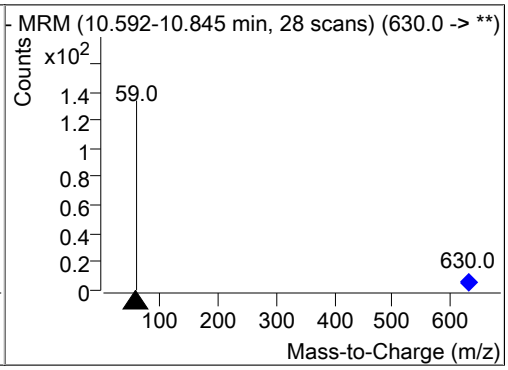




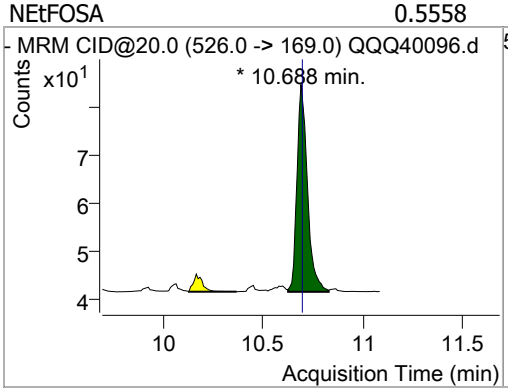
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	5.4062	10.66	0.01	1401				

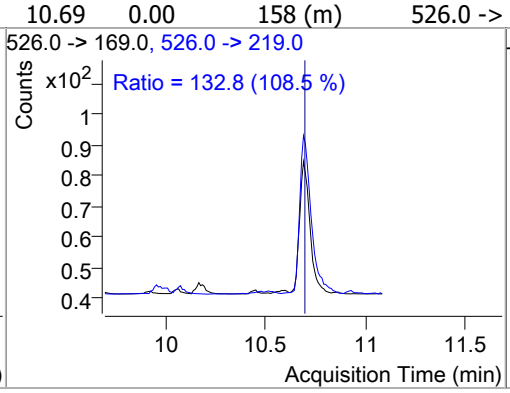


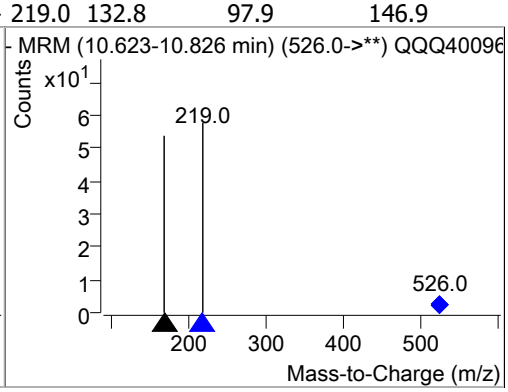




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.5558	10.69	0.00	158 (m)	526.0 -> 219.0	132.8	97.9	146.9







Data File	QQQ40097.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 3:46:56 AM
Sample Name	SEQ-CAL3	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	1.25 - 31.6 ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
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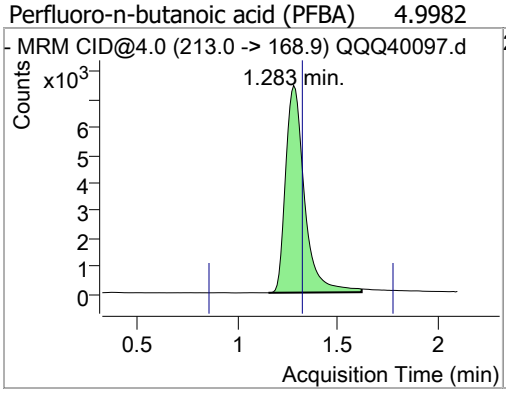
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.278	217.0 -> 172.0	109127	10.0000	ng/ml		-0.046
M3PFBA	1.281	216.0 -> 172.0	22501	5.0000	ng/ml		-0.037
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.756	268.0 -> 223.0	100050	5.0000	ng/ml		-0.028
MPFHxA	6.373	315.0 -> 269.8	33432	2.5000	ng/ml		-0.009
MPFHxS	7.382	403.0 -> 103.0	3322	2.3700	ng/ml		0.000
M3PFBS-EIS	5.529	302.0 -> 79.9	16448	2.3300	ng/ml		-0.009
M5PFHxA-EIS	6.372	318.0 -> 273.0	51978	2.5000	ng/ml		-0.009
M2-4-2FTS-EIS	6.288	329.0 -> 309.0	24264	4.6900	ng/ml		-0.019
M3PFHxS-EIS	7.382	402.0 -> 80.0	11510	2.3700	ng/ml		0.000
M3-HFPO-DA-EIS	6.689	287.0 -> 169.0	38217	10.0000	ng/ml		-0.009
M4PFHpA-EIS	7.262	367.0 -> 322.0	14315	2.5000	ng/ml		-0.009
M2-6-2FTS-EIS	7.921	429.0 -> 409.0	21859	4.7550	ng/ml		0.000
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.987	421.0 -> 376.0	30282	2.5000	ng/ml		-0.009
MPFOA	7.987	417.0 -> 372.0	42636	2.5000	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.616	507.0 -> 98.9	4697	2.3950	ng/ml		-0.009
MPFNA	8.590	468.0 -> 423.0	19319	1.2500	ng/ml		0.000
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.590	472.0 -> 223.0	5391	1.2500	ng/ml		0.000
MPFOS	8.617	503.0 -> 80.0	10342	2.3950	ng/ml		-0.009
M2-8-2FTS-EIS	9.071	529.0 -> 509.0	34756	4.8000	ng/ml		0.009
MPFDA	9.110	515.0 -> 469.8	10999	1.2500	ng/ml		0.000
M6PFDA-EIS	9.109	519.0 -> 473.9	17139	1.2500	ng/ml		0.009
d3-N-MeFOSAA-EIS	9.311	573.0 -> 418.8	21167	5.0000	ng/ml		0.000
d5-N-EtFOSAA-EIS	9.560	589.0 -> 418.8	18663	5.0000	ng/ml		0.009
M7PFUdA-EIS	9.571	570.0 -> 525.0	18368	1.2500	ng/ml		0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.676	506.0 -> 78.0	11400	2.5000	ng/ml		0.009
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.986	615.0 -> 570.0	11625	1.2500	ng/ml		0.018
M2PFTeDA-EIS	10.617	715.0 -> 670.0	4760	1.2500	ng/ml		0.028
d7-NMeFOSE-EIS	10.428	623.0 -> 59.0	8070	25.0000	ng/ml		0.037
d3-NMeFOSA-EIS	10.459	515.0 -> 219.0	1062	2.5000	ng/ml		0.028
d9-NEtFOSE-EIS	10.665	639.0 -> 59.0	3495	25.0000	ng/ml		0.028
d5-NEtFOSA-EIS	10.705	531.0 -> 169.0	552	2.5000	ng/ml	m	0.037
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.278	217.0 -> 172.0	109127	9.5778	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.756	268.0 -> 223.0	100050	4.9942	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.529	302.0 -> 79.9	16448	2.7854	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.288	329.0 -> 309.0	24266	5.0705	ng/ml		-0.019

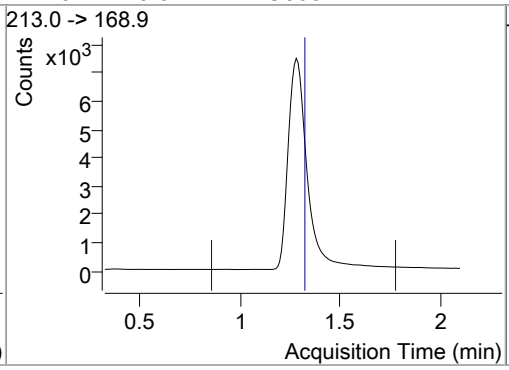
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.372	318.0 -> 273.0	51978	2.4196	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.689	287.0 -> 169.0	38217	10.4669	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.262	367.0 -> 322.0	14315	2.5664	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.382	402.0 -> 80.0	11737	2.8848	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.921	429.0 -> 409.0	21859	5.1144	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	421.0 -> 376.0	30282	2.4695	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	472.0 -> 223.0	5391	1.2796	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.616	507.0 -> 98.9	4711	2.2919	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.071	529.0 -> 509.0	34757	5.2111	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.109	519.0 -> 473.9	17139	1.2949	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.311	573.0 -> 418.8	21167	4.7317	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.560	589.0 -> 418.8	18665	4.9693	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.571	570.0 -> 525.0	18368	1.2533	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	506.0 -> 78.0	11400	2.5338	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.986	615.0 -> 570.0	11629	0.9598	ng/ml		0.018
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.705	531.0 -> 169.0	553	2.3750	ng/ml	m	0.469
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.428	623.0 -> 59.0	8070	23.3127	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.459	515.0 -> 219.0	1062	2.2809	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.617	715.0 -> 670.0	4760	1.0568	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.665	639.0 -> 59.0	3477	25.0018	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.283	213.0 -> 168.9	49068	4.9982	ng/ml		100
PFMPA	2.245	229.0 -> 85.0	12301	2.3816	ng/ml		100
3:3FTCA	4.461	241.0 -> 177.0	1569	5.6573	ng/ml		94
Perfluoro-n-pentanoic acid (PFPeA)	4.756	263.0 -> 219.0	49931	2.5262	ng/ml		100
PFMBA	5.504	279.0 -> 85.0	20235	2.4160	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.530	298.9 -> 79.9	8344	1.1449	ng/ml		97
PFEESA	6.066	315.0 -> 135.0	57661	2.1079	ng/ml		99
NFDHA	6.216	295.0 -> 201.1	860	2.5174	ng/ml		91
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	327.0 -> 307.0	29008	4.9783	ng/ml		93

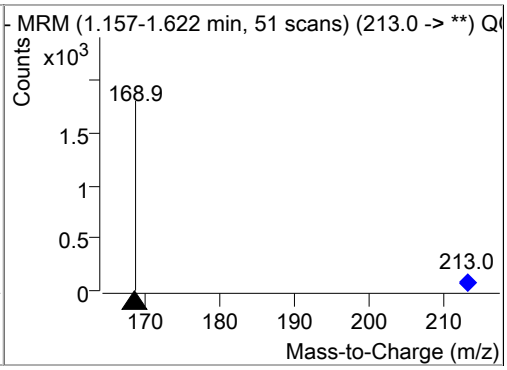
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.373	313.0 -> 268.9	30801	1.2184	ng/ml		98
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.593	348.9 -> 79.9	7694	1.3133	ng/ml		96
HFPO-DA	6.689	285.0 -> 169.1	1534	4.2240	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.263	363.0 -> 318.8	15552	1.0889	ng/ml		93
5-3FTCA	7.328	341.0 -> 217.0	80314	28.6910	ng/ml		98
Perfluorohexanesulfonic acid (PFHxS)	7.374	398.9 -> 79.9	7501	1.2977	ng/ml	m	100
ADONA	7.411	377.0 -> 85.0	38653	4.2996	ng/ml		97
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	427.0 -> 407.0	28605	5.1323	ng/ml		99
Perfluorooctanoic acid (PFOA)	7.988	413.0 -> 368.8	17580	1.1780	ng/ml		98
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	448.9 -> 80.0	5868	1.1362	ng/ml		92
Perfluorononanoic acid (PFNA)	8.591	463.0 -> 418.8	16389	1.0900	ng/ml		98
Perfluorooctanesulfonic acid (PFOS)	8.617	498.9 -> 79.9	5693	1.1568	ng/ml	m	100
7-3FTCA	8.730	441.0 -> 337.0	149533	31.5078	ng/ml		100
9-Cl-PF3ONS	8.940	531.0 -> 351.0	96996	4.4544	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	527.0 -> 80.9	8377	4.8079	ng/ml		98
Perfluorodecanoic acid (PFDA)	9.110	513.0 -> 468.8	17730	1.1671	ng/ml		98
Perfluorononanesulfonate (L-PFNS)	9.116	548.9 -> 79.9	3925	1.2885	ng/ml		96
N-MeFOSAA	9.320	570.0 -> 418.9	4593	1.2725	ng/ml	m	91
N-EtFOSAA	9.561	584.0 -> 418.8	4384	1.2747	ng/ml	m	93
Perfluoroundecanoic acid (PFUnA)	9.572	563.0 -> 519.0	15840	1.2895	ng/ml		99
Perfluoro-1-decanesulfonate (L-PFDS)	9.578	598.9 -> 98.9	1788	1.2409	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.676	497.9 -> 78.0	7528	1.1920	ng/ml		100
11-Cl-PF3OUdS	9.836	631.0 -> 451.0	61163	4.6884	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.987	613.0 -> 568.8	11525	1.4699	ng/ml		100
Perfluorododecanesulfonic acid (PFDoS)	10.315	699.0 -> 80.0	885	1.1084	ng/ml		98
Perfluorotridecanoic acid (PFTrDA)	10.334	663.0 -> 618.8	7800	1.4270	ng/ml		100
NMeFOSE	10.438	616.0 -> 59.0	3659	12.5142	ng/ml		100
NMeFOSA	10.459	512.0 -> 169.0	434	1.2249	ng/ml		92
Perfluorotetradecanoic acid (PFTA)	10.618	713.0 -> 669.0	5107	1.3106	ng/ml	#	94
NEtFOSE	10.684	630.0 -> 59.0	3455	12.6585	ng/ml		100
NEtFOSA	10.715	526.0 -> 169.0	372	1.2923	ng/ml		98

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

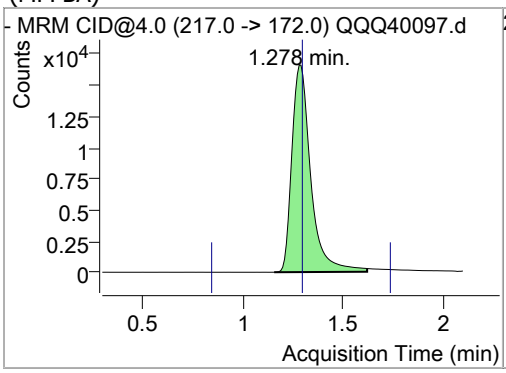
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	4.9982	1.28	-0.04	49068				

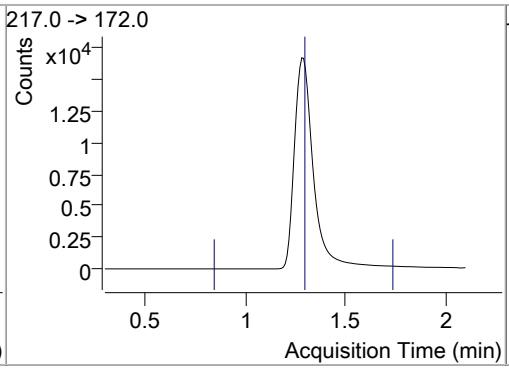


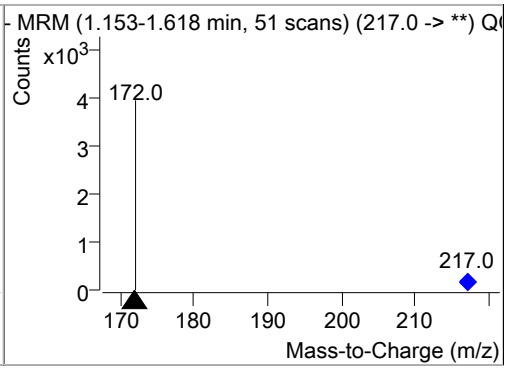




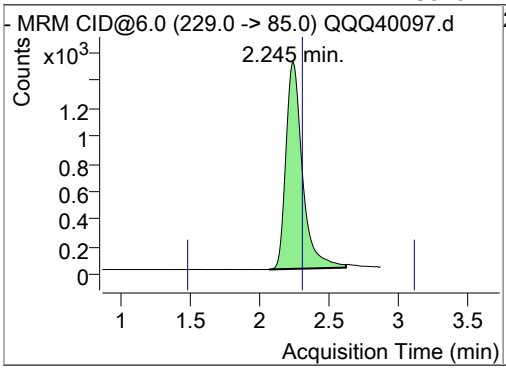
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	9.5778	1.28	-0.05	109127				

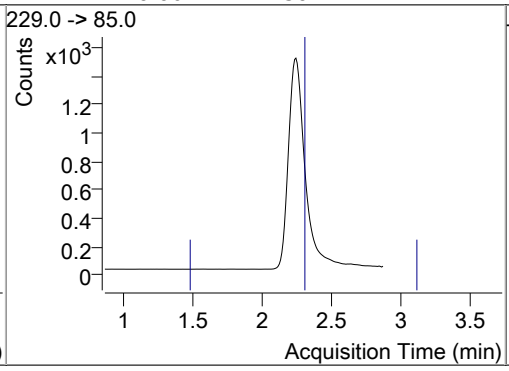


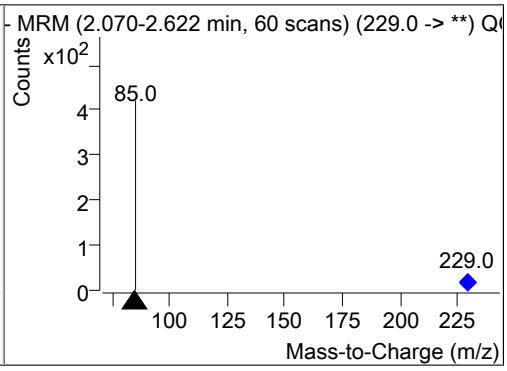




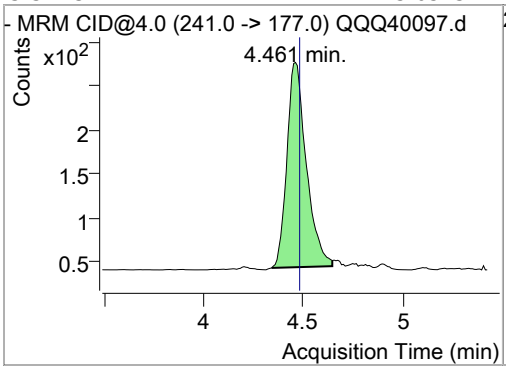
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	2.3816	2.24	-0.06	12301				

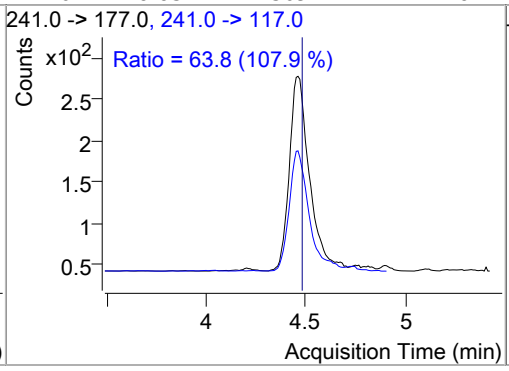


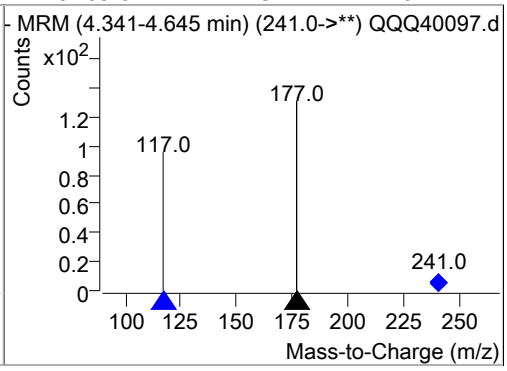




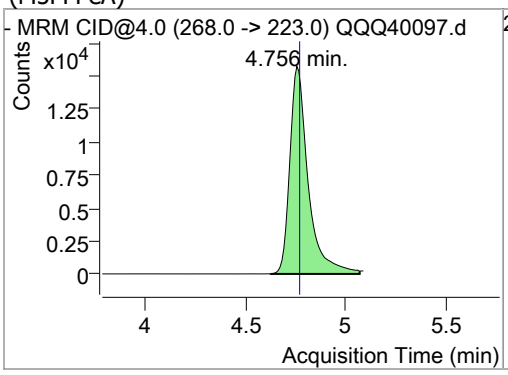
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	5.6573	4.46	-0.03	1569	241.0 -> 117.0	63.8	47.3	71.0

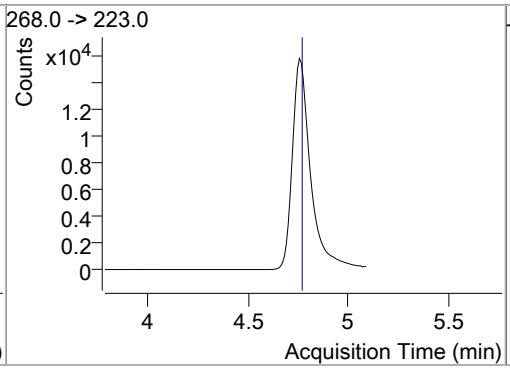


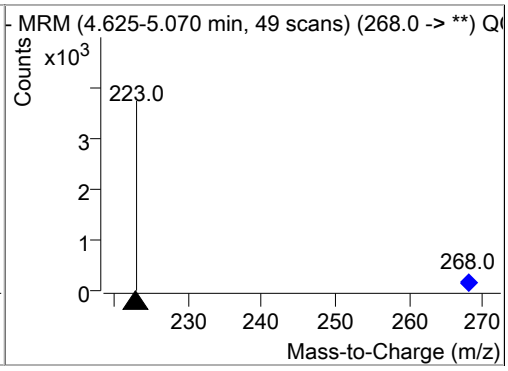




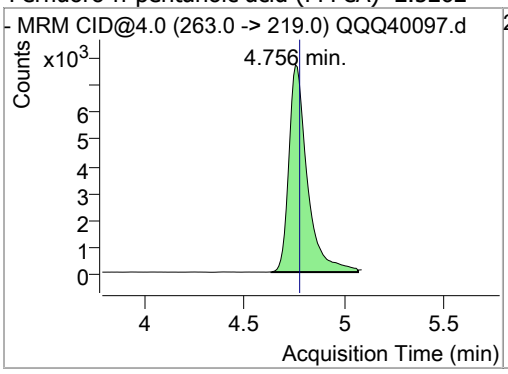
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.9942	4.76	-0.03	100050				

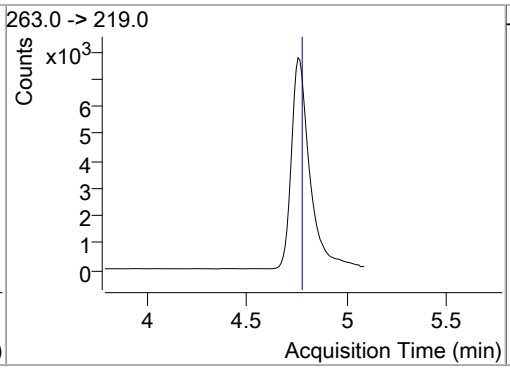


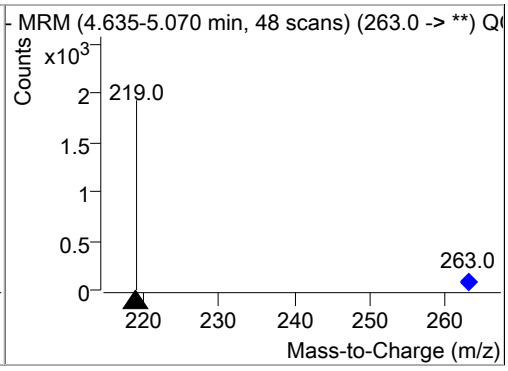




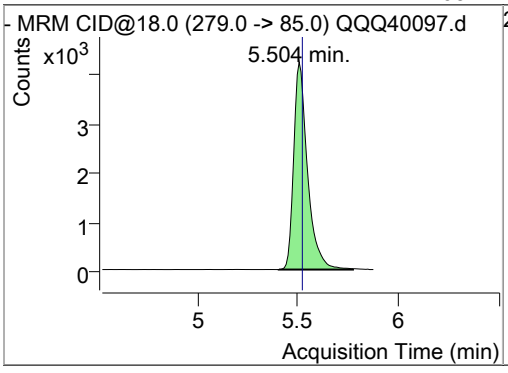
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	2.5262	4.76	-0.03	49931				

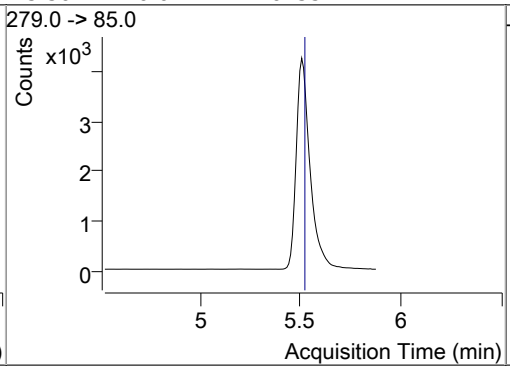


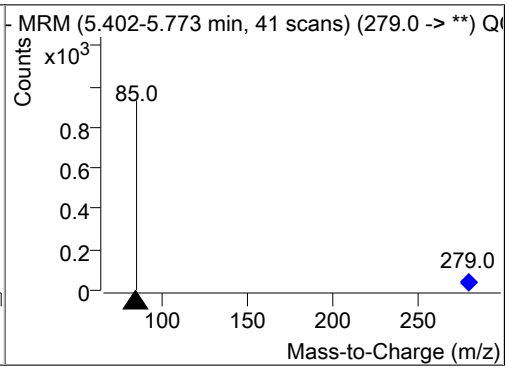




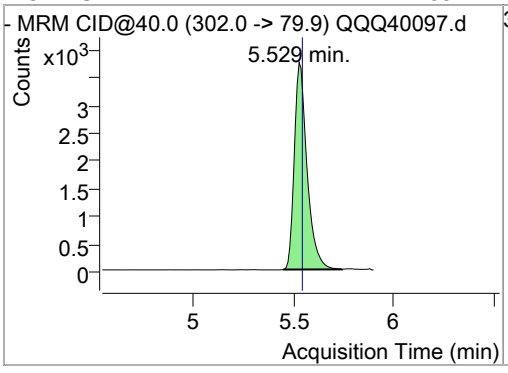
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	2.4160	5.50	-0.01	20235				

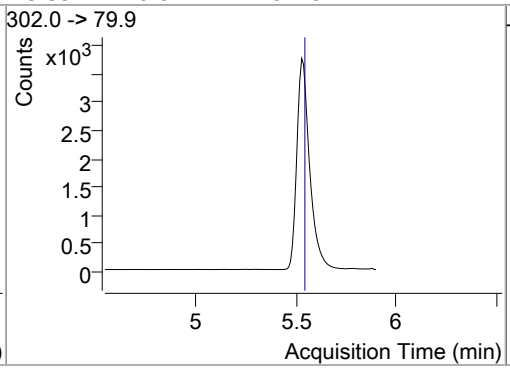


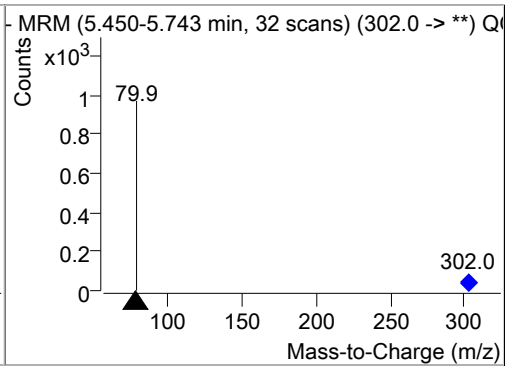




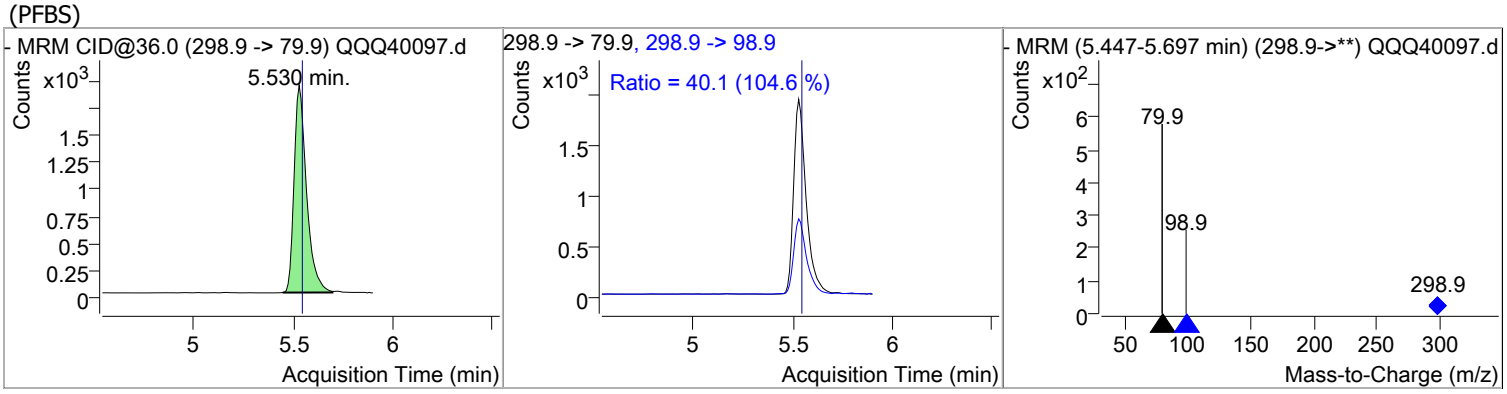
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.7854	5.53	-0.01	16448				



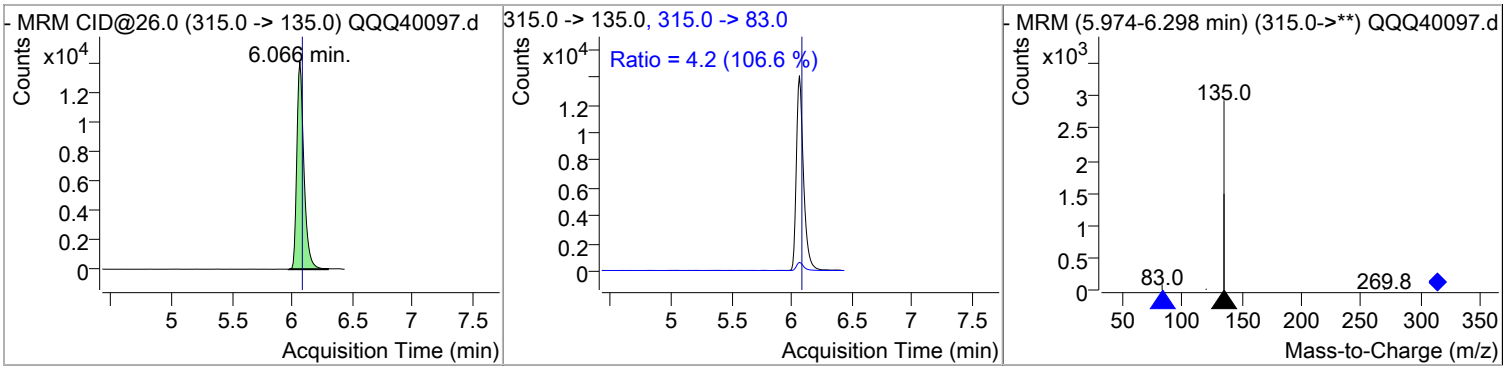




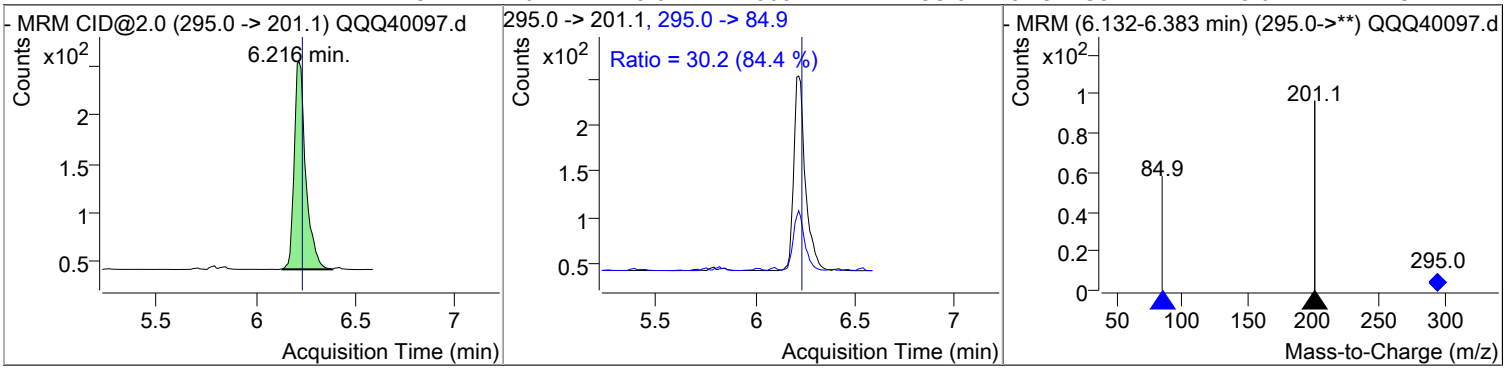
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	1.1449	5.53	-0.01	8344	298.9 -> 98.9	40.1	30.7	46.0



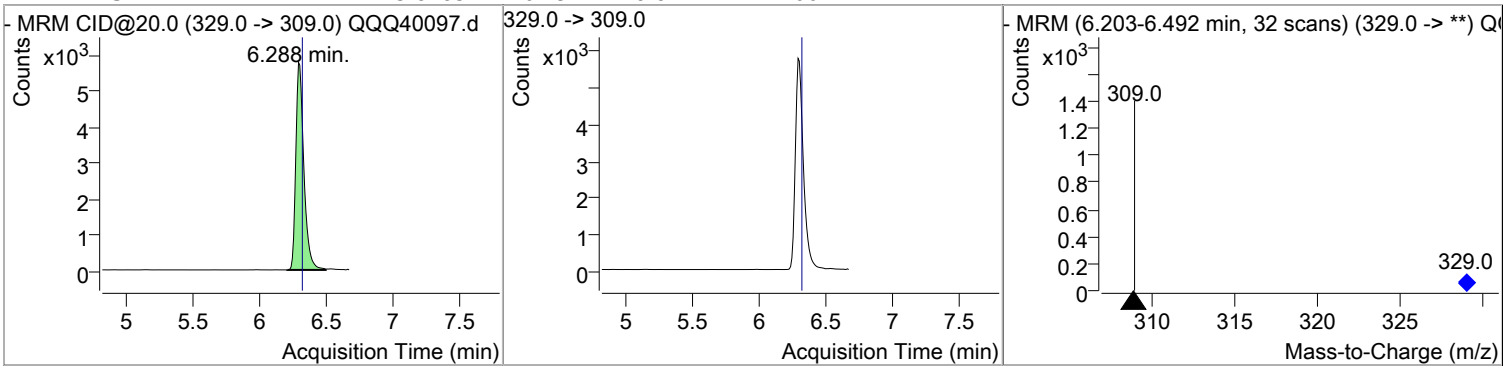
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	2.1079	6.07	-0.01	57661	315.0 -> 83.0	4.2	3.2	4.8



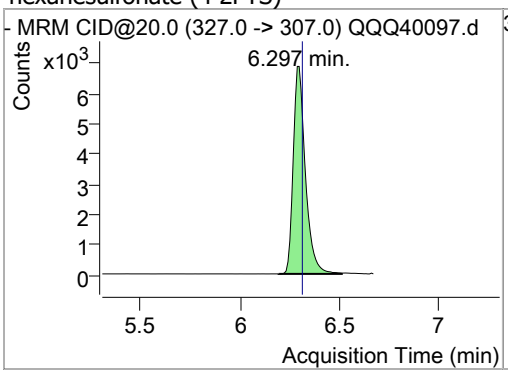
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	2.5174	6.22	-0.01	860	295.0 -> 84.9	30.2	28.6	42.9

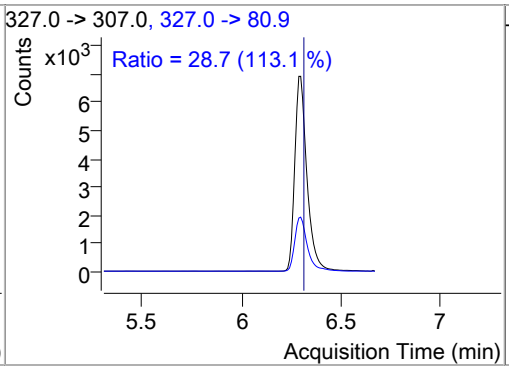


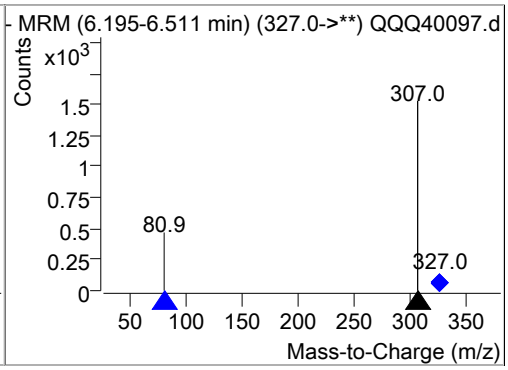
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	5.0705	6.29	-0.02	24266				



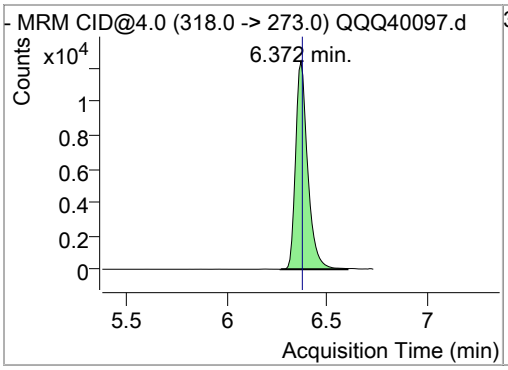
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	4.9783	6.30	-0.01	29008	327.0 -> 80.9	28.7	20.3	30.4

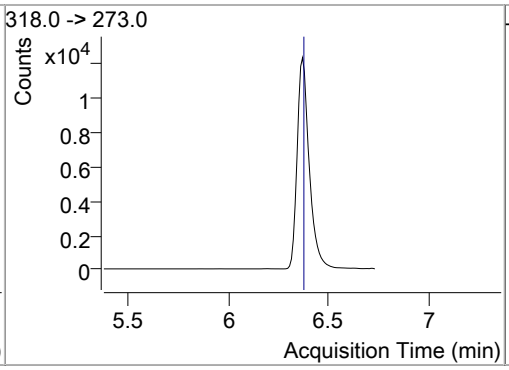


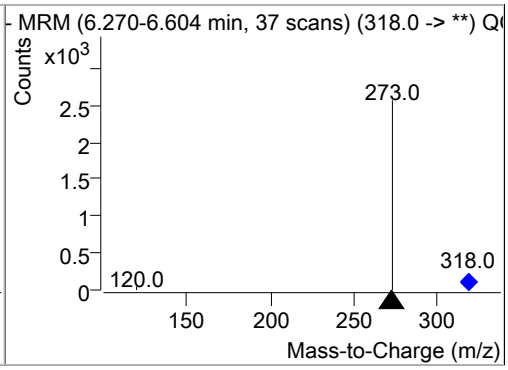




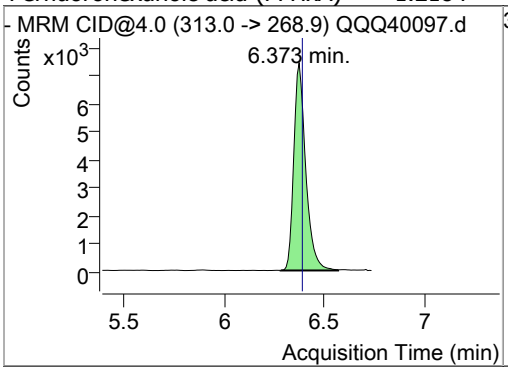
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.4196	6.37	-0.01	51978				

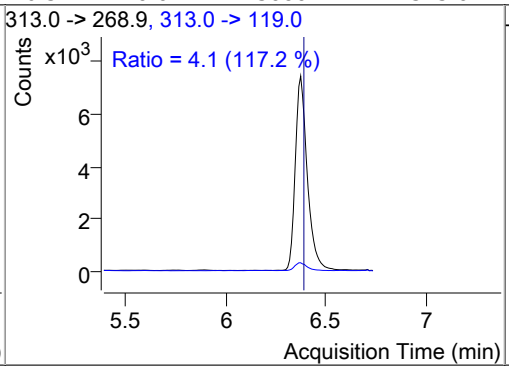


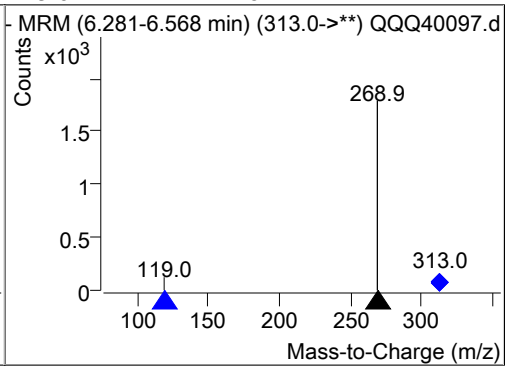




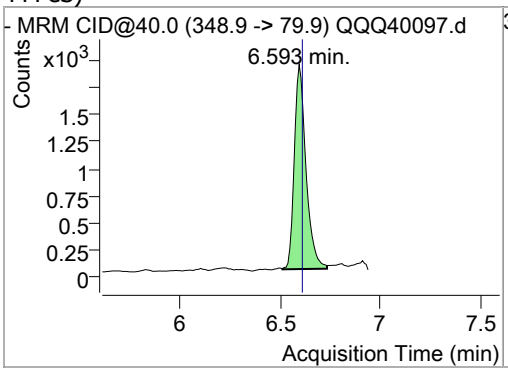
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	1.2184	6.37	-0.01	30801	313.0 -> 119.0	4.1	2.8	4.2

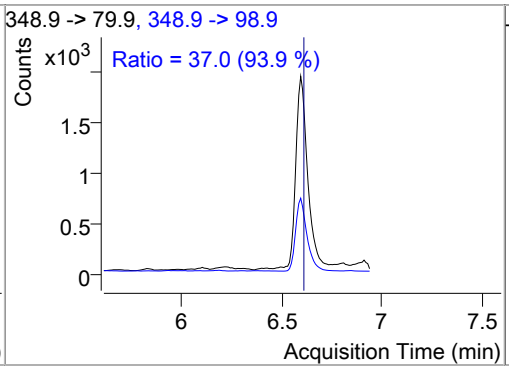


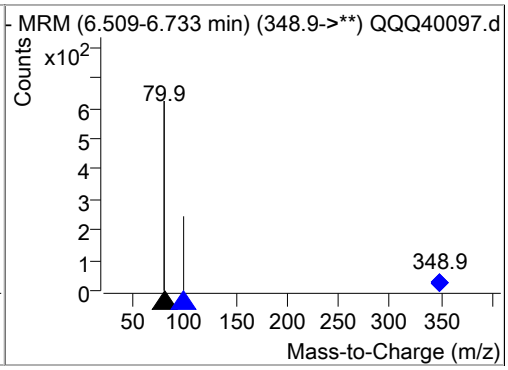




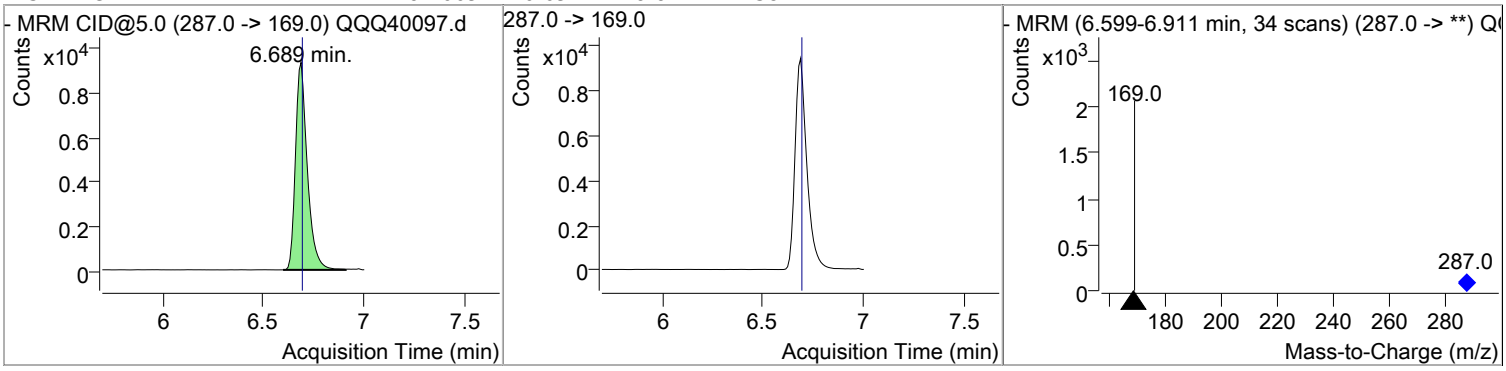
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	1.3133	6.59	-0.01	7694	348.9 -> 98.9	37.0	31.5	47.3



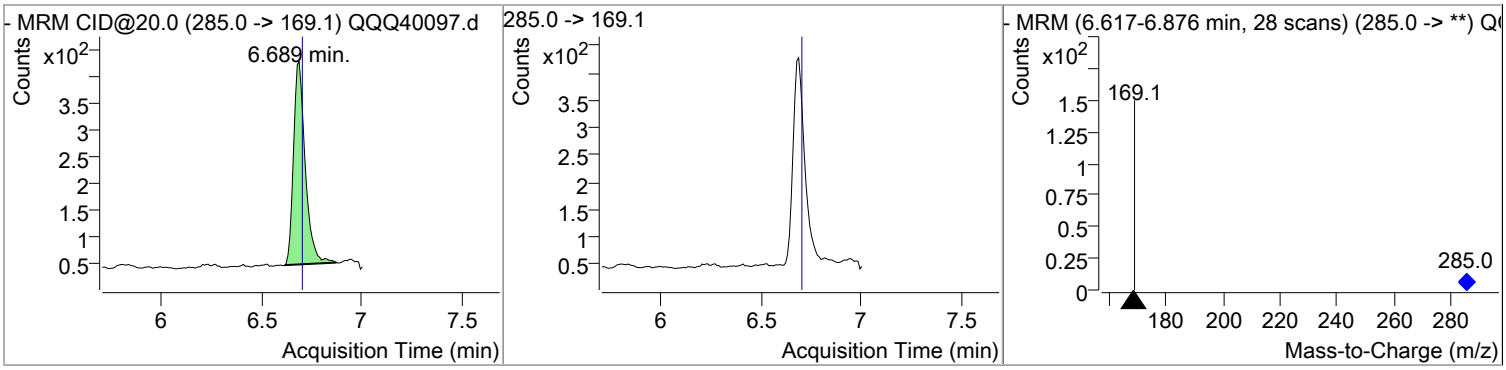




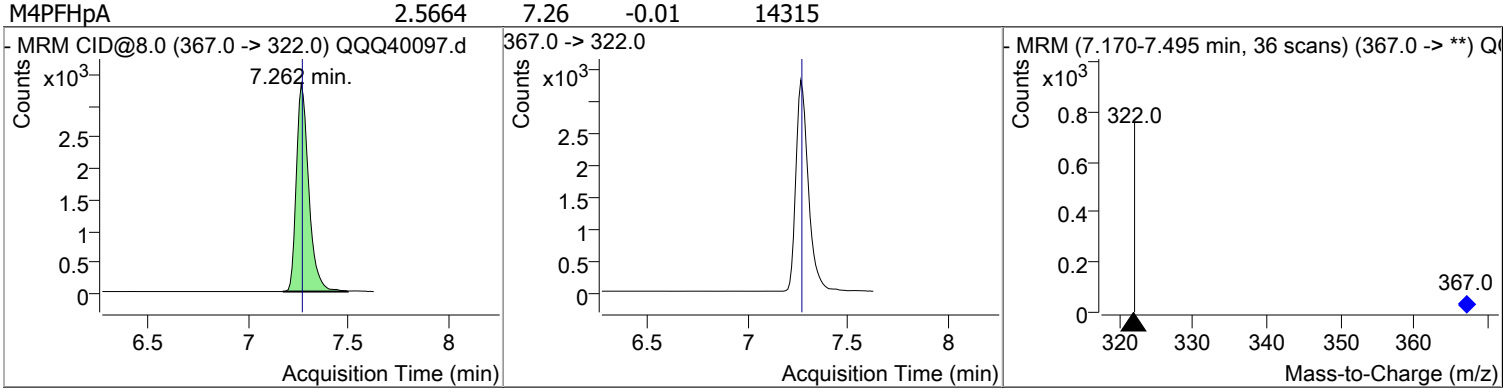
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.4669	6.69	-0.01	38217				



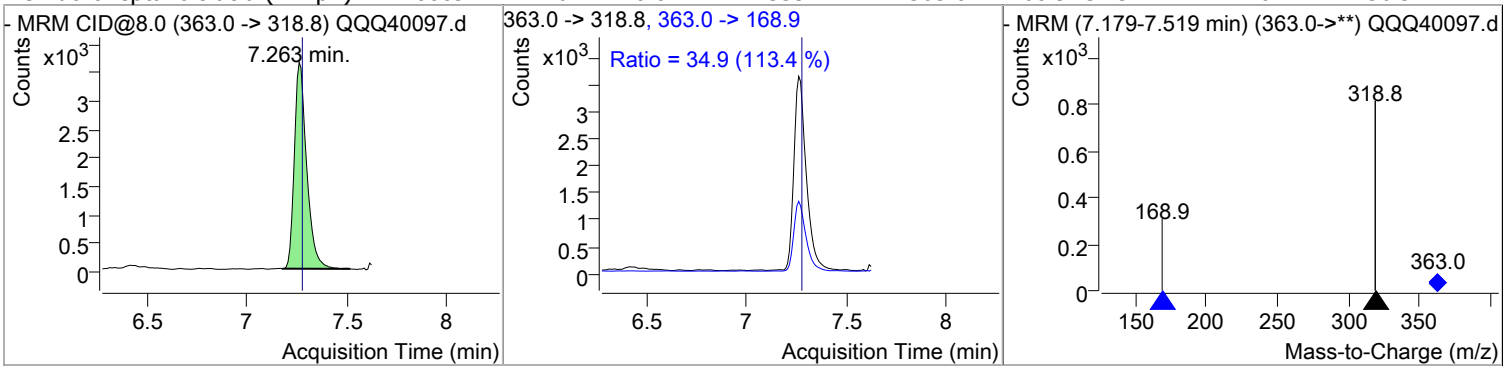
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	4.2240	6.69	-0.01	1534				



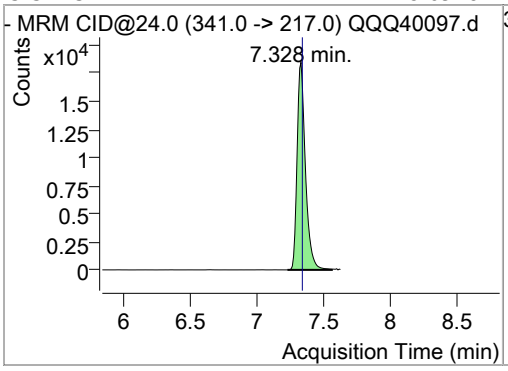
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.5664	7.26	-0.01	14315				

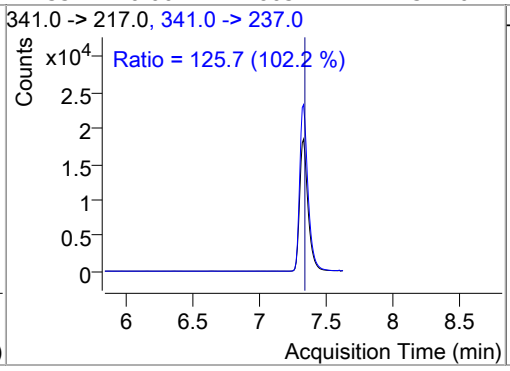


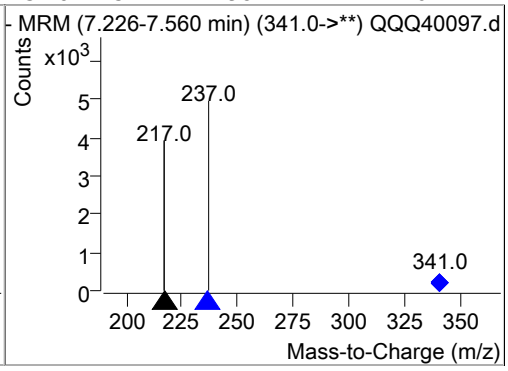
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	1.0889	7.26	-0.01	15552	363.0 -> 168.9	34.9	24.6	36.9



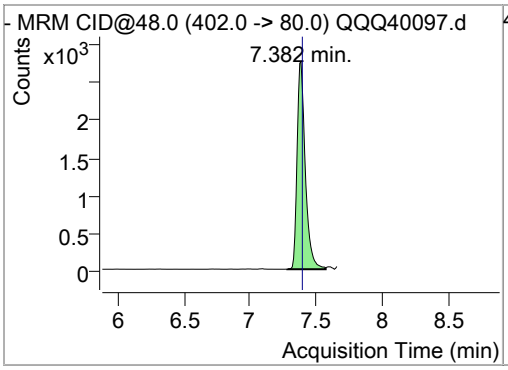
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	28.6910	7.33	0.00	80314	341.0 -> 237.0	125.7	98.4	147.6

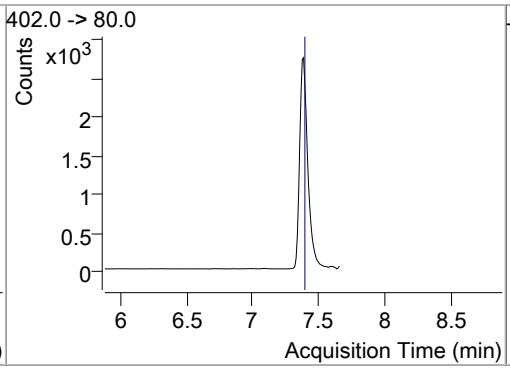


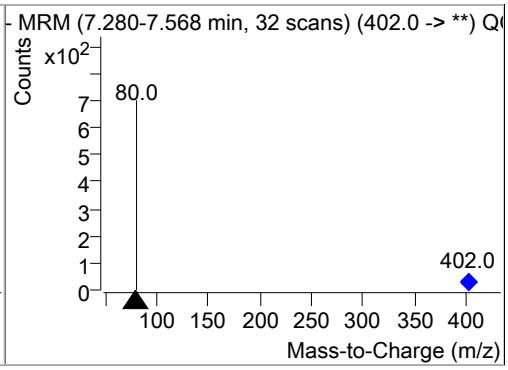




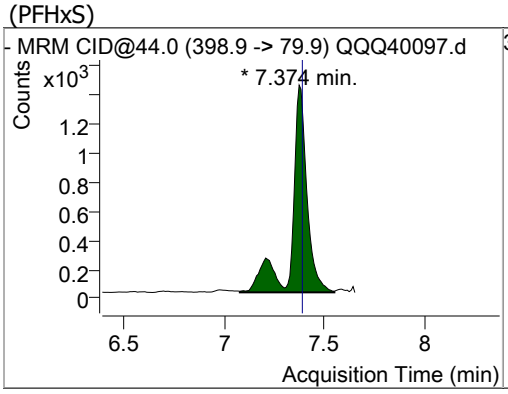
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.8848	7.38	0.00	11737				

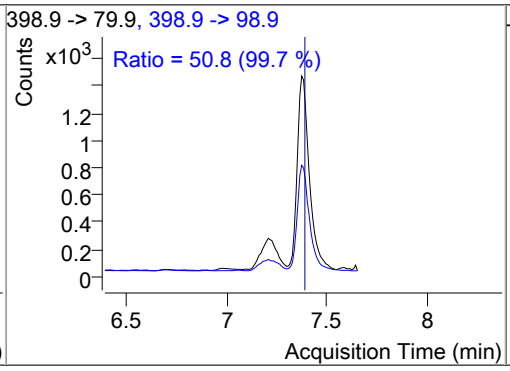


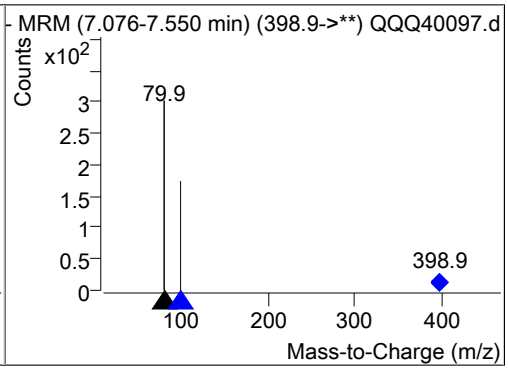




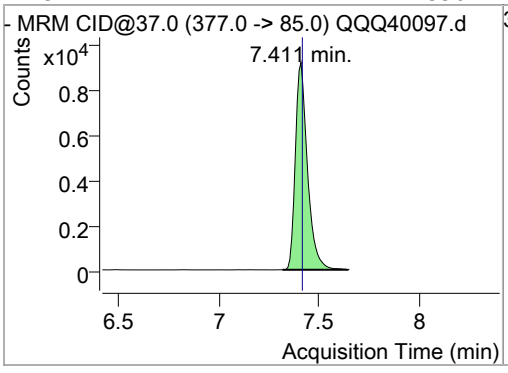
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	1.2977	7.37	-0.01	7501 (m)	398.9 -> 98.9	50.8	40.7	61.1

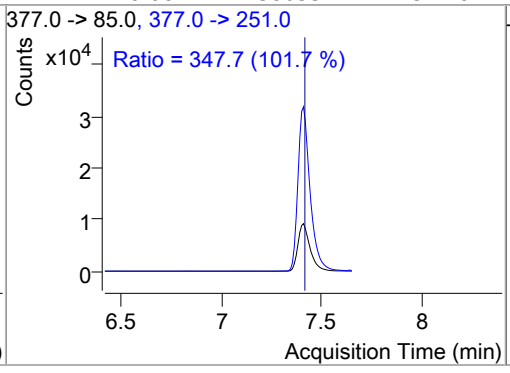


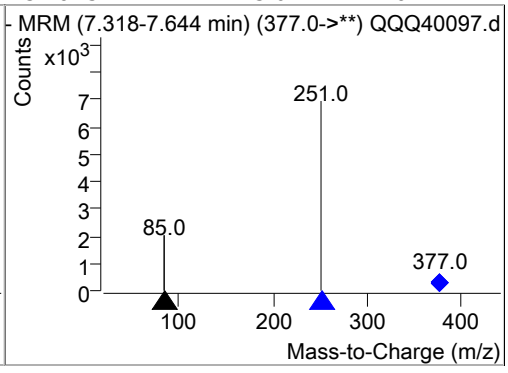




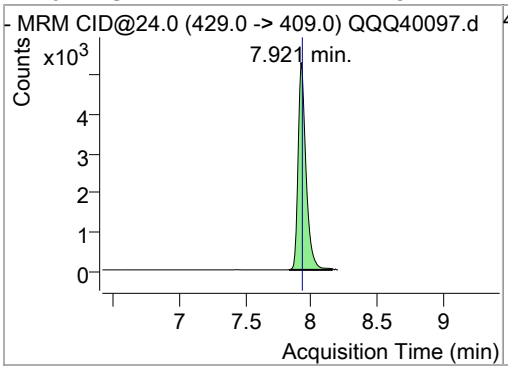
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	4.2996	7.41	0.00	38653	377.0 -> 251.0	347.7	273.6	410.4

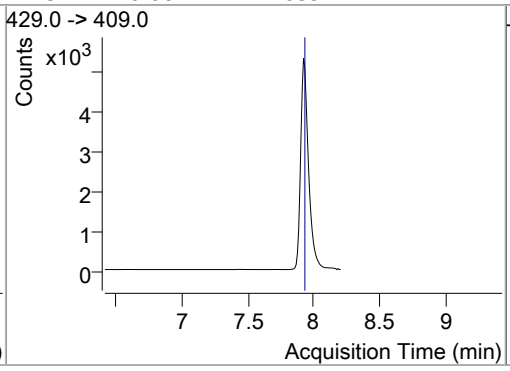


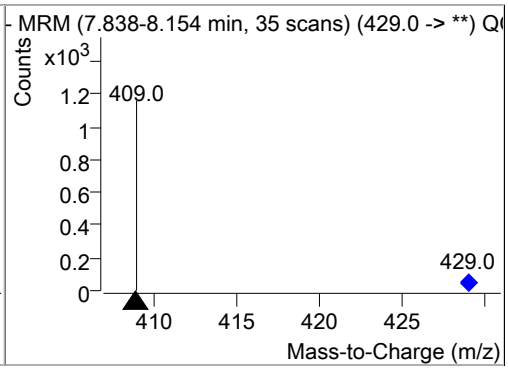




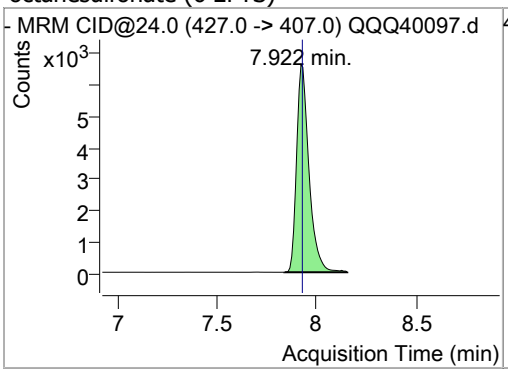
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.1144	7.92	0.00	21859				

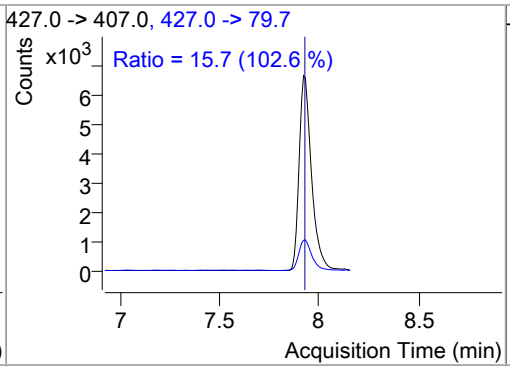


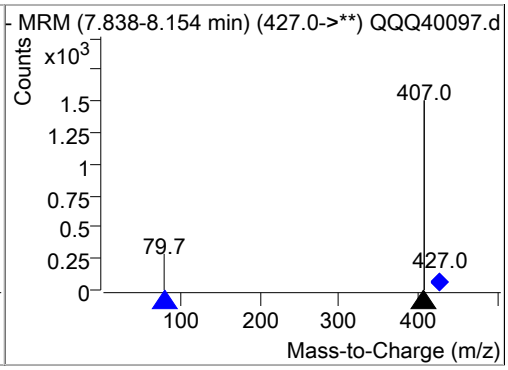




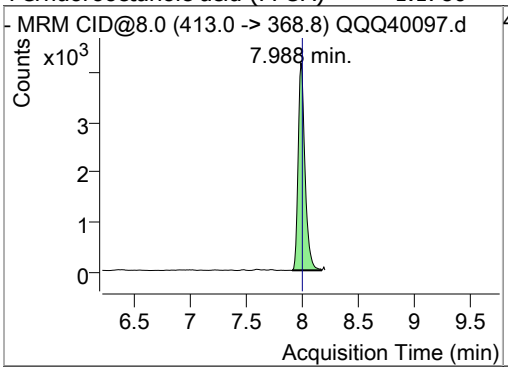
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	5.1323	7.92	0.00	28605	427.0 -> 79.7	15.7	12.2	18.4

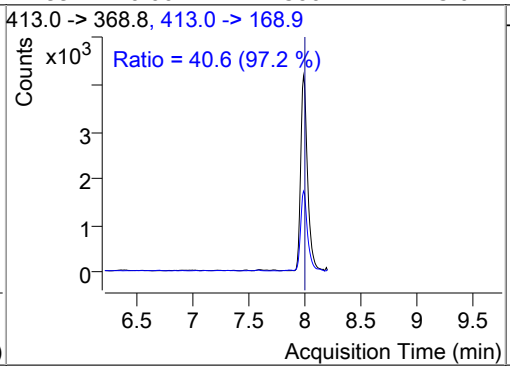


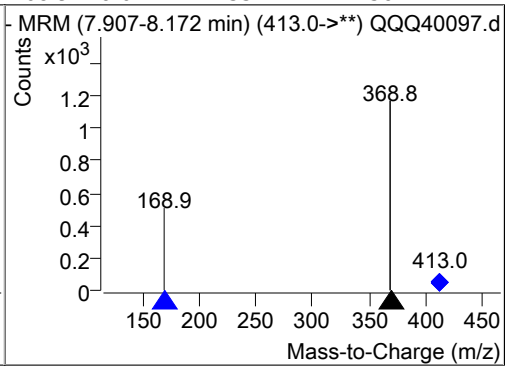




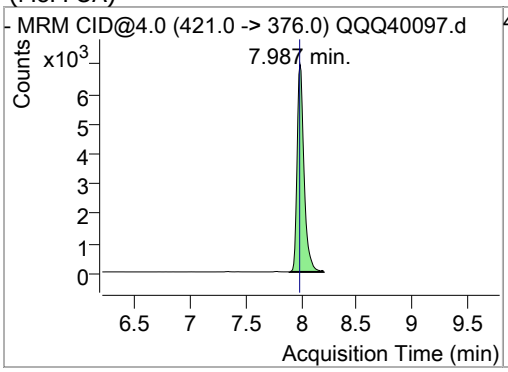
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	1.1780	7.99	0.00	17580	413.0 -> 168.9	40.6	33.4	50.1

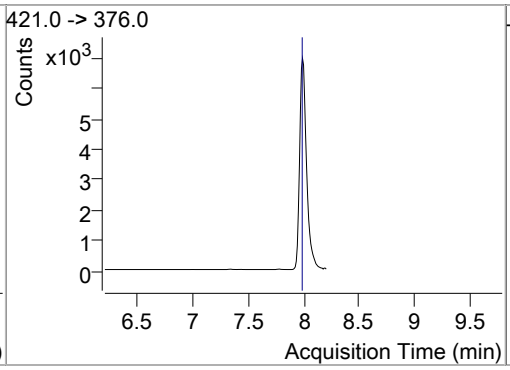


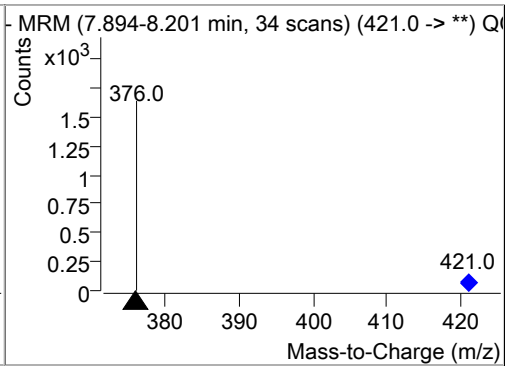




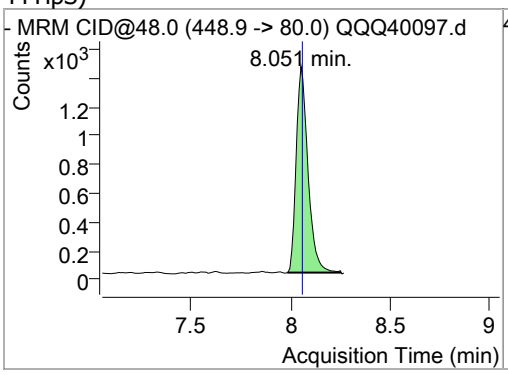
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4695	7.99	-0.01	30282				

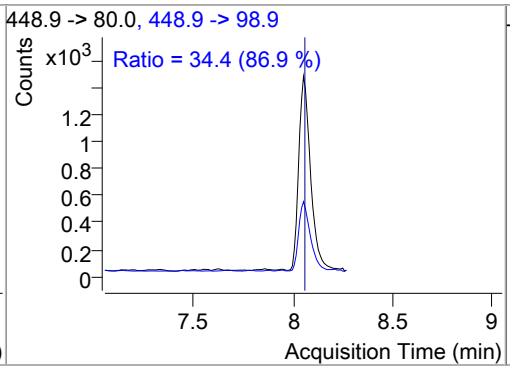


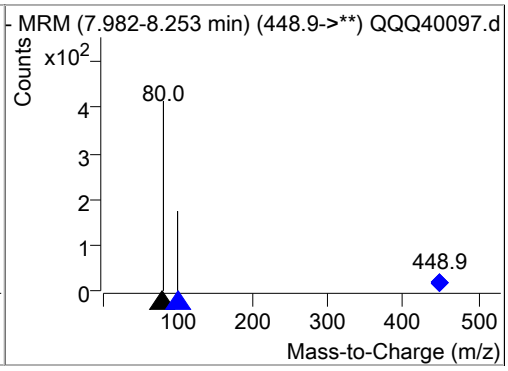




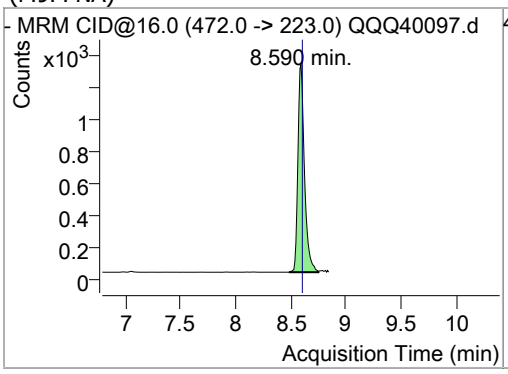
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	1.1362	8.05	0.00	5868	448.9 -> 98.9	34.4	31.7	47.5

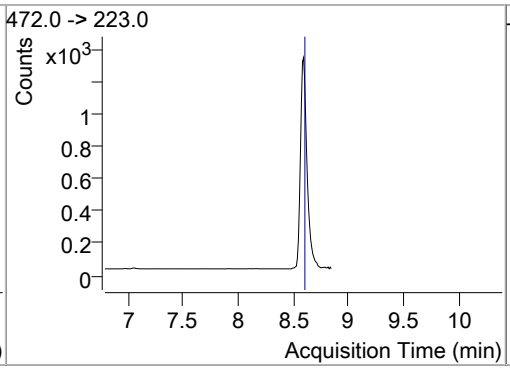


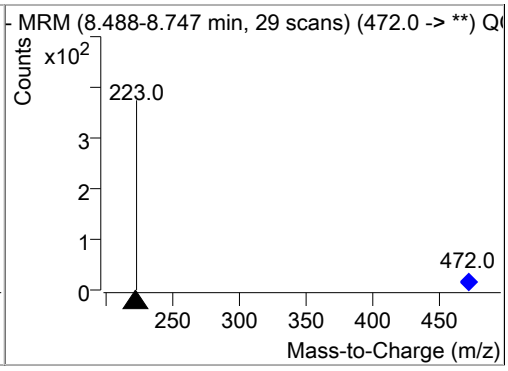




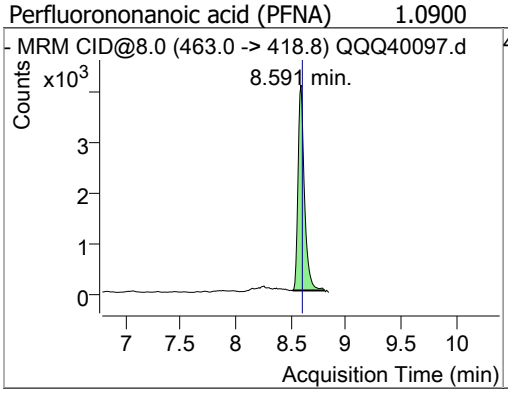
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2796	8.59	0.00	5391				

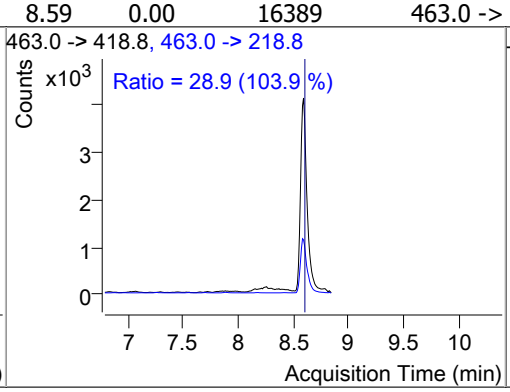


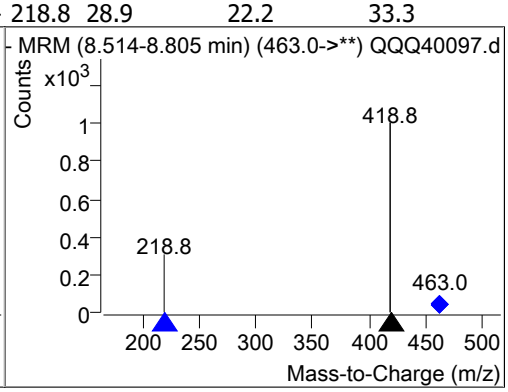




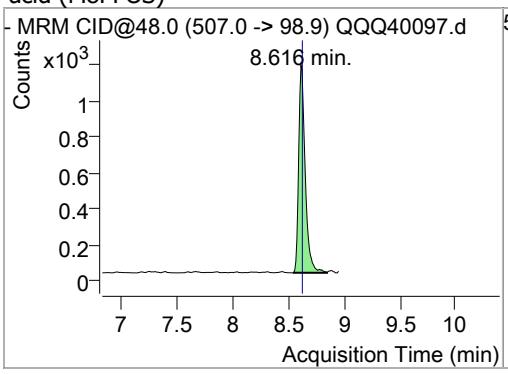
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	1.0900	8.59	0.00	16389	463.0 -> 218.8	28.9	22.2	33.3

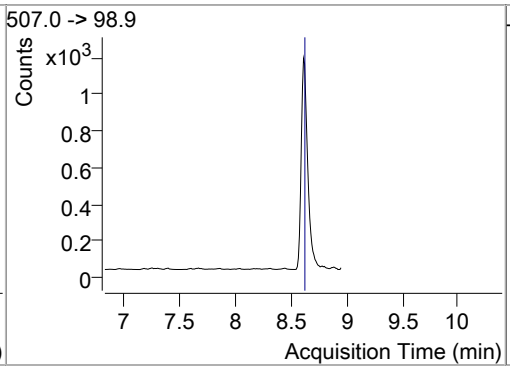


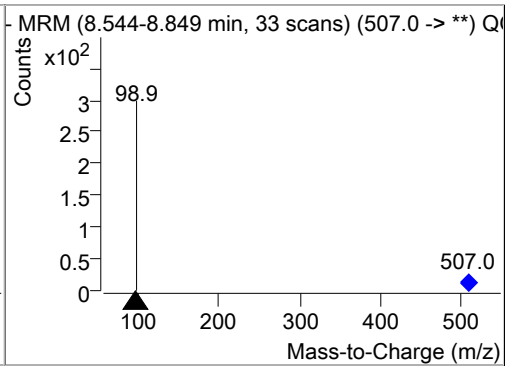




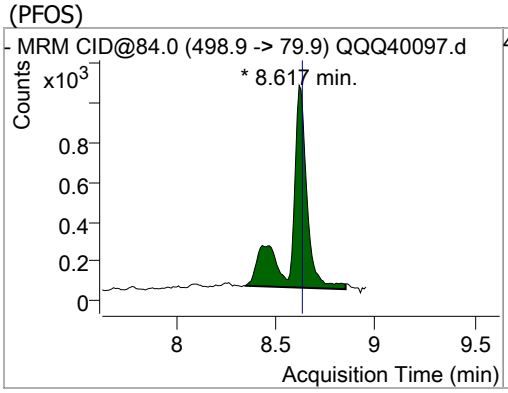
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.2919	8.62	-0.01	4711				

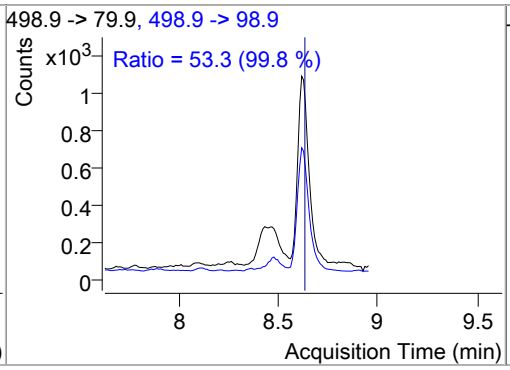


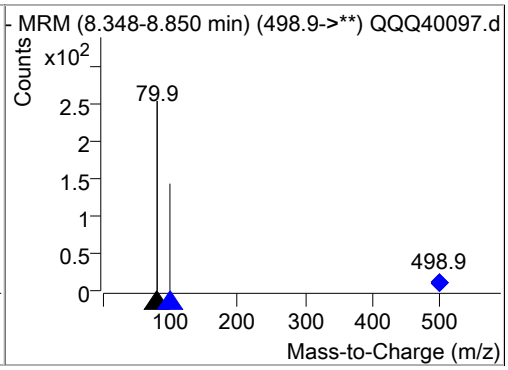




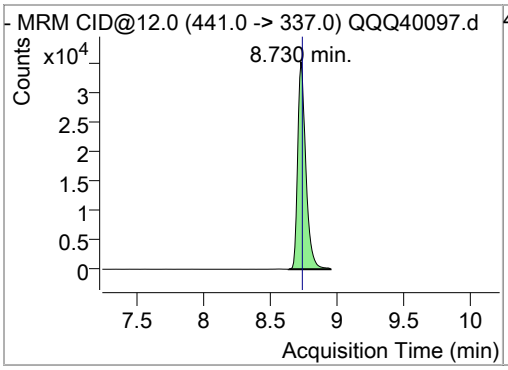
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	1.1568	8.62	-0.01	5693 (m)	498.9 -> 98.9	53.3	42.7	64.1

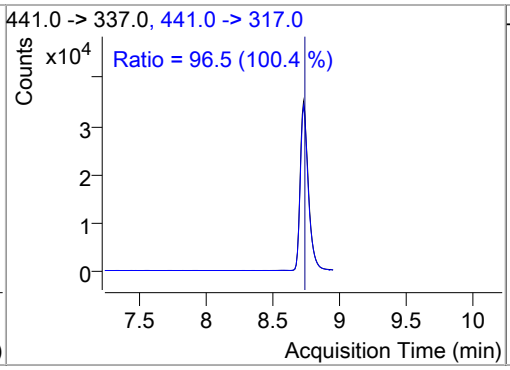


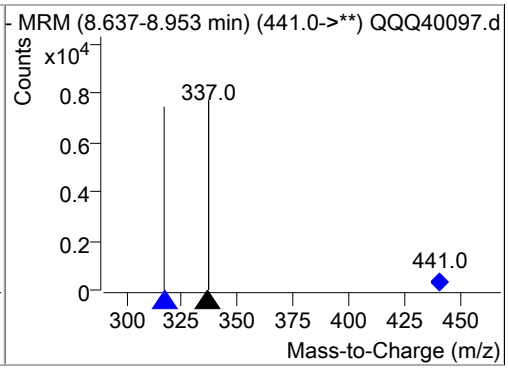




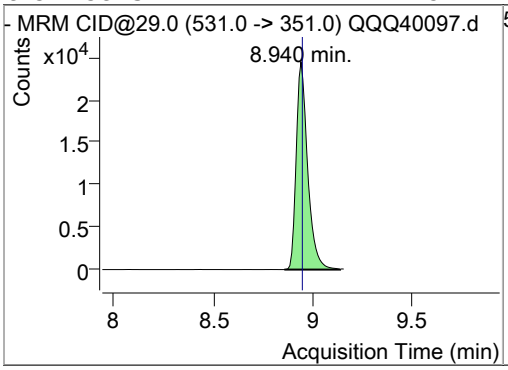
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	31.5078	8.73	0.00	149533	441.0 -> 317.0	96.5	76.9	115.4

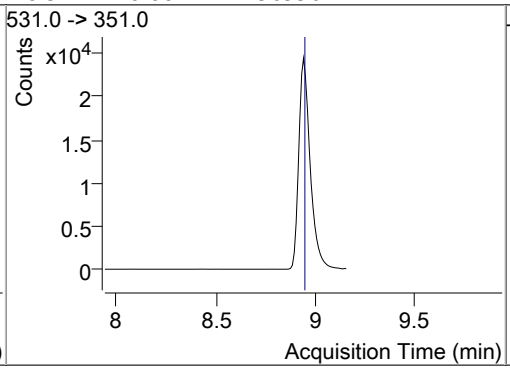


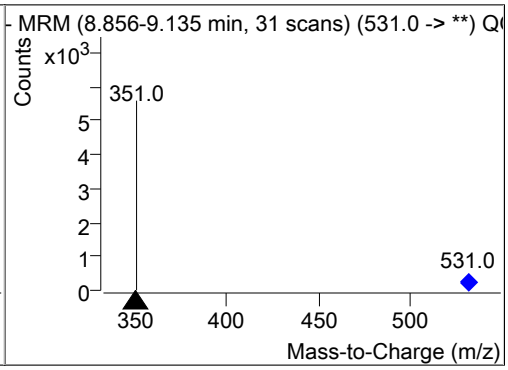




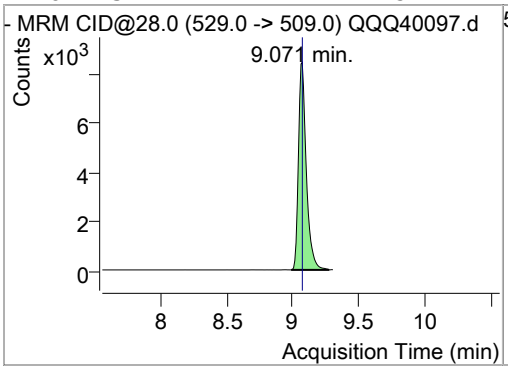
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	4.4544	8.94	0.00	96996				

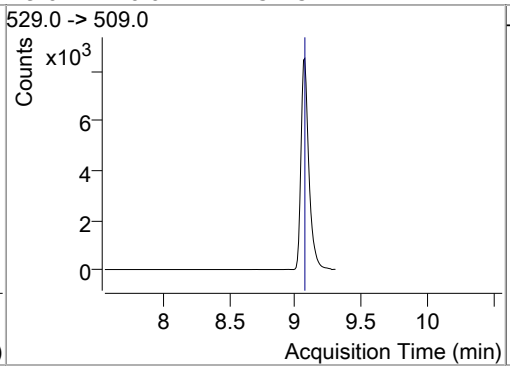


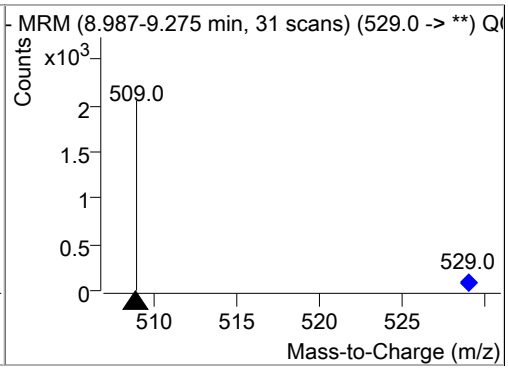




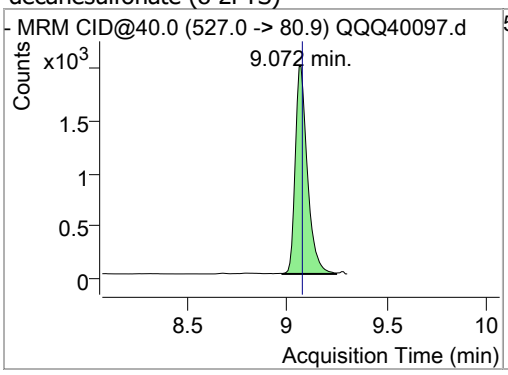
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	5.2111	9.07	0.01	34757				

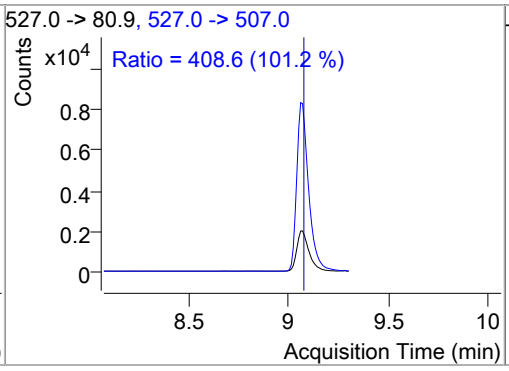


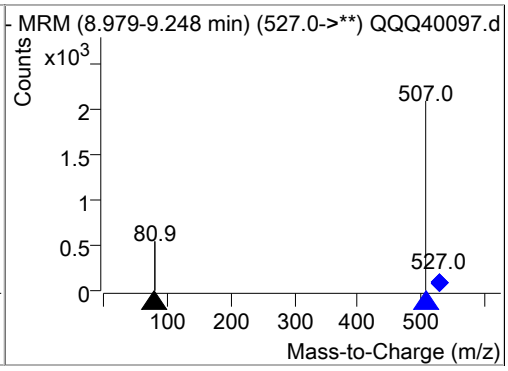




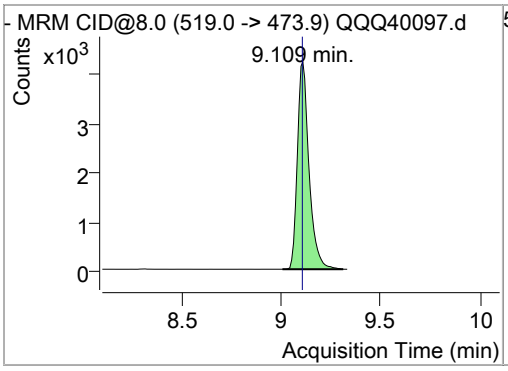
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	4.8079	9.07	0.00	8377	527.0 -> 507.0	408.6	323.1	484.6

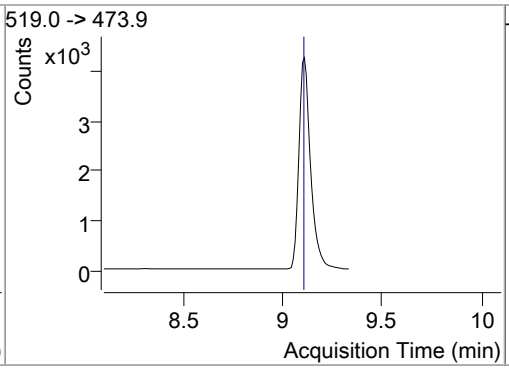


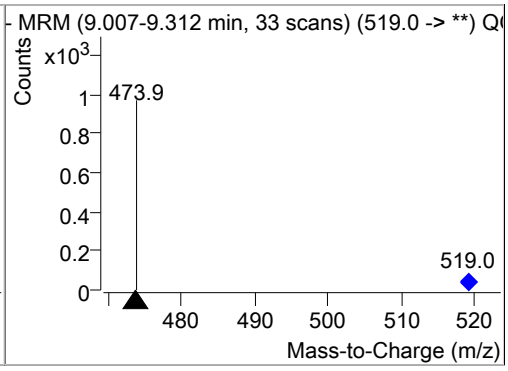




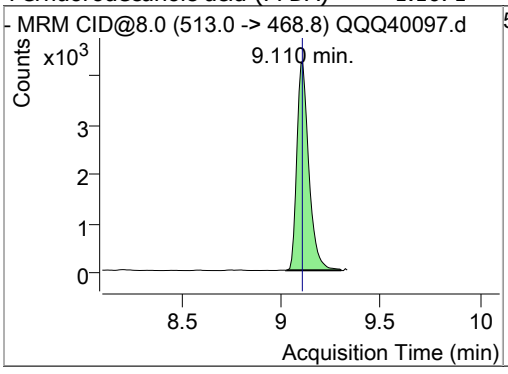
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2949	9.11	0.01	17139				

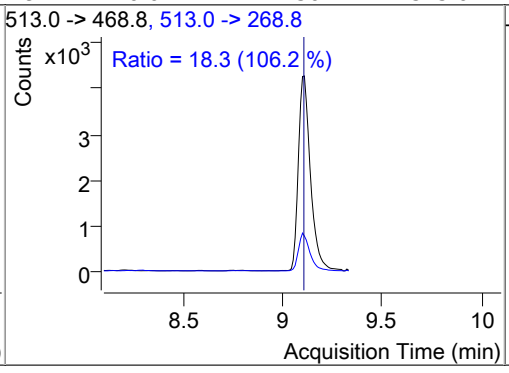


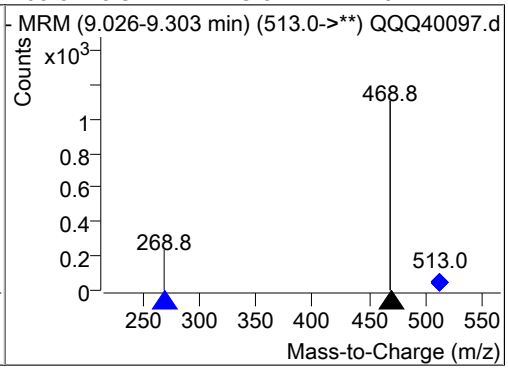




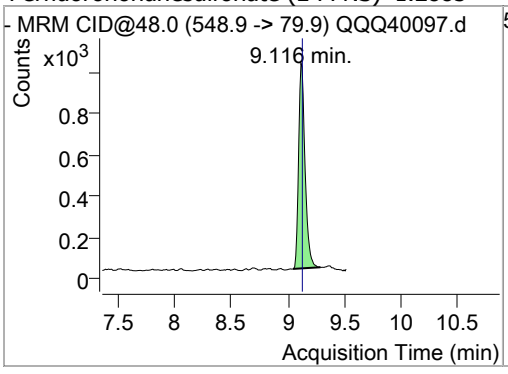
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	1.1671	9.11	0.01	17730	513.0 -> 268.8	18.3	13.8	20.7

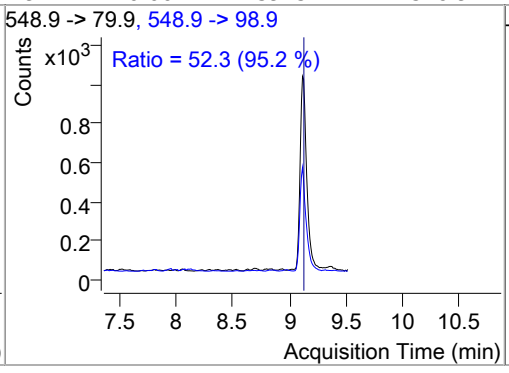


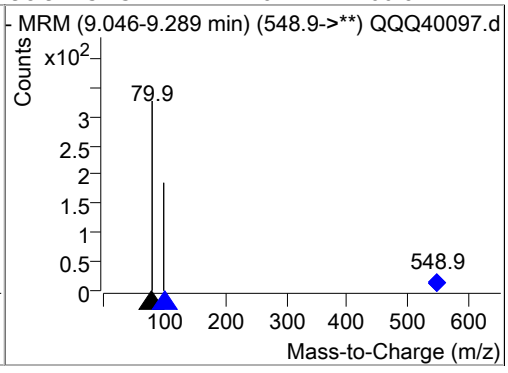




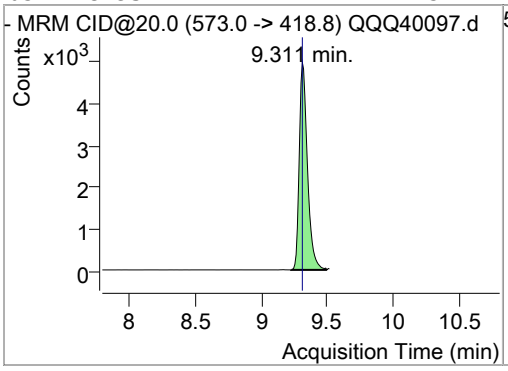
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	1.2885	9.12	0.00	3925	548.9 -> 98.9	52.3	44.0	66.0

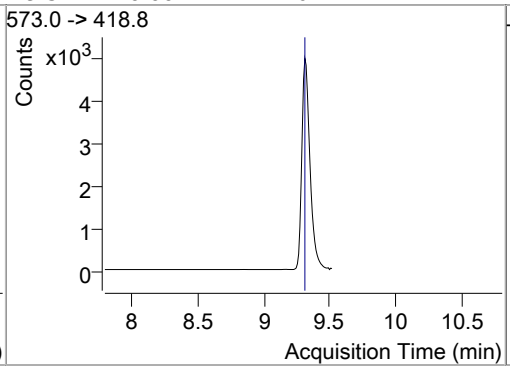


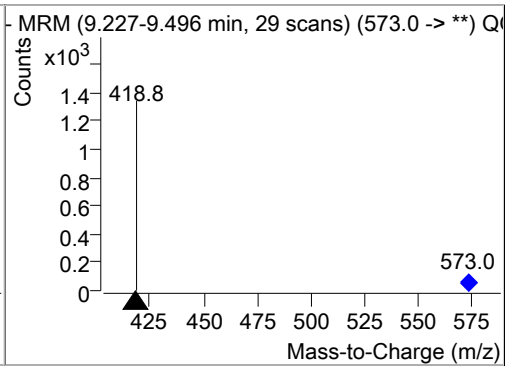




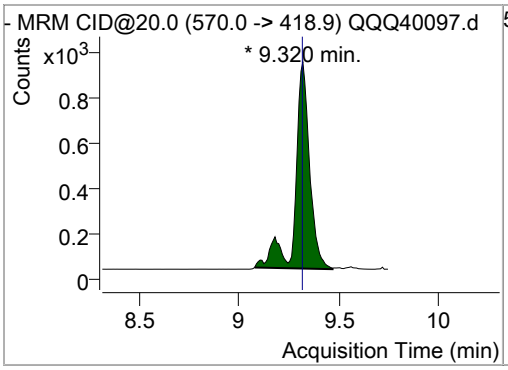
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.7317	9.31	0.00	21167				

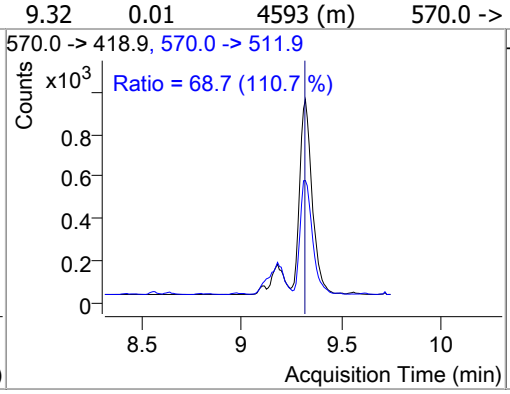


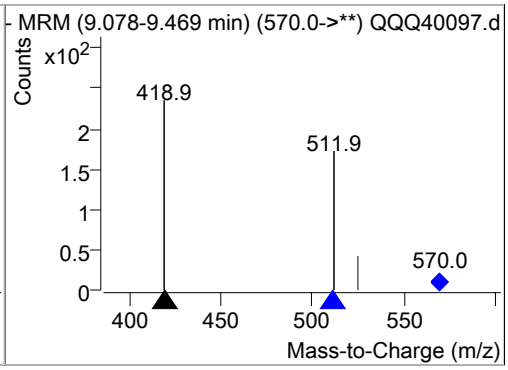




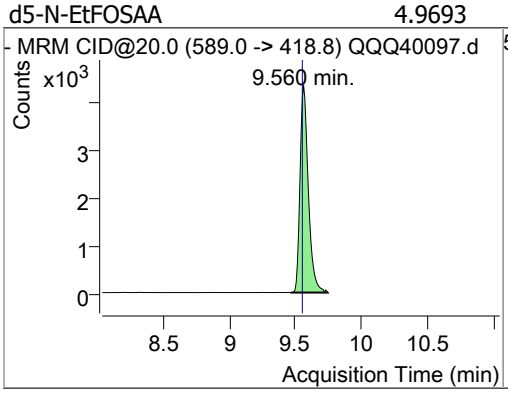
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	1.2725	9.32	0.01	4593 (m)	570.0 -> 511.9	68.7	49.6	74.4

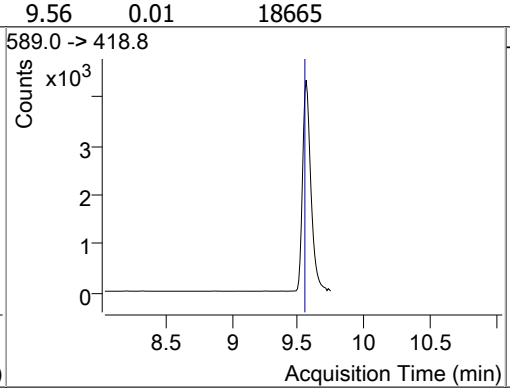


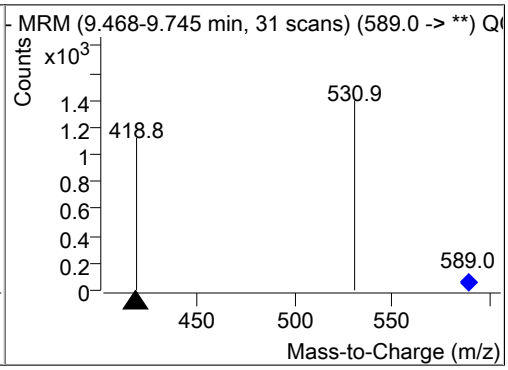




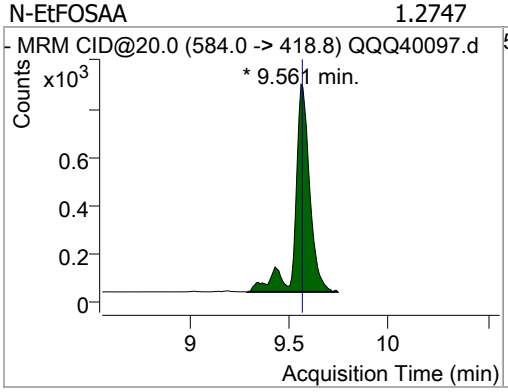
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.9693	9.56	0.01	18665				

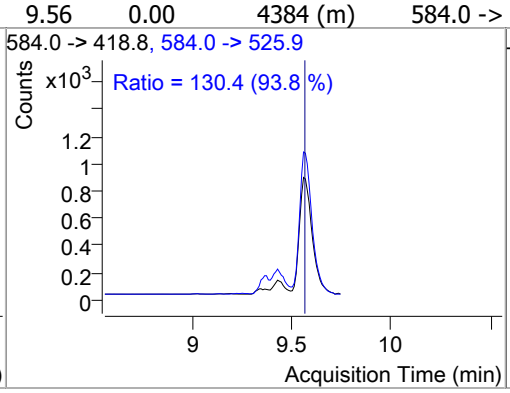


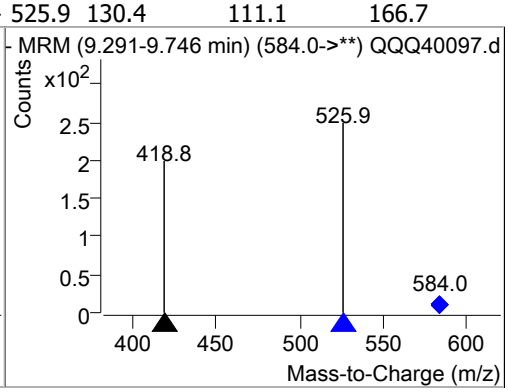




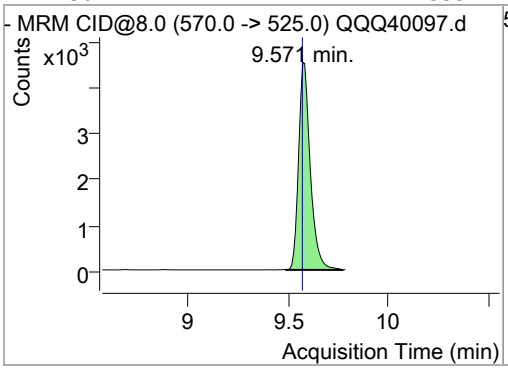
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	1.2747	9.56	0.00	4384 (m)	584.0 -> 525.9	130.4	111.1	166.7

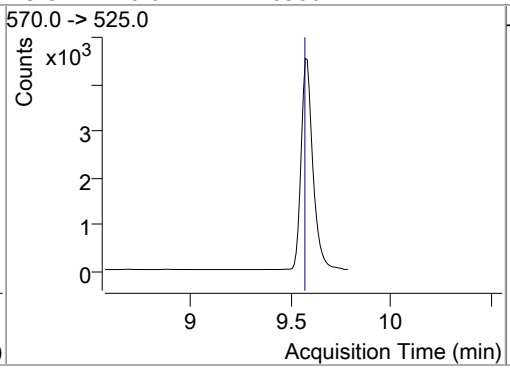


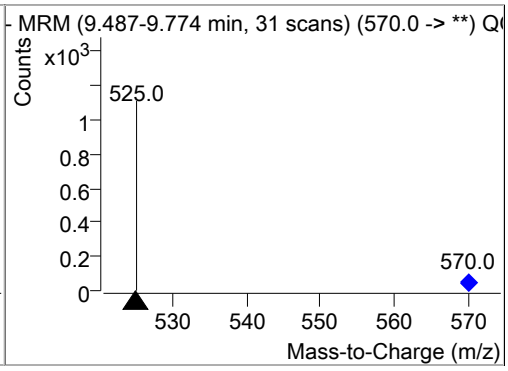




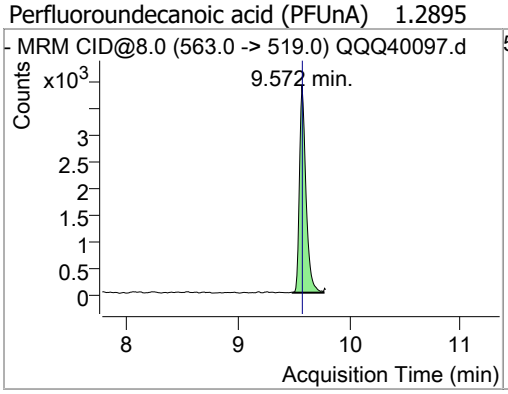
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2533	9.57	0.01	18368				

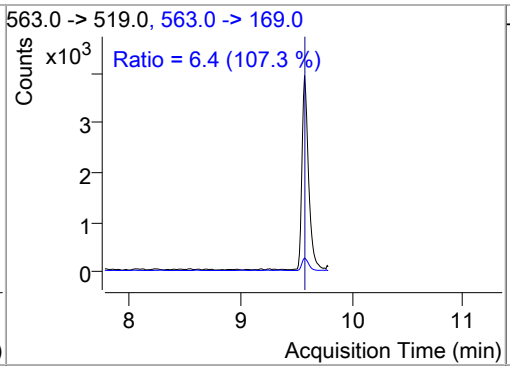


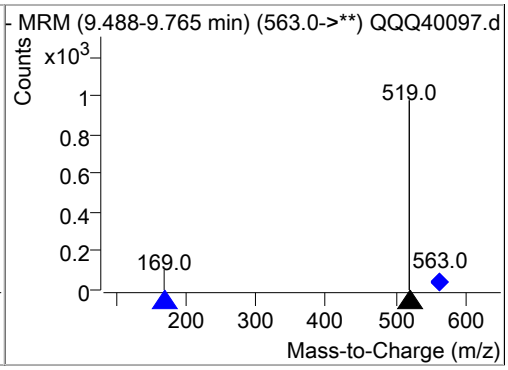




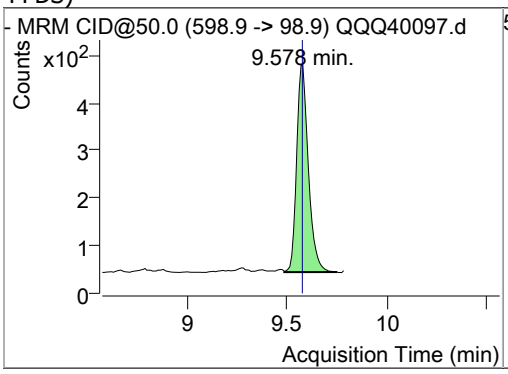
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	1.2895	9.57	0.01	15840	563.0 -> 169.0	6.4	4.8	7.2

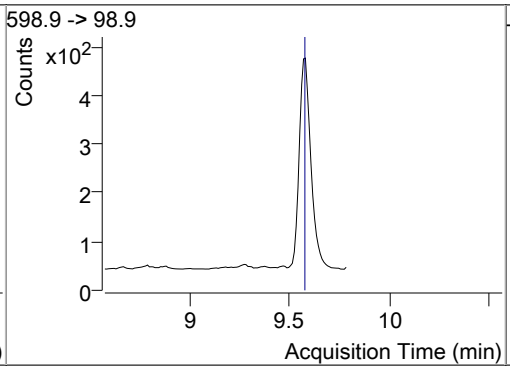


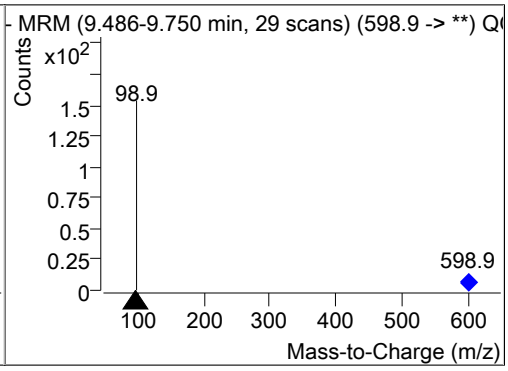




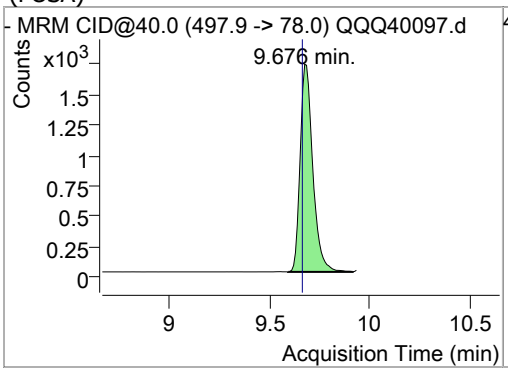
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	1.2409	9.58	0.01	1788				

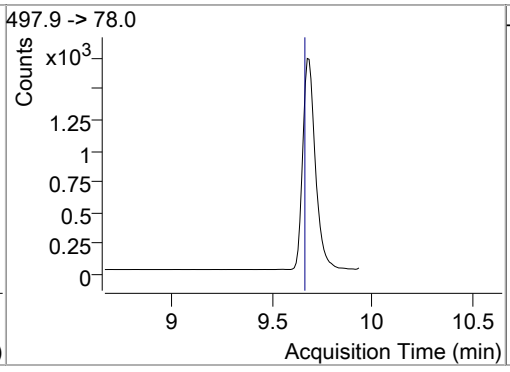


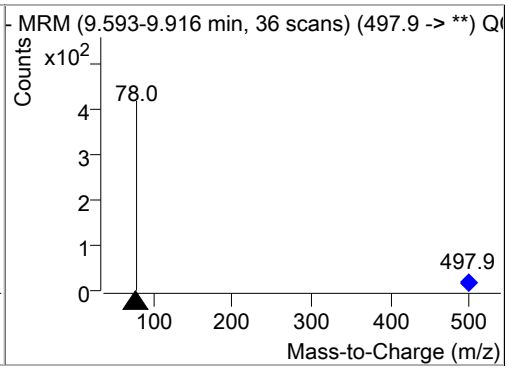




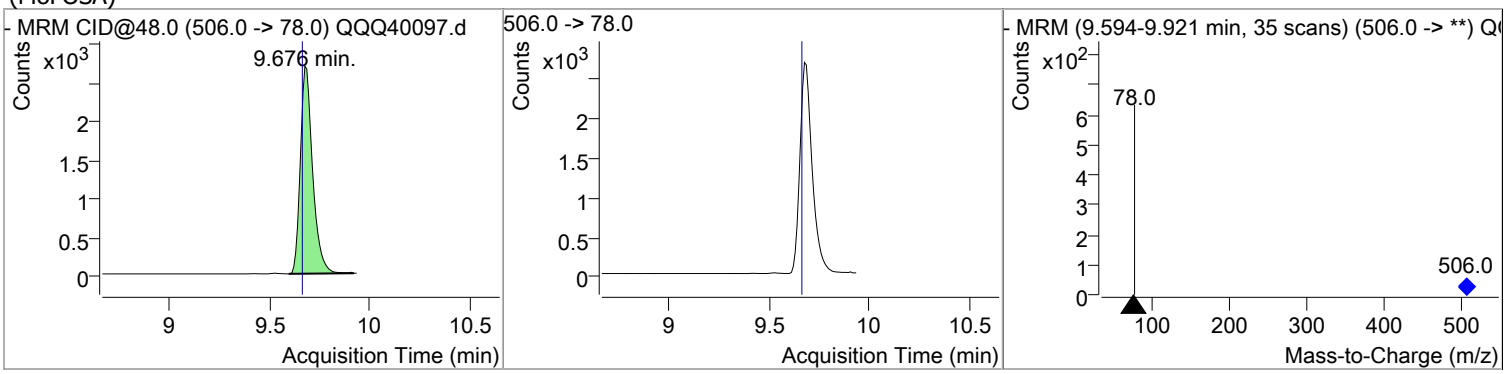
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	1.1920	9.68	0.02	7528				



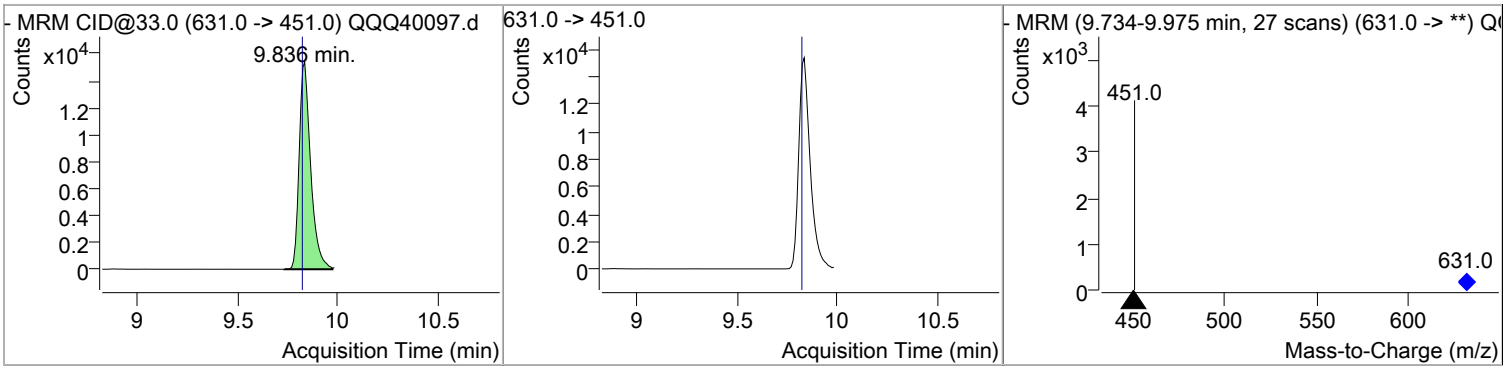




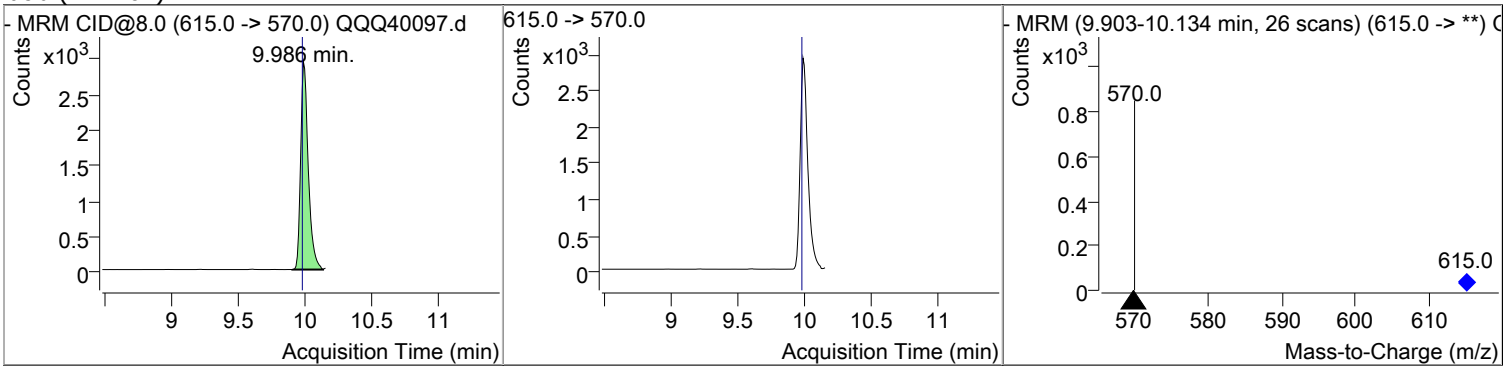
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5338	9.68	0.01	11400				



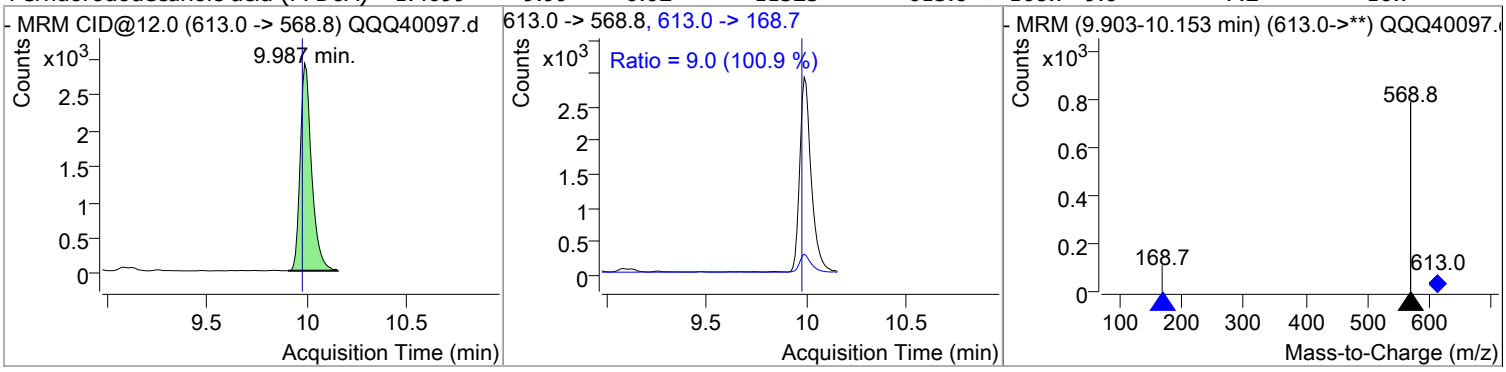
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	4.6884	9.84	0.02	61163				



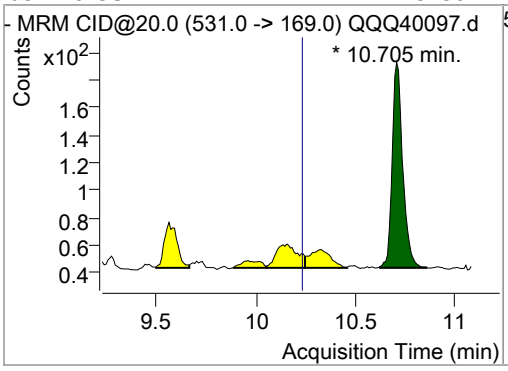
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	0.9598	9.99	0.02	11629				

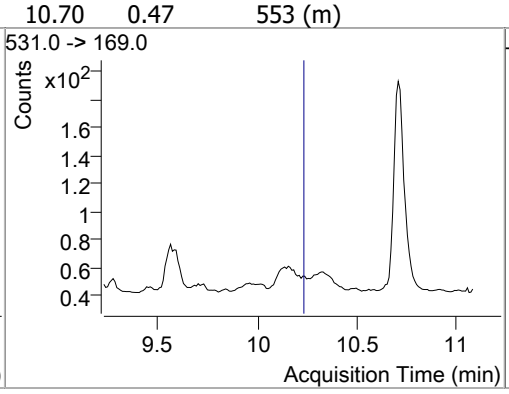


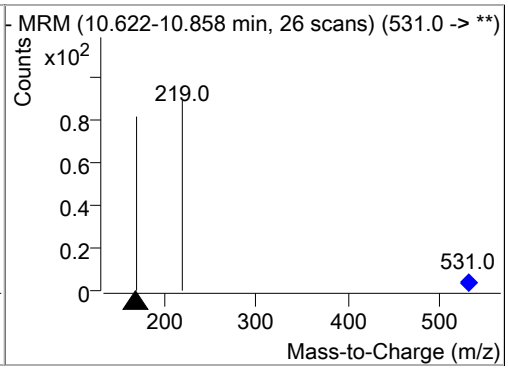
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	1.4699	9.99	0.02	11525	613.0 -> 168.7	9.0	7.2	10.7



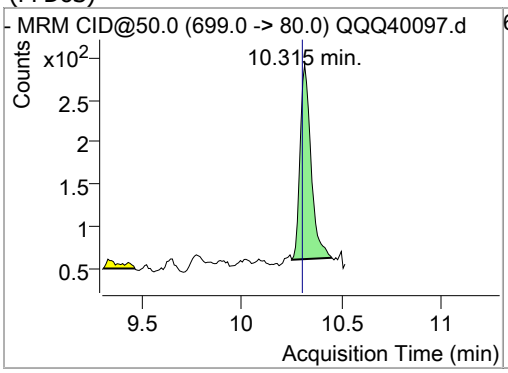
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.3750	10.70	0.47	553 (m)				

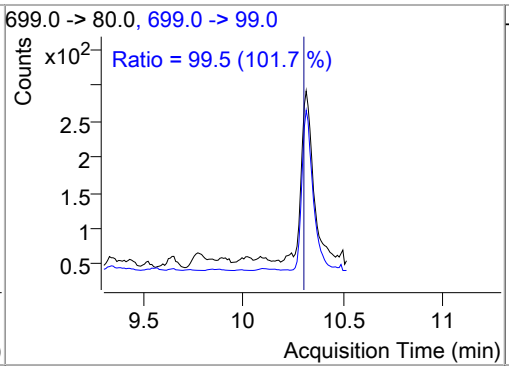


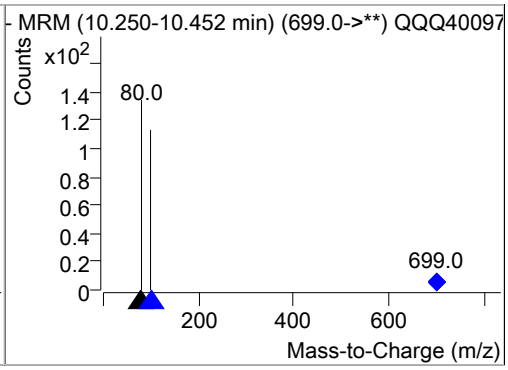




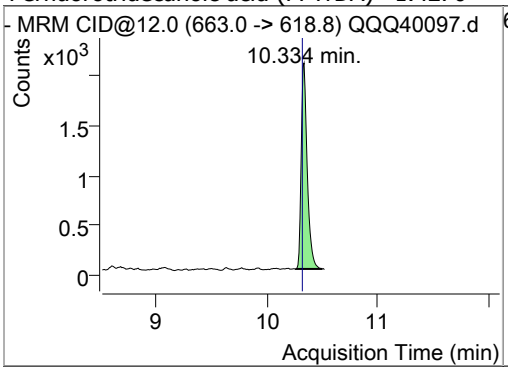
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	1.1084	10.31	0.02	885	699.0 -> 99.0	99.5	78.3	117.4

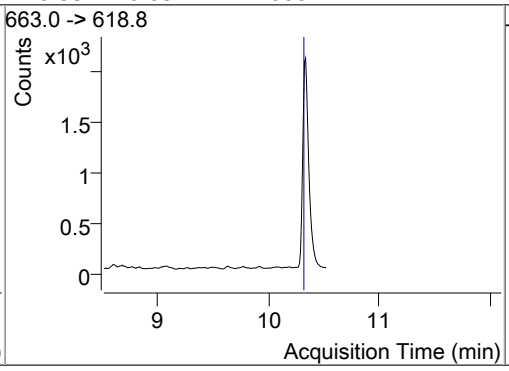


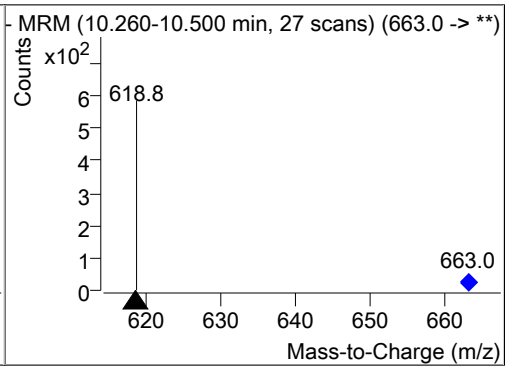




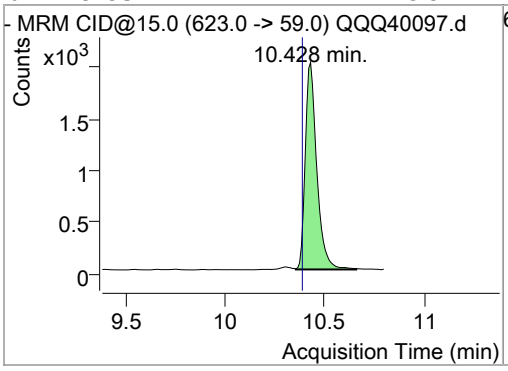
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	1.4270	10.33	0.03	7800				

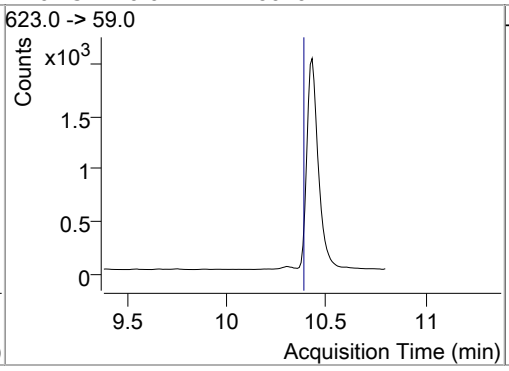


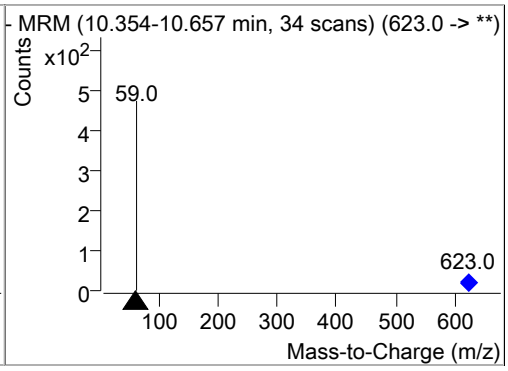




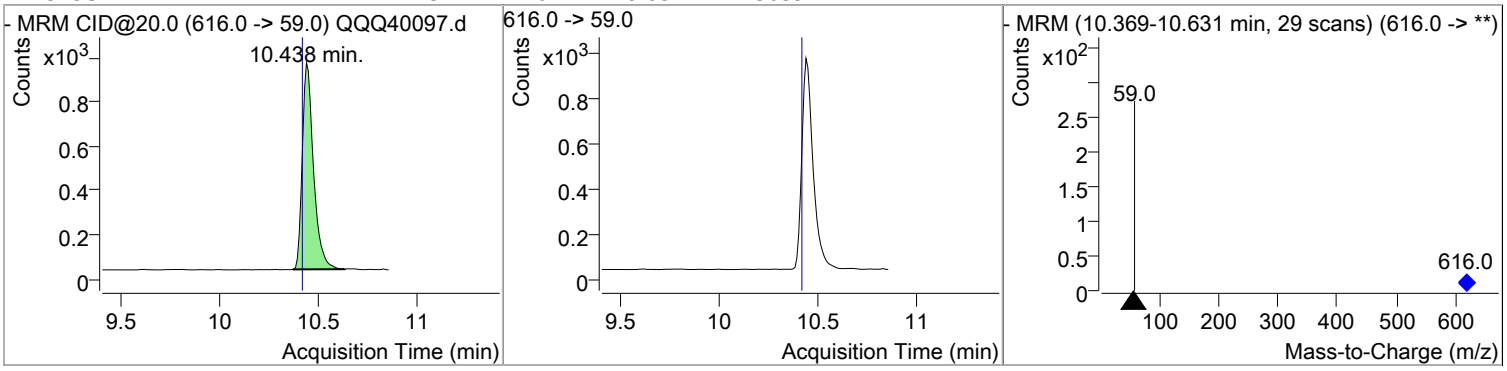
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	23.3127	10.43	0.04	8070				



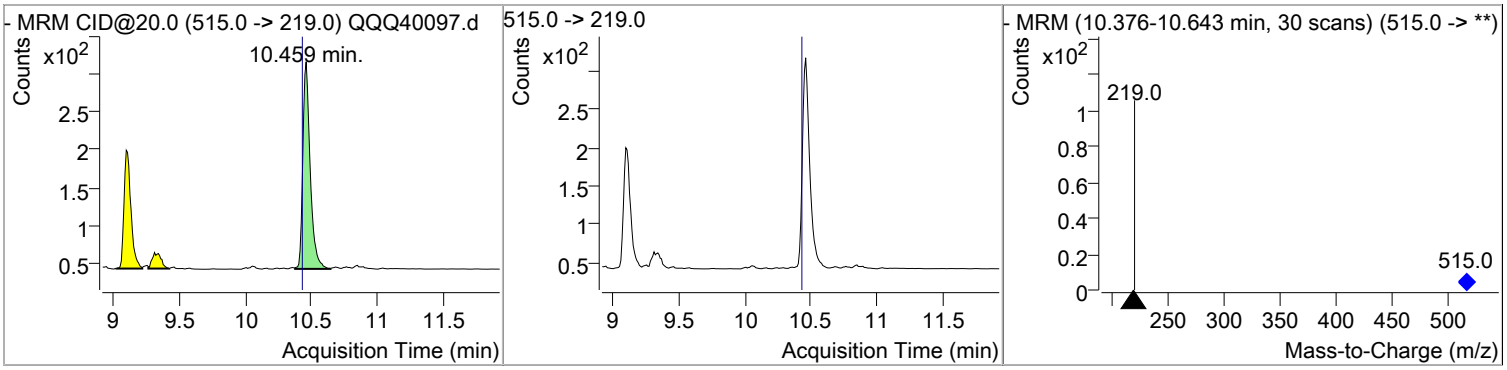




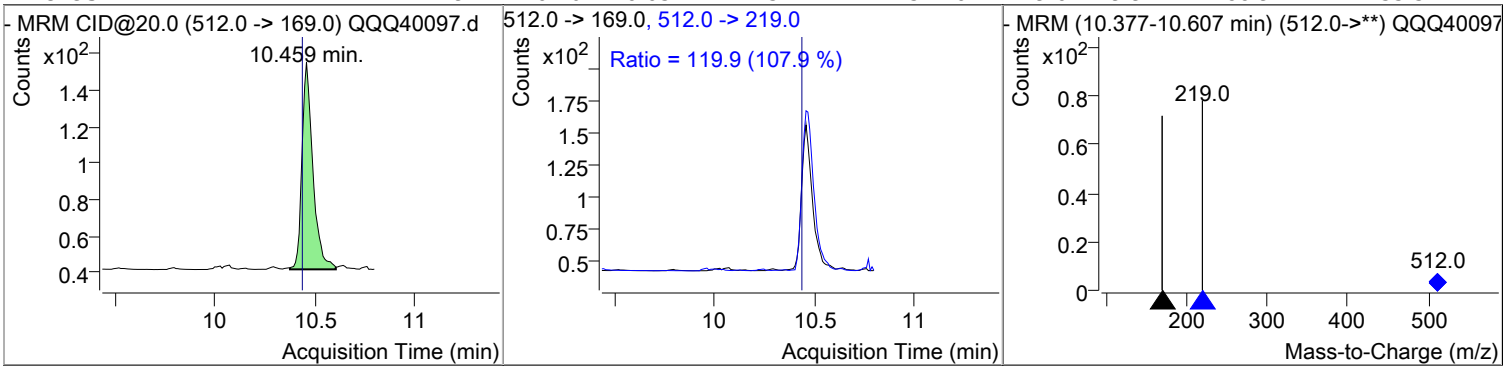
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	12.5142	10.44	0.03	3659				



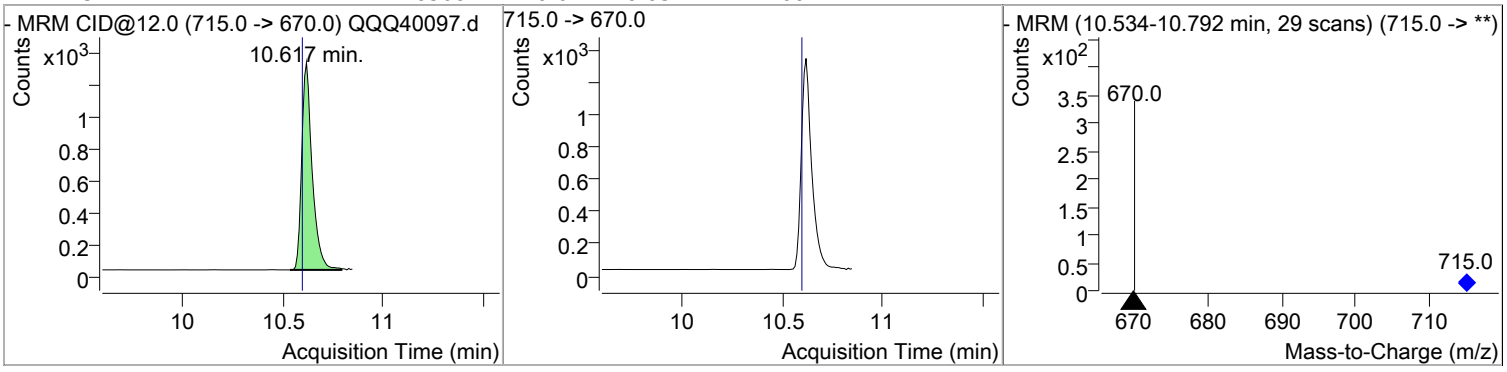
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.2809	10.46	0.03	1062				



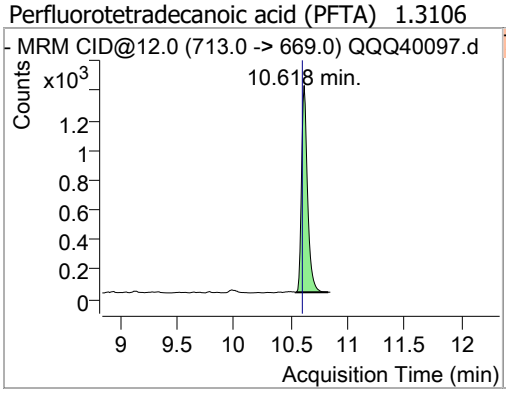
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	1.2249	10.46	0.03	434	512.0 -> 219.0	119.9	88.9	133.3

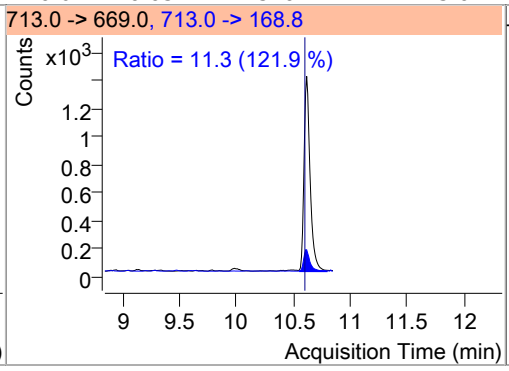


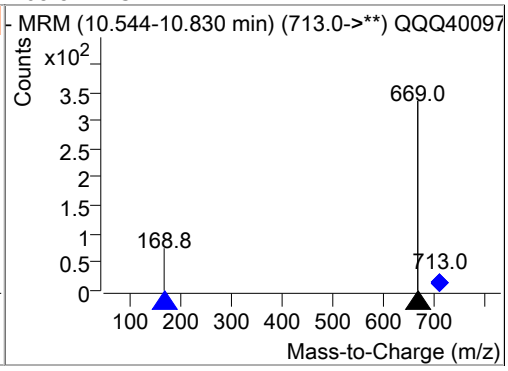
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.0568	10.62	0.03	4760				



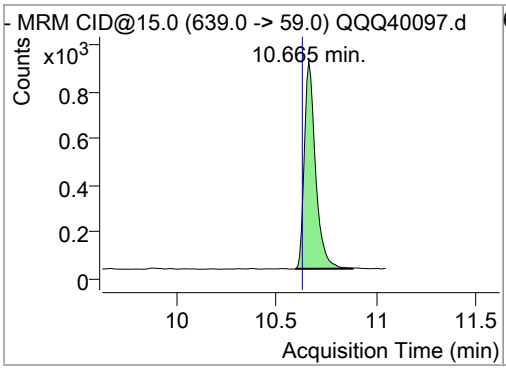
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	1.3106	10.62	0.03	5107	713.0 -> 168.8	11.3	7.4	11.1

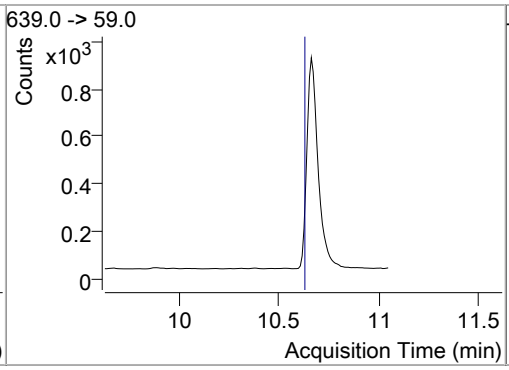


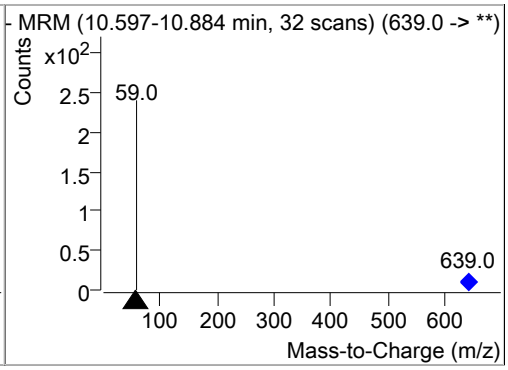




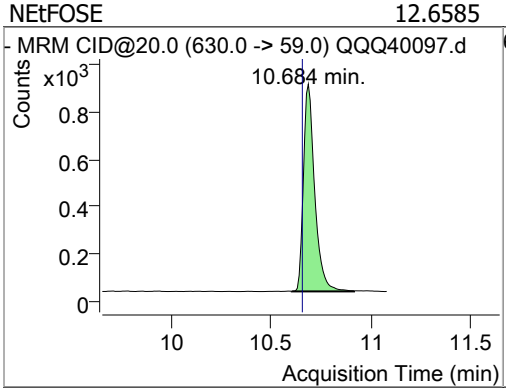
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	25.0018	10.66	0.03	3477				

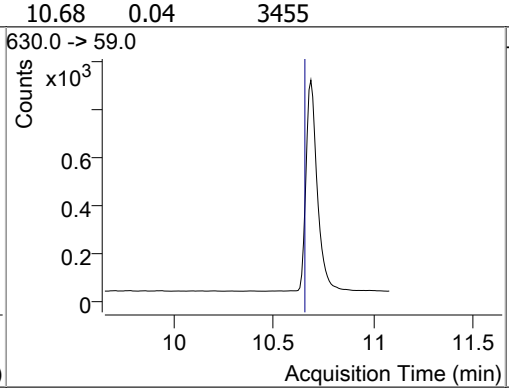


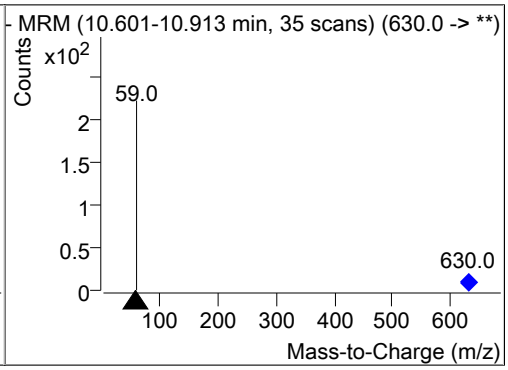




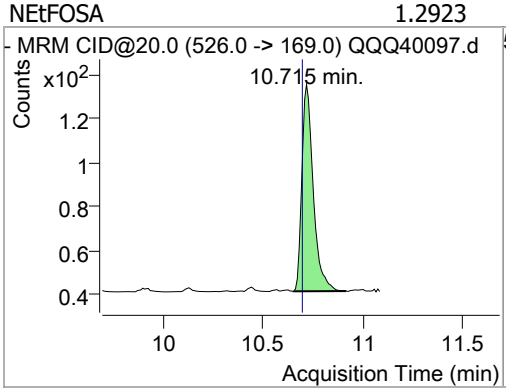
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	12.6585	10.68	0.04	3455				

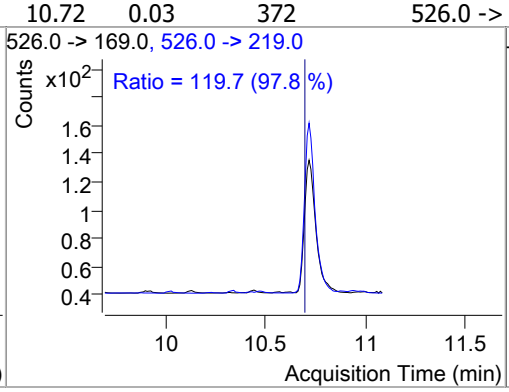


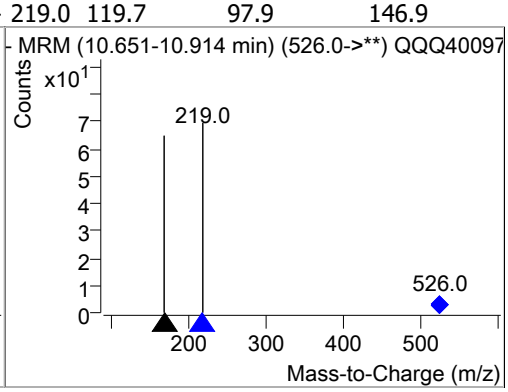




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	1.2923	10.72	0.03	372	526.0 -> 219.0	119.7	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 3:46:56 AM	**Data File**	QQQ40097.d
Sample Type	Cal	**Sampe Name**	SEQ-CAL3
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.283	49068	7462	0.466			1.60			3088.50
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.278	109127	16606	0.465			1.74			∞
PFMPA	2.245	12301	1482	0.552			1.52			96.75
3:3FTCA	4.461	1569	233	0.304			1.55			401.89
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.756	100050	15695	0.445			1.81			9541.83
Perfluoro-n-pentanoic acid (PFPeA)	4.756	49931	7748	0.435			1.96			390.99
PFMBA	5.504	20235	4227	0.370			1.84			∞
M3PFBS	5.529	16448	3724	0.293			1.83			14624.52
Perfluorobutanesulfonic acid (PFBS)	5.530	8344	1918	0.251			1.77			2724.91
PFEESA	6.066	57661	14086	0.325			1.61			2177.15
NFDHA	6.216	860	213	0.251			1.80			1128.28
M2-4-2FTS	6.288	24266	5773	0.288			1.95			21167.72
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	29008	6867	0.316			1.41			253489.60
M5PFHxA	6.372	51978	12348	0.335			1.53			∞
Perfluorohexanoic acid (PFHxA)	6.373	30801	7417	0.287			1.49			992.95
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.593	7694	1896	0.223			1.66			151.70
M3-HFPO-DA	6.689	38217	9344	0.312			1.43			2012.01
HFPO-DA	6.689	1534	377	0.258			1.46			84.42
M4PFHpA	7.262	14315	3312	0.325			1.70			1020.41
Perfluoroheptanoic acid (PFHpA)	7.263	15552	3627	0.339			1.74			89.55
5-3FTCA	7.328	80314	18421	0.334			1.48			151.47
M3PFHxS	7.382	11737	2730	0.289			1.49			17911.13
Perfluorohexanesulfonic acid (PFHxS)	7.374	7501	1429	0.474			1.89			386.29

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.411	38653	9183	0.326			1.48			3826.92
M2-6-2FTS	7.921	21859	5274	0.316			1.84			53188.47
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	28605	6613	0.316			1.92			38586.49
Perfluorooctanoic acid (PFOA)	7.988	17580	4140	0.265			1.60			26.63
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	30282	6963	0.307			1.70			∞
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	5868	1429	0.271			1.61			154.69
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	5391	1303	0.260			1.47			9896.22
Perfluorononanoic acid (PFNA)	8.591	16389	4068	0.291			1.51			36.07
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.616	4711	1156	0.305			1.89			1159.23
Perfluorooctanesulfonic acid (PFOS)	8.617	5693	1018	0.502			1.78			75.38
7-3FTCA	8.730	149533	35041	0.316			1.72			∞
9-Cl-PF3ONS	8.940	96996	24388	0.279			1.67			∞
M2-8-2FTS	9.071	34757	8452	0.288			1.50			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	8377	1978	0.269			1.52			∞
M6PFDA	9.109	17139	4227	0.305			1.46			20599.70
Perfluorodecanoic acid (PFDA)	9.110	17730	4223	0.277			1.38			1244.18
Perfluorononanesulfonate (L-PFNS)	9.116	3925	991	0.243			1.77			213.95
d3-N-MeFOSAA	9.311	21167	4949	0.270			1.83			∞
N-MeFOSAA	9.320	4593	920	0.390			1.48			∞
d5-N-EtFOSAA	9.560	18665	4301	0.278			1.57			∞
N-EtFOSAA	9.561	4384	859	0.455			2.02			∞
M7PFUdA	9.571	18368	4515	0.287			1.74			15509.31
Perfluoroundecanoic acid (PFUnA)	9.572	15840	3882	0.277			1.77			274.71
Perfluoro-1-decanesulfonate (L-PFDS)	9.578	1788	438	0.265			1.24			44.78
Perfluoro-1-octanesulfonamide (FOSA)	9.676	7528	1708	0.323			1.80			57.11
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	11400	2670	0.327			1.77			∞
11-Cl-PF3OUdS	9.836	61163	15369	0.241			1.47			111079.81
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.986	11629	2916	0.231			1.85			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.987	11525	2903	0.250			1.71			3373.56
d5-NEtFOSA	10.705	553	149	0.236			1.56			71.87
Perfluorododecanesulfonic acid (PFDoS)	10.315	885	231	0.202			1.67			11.95
Perfluorotridecanoic acid (PFTrDA)	10.334	7800	2067	0.239			1.57			202.06
d7-NMeFOSE	10.428	8070	2006	0.303			1.53			126.60
NMeFOSE	10.438	3659	935	0.262			1.86			∞
d3-NMeFOSA	10.459	1062	275	0.267			1.63			∞
NMeFOSA	10.459	434	114	0.230			1.72			∞
M2PFTeDA	10.617	4760	1306	0.258			1.58			19852.83
Perfluorotetradecanoic acid (PFTA)	10.618	5107	1389	0.286			1.58			267.28
d9-NEtFOSE	10.665	3477	888	0.287			1.80			607.57
NEtFOSE	10.684	3455	879	0.312			1.64			440.59
NEtFOSA	10.715	372	94	0.263			1.73			302.20

Data File	QQQ40098.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 4:03:00 AM
Sample Name	SEQ-CAL4	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	2.5 - 62.5 ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
Ref Library			

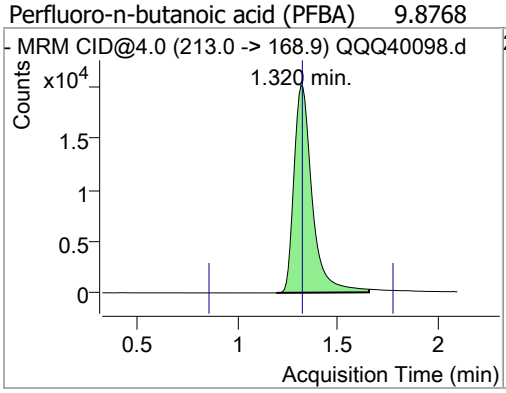
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.324	217.0 -> 172.0	142906	10.0000	ng/ml		0.000
M3PFBA	1.317	216.0 -> 172.0	28620	5.0000	ng/ml		0.000
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.783	268.0 -> 223.0	127872	5.0000	ng/ml		0.000
MPFHxA	6.382	315.0 -> 269.8	42906	2.5000	ng/ml		0.000
MPFHxS	7.382	403.0 -> 103.0	4918	2.3700	ng/ml		0.000
M3PFBS-EIS	5.539	302.0 -> 79.9	21714	2.3300	ng/ml		0.000
M5PFHxA-EIS	6.381	318.0 -> 273.0	69362	2.5000	ng/ml		0.000
M2-4-2FTS-EIS	6.306	329.0 -> 309.0	31321	4.6900	ng/ml		0.000
M3PFHxS-EIS	7.382	402.0 -> 80.0	15592	2.3700	ng/ml		0.000
M3-HFPO-DA-EIS	6.698	287.0 -> 169.0	49876	10.0000	ng/ml		0.000
M4PFHpA-EIS	7.272	367.0 -> 322.0	17395	2.5000	ng/ml		0.000
M2-6-2FTS-EIS	7.921	429.0 -> 409.0	29372	4.7550	ng/ml		0.000
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.997	421.0 -> 376.0	36969	2.5000	ng/ml		0.000
MPFOA	7.987	417.0 -> 372.0	52897	2.5000	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.625	507.0 -> 98.9	6142	2.3950	ng/ml		0.000
MPFNA	8.590	468.0 -> 423.0	23352	1.2500	ng/ml		0.000
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.590	472.0 -> 223.0	6496	1.2500	ng/ml		0.000
MPFOS	8.626	503.0 -> 80.0	13078	2.3950	ng/ml		0.000
M2-8-2FTS-EIS	9.062	529.0 -> 509.0	45049	4.8000	ng/ml		0.000
MPFDA	9.110	515.0 -> 469.8	12826	1.2500	ng/ml		0.000
M6PFDA-EIS	9.100	519.0 -> 473.9	21116	1.2500	ng/ml		0.000
d3-N-MeFOSAA-EIS	9.311	573.0 -> 418.8	27520	5.0000	ng/ml		0.000
d5-N-EtFOSAA-EIS	9.551	589.0 -> 418.8	24099	5.0000	ng/ml		0.000
M7PFUdA-EIS	9.562	570.0 -> 525.0	21144	1.2500	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.666	506.0 -> 78.0	13998	2.5000	ng/ml		0.000
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.968	615.0 -> 570.0	17822	1.2500	ng/ml		0.000
M2PFTeDA-EIS	10.589	715.0 -> 670.0	6703	1.2500	ng/ml		0.000
d7-NMeFOSE-EIS	10.391	623.0 -> 59.0	10652	25.0000	ng/ml		0.000
d3-NMeFOSA-EIS	10.431	515.0 -> 219.0	1393	2.5000	ng/ml		0.000
d9-NEtFOSE-EIS	10.637	639.0 -> 59.0	4418	25.0000	ng/ml		0.000
d5-NEtFOSA-EIS	10.668	531.0 -> 169.0	729	2.5000	ng/ml	m	0.000
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	217.0 -> 172.0	142906	9.8610	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	268.0 -> 223.0	127872	4.9737	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.539	302.0 -> 79.9	21714	2.4839	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.306	329.0 -> 309.0	31571	4.4563	ng/ml		0.000

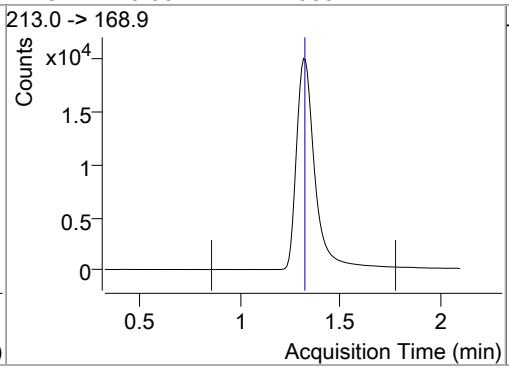
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.381	318.0 -> 273.0	69362	2.5159	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.698	287.0 -> 169.0	49876	10.6439	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.272	367.0 -> 322.0	17395	2.4299	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.382	402.0 -> 80.0	15592	2.5888	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.921	429.0 -> 409.0	29372	4.6422	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.997	421.0 -> 376.0	36971	2.4301	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	472.0 -> 223.0	6494	1.2752	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	507.0 -> 98.9	6127	2.3573	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.062	529.0 -> 509.0	45056	4.5633	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.100	519.0 -> 473.9	21116	1.3681	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.311	573.0 -> 418.8	27520	4.8648	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.551	589.0 -> 418.8	24099	5.0738	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.562	570.0 -> 525.0	21144	1.2372	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	506.0 -> 78.0	13998	2.4603	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.968	615.0 -> 570.0	17821	1.2612	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.668	531.0 -> 169.0	729	2.4769	ng/ml	m	0.432
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.391	623.0 -> 59.0	10652	24.3332	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.431	515.0 -> 219.0	1393	2.3659	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.589	715.0 -> 670.0	6703	1.2762	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.637	639.0 -> 59.0	4418	25.1210	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.320	213.0 -> 168.9	127008	9.8768	ng/ml		100
PFMPA	2.300	229.0 -> 85.0	31653	4.7869	ng/ml		100
3:3FTCA	4.488	241.0 -> 177.0	4337	12.2172	ng/ml		100
Perfluoro-n-pentanoic acid (PFPeA)	4.784	263.0 -> 219.0	127518	5.0448	ng/ml		100
PFMBA	5.514	279.0 -> 85.0	52032	4.8679	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.539	298.9 -> 79.9	21010	2.1822	ng/ml		100
PFEESA	6.075	315.0 -> 135.0	150899	4.1452	ng/ml		100
NFDHA	6.225	295.0 -> 201.1	1967	4.3301	ng/ml		100
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.307	327.0 -> 307.0	72617	10.0659	ng/ml		100

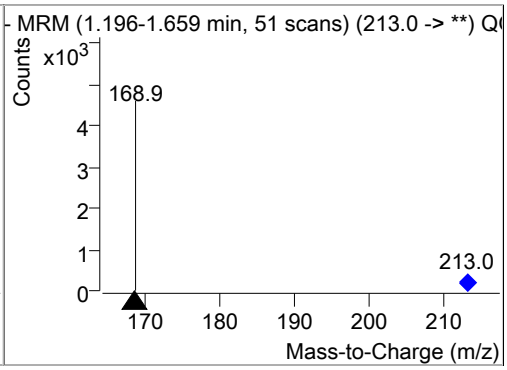
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.383	313.0 -> 268.9	79014	2.3434	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.602	348.9 -> 79.9	18586	2.3305	ng/ml		100
HFPO-DA	6.699	285.0 -> 169.1	4214	8.8888	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.272	363.0 -> 318.8	42483	2.4457	ng/ml		100
5-3FTCA	7.328	341.0 -> 217.0	219513	59.0394	ng/ml		100
Perfluorohexanesulfonic acid (PFHxS)	7.383	398.9 -> 79.9	18383	2.3415	ng/ml	m	100
ADONA	7.411	377.0 -> 85.0	99514	8.4793	ng/ml		100
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	427.0 -> 407.0	71123	9.7852	ng/ml		100
Perfluorooctanoic acid (PFOA)	7.988	413.0 -> 368.8	45875	2.5113	ng/ml		100
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	448.9 -> 80.0	14859	2.2086	ng/ml		100
Perfluorononanoic acid (PFNA)	8.591	463.0 -> 418.8	42586	2.3539	ng/ml		100
Perfluorooctanesulfonic acid (PFOS)	8.626	498.9 -> 79.9	14214	2.3021	ng/ml	m	100
7-3FTCA	8.730	441.0 -> 337.0	396676	63.0380	ng/ml		100
9-Cl-PF3ONS	8.940	531.0 -> 351.0	250911	8.8205	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	527.0 -> 80.9	21164	9.7206	ng/ml		100
Perfluorodecanoic acid (PFDA)	9.101	513.0 -> 468.8	43439	2.3201	ng/ml		100
Perfluorononanesulfonate (L-PFNS)	9.116	548.9 -> 79.9	10247	2.5795	ng/ml		100
N-MeFOSAA	9.311	570.0 -> 418.9	11996	2.5564	ng/ml	m	100
N-EtFOSAA	9.561	584.0 -> 418.8	10560	2.3760	ng/ml	m	100
Perfluoroundecanoic acid (PFUnA)	9.562	563.0 -> 519.0	40272	2.8353	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.569	598.9 -> 98.9	4499	2.3974	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.657	497.9 -> 78.0	18900	2.4395	ng/ml		100
11-Cl-PF3OUdS	9.818	631.0 -> 451.0	157013	9.2101	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.968	613.0 -> 568.8	29287	2.4373	ng/ml		100
Perfluorododecanesulfonic acid (PFDoS)	10.296	699.0 -> 80.0	2362	2.3564	ng/ml		100
Perfluorotridecanoic acid (PFTrDA)	10.307	663.0 -> 618.8	19210	2.4986	ng/ml		100
NMeFOSE	10.410	616.0 -> 59.0	8664	22.4940	ng/ml		100
NMeFOSA	10.432	512.0 -> 169.0	1145	2.4720	ng/ml		100
Perfluorotetradecanoic acid (PFTA)	10.590	713.0 -> 669.0	13787	2.5151	ng/ml		100
NEtFOSE	10.647	630.0 -> 59.0	8713	25.2108	ng/ml		100
NEtFOSA	10.688	526.0 -> 169.0	934	2.4616	ng/ml		100

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

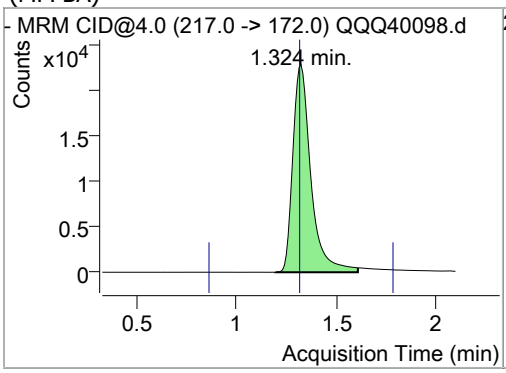
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	9.8768	1.32	0.00	127008				

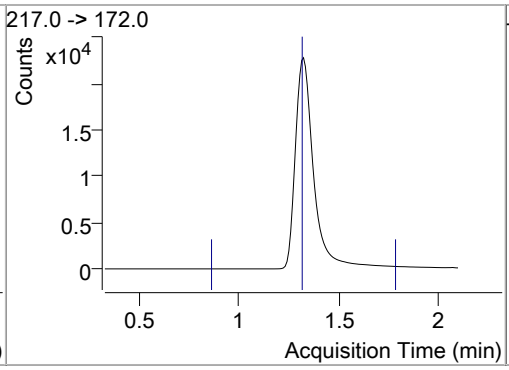


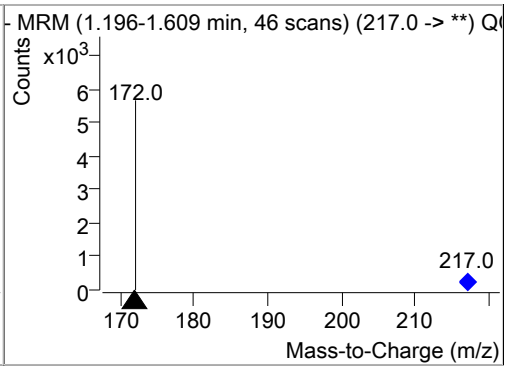




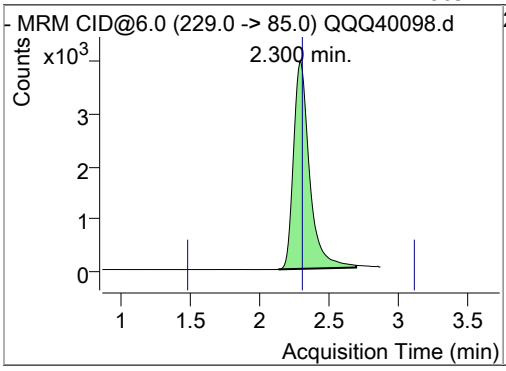
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	9.8610	1.32	0.00	142906				

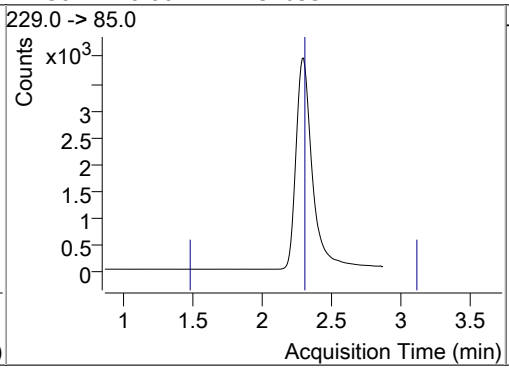


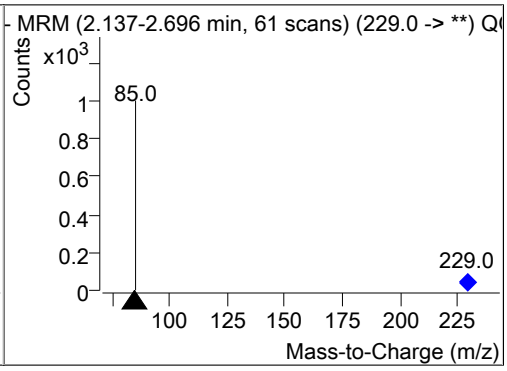




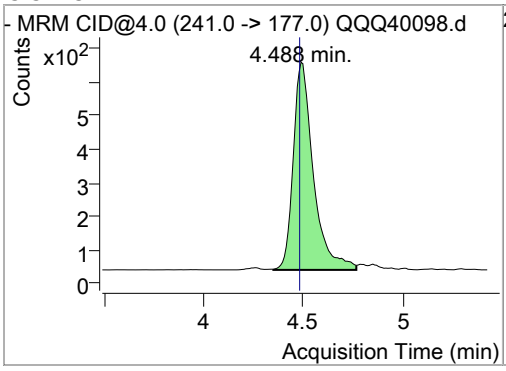
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	4.7869	2.30	0.00	31653				

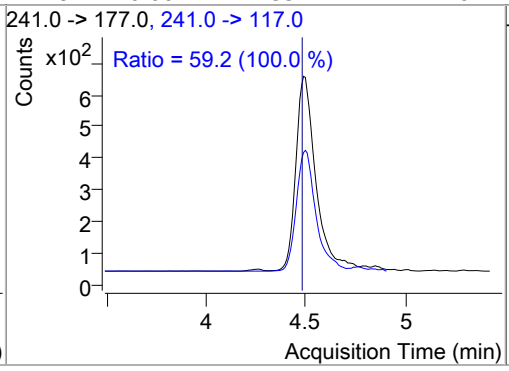


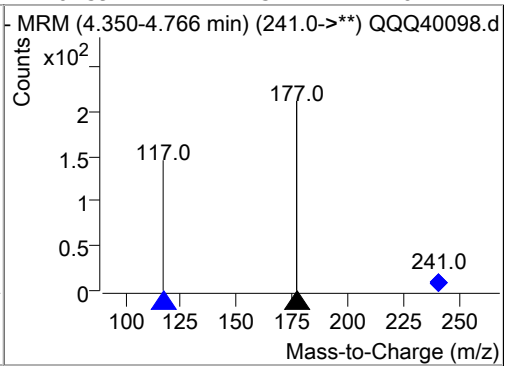




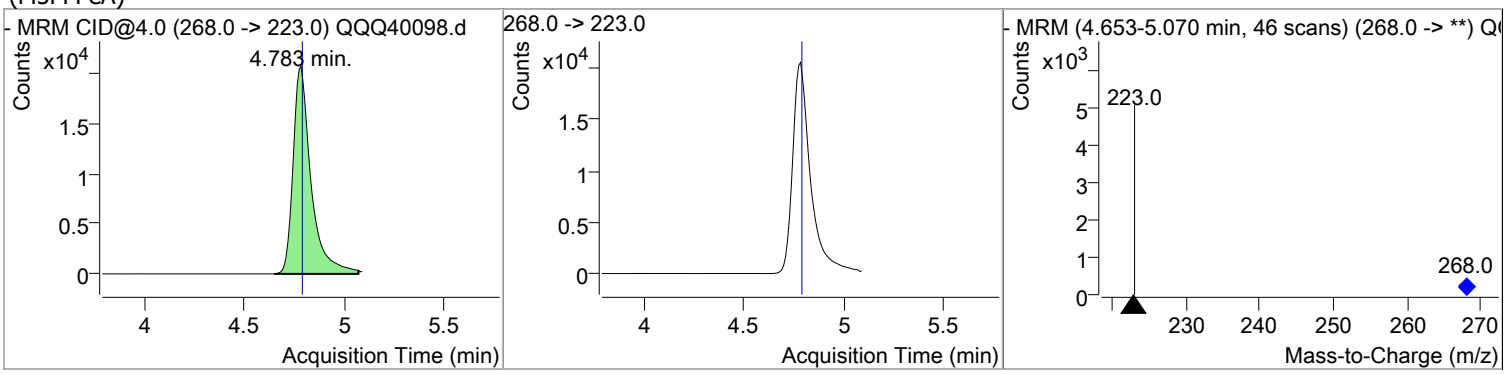
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	12.2172	4.49	0.00	4337	241.0 -> 117.0	59.2	47.3	71.0



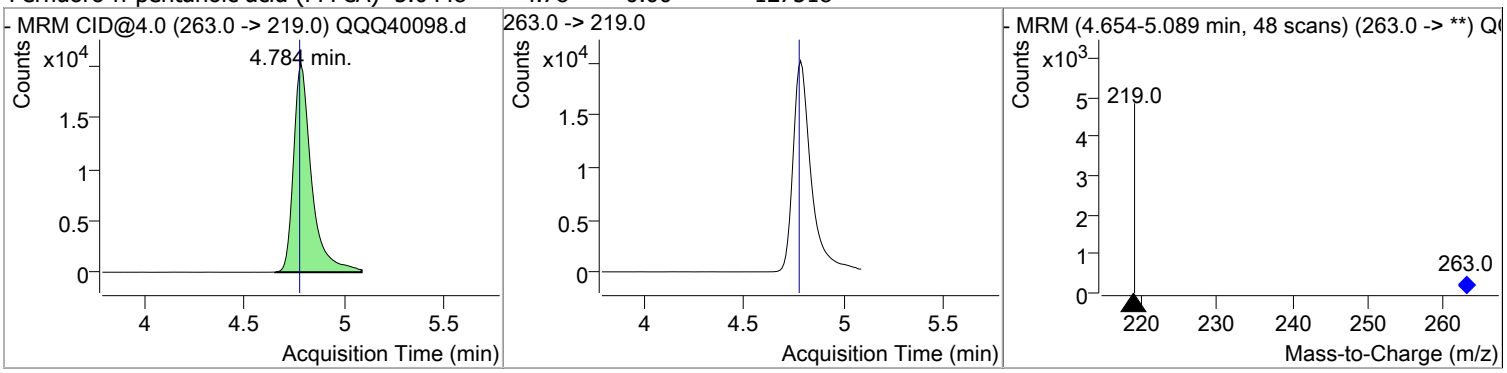




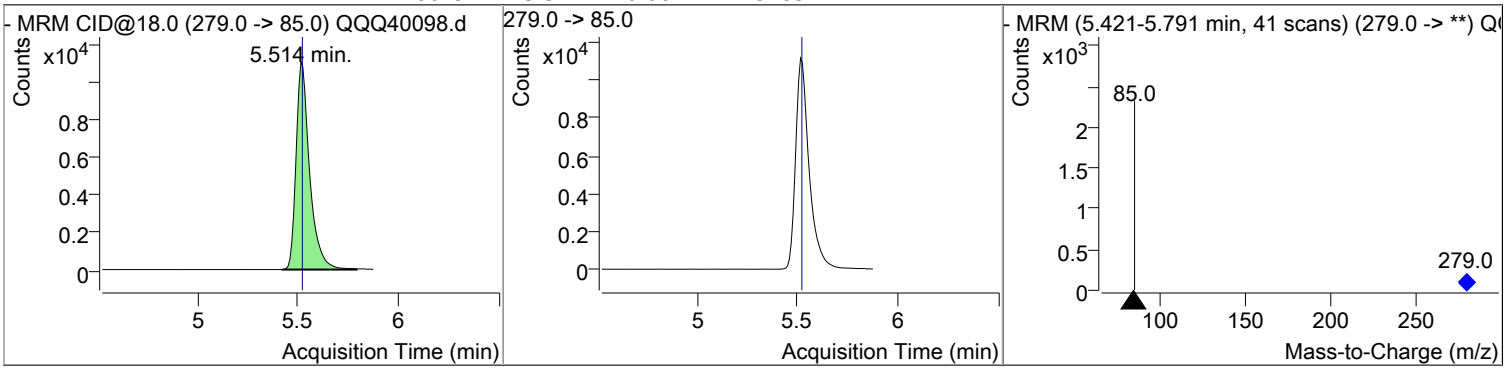
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.9737	4.78	0.00	127872				



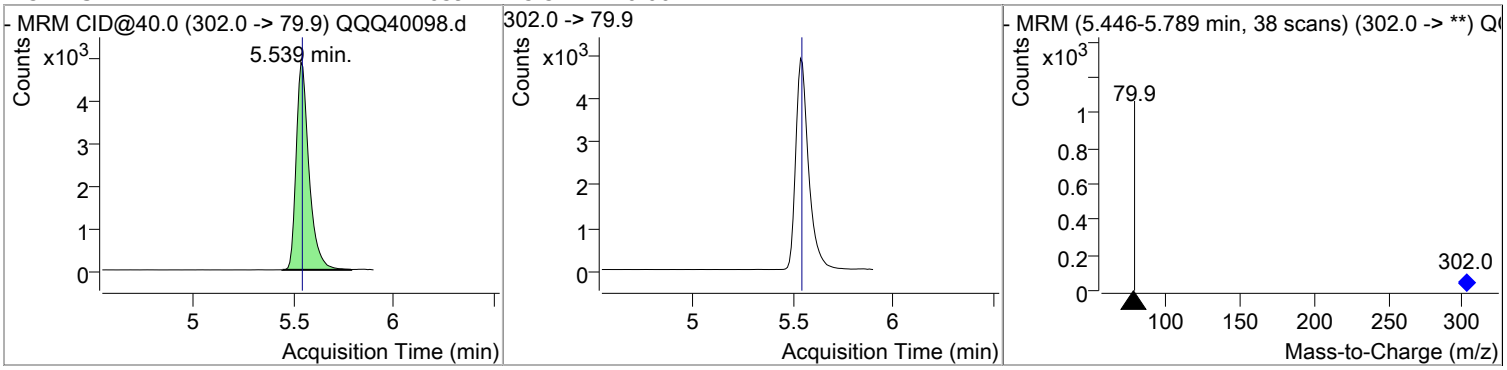
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	5.0448	4.78	0.00	127518				



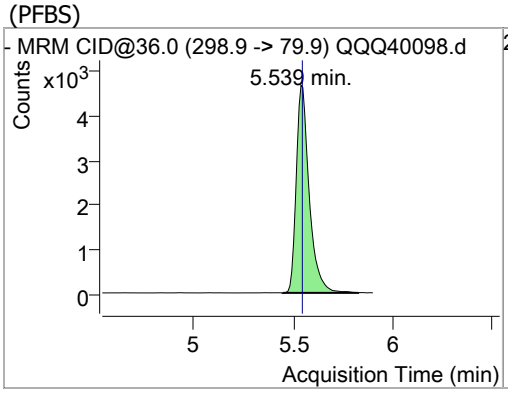
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	4.8679	5.51	0.00	52032				

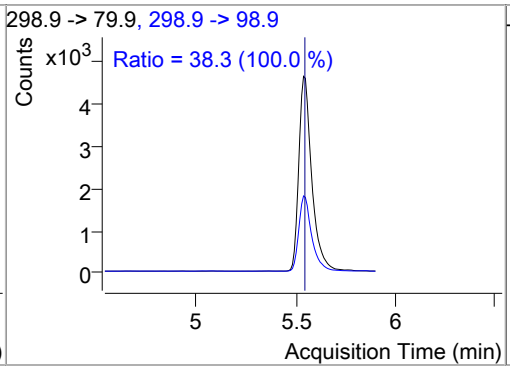


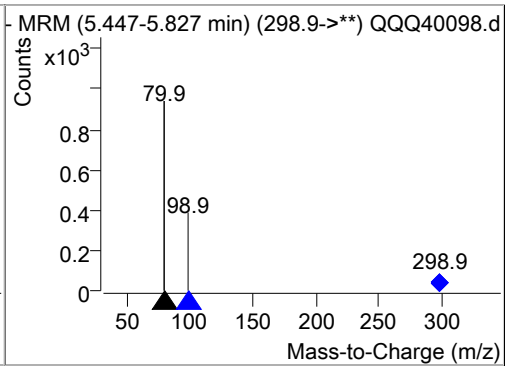
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.4839	5.54	0.00	21714				



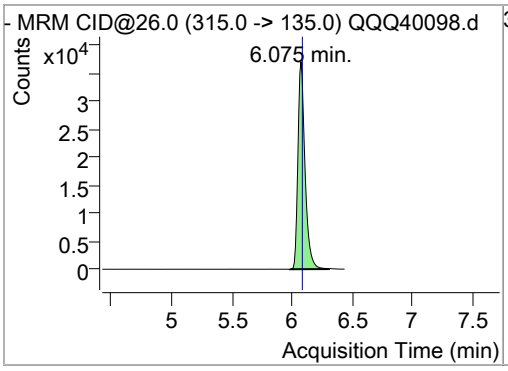
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.1822	5.54	0.00	21010	298.9 -> 98.9	38.3	30.7	46.0

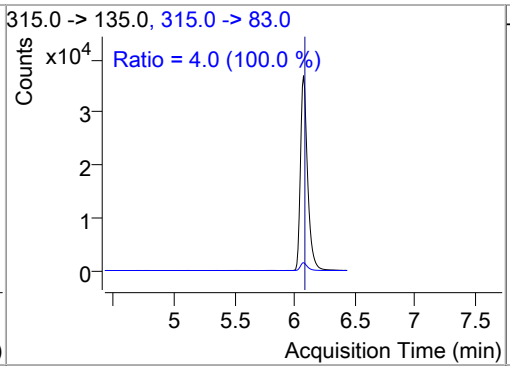


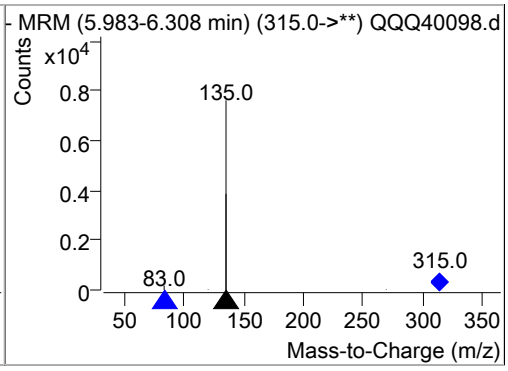




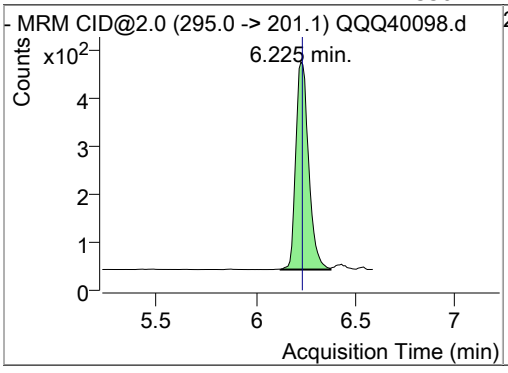
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	4.1452	6.08	0.00	150899	315.0 -> 83.0	4.0	3.2	4.8

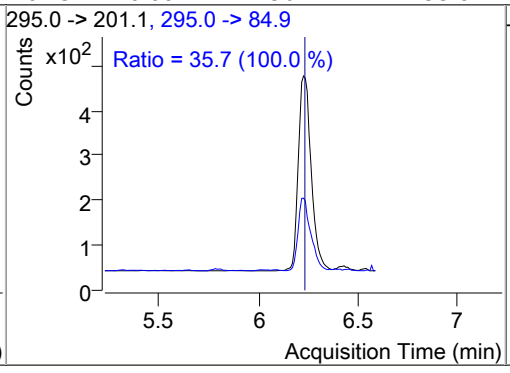


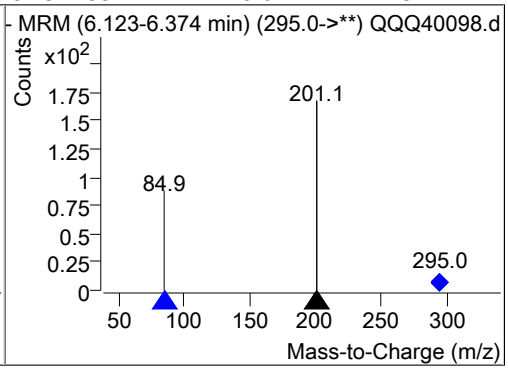




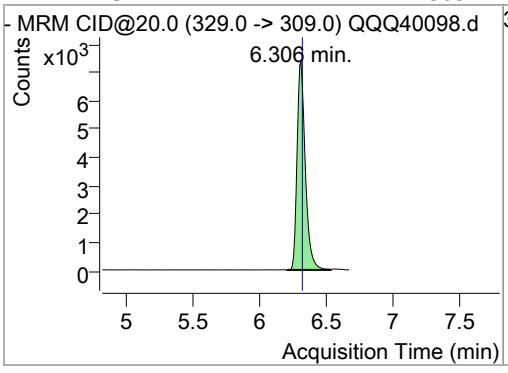
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	4.3301	6.23	0.00	1967	295.0 -> 84.9	35.7	28.6	42.9

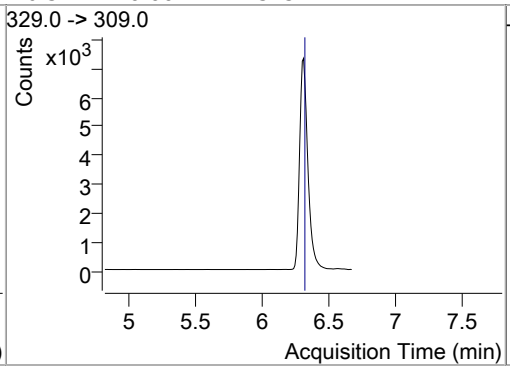


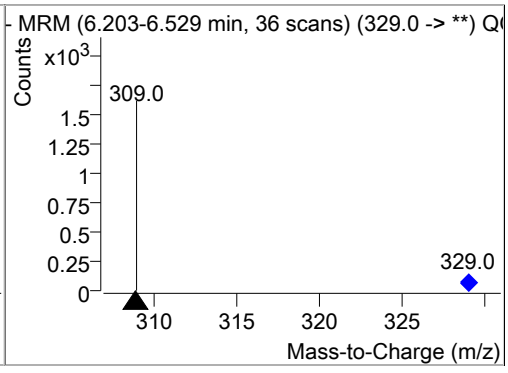




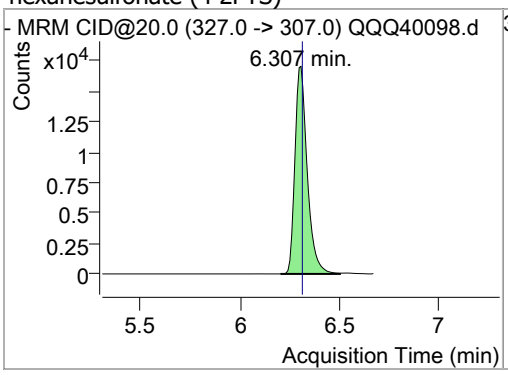
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.4563	6.31	0.00	31571				

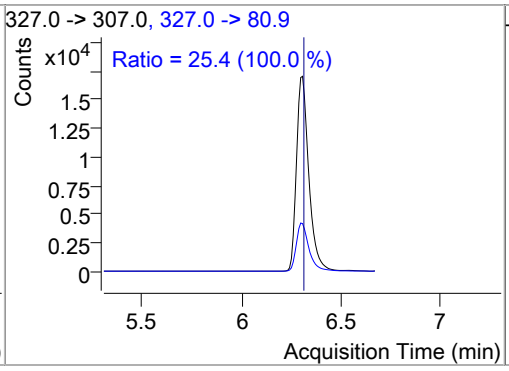


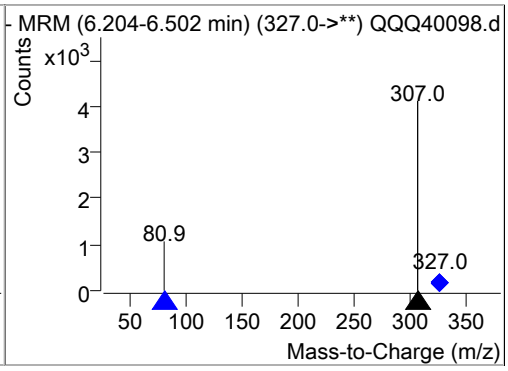




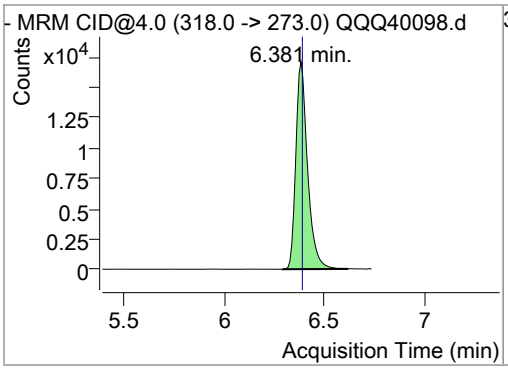
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	10.0659	6.31	0.00	72617	327.0 -> 80.9	25.4	20.3	30.4

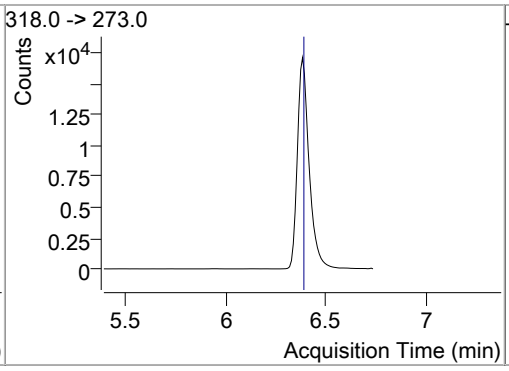


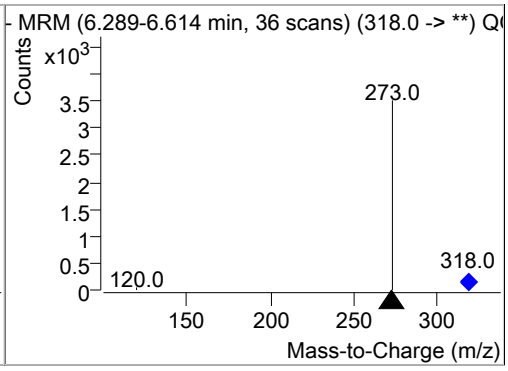




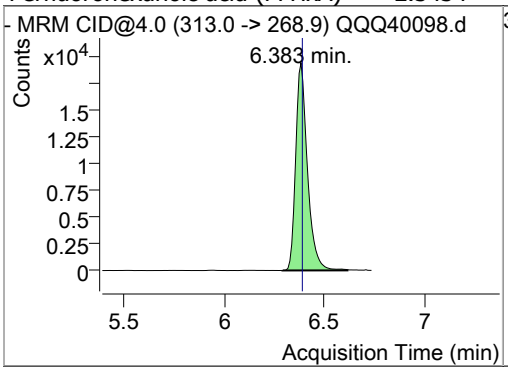
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.5159	6.38	0.00	69362				

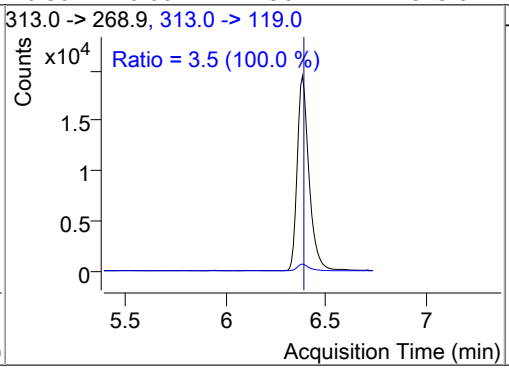


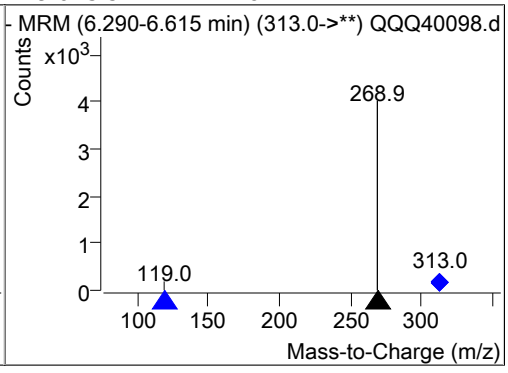




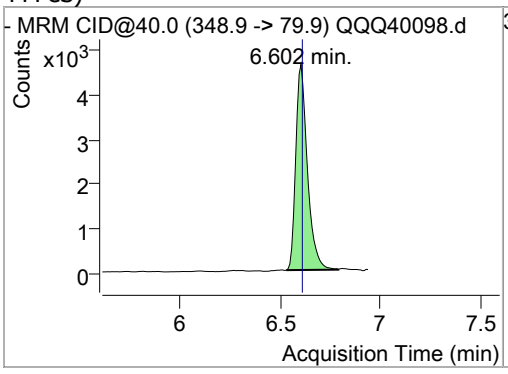
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	2.3434	6.38	0.00	79014	313.0 -> 119.0	3.5	2.8	4.2

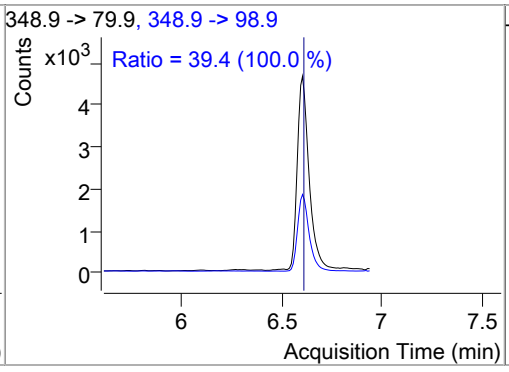


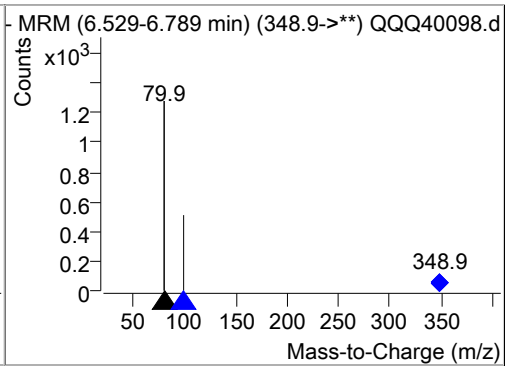




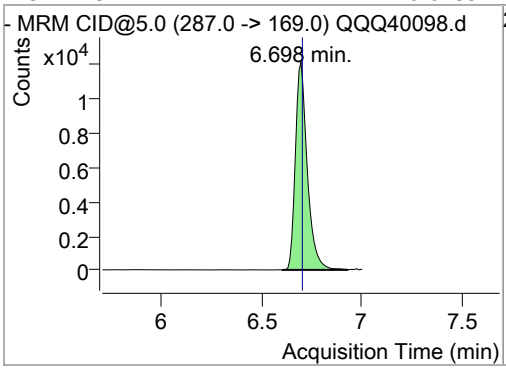
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	2.3305	6.60	0.00	18586	348.9 -> 98.9	39.4	31.5	47.3

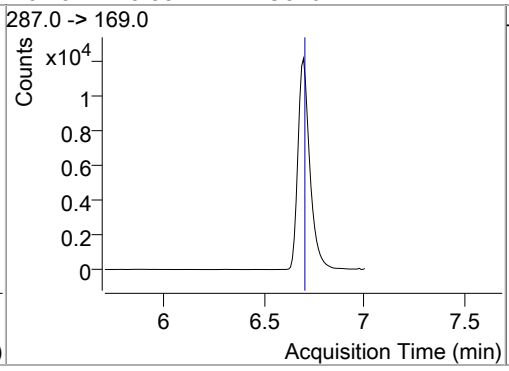


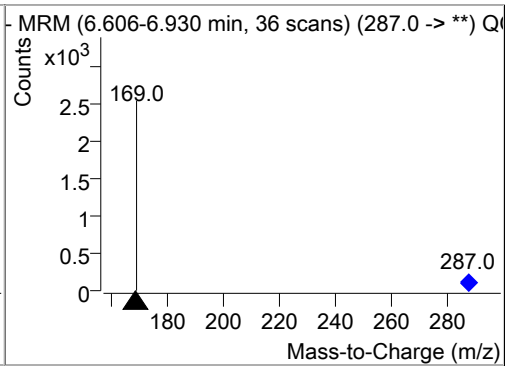




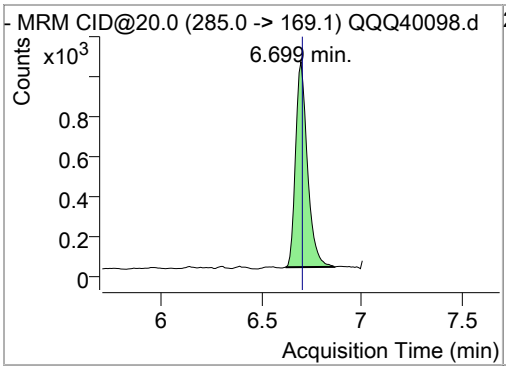
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.6439	6.70	0.00	49876				

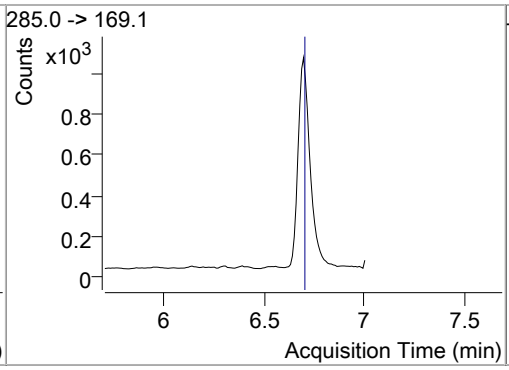


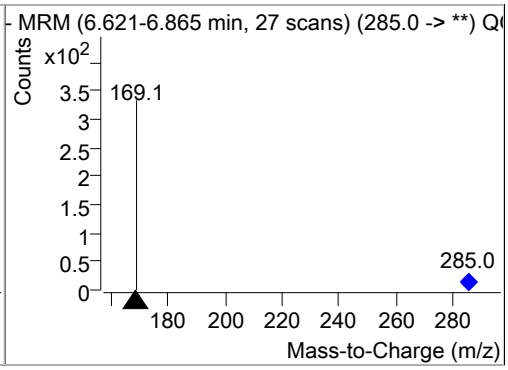




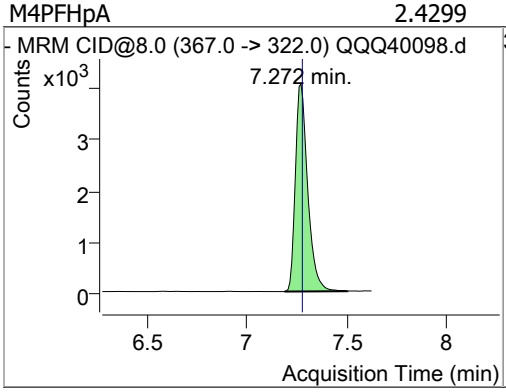
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	8.8888	6.70	0.00	4214				

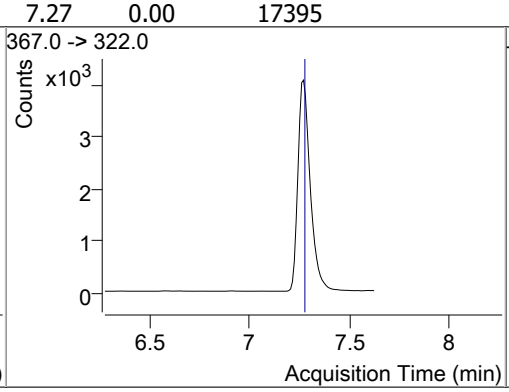


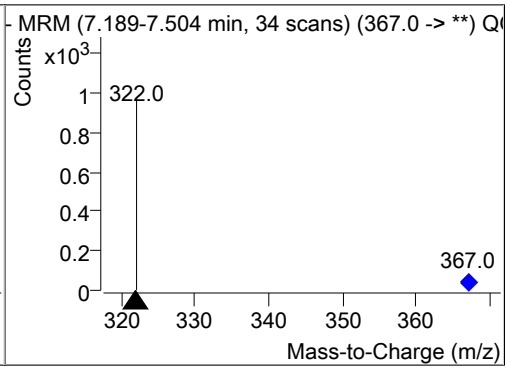




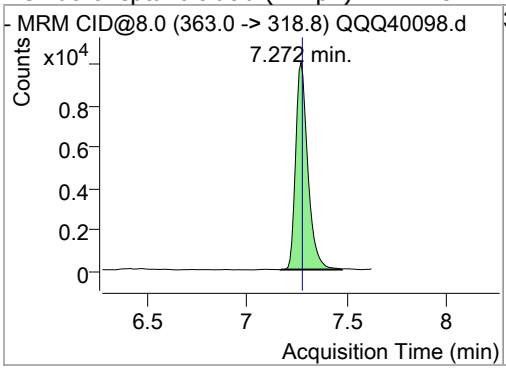
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.4299	7.27	0.00	17395				

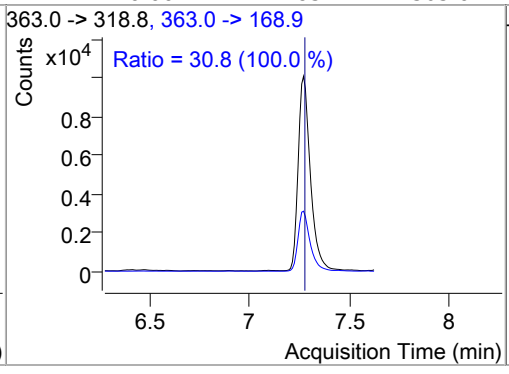


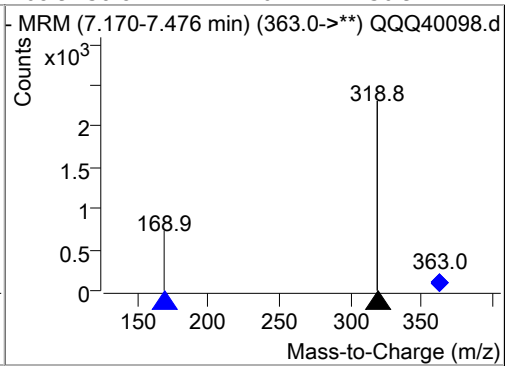




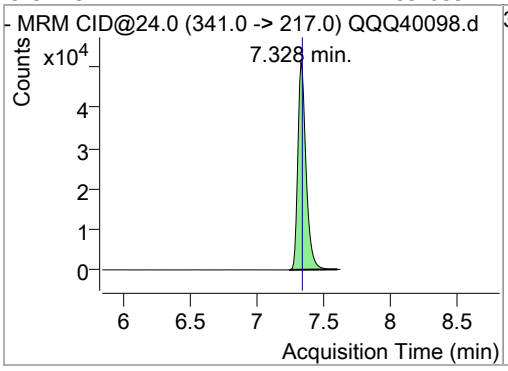
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	2.4457	7.27	0.00	42483	363.0 -> 168.9	30.8	24.6	36.9

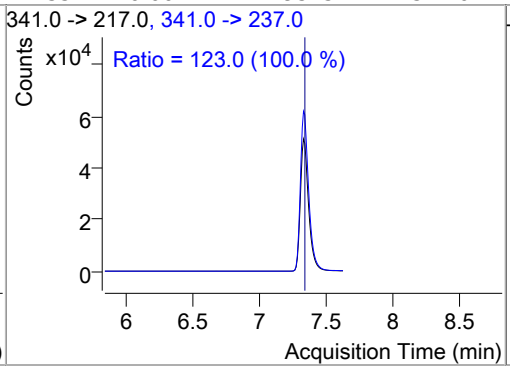


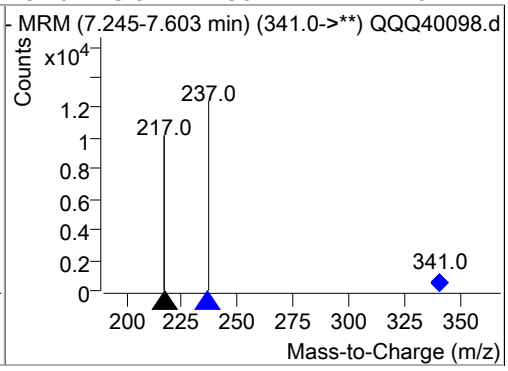




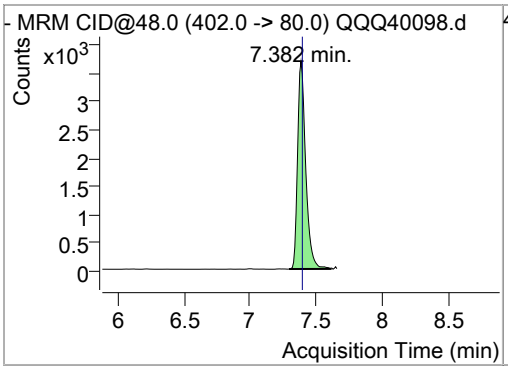
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	59.0394	7.33	0.00	219513	341.0 -> 237.0	123.0	98.4	147.6

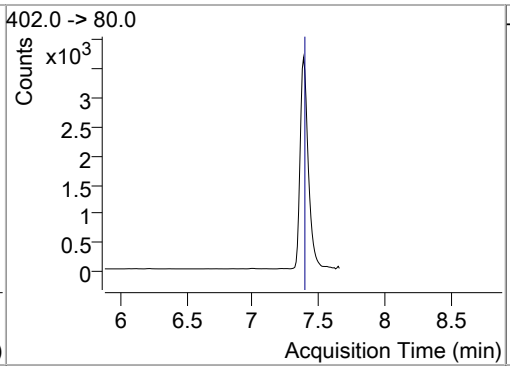


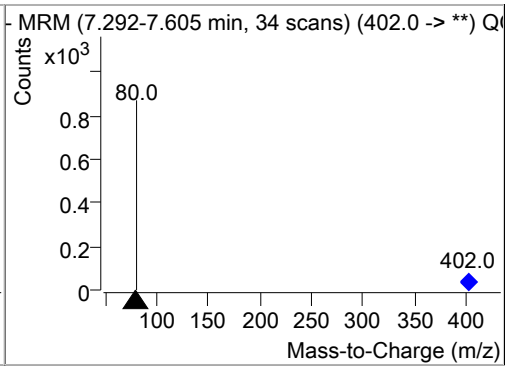




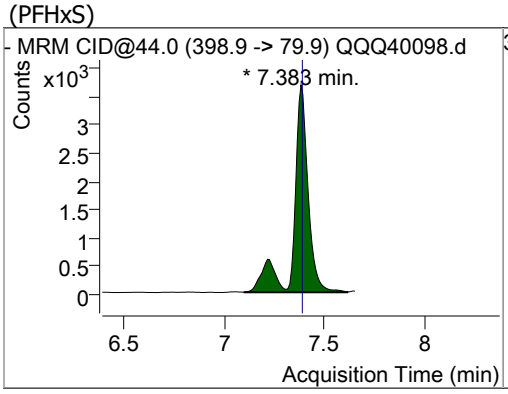
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.5888	7.38	0.00	15592				

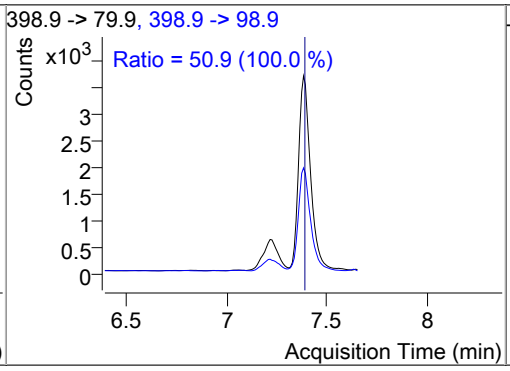


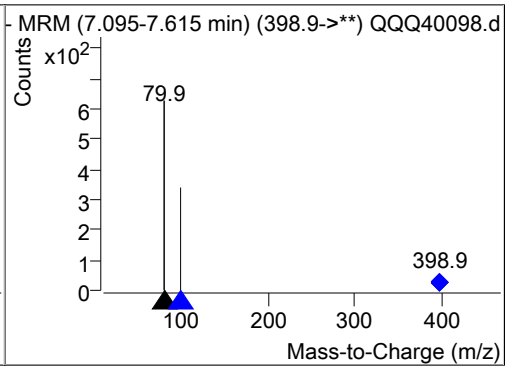




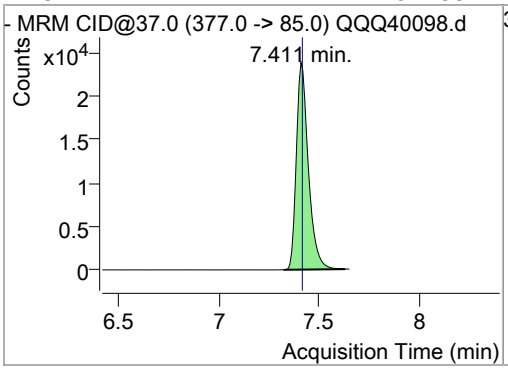
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	2.3415	7.38	0.00	18383 (m)	398.9 -> 98.9	50.9	40.7	61.1

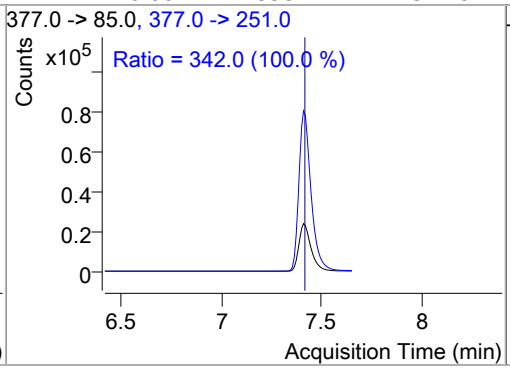


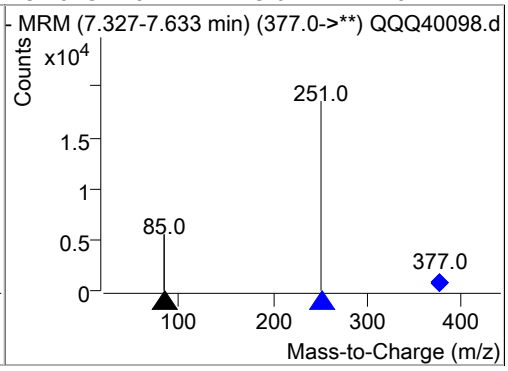




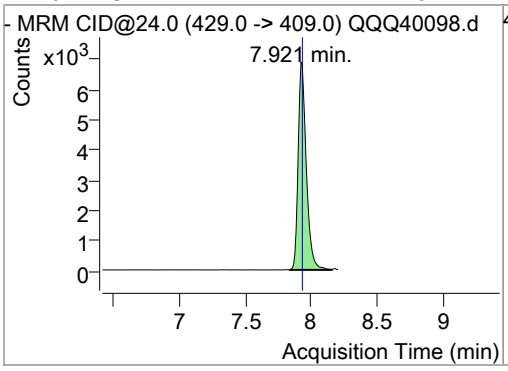
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	8.4793	7.41	0.00	99514	377.0 -> 251.0	342.0	273.6	410.4

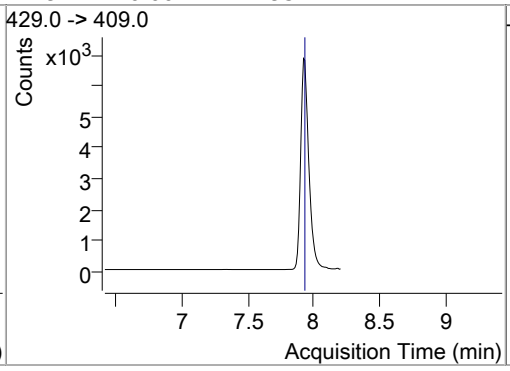


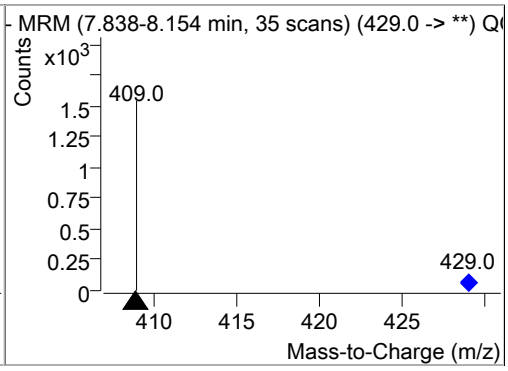




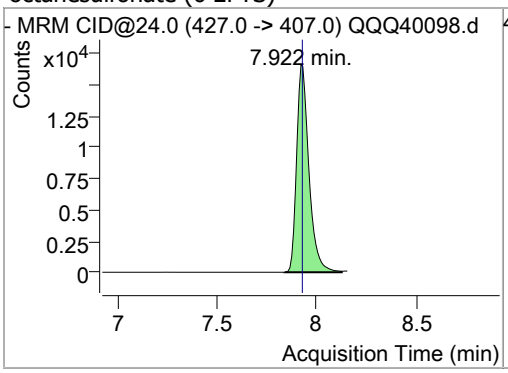
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.6422	7.92	0.00	29372				

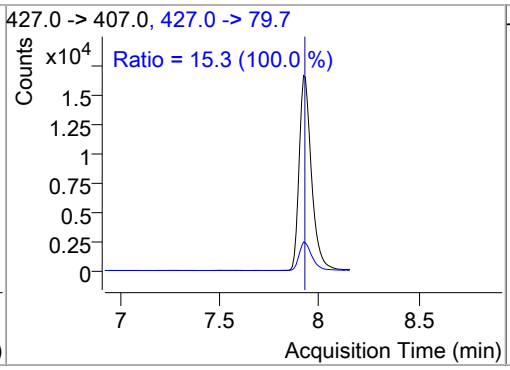


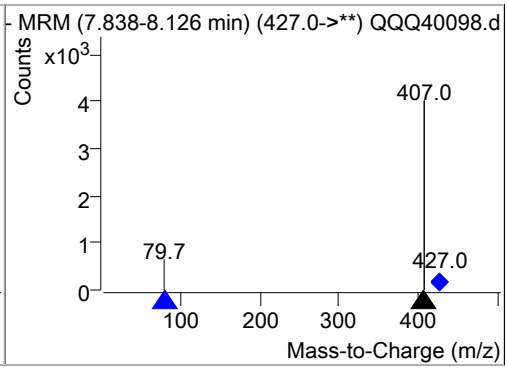




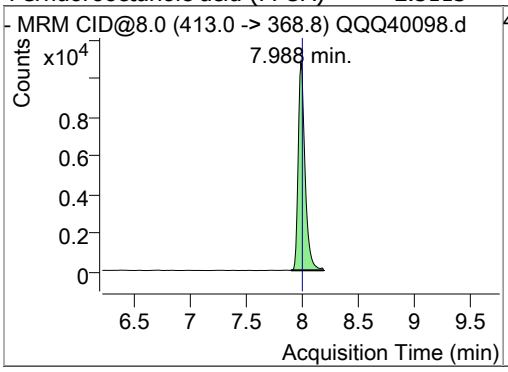
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	9.7852	7.92	0.00	71123	427.0 -> 79.7	15.3	12.2	18.4

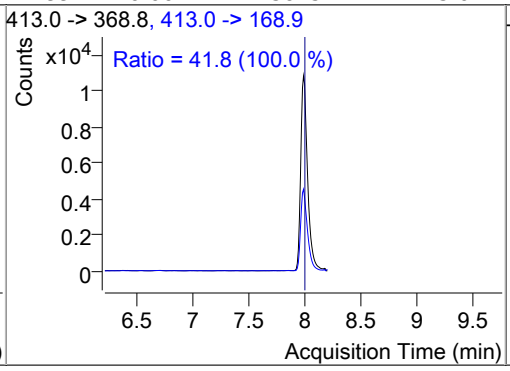


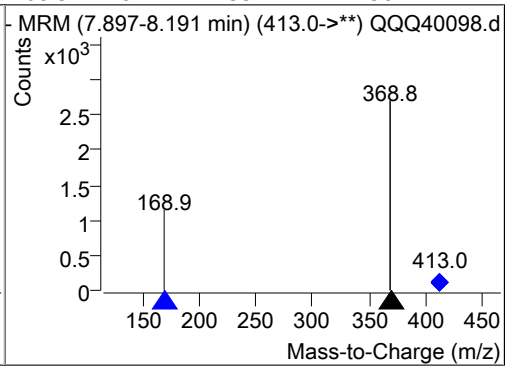




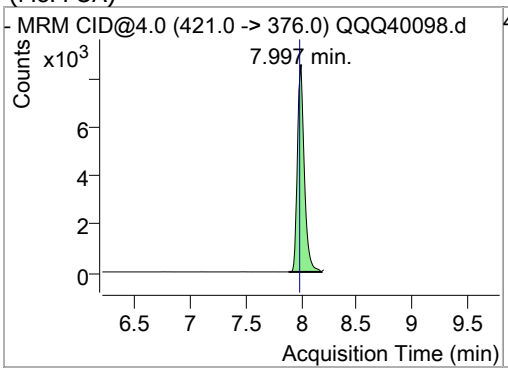
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	2.5113	7.99	0.00	45875	413.0 -> 168.9	41.8	33.4	50.1

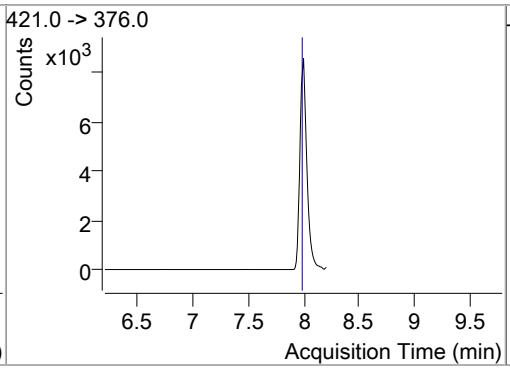


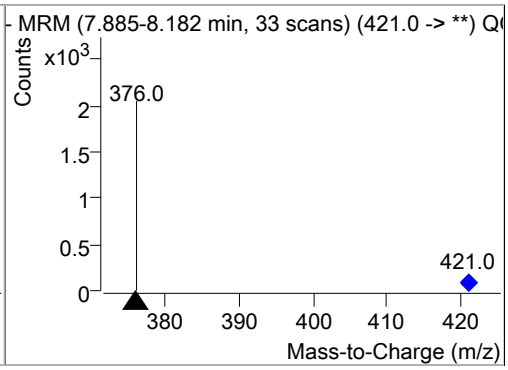




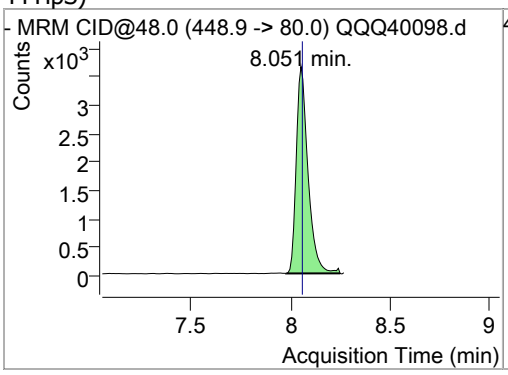
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4301	8.00	0.00	36971				

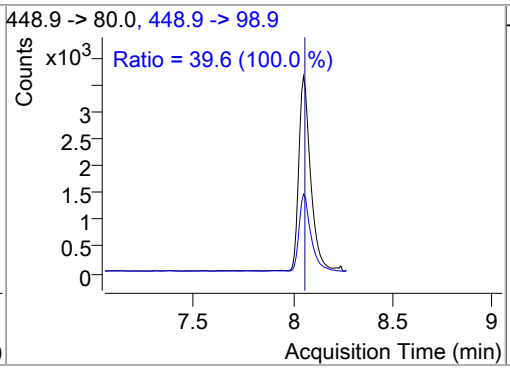


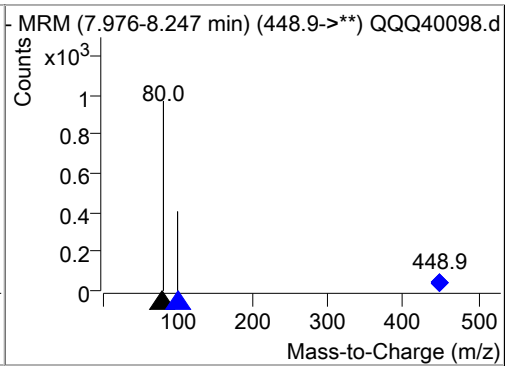




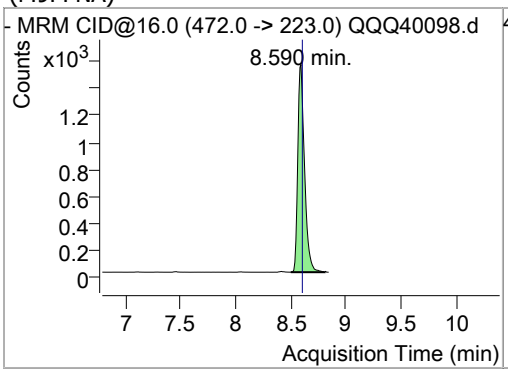
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	2.2086	8.05	0.00	14859	448.9 -> 98.9	39.6	31.7	47.5

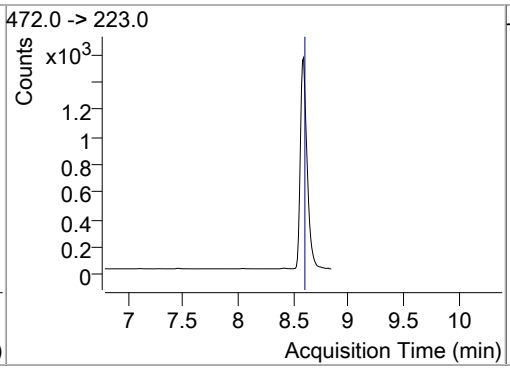


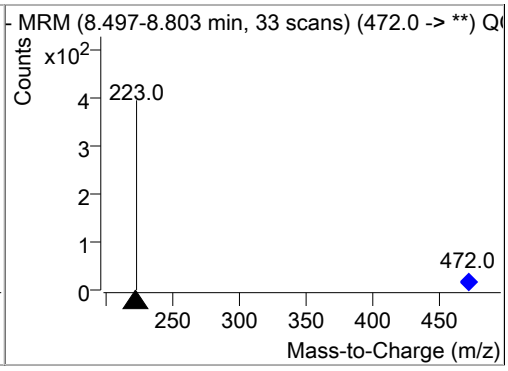




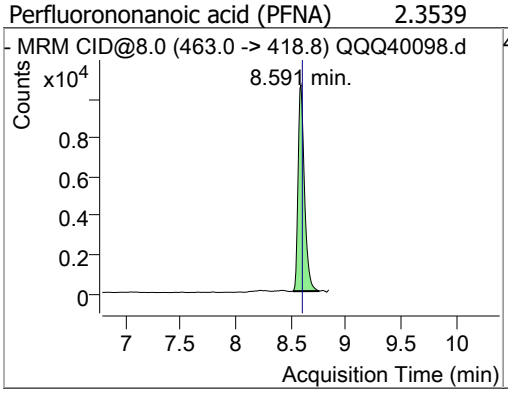
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2752	8.59	0.00	6494				

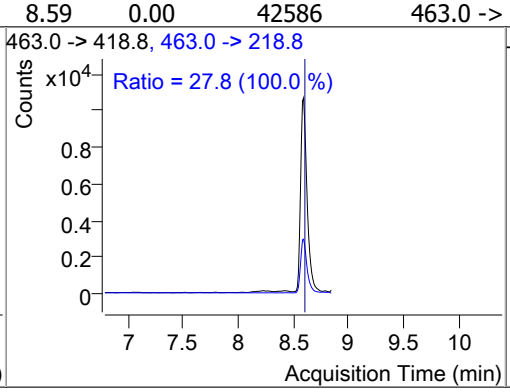


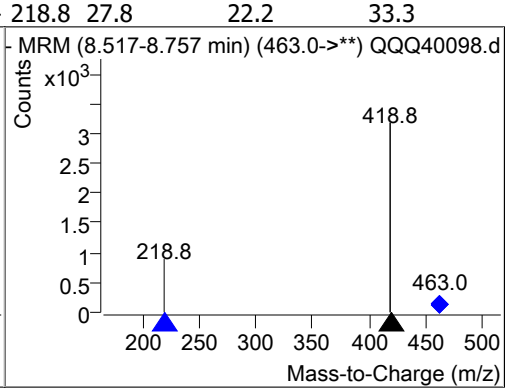




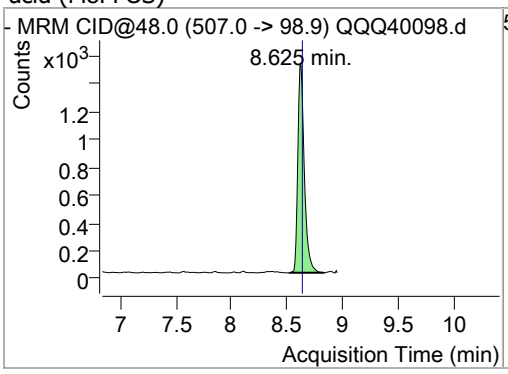
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	2.3539	8.59	0.00	42586	463.0 -> 218.8	27.8	22.2	33.3

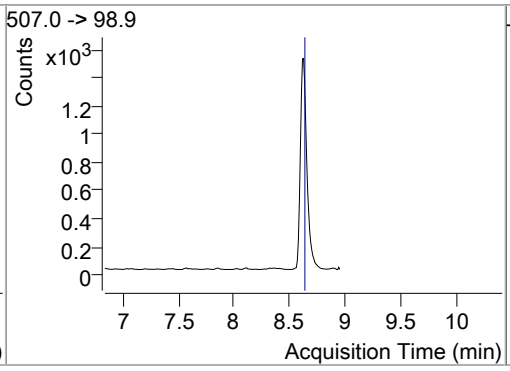


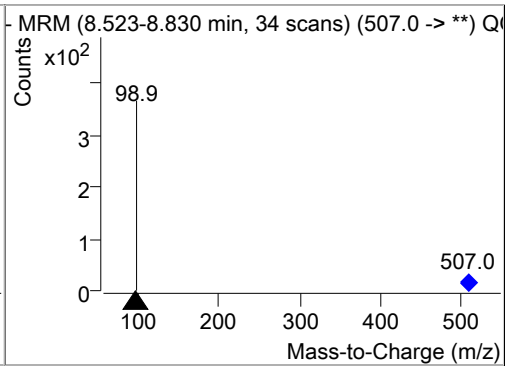




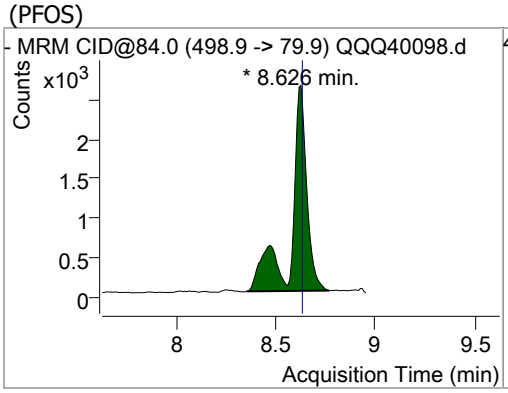
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.3573	8.63	0.00	6127				

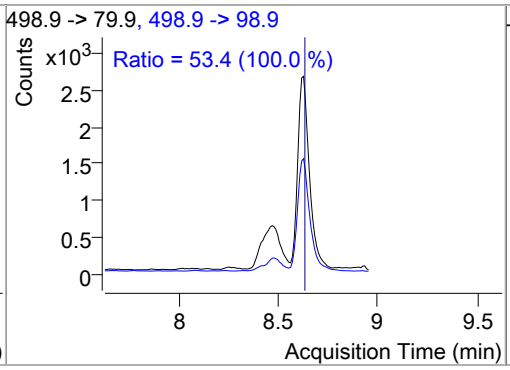


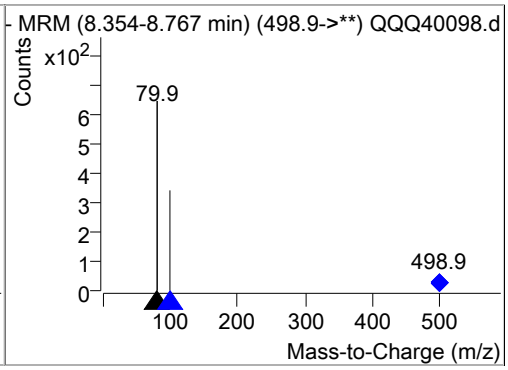




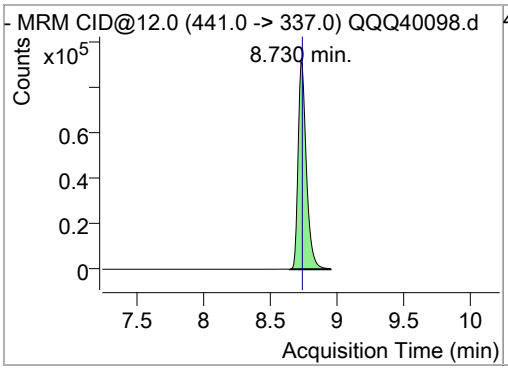
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.3021	8.63	0.00	14214 (m)	498.9 -> 98.9	53.4	42.7	64.1

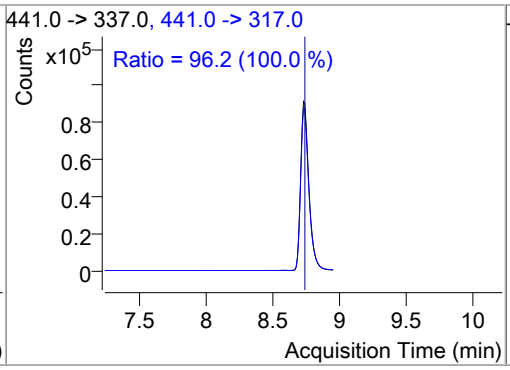


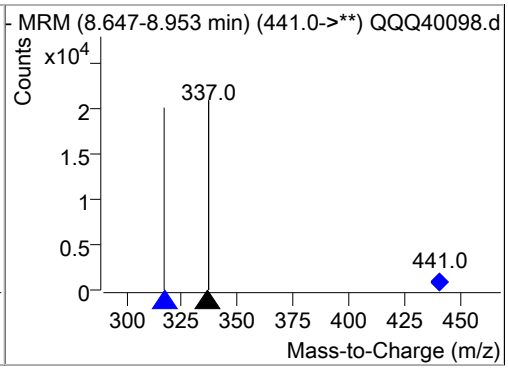




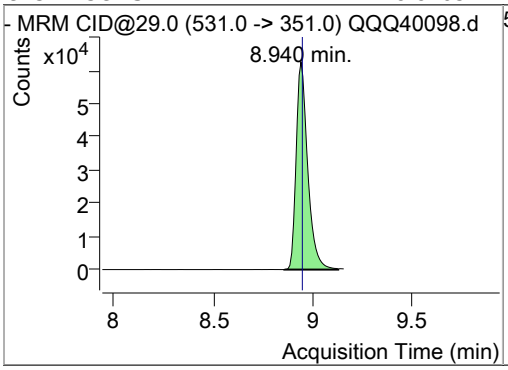
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	63.0380	8.73	0.00	396676	441.0 -> 317.0	96.2	76.9	115.4

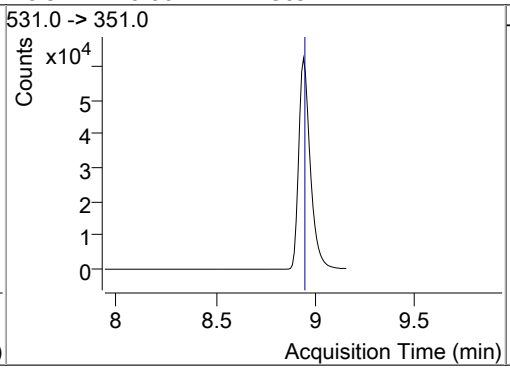


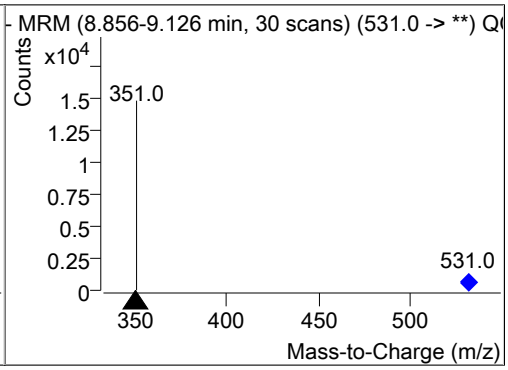




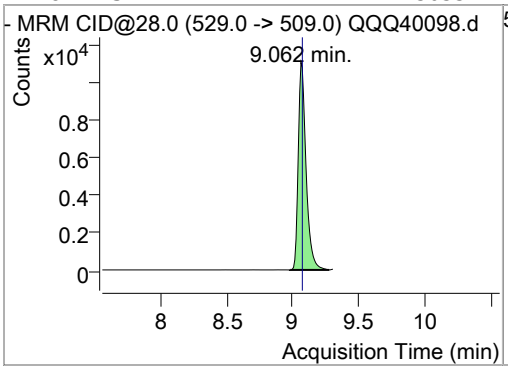
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	8.8205	8.94	0.00	250911				

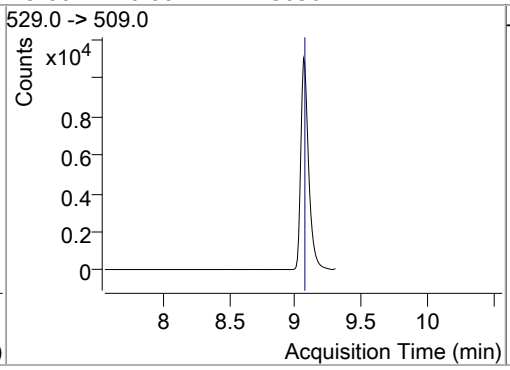


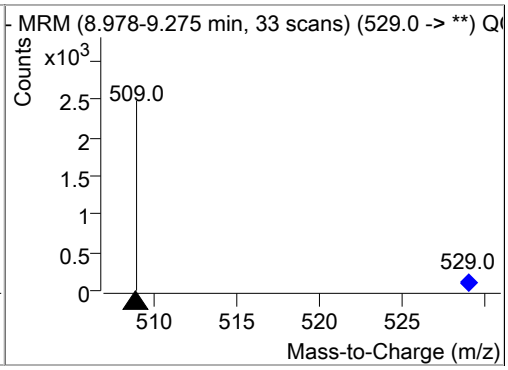




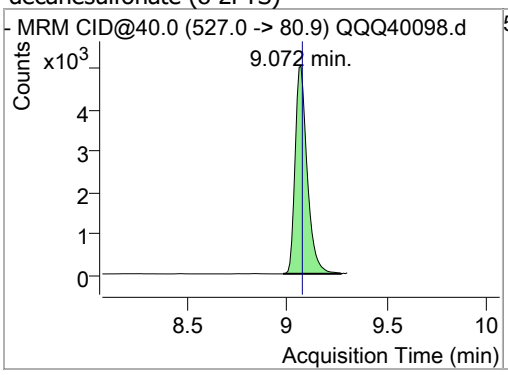
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.5633	9.06	0.00	45056				

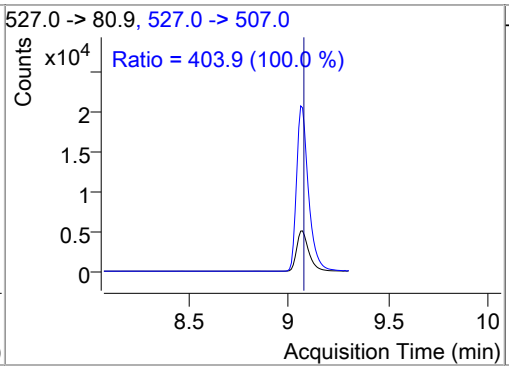


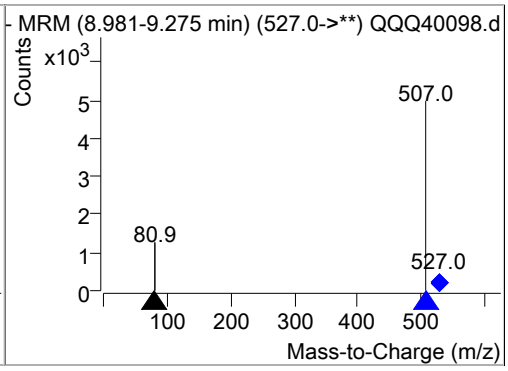




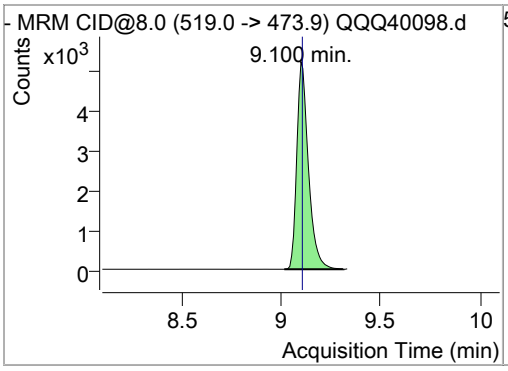
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.7206	9.07	0.00	21164	527.0 -> 507.0	403.9	323.1	484.6

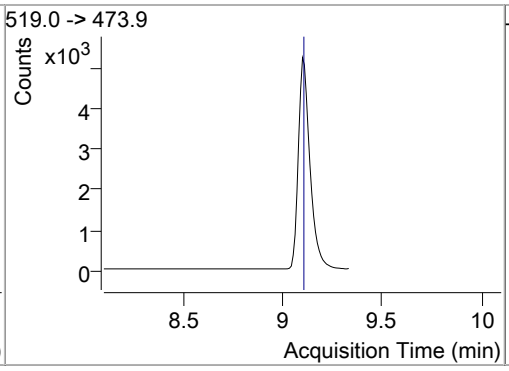


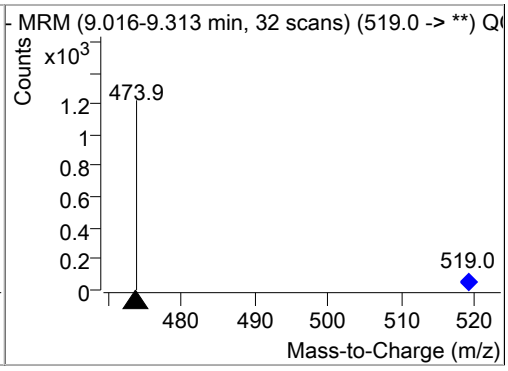




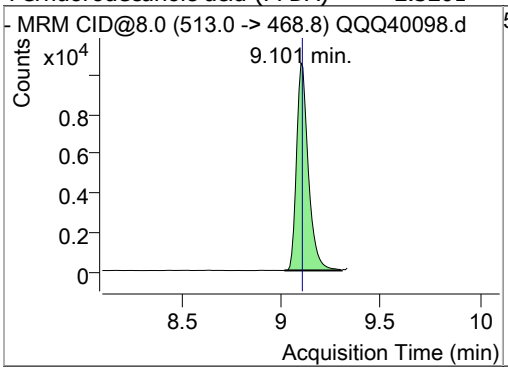
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.3681	9.10	0.00	21116				

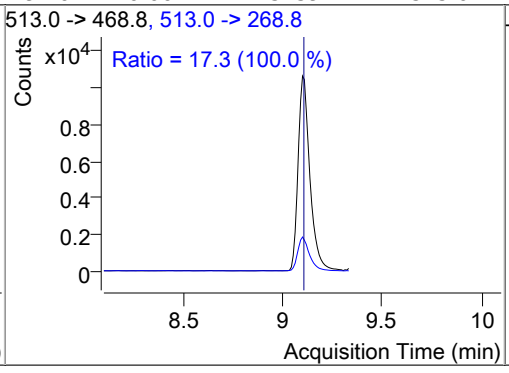


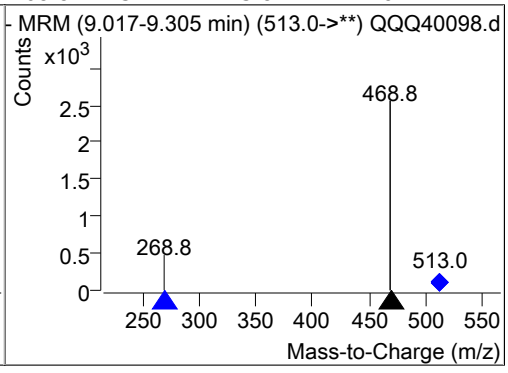




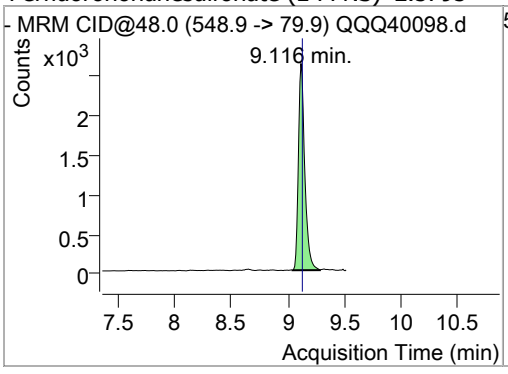
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	2.3201	9.10	0.00	43439	513.0 -> 268.8	17.3	13.8	20.7

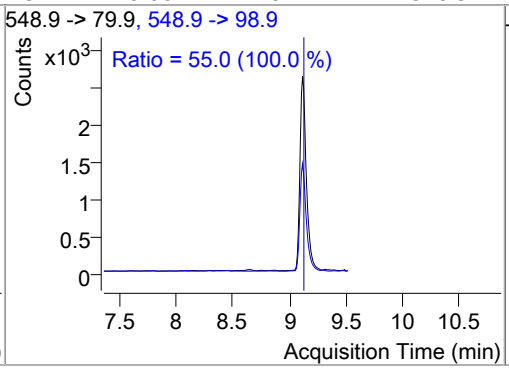


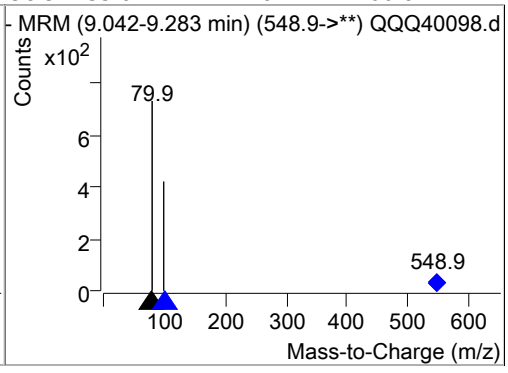




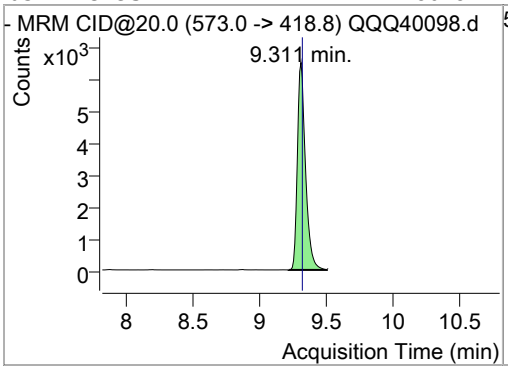
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	2.5795	9.12	0.00	10247	548.9 -> 98.9	55.0	44.0	66.0

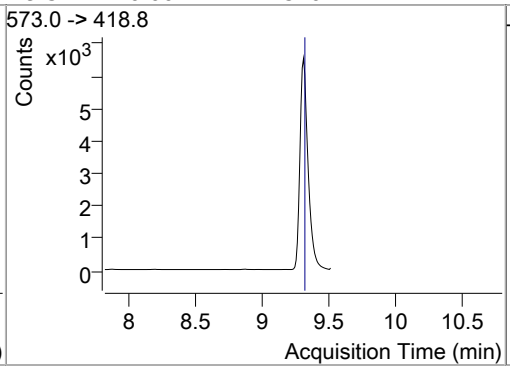


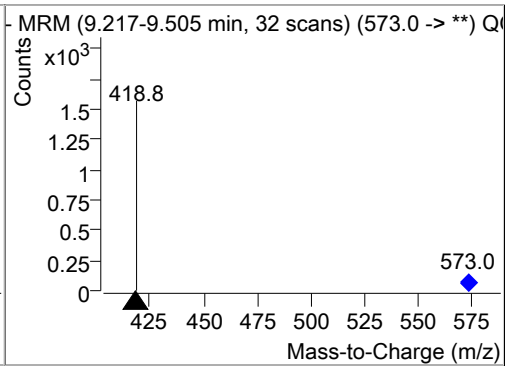




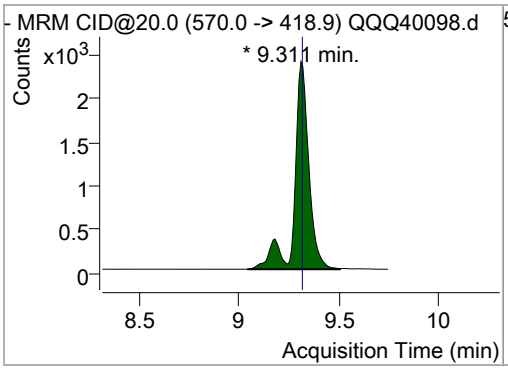
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.8648	9.31	0.00	27520				

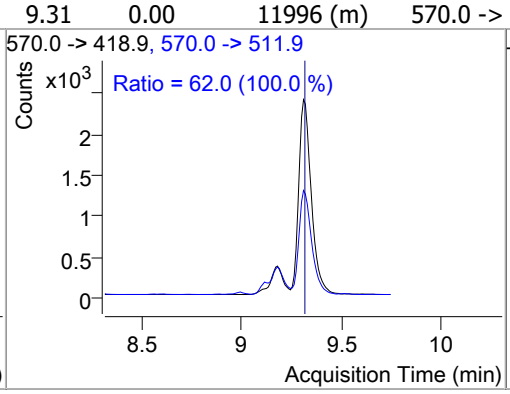


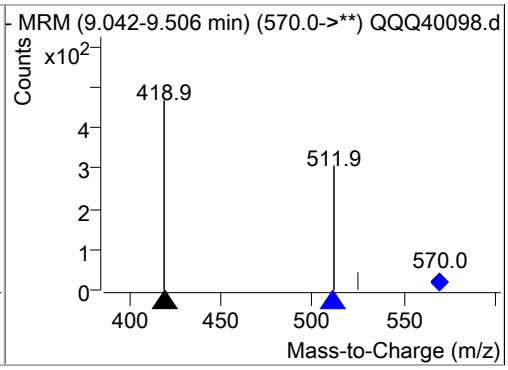




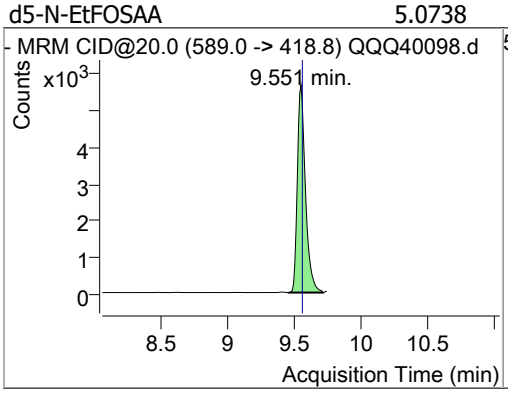
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	2.5564	9.31	0.00	11996 (m)	570.0 -> 511.9	62.0	49.6	74.4

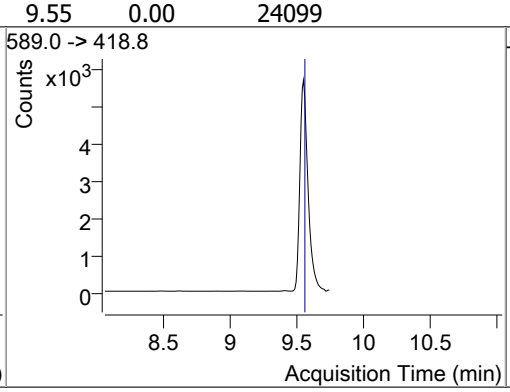


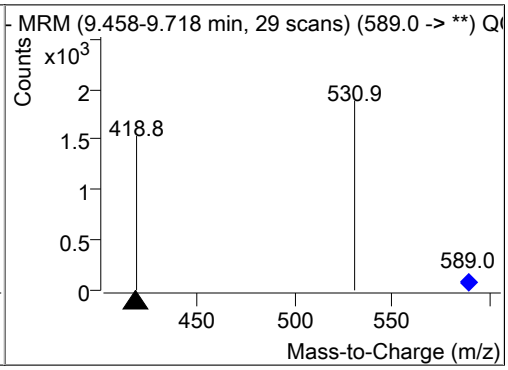




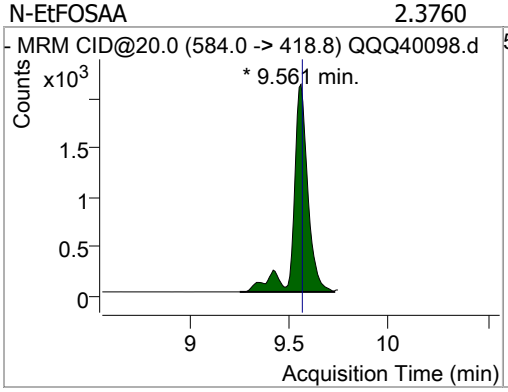
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.0738	9.55	0.00	24099				

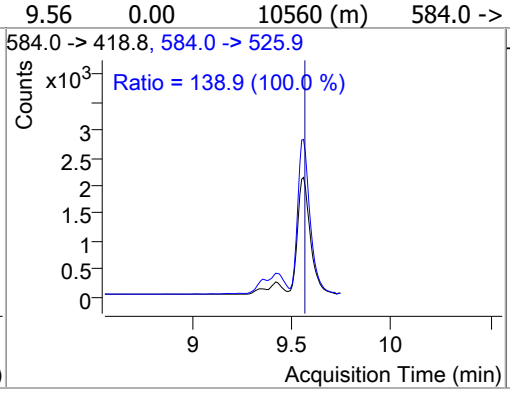


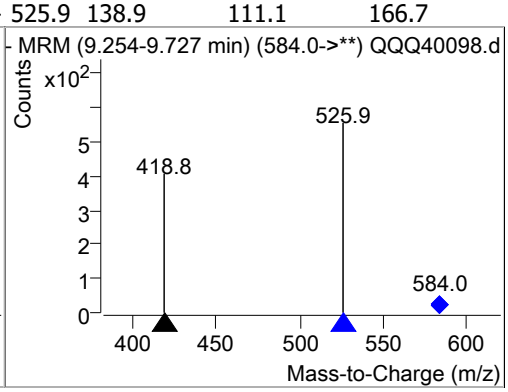




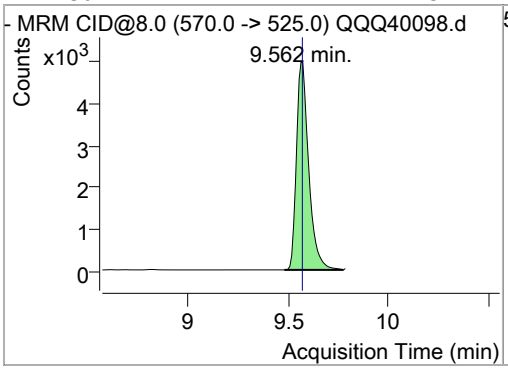
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	2.3760	9.56	0.00	10560 (m)	584.0 -> 525.9	138.9	111.1	166.7

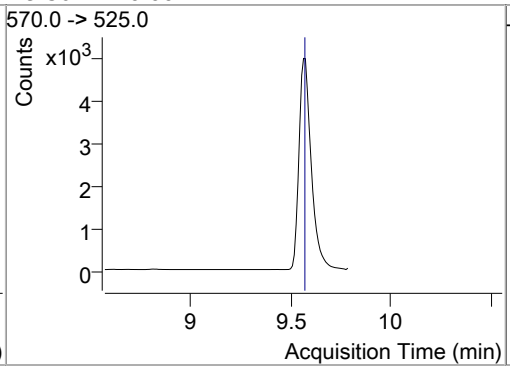


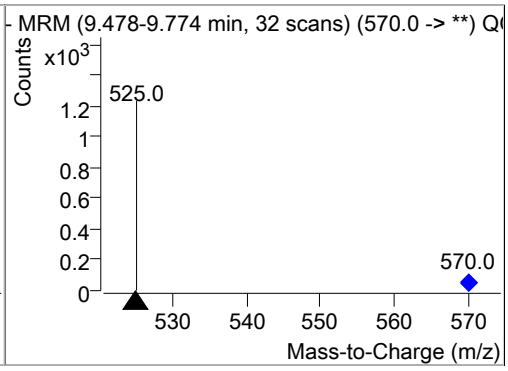




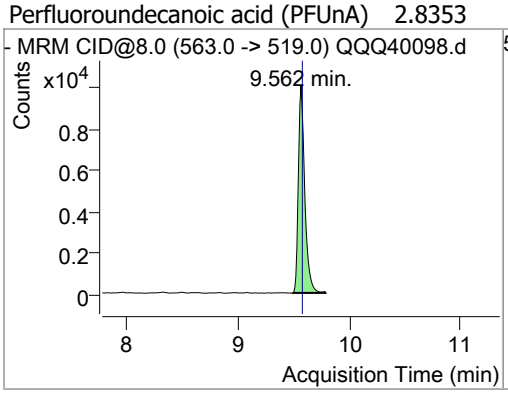
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2372	9.56	0.00	21144				

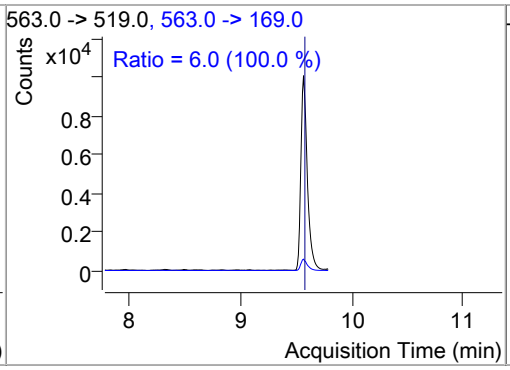


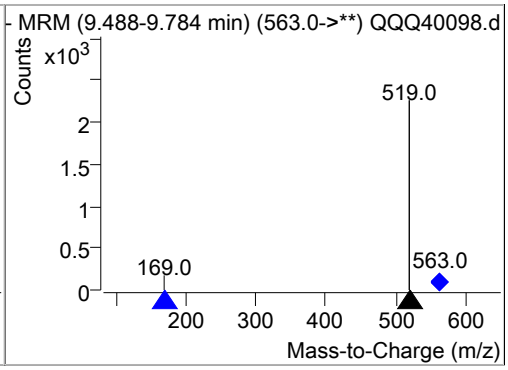




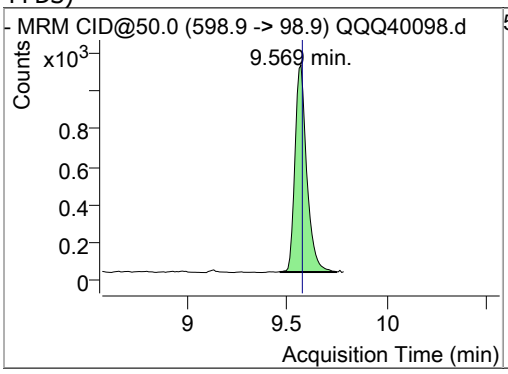
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.8353	9.56	0.00	40272	563.0 -> 169.0	6.0	4.8	7.2

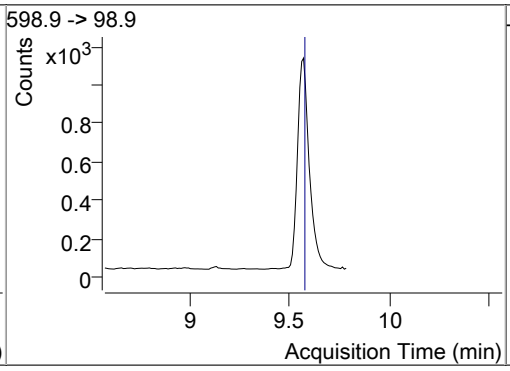


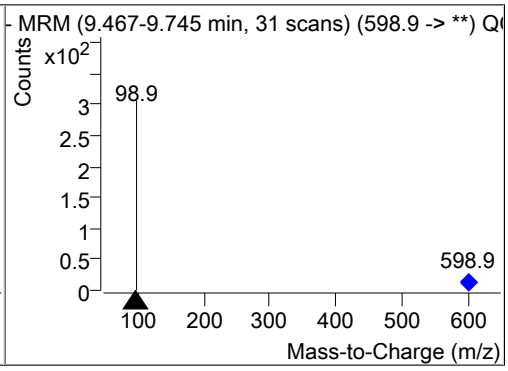




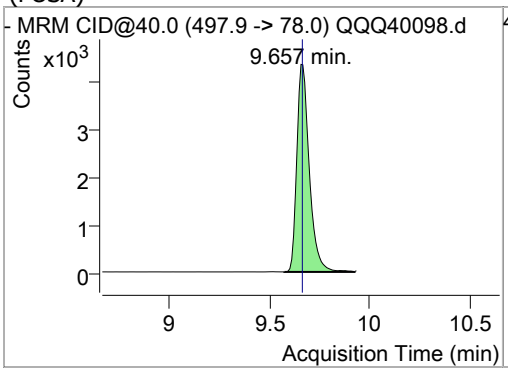
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.3974	9.57	0.00	4499				

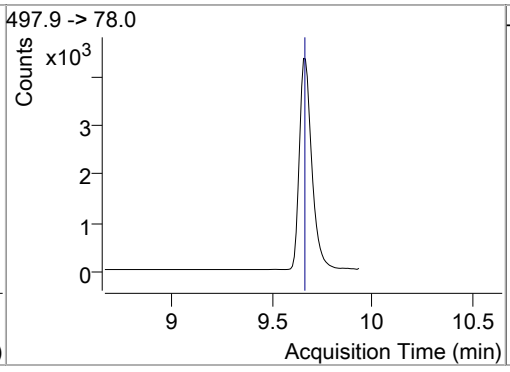


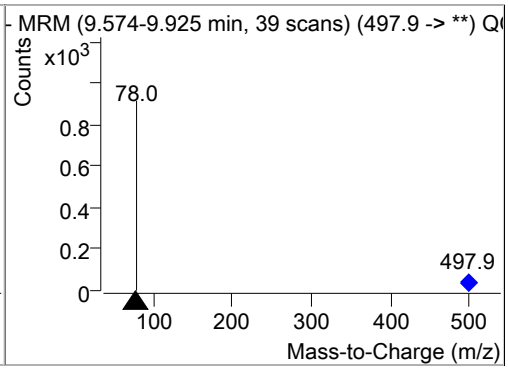




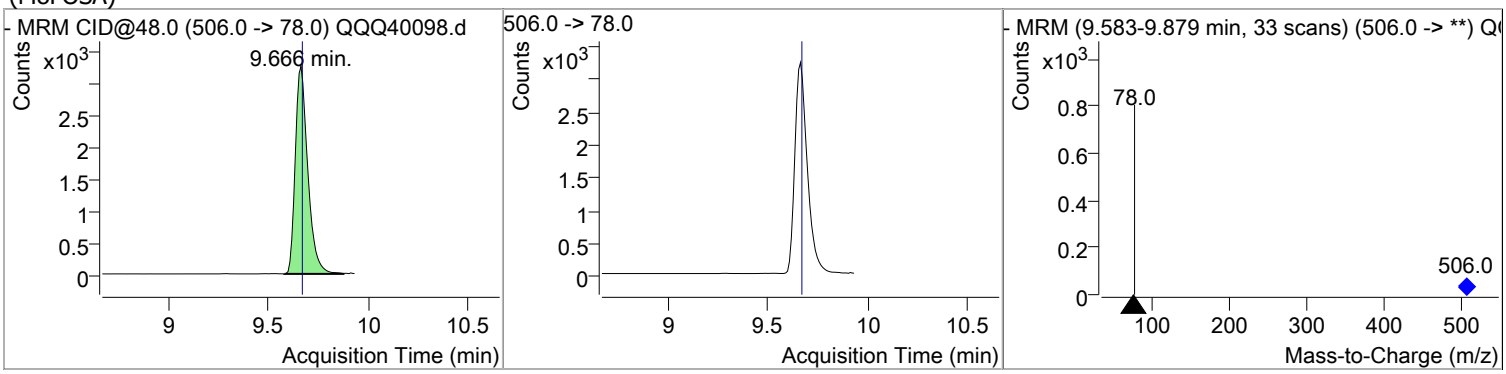
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	2.4395	9.66	0.00	18900				



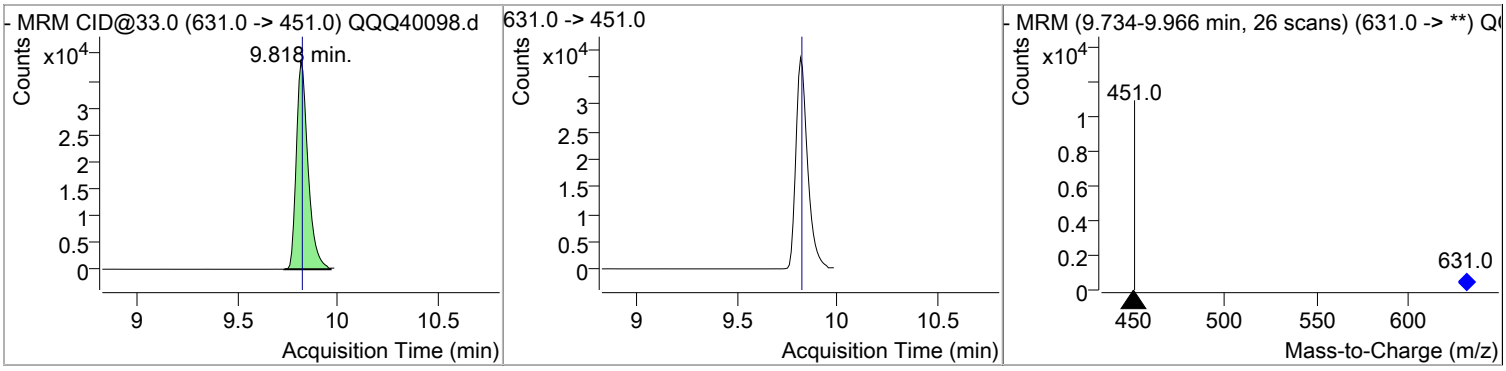




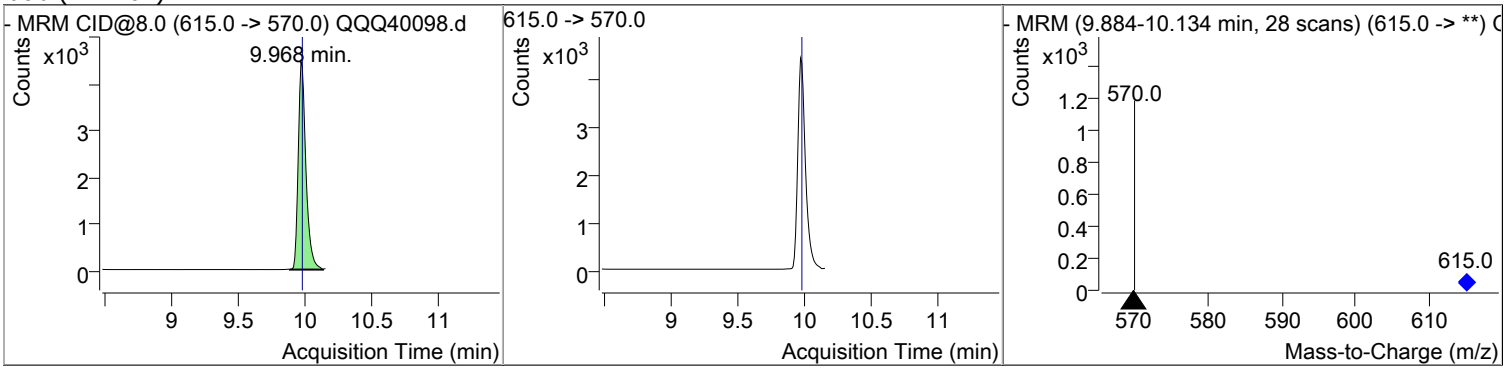
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.4603	9.67	0.00	13998				



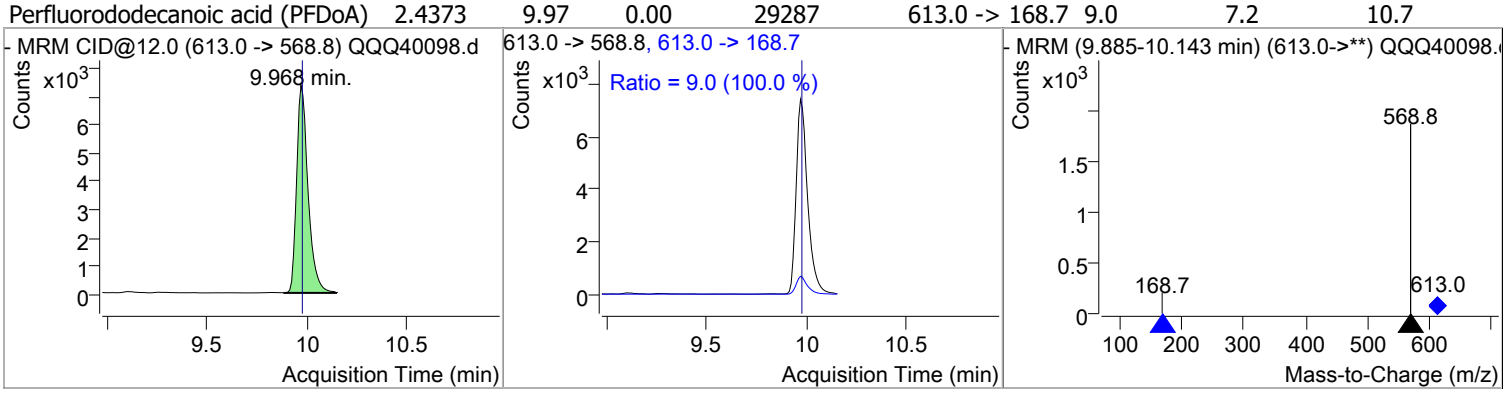
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	9.2101	9.82	0.00	157013				



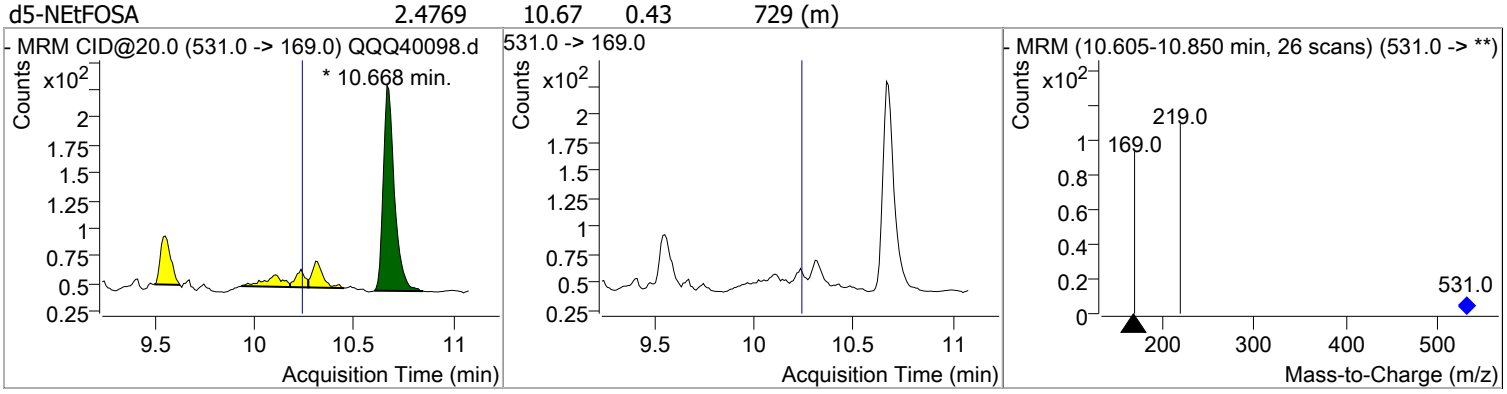
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.2612	9.97	0.00	17821				



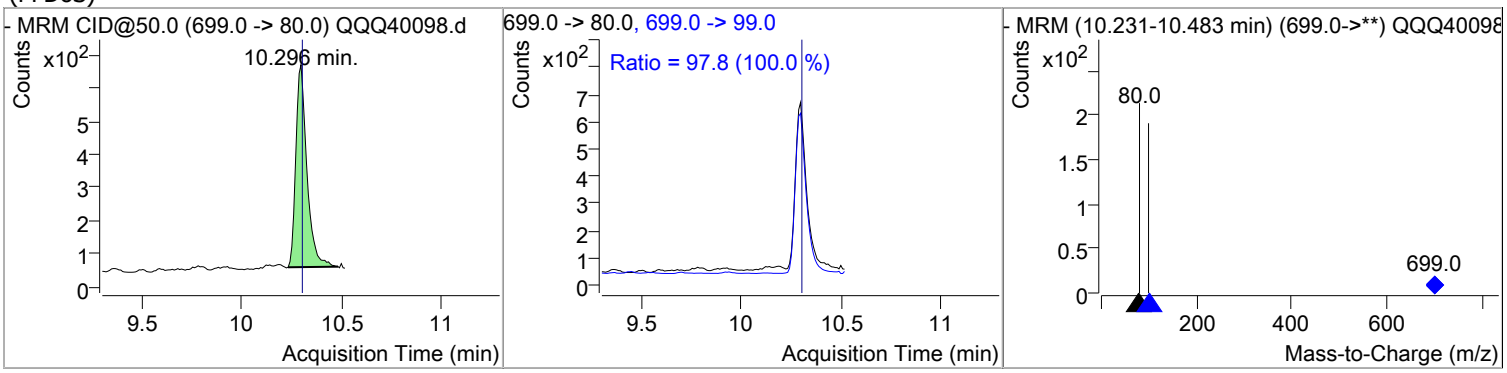
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	2.4373	9.97	0.00	29287	613.0 -> 168.7	9.0	7.2	10.7



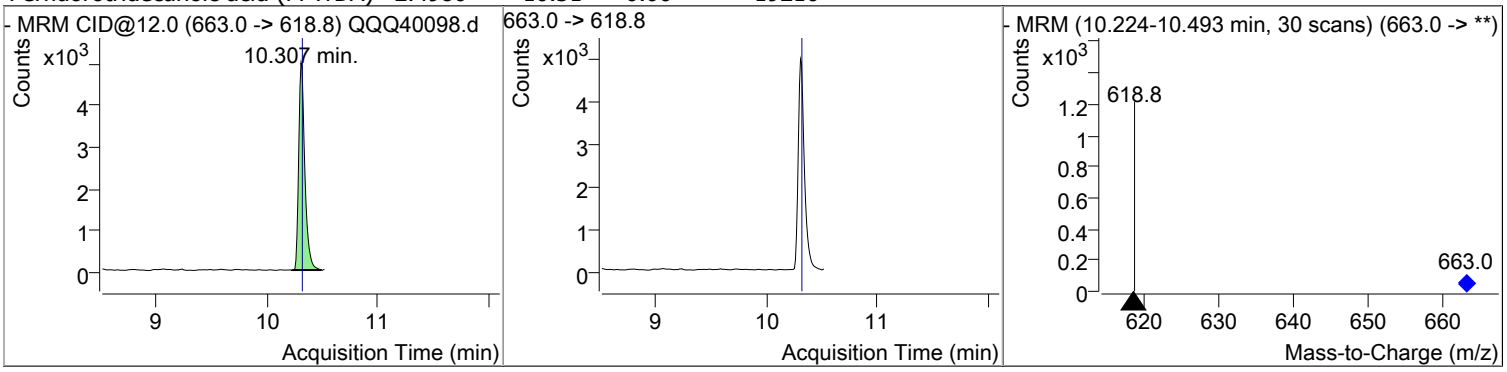
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.4769	10.67	0.43	729 (m)				



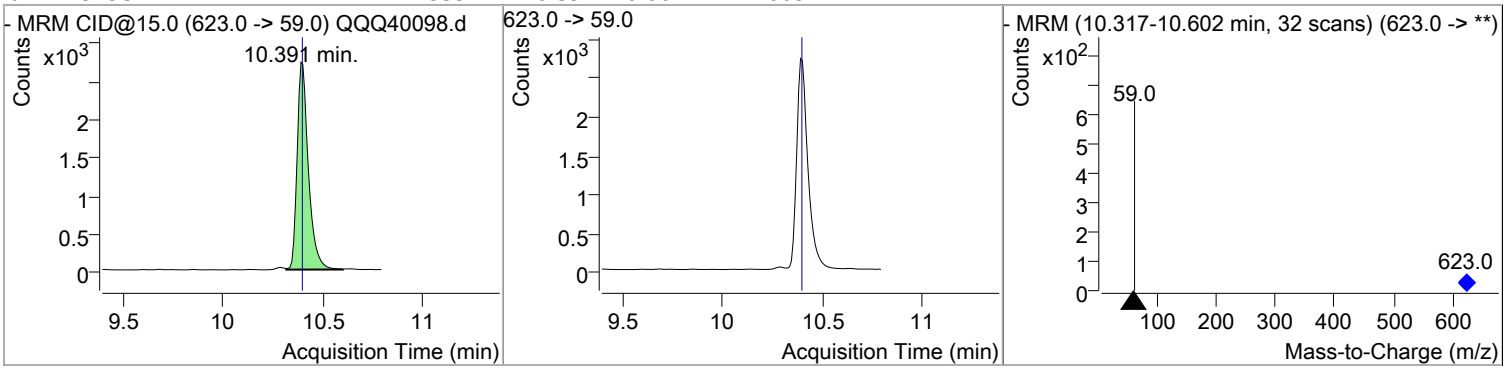
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.3564	10.30	0.00	2362	699.0 -> 99.0	97.8	78.3	117.4



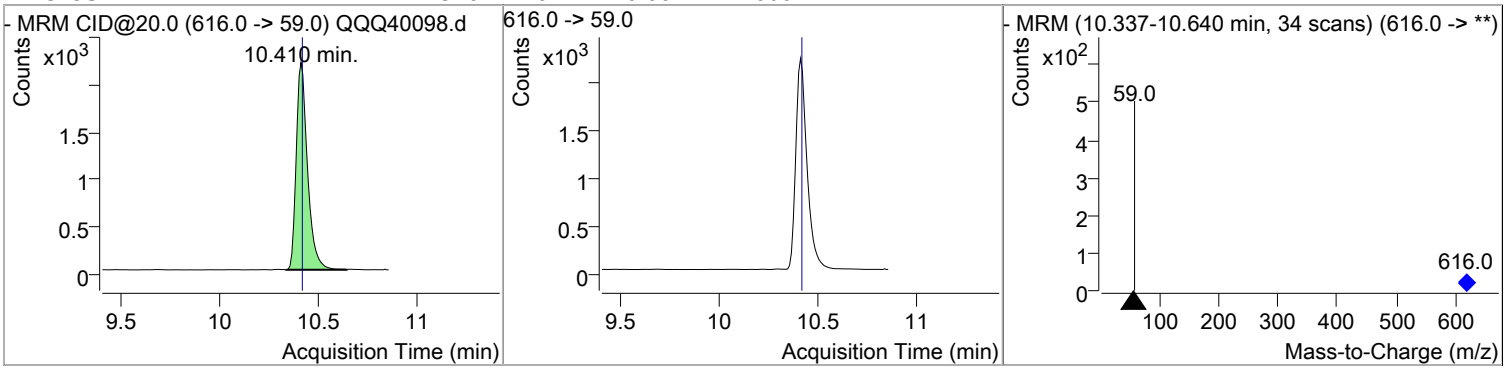
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	2.4986	10.31	0.00	19210				



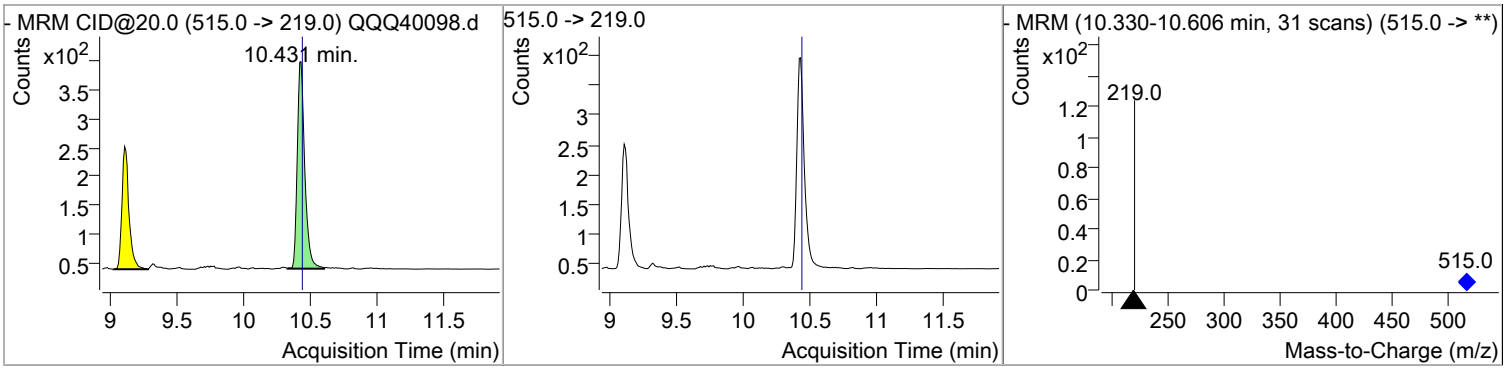
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	24.3332	10.39	0.00	10652				



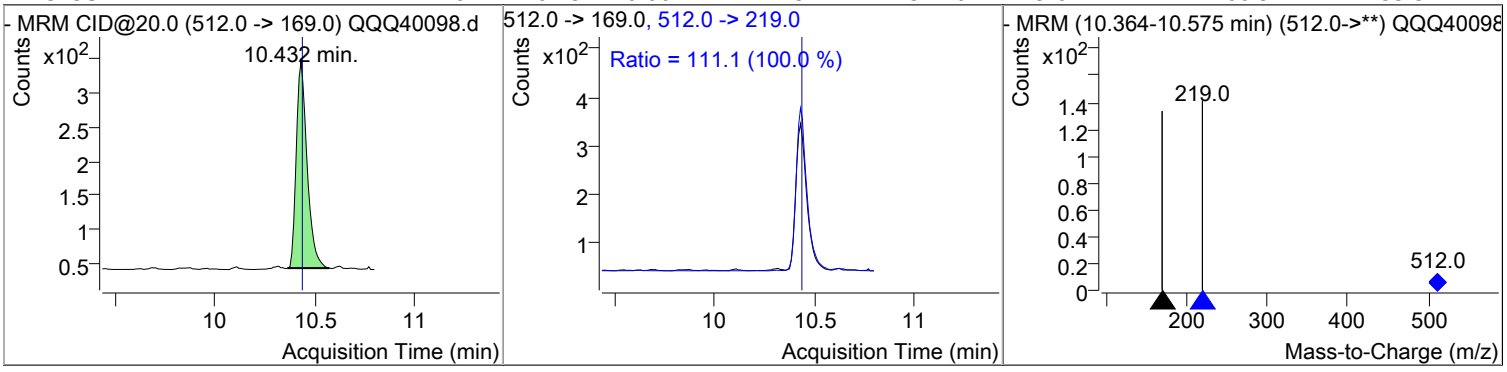
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	22.4940	10.41	0.00	8664				



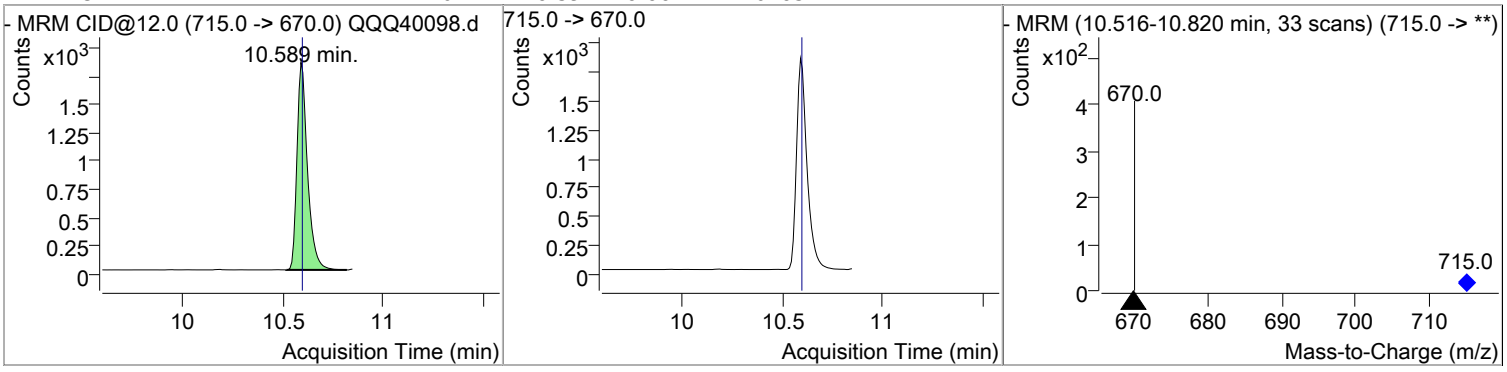
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.3659	10.43	0.00	1393				



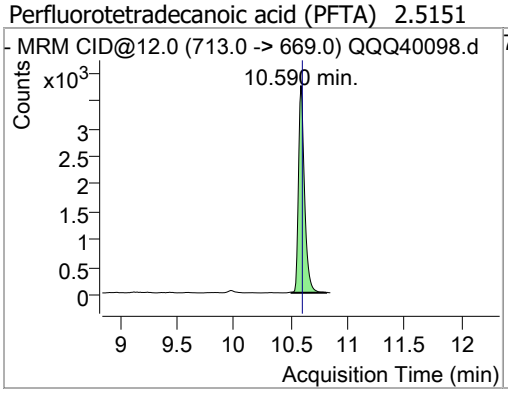
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	2.4720	10.43	0.00	1145	512.0 -> 219.0	111.1	88.9	133.3

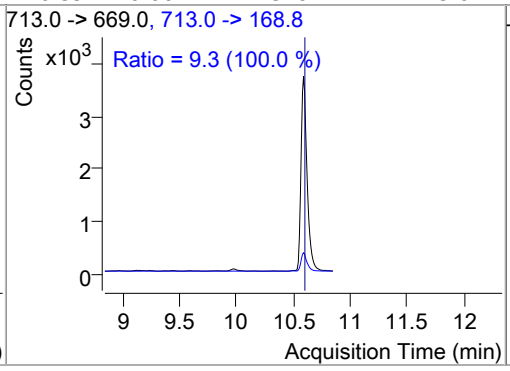


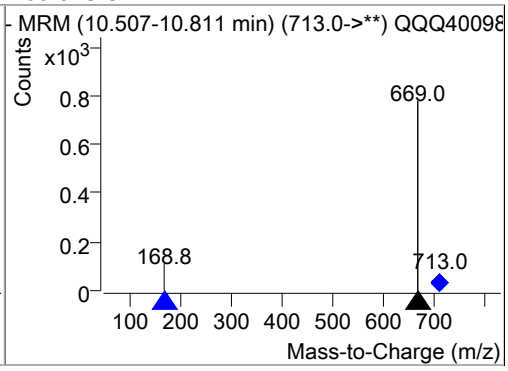
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.2762	10.59	0.00	6703				



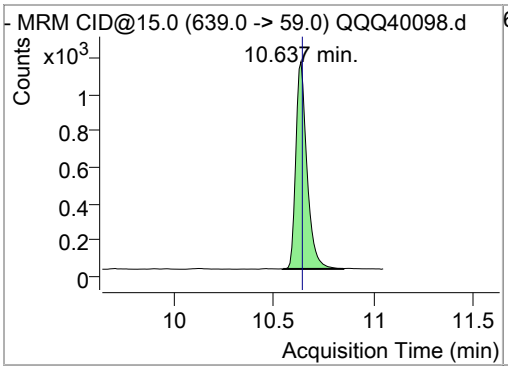
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	2.5151	10.59	0.00	13787	713.0 -> 168.8	9.3	7.4	11.1

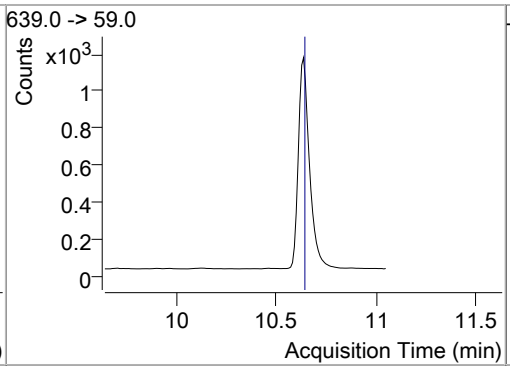


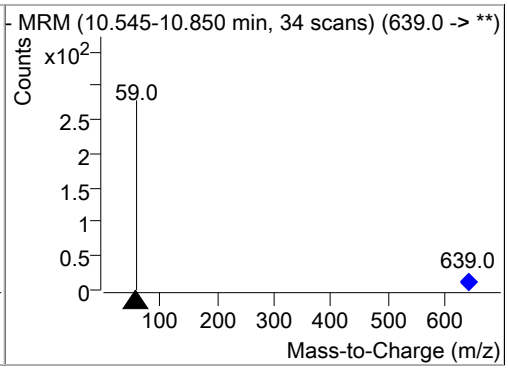




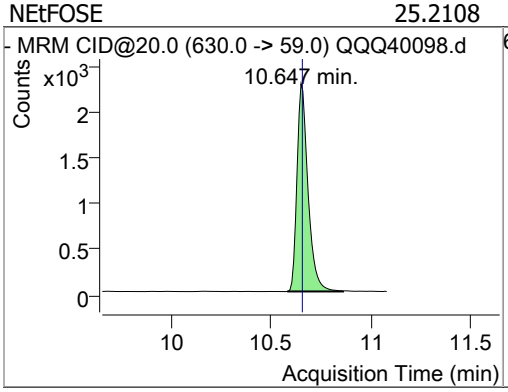
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	25.1210	10.64	0.00	4418				

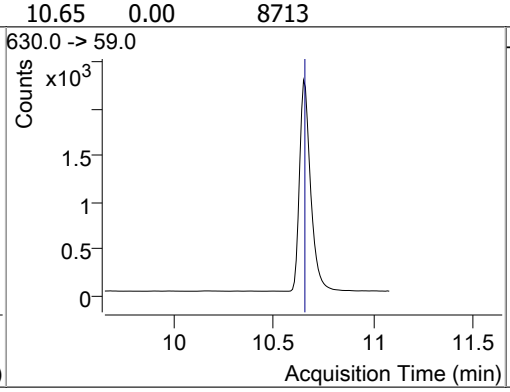


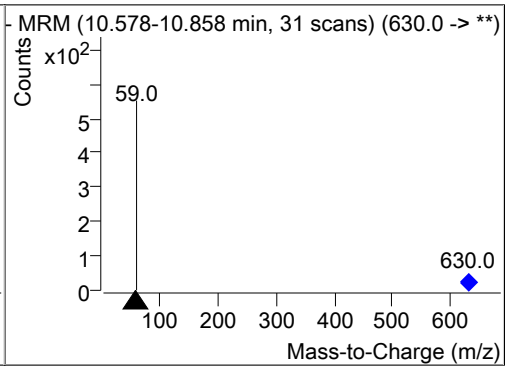




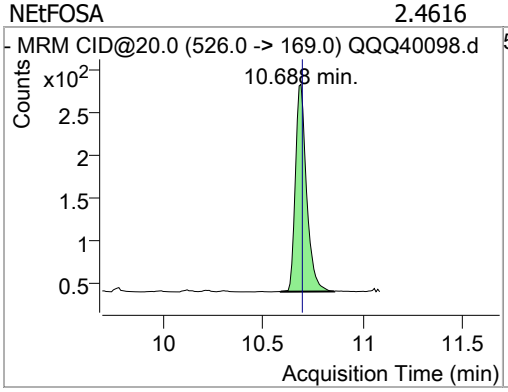
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	25.2108	10.65	0.00	8713				

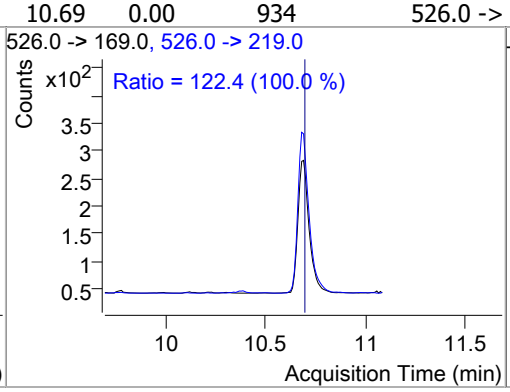


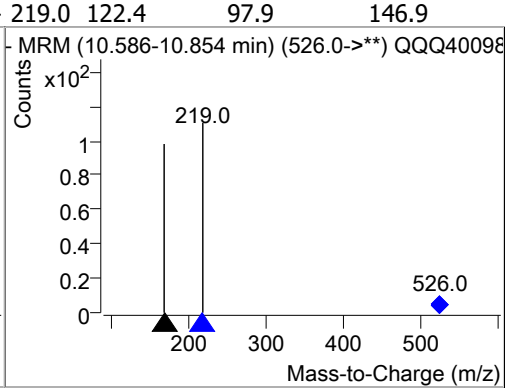




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.4616	10.69	0.00	934	526.0 -> 219.0	122.4	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 4:03:00 AM	**Data File**	QQQ40098.d
Sample Type	Cal	**Sampe Name**	SEQ-CAL4
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.320	127008	19999	0.463			1.77			12043.63
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	142906	22754	0.413			1.54			49905.45
PFMPA	2.300	31653	3923	0.559			1.51			9134.99
3:3FTCA	4.488	4337	617	0.416			1.78			1889.41
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	127872	20550	0.417			1.65			16998.33
Perfluoro-n-pentanoic acid (PFPeA)	4.784	127518	20158	0.435			1.72			7488.41
PFMBA	5.514	52032	11099	0.370			1.95			473.56
M3PFBS	5.539	21714	4880	0.343			1.86			6364.20
Perfluorobutanesulfonic acid (PFBS)	5.539	21010	4630	0.380			1.94			1050.63
PFEESA	6.075	150899	36934	0.325			1.60			8146.96
NFDHA	6.225	1967	437	0.250			1.63			5067.92
M2-4-2FTS	6.306	31571	7312	0.325			1.40			∞
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.307	72617	16981	0.297			1.38			142935.66
M5PFHxA	6.381	69362	17037	0.325			1.54			140.02
Perfluorohexanoic acid (PFHxA)	6.383	79014	19391	0.325			1.49			1080.40
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.602	18586	4595	0.261			1.60			∞
M3-HFPO-DA	6.698	49876	12105	0.324			1.44			9135.01
HFPO-DA	6.699	4214	1025	0.244			1.47			11.56
M4PFHpA	7.272	17395	4046	0.315			1.52			40054.72
Perfluoroheptanoic acid (PFHpA)	7.272	42483	10032	0.306			1.56			519.46
5-3FTCA	7.328	219513	51079	0.359			1.76			25134.94
M3PFHxS	7.382	15592	3657	0.313			1.66			∞
Perfluorohexanesulfonic acid (PFHxS)	7.383	18383	3650	0.520			1.58			314.92

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.411	99514	23840	0.306			1.77			∞
M2-6-2FTS	7.921	29372	6869	0.316			1.85			68623.23
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	71123	16588	0.288			1.85			91871.17
Perfluorooctanoic acid (PFOA)	7.988	45875	10766	0.294			1.70			1836.14
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.997	36971	8535	0.297			1.26			121901.17
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	14859	3630	0.271			1.74			69.70
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	6494	1532	0.306			1.47			∞
Perfluorononanoic acid (PFNA)	8.591	42586	10587	0.240			1.59			234.57
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	6127	1494	0.306			1.44			333.55
Perfluorooctanesulfonic acid (PFOS)	8.626	14214	2599	0.414			1.34			189.45
7-3FTCA	8.730	396676	91377	0.306			1.90			∞
9-Cl-PF3ONS	8.940	250911	62485	0.270			1.66			466.60
M2-8-2FTS	9.062	45056	11012	0.297			1.94			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	21164	5021	0.294			1.41			∞
M6PFDA	9.100	21116	5221	0.297			1.85			188.97
Perfluorodecanoic acid (PFDA)	9.101	43439	10594	0.288			1.75			2707.22
Perfluorononanesulfonate (L-PFNS)	9.116	10247	2620	0.241			1.66			392.88
d3-N-MeFOSAA	9.311	27520	6501	0.288			1.56			∞
N-MeFOSAA	9.311	11996	2383	0.464			1.76			13185.60
d5-N-EtFOSAA	9.551	24099	5670	0.259			1.57			∞
N-EtFOSAA	9.561	10560	2104	0.473			1.49			∞
M7PFUdA	9.562	21144	4949	0.296			1.82			13580.18
Perfluoroundecanoic acid (PFUnA)	9.562	40272	10047	0.296			1.73			639.50
Perfluoro-1-decanesulfonate (L-PFDS)	9.569	4499	1095	0.278			1.32			53.53
Perfluoro-1-octanesulfonamide (FOSA)	9.657	18900	4356	0.351			1.94			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	13998	3220	0.296			1.48			117.14
11-Cl-PF3OUdS	9.818	157013	38507	0.232			1.72			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.968	17821	4437	0.250			1.83			37003.14

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.968	29287	7355	0.259			1.77			1663.11
d5-NEtFOSA	10.668	729	185	0.245			2.04			18.37
Perfluorododecanesulfonic acid (PFDoS)	10.296	2362	610	0.252			1.55			16.02
Perfluorotridecanoic acid (PFTrDA)	10.307	19210	4963	0.270			1.81			843.65
d7-NMeFOSE	10.391	10652	2709	0.285			1.95			∞
NMeFOSE	10.410	8664	2201	0.303			1.63			1070.81
d3-NMeFOSA	10.431	1393	354	0.276			1.36			166.74
NMeFOSA	10.432	1145	302	0.211			1.59			∞
M2PFTeDA	10.589	6703	1829	0.304			1.80			∞
Perfluorotetradecanoic acid (PFTA)	10.590	13787	3735	0.304			1.66			1178.33
d9-NEtFOSE	10.637	4418	1137	0.304			1.51			361.25
NEtFOSE	10.647	8713	2260	0.280			1.83			387.90
NEtFOSA	10.688	934	241	0.268			1.35			335.39

Data File	QQQ40099.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 4:19:05 AM
Sample Name	SEQ-CAL5	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	5 - 125.0 ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
Ref Library			

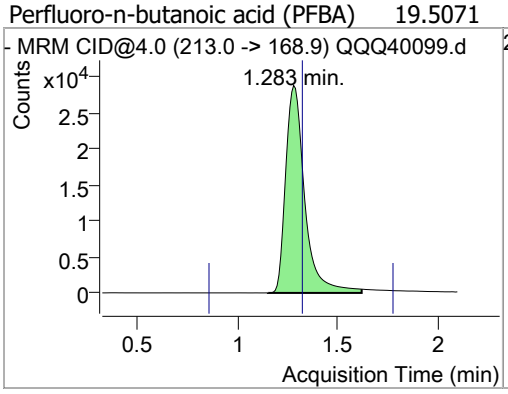
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.287	217.0 -> 172.0	109065	10.0000	ng/ml		-0.037
M3PFBA	1.281	216.0 -> 172.0	19571	5.0000	ng/ml		-0.037
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.765	268.0 -> 223.0	98251	5.0000	ng/ml		-0.018
MPFHxA	6.373	315.0 -> 269.8	30114	2.5000	ng/ml		-0.009
MPFHxS	7.373	403.0 -> 103.0	3229	2.3700	ng/ml		-0.009
M3PFBS-EIS	5.529	302.0 -> 79.9	16926	2.3300	ng/ml		-0.009
M5PFHxA-EIS	6.372	318.0 -> 273.0	52456	2.5000	ng/ml		-0.009
M2-4-2FTS-EIS	6.297	329.0 -> 309.0	27431	4.6900	ng/ml		-0.009
M3PFHxS-EIS	7.373	402.0 -> 80.0	10876	2.3700	ng/ml		-0.009
M3-HFPO-DA-EIS	6.689	287.0 -> 169.0	37129	10.0000	ng/ml		-0.009
M4PFHpA-EIS	7.262	367.0 -> 322.0	13685	2.5000	ng/ml		-0.009
M2-6-2FTS-EIS	7.921	429.0 -> 409.0	24763	4.7550	ng/ml		0.000
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.987	421.0 -> 376.0	31193	2.5000	ng/ml		-0.009
MPFOA	7.987	417.0 -> 372.0	36314	2.5000	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.625	507.0 -> 98.9	5039	2.3950	ng/ml		0.000
MPFNA	8.590	468.0 -> 423.0	19059	1.2500	ng/ml		0.000
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.590	472.0 -> 223.0	4829	1.2500	ng/ml		0.000
MPFOS	8.617	503.0 -> 80.0	8961	2.3950	ng/ml		-0.009
M2-8-2FTS-EIS	9.071	529.0 -> 509.0	36919	4.8000	ng/ml		0.009
MPFDA	9.110	515.0 -> 469.8	9064	1.2500	ng/ml		0.000
M6PFDA-EIS	9.109	519.0 -> 473.9	15781	1.2500	ng/ml		0.009
d3-N-MeFOSAA-EIS	9.311	573.0 -> 418.8	20460	5.0000	ng/ml		0.000
d5-N-EtFOSAA-EIS	9.551	589.0 -> 418.8	18605	5.0000	ng/ml		0.000
M7PFUdA-EIS	9.562	570.0 -> 525.0	16346	1.2500	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.666	506.0 -> 78.0	10269	2.5000	ng/ml		0.000
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.977	615.0 -> 570.0	14780	1.2500	ng/ml		0.009
M2PFTeDA-EIS	10.580	715.0 -> 670.0	5131	1.2500	ng/ml		-0.009
d7-NMeFOSE-EIS	10.400	623.0 -> 59.0	8740	25.0000	ng/ml		0.009
d3-NMeFOSA-EIS	10.431	515.0 -> 219.0	1033	2.5000	ng/ml		0.000
d9-NEtFOSE-EIS	10.628	639.0 -> 59.0	3295	25.0000	ng/ml		-0.009
d5-NEtFOSA-EIS	10.668	531.0 -> 169.0	582	2.5000	ng/ml	m	0.000
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.287	217.0 -> 172.0	109065	11.0058	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	268.0 -> 223.0	98251	5.4448	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.529	302.0 -> 79.9	16926	2.9493	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.297	329.0 -> 309.0	27429	5.8975	ng/ml		-0.009

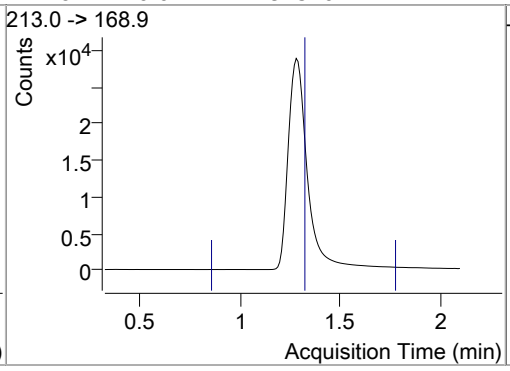
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.372	318.0 -> 273.0	52456	2.7109	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.689	287.0 -> 169.0	37129	11.2895	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.262	367.0 -> 322.0	13685	2.7237	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.373	402.0 -> 80.0	11015	2.7856	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.921	429.0 -> 409.0	24766	5.9622	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	421.0 -> 376.0	31194	2.9867	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	472.0 -> 223.0	4830	1.1621	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	507.0 -> 98.9	5029	2.8241	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.071	529.0 -> 509.0	36916	5.6951	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.109	519.0 -> 473.9	15781	1.4468	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.311	573.0 -> 418.8	20460	5.2786	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.551	589.0 -> 418.8	18605	5.7168	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.562	570.0 -> 525.0	16346	1.3535	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	506.0 -> 78.0	10269	2.6343	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	615.0 -> 570.0	14782	1.4804	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.668	531.0 -> 169.0	582	2.8862	ng/ml	m	0.432
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.400	623.0 -> 59.0	8749	29.1682	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.431	515.0 -> 219.0	1033	2.5611	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.580	715.0 -> 670.0	5131	1.3825	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.628	639.0 -> 59.0	3295	27.3409	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.283	213.0 -> 168.9	191540	19.5071	ng/ml		100
PFMPA	2.254	229.0 -> 85.0	49820	9.7719	ng/ml		100
3:3FTCA	4.470	241.0 -> 177.0	6554	23.9743	ng/ml		95
Perfluoro-n-pentanoic acid (PFPeA)	4.765	263.0 -> 219.0	191054	9.8254	ng/ml		100
PFMBA	5.504	279.0 -> 85.0	80582	9.8405	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.530	298.9 -> 79.9	31466	4.1868	ng/ml		98
PFEESA	6.066	315.0 -> 135.0	236176	8.6315	ng/ml		100
NFDHA	6.216	295.0 -> 201.1	2951	8.6643	ng/ml		95
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	327.0 -> 307.0	106258	18.0171	ng/ml		98

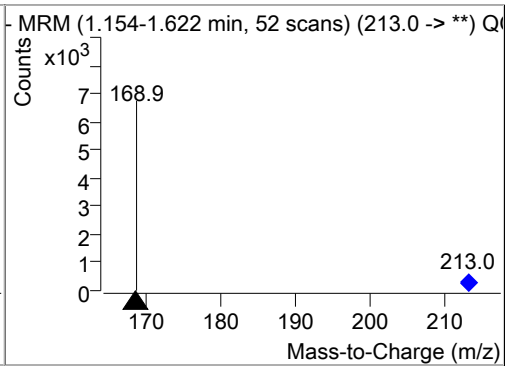
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.373	313.0 -> 268.9	117120	4.5977	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.593	348.9 -> 79.9	28818	5.1124	ng/ml		94
HFPO-DA	6.689	285.0 -> 169.1	6644	18.8260	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.263	363.0 -> 318.8	64028	4.6781	ng/ml		98
5-3FTCA	7.328	341.0 -> 217.0	331073	118.8384	ng/ml		99
Perfluorohexanesulfonic acid (PFHxS)	7.374	398.9 -> 79.9	26857	4.8733	ng/ml	m	98
ADONA	7.411	377.0 -> 85.0	156470	17.8974	ng/ml		99
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	427.0 -> 407.0	107303	18.5752	ng/ml		97
Perfluorooctanoic acid (PFOA)	7.988	413.0 -> 368.8	66964	4.3293	ng/ml		98
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	448.9 -> 80.0	21945	4.0018	ng/ml		98
Perfluorononanoic acid (PFNA)	8.591	463.0 -> 418.8	67470	5.0324	ng/ml		99
Perfluorooctanesulfonic acid (PFOS)	8.617	498.9 -> 79.9	21638	4.3729	ng/ml	m	96
7-3FTCA	8.730	441.0 -> 337.0	606456	129.1810	ng/ml		98
9-Cl-PF3ONS	8.940	531.0 -> 351.0	378117	17.8190	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	527.0 -> 80.9	31640	19.0849	ng/ml		99
Perfluorodecanoic acid (PFDA)	9.101	513.0 -> 468.8	61156	4.3684	ng/ml		98
Perfluorononanesulfonate (L-PFNS)	9.116	548.9 -> 79.9	14938	4.6041	ng/ml		98
N-MeFOSAA	9.311	570.0 -> 418.9	17485	5.0130	ng/ml	m	99
N-EtFOSAA	9.561	584.0 -> 418.8	16137	4.6969	ng/ml	m	94
Perfluoroundecanoic acid (PFUnA)	9.562	563.0 -> 519.0	61185	5.5292	ng/ml		99
Perfluoro-1-decanesulfonate (L-PFDS)	9.569	598.9 -> 98.9	6735	4.4039	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.667	497.9 -> 78.0	27227	4.7982	ng/ml		100
11-Cl-PF3OUdS	9.818	631.0 -> 451.0	240280	18.8794	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.977	613.0 -> 568.8	47056	4.7267	ng/ml		100
Perfluorododecanesulfonic acid (PFDoS)	10.287	699.0 -> 80.0	3956	4.9408	ng/ml		86
Perfluorotridecanoic acid (PFTrDA)	10.307	663.0 -> 618.8	32248	5.4973	ng/ml		100
NMeFOSE	10.410	616.0 -> 59.0	13626	43.2982	ng/ml		100
NMeFOSA	10.432	512.0 -> 169.0	1635	4.7918	ng/ml		84
Perfluorotetradecanoic acid (PFTA)	10.590	713.0 -> 669.0	20952	5.0021	ng/ml		99
NEtFOSE	10.647	630.0 -> 59.0	13441	51.9672	ng/ml		100
NEtFOSA	10.678	526.0 -> 169.0	1441	4.7710	ng/ml		94

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

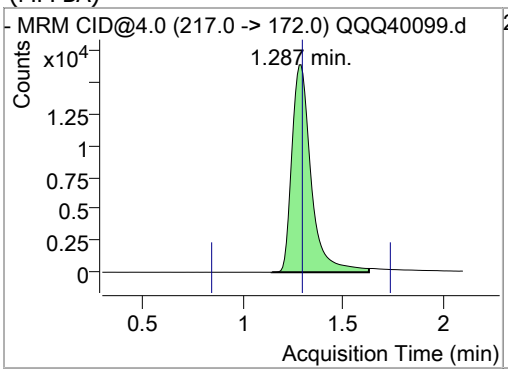
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	19.5071	1.28	-0.04	191540				

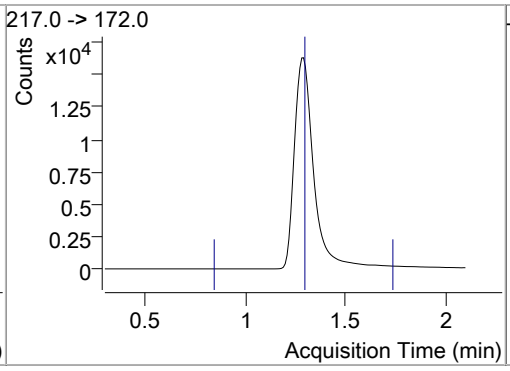


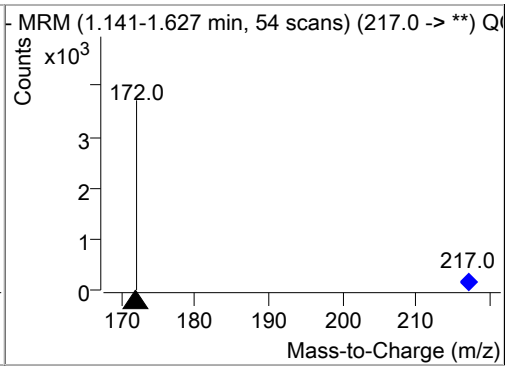




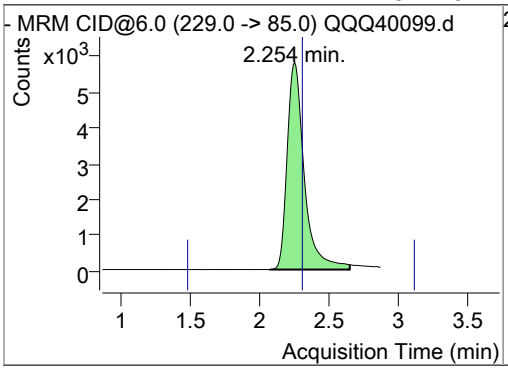
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	11.0058	1.29	-0.04	109065				

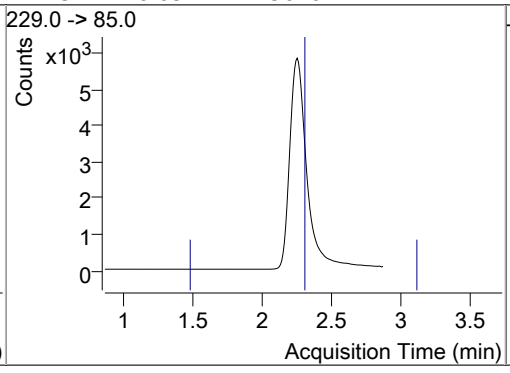


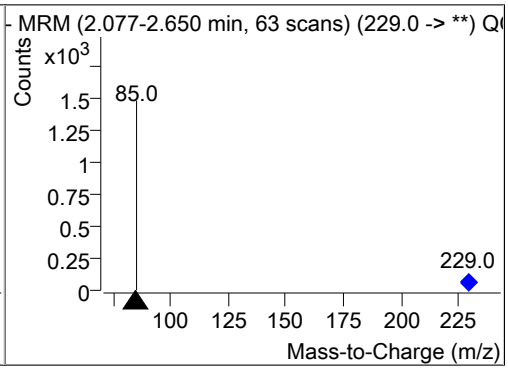




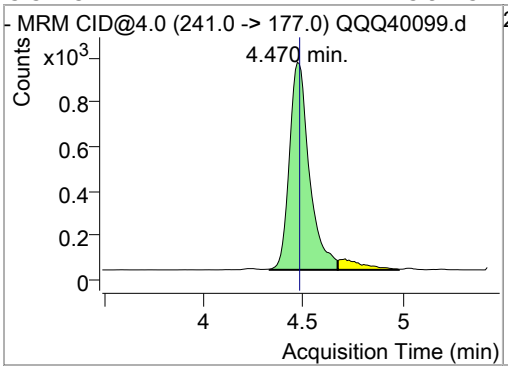
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	9.7719	2.25	-0.05	49820				

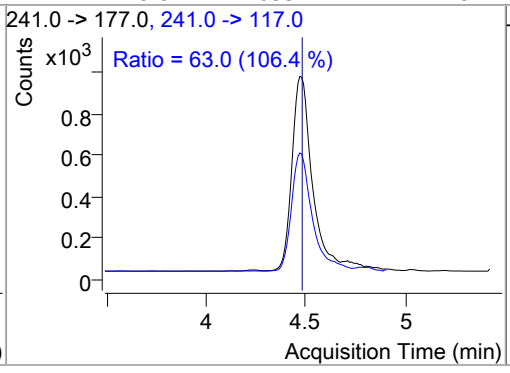


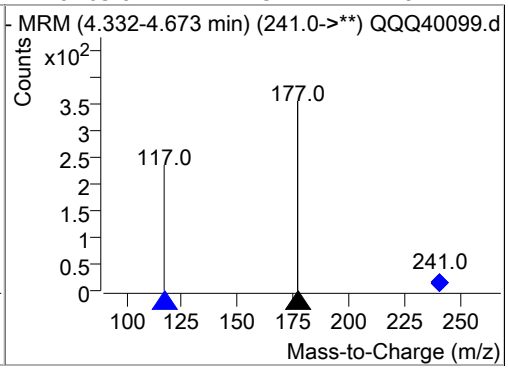




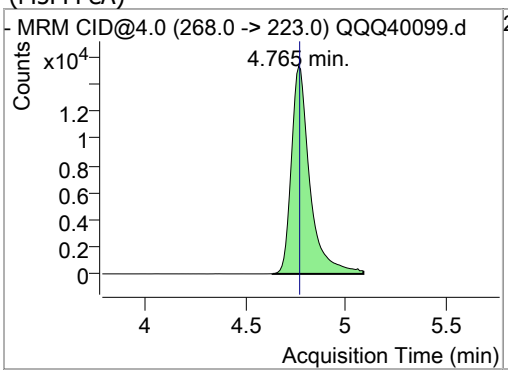
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	23.9743	4.47	-0.02	6554	241.0 -> 117.0	63.0	47.3	71.0

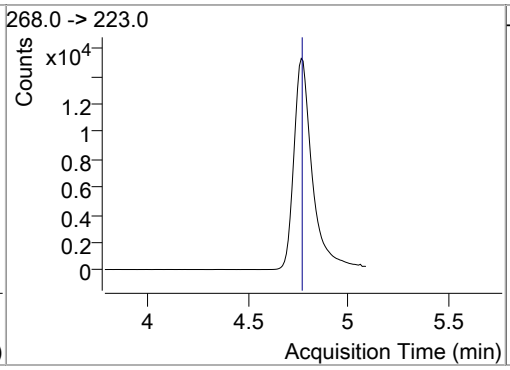


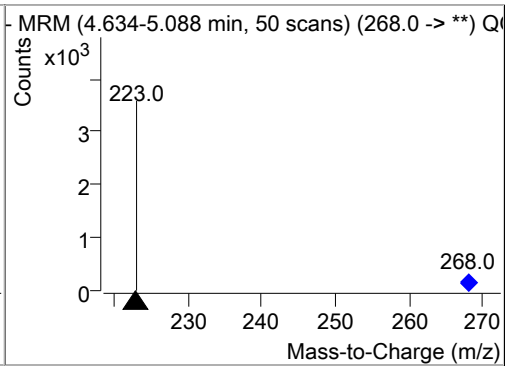




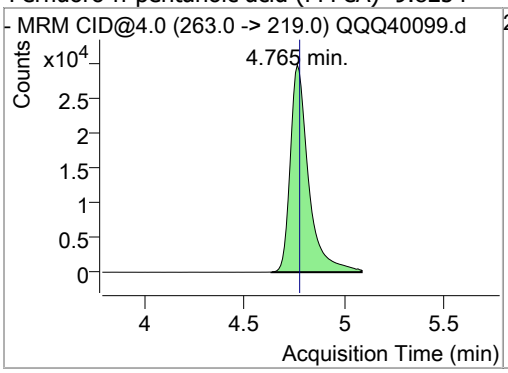
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.4448	4.76	-0.02	98251				

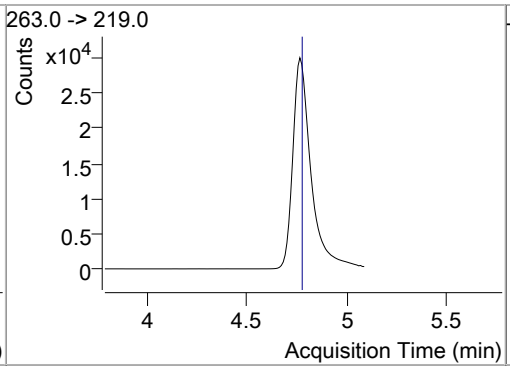


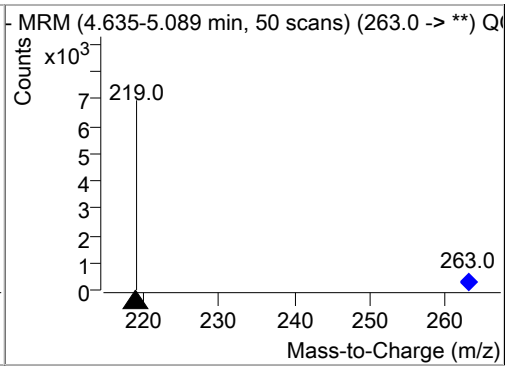




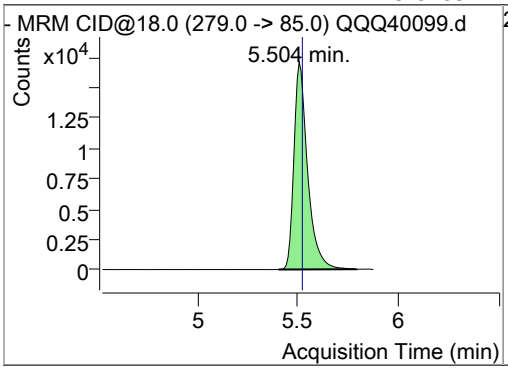
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	9.8254	4.77	-0.02	191054				

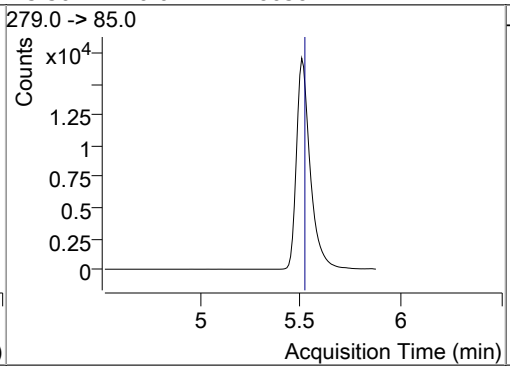


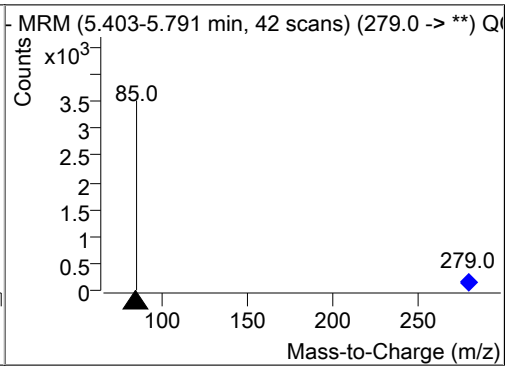




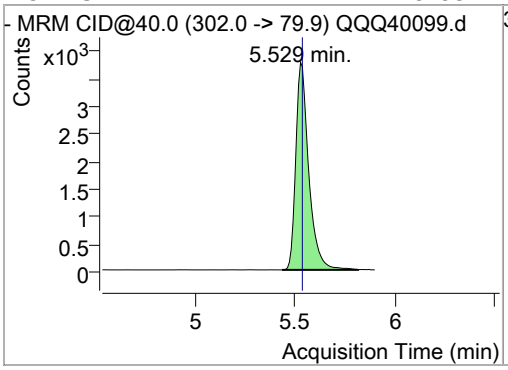
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	9.8405	5.50	-0.01	80582				

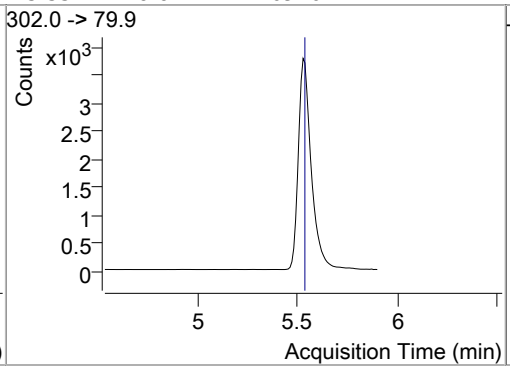


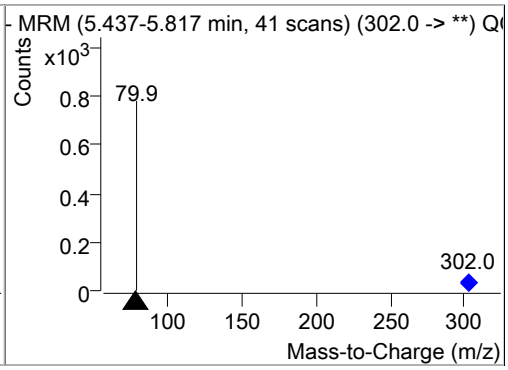




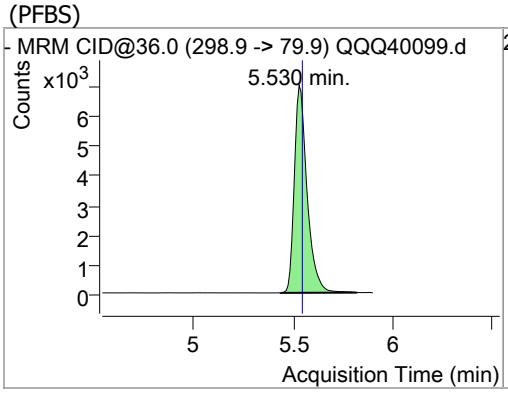
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.9493	5.53	-0.01	16926				

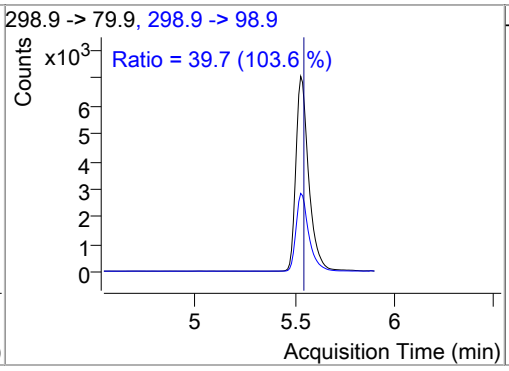


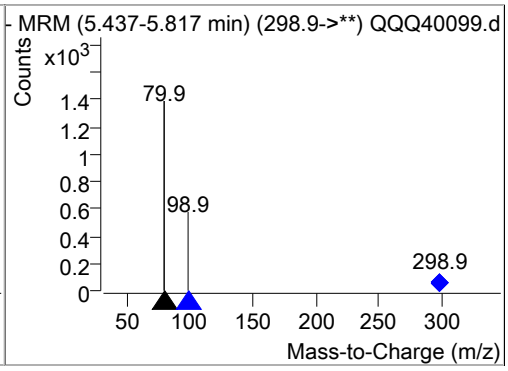




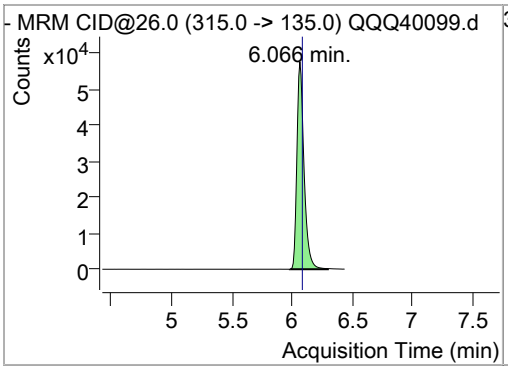
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	4.1868	5.53	-0.01	31466	298.9 -> 98.9	39.7	30.7	46.0

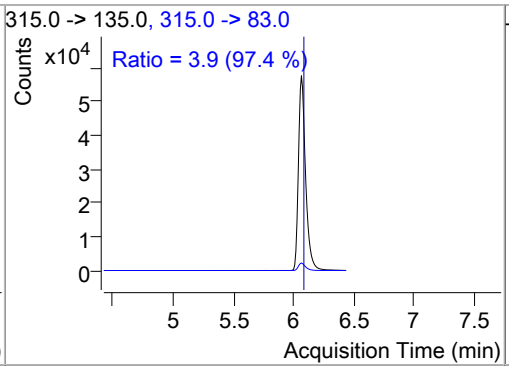


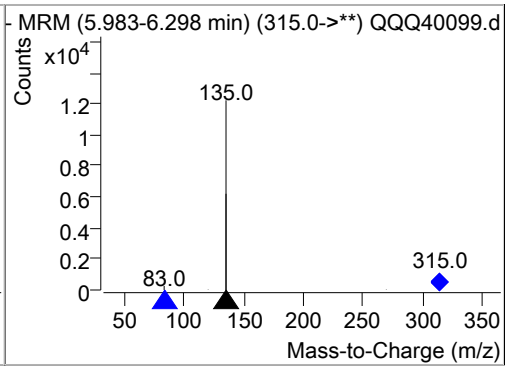




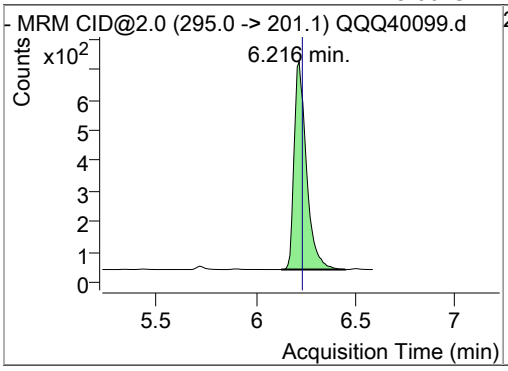
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	8.6315	6.07	-0.01	236176	315.0 -> 83.0	3.9	3.2	4.8

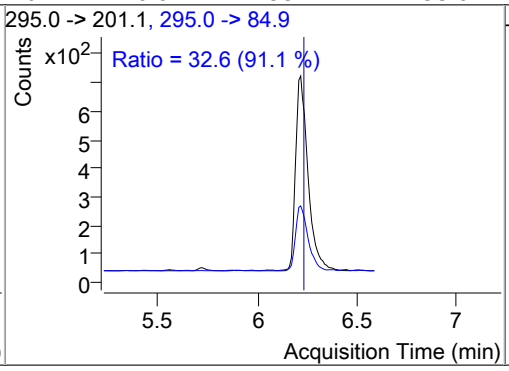


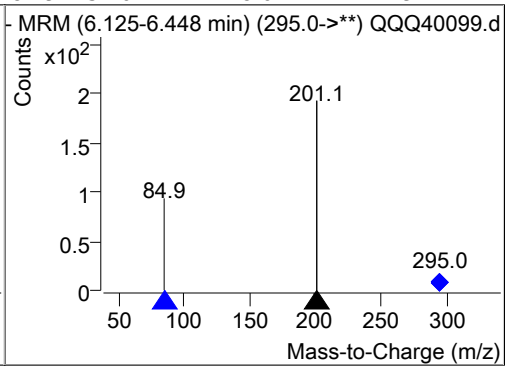




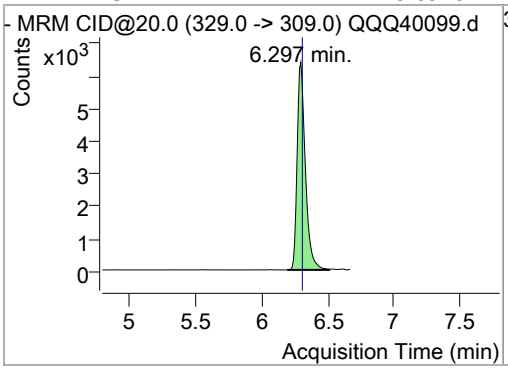
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	8.6643	6.22	-0.01	2951	295.0 -> 84.9	32.6	28.6	42.9

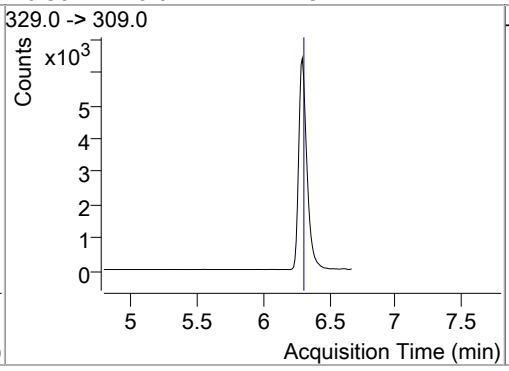


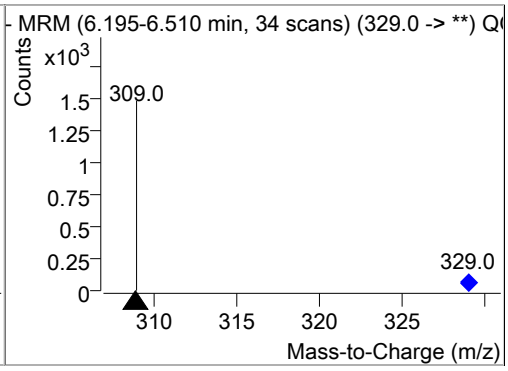




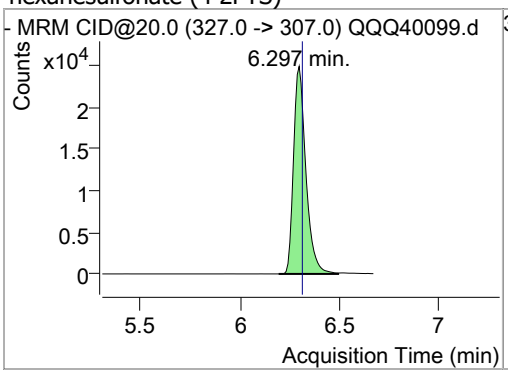
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	5.8975	6.30	-0.01	27429				

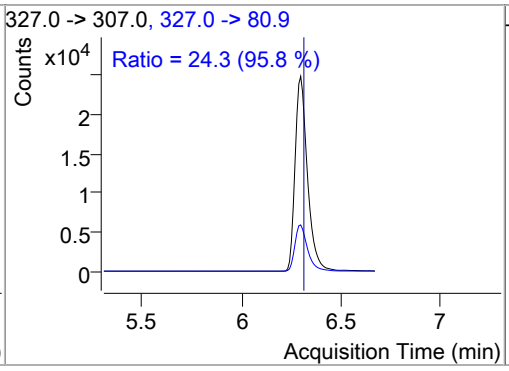


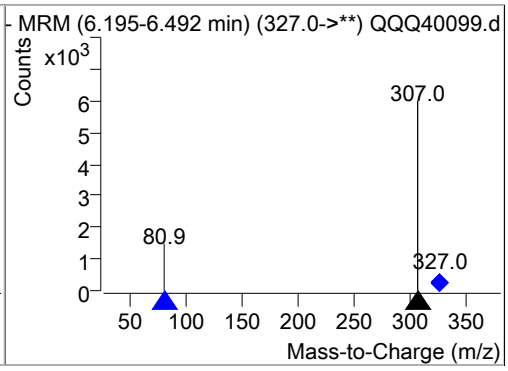




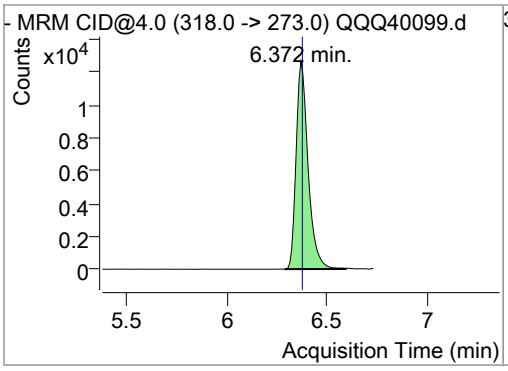
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	18.0171	6.30	-0.01	106258	327.0 -> 80.9	24.3	20.3	30.4

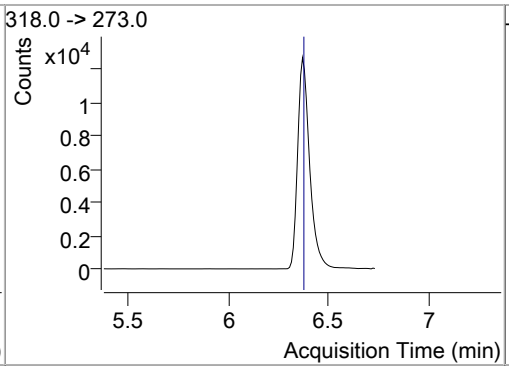


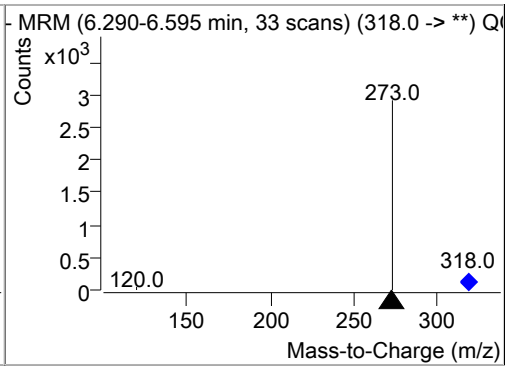




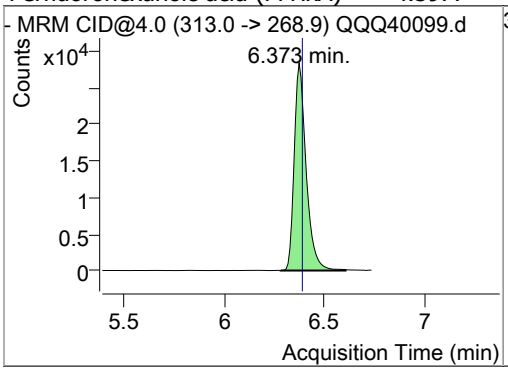
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.7109	6.37	-0.01	52456				

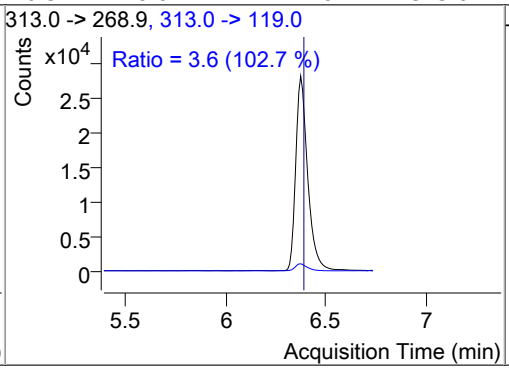


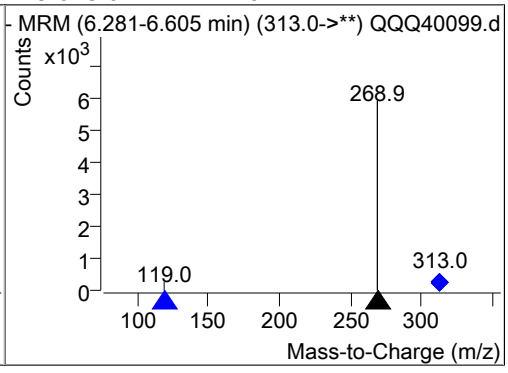




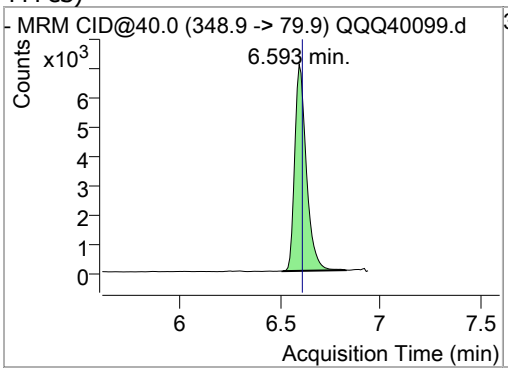
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	4.5977	6.37	-0.01	117120	313.0 -> 119.0	3.6	2.8	4.2

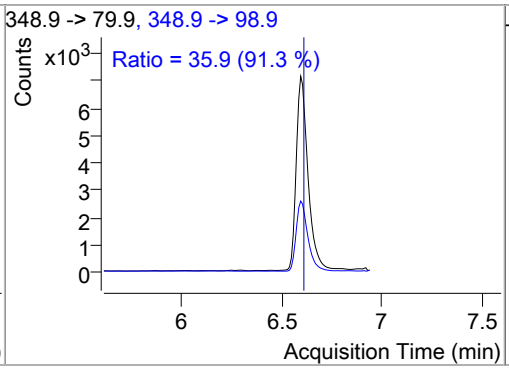


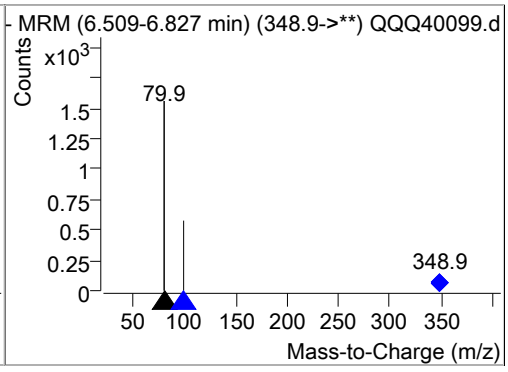




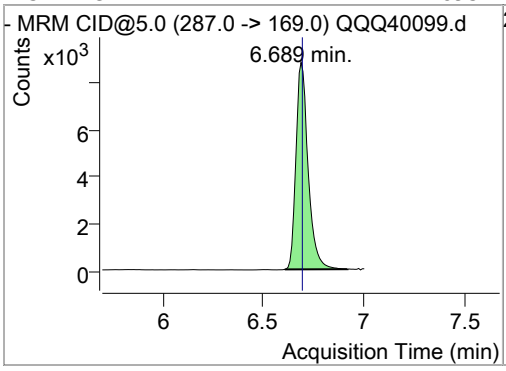
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	5.1124	6.59	-0.01	28818	348.9 -> 98.9	35.9	31.5	47.3

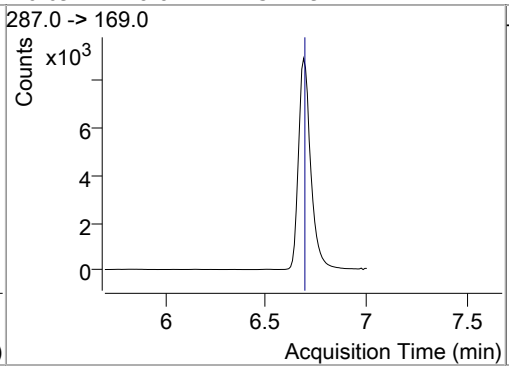


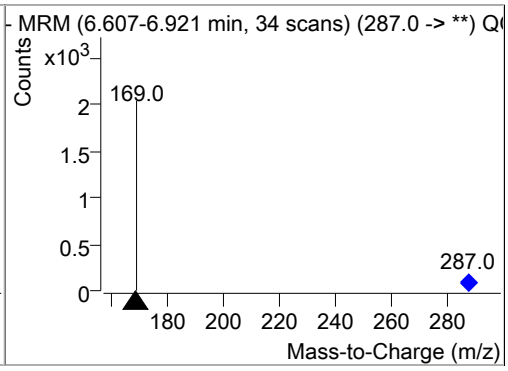




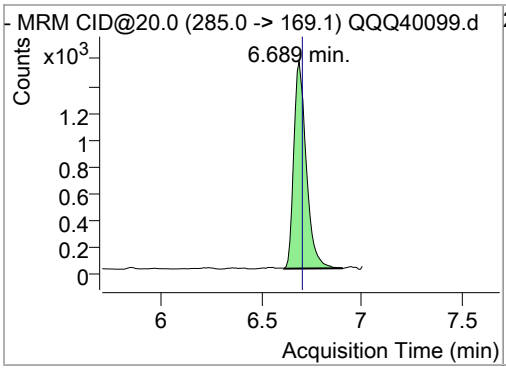
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	11.2895	6.69	-0.01	37129				

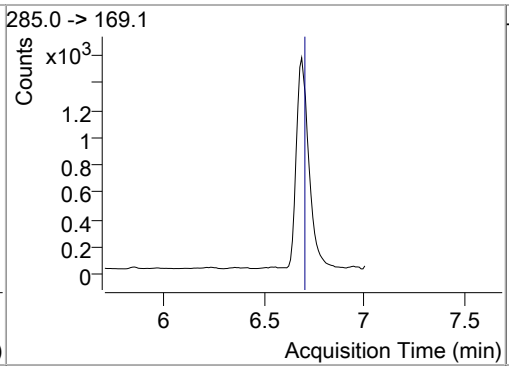


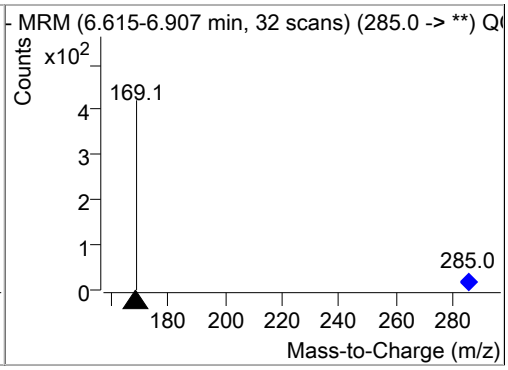




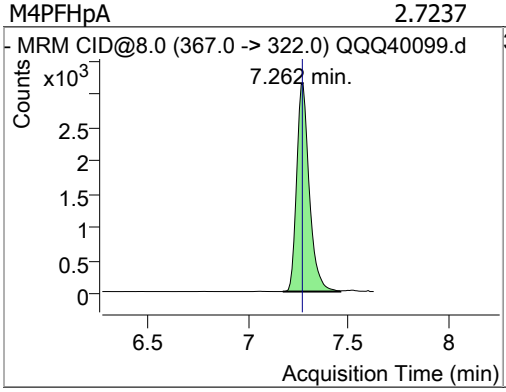
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	18.8260	6.69	-0.01	6644				

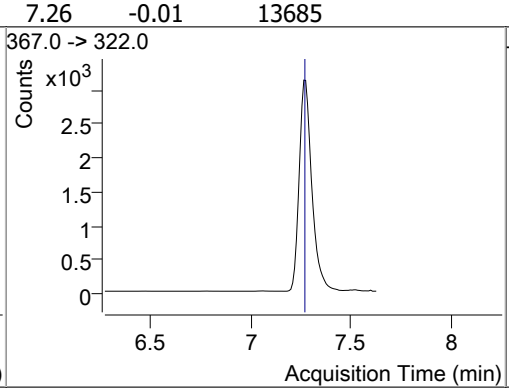


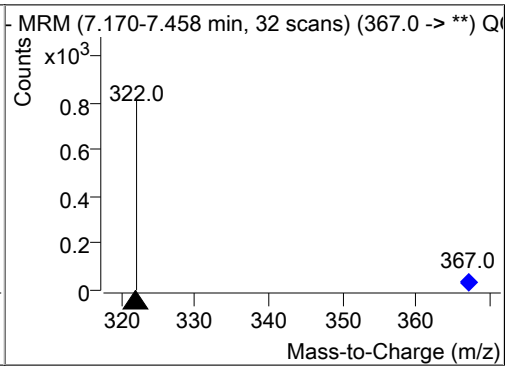




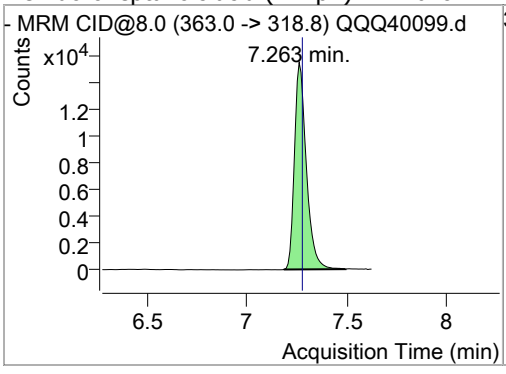
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.7237	7.26	-0.01	13685				

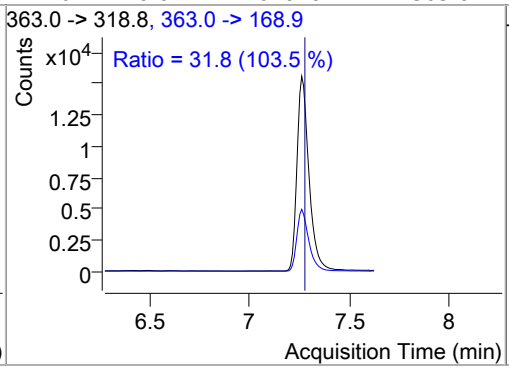


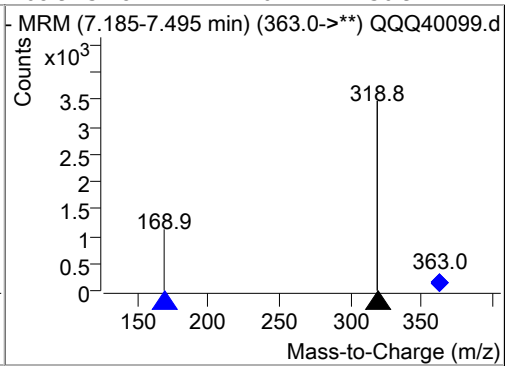




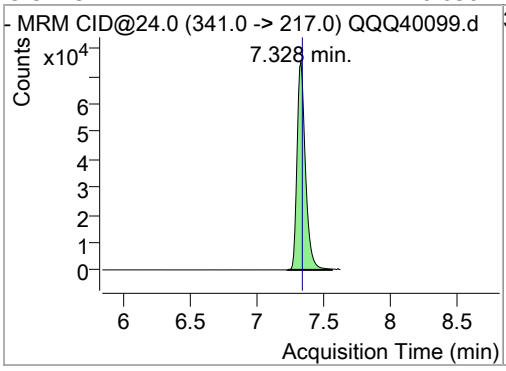
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	4.6781	7.26	-0.01	64028	363.0 -> 168.9	31.8	24.6	36.9

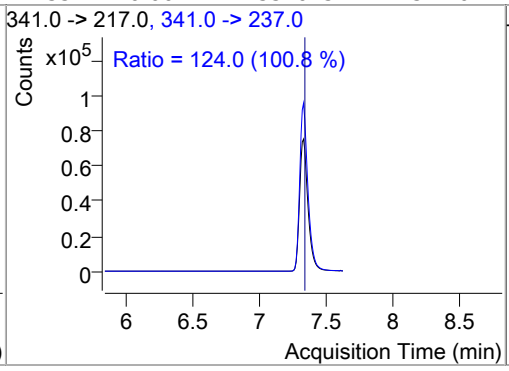


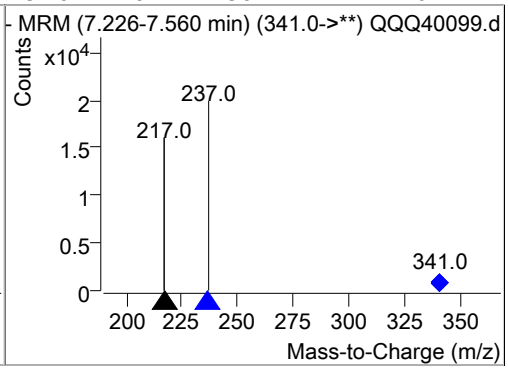




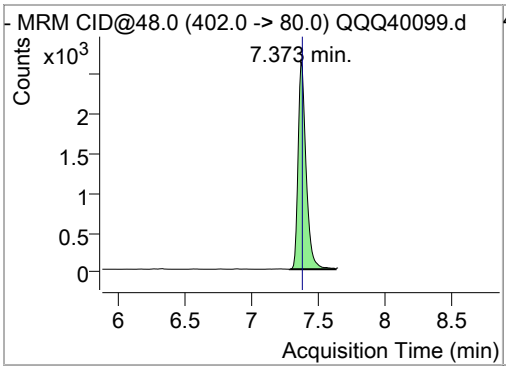
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	118.8384	7.33	0.00	331073	341.0 -> 237.0	124.0	98.4	147.6

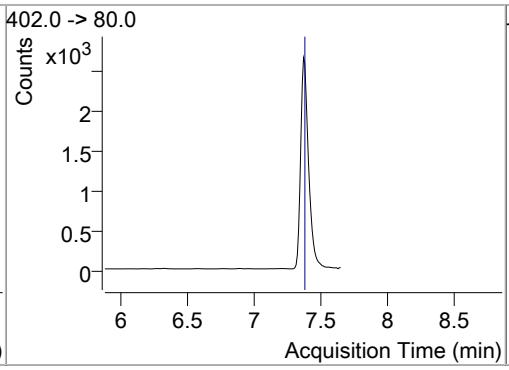


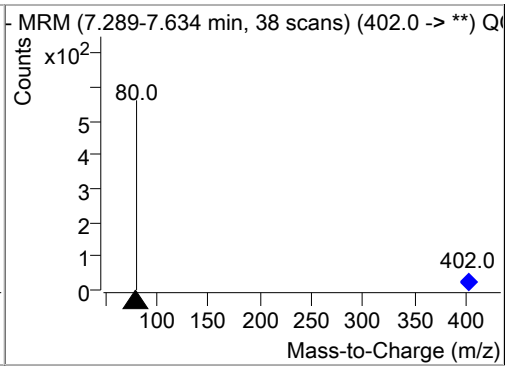




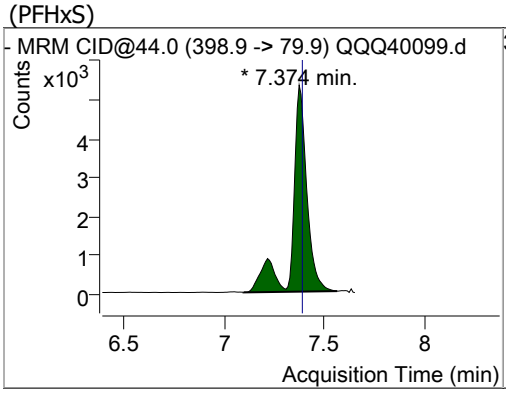
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.7856	7.37	-0.01	11015				

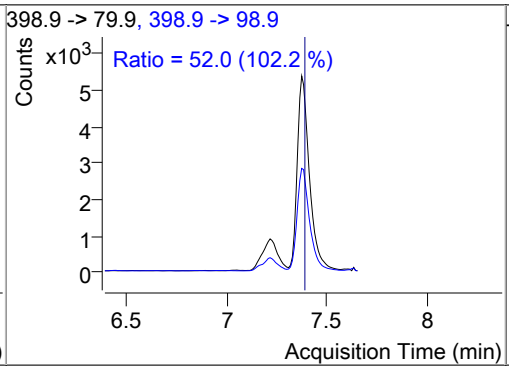


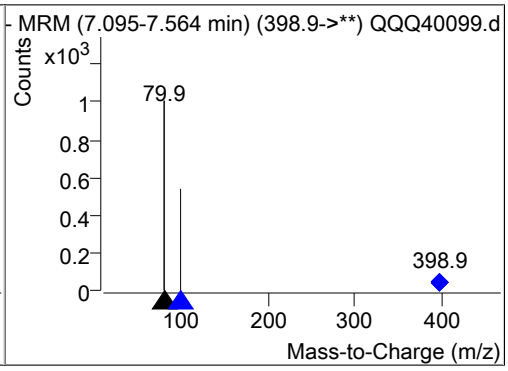




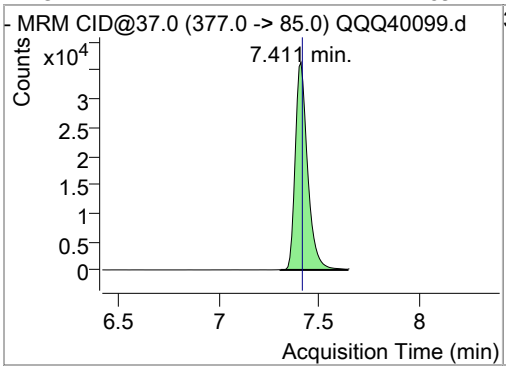
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	4.8733	7.37	-0.01	26857 (m)	398.9 -> 98.9	52.0	40.7	61.1

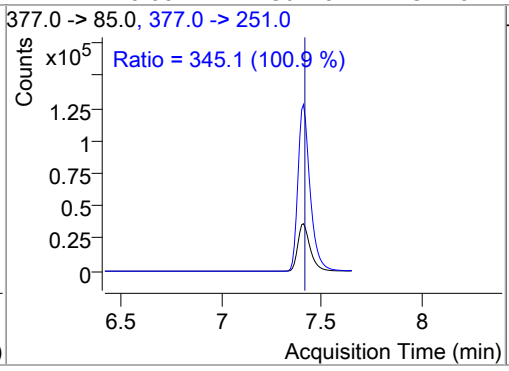


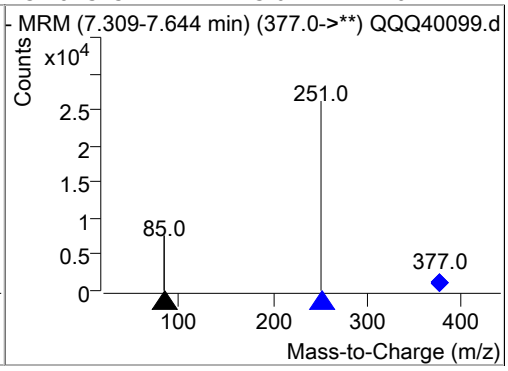




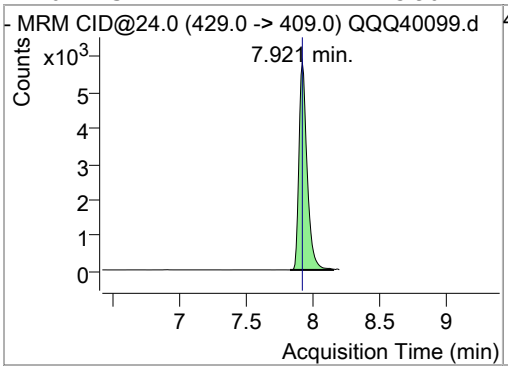
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	17.8974	7.41	0.00	156470	377.0 -> 251.0	345.1	273.6	410.4

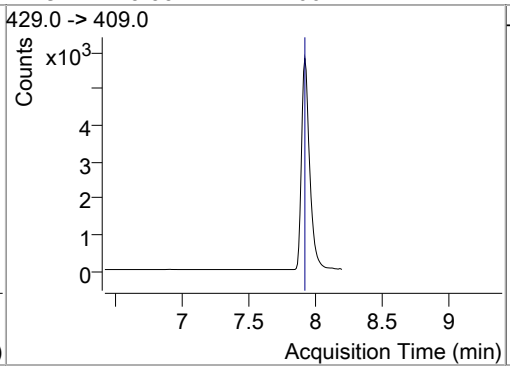


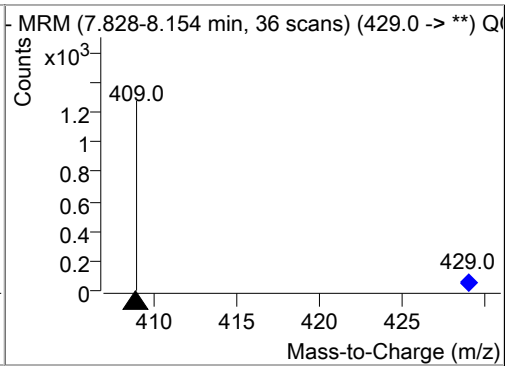




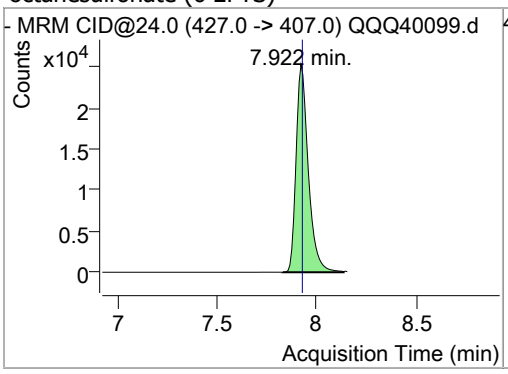
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.9622	7.92	0.00	24766				

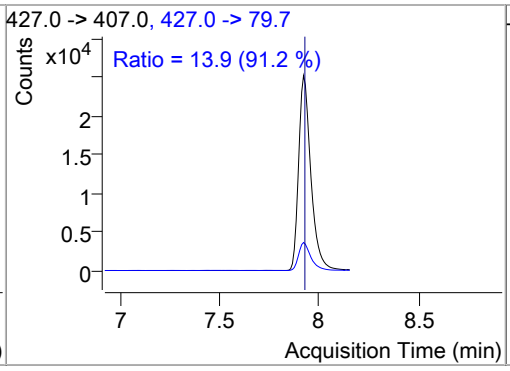


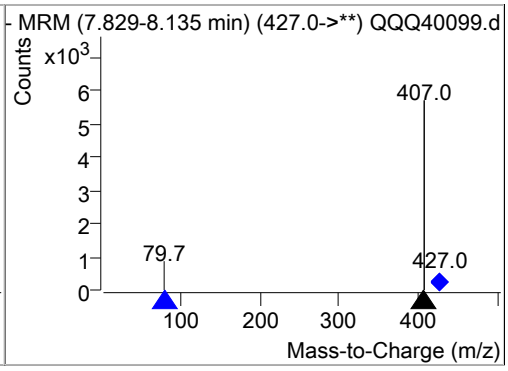




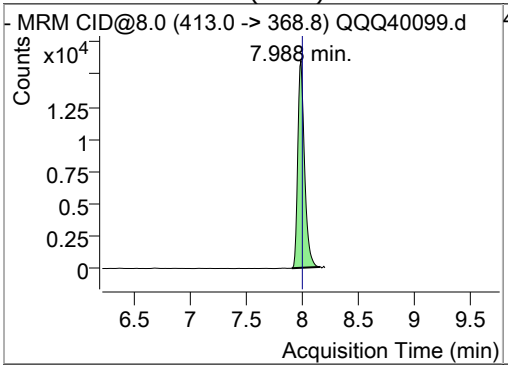
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	18.5752	7.92	0.00	107303	427.0 -> 79.7	13.9	12.2	18.4

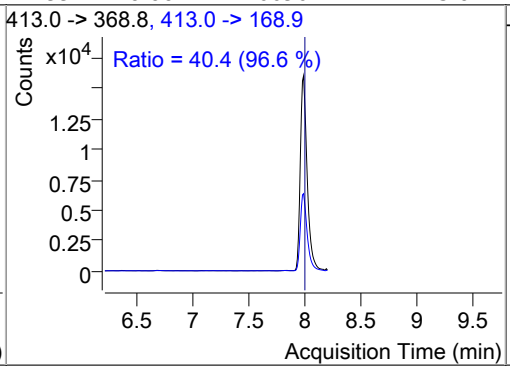


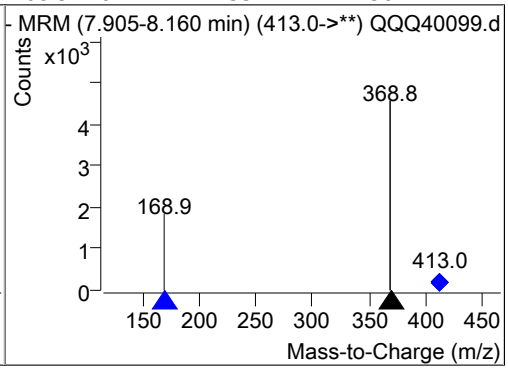




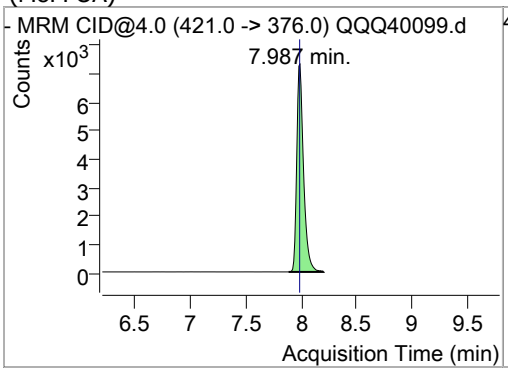
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	4.3293	7.99	0.00	66964	413.0 -> 168.9	40.4	33.4	50.1

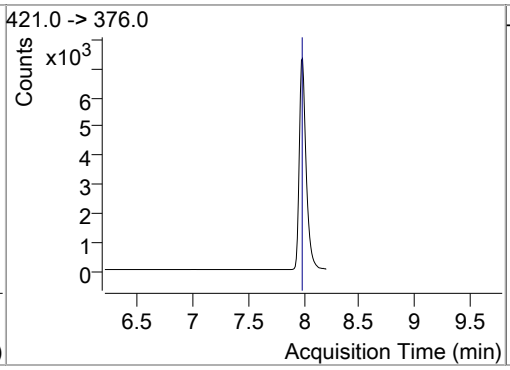


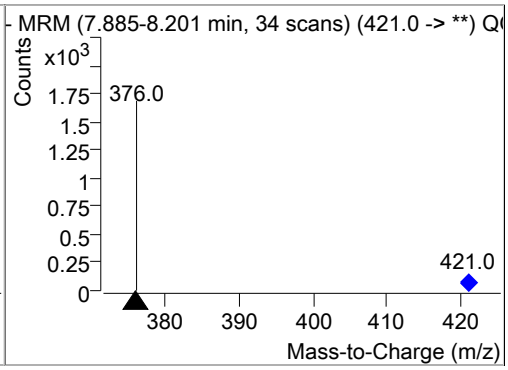




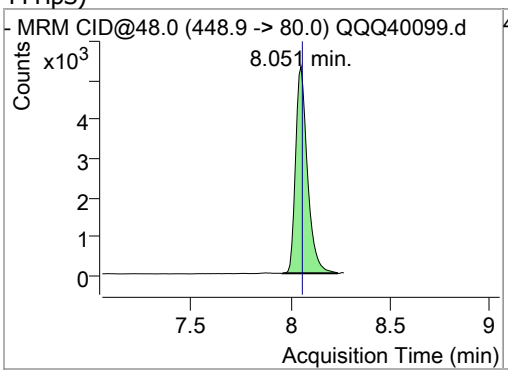
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.9867	7.99	-0.01	31194				

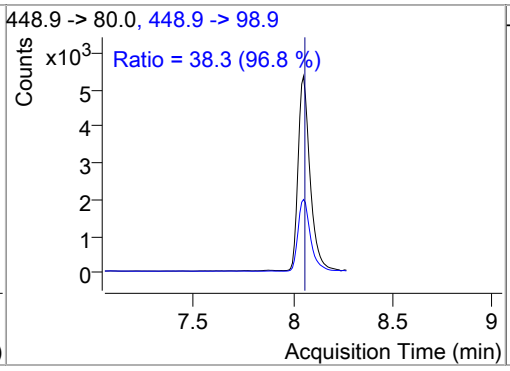


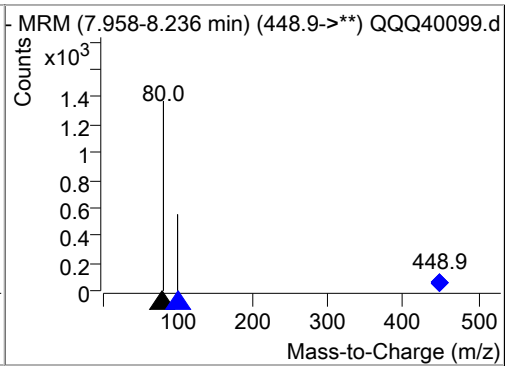




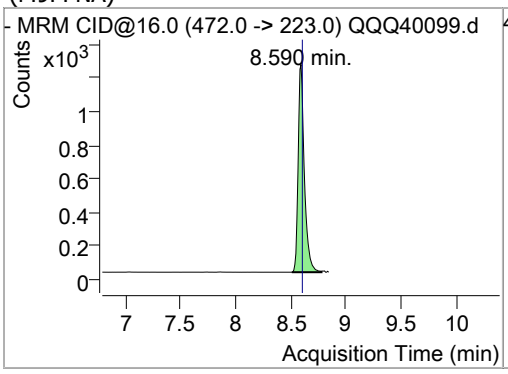
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	4.0018	8.05	0.00	21945	448.9 -> 98.9	38.3	31.7	47.5

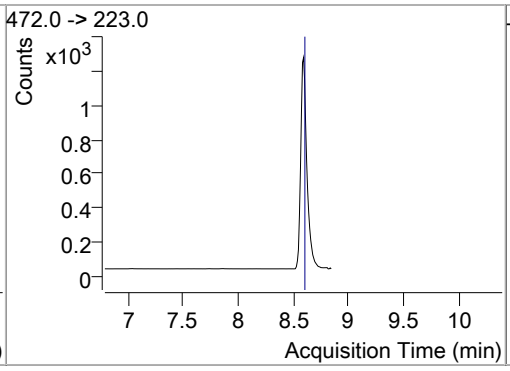


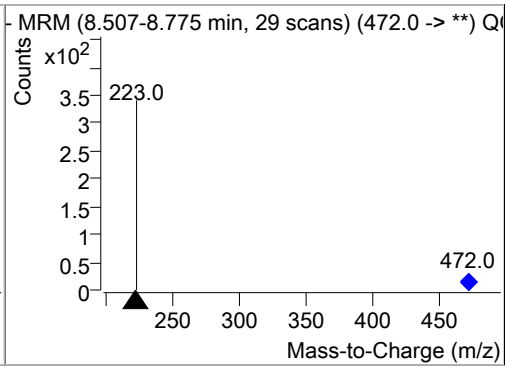




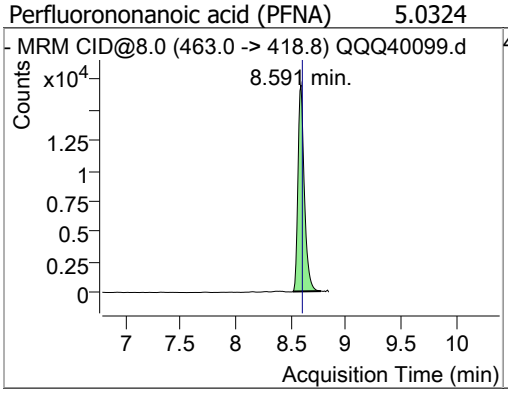
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.1621	8.59	0.00	4830				

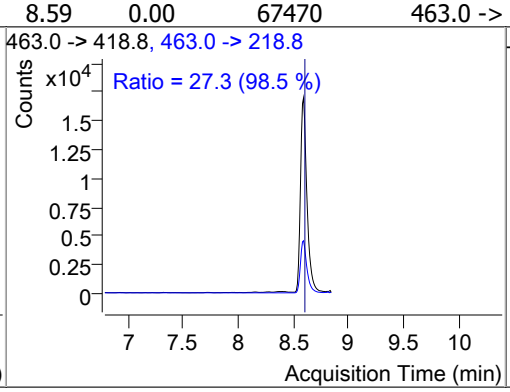


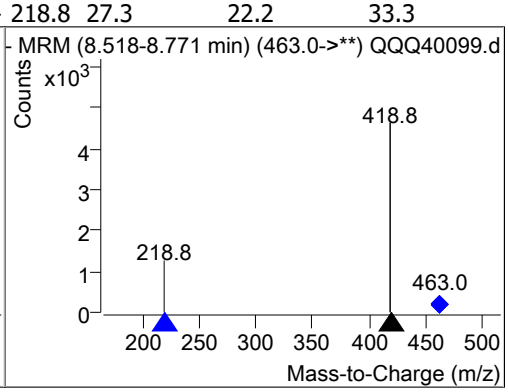




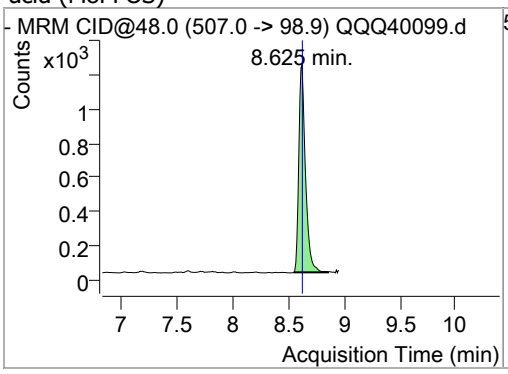
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	5.0324	8.59	0.00	67470	463.0 -> 218.8	27.3	22.2	33.3

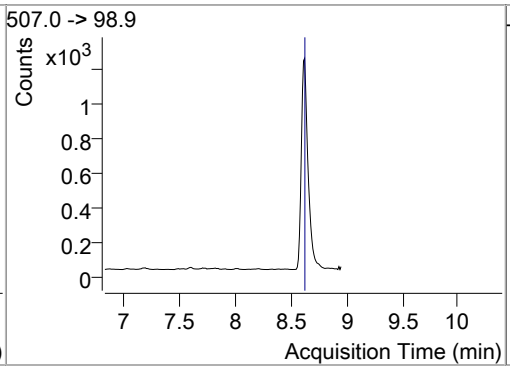


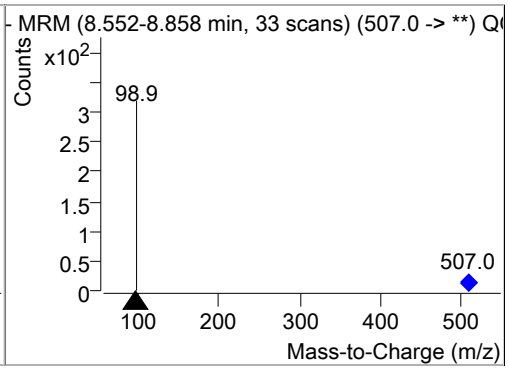




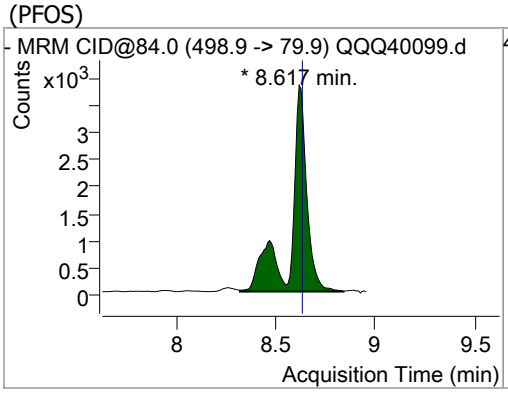
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.8241	8.63	0.00	5029				

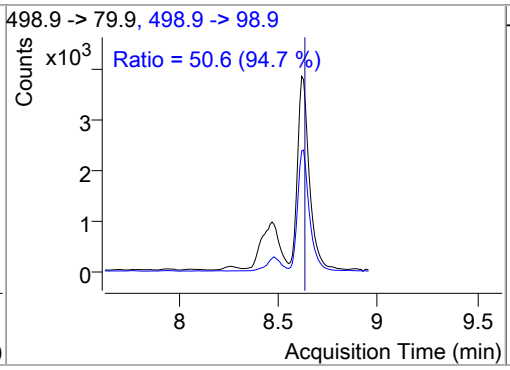


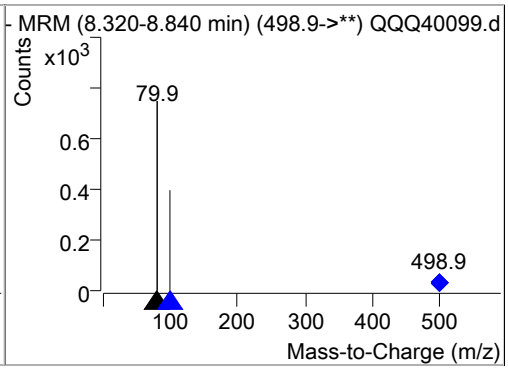




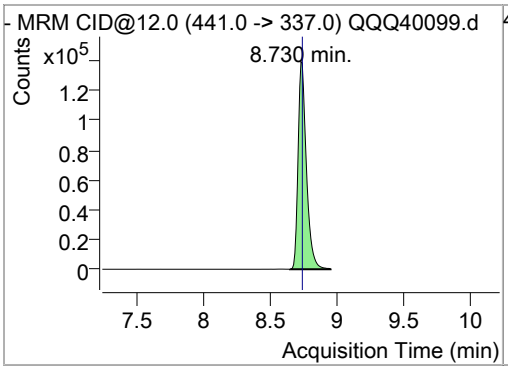
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	4.3729	8.62	-0.01	21638 (m)	498.9 -> 98.9	50.6	42.7	64.1

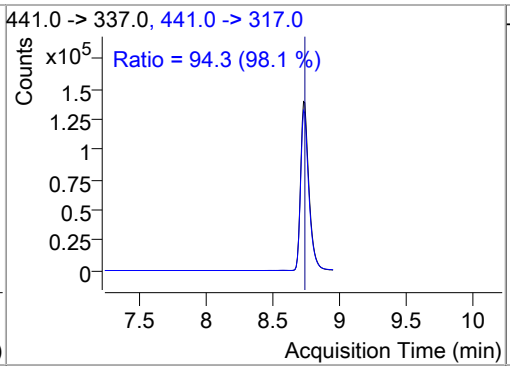


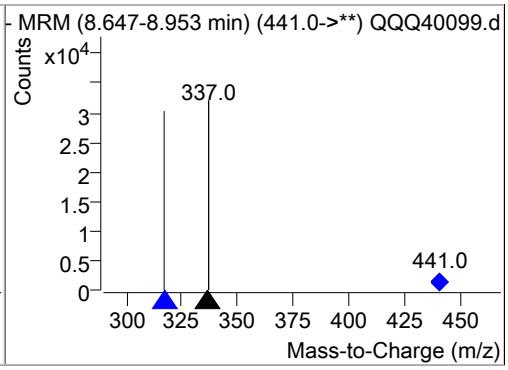




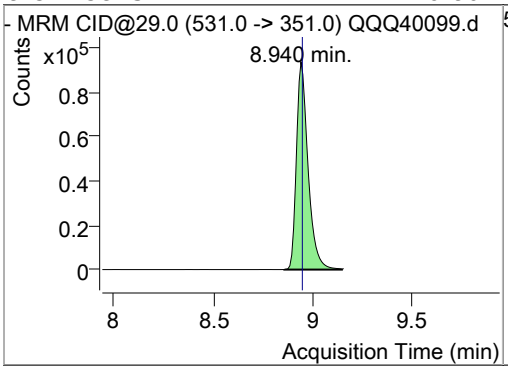
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	129.1810	8.73	0.00	606456	441.0 -> 317.0	94.3	76.9	115.4

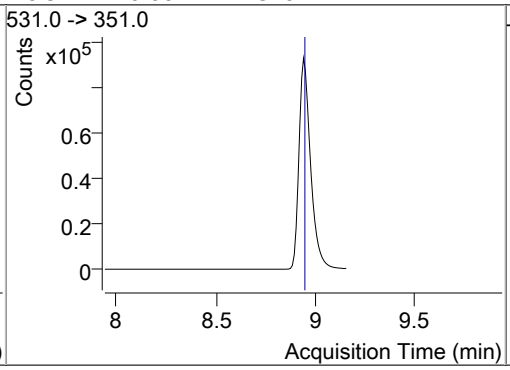


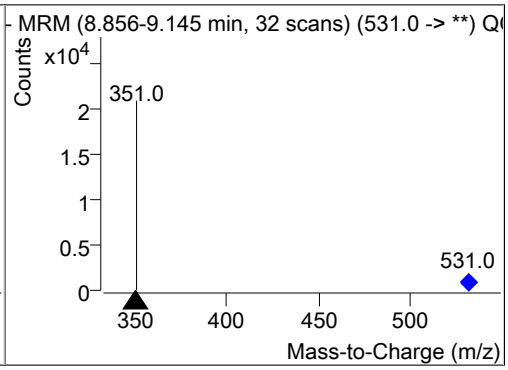




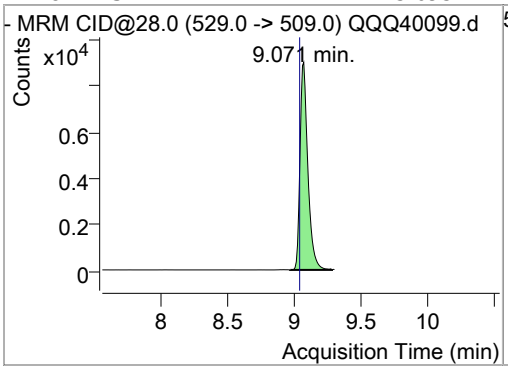
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	17.8190	8.94	0.00	378117				

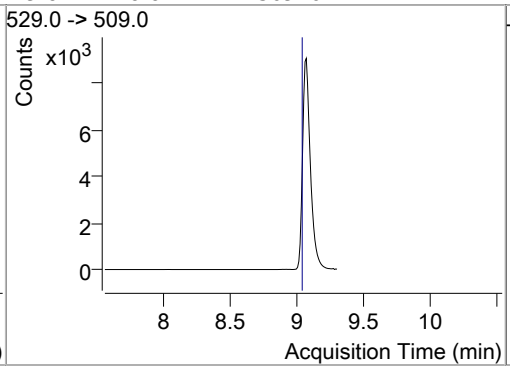


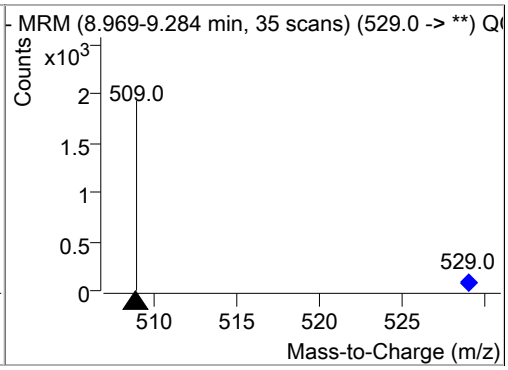




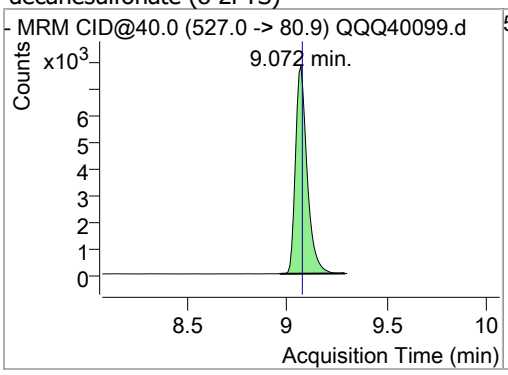
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	5.6951	9.07	0.01	36916				

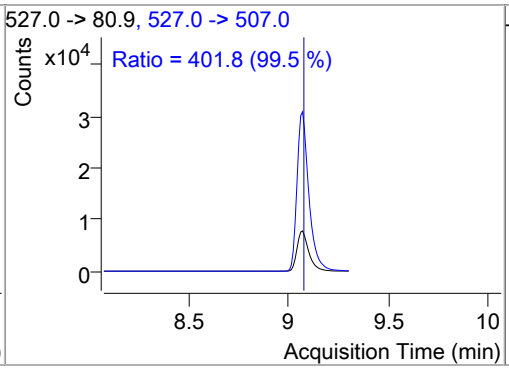


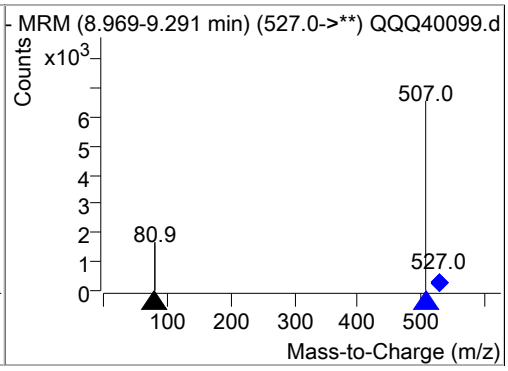




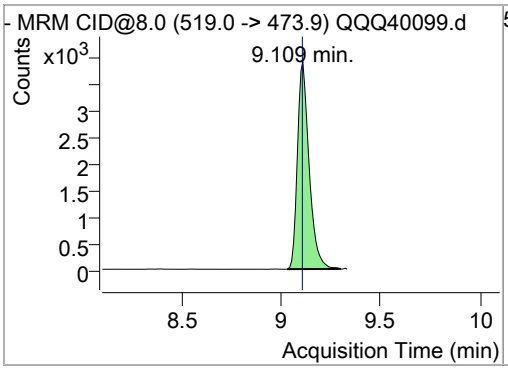
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	19.0849	9.07	0.00	31640	527.0 -> 507.0	401.8	323.1	484.6

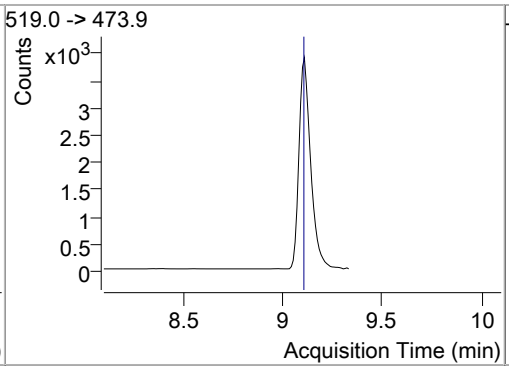


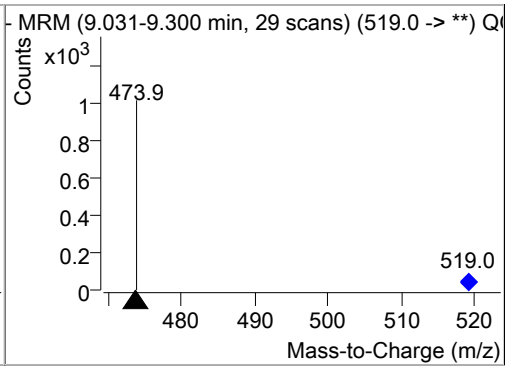




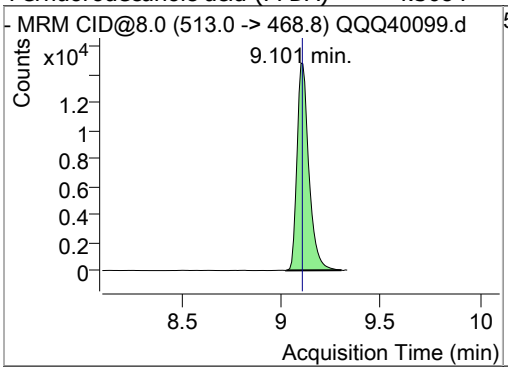
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.4468	9.11	0.01	15781				

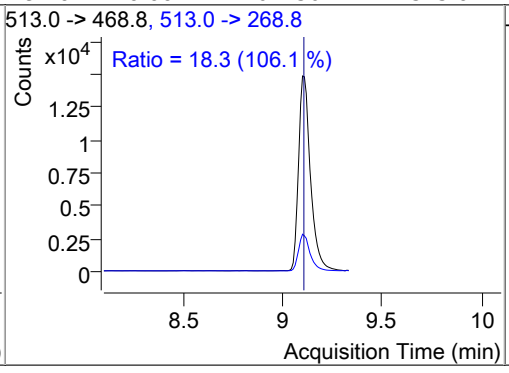


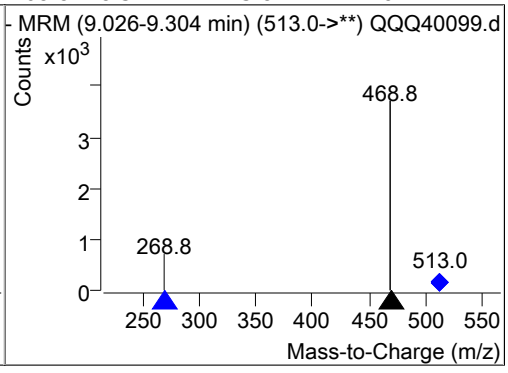




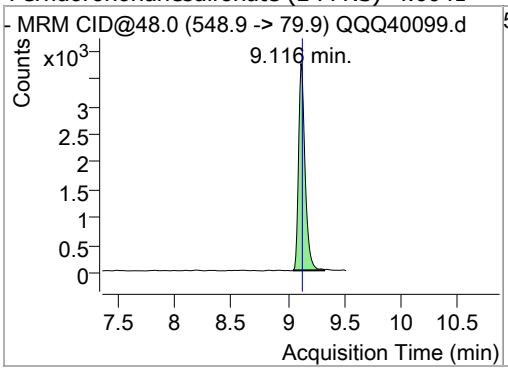
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	4.3684	9.10	0.00	61156	513.0 -> 268.8	18.3	13.8	20.7

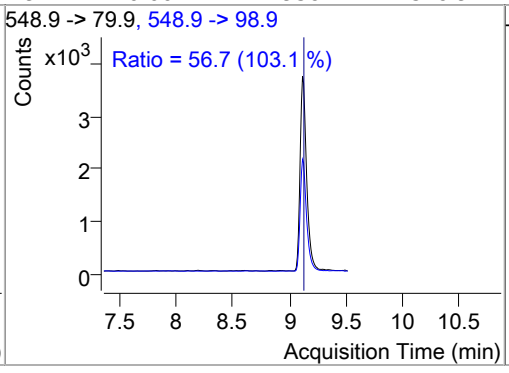


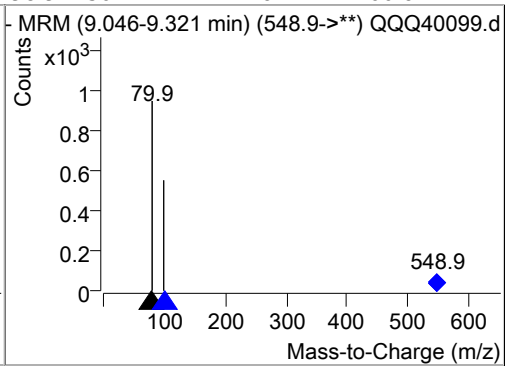




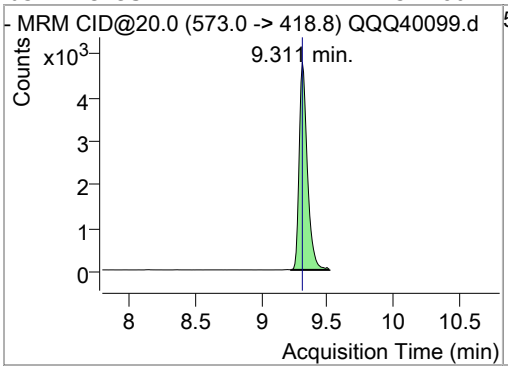
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	4.6041	9.12	0.00	14938	548.9 -> 98.9	56.7	44.0	66.0

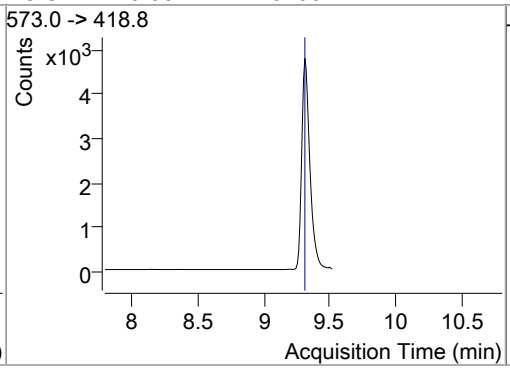


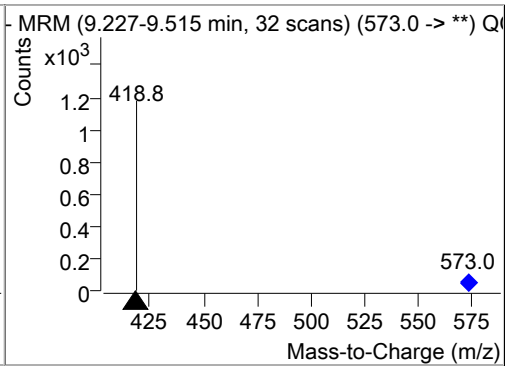




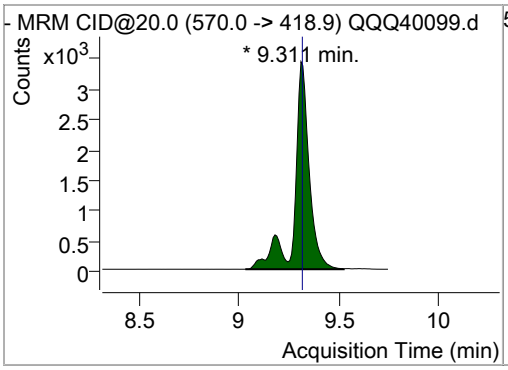
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.2786	9.31	0.00	20460				

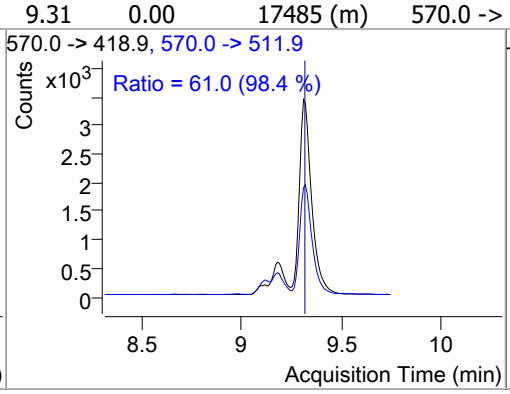


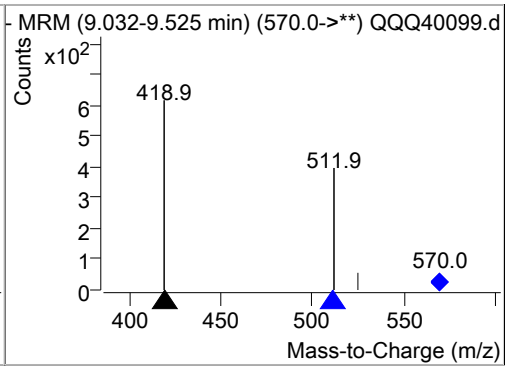




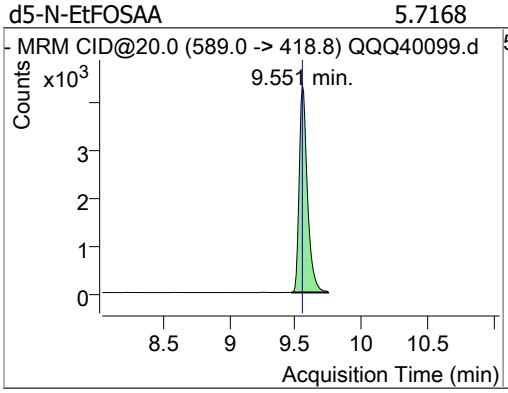
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	5.0130	9.31	0.00	17485 (m)	570.0 -> 511.9	61.0	49.6	74.4

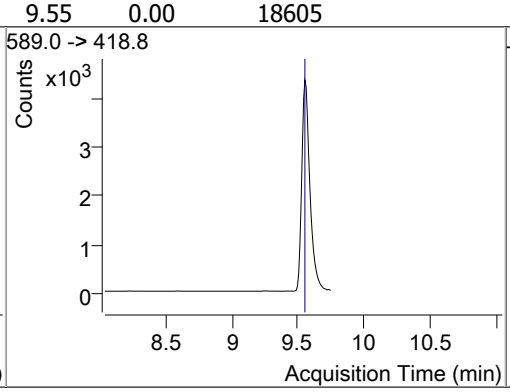


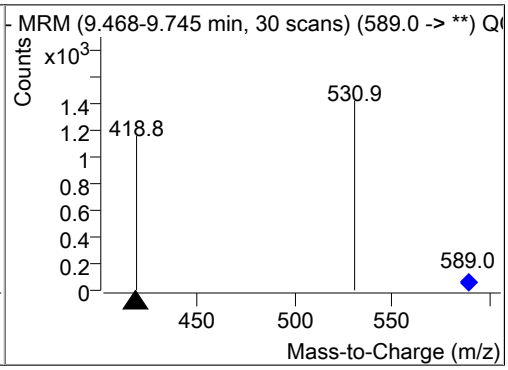




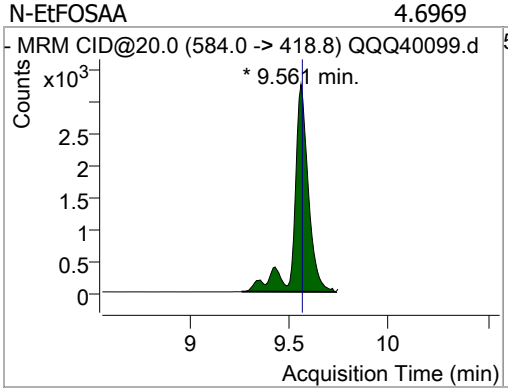
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.7168	9.55	0.00	18605				

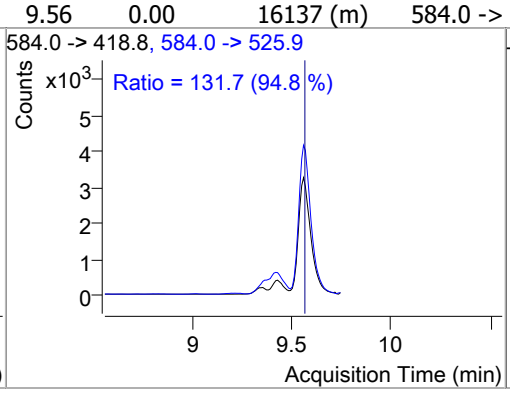


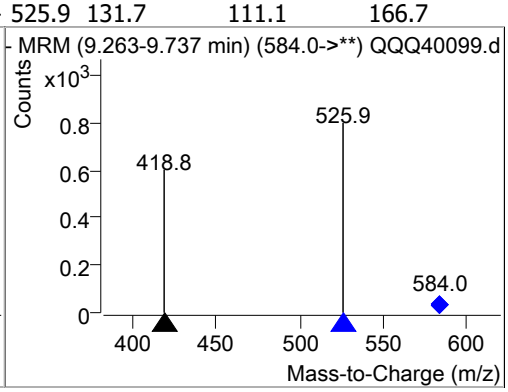




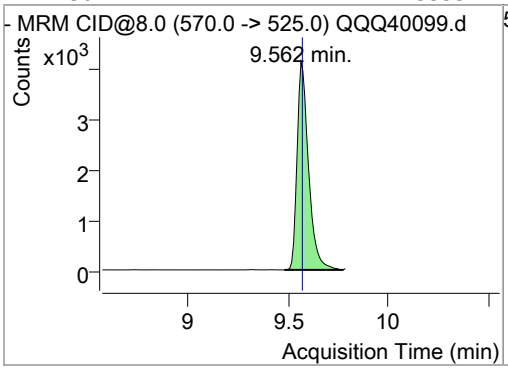
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	4.6969	9.56	0.00	16137 (m)	584.0 -> 525.9	131.7	111.1	166.7

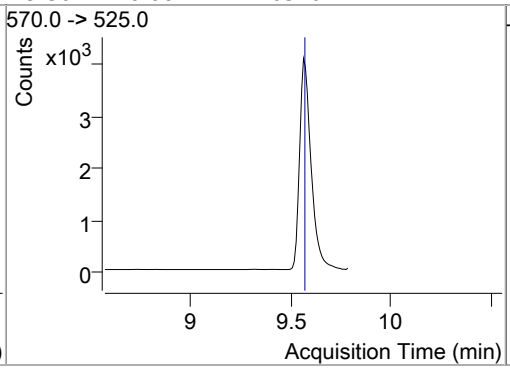


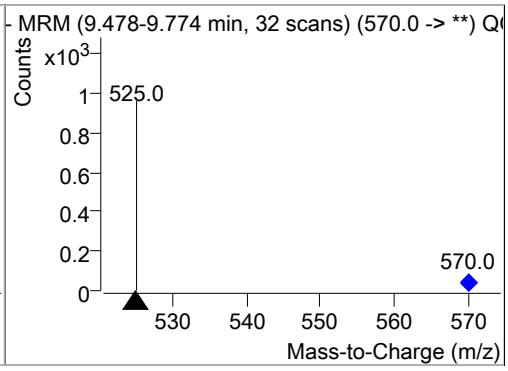




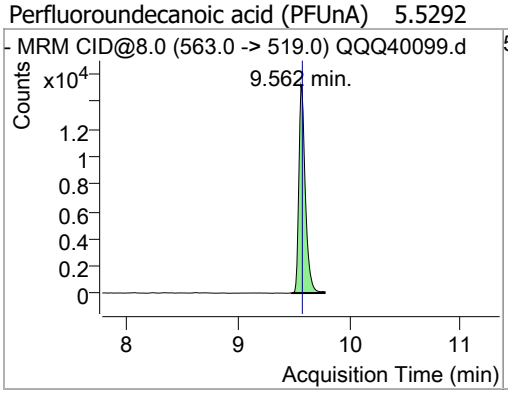
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.3535	9.56	0.00	16346				

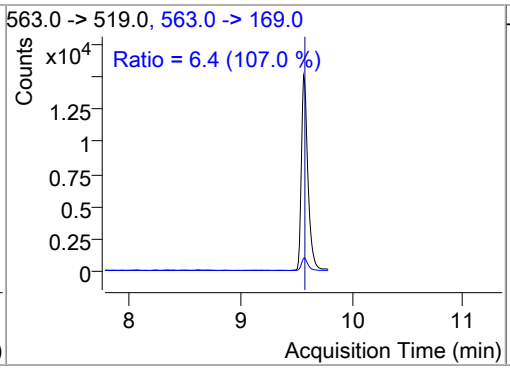


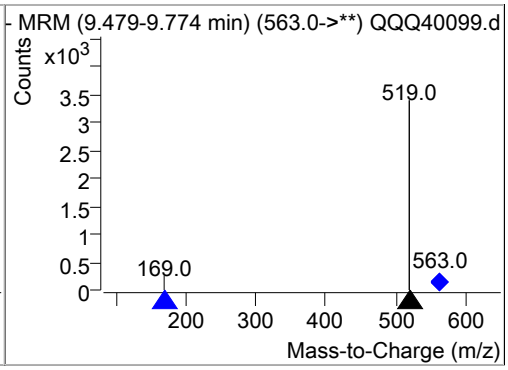




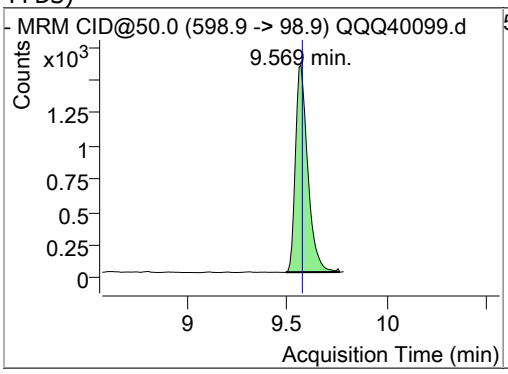
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	5.5292	9.56	0.00	61185	563.0 -> 169.0	6.4	4.8	7.2

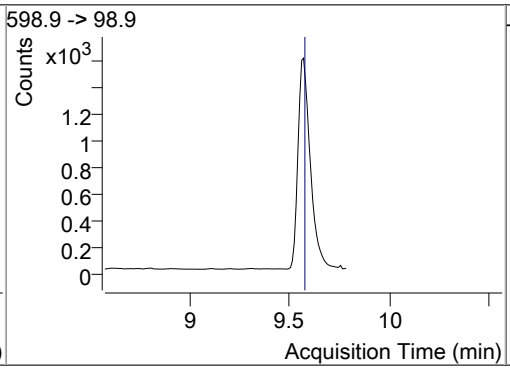


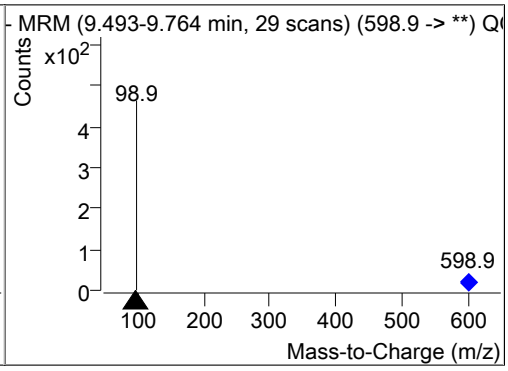




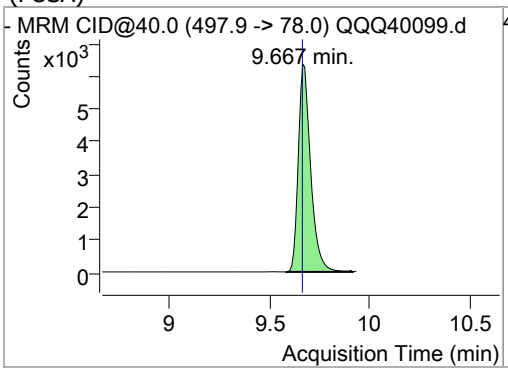
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	4.4039	9.57	0.00	6735				

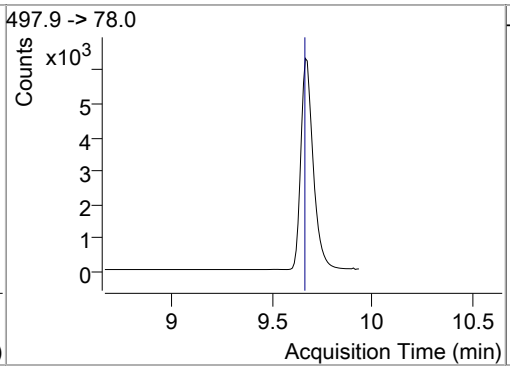


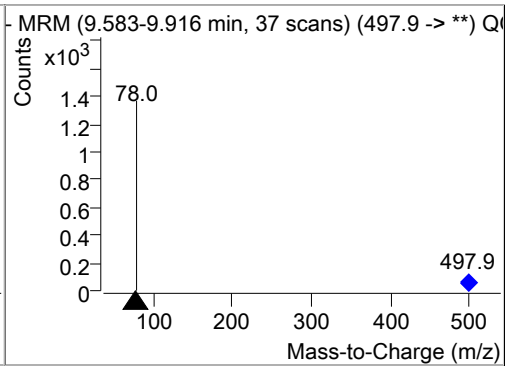




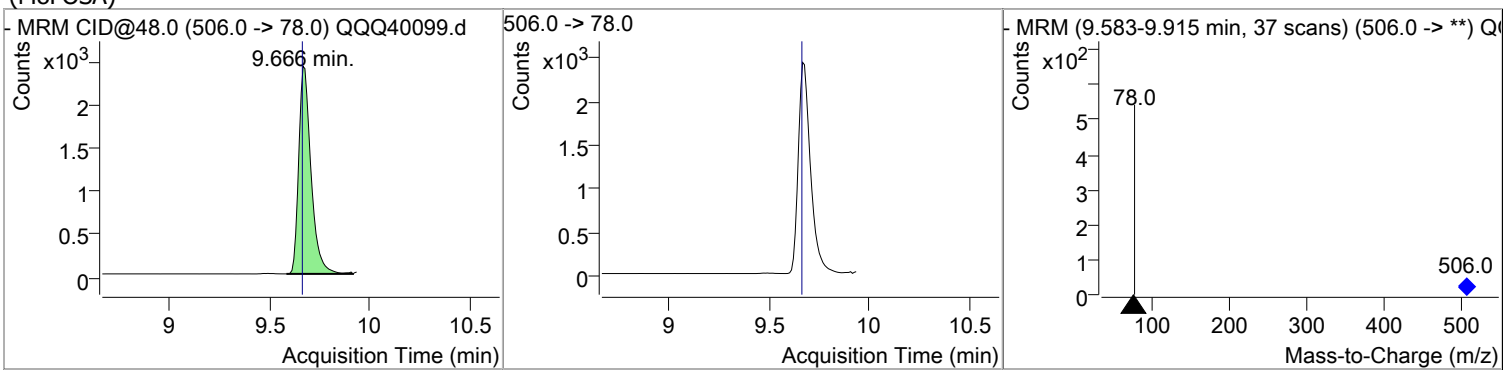
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	4.7982	9.67	0.01	27227				



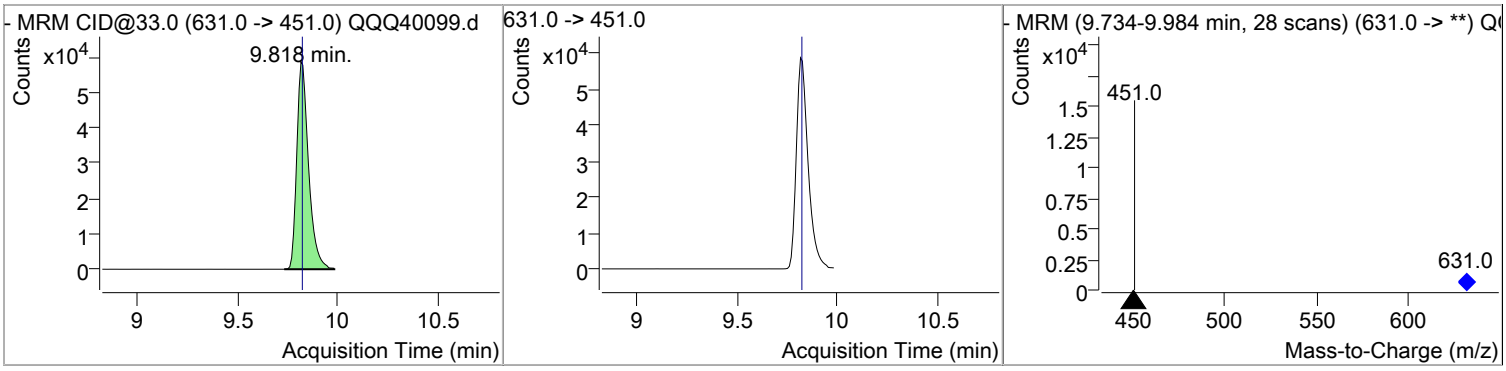




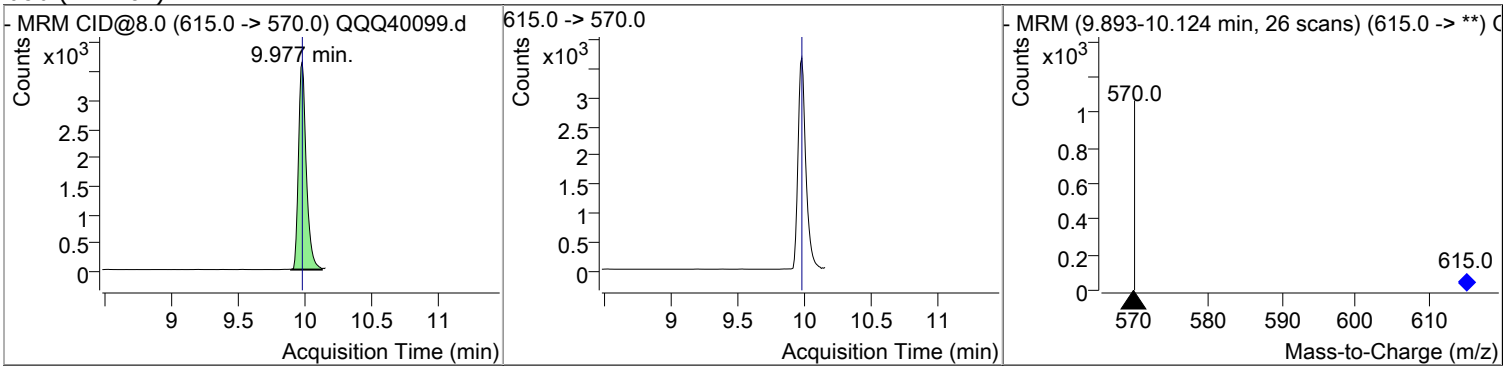
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.6343	9.67	0.00	10269				



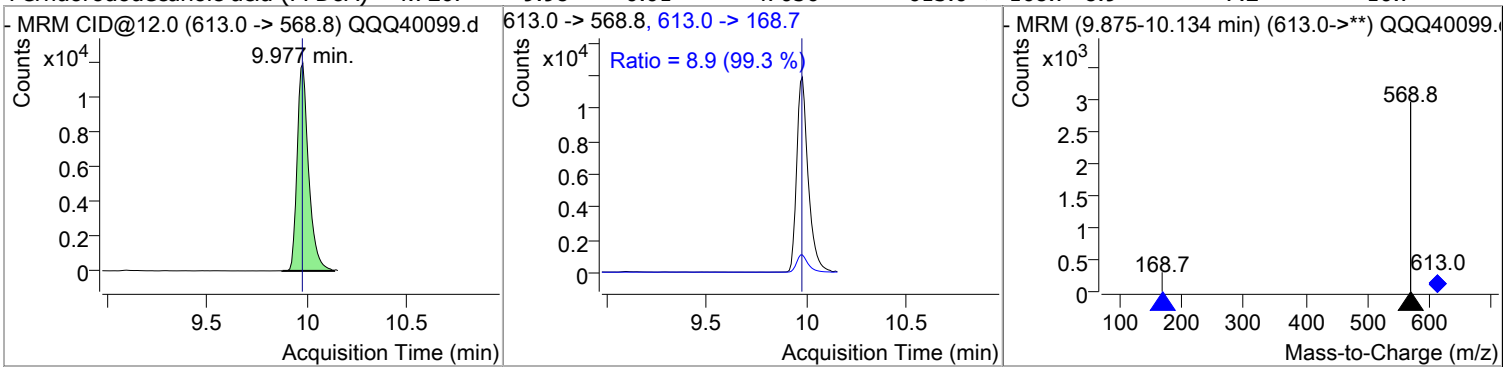
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	18.8794	9.82	0.00	240280				



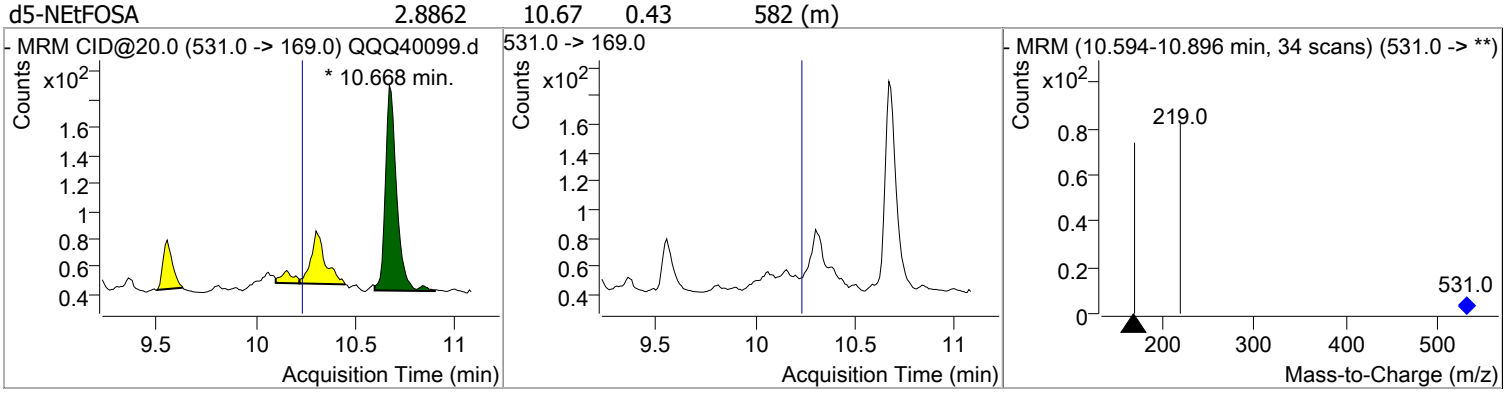
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.4804	9.98	0.01	14782				



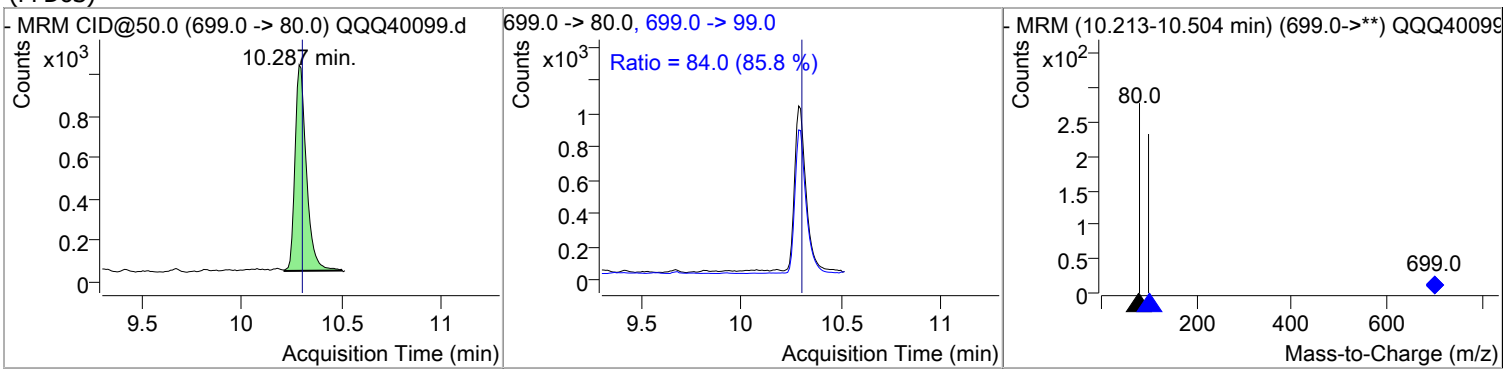
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	4.7267	9.98	0.01	47056	613.0 -> 168.7	8.9	7.2	10.7



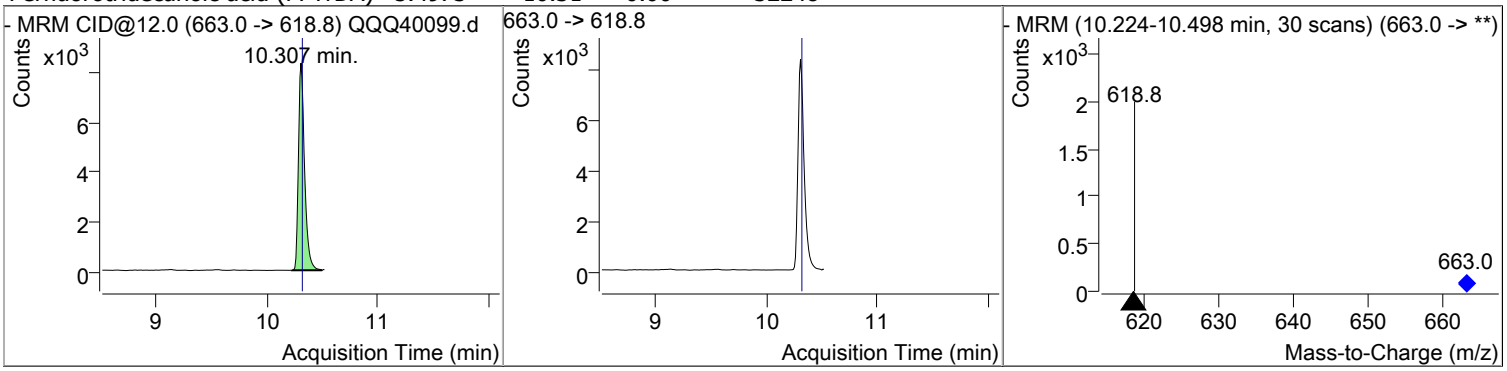
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.8862	10.67	0.43	582 (m)				



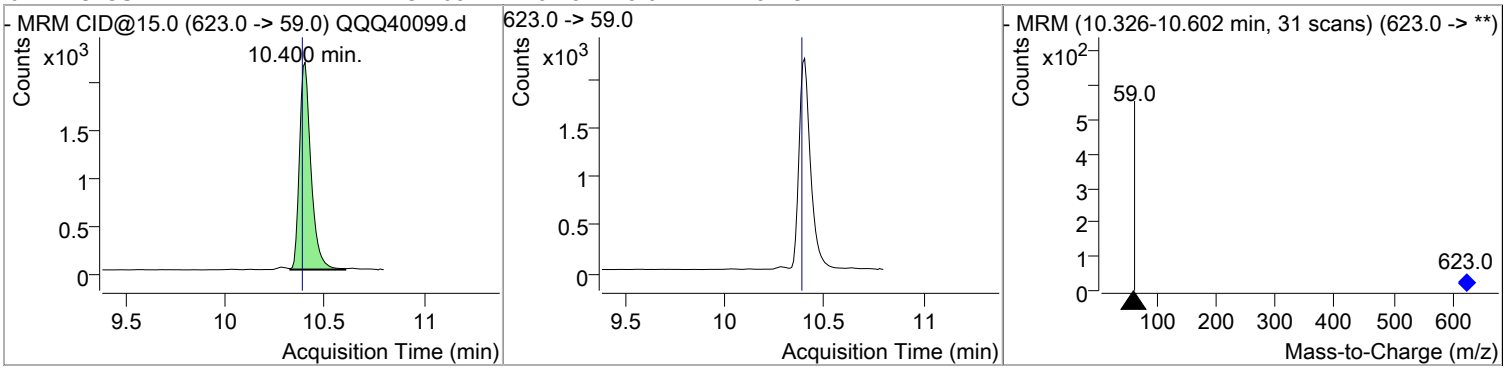
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	4.9408	10.29	-0.01	3956	699.0 -> 99.0	84.0	78.3	117.4



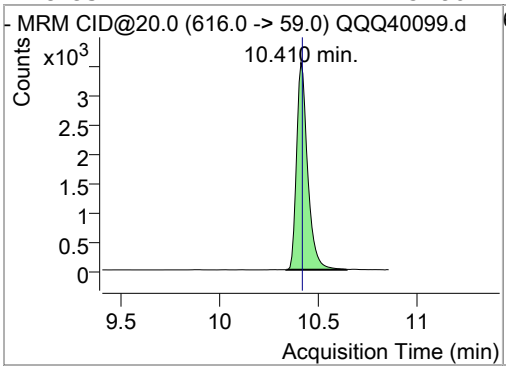
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	5.4973	10.31	0.00	32248				

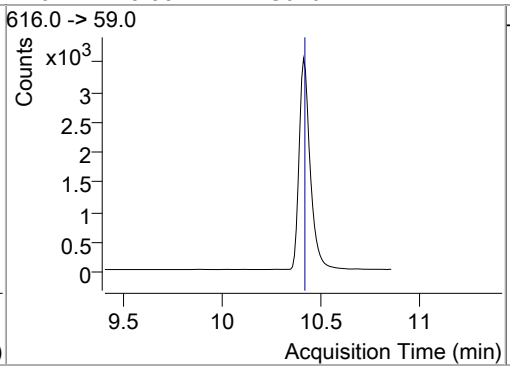


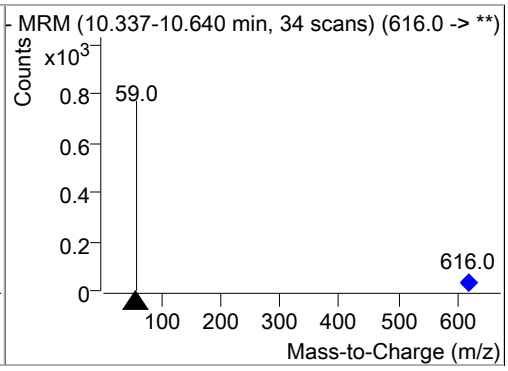
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	29.1682	10.40	0.01	8749				



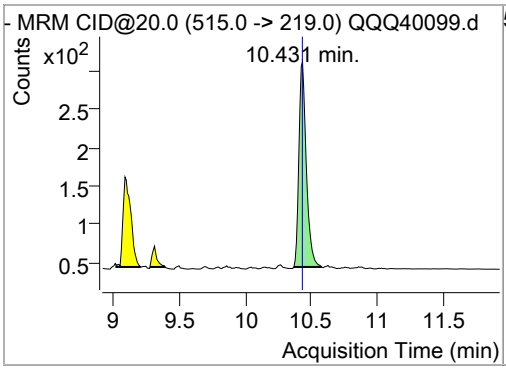
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	43.2982	10.41	0.00	13626				

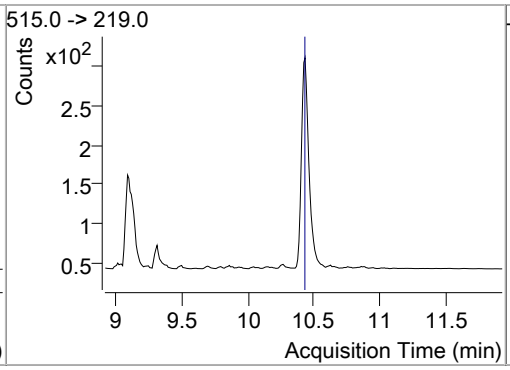


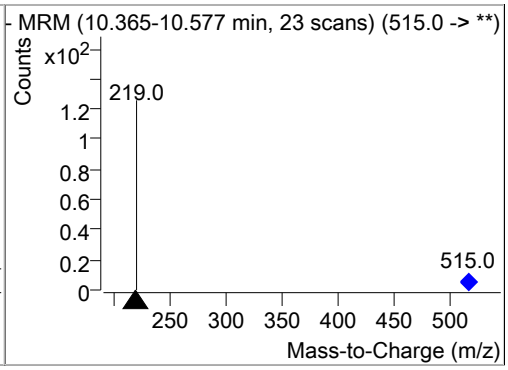




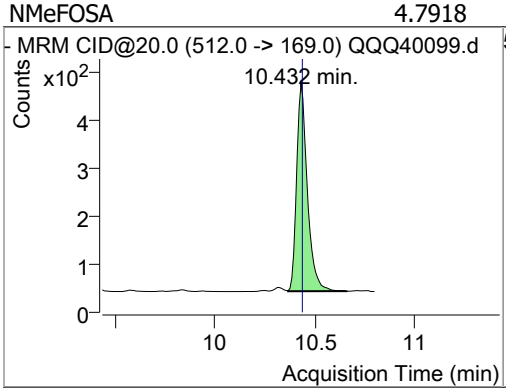
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.5611	10.43	0.00	1033				

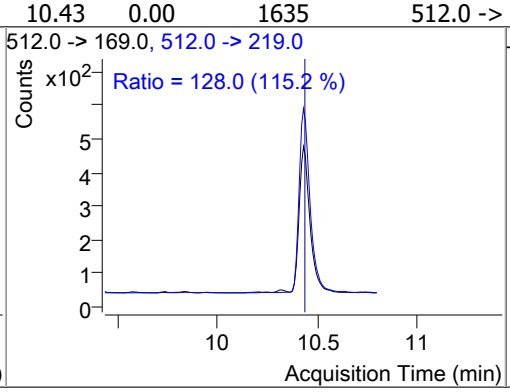


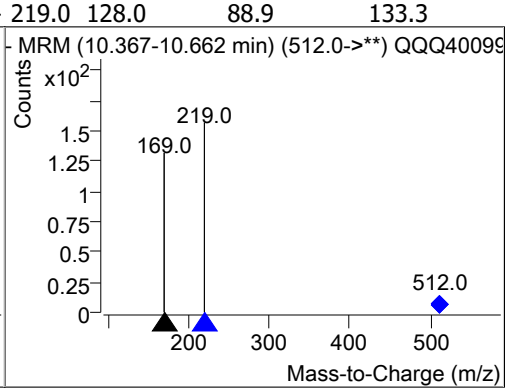




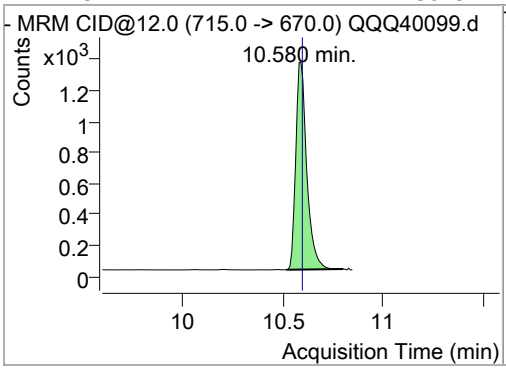
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	4.7918	10.43	0.00	1635	512.0 -> 219.0	128.0	88.9	133.3

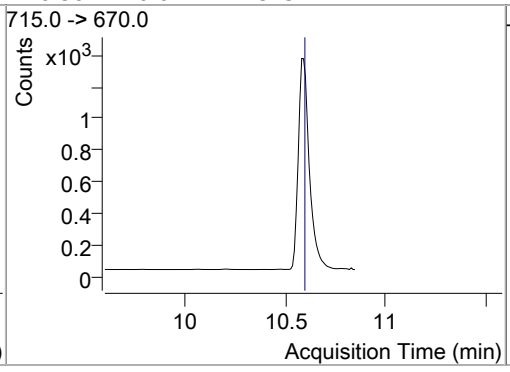


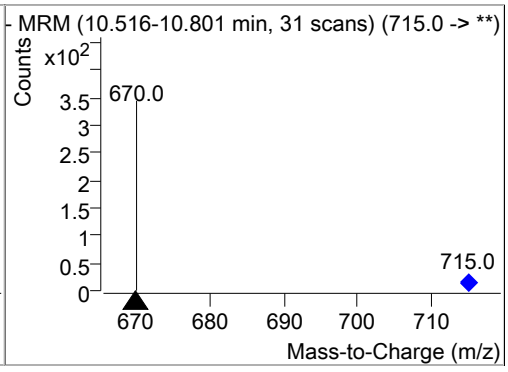




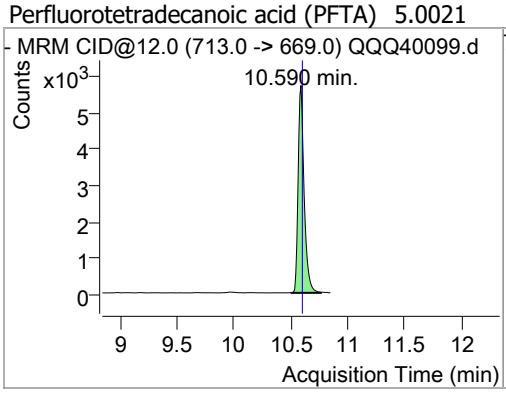
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.3825	10.58	-0.01	5131				

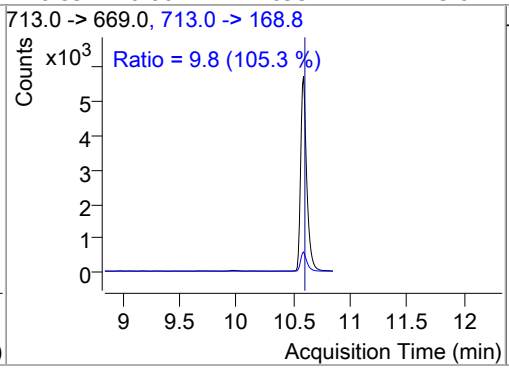


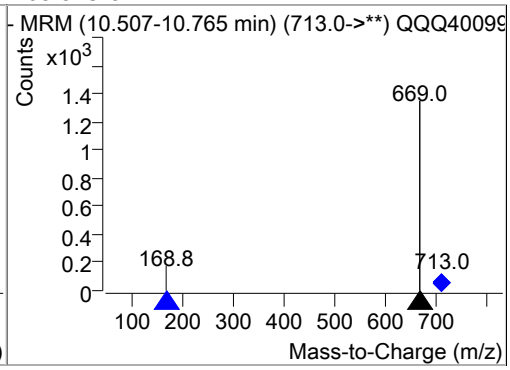




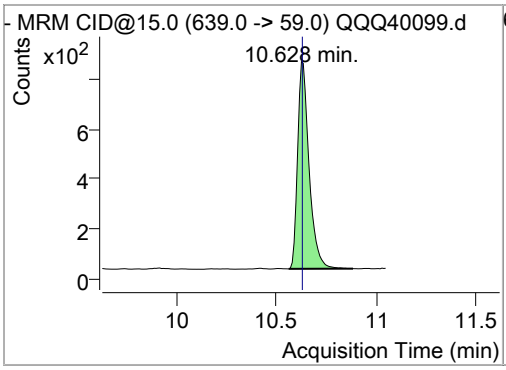
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	5.0021	10.59	0.00	20952	713.0 -> 168.8	9.8	7.4	11.1

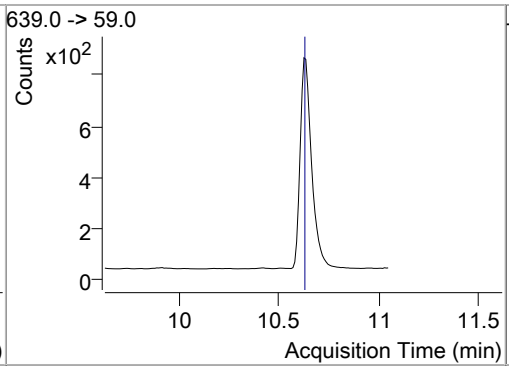


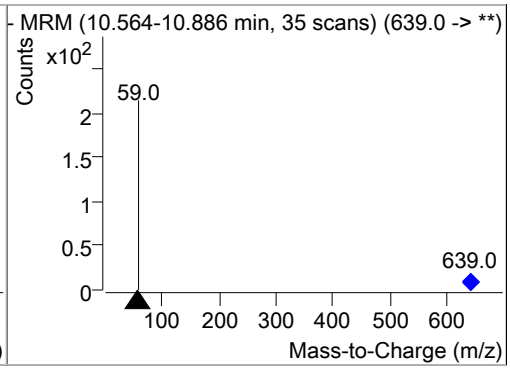




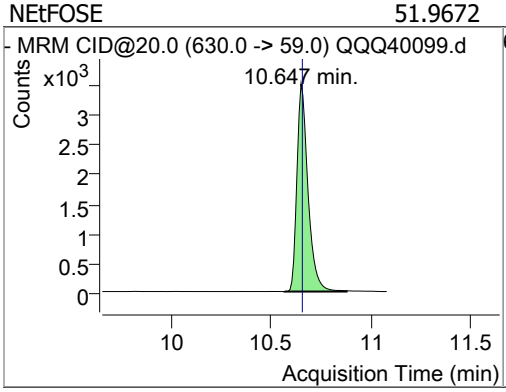
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	27.3409	10.63	-0.01	3295				

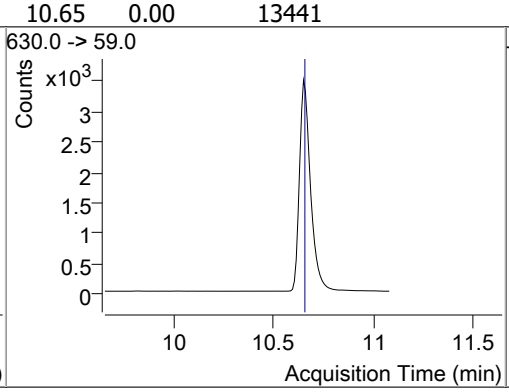


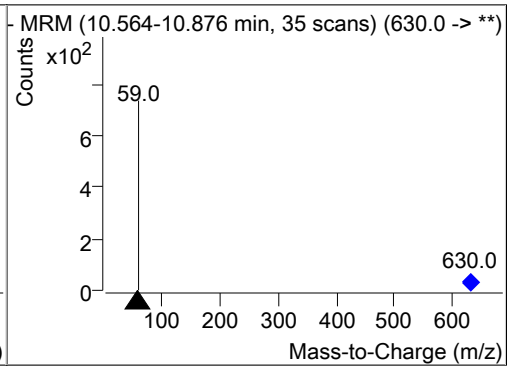




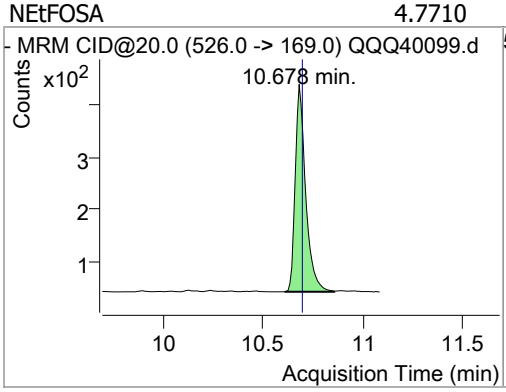
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	51.9672	10.65	0.00	13441				

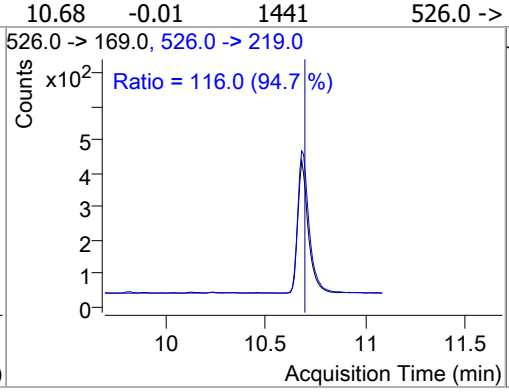


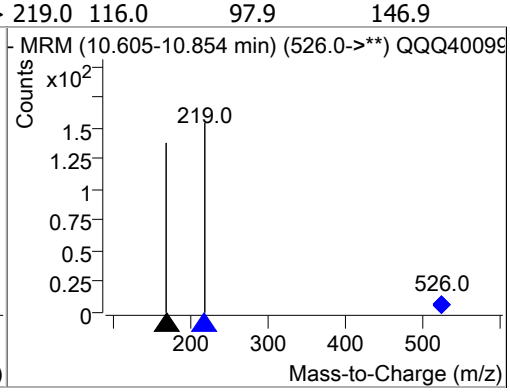




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	4.7710	10.68	-0.01	1441	526.0 -> 219.0	116.0	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 4:19:05 AM	**Data File**	QQQ40099.d
Sample Type	Cal	**Sampe Name**	SEQ-CAL5
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.283	191540	28870	0.468			1.62			386.70
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.287	109065	16255	0.487			1.43			28736.40
PFMPA	2.254	49820	5813	0.573			1.60			15373.95
3:3FTCA	4.470	6554	941	0.341			1.72			1053.88
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	98251	15249	0.454			1.78			14121.96
Perfluoro-n-pentanoic acid (PFPeA)	4.765	191054	29918	0.454			1.84			6285.32
PFMBA	5.504	80582	17041	0.389			1.87			25134.90
M3PFBS	5.529	16926	3760	0.380			1.91			∞
Perfluorobutanesulfonic acid (PFBS)	5.530	31466	7039	0.380			1.86			45779.80
PFEESA	6.066	236176	57594	0.315			1.66			20217.55
NFDHA	6.216	2951	683	0.322			1.88			∞
M2-4-2FTS	6.297	27429	6391	0.315			1.56			66211.93
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	106258	24806	0.297			1.50			695533.95
M5PFHxA	6.372	52456	12605	0.305			1.70			3908.23
Perfluorohexanoic acid (PFHxA)	6.373	117120	28311	0.325			1.66			2989.21
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.593	28818	7102	0.317			1.82			390.43
M3-HFPO-DA	6.689	37129	8834	0.313			1.59			88.24
HFPO-DA	6.689	6644	1534	0.292			1.59			790.87
M4PFHpA	7.262	13685	3110	0.288			1.76			29540.29
Perfluoroheptanoic acid (PFHpA)	7.263	64028	15508	0.310			1.72			152.80
5-3FTCA	7.328	331073	75166	0.334			1.43			79.53
M3PFHxS	7.373	11015	2631	0.345			1.82			∞
Perfluorohexanesulfonic acid (PFHxS)	7.374	26857	5319	0.469			1.89			151.41

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.411	156470	36387	0.335			1.47			10176.12
M2-6-2FTS	7.921	24766	5798	0.325			1.71			74017.47
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	107303	25178	0.307			1.69			18652.14
Perfluorooctanoic acid (PFOA)	7.988	66964	15939	0.254			1.45			54.63
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	31194	7308	0.316			1.50			52226.23
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	21945	5314	0.278			1.52			1019.71
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	4830	1238	0.269			1.62			11787.31
Perfluorononanoic acid (PFNA)	8.591	67470	16866	0.253			1.46			234.53
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	5029	1210	0.306			1.44			261.06
Perfluorooctanesulfonic acid (PFOS)	8.617	21638	3803	0.520			1.86			243.99
7-3FTCA	8.730	606456	139498	0.306			1.91			∞
9-Cl-PF3ONS	8.940	378117	93518	0.288			1.76			∞
M2-8-2FTS	9.071	36916	8988	0.315			1.51			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	31640	7786	0.322			1.48			∞
M6PFDA	9.109	15781	3880	0.269			1.48			89.47
Perfluorodecanoic acid (PFDA)	9.101	61156	14804	0.278			1.95			179.60
Perfluorononanesulfonate (L-PFNS)	9.116	14938	3732	0.276			1.76			927.19
d3-N-MeFOSAA	9.311	20460	4774	0.288			1.83			∞
N-MeFOSAA	9.311	17485	3417	0.493			1.99			14594.66
d5-N-EtFOSAA	9.551	18605	4351	0.278			1.84			6767.09
N-EtFOSAA	9.561	16137	3235	0.473			1.68			∞
M7PFUdA	9.562	16346	4090	0.296			1.99			∞
Perfluoroundecanoic acid (PFUnA)	9.562	61185	15071	0.296			2.02			1665.39
Perfluoro-1-decanesulfonate (L-PFDS)	9.569	6735	1571	0.271			1.61			146.49
Perfluoro-1-octanesulfonamide (FOSA)	9.667	27227	6321	0.333			1.81			163.94
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	10269	2401	0.332			1.88			∞
11-Cl-PF3OUdS	9.818	240280	58630	0.251			1.87			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	14782	3633	0.231			1.41			28862.55

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.977	47056	11838	0.259			1.38			2397.26
d5-NEtFOSA	10.668	582	147	0.301			1.88			29.76
Perfluorododecanesulfonic acid (PFDoS)	10.287	3956	994	0.290			1.81			109.40
Perfluorotridecanoic acid (PFTrDA)	10.307	32248	8360	0.275			1.68			94.93
d7-NMeFOSE	10.400	8749	2176	0.275			1.42			∞
NMeFOSE	10.410	13626	3525	0.303			1.69			∞
d3-NMeFOSA	10.431	1033	268	0.212			1.44			124.44
NMeFOSA	10.432	1635	435	0.295			1.66			∞
M2PFTeDA	10.580	5131	1339	0.285			2.16			∞
Perfluorotetradecanoic acid (PFTA)	10.590	20952	5707	0.258			1.47			3098.88
d9-NEtFOSE	10.628	3295	824	0.322			2.06			322.21
NEtFOSE	10.647	13441	3478	0.312			1.84			∞
NEtFOSA	10.678	1441	397	0.249			1.90			20256.02

Data File	QQQ40100.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 4:35:12 AM
Sample Name	SEQ-CAL6	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	12.5 - 312 ng/mL
Tune File		Tune Date	
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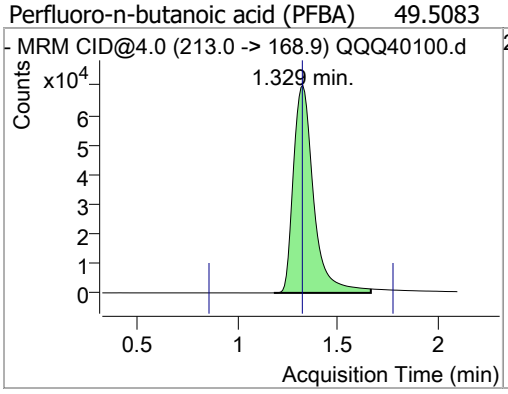
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.324	217.0 -> 172.0	110457	10.0000	ng/ml		0.000
M3PFBA	1.326	216.0 -> 172.0	21029	5.0000	ng/ml		0.009
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.783	268.0 -> 223.0	100041	5.0000	ng/ml		0.000
MPFHxA	6.364	315.0 -> 269.8	31894	2.5000	ng/ml		-0.019
MPFHxS	7.354	403.0 -> 103.0	3695	2.3700	ng/ml		-0.028
M3PFBS-EIS	5.539	302.0 -> 79.9	16561	2.3300	ng/ml		0.000
M5PFHxA-EIS	6.363	318.0 -> 273.0	54391	2.5000	ng/ml		-0.019
M2-4-2FTS-EIS	6.288	329.0 -> 309.0	32574	4.6900	ng/ml		-0.019
M3PFHxS-EIS	7.354	402.0 -> 80.0	11456	2.3700	ng/ml		-0.028
M3-HFPO-DA-EIS	6.671	287.0 -> 169.0	34899	10.0000	ng/ml		-0.028
M4PFHpA-EIS	7.244	367.0 -> 322.0	13931	2.5000	ng/ml		-0.028
M2-6-2FTS-EIS	7.903	429.0 -> 409.0	27660	4.7550	ng/ml		-0.019
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.969	421.0 -> 376.0	28632	2.5000	ng/ml		-0.028
MPFOA	7.969	417.0 -> 372.0	40192	2.5000	ng/ml		-0.019
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.607	507.0 -> 98.9	4797	2.3950	ng/ml		-0.019
MPFNA	8.572	468.0 -> 423.0	16914	1.2500	ng/ml		-0.019
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.571	472.0 -> 223.0	4903	1.2500	ng/ml		-0.019
MPFOS	8.607	503.0 -> 80.0	9338	2.3950	ng/ml		-0.019
M2-8-2FTS-EIS	9.052	529.0 -> 509.0	46002	4.8000	ng/ml		-0.010
MPFDA	9.082	515.0 -> 469.8	9794	1.2500	ng/ml		-0.028
M6PFDA-EIS	9.090	519.0 -> 473.9	15122	1.2500	ng/ml		-0.009
d3-N-MeFOSAA-EIS	9.292	573.0 -> 418.8	21914	5.0000	ng/ml		-0.019
d5-N-EtFOSAA-EIS	9.542	589.0 -> 418.8	18345	5.0000	ng/ml		-0.009
M7PFUdA-EIS	9.552	570.0 -> 525.0	17684	1.2500	ng/ml		-0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.648	506.0 -> 78.0	11226	2.5000	ng/ml		-0.018
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.959	615.0 -> 570.0	14115	1.2500	ng/ml		-0.009
M2PFTeDA-EIS	10.589	715.0 -> 670.0	5187	1.2500	ng/ml		0.000
d7-NMeFOSE-EIS	10.391	623.0 -> 59.0	8424	25.0000	ng/ml		0.000
d3-NMeFOSA-EIS	10.422	515.0 -> 219.0	1189	2.5000	ng/ml		-0.009
d9-NEtFOSE-EIS	10.637	639.0 -> 59.0	3301	25.0000	ng/ml		0.000
d5-NEtFOSA-EIS	10.677	531.0 -> 169.0	535	2.5000	ng/ml	m	0.009
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	217.0 -> 172.0	110457	10.3731	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	268.0 -> 223.0	100041	5.2346	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.539	302.0 -> 79.9	16561	2.5216	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.288	329.0 -> 309.0	32579	6.1208	ng/ml		-0.019

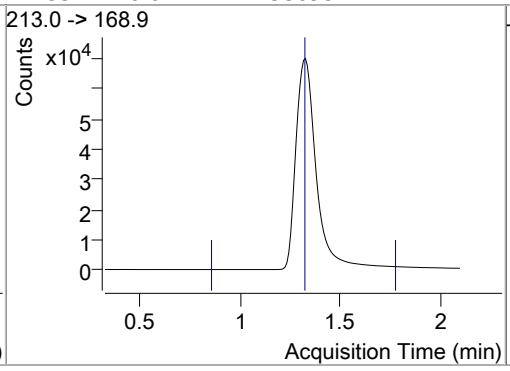
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.363	318.0 -> 273.0	54463	2.6576	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.671	287.0 -> 169.0	34899	10.0192	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.244	367.0 -> 322.0	13931	2.6180	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.354	402.0 -> 80.0	11422	2.5241	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.903	429.0 -> 409.0	27660	5.8186	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.969	421.0 -> 376.0	28632	2.4769	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.571	472.0 -> 223.0	4904	1.3294	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.607	507.0 -> 98.9	4797	2.5850	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.052	529.0 -> 509.0	46002	6.2013	ng/ml		-0.010
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.090	519.0 -> 473.9	15122	1.2832	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.292	573.0 -> 418.8	21915	5.4255	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.542	589.0 -> 418.8	18345	5.4095	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.552	570.0 -> 525.0	17691	1.3557	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	506.0 -> 78.0	11226	2.7634	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.959	615.0 -> 570.0	14116	1.3084	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.677	531.0 -> 169.0	535	2.5490	ng/ml	m	0.441
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.391	623.0 -> 59.0	8424	26.9516	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.422	515.0 -> 219.0	1189	2.8264	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.589	715.0 -> 670.0	5187	1.2935	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.637	639.0 -> 59.0	3302	26.2960	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.329	213.0 -> 168.9	493093	49.5083	ng/ml		100
PFMPA	2.309	229.0 -> 85.0	128710	24.5415	ng/ml		100
3:3FTCA	4.507	241.0 -> 177.0	17142	61.1530	ng/ml		100
Perfluoro-n-pentanoic acid (PFPeA)	4.793	263.0 -> 219.0	492525	24.7839	ng/ml		100
PFMBA	5.514	279.0 -> 85.0	204204	24.7079	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.539	298.9 -> 79.9	79681	10.7863	ng/ml		98
PFEESA	6.057	315.0 -> 135.0	588453	21.1028	ng/ml		100
NFDHA	6.207	295.0 -> 201.1	8149	23.7749	ng/ml		94
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.288	327.0 -> 307.0	243781	47.0846	ng/ml		99

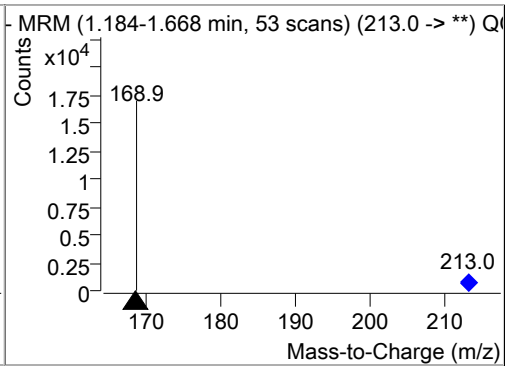
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.364	313.0 -> 268.9	311739	11.8410	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.584	348.9 -> 79.9	72099	11.7743	ng/ml		96
HFPO-DA	6.680	285.0 -> 169.1	16610	50.0839	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.244	363.0 -> 318.8	159459	11.3921	ng/ml		100
5-3FTCA	7.310	341.0 -> 217.0	841556	299.7799	ng/ml		98
Perfluorohexanesulfonic acid (PFHxS)	7.355	398.9 -> 79.9	67261	11.4024	ng/ml	m	99
ADONA	7.392	377.0 -> 85.0	380579	46.2194	ng/ml		95
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.903	427.0 -> 407.0	245433	47.5922	ng/ml		100
Perfluorooctanoic acid (PFOA)	7.969	413.0 -> 368.8	170439	11.8319	ng/ml		99
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	448.9 -> 80.0	57424	11.2916	ng/ml		99
Perfluorononanoic acid (PFNA)	8.572	463.0 -> 418.8	174506	12.9437	ng/ml		97
Perfluorooctanesulfonic acid (PFOS)	8.608	498.9 -> 79.9	52630	11.4815	ng/ml	m	100
7-3FTCA	8.721	441.0 -> 337.0	1448423	309.0667	ng/ml		99
9-Cl-PF3ONS	8.921	531.0 -> 351.0	940898	46.8636	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	527.0 -> 80.9	75827	48.0283	ng/ml		97
Perfluorodecanoic acid (PFDA)	9.082	513.0 -> 468.8	159968	11.8998	ng/ml		100
Perfluorononanesulfonate (L-PFNS)	9.098	548.9 -> 79.9	40566	13.3854	ng/ml		96
N-MeFOSAA	9.301	570.0 -> 418.9	47431	12.7064	ng/ml	m	95
N-EtFOSAA	9.543	584.0 -> 418.8	42477	12.4813	ng/ml	m	94
Perfluoroundecanoic acid (PFUnA)	9.553	563.0 -> 519.0	150802	12.3549	ng/ml		98
Perfluoro-1-decanesulfonate (L-PFDS)	9.551	598.9 -> 98.9	16825	11.8486	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.648	497.9 -> 78.0	74203	12.0234	ng/ml		100
11-Cl-PF3OUdS	9.808	631.0 -> 451.0	585024	48.4835	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.968	613.0 -> 568.8	119111	12.5716	ng/ml		98
Perfluorododecanesulfonic acid (PFDoS)	10.287	699.0 -> 80.0	9055	12.3281	ng/ml		96
Perfluorotridecanoic acid (PFTrDA)	10.307	663.0 -> 618.8	75656	12.8634	ng/ml		100
NMeFOSE	10.410	616.0 -> 59.0	35730	119.6382	ng/ml		100
NMeFOSA	10.432	512.0 -> 169.0	4464	11.6106	ng/ml		89
Perfluorotetradecanoic acid (PFTA)	10.590	713.0 -> 669.0	51689	12.2751	ng/ml		98
NEtFOSE	10.647	630.0 -> 59.0	33505	128.0131	ng/ml		100
NEtFOSA	10.678	526.0 -> 169.0	3493	12.6852	ng/ml		92

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

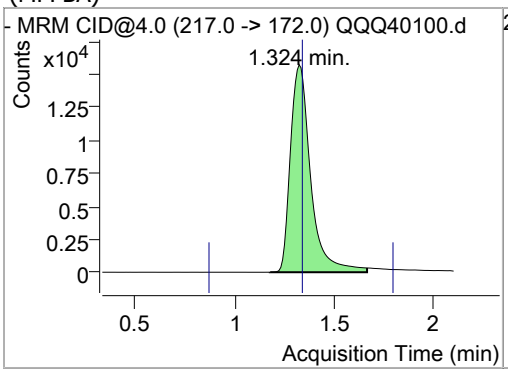
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	49.5083	1.33	0.01	493093				

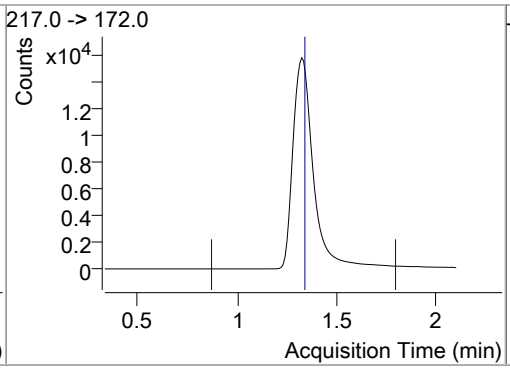


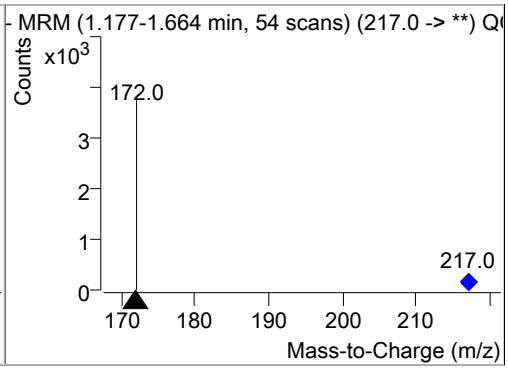




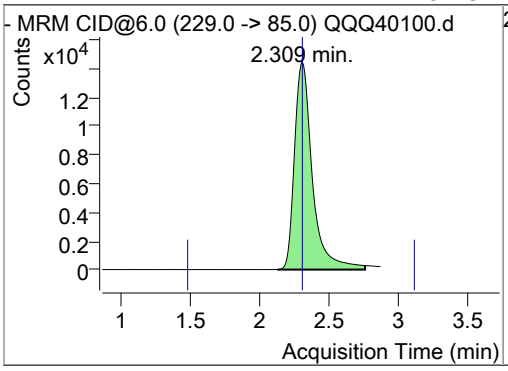
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.3731	1.32	0.00	110457				

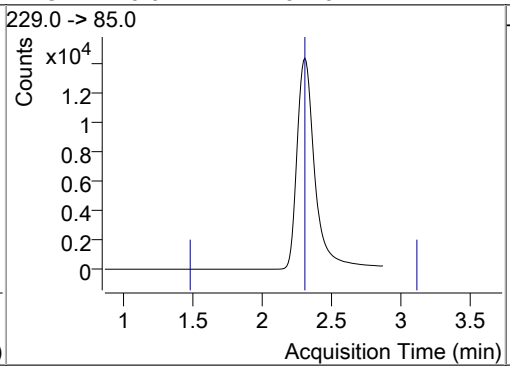


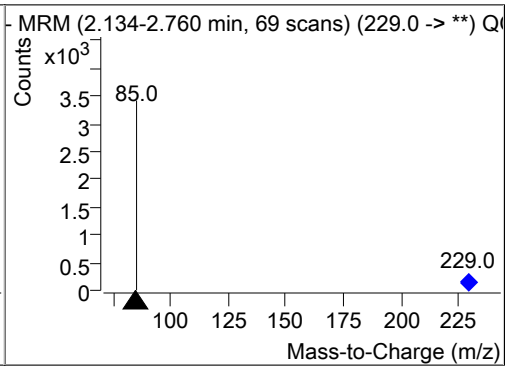




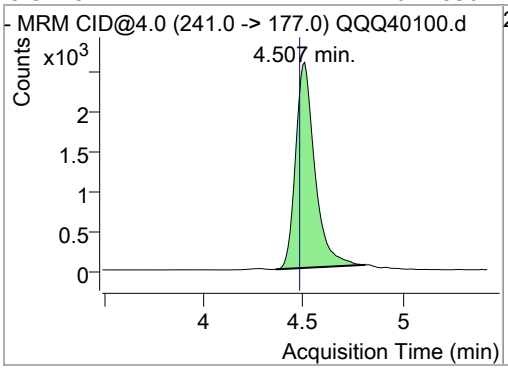
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	24.5415	2.31	0.01	128710				

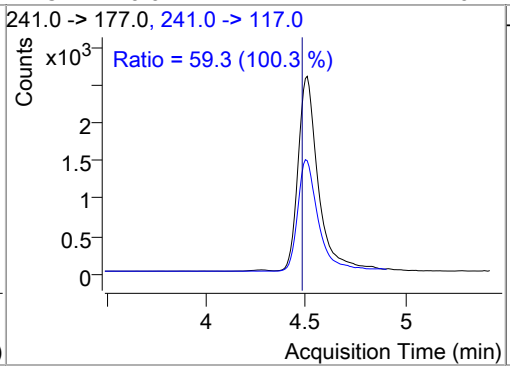


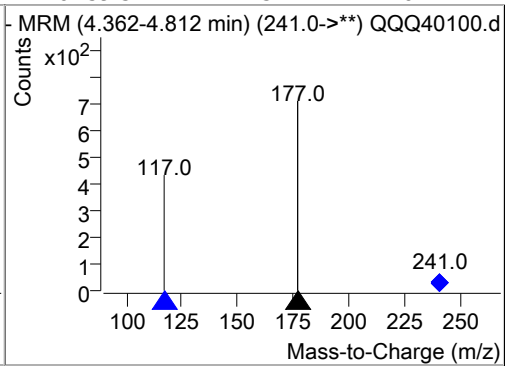




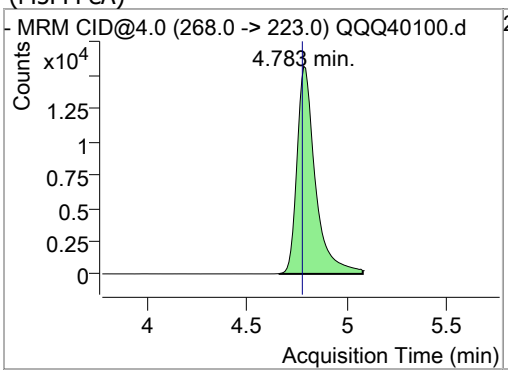
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	61.1530	4.51	0.02	17142	241.0 -> 117.0	59.3	47.3	71.0

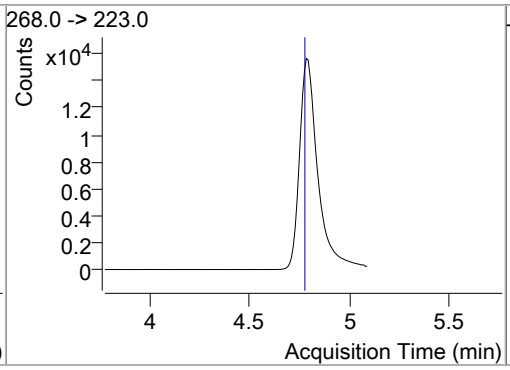


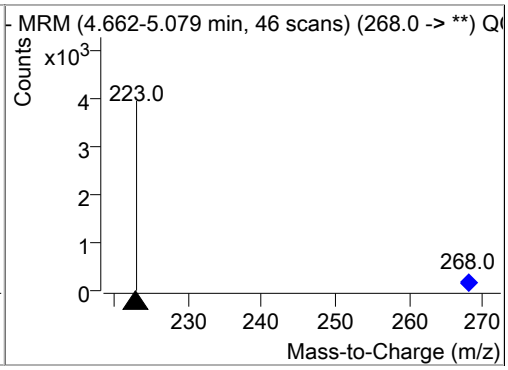




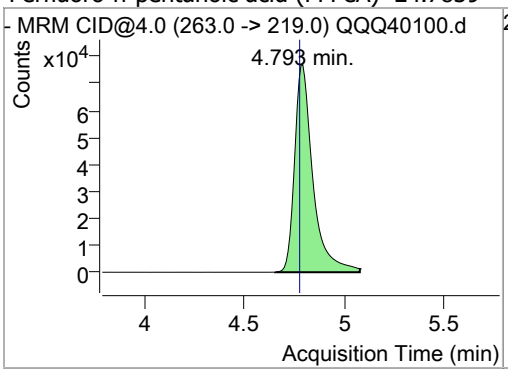
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.2346	4.78	0.00	100041				

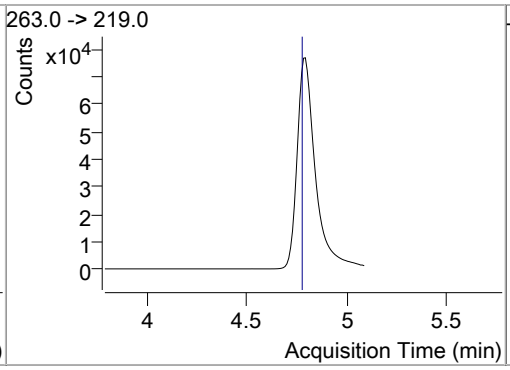


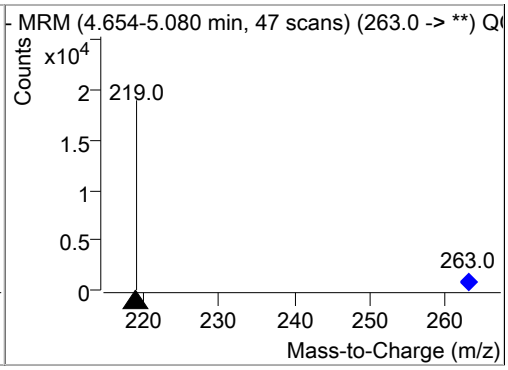




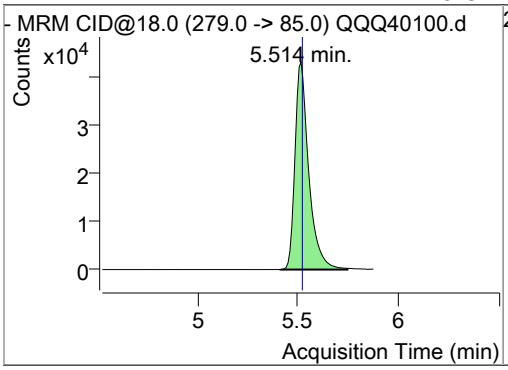
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	24.7839	4.79	0.01	492525				

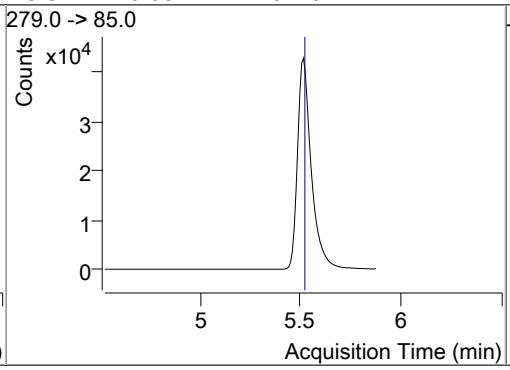


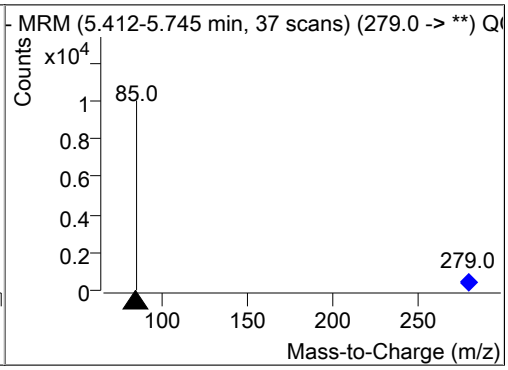




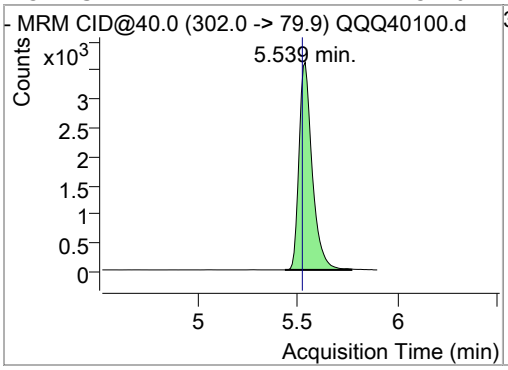
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	24.7079	5.51	0.00	204204				

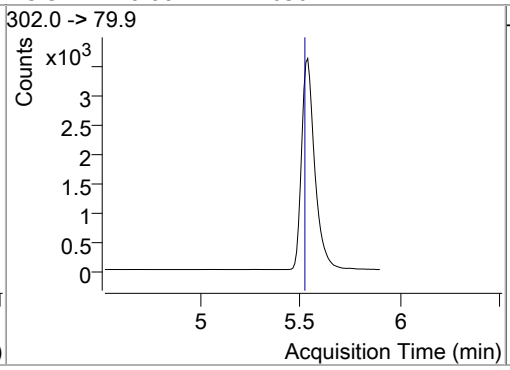


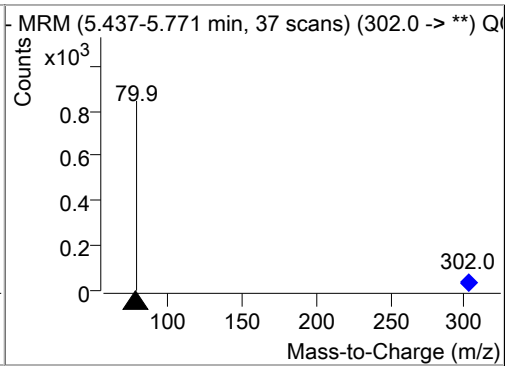




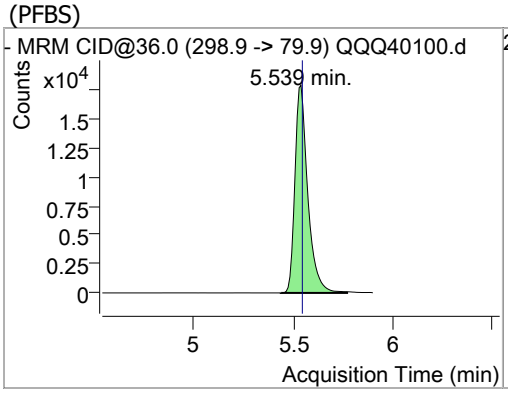
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.5216	5.54	0.00	16561				

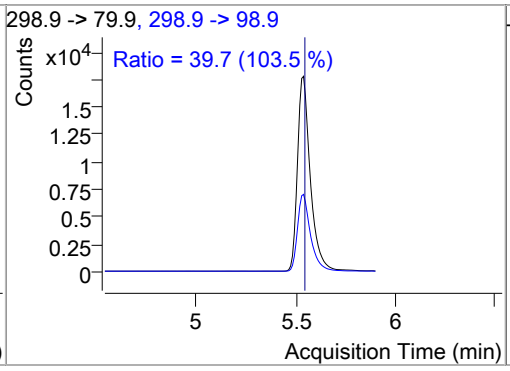


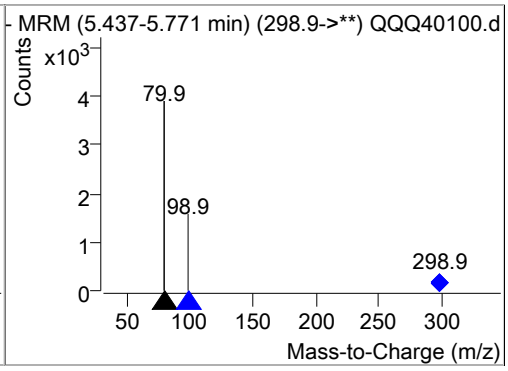




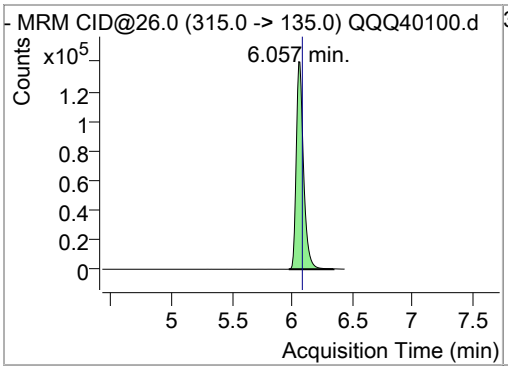
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	10.7863	5.54	0.00	79681	298.9 -> 98.9	39.7	30.7	46.0

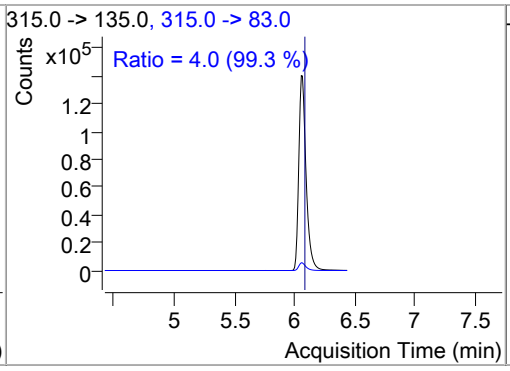


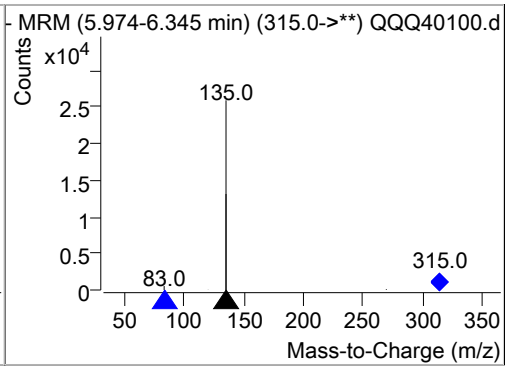




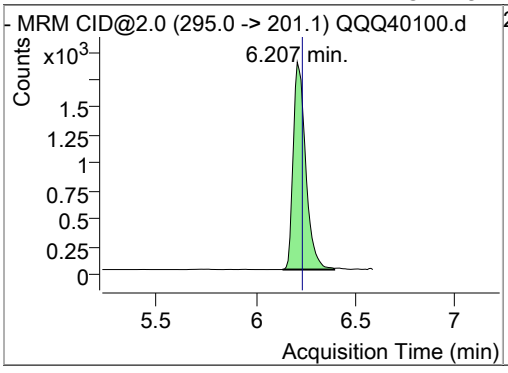
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	21.1028	6.06	-0.02	588453	315.0 -> 83.0	4.0	3.2	4.8

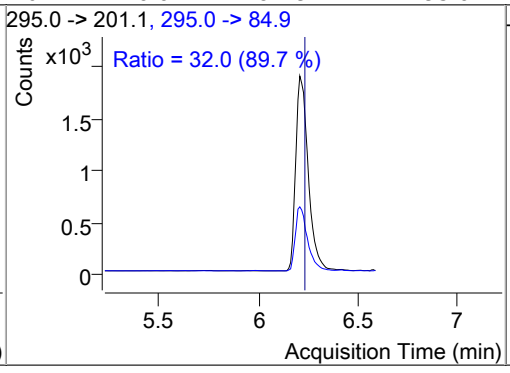


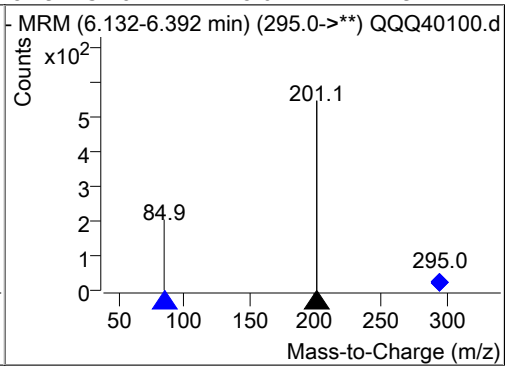




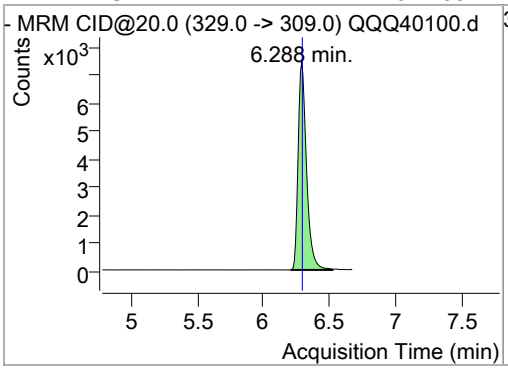
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	23.7749	6.21	-0.02	8149	295.0 -> 84.9	32.0	28.6	42.9

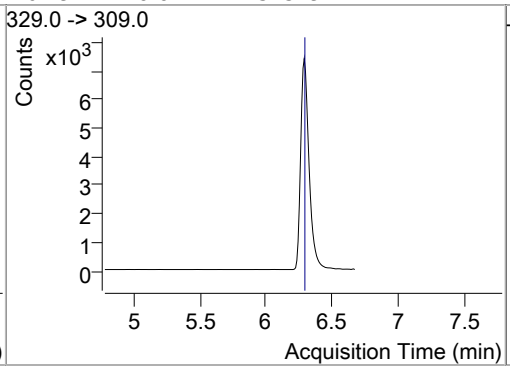


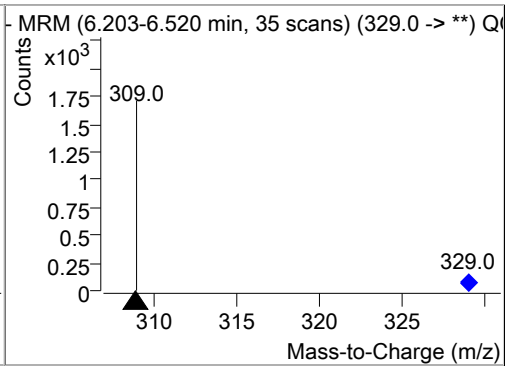




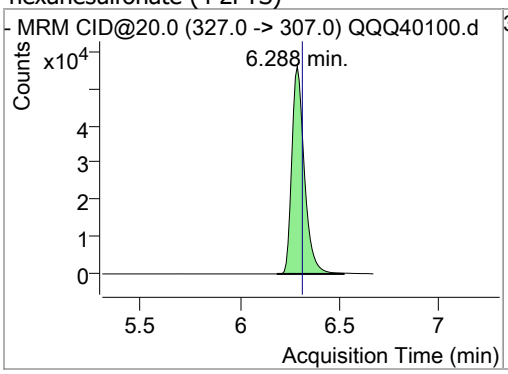
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	6.1208	6.29	-0.02	32579				

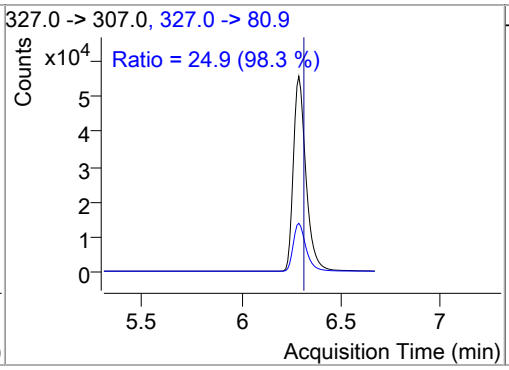


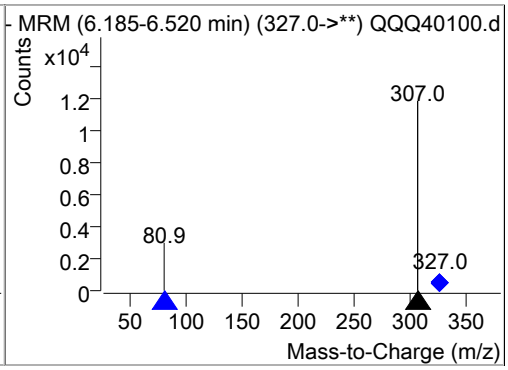




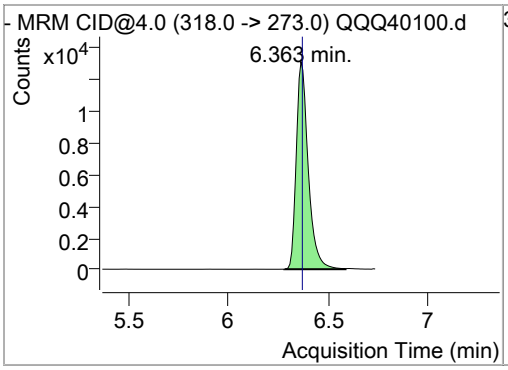
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	47.0846	6.29	-0.02	243781	327.0 -> 80.9	24.9	20.3	30.4

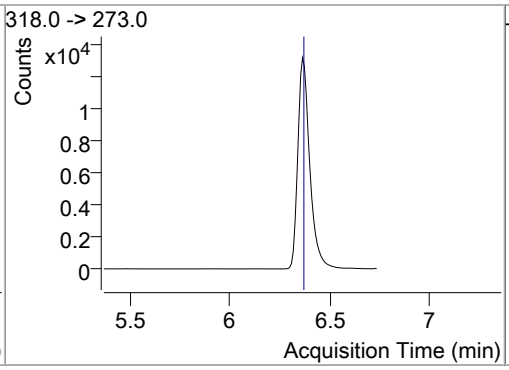


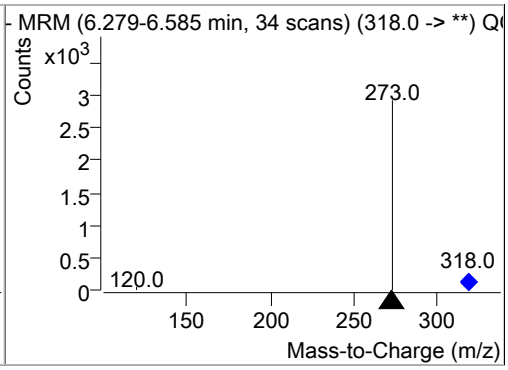




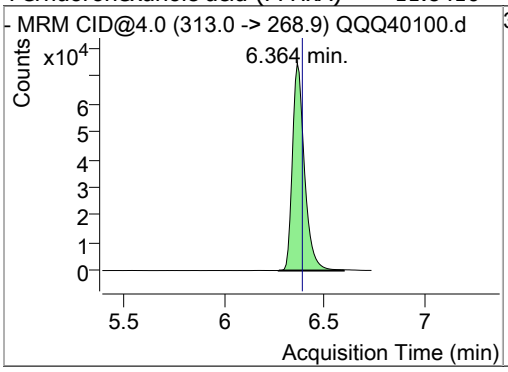
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.6576	6.36	-0.02	54463				

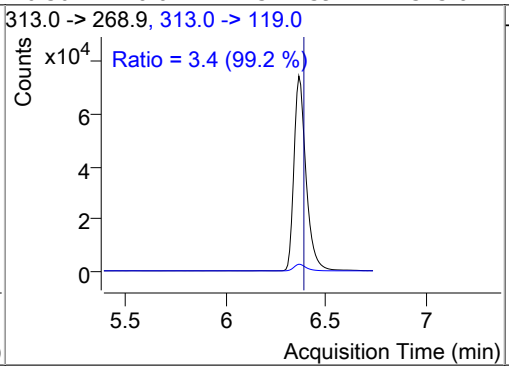


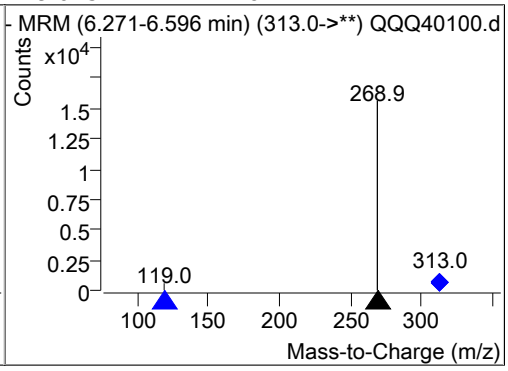




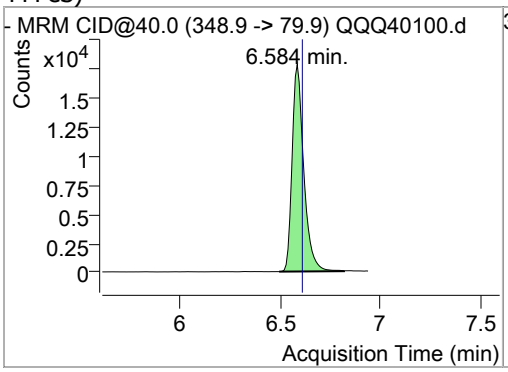
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	11.8410	6.36	-0.02	311739	313.0 -> 119.0	3.4	2.8	4.2

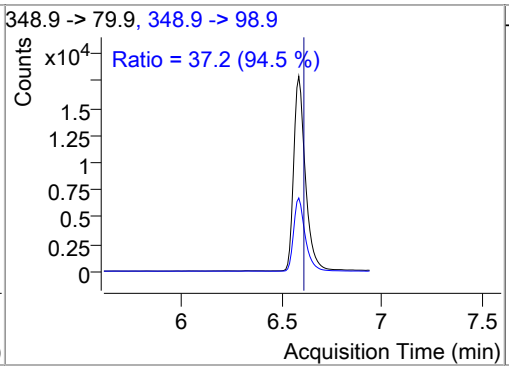


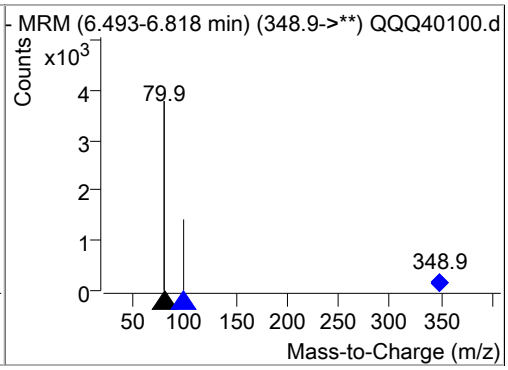




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	11.7743	6.58	-0.02	72099	348.9 -> 98.9	37.2	31.5	47.3

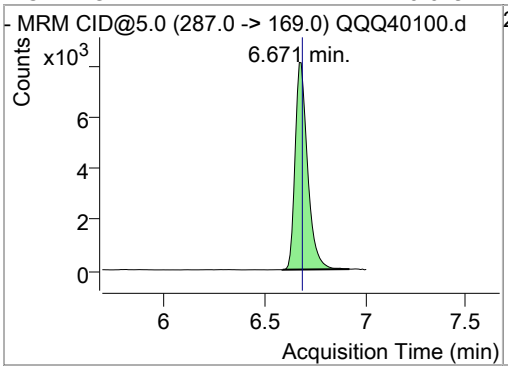


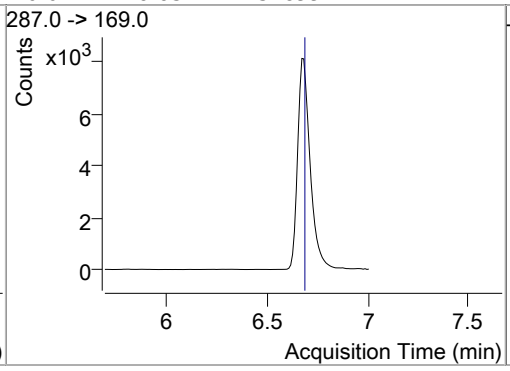


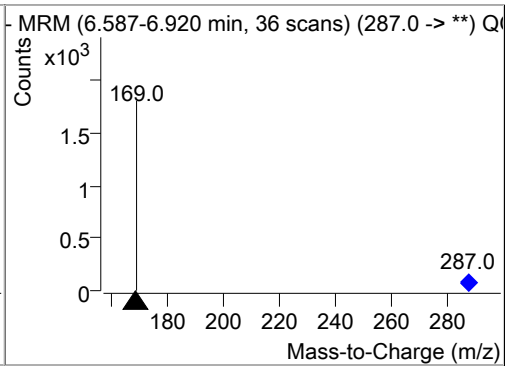


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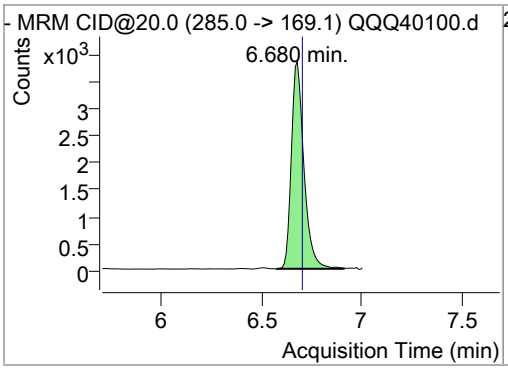
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.0192	6.67	-0.03	34899				

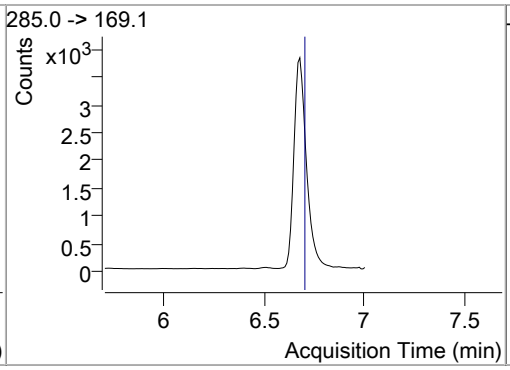


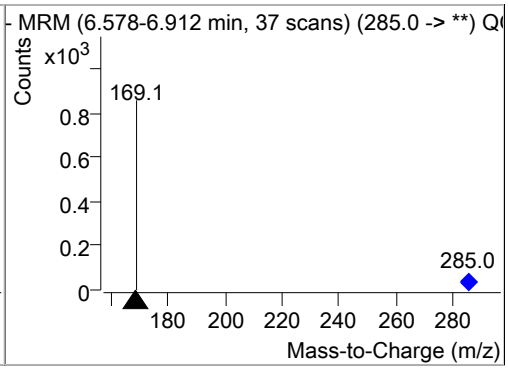




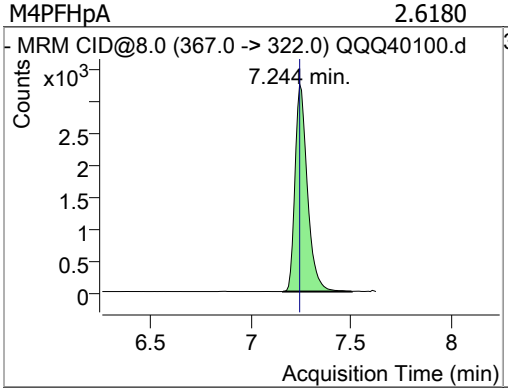
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	50.0839	6.68	-0.02	16610				

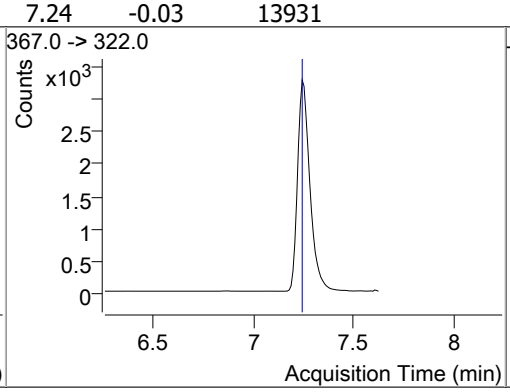


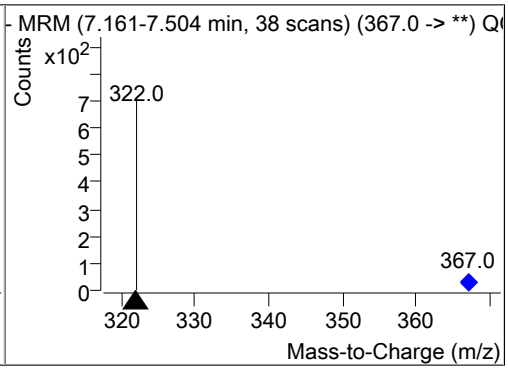




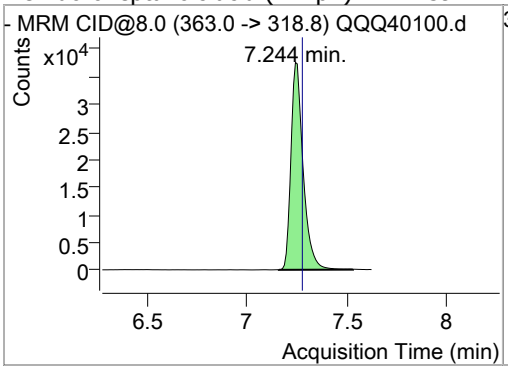
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.6180	7.24	-0.03	13931				

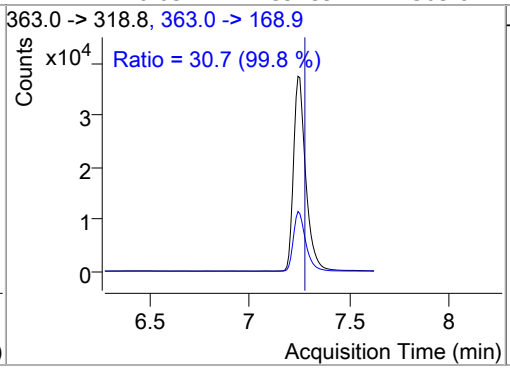


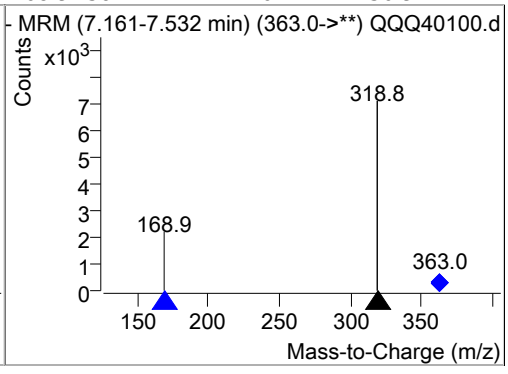




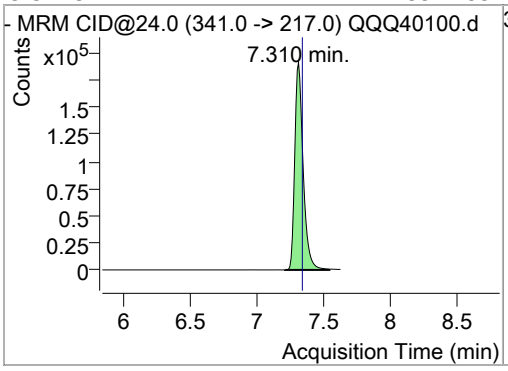
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	11.3921	7.24	-0.03	159459	363.0 -> 168.9	30.7	24.6	36.9

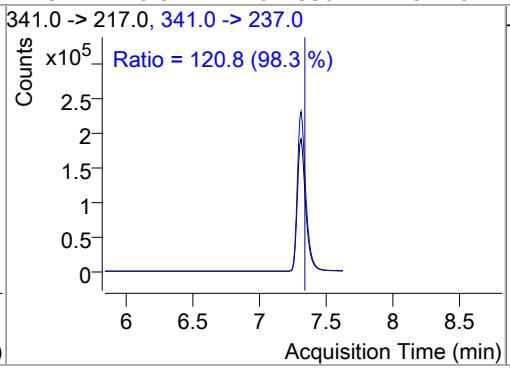


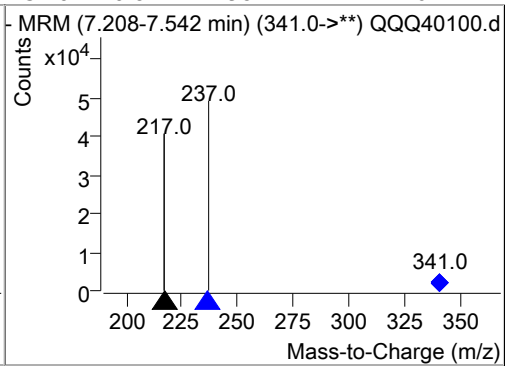




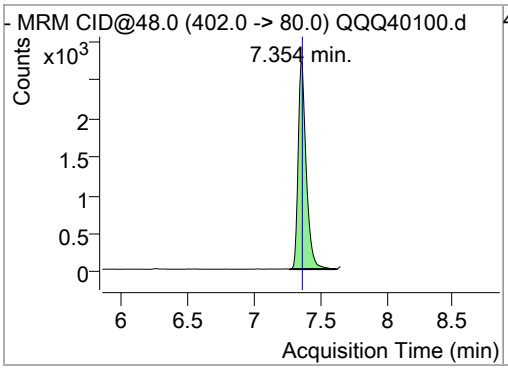
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	299.7799	7.31	-0.02	841556	341.0 -> 237.0	120.8	98.4	147.6

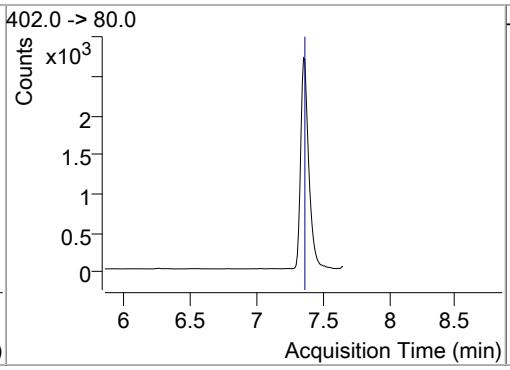


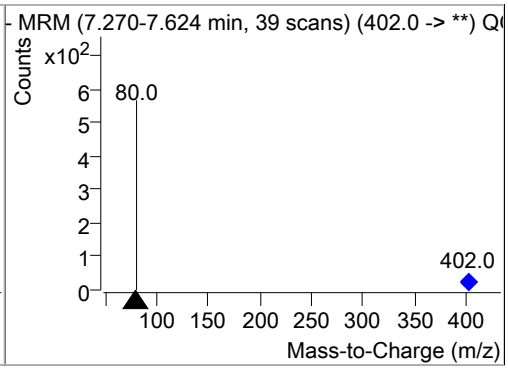




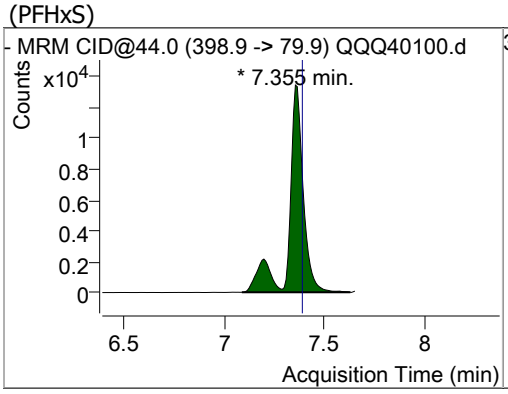
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.5241	7.35	-0.03	11422				

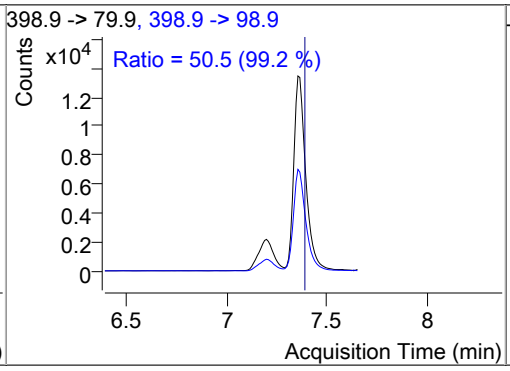


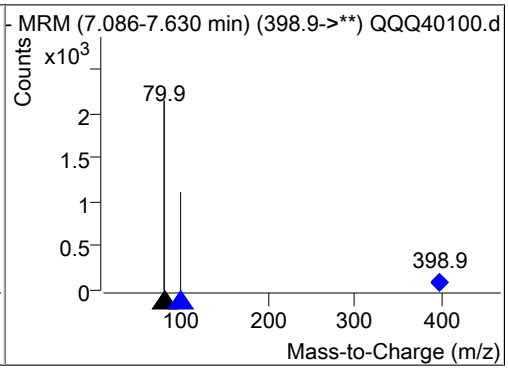




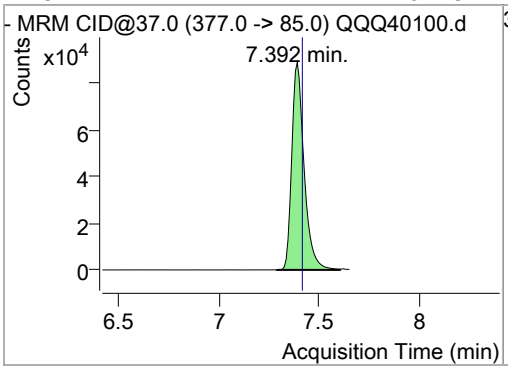
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	11.4024	7.35	-0.03	67261 (m)	398.9 -> 98.9	50.5	40.7	61.1

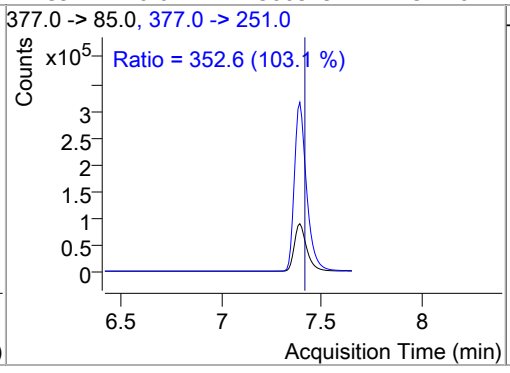


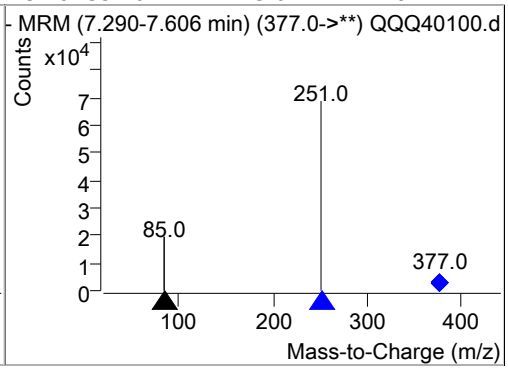




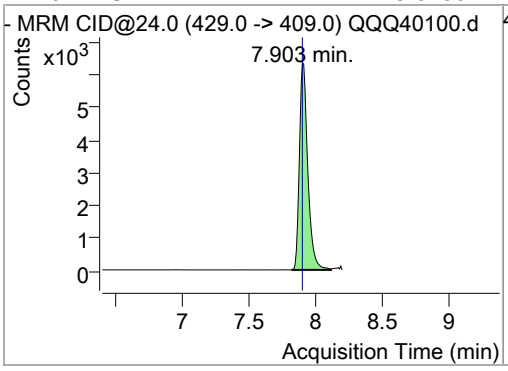
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	46.2194	7.39	-0.02	380579	377.0 -> 251.0	352.6	273.6	410.4

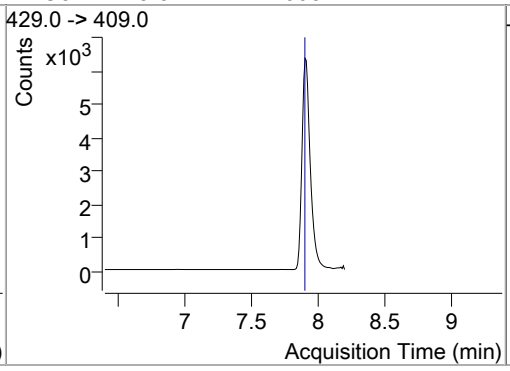


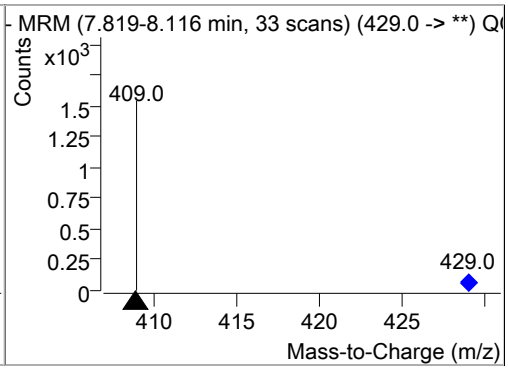




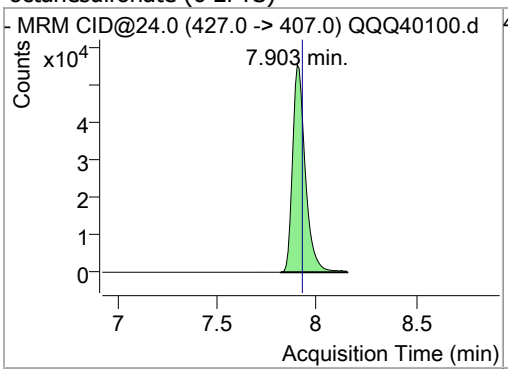
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.8186	7.90	-0.02	27660				

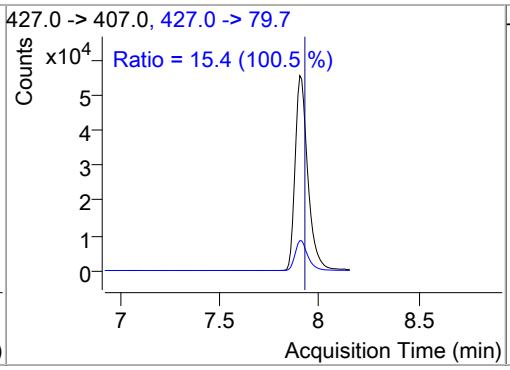


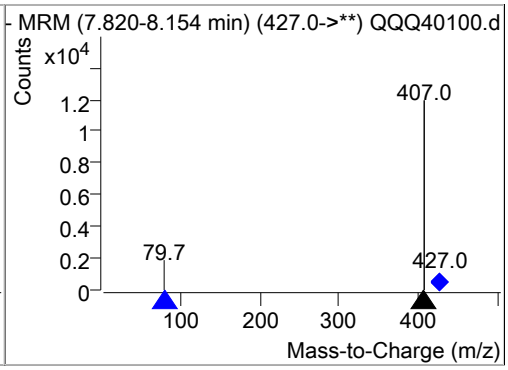




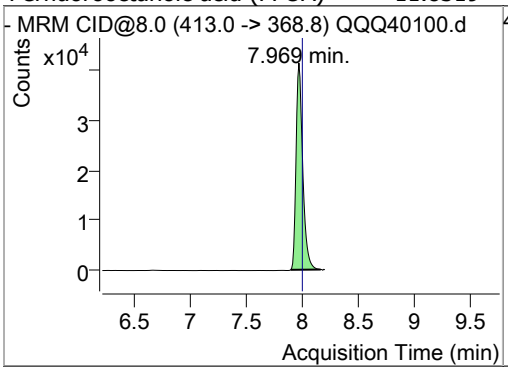
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	47.5922	7.90	-0.02	245433	427.0 -> 79.7	15.4	12.2	18.4

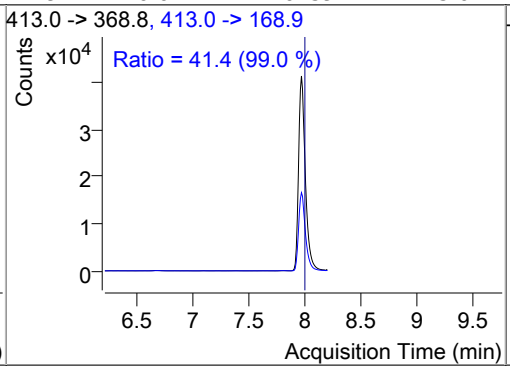


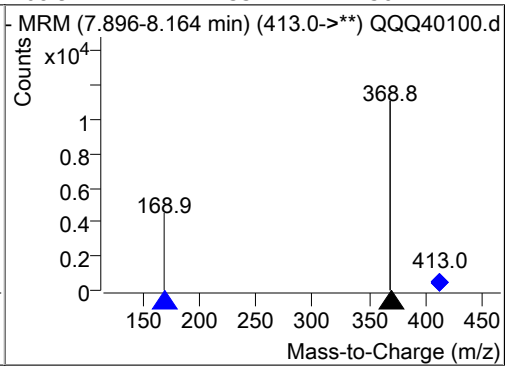




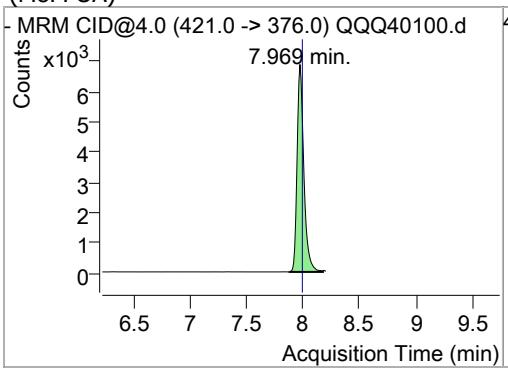
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	11.8319	7.97	-0.02	170439	413.0 -> 168.9	41.4	33.4	50.1

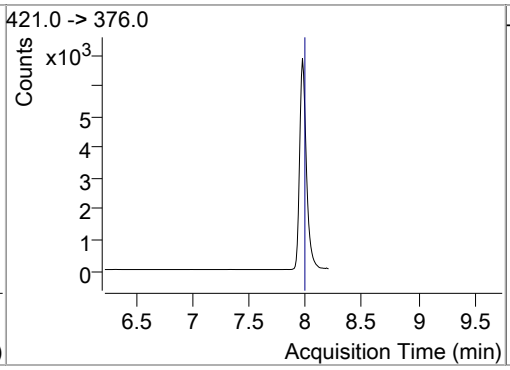


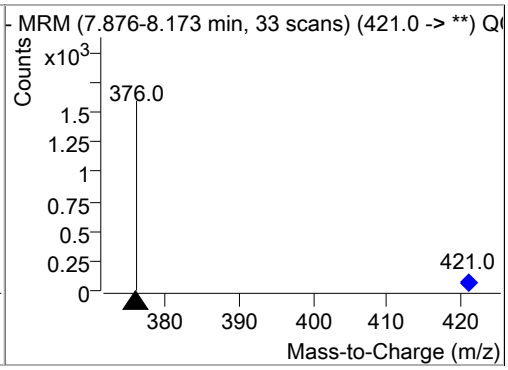




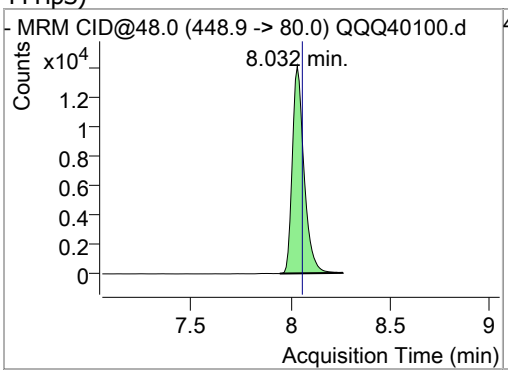
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4769	7.97	-0.03	28632				

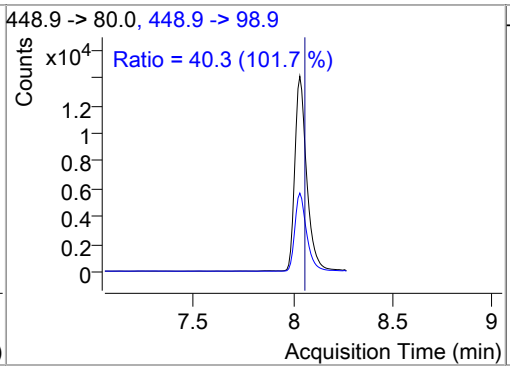


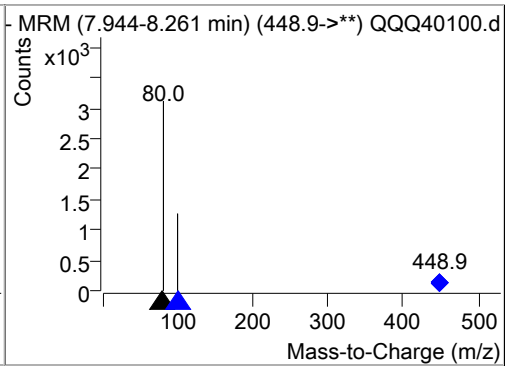




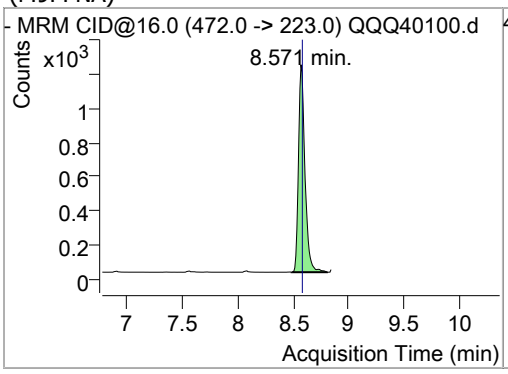
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	11.2916	8.03	-0.02	57424	448.9 -> 98.9	40.3	31.7	47.5

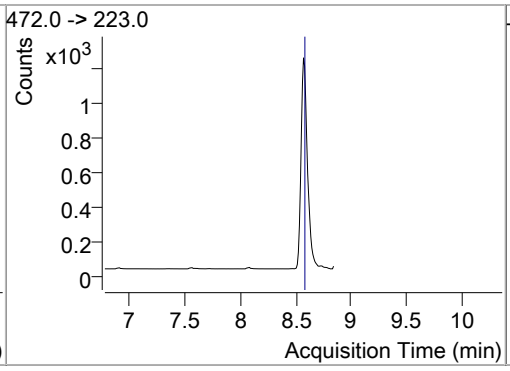


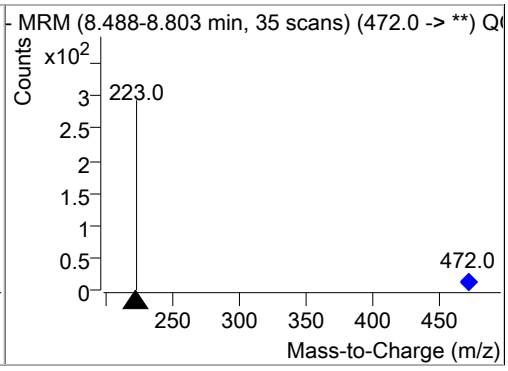




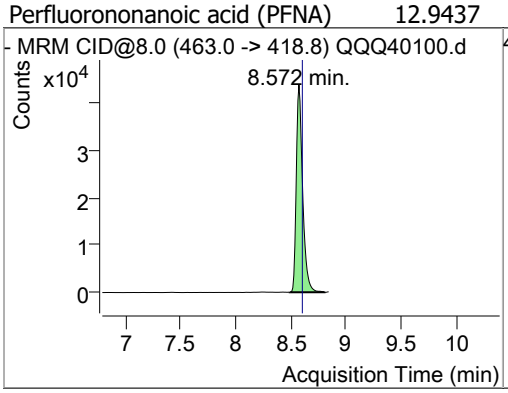
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.3294	8.57	-0.02	4904				

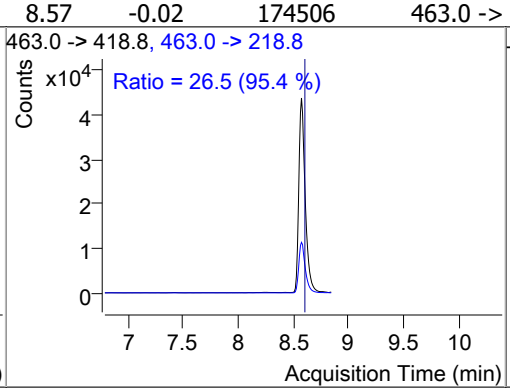


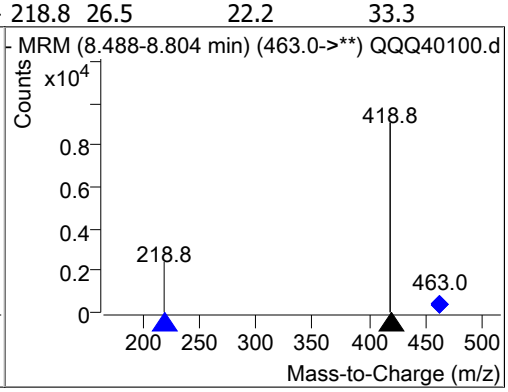




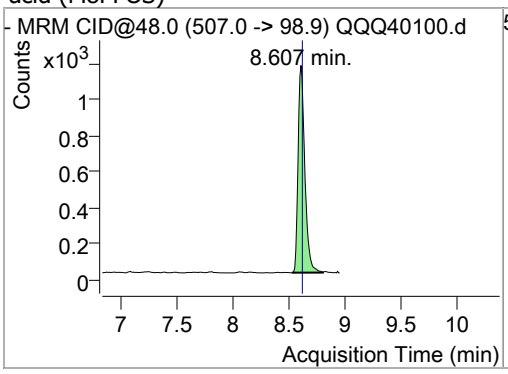
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	12.9437	8.57	-0.02	174506	463.0 -> 218.8	26.5	22.2	33.3

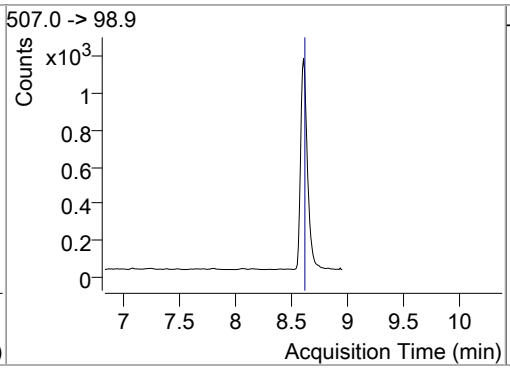


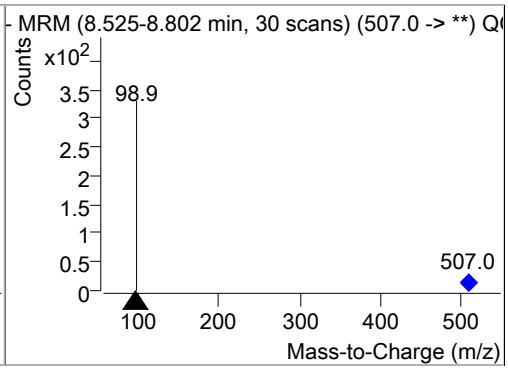




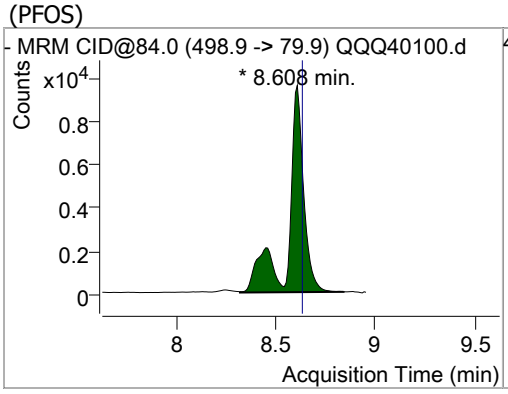
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.5850	8.61	-0.02	4797				

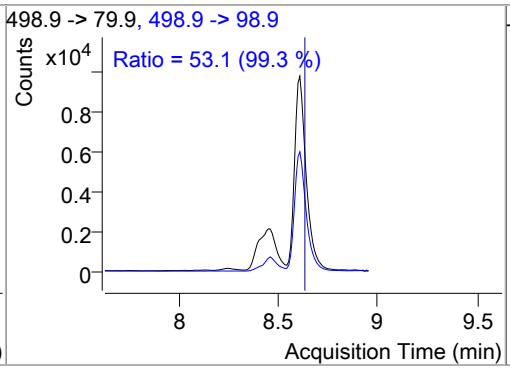


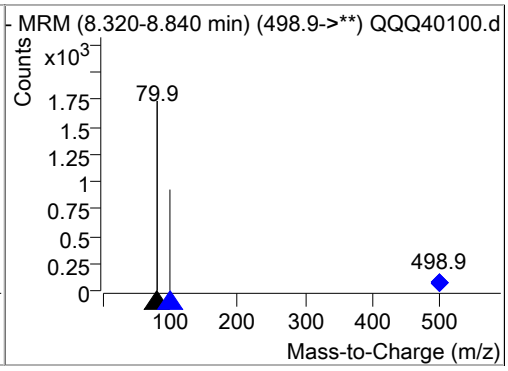




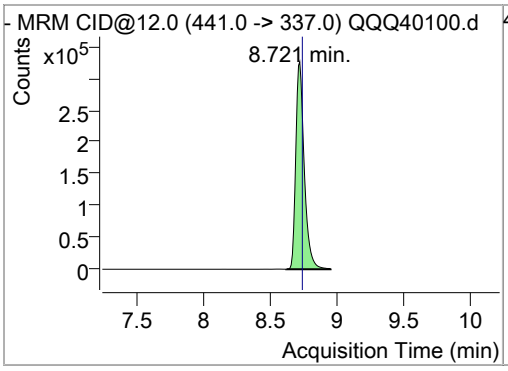
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	11.4815	8.61	-0.02	52630 (m)	498.9 -> 98.9	53.1	42.7	64.1

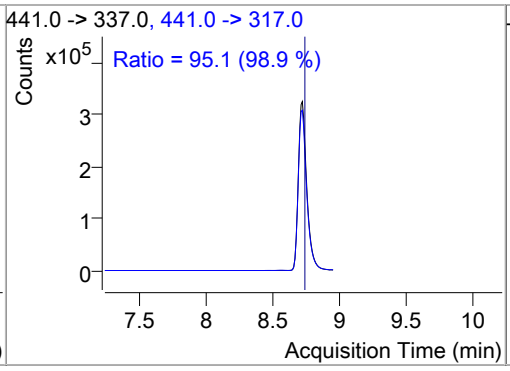


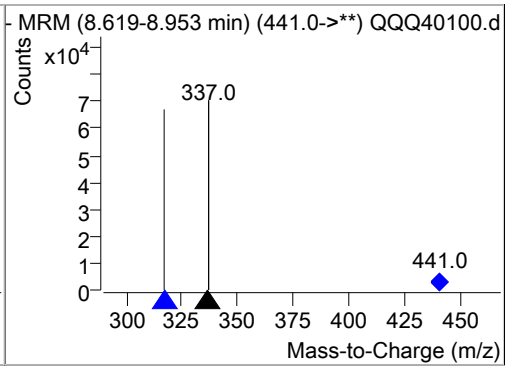




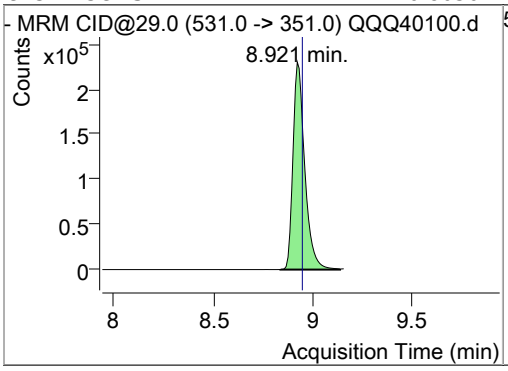
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	309.0667	8.72	-0.01	1448423	441.0 -> 317.0	95.1	76.9	115.4

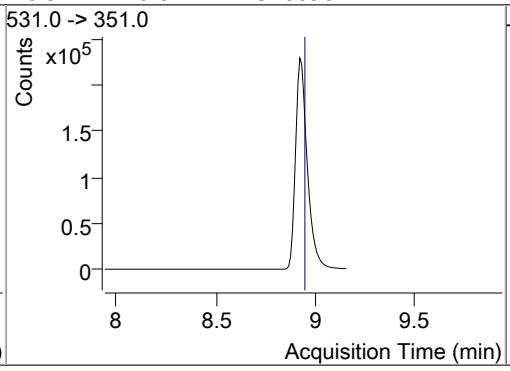


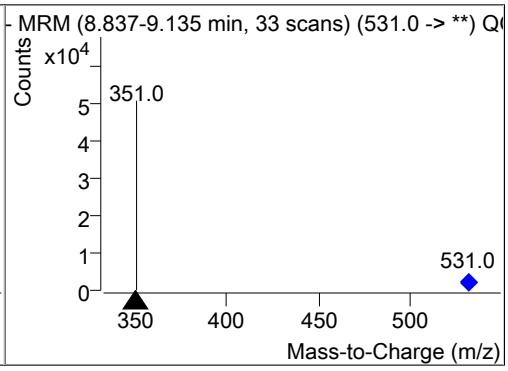




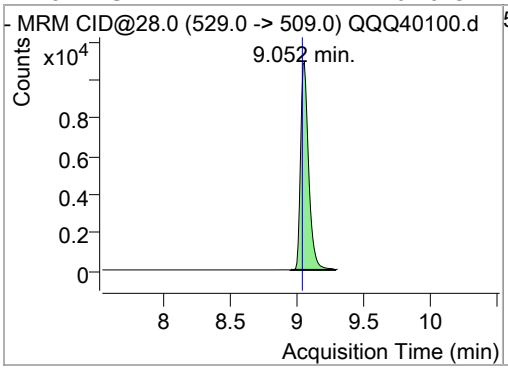
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	46.8636	8.92	-0.02	940898				

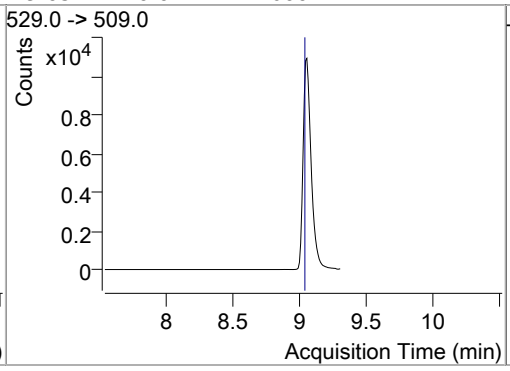


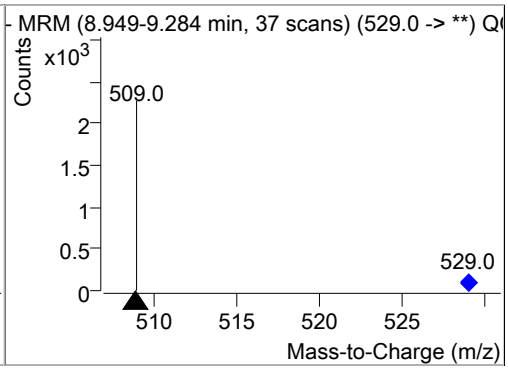




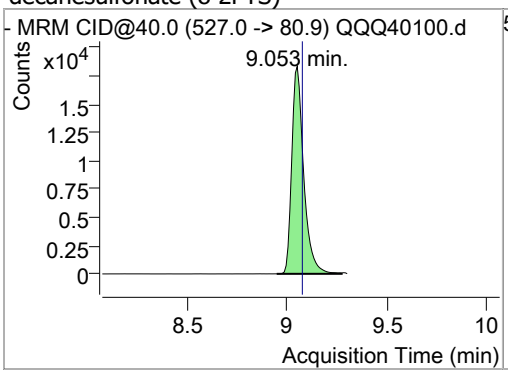
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	6.2013	9.05	-0.01	46002				

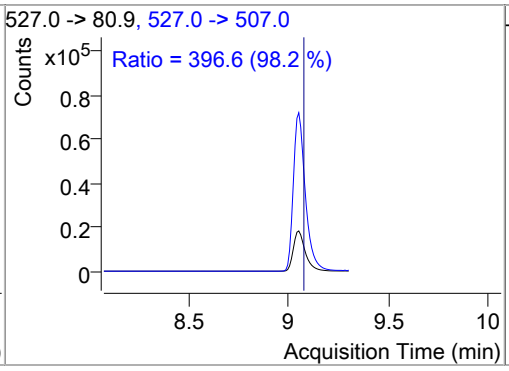


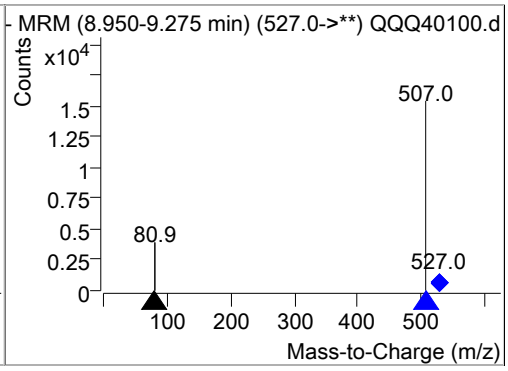




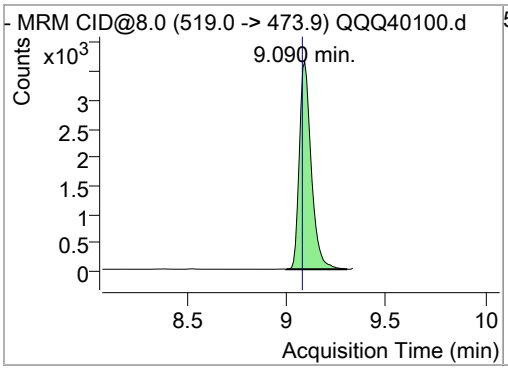
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	48.0283	9.05	-0.02	75827	527.0 -> 507.0	396.6	323.1	484.6

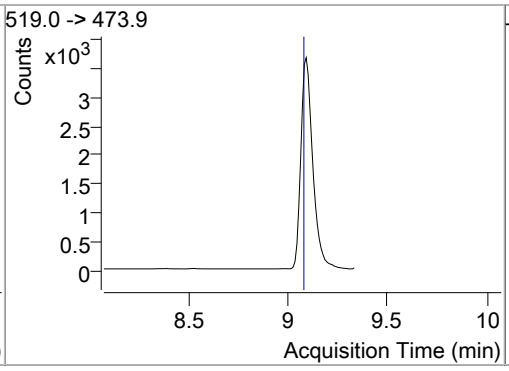


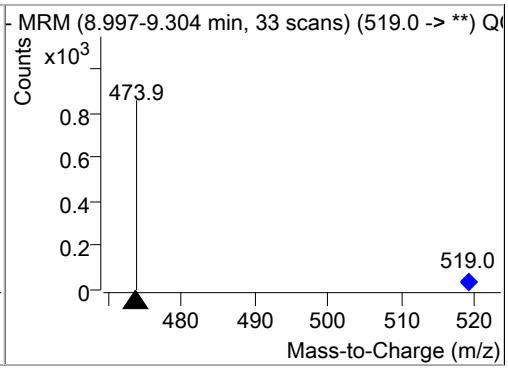




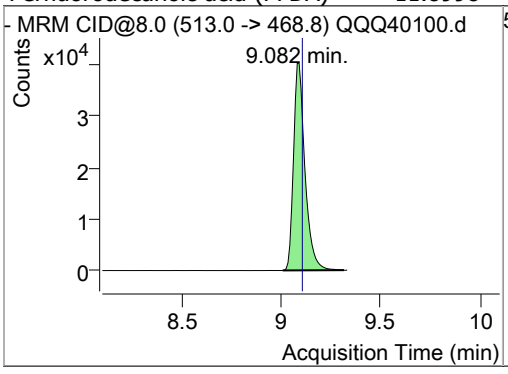
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2832	9.09	-0.01	15122				

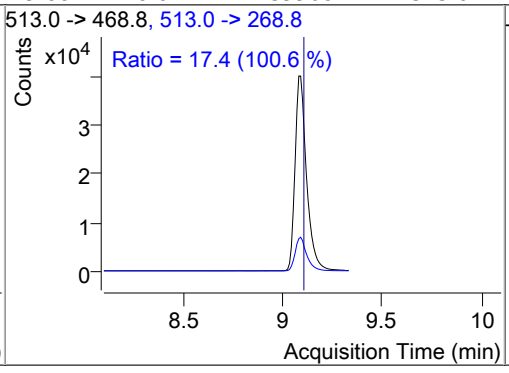


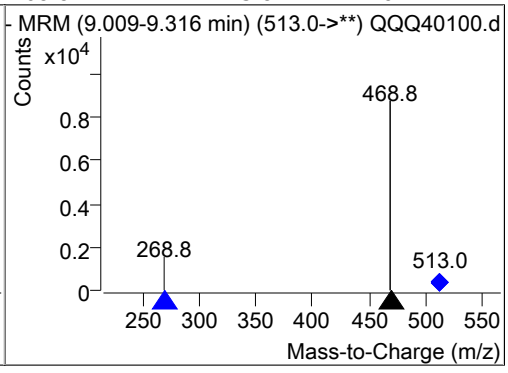




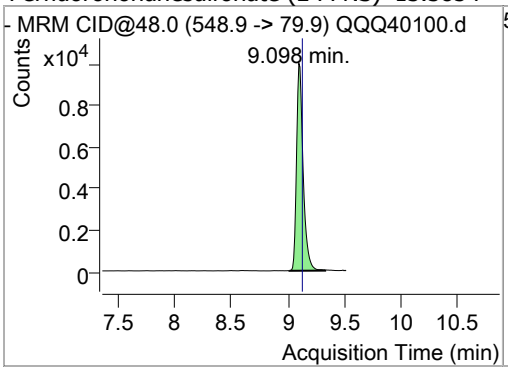
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	11.8998	9.08	-0.02	159968	513.0 -> 268.8	17.4	13.8	20.7

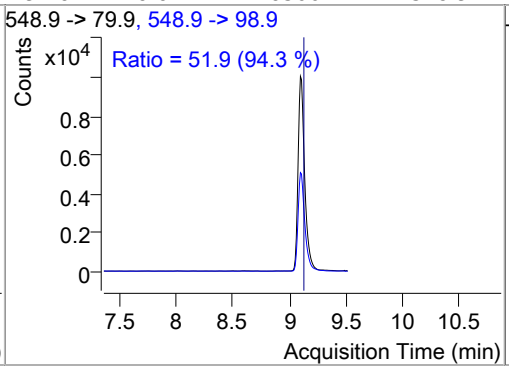


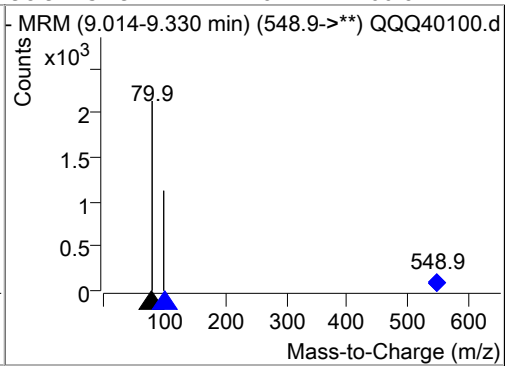




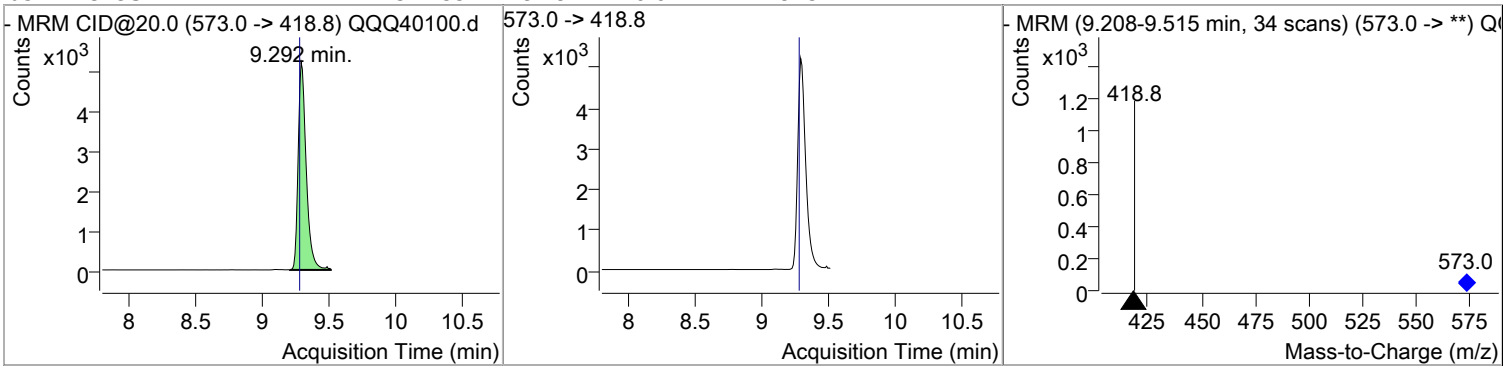
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	13.3854	9.10	-0.02	40566	548.9 -> 98.9	51.9	44.0	66.0



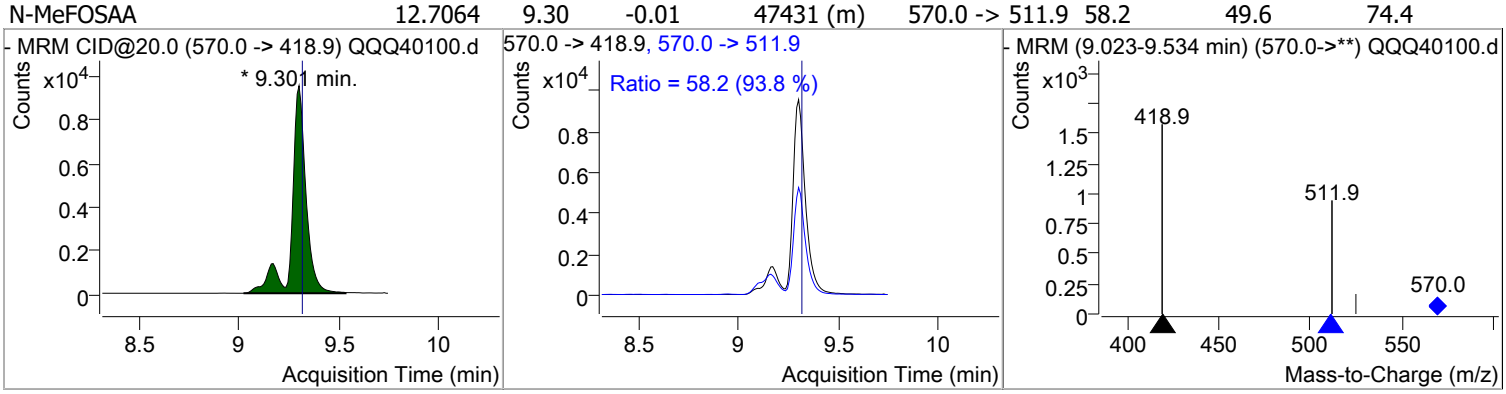




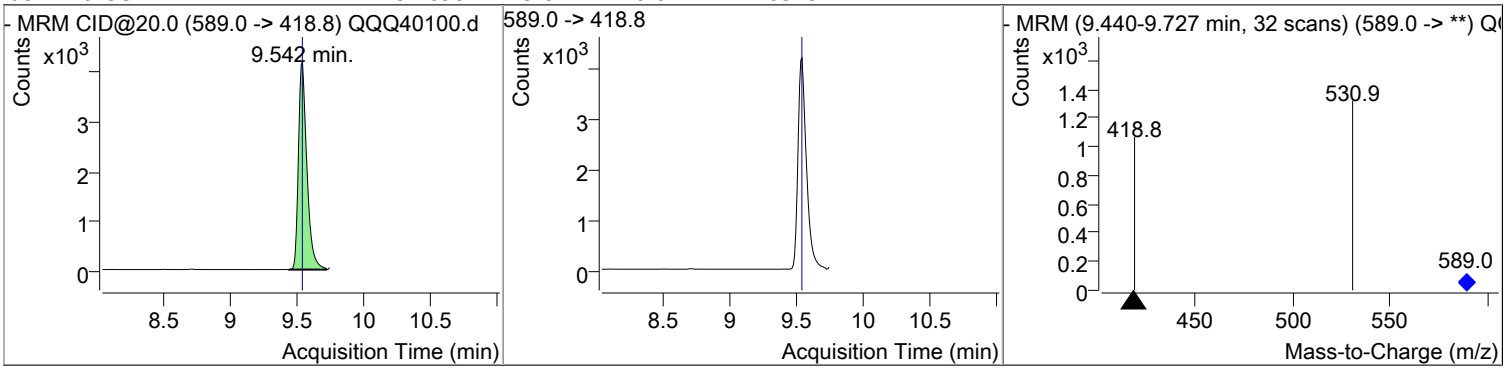
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.4255	9.29	-0.02	21915				



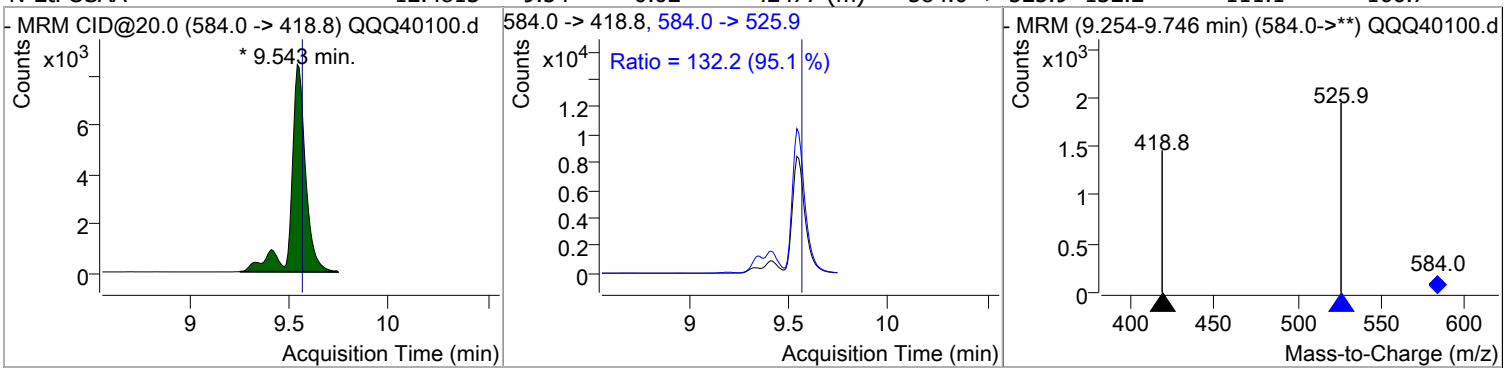
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	12.7064	9.30	-0.01	47431 (m)	570.0 -> 511.9	58.2	49.6	74.4



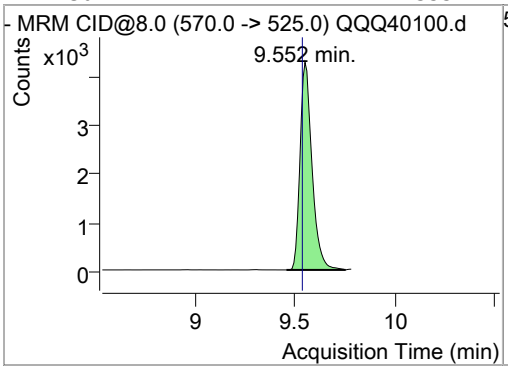
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.4095	9.54	-0.01	18345				

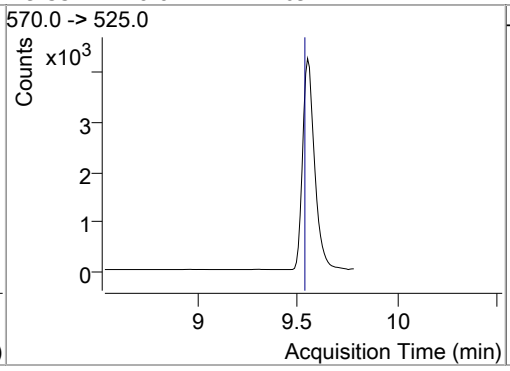


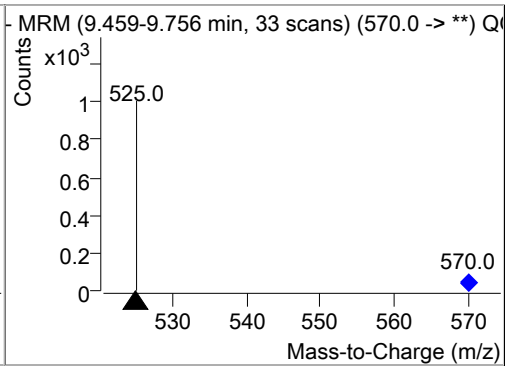
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	12.4813	9.54	-0.02	42477 (m)	584.0 -> 525.9	132.2	111.1	166.7



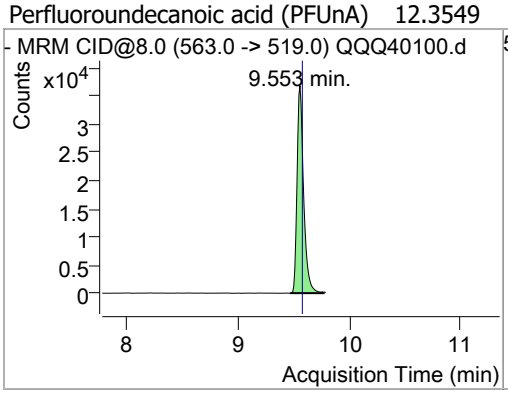
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.3557	9.55	-0.01	17691				

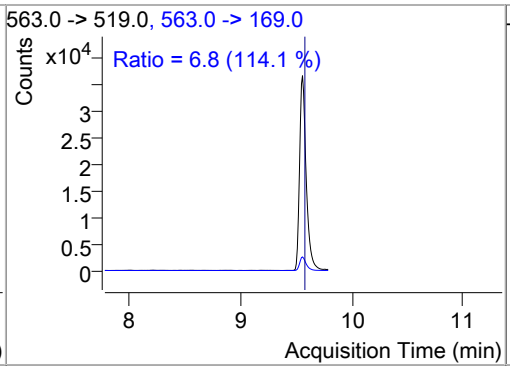


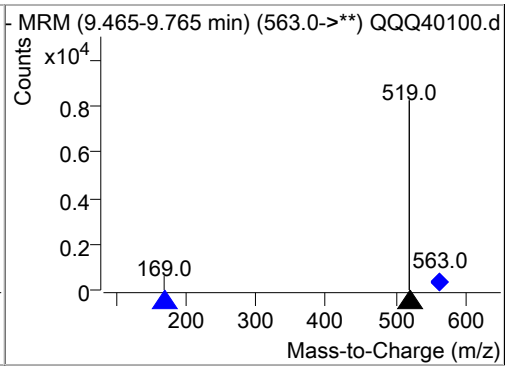




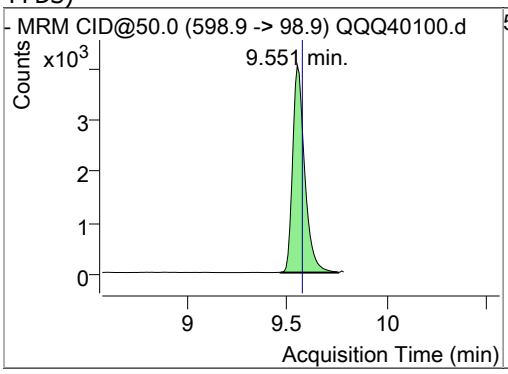
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	12.3549	9.55	-0.01	150802	563.0 -> 169.0	6.8	4.8	7.2

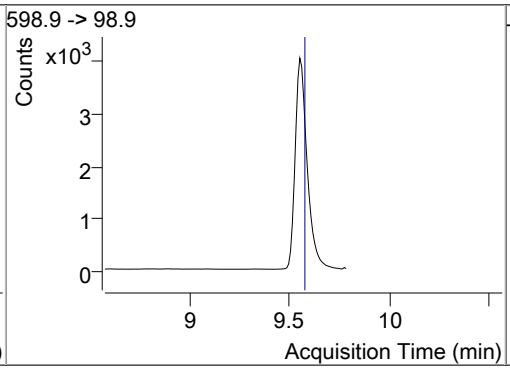


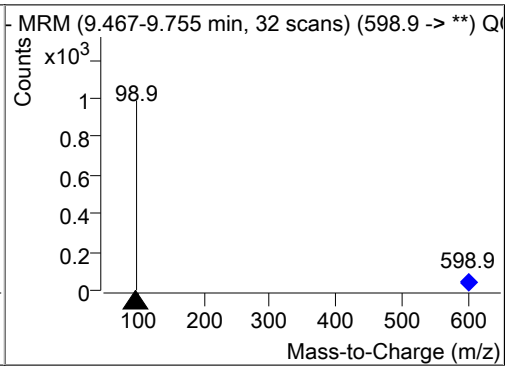




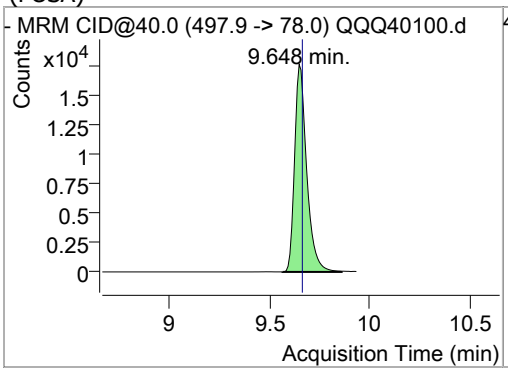
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	11.8486	9.55	-0.02	16825				

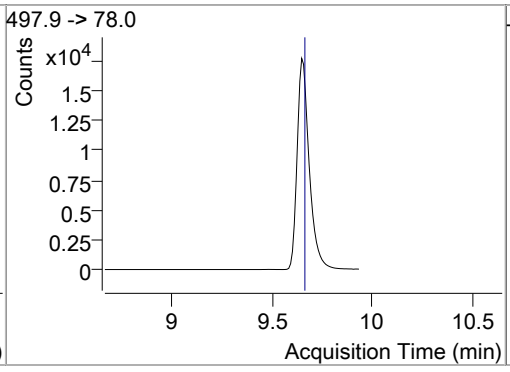


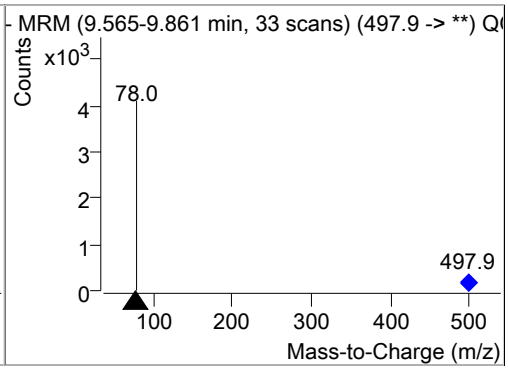




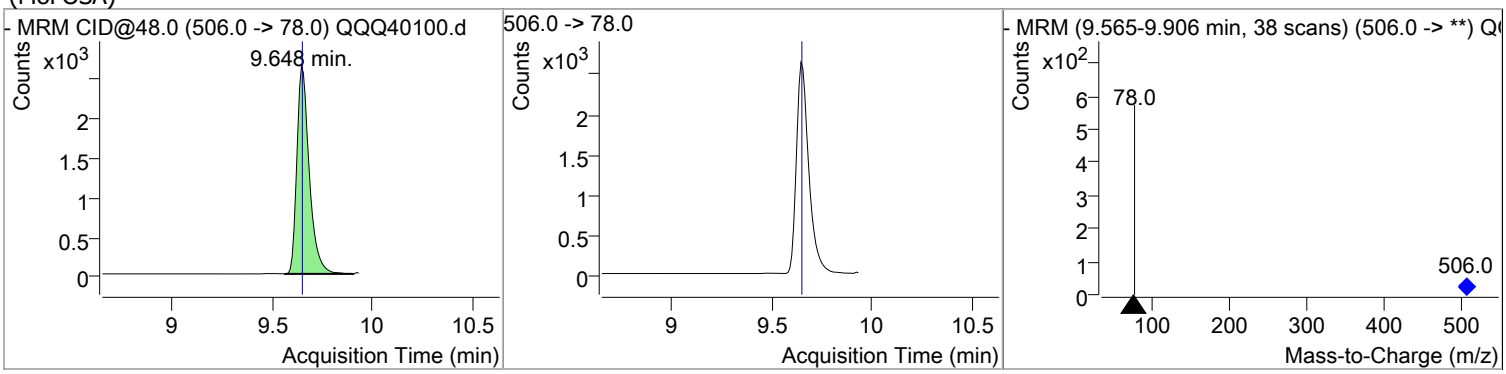
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	12.0234	9.65	-0.01	74203				



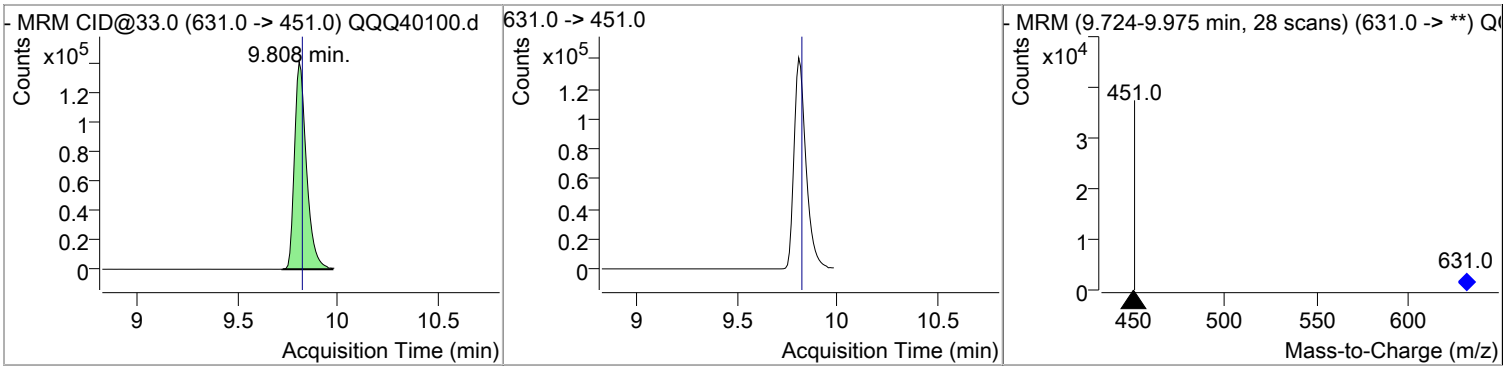




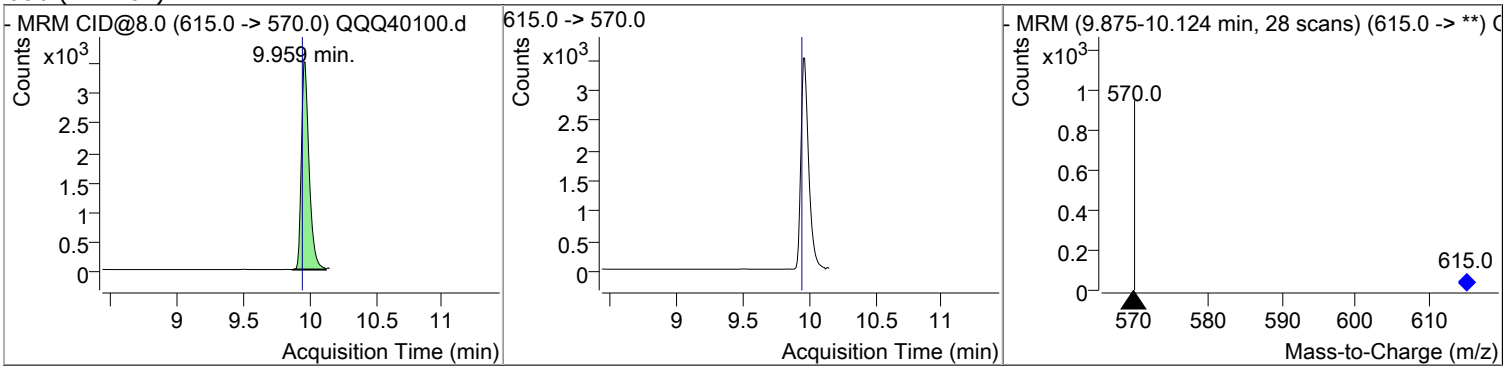
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.7634	9.65	-0.02	11226				



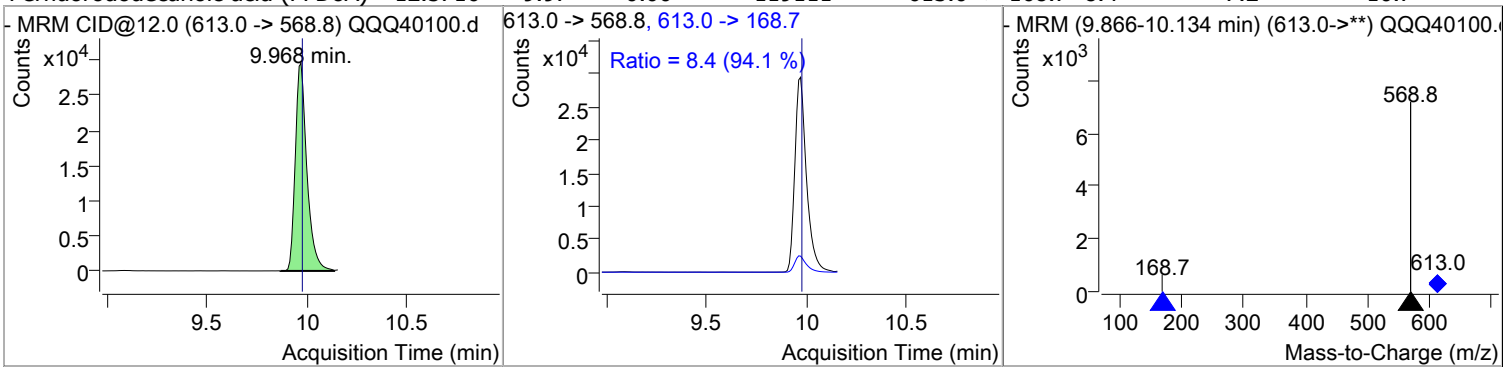
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	48.4835	9.81	-0.01	585024				



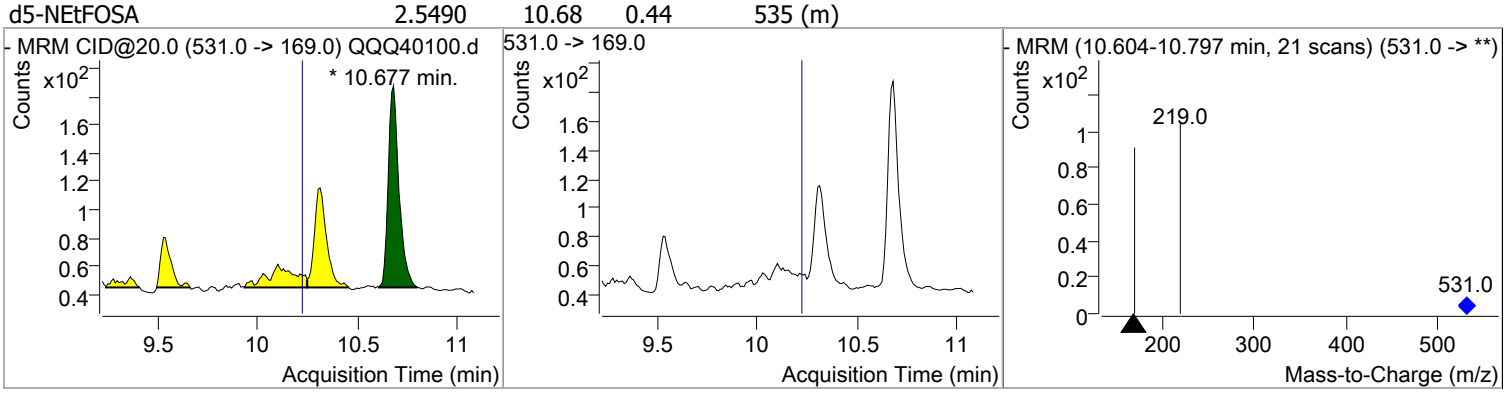
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.3084	9.96	-0.01	14116				



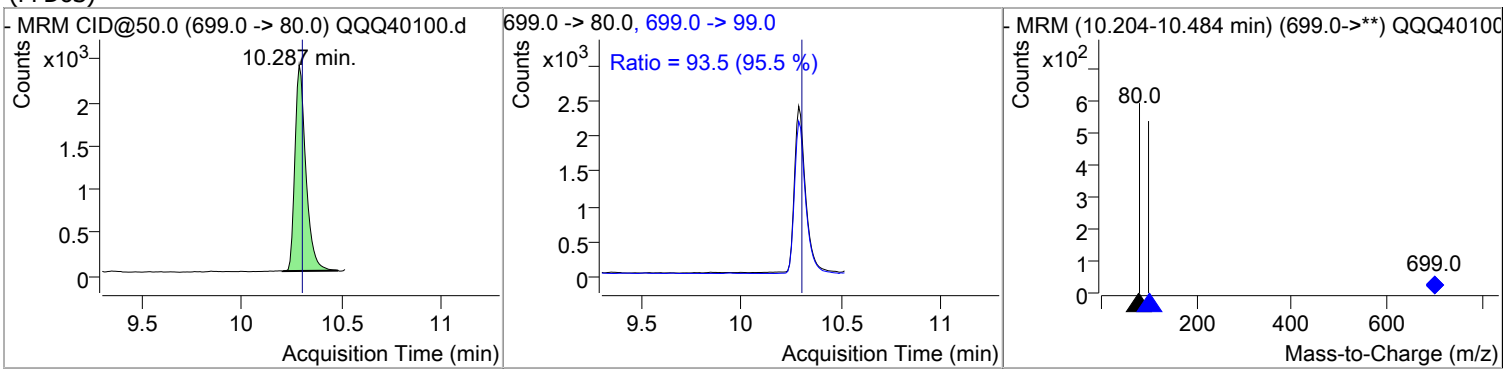
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	12.5716	9.97	0.00	119111	613.0 -> 168.7	8.4	7.2	10.7



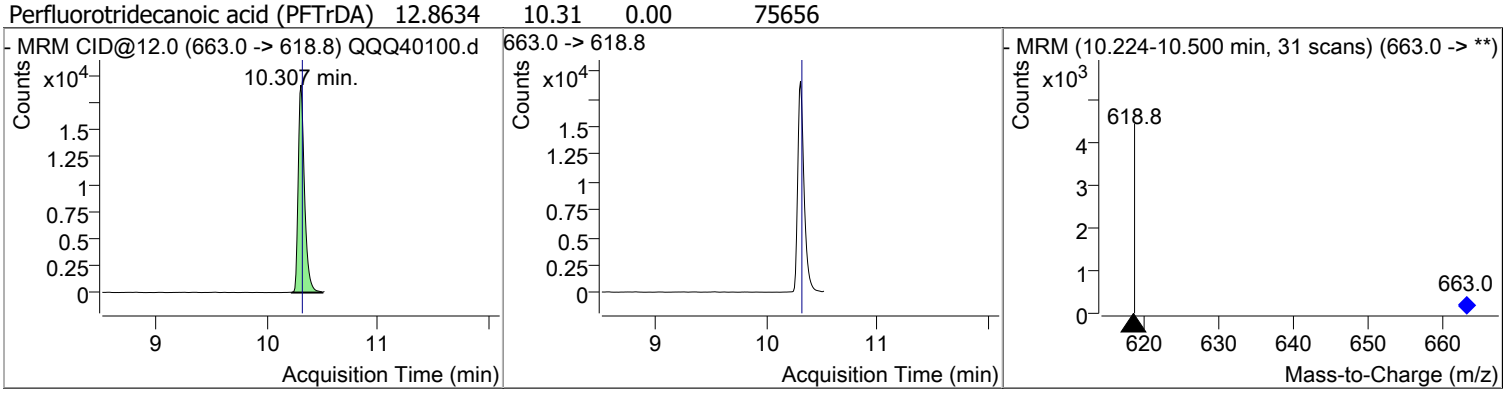
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.5490	10.68	0.44	535 (m)				



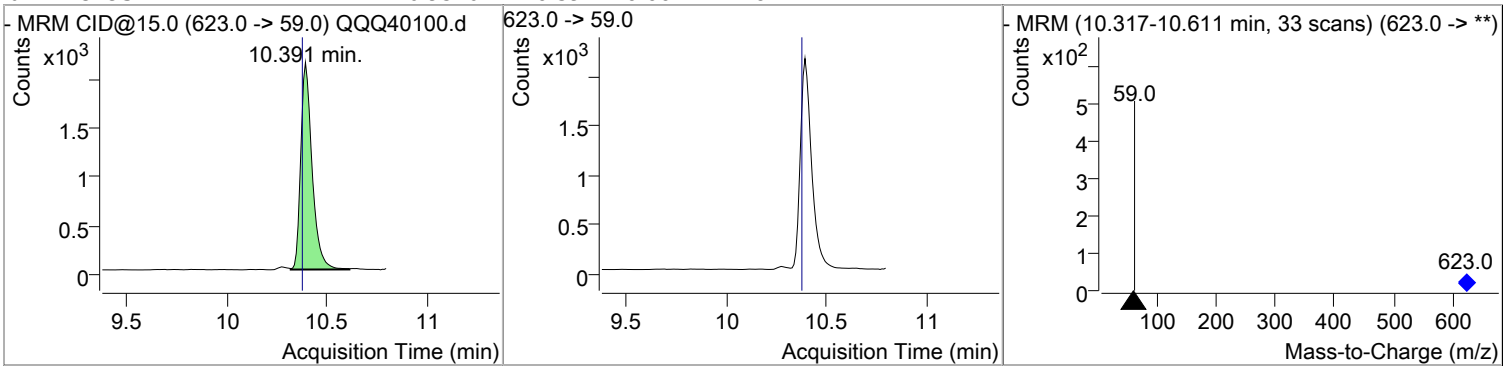
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	12.3281	10.29	-0.01	9055	699.0 -> 99.0	93.5	78.3	117.4



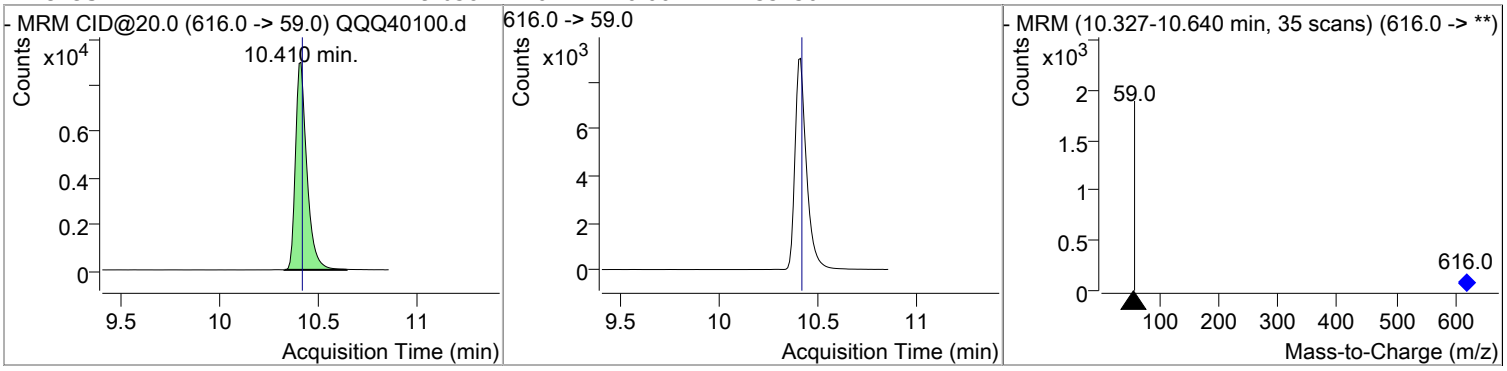
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	12.8634	10.31	0.00	75656				



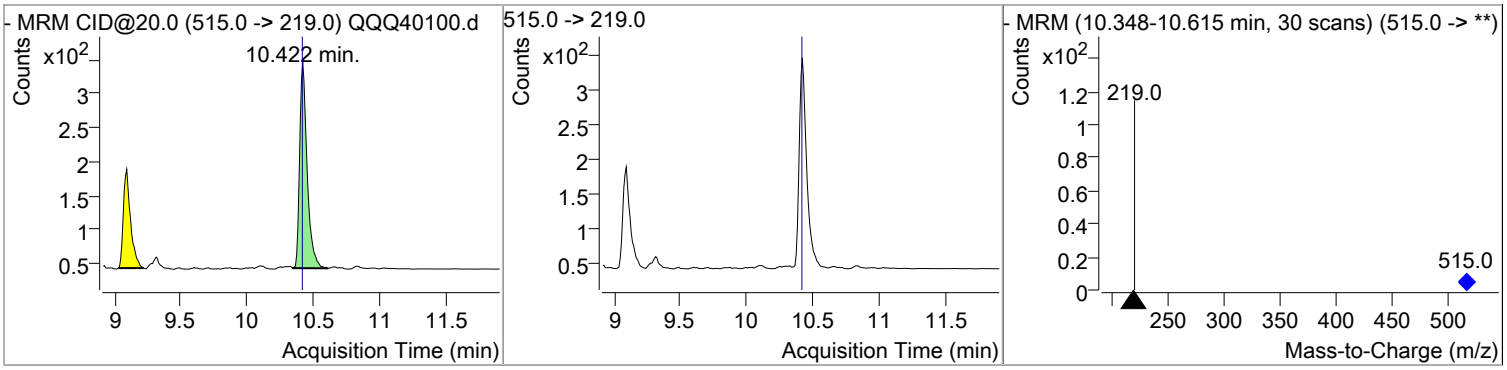
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	26.9516	10.39	0.00	8424				



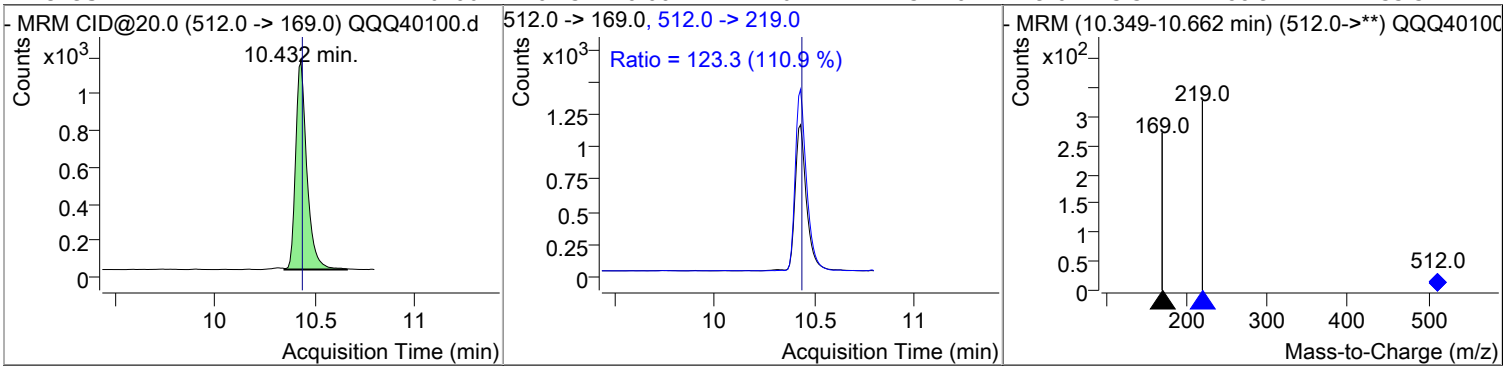
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	119.6382	10.41	0.00	35730				



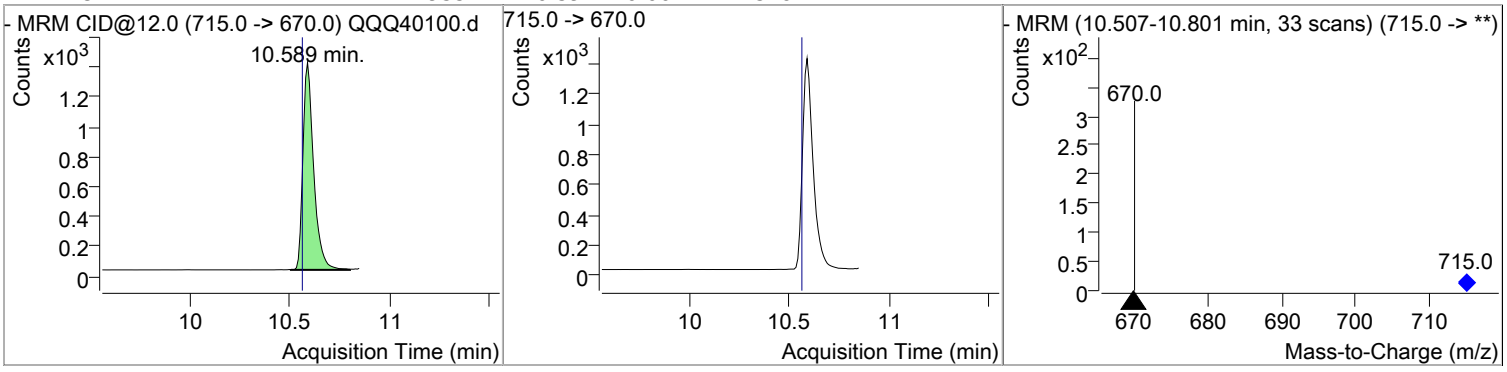
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.8264	10.42	-0.01	1189				



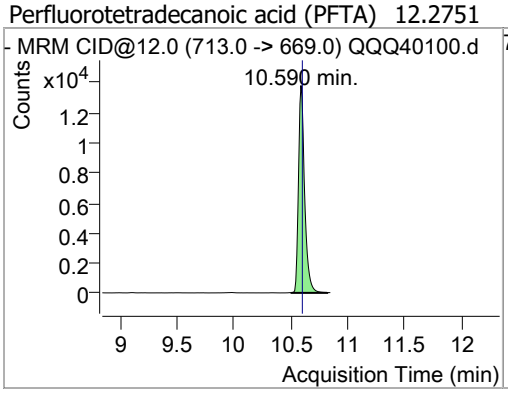
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	11.6106	10.43	0.00	4464	512.0 -> 219.0	123.3	88.9	133.3

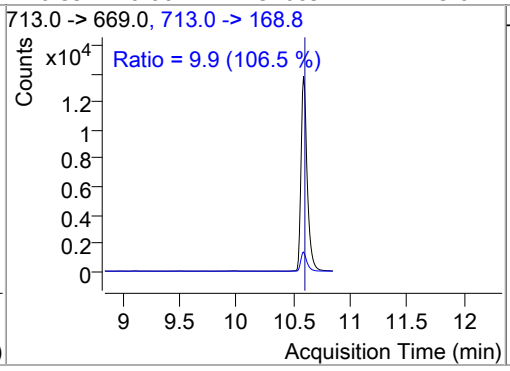


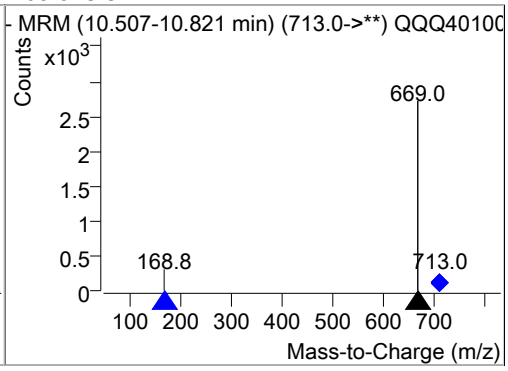
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.2935	10.59	0.00	5187				



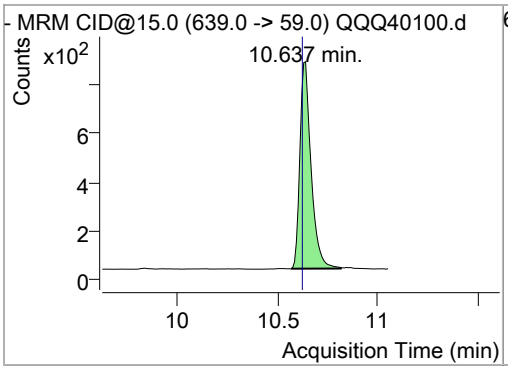
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	12.2751	10.59	0.00	51689	713.0 -> 168.8	9.9	7.4	11.1

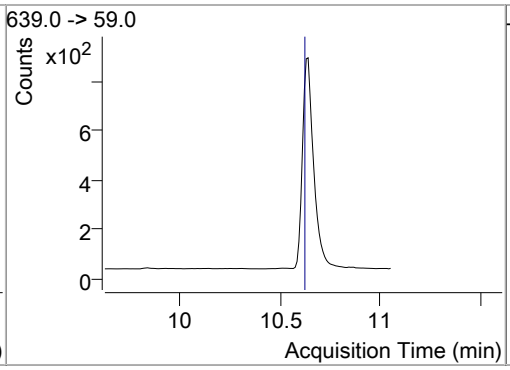


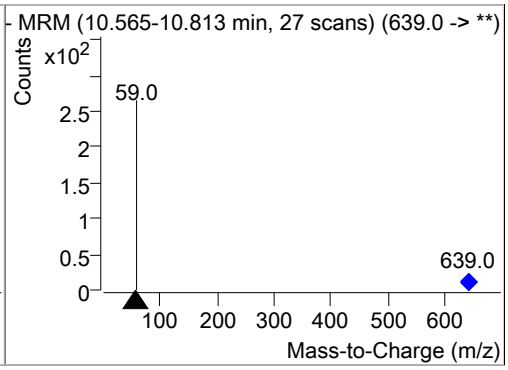




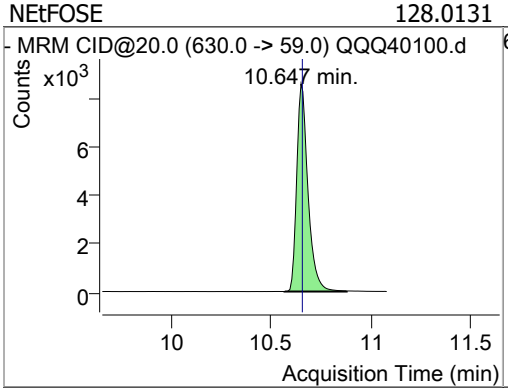
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	26.2960	10.64	0.00	3302				

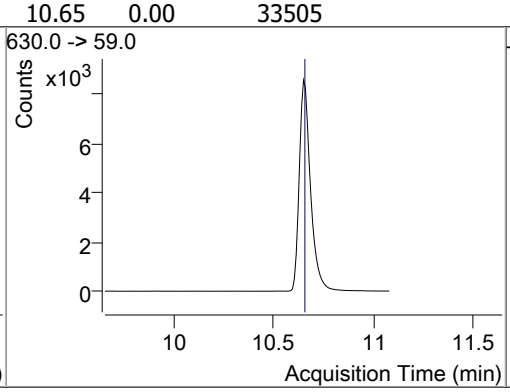


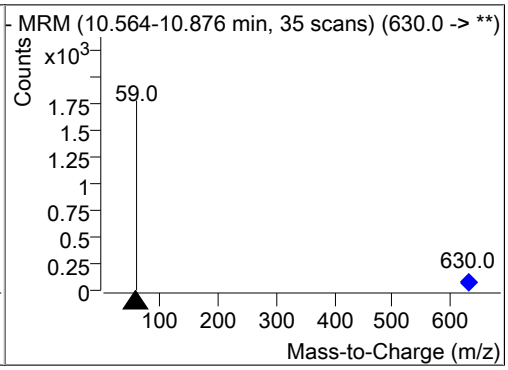




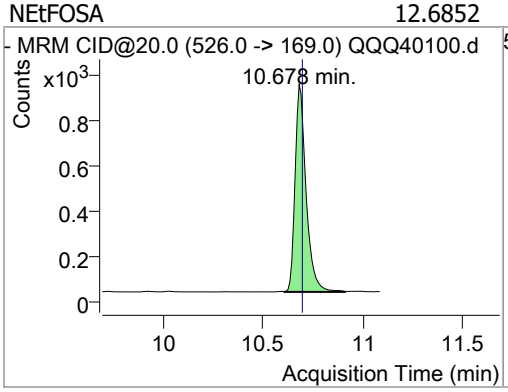
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	128.0131	10.65	0.00	33505				

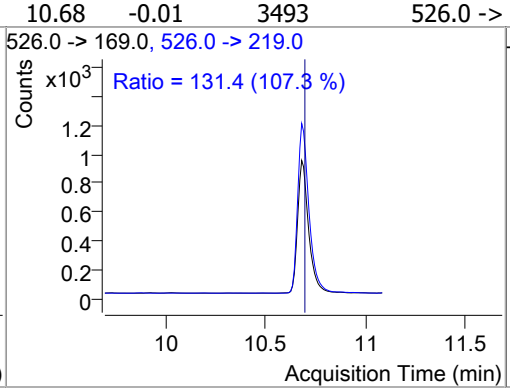


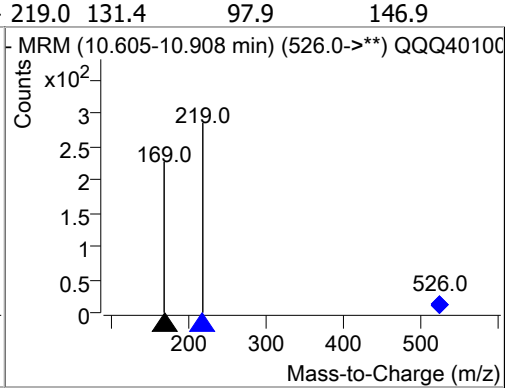




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	12.6852	10.68	-0.01	3493	526.0 -> 219.0	131.4	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 4:35:12 AM	**Data File**	QQQ40100.d
Sample Type	Cal	**Sampe Name**	SEQ-CAL6
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.329	493093	69934	0.484			1.47			665.13
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	110457	15688	0.487			1.59			40018.20
PFMPA	2.309	128710	14382	0.626			1.59			332.15
3:3FTCA	4.507	17142	2551	0.450			1.45			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	100041	15616	0.417			1.92			10041.90
Perfluoro-n-pentanoic acid (PFPeA)	4.793	492525	76895	0.426			1.62			18867.23
PFMBA	5.514	204204	42923	0.333			1.69			∞
M3PFBS	5.539	16561	3596	0.334			1.54			43676.27
Perfluorobutanesulfonic acid (PFBS)	5.539	79681	17748	0.334			1.51			1431927.47
PFEESA	6.057	588453	140045	0.371			1.89			∞
NFDHA	6.207	8149	1867	0.260			2.09			47072.37
M2-4-2FTS	6.288	32579	7407	0.316			1.62			109794.69
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.288	243781	55870	0.335			1.56			774483.32
M5PFHxA	6.363	54463	13112	0.306			1.74			74505.33
Perfluorohexanoic acid (PFHxA)	6.364	311739	74611	0.325			1.69			2128.65
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.584	72099	17836	0.324			1.57			570.40
M3-HFPO-DA	6.671	34899	8089	0.333			1.94			1686.71
HFPO-DA	6.680	16610	3810	0.333			1.43			52.19
M4PFHpA	7.244	13931	3248	0.343			1.80			63466.39
Perfluoroheptanoic acid (PFHpA)	7.244	159459	37542	0.371			1.85			776.27
5-3FTCA	7.310	841556	191601	0.334			1.52			83704.44
M3PFHxS	7.354	11422	2698	0.354			1.89			∞
Perfluorohexanesulfonic acid (PFHxS)	7.355	67261	13397	0.544			1.88			1989.81

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.392	380579	88805	0.316			1.52			29592.85
M2-6-2FTS	7.903	27660	6328	0.297			1.80			40916.83
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.903	245433	55415	0.334			1.82			∞
Perfluorooctanoic acid (PFOA)	7.969	170439	41217	0.269			1.62			5383.81
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.969	28632	6865	0.297			1.58			∞
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	57424	14046	0.317			1.64			2240.22
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.571	4904	1217	0.316			1.66			31.70
Perfluorononanoic acid (PFNA)	8.572	174506	43618	0.315			1.68			∞
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.607	4797	1147	0.276			1.62			1596.52
Perfluorooctanesulfonic acid (PFOS)	8.608	52630	9670	0.520			1.52			∞
7-3FTCA	8.721	1448423	325836	0.334			1.47			∞
9-Cl-PF3ONS	8.921	940898	229800	0.299			1.85			386.41
M2-8-2FTS	9.052	46002	10908	0.335			1.54			166.94
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	75827	18269	0.326			1.53			∞
M6PFDA	9.090	15122	3635	0.306			1.52			∞
Perfluorodecanoic acid (PFDA)	9.082	159968	40143	0.308			2.01			12312.67
Perfluorononanesulfonate (L-PFNS)	9.098	40566	9999	0.316			1.89			2316.29
d3-N-MeFOSAA	9.292	21915	5188	0.307			1.84			4606.70
N-MeFOSAA	9.301	47431	9528	0.511			1.54			41542.87
d5-N-EtFOSAA	9.542	18345	4154	0.287			1.46			∞
N-EtFOSAA	9.543	42477	8399	0.492			1.87			∞
M7PFUdA	9.552	17691	4255	0.296			1.63			26101.99
Perfluoroundecanoic acid (PFUnA)	9.553	150802	36730	0.300			1.57			1818.30
Perfluoro-1-decanesulfonate (L-PFDS)	9.551	16825	4023	0.288			1.76			22619.44
Perfluoro-1-octanesulfonamide (FOSA)	9.648	74203	17660	0.296			1.80			475.80
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	11226	2606	0.342			1.86			∞
11-Cl-PF3OUdS	9.808	585024	140797	0.251			1.76			24570.10
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.959	14116	3487	0.250			2.10			61.01

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.968	119111	29489	0.268			1.40			192.25
d5-NEtFOSA	10.677	535	143	0.193			1.45			14.43
Perfluorododecanesulfonic acid (PFDoS)	10.287	9055	2375	0.279			1.76			53.72
Perfluorotridecanoic acid (PFTrDA)	10.307	75656	19037	0.276			1.61			1653.23
d7-NMeFOSE	10.391	8424	2133	0.294			1.67			265.83
NMeFOSE	10.410	35730	8962	0.312			1.47			762.46
d3-NMeFOSA	10.422	1189	304	0.267			1.80			∞
NMeFOSA	10.432	4464	1133	0.313			1.45			1341.73
M2PFTeDA	10.589	5187	1392	0.295			1.68			1480.12
Perfluorotetradecanoic acid (PFTA)	10.590	51689	13778	0.313			1.66			6725.15
d9-NEtFOSE	10.637	3302	852	0.248			1.41			1078.55
NEtFOSE	10.647	33505	8539	0.312			1.78			∞
NEtFOSA	10.678	3493	914	0.303			1.81			∞

Data File	QQQ40101.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 4:51:17 AM
Sample Name	SEQ-CAL7	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	25.0 - 620 ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
Ref Library			

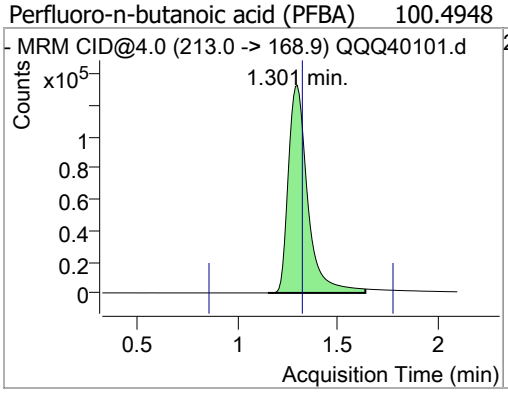
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.297	217.0 -> 172.0	98907	10.0000	ng/ml		-0.028
M3PFBA	1.299	216.0 -> 172.0	21543	5.0000	ng/ml		-0.018
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.765	268.0 -> 223.0	91208	5.0000	ng/ml		-0.018
MPFHxA	6.364	315.0 -> 269.8	34093	2.5000	ng/ml		-0.019
MPFHxS	7.364	403.0 -> 103.0	3702	2.3700	ng/ml		-0.019
M3PFBS-EIS	5.539	302.0 -> 79.9	14294	2.3300	ng/ml		0.000
M5PFHxA-EIS	6.363	318.0 -> 273.0	47956	2.5000	ng/ml		-0.019
M2-4-2FTS-EIS	6.288	329.0 -> 309.0	35983	4.6900	ng/ml		-0.019
M3PFHxS-EIS	7.364	402.0 -> 80.0	10245	2.3700	ng/ml		-0.019
M3-HFPO-DA-EIS	6.680	287.0 -> 169.0	30838	10.0000	ng/ml		-0.019
M4PFHpA-EIS	7.253	367.0 -> 322.0	11341	2.5000	ng/ml		-0.019
M2-6-2FTS-EIS	7.912	429.0 -> 409.0	31709	4.7550	ng/ml		-0.009
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.969	421.0 -> 376.0	26833	2.5000	ng/ml		-0.028
MPFOA	7.969	417.0 -> 372.0	41088	2.5000	ng/ml		-0.019
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.607	507.0 -> 98.9	4530	2.3950	ng/ml		-0.019
MPFNA	8.572	468.0 -> 423.0	18138	1.2500	ng/ml		-0.019
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.571	472.0 -> 223.0	4490	1.2500	ng/ml		-0.019
MPFOS	8.598	503.0 -> 80.0	10421	2.3950	ng/ml		-0.028
M2-8-2FTS-EIS	9.043	529.0 -> 509.0	55924	4.8000	ng/ml		-0.019
MPFDA	9.082	515.0 -> 469.8	9989	1.2500	ng/ml		-0.028
M6PFDA-EIS	9.081	519.0 -> 473.9	13281	1.2500	ng/ml		-0.019
d3-N-MeFOSAA-EIS	9.282	573.0 -> 418.8	20505	5.0000	ng/ml		-0.028
d5-N-EtFOSAA-EIS	9.523	589.0 -> 418.8	15868	5.0000	ng/ml		-0.028
M7PFUdA-EIS	9.543	570.0 -> 525.0	15627	1.2500	ng/ml		-0.019
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.648	506.0 -> 78.0	9895	2.5000	ng/ml		-0.018
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.949	615.0 -> 570.0	13117	1.2500	ng/ml		-0.018
M2PFTeDA-EIS	10.562	715.0 -> 670.0	5245	1.2500	ng/ml		-0.028
d7-NMeFOSE-EIS	10.373	623.0 -> 59.0	7421	25.0000	ng/ml		-0.018
d3-NMeFOSA-EIS	10.404	515.0 -> 219.0	1023	2.5000	ng/ml		-0.028
d9-NEtFOSE-EIS	10.610	639.0 -> 59.0	3041	25.0000	ng/ml		-0.028
d5-NEtFOSA-EIS	10.650	531.0 -> 169.0	509	2.5000	ng/ml	m	-0.018
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	217.0 -> 172.0	98907	9.0667	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	268.0 -> 223.0	91198	4.4641	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.539	302.0 -> 79.9	14585	2.2166	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.288	329.0 -> 309.0	35982	6.7475	ng/ml		-0.019

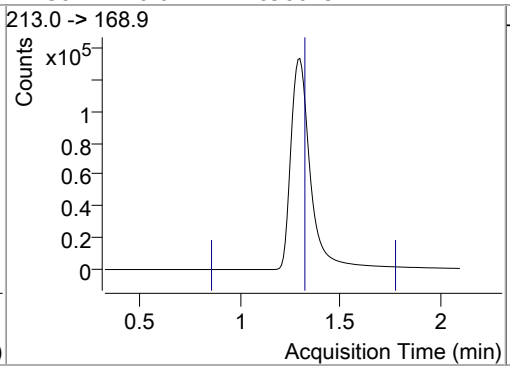
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.363	318.0 -> 273.0	47956	2.1891	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.680	287.0 -> 169.0	30862	8.2887	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.253	367.0 -> 322.0	11346	1.9947	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.364	402.0 -> 80.0	10199	2.2496	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.912	429.0 -> 409.0	31709	6.6581	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.969	421.0 -> 376.0	26833	2.2706	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.571	472.0 -> 223.0	4490	1.1352	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.607	507.0 -> 98.9	4567	2.2053	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.043	529.0 -> 509.0	55924	7.5249	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.081	519.0 -> 473.9	13280	1.1049	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.282	573.0 -> 418.8	20494	4.5467	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.523	589.0 -> 418.8	15866	4.1923	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.543	570.0 -> 525.0	15627	1.1742	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	506.0 -> 78.0	9895	2.1827	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.949	615.0 -> 570.0	13118	1.1922	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.650	531.0 -> 169.0	509	2.1707	ng/ml	m	0.414
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.373	623.0 -> 59.0	7421	21.2752	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.404	515.0 -> 219.0	1023	2.1793	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.562	715.0 -> 670.0	5245	1.2824	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.610	639.0 -> 59.0	3016	21.5210	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.301	213.0 -> 168.9	898625	100.4948	ng/ml		100
PFMPA	2.263	229.0 -> 85.0	245295	50.4027	ng/ml		100
3:3FTCA	4.470	241.0 -> 177.0	32597	126.0040	ng/ml		97
Perfluoro-n-pentanoic acid (PFPeA)	4.765	263.0 -> 219.0	914980	50.1852	ng/ml		100
PFMBA	5.504	279.0 -> 85.0	373106	50.2827	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.539	298.9 -> 79.9	144282	22.4491	ng/ml		99
PFEESA	6.066	315.0 -> 135.0	1080079	45.4787	ng/ml		99
NFDHA	6.216	295.0 -> 201.1	14704	51.5314	ng/ml	#	87
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.288	327.0 -> 307.0	408234		ng/ml		100

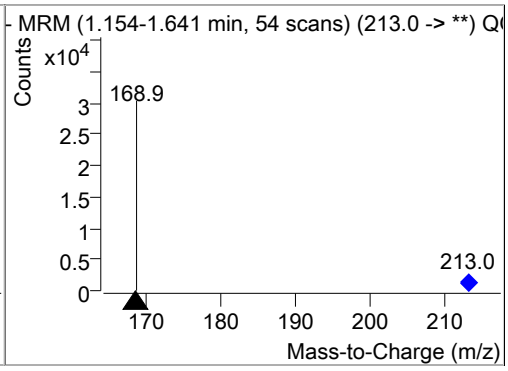
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.373	313.0 -> 268.9	590563	25.6004	ng/ml		99
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.584	348.9 -> 79.9	134974	23.4039	ng/ml		98
HFPO-DA	6.680	285.0 -> 169.1	29459	100.5526	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.244	363.0 -> 318.8	297390	25.8442	ng/ml		96
5-3FTCA	7.310	341.0 -> 217.0	1490143	636.3612	ng/ml		96
Perfluorohexanesulfonic acid (PFHxS)	7.364	398.9 -> 79.9	123385	22.7566	ng/ml	m	100
ADONA	7.392	377.0 -> 85.0	698634	95.6827	ng/ml		97
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.903	427.0 -> 407.0	408028		ng/ml		99
Perfluorooctanoic acid (PFOA)	7.969	413.0 -> 368.8	354982	25.6184	ng/ml		96
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	448.9 -> 80.0	112385	24.5999	ng/ml		98
Perfluorononanoic acid (PFNA)	8.572	463.0 -> 418.8	300872	24.7225	ng/ml		99
Perfluorooctanesulfonic acid (PFOS)	8.608	498.9 -> 79.9	100077	23.7986	ng/ml	m	99
7-3FTCA	8.711	441.0 -> 337.0	2405329	624.4711	ng/ml		97
9-Cl-PF3ONS	8.921	531.0 -> 351.0	1681639	93.7933	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	527.0 -> 80.9	132921		ng/ml		100
Perfluorodecanoic acid (PFDA)	9.082	513.0 -> 468.8	303638	25.6233	ng/ml		99
Perfluorononanesulfonate (L-PFNS)	9.098	548.9 -> 79.9	70029	25.1182	ng/ml		98
N-MeFOSAA	9.292	570.0 -> 418.9	86672	24.8453	ng/ml	m	99
N-EtFOSAA	9.533	584.0 -> 418.8	74484	25.1174	ng/ml	m	99
Perfluoroundecanoic acid (PFUnA)	9.544	563.0 -> 519.0	277955	24.8925	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.541	598.9 -> 98.9	31348	24.4280	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.639	497.9 -> 78.0	136873	25.4015	ng/ml		100
11-Cl-PF3OUdS	9.799	631.0 -> 451.0	1012908	93.7665	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.950	613.0 -> 568.8	219149	25.0271	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.269	699.0 -> 80.0	15908	24.0886	ng/ml		97
Perfluorotridecanoic acid (PFTrDA)	10.288	663.0 -> 618.8	144226	24.5761	ng/ml		100
NMeFOSE	10.392	616.0 -> 59.0	65583	256.4772	ng/ml		100
NMeFOSA	10.413	512.0 -> 169.0	8154	25.7268	ng/ml		88
Perfluorotetradecanoic acid (PFTA)	10.562	713.0 -> 669.0	105989	25.1424	ng/ml		100
NEtFOSE	10.629	630.0 -> 59.0	60584	247.4199	ng/ml		100
NEtFOSA	10.660	526.0 -> 169.0	6441	24.9698	ng/ml		93

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

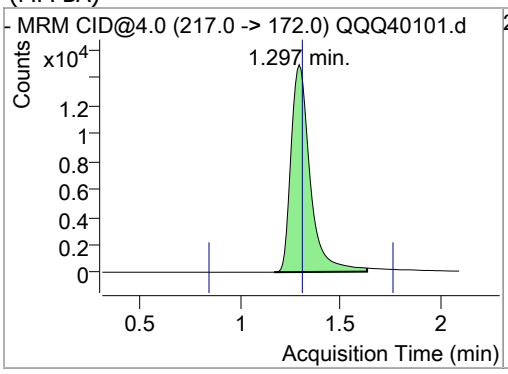
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	100.4948	1.30	-0.02	898625				

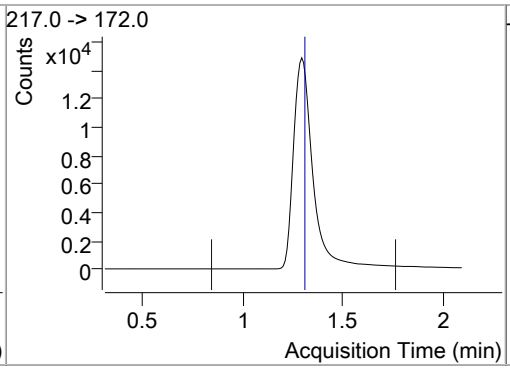


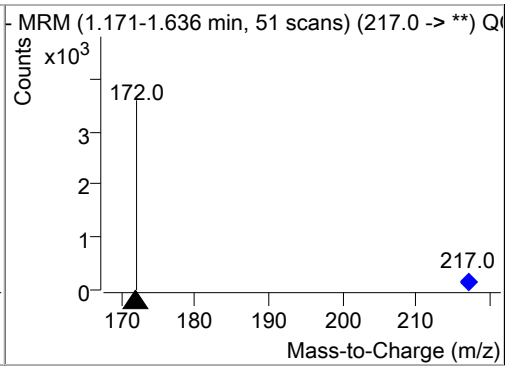




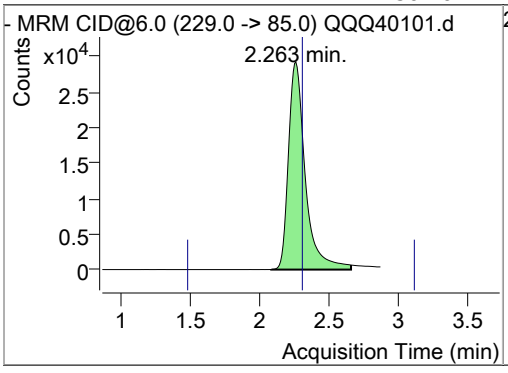
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	9.0667	1.30	-0.03	98907				

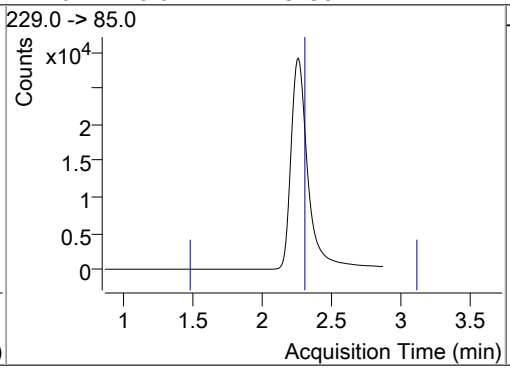


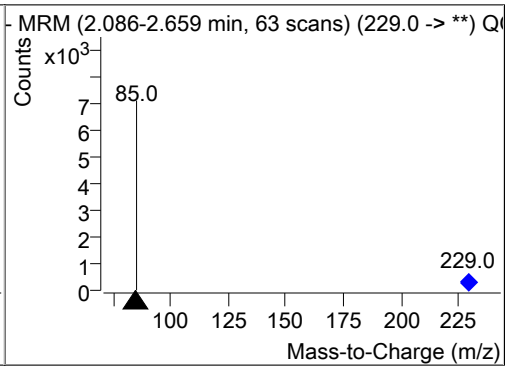




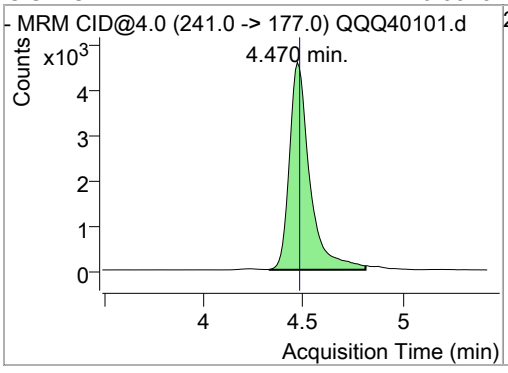
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	50.4027	2.26	-0.04	245295				

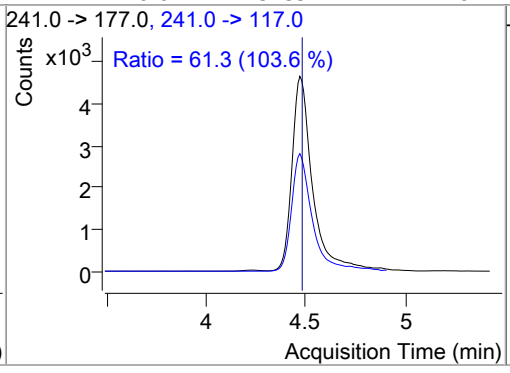


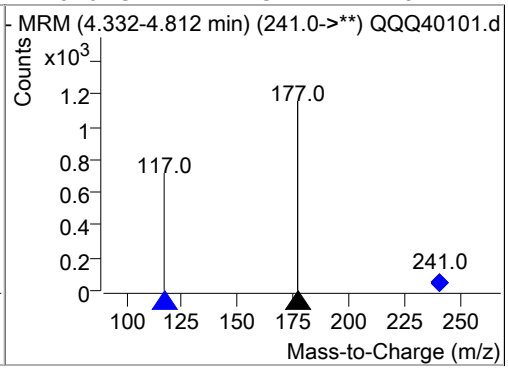




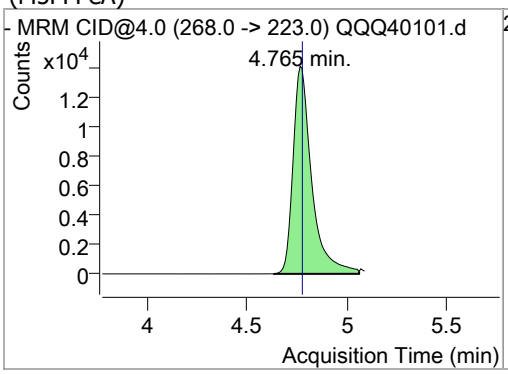
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	126.0040	4.47	-0.02	32597	241.0 -> 117.0	61.3	47.3	71.0

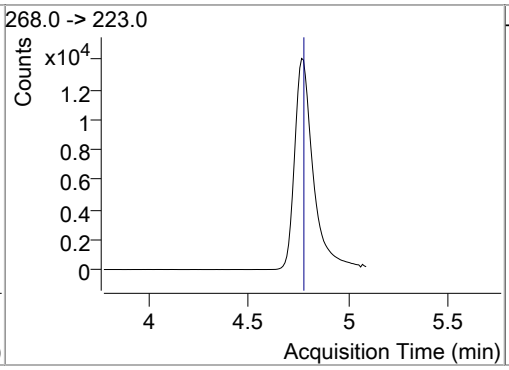


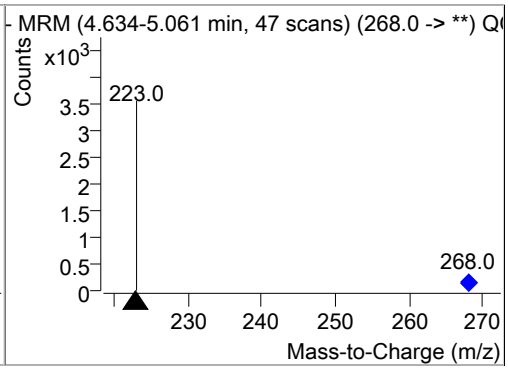




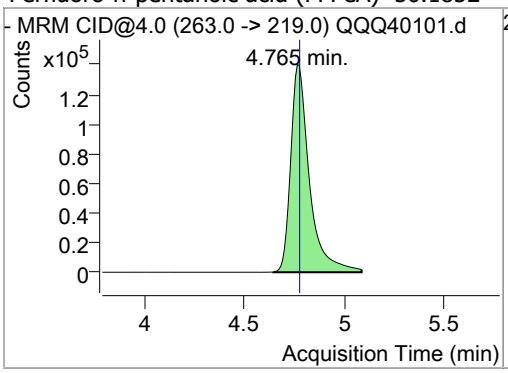
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.4641	4.76	-0.02	91198				

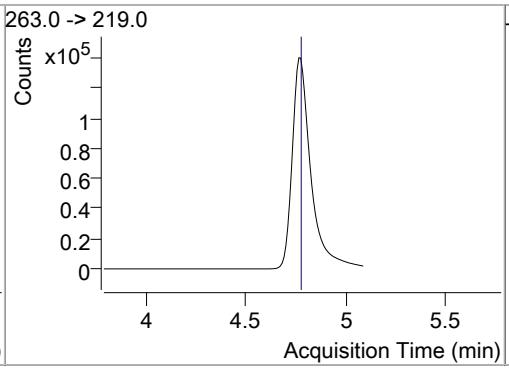


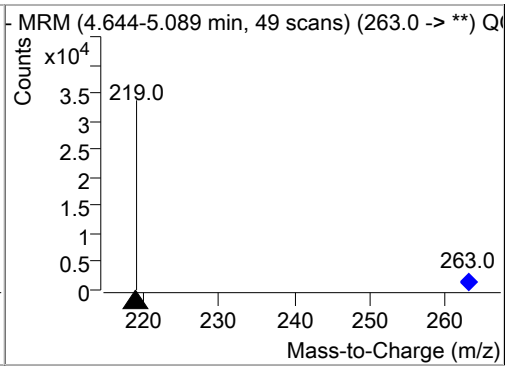




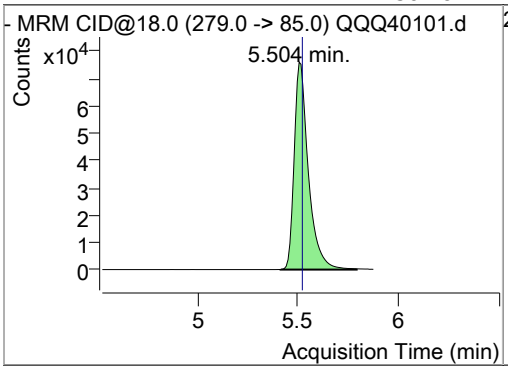
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	50.1852	4.77	-0.02	914980				

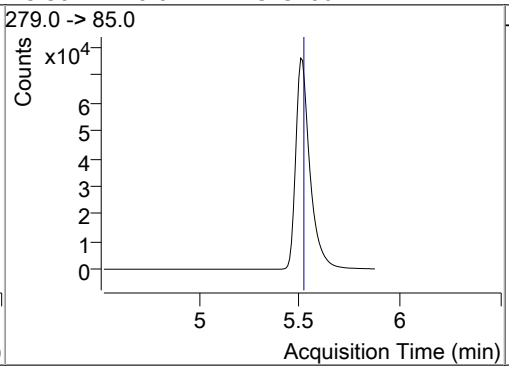


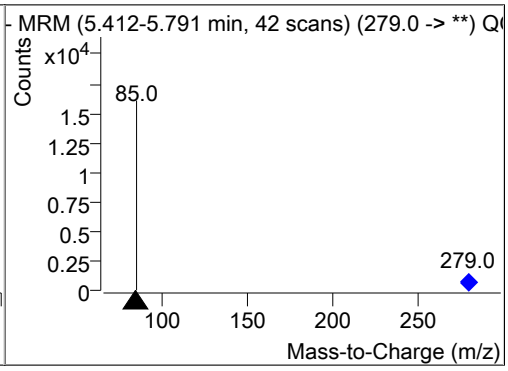




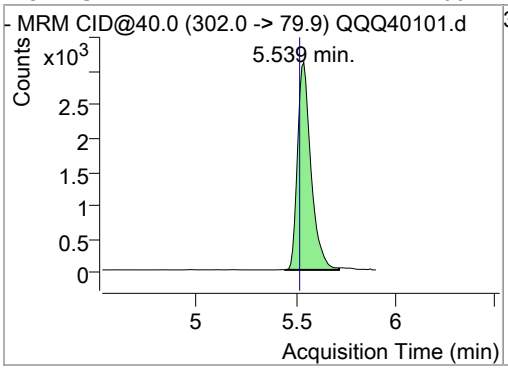
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	50.2827	5.50	-0.01	373106				

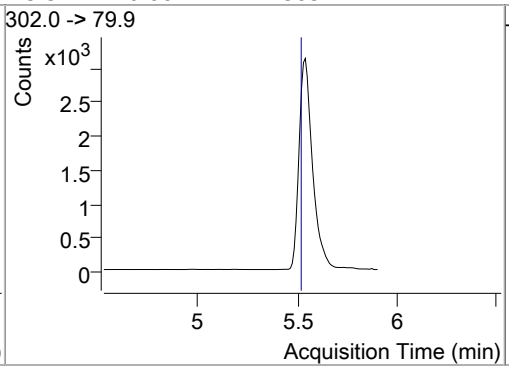


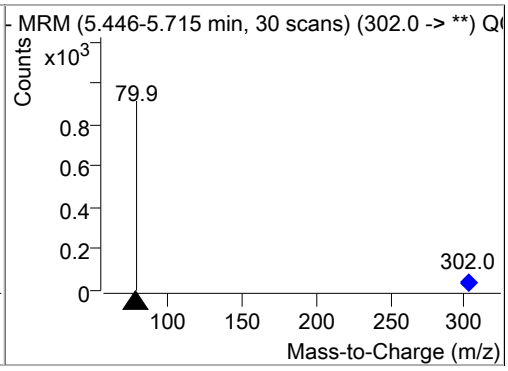




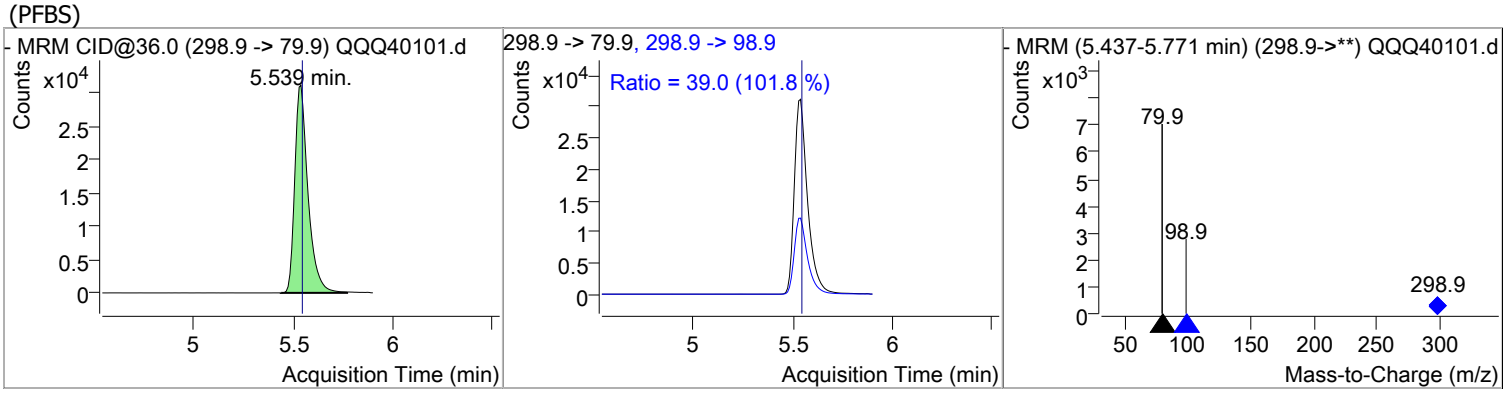
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.2166	5.54	0.00	14585				



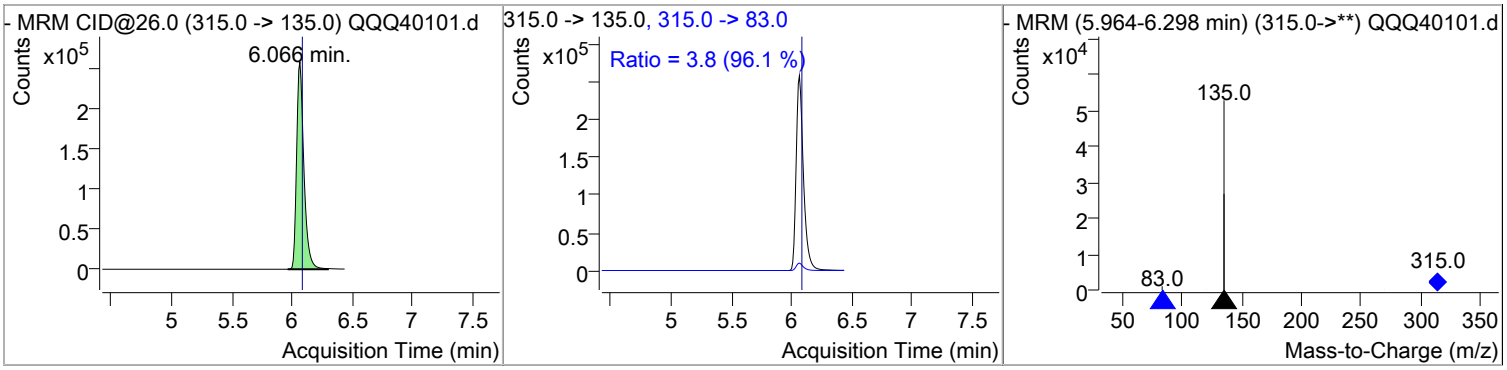




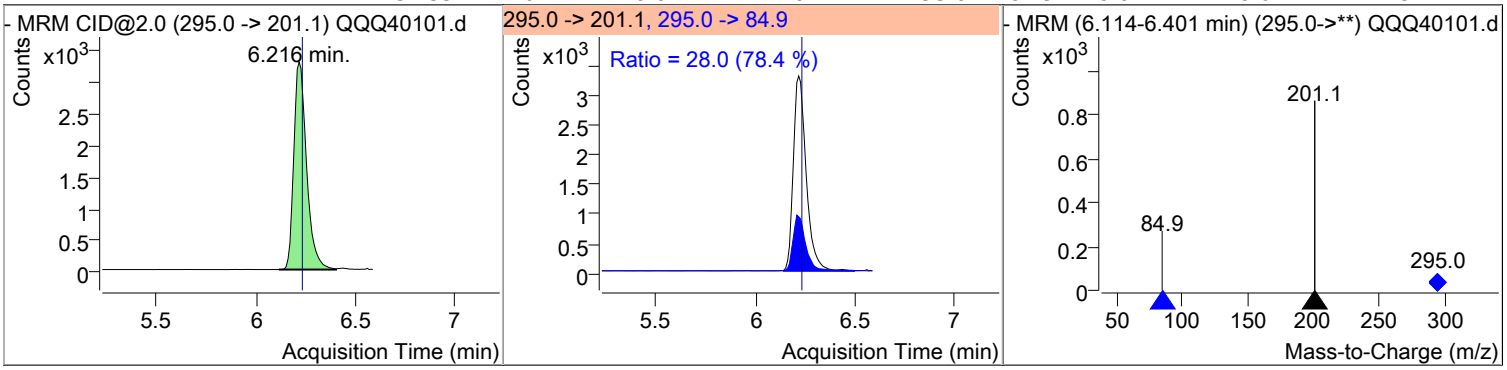
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	22.4491	5.54	0.00	144282	298.9 -> 98.9	39.0	30.7	46.0



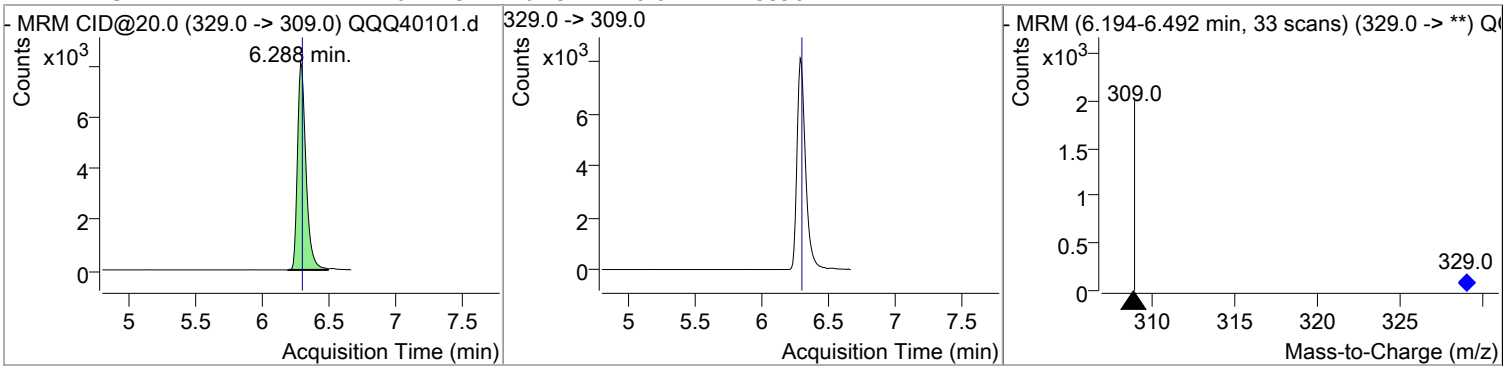
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	45.4787	6.07	-0.01	1080079	315.0 -> 83.0	3.8	3.2	4.8



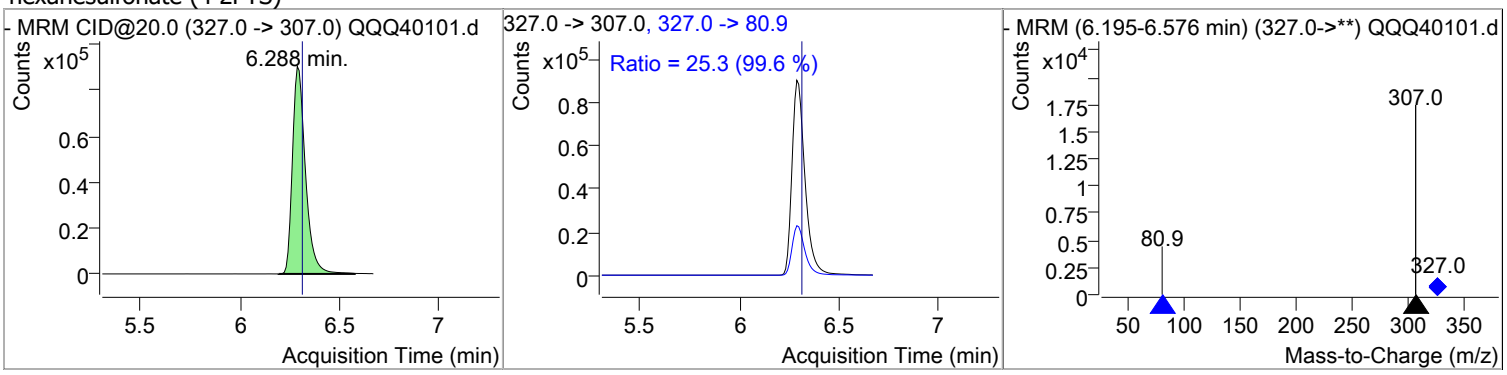
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	51.5314	6.22	-0.01	14704	295.0 -> 84.9	28.0	28.6	42.9



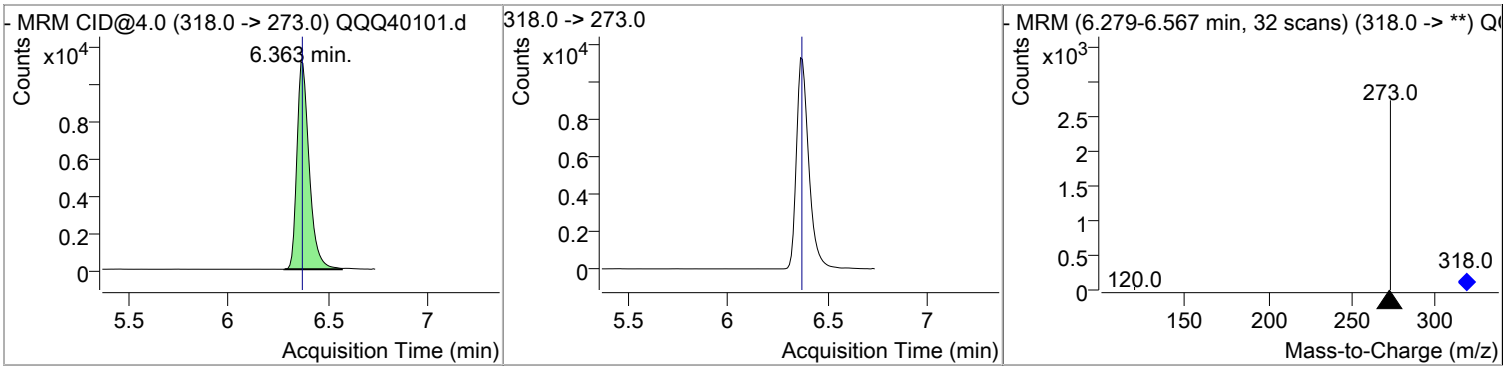
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	6.7475	6.29	-0.02	35982				



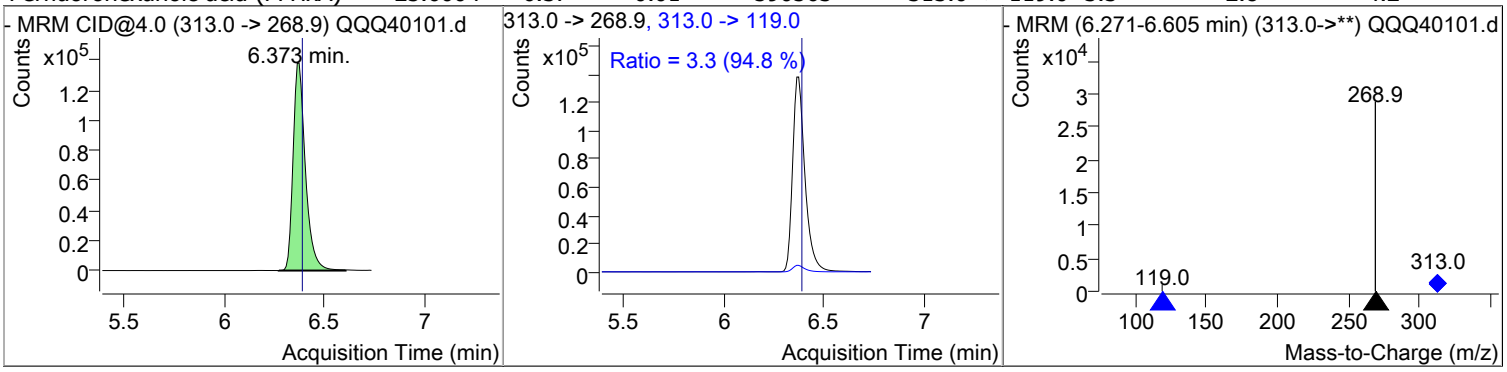
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)		6.29	-0.02	408234	327.0 -> 80.9	25.3	20.3	30.4



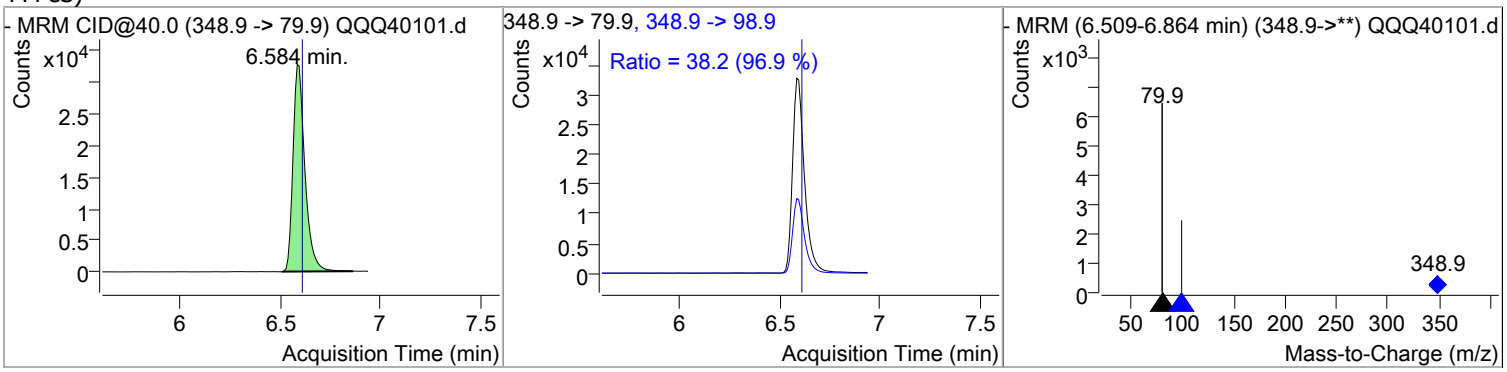
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.1891	6.36	-0.02	47956				



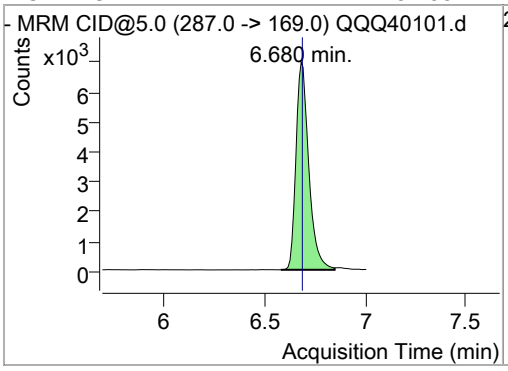
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	25.6004	6.37	-0.01	590563	313.0 -> 119.0	3.3	2.8	4.2

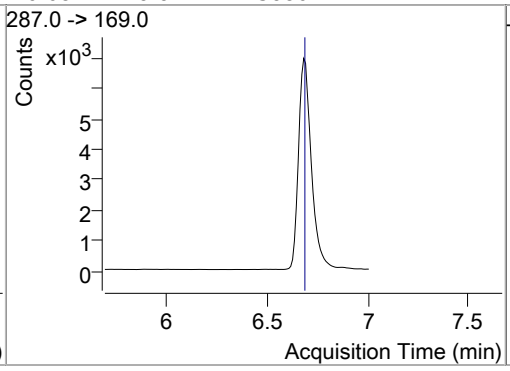


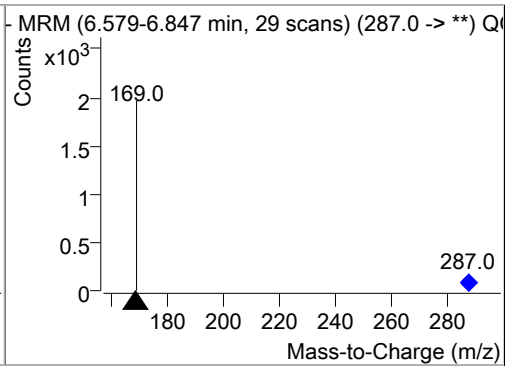
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	23.4039	6.58	-0.02	134974	348.9 -> 98.9	38.2	31.5	47.3



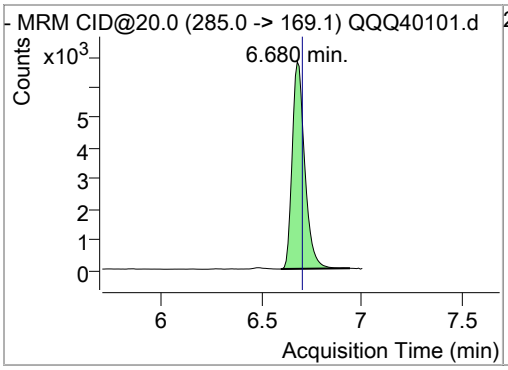
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	8.2887	6.68	-0.02	30862				

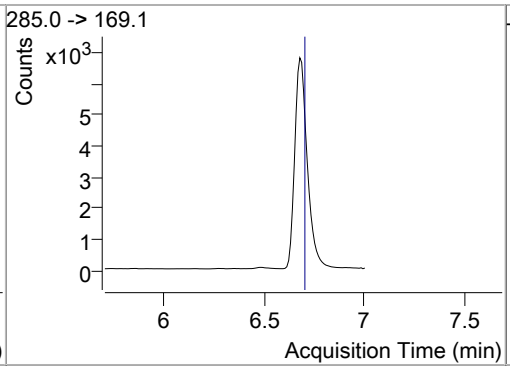


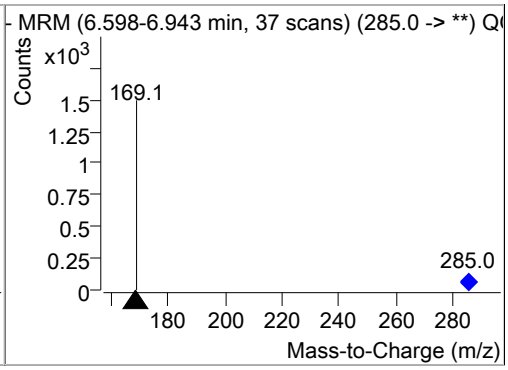




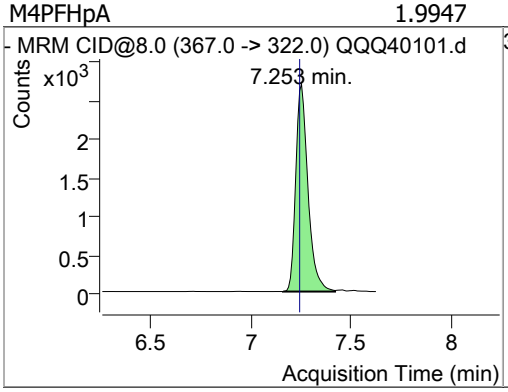
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	100.5526	6.68	-0.02	29459				

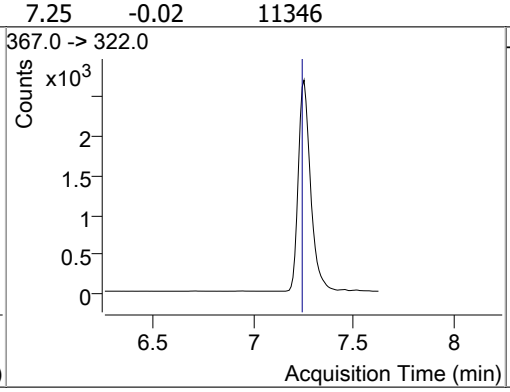


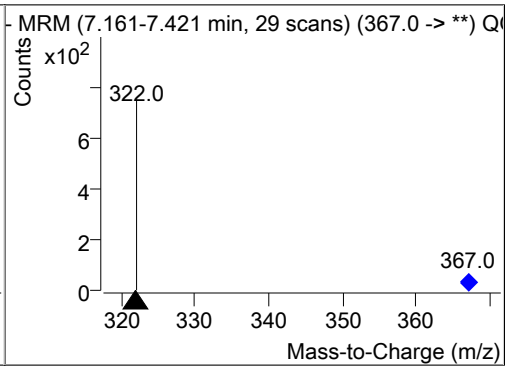




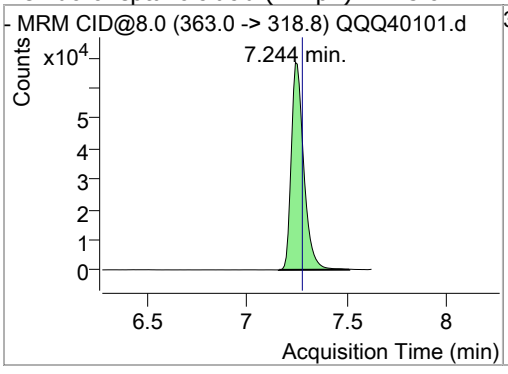
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	1.9947	7.25	-0.02	11346				

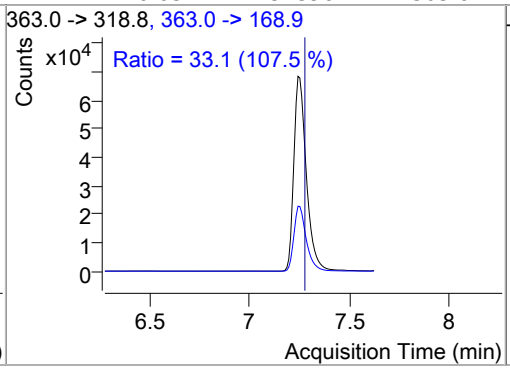


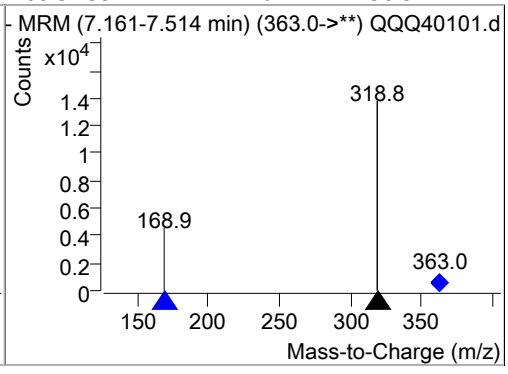




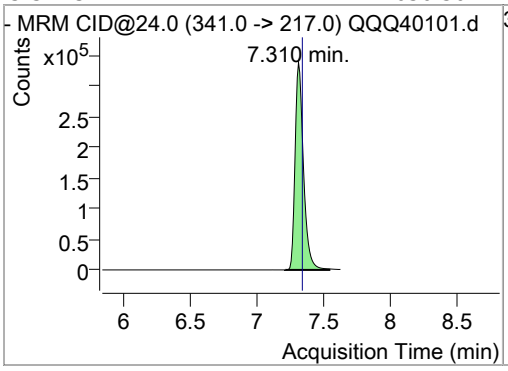
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	25.8442	7.24	-0.03	297390	363.0 -> 168.9	33.1	24.6	36.9

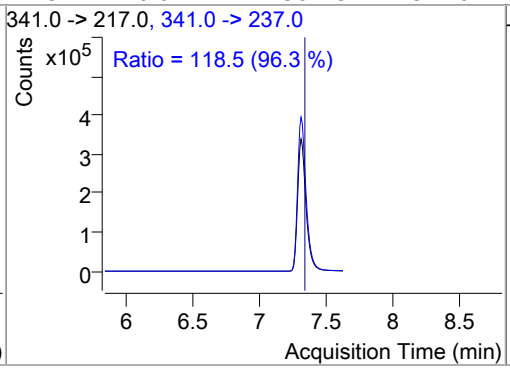


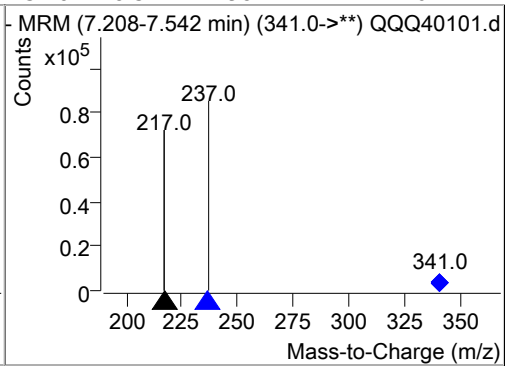




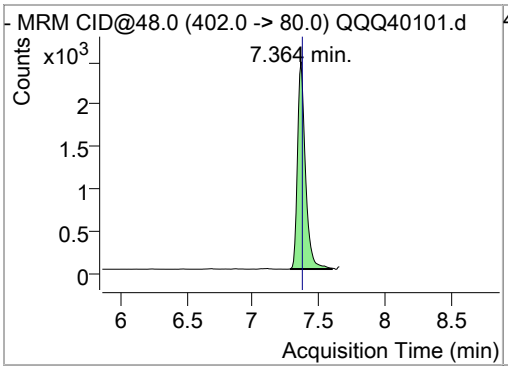
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	636.3612	7.31	-0.02	1490143	341.0 -> 237.0	118.5	98.4	147.6

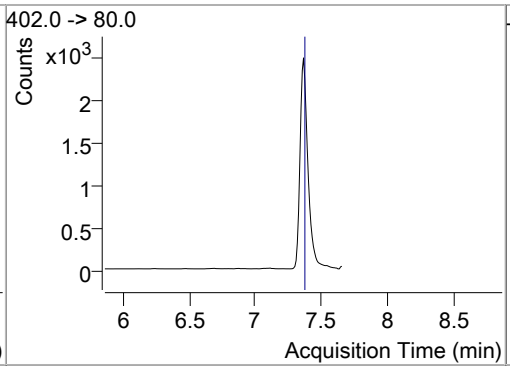


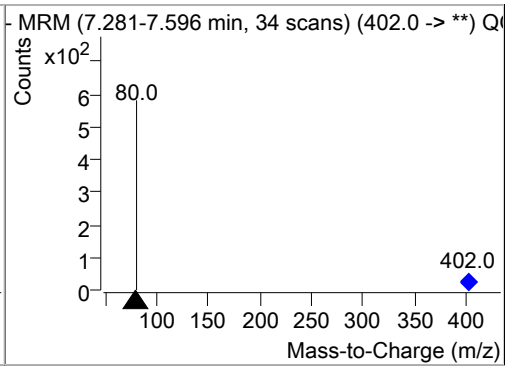




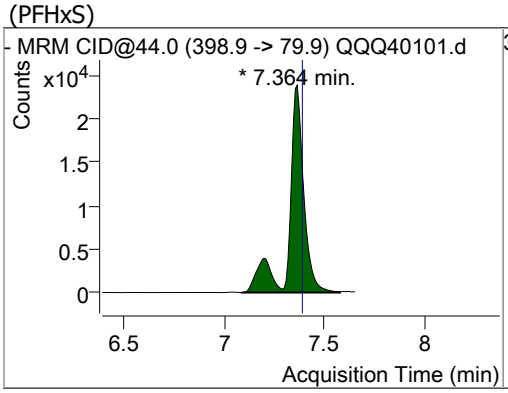
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.2496	7.36	-0.02	10199				

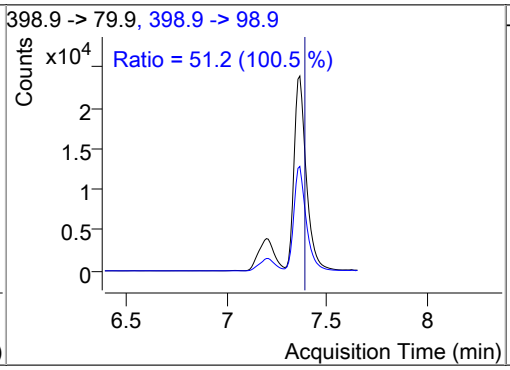


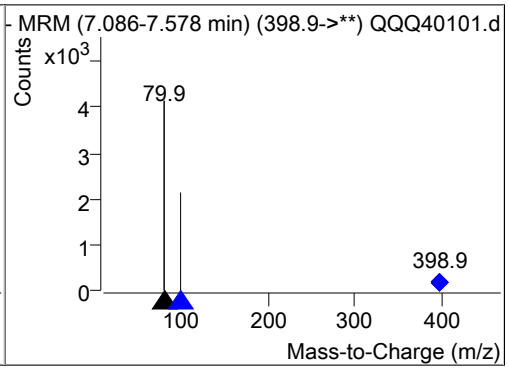




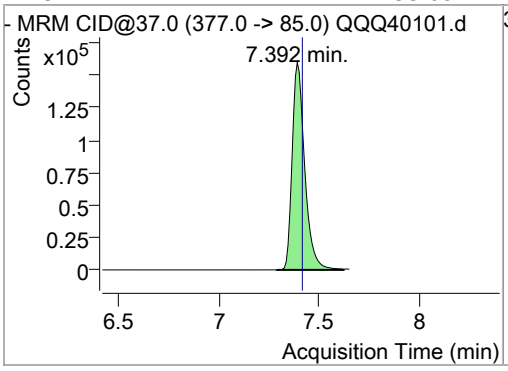
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	22.7566	7.36	-0.02	123385 (m)	398.9 -> 98.9	51.2	40.7	61.1

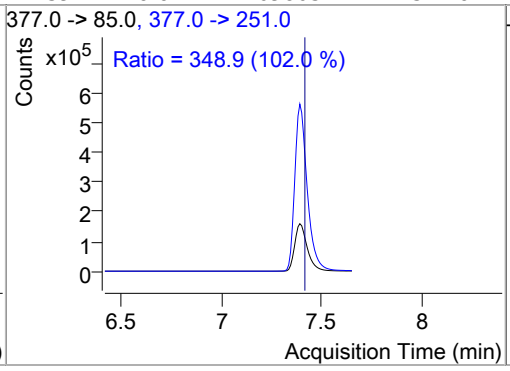


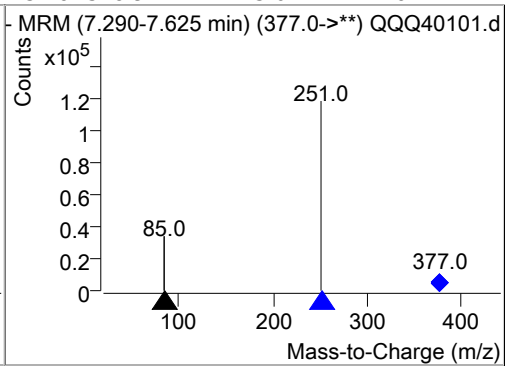




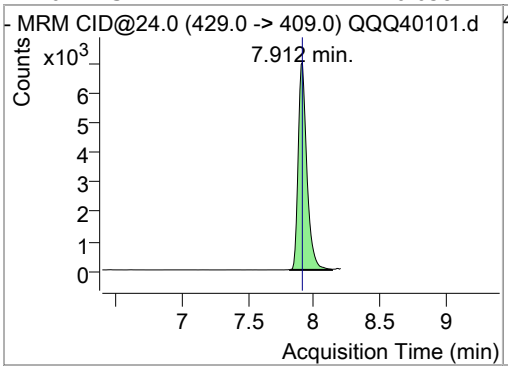
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	95.6827	7.39	-0.02	698634	377.0 -> 251.0	348.9	273.6	410.4

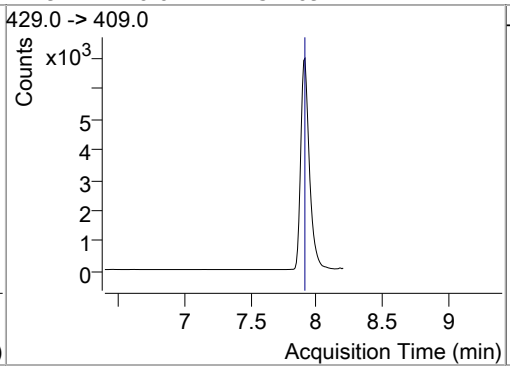


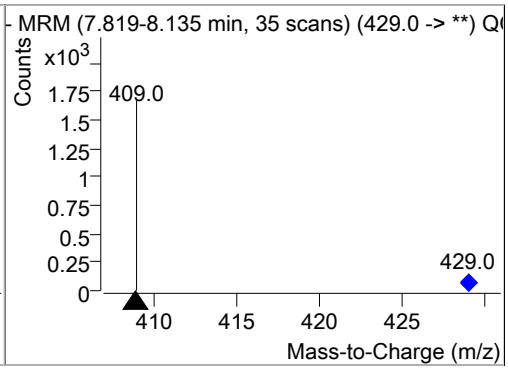




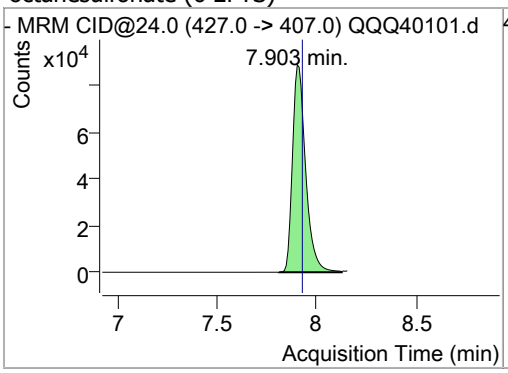
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	6.6581	7.91	-0.01	31709				

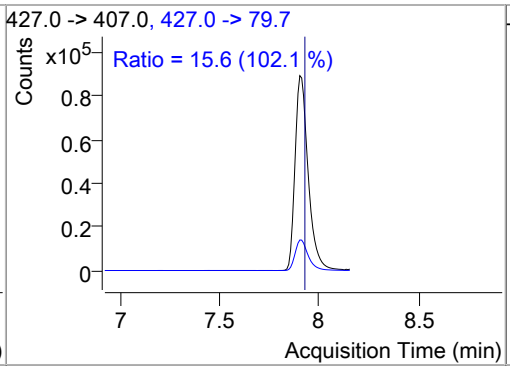


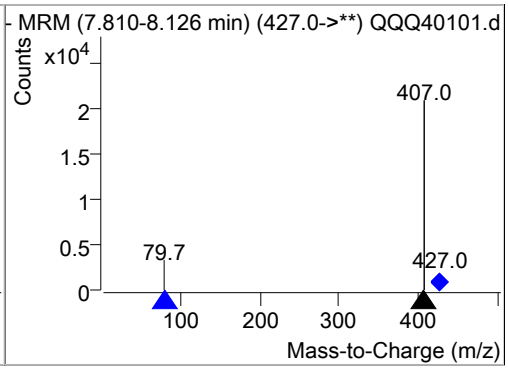




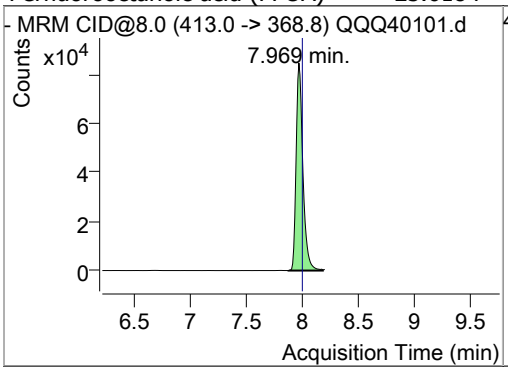
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)		7.90	-0.02	408028	427.0 -> 79.7	15.6	12.2	18.4

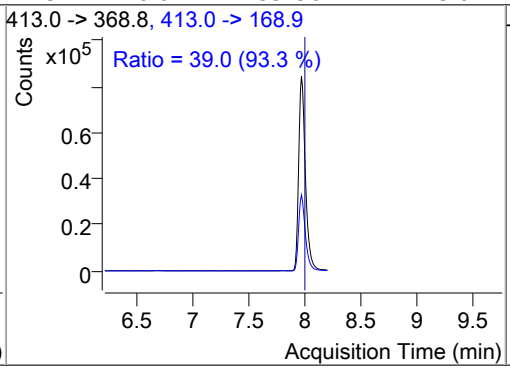


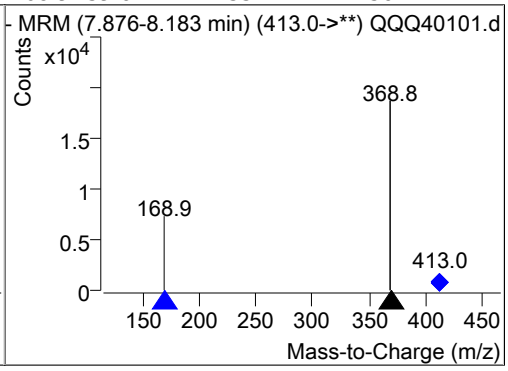




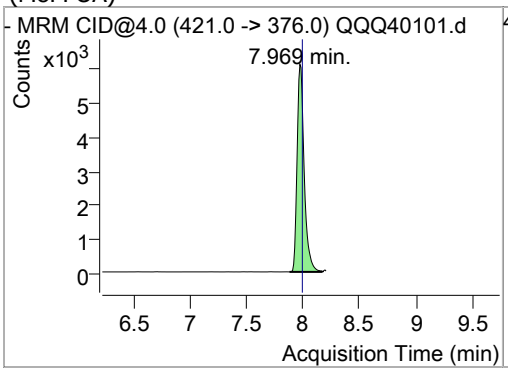
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	25.6184	7.97	-0.02	354982	413.0 -> 168.9	39.0	33.4	50.1

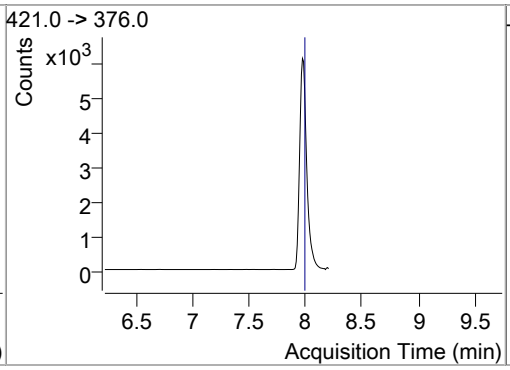


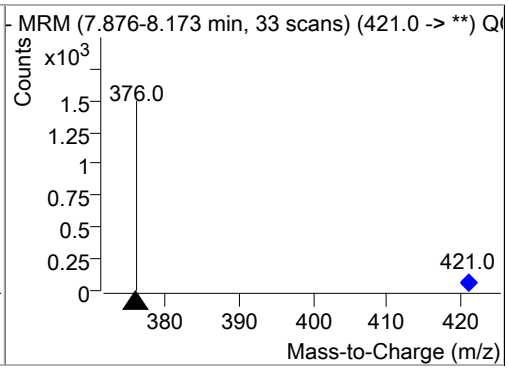




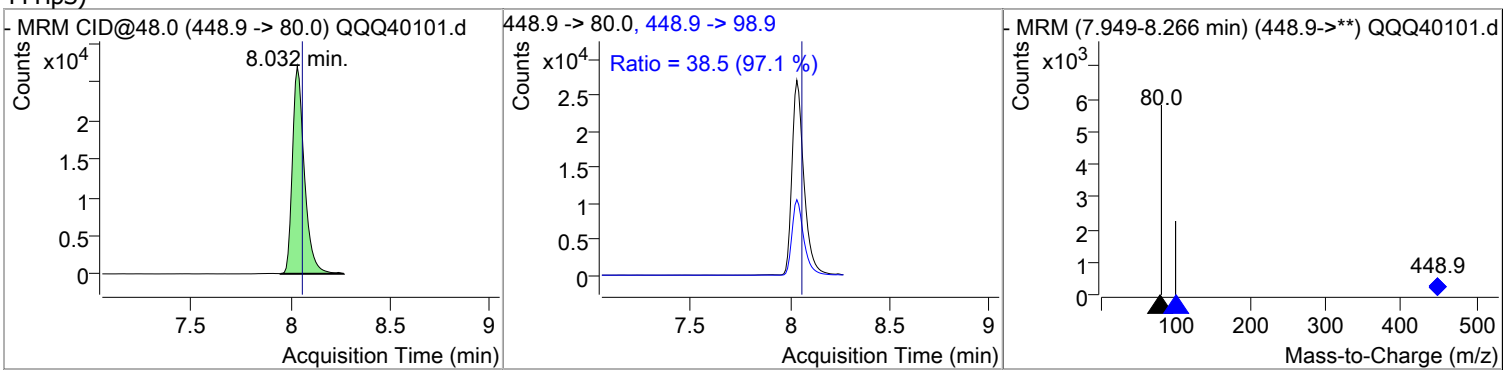
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.2706	7.97	-0.03	26833				



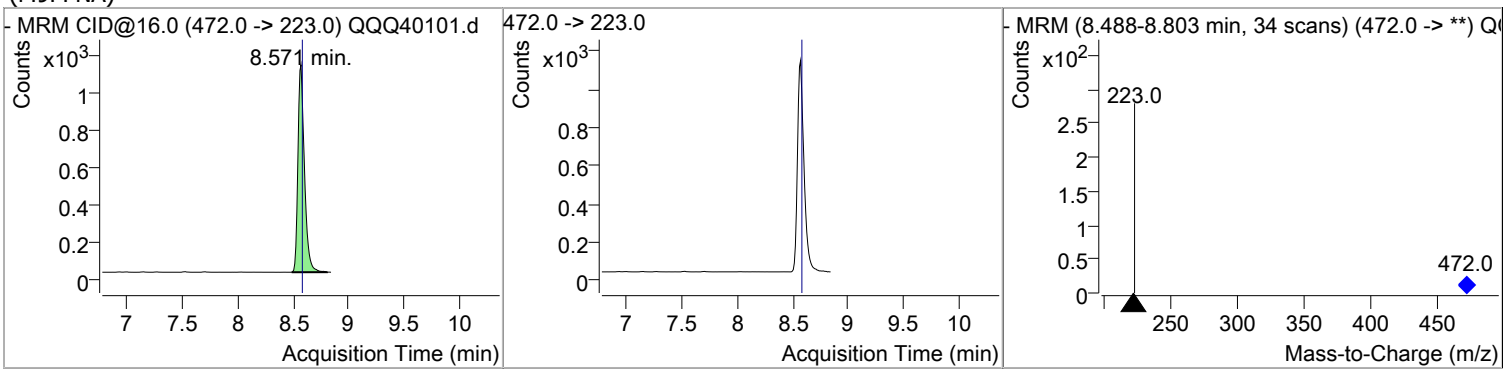




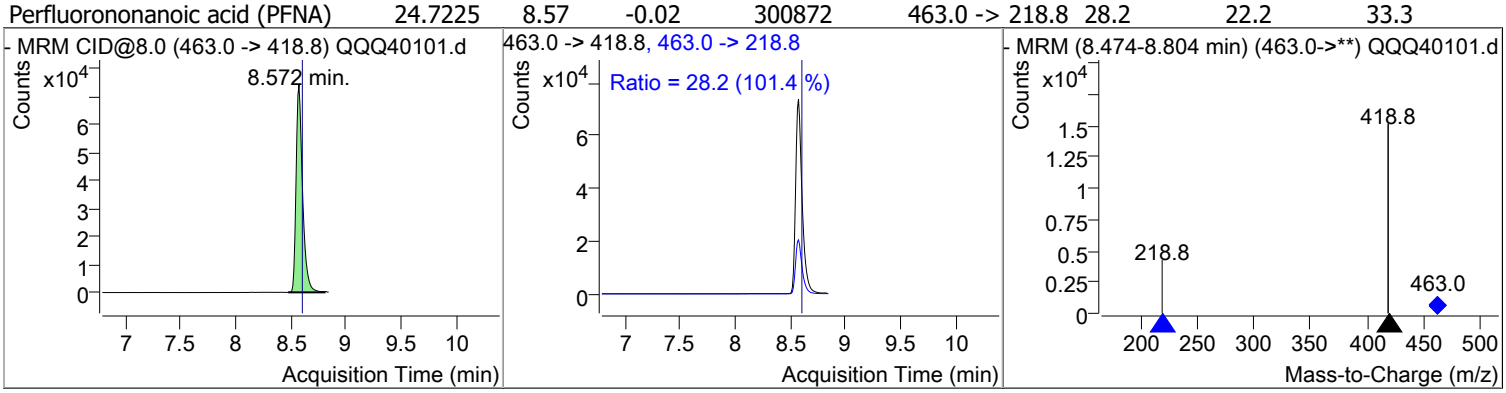
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	24.5999	8.03	-0.02	112385	448.9 -> 98.9	38.5	31.7	47.5



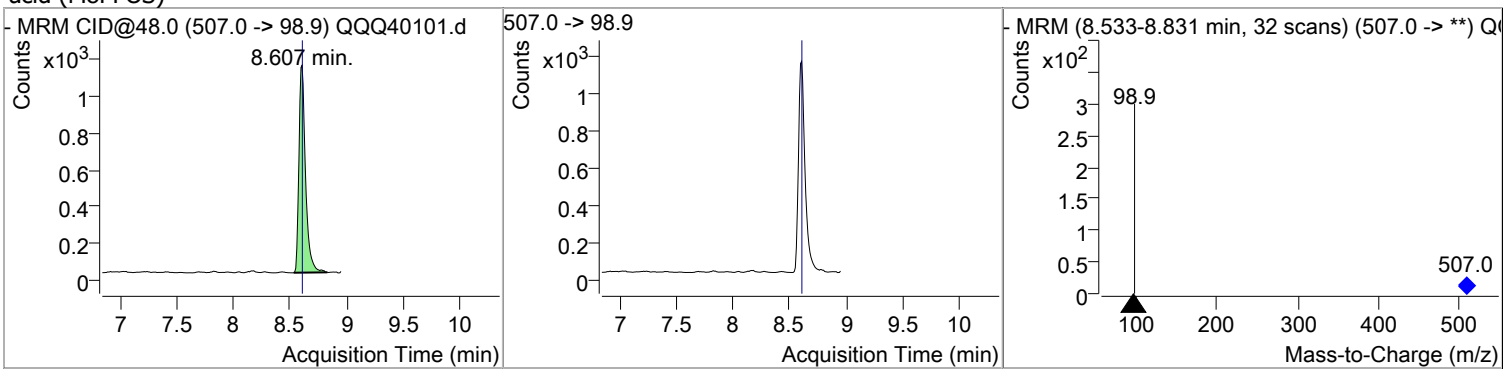
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.1352	8.57	-0.02	4490				



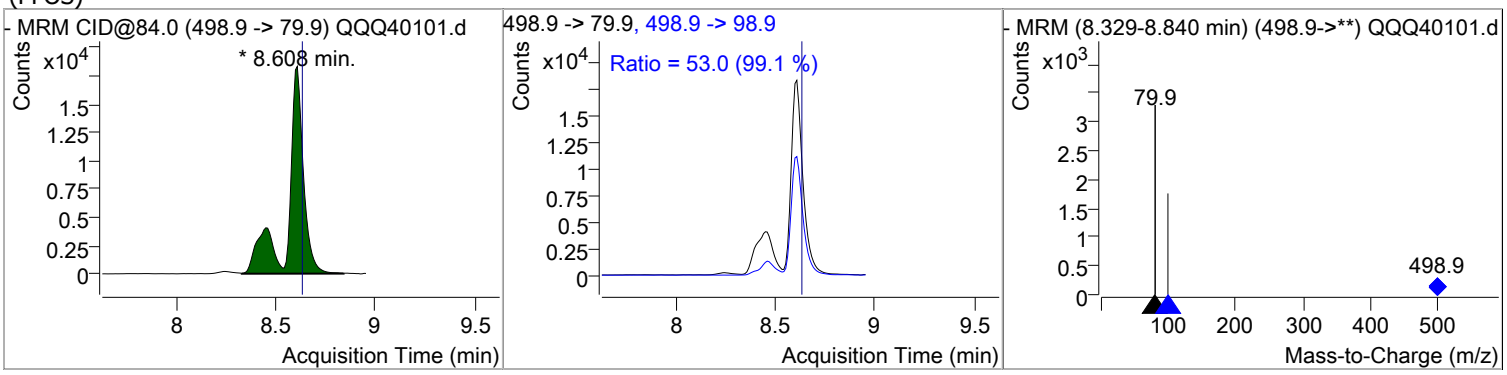
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	24.7225	8.57	-0.02	300872	463.0 -> 218.8	28.2	22.2	33.3



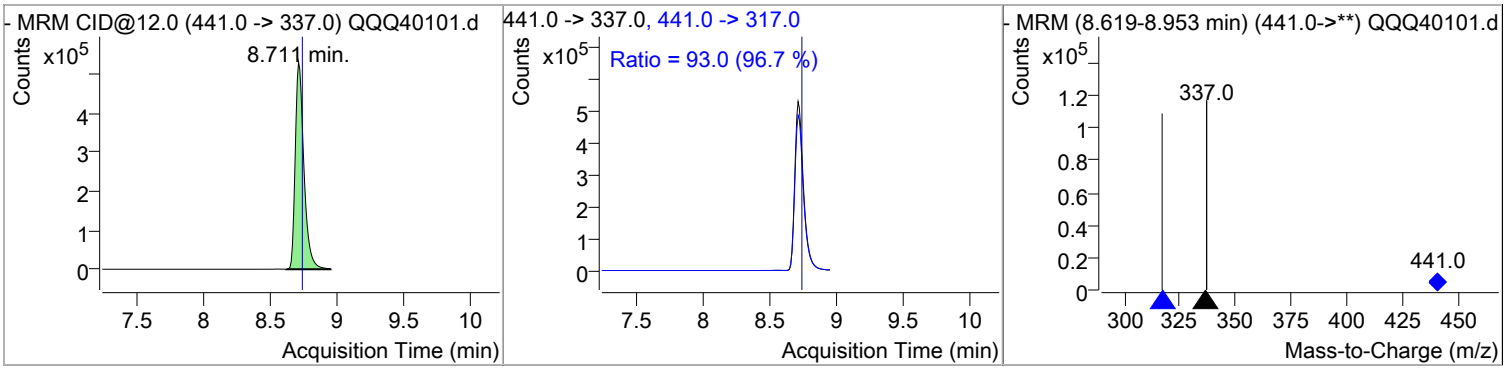
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.2053	8.61	-0.02	4567				



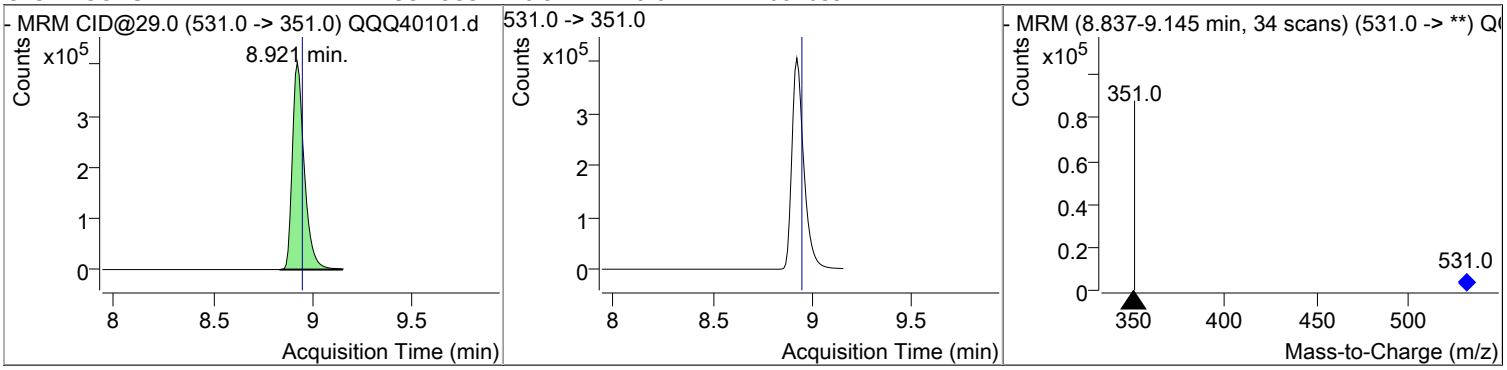
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	23.7986	8.61	-0.02	100077 (m)	498.9 -> 98.9	53.0	42.7	64.1



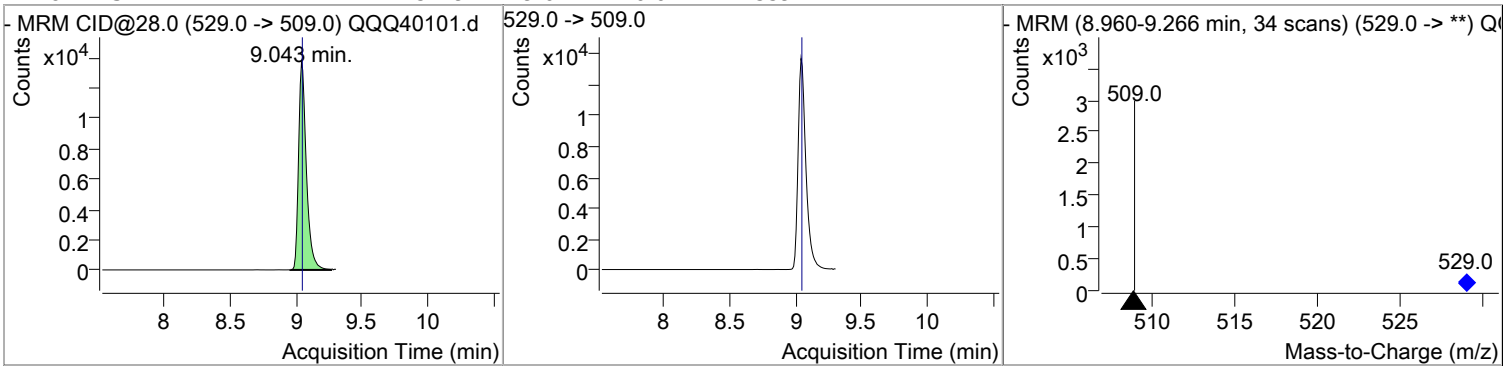
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	624.4711	8.71	-0.02	2405329	441.0 -> 317.0	93.0	76.9	115.4



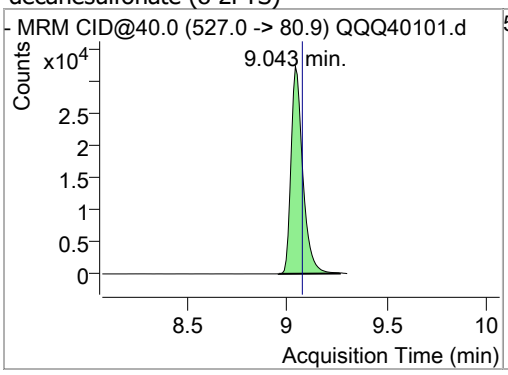
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	93.7933	8.92	-0.02	1681639				

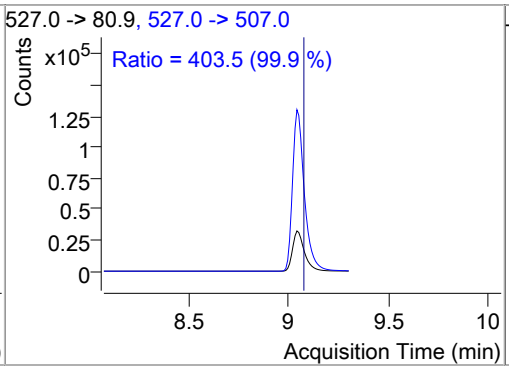


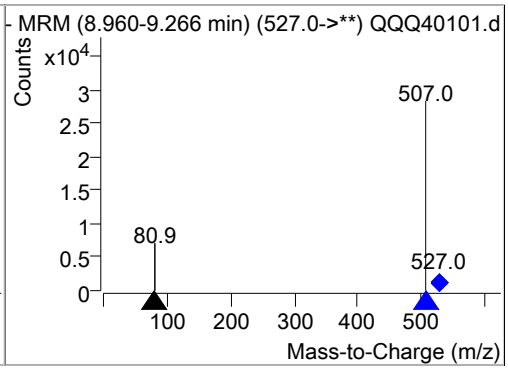
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	7.5249	9.04	-0.02	55924				



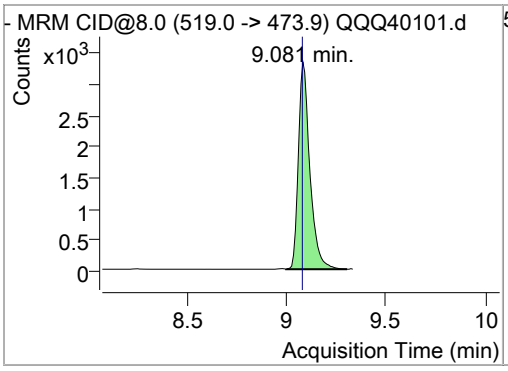
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)		9.04	-0.03	132921	527.0 -> 507.0	403.5	323.1	484.6

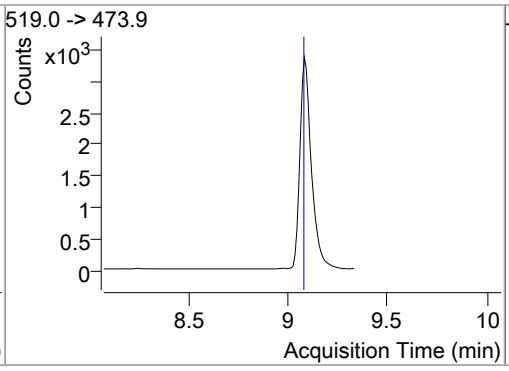


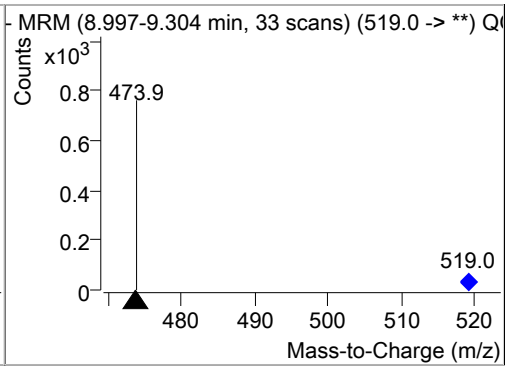




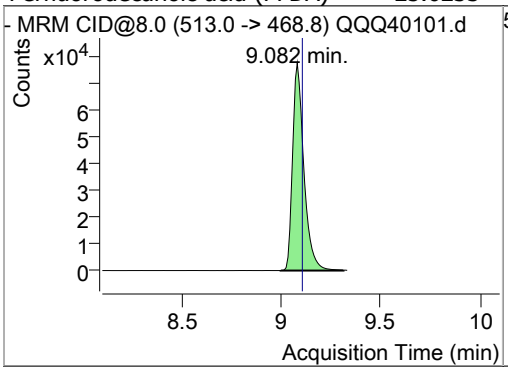
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.1049	9.08	-0.02	13280				

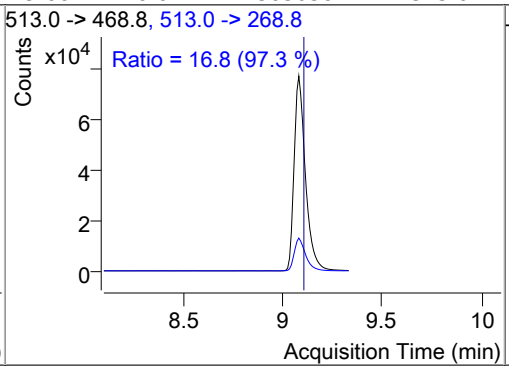


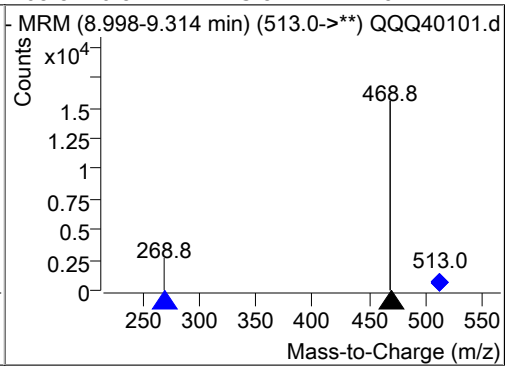




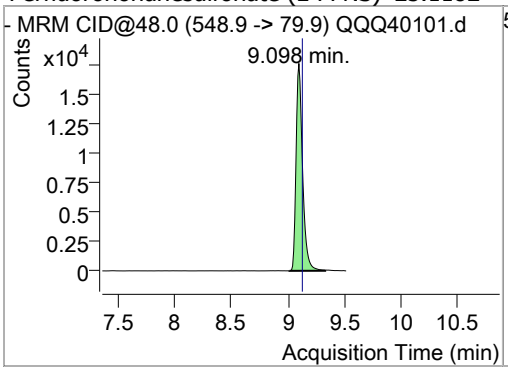
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	25.6233	9.08	-0.02	303638	513.0 -> 268.8	16.8	13.8	20.7

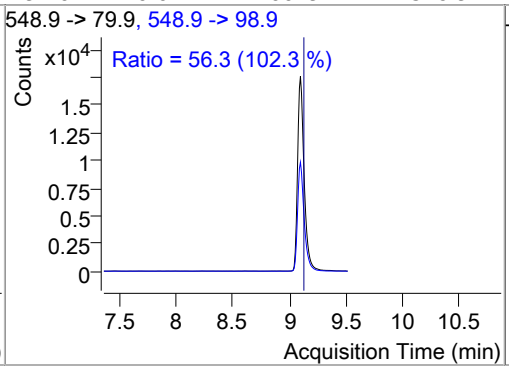


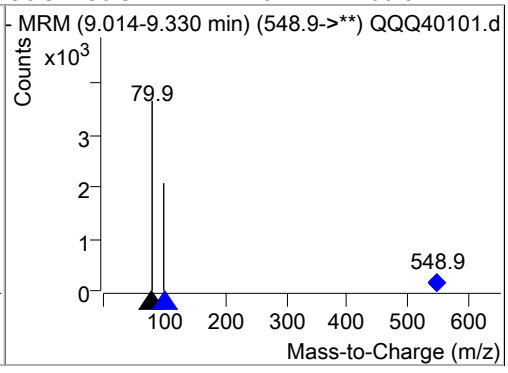




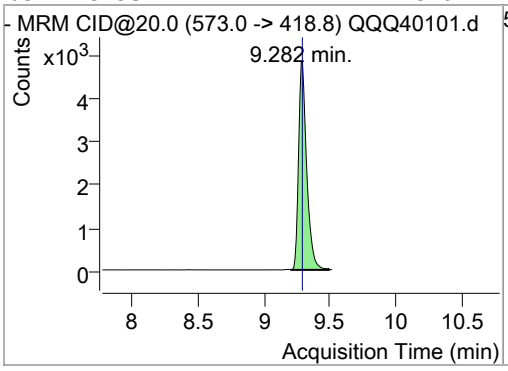
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	25.1182	9.10	-0.02	70029	548.9 -> 98.9	56.3	44.0	66.0

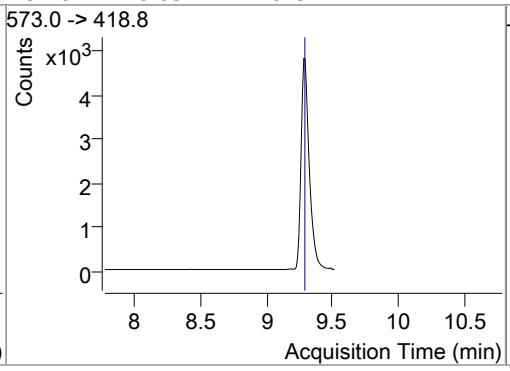


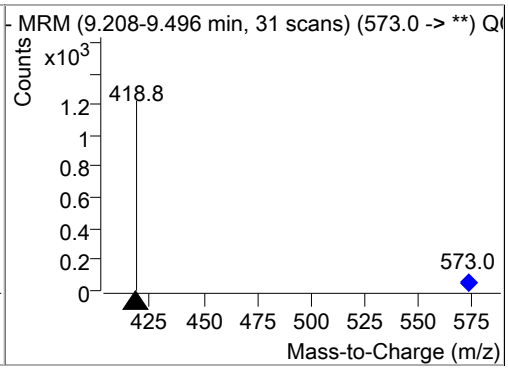




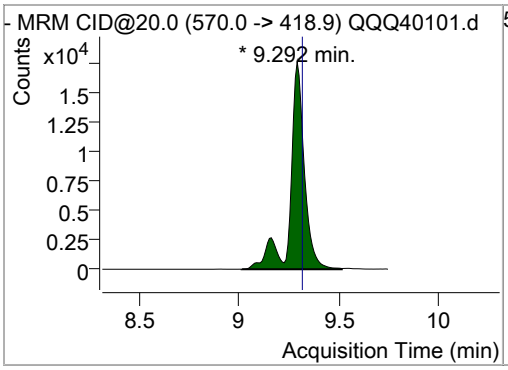
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.5467	9.28	-0.03	20494				

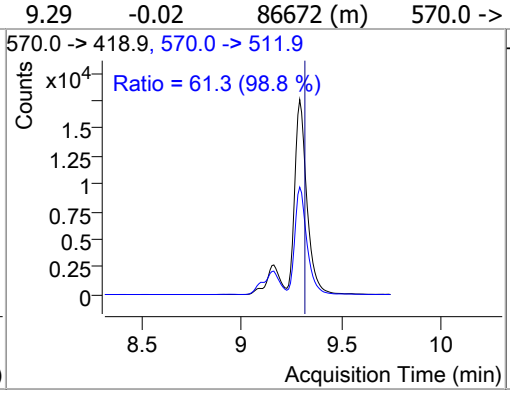


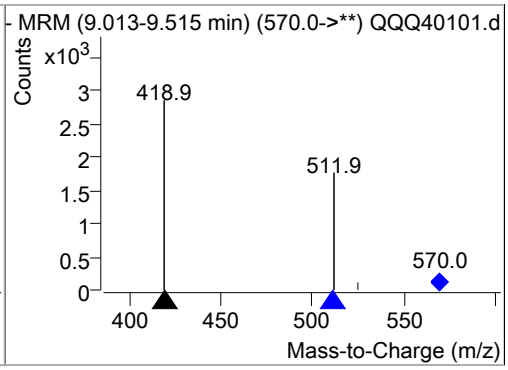




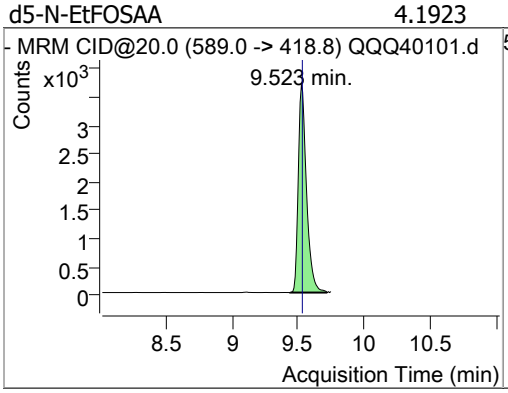
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	24.8453	9.29	-0.02	86672 (m)	570.0 -> 511.9	61.3	49.6	74.4

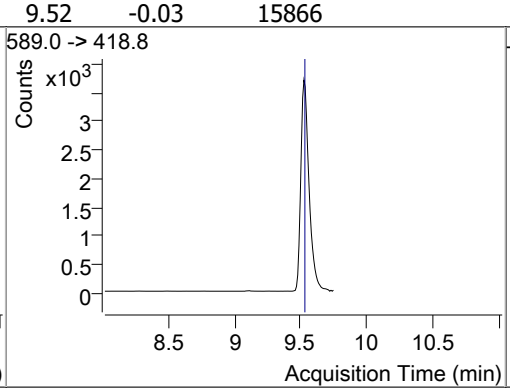


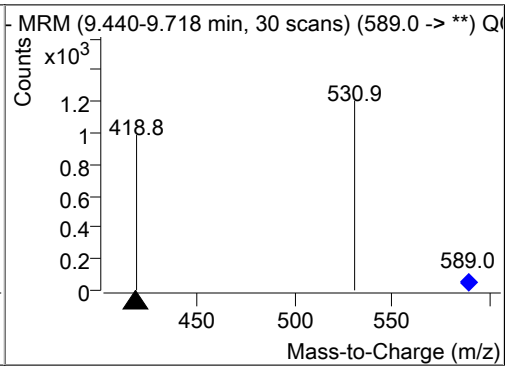




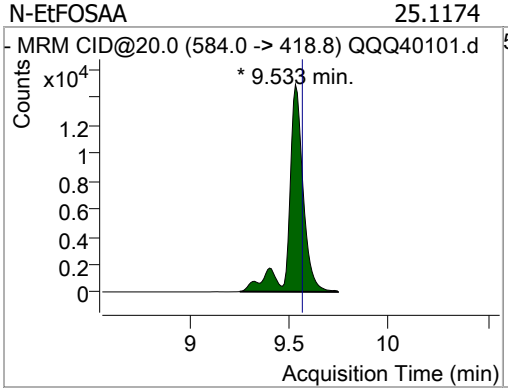
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.1923	9.52	-0.03	15866				

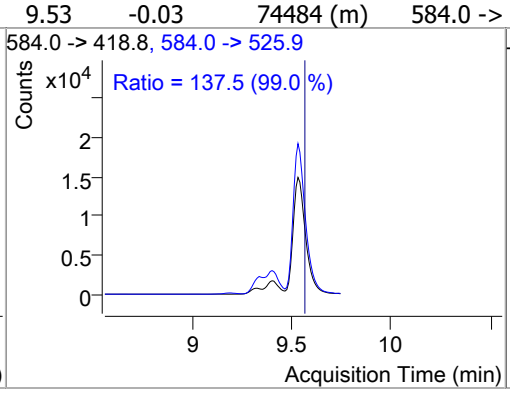


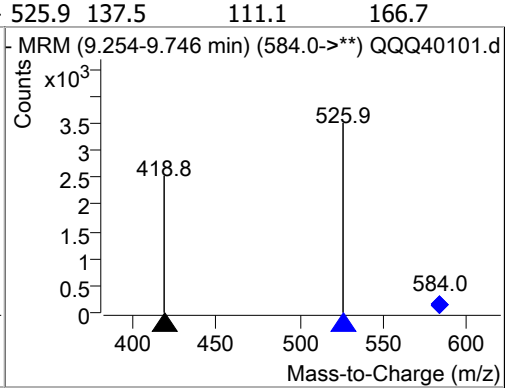




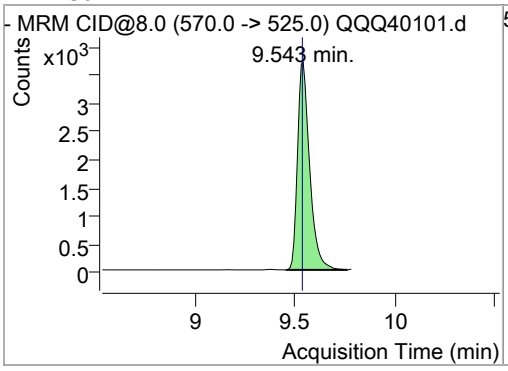
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	25.1174	9.53	-0.03	74484 (m)	584.0 -> 525.9	137.5	111.1	166.7

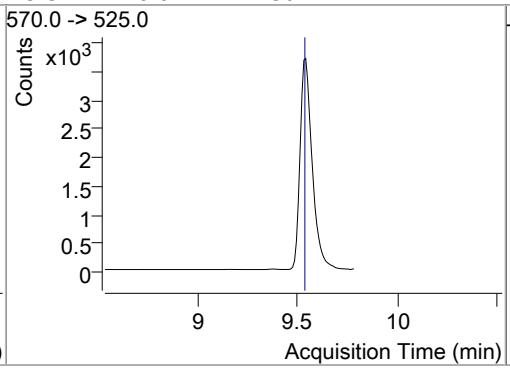


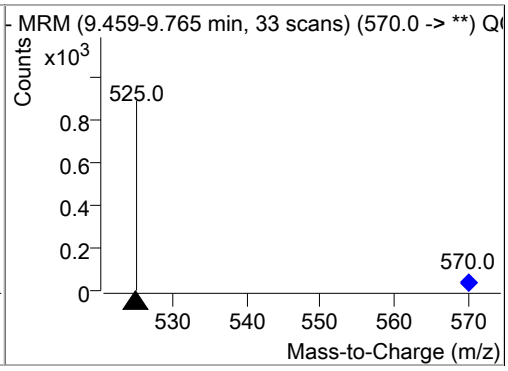




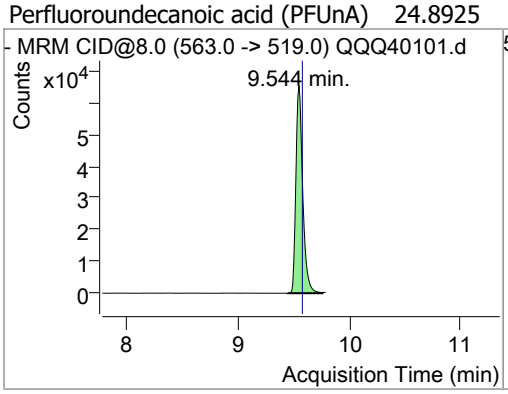
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.1742	9.54	-0.02	15627				

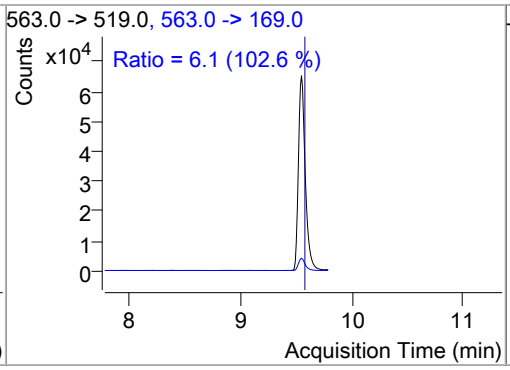


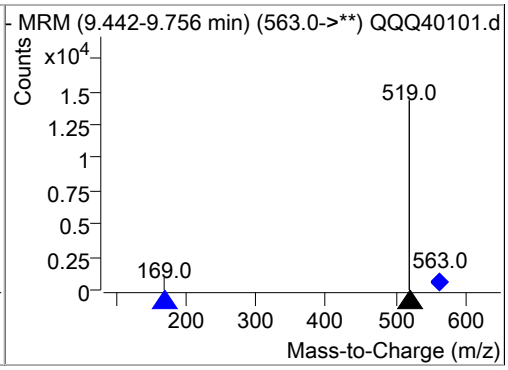




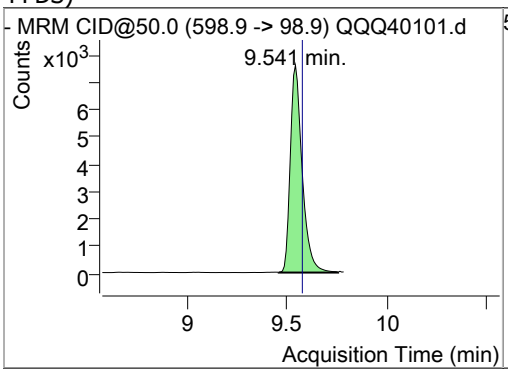
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	24.8925	9.54	-0.02	277955	563.0 -> 169.0	6.1	4.8	7.2

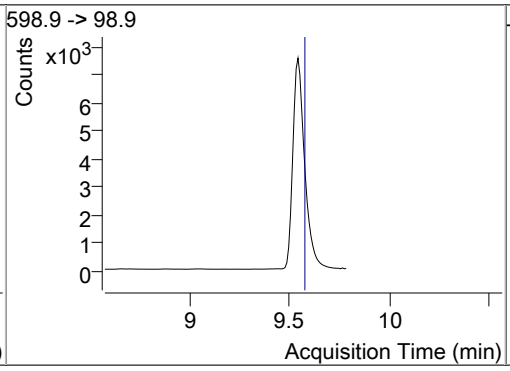


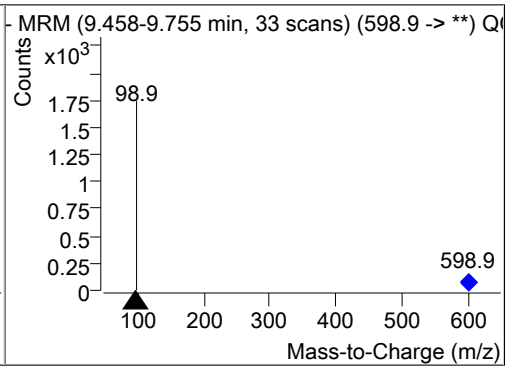




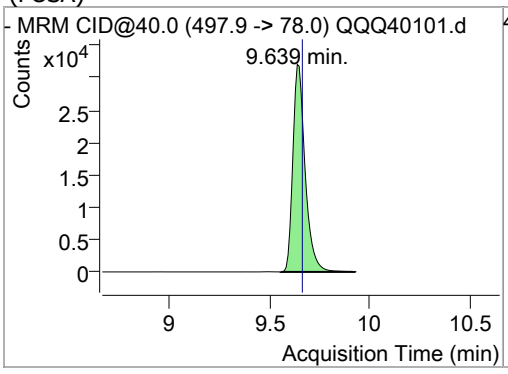
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	24.4280	9.54	-0.03	31348				

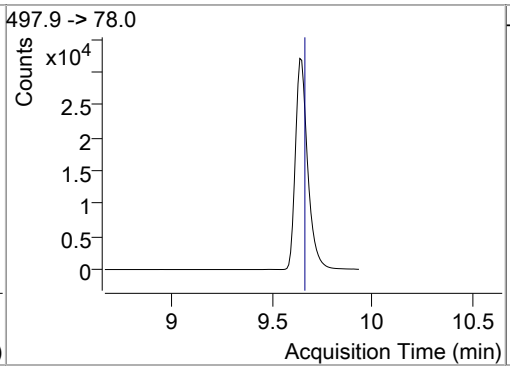


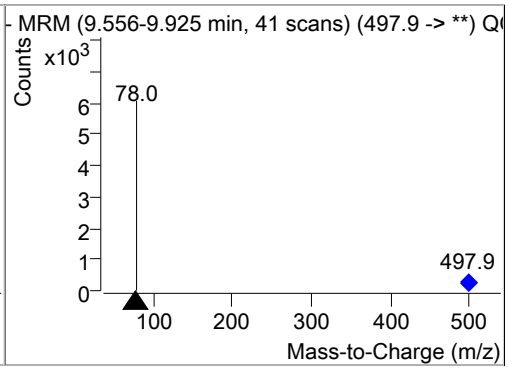




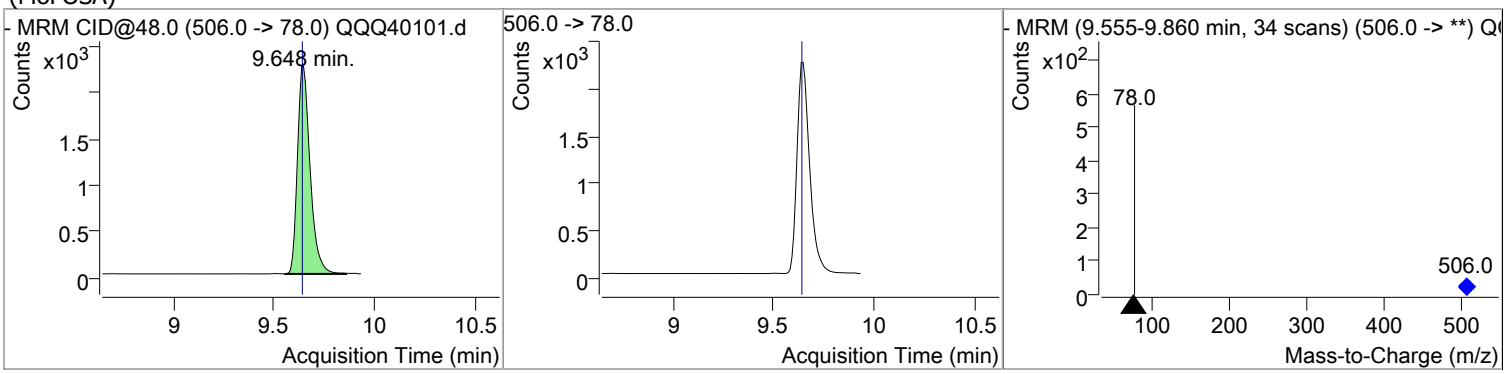
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	25.4015	9.64	-0.02	136873				



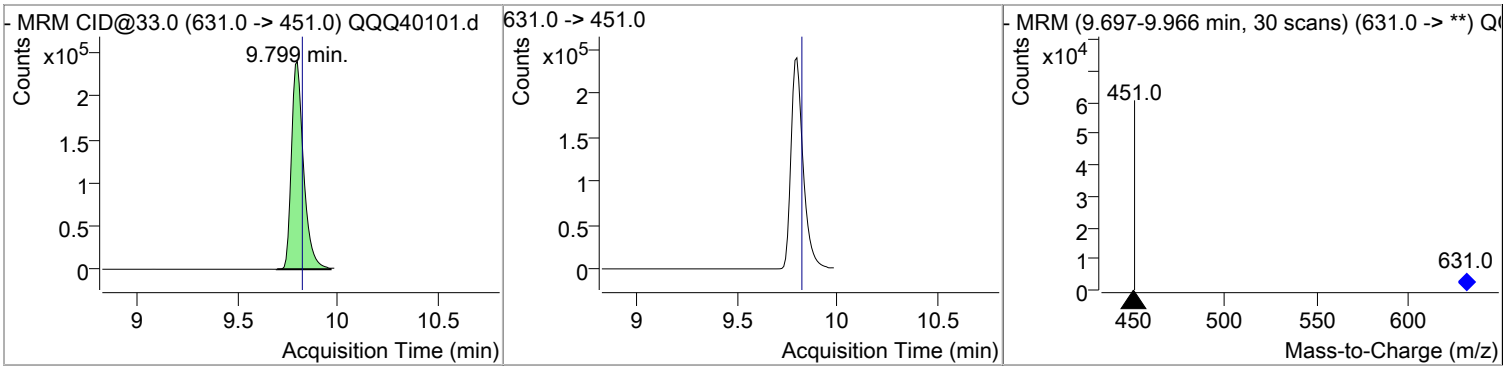




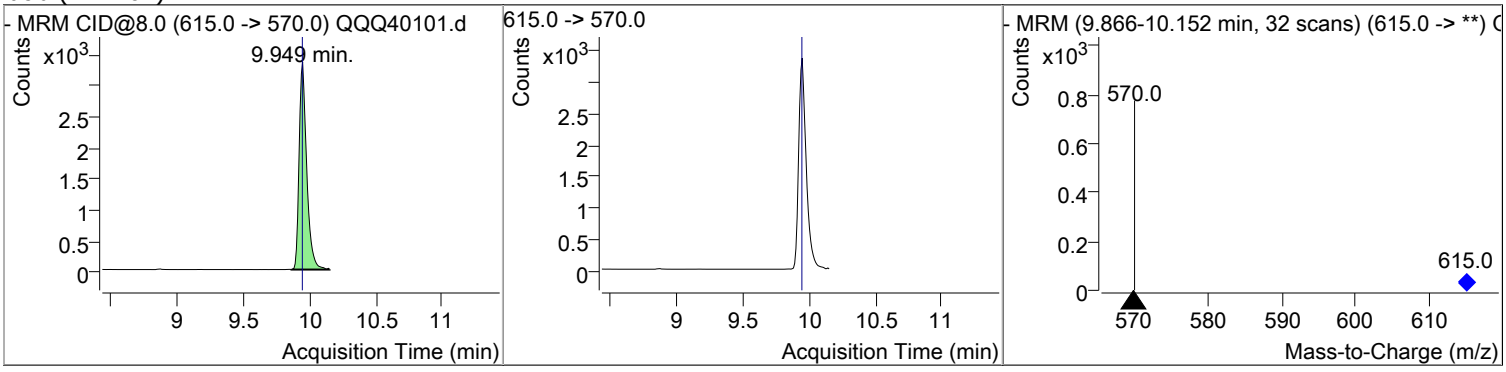
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.1827	9.65	-0.02	9895				



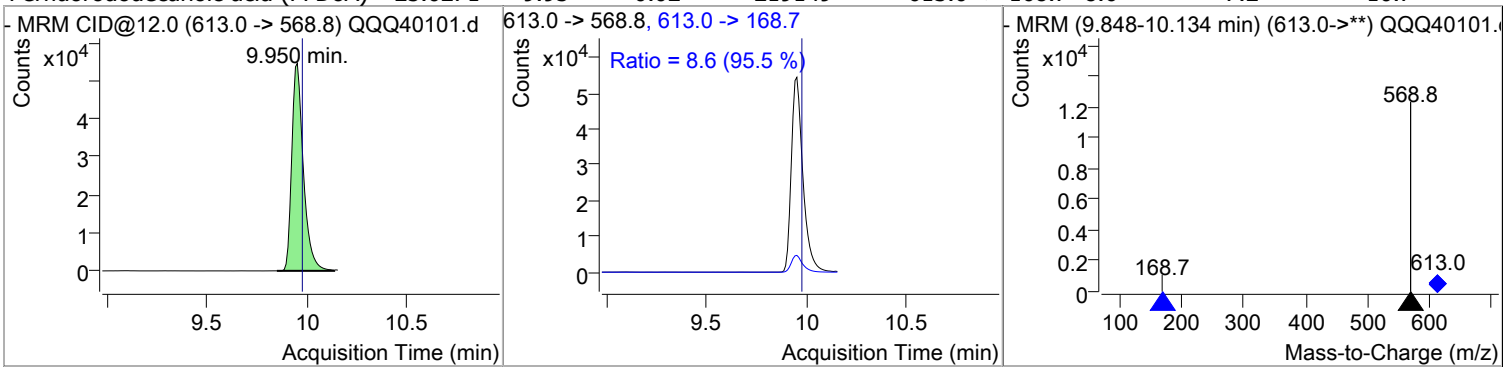
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	93.7665	9.80	-0.02	1012908				



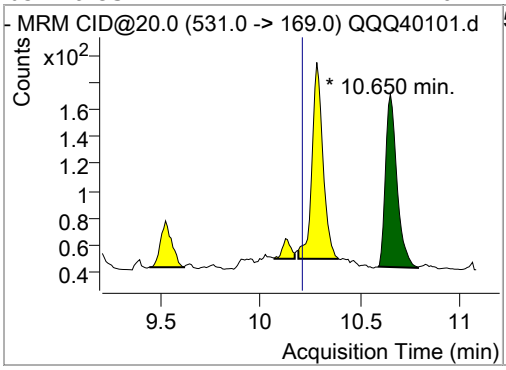
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.1922	9.95	-0.02	13118				

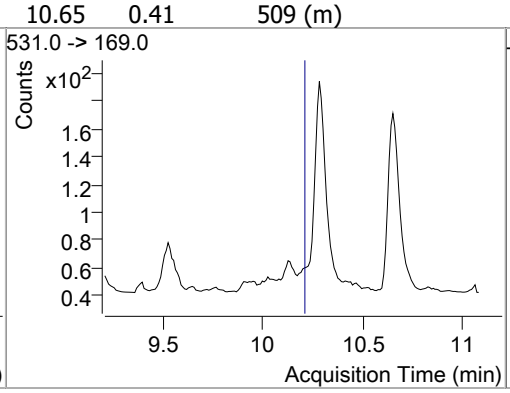


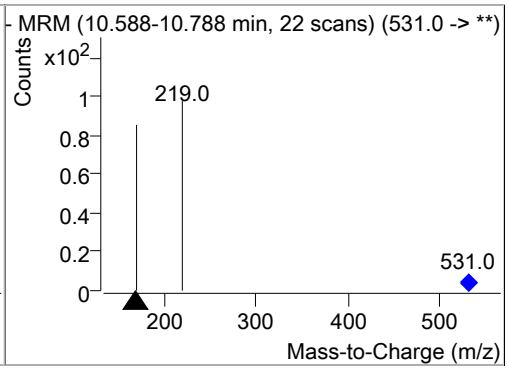
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	25.0271	9.95	-0.02	219149	613.0 -> 168.7	8.6	7.2	10.7



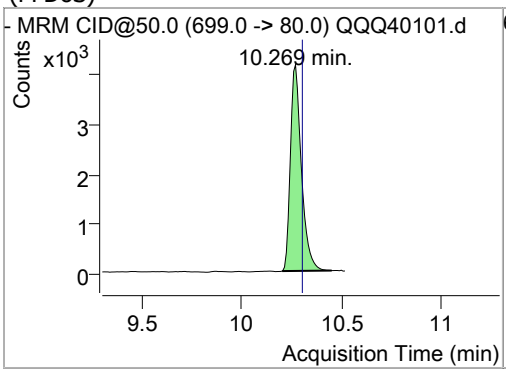
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.1707	10.65	0.41	509 (m)				

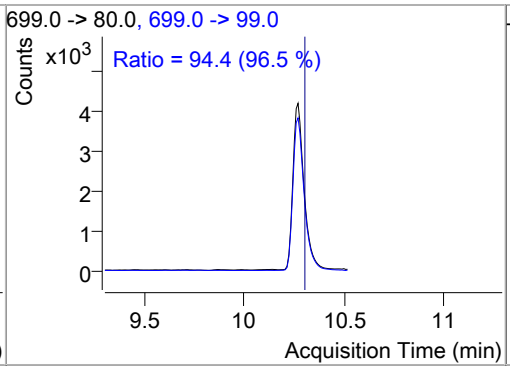


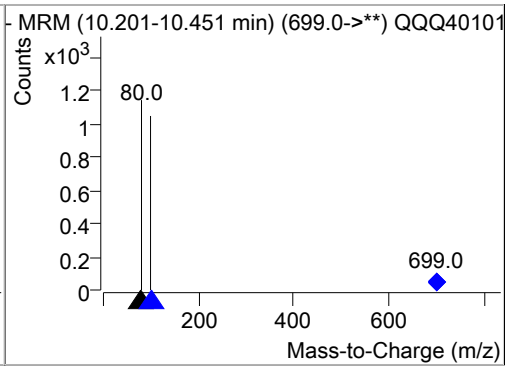




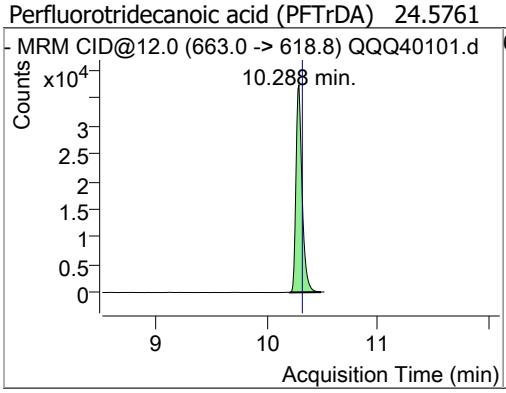
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	24.0886	10.27	-0.03	15908	699.0 -> 99.0	94.4	78.3	117.4

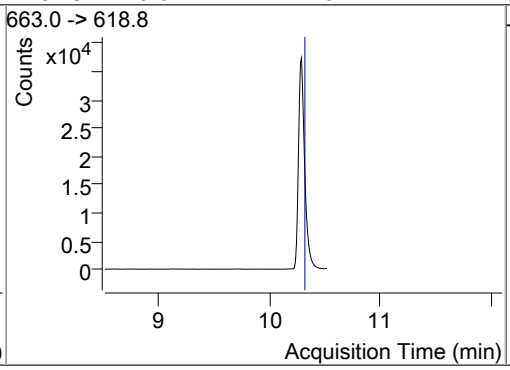


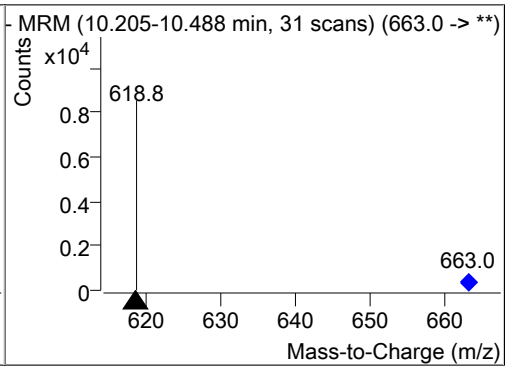




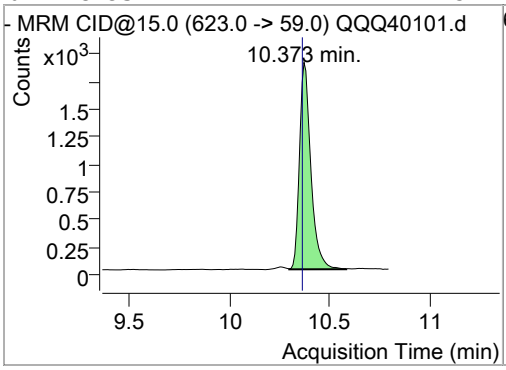
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	24.5761	10.29	-0.02	144226				

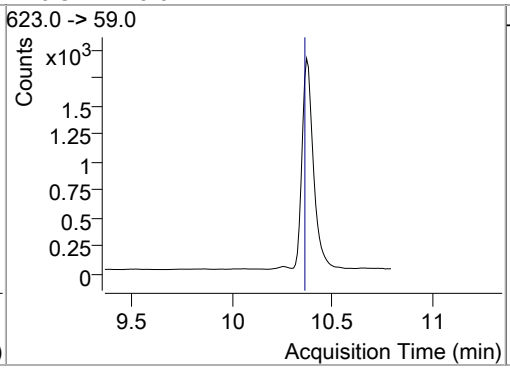


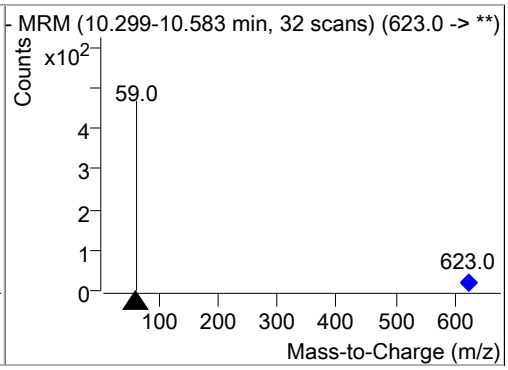




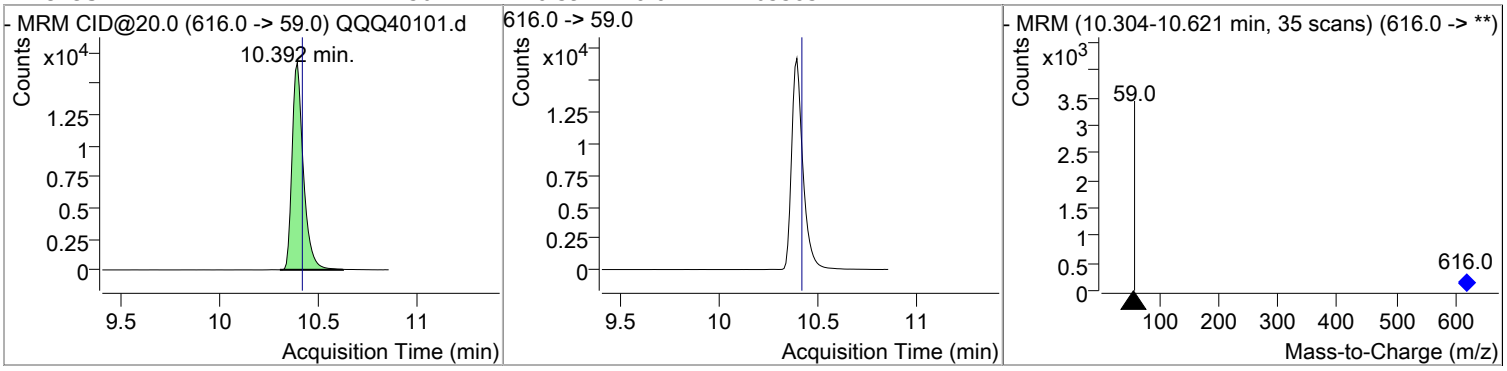
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	21.2752	10.37	-0.02	7421				



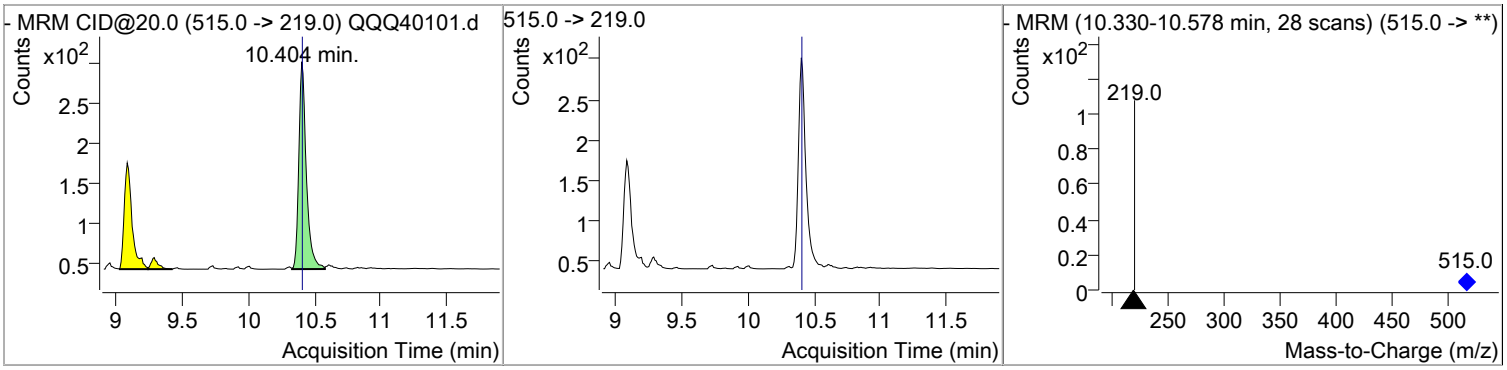




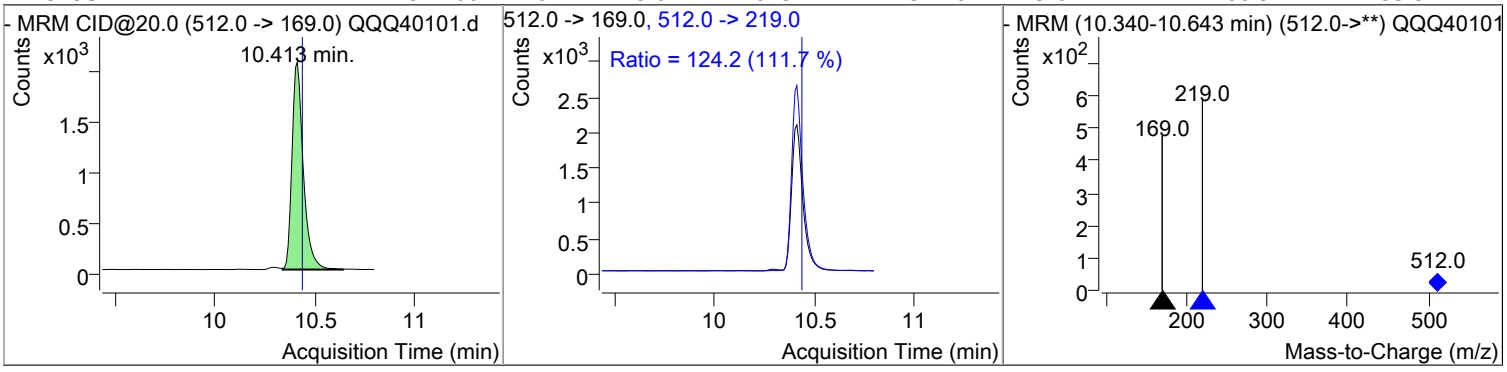
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	256.4772	10.39	-0.02	65583				



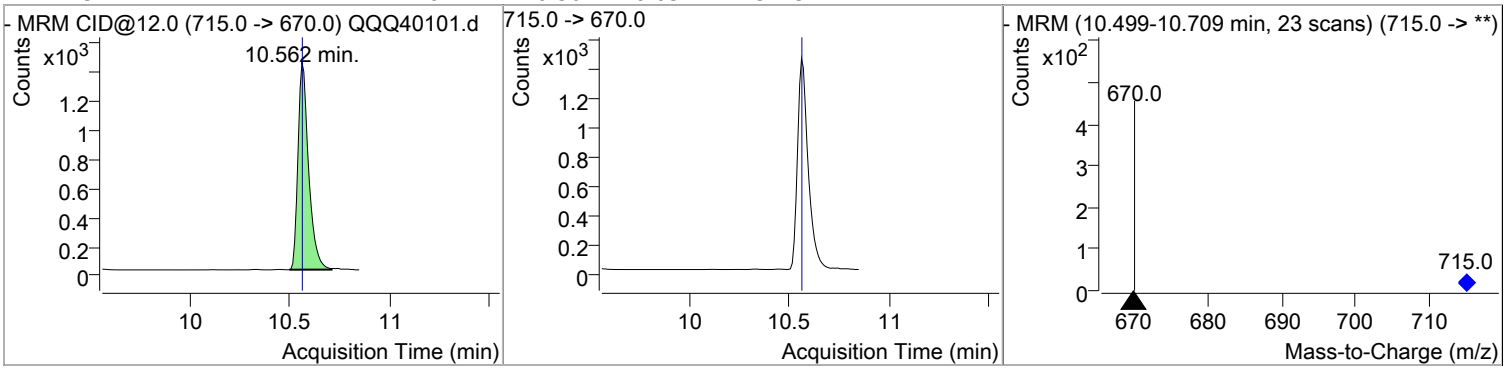
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.1793	10.40	-0.03	1023				



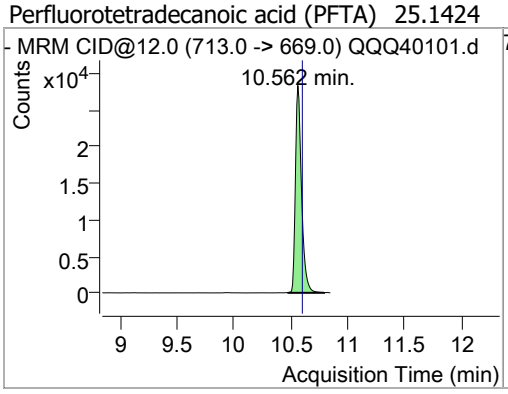
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	25.7268	10.41	-0.02	8154	512.0 -> 219.0	124.2	88.9	133.3

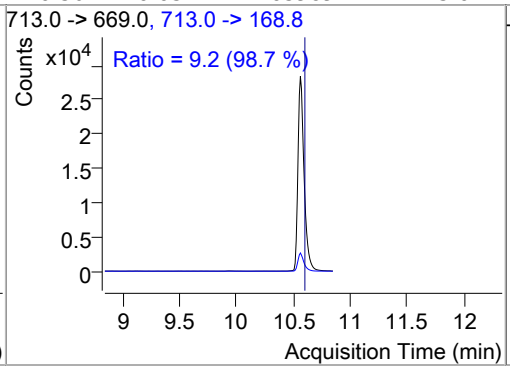


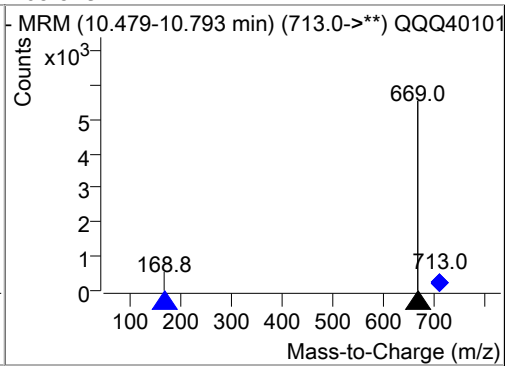
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.2824	10.56	-0.03	5245				



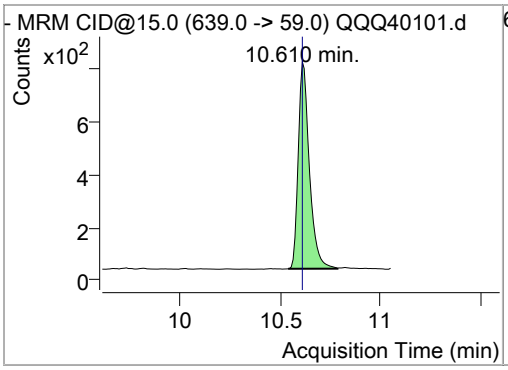
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	25.1424	10.56	-0.03	105989	713.0 -> 168.8	9.2	7.4	11.1

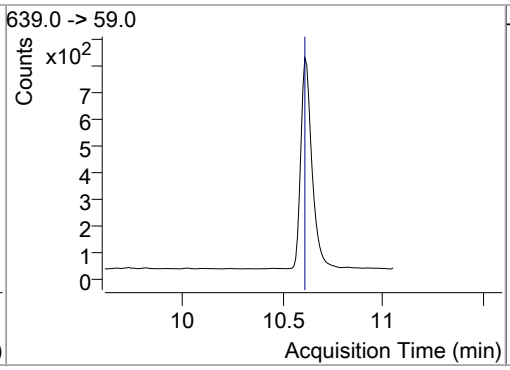


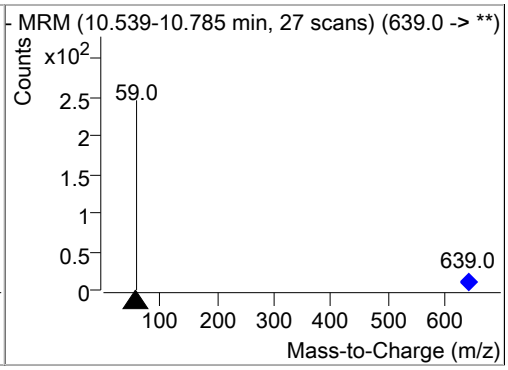




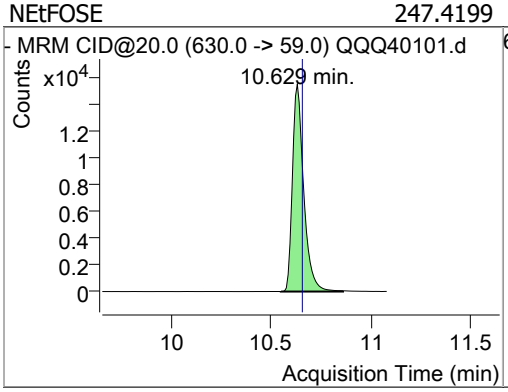
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	21.5210	10.61	-0.03	3016				

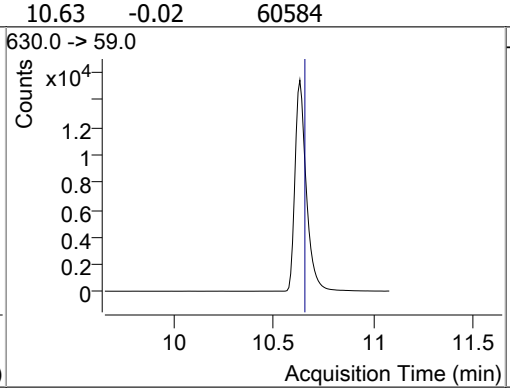


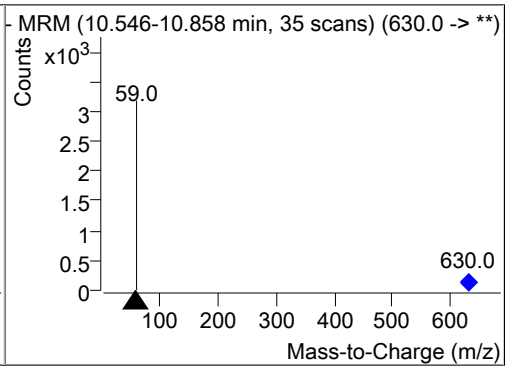




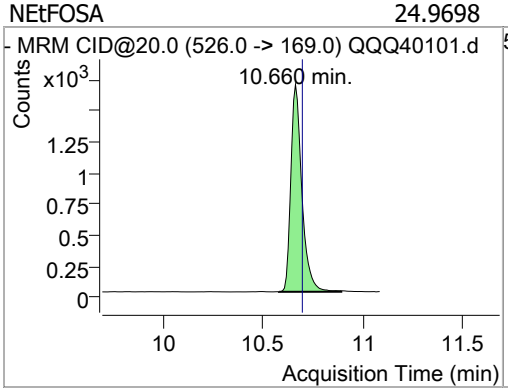
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	247.4199	10.63	-0.02	60584				

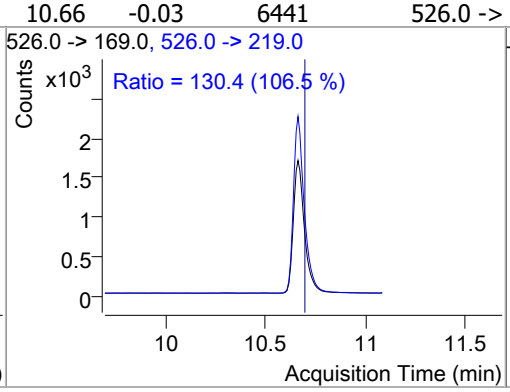


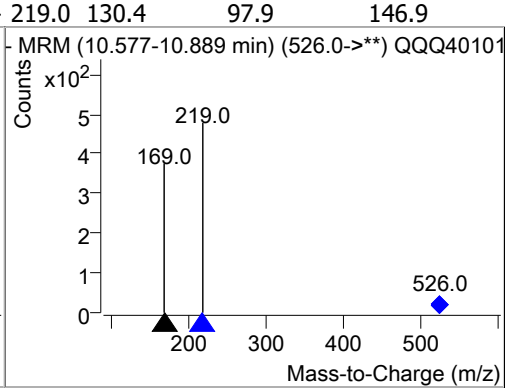




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	24.9698	10.66	-0.03	6441	526.0 -> 219.0	130.4	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 4:51:17 AM	**Data File**	QQQ40101.d
Sample Type	Cal	**Sampe Name**	SEQ-CAL7
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.301	898625	133074	0.487			1.51			58187.01
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	98907	14861	0.465			1.63			797.40
PFMPA	2.263	245295	29164	0.573			1.59			107554.00
3:3FTCA	4.470	32597	4582	0.480			1.73			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	91198	14013	0.426			1.91			35.31
Perfluoro-n-pentanoic acid (PFPeA)	4.765	914980	139921	0.444			1.96			28784.53
PFMBA	5.504	373106	76118	0.380			2.06			84567.46
M3PFBS	5.539	14585	3100	0.269			1.60			∞
Perfluorobutanesulfonic acid (PFBS)	5.539	144282	31166	0.334			1.54			22124.73
PFEESA	6.066	1080079	258122	0.334			1.53			104429.34
NFDHA	6.216	14704	3293	0.288			1.63			22262.77
M2-4-2FTS	6.288	35982	8101	0.298			1.80			∞
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.288	408234	90341	0.381			1.79			∞
M5PFHxA	6.363	47956	11218	0.288			1.94			41423.98
Perfluorohexanoic acid (PFHxA)	6.373	590563	138139	0.334			1.39			16063.10
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.584	134974	32623	0.354			1.85			672.08
M3-HFPO-DA	6.680	30862	6959	0.268			1.63			3051.19
HFPO-DA	6.680	29459	6786	0.345			1.62			3971.61
M4PFHpA	7.253	11346	2671	0.260			1.42			14335.46
Perfluoroheptanoic acid (PFHpA)	7.244	297390	68342	0.353			1.97			8114.36
5-3FTCA	7.310	1490143	339114	0.334			1.65			1139.04
M3PFHxS	7.364	10199	2460	0.315			1.54			∞
Perfluorohexanesulfonic acid (PFHxS)	7.364	123385	23835	0.492			1.46			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.392	698634	160046	0.335			1.66			300.06
M2-6-2FTS	7.912	31709	6980	0.316			1.46			53298.91
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.903	408028	89159	0.316			1.85			∞
Perfluorooctanoic acid (PFOA)	7.969	354982	84661	0.307			1.65			14765.14
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.969	26833	6117	0.297			1.70			∞
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	112385	27051	0.317			1.69			931.33
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.571	4490	1110	0.316			1.46			512.64
Perfluorononanoic acid (PFNA)	8.572	300872	73844	0.330			1.63			3072.41
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.607	4567	1124	0.298			1.52			282.31
Perfluorooctanesulfonic acid (PFOS)	8.608	100077	18238	0.510			1.43			∞
7-3FTCA	8.711	2405329	530414	0.334			1.82			∞
9-Cl-PF3ONS	8.921	1681639	405434	0.308			1.70			22084.86
M2-8-2FTS	9.043	55924	13647	0.306			1.83			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	132921	32470	0.306			1.85			10356.52
M6PFDA	9.081	13280	3323	0.306			1.76			143.27
Perfluorodecanoic acid (PFDA)	9.082	303638	77134	0.316			1.70			9404.01
Perfluorononanesulfonate (L-PFNS)	9.098	70029	17548	0.316			1.59			∞
d3-N-MeFOSAA	9.282	20494	4805	0.288			2.04			∞
N-MeFOSAA	9.292	86672	17576	0.502			1.64			20779.32
d5-N-EtFOSAA	9.523	15866	3674	0.278			1.87			9228.70
N-EtFOSAA	9.533	74484	14865	0.492			1.77			∞
M7PFUdA	9.543	15627	3696	0.305			1.51			95.38
Perfluoroundecanoic acid (PFUnA)	9.544	277955	65192	0.314			1.51			6099.68
Perfluoro-1-decanesulfonate (L-PFDS)	9.541	31348	7579	0.297			1.63			2411.24
Perfluoro-1-octanesulfonamide (FOSA)	9.639	136873	32052	0.370			1.82			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	9895	2248	0.305			1.40			∞
11-Cl-PF3OUdS	9.799	1012908	240344	0.269			1.44			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.949	13118	3336	0.286			1.55			19291.86

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.950	219149	54448	0.287			1.48			8256.92
d5-NEtFOSA	10.650	509	128	0.200			1.73			14.37
Perfluorododecanesulfonic acid (PFDoS)	10.269	15908	4142	0.249			1.55			84.81
Perfluorotridecanoic acid (PFTrDA)	10.288	144226	37311	0.283			1.45			10540.53
d7-NMeFOSE	10.373	7421	1877	0.285			1.69			383.96
NMeFOSE	10.392	65583	16671	0.317			1.50			6013.22
d3-NMeFOSA	10.404	1023	260	0.248			1.71			∞
NMeFOSA	10.413	8154	2066	0.304			1.48			3752.03
M2PFTeDA	10.562	5245	1424	0.210			1.85			∞
Perfluorotetradecanoic acid (PFTA)	10.562	105989	28367	0.313			1.73			4599.11
d9-NEtFOSE	10.610	3016	784	0.246			1.82			433.36
NEtFOSE	10.629	60584	15428	0.312			1.63			7032.95
NEtFOSA	10.660	6441	1675	0.312			1.65			470.39

Data File	QQQ40102.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 5:07:21 AM
Sample Name	SEQ-CAL8	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	62.5 - 1560 ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
Ref Library			

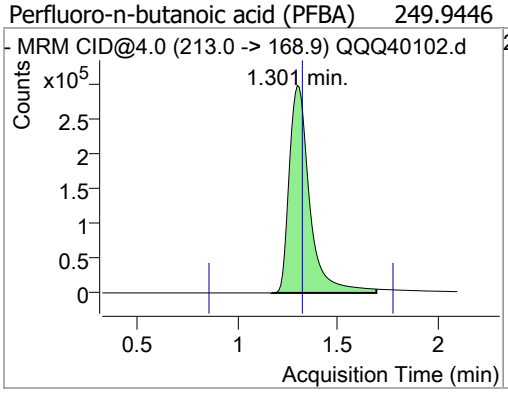
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.306	217.0 -> 172.0	93179	10.0000	ng/ml		-0.018
M3PFBA	1.299	216.0 -> 172.0	18763	5.0000	ng/ml		-0.018
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.774	268.0 -> 223.0	87348	5.0000	ng/ml		-0.009
MPFHxA	6.382	315.0 -> 269.8	30096	2.5000	ng/ml		0.000
MPFHxS	7.382	403.0 -> 103.0	3059	2.3700	ng/ml		0.000
M3PFBS-EIS	5.539	302.0 -> 79.9	12072	2.3300	ng/ml		0.000
M5PFHxA-EIS	6.381	318.0 -> 273.0	47567	2.5000	ng/ml		0.000
M2-4-2FTS-EIS	6.297	329.0 -> 309.0	53263	4.6900	ng/ml		-0.009
M3PFHxS-EIS	7.373	402.0 -> 80.0	7977	2.3700	ng/ml		-0.009
M3-HFPO-DA-EIS	6.689	287.0 -> 169.0	25468	10.0000	ng/ml		-0.009
M4PFHpA-EIS	7.262	367.0 -> 322.0	11339	2.5000	ng/ml		-0.009
M2-6-2FTS-EIS	7.921	429.0 -> 409.0	47894	4.7550	ng/ml		0.000
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.987	421.0 -> 376.0	24944	2.5000	ng/ml		-0.009
MPFOA	7.987	417.0 -> 372.0	39489	2.5000	ng/ml		0.000
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.625	507.0 -> 98.9	5020	2.3950	ng/ml		0.000
MPFNA	8.581	468.0 -> 423.0	15817	1.2500	ng/ml		-0.009
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.590	472.0 -> 223.0	4457	1.2500	ng/ml		0.000
MPFOS	8.617	503.0 -> 80.0	8593	2.3950	ng/ml		-0.009
M2-8-2FTS-EIS	9.062	529.0 -> 509.0	82474	4.8000	ng/ml		0.000
MPFDA	9.100	515.0 -> 469.8	8989	1.2500	ng/ml		-0.009
M6PFDA-EIS	9.100	519.0 -> 473.9	11511	1.2500	ng/ml		0.000
d3-N-MeFOSAA-EIS	9.311	573.0 -> 418.8	20521	5.0000	ng/ml		0.000
d5-N-EtFOSAA-EIS	9.542	589.0 -> 418.8	14394	5.0000	ng/ml		-0.009
M7PFUdA-EIS	9.571	570.0 -> 525.0	13248	1.2500	ng/ml		0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.666	506.0 -> 78.0	9385	2.5000	ng/ml		0.000
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.968	615.0 -> 570.0	13669	1.2500	ng/ml		0.000
M2PFTeDA-EIS	10.589	715.0 -> 670.0	5089	1.2500	ng/ml		0.000
d7-NMeFOSE-EIS	10.391	623.0 -> 59.0	7529	25.0000	ng/ml		0.000
d3-NMeFOSA-EIS	10.431	515.0 -> 219.0	1160	2.5000	ng/ml		0.000
d9-NEtFOSE-EIS	10.637	639.0 -> 59.0	2862	25.0000	ng/ml		0.000
d5-NEtFOSA-EIS	10.677	531.0 -> 169.0	533	2.5000	ng/ml	m	0.009
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	217.0 -> 172.0	93179	9.8075	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	268.0 -> 223.0	87348	4.8436	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.539	302.0 -> 79.9	12072	2.2205	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.297	329.0 -> 309.0	53264	12.0890	ng/ml		-0.009

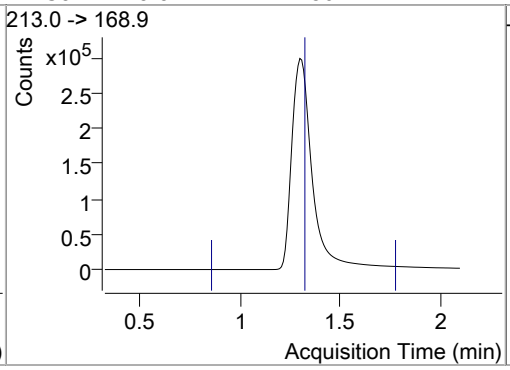
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.381	318.0 -> 273.0	47567	2.4598	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.689	287.0 -> 169.0	25468	7.7484	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.262	367.0 -> 322.0	11339	2.2582	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.373	402.0 -> 80.0	7992	2.1337	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.921	429.0 -> 409.0	47894	12.1715	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	421.0 -> 376.0	24944	2.1963	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	472.0 -> 223.0	4458	1.2924	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	507.0 -> 98.9	5020	2.9394	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.062	529.0 -> 509.0	82475	13.4313	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.100	519.0 -> 473.9	11511	1.0641	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.311	573.0 -> 418.8	20522	5.5212	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.542	589.0 -> 418.8	14396	4.6128	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.571	570.0 -> 525.0	13248	1.1061	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	506.0 -> 78.0	9385	2.5105	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.968	615.0 -> 570.0	13669	1.3804	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.677	531.0 -> 169.0	533	2.7567	ng/ml	m	0.441
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.391	623.0 -> 59.0	7529	26.1747	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.431	515.0 -> 219.0	1149	2.9693	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.589	715.0 -> 670.0	5089	1.3827	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.637	639.0 -> 59.0	2862	24.7663	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.301	213.0 -> 168.9	2121861	249.9446	ng/ml		100
PFMPA	2.272	229.0 -> 85.0	611792	124.9591	ng/ml		100
3:3FTCA	4.479	241.0 -> 177.0	79956	311.8718	ng/ml		98
Perfluoro-n-pentanoic acid (PFPeA)	4.774	263.0 -> 219.0	2222405	124.9806	ng/ml		100
PFMBA	5.514	279.0 -> 85.0	847885	124.9649	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.539	298.9 -> 79.9	307578	55.4084	ng/ml		99
PFEESA	6.075	315.0 -> 135.0	2369090	111.1181	ng/ml		99
NFDHA	6.225	295.0 -> 201.1	29799	124.7243	ng/ml		95
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	327.0 -> 307.0	808055		ng/ml		99

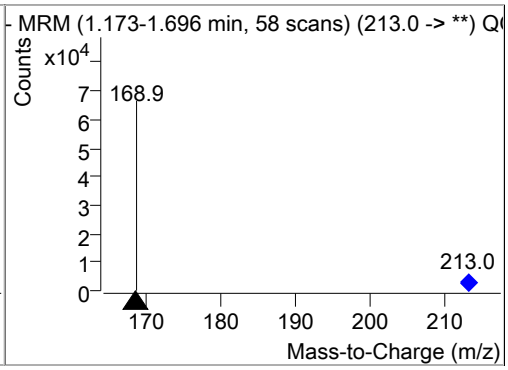
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.383	313.0 -> 268.9	1404632	62.4312	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.602	348.9 -> 79.9	304700	58.8256	ng/ml		99
HFPO-DA	6.699	285.0 -> 169.1	60419	249.9177	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.263	363.0 -> 318.8	735815	62.4148	ng/ml		100
5-3FTCA	7.328	341.0 -> 217.0	3053695	1557.8808	ng/ml		97
Perfluorohexanesulfonic acid (PFHxS)	7.374	398.9 -> 79.9	260924	57.1370	ng/ml	m	100
ADONA	7.411	377.0 -> 85.0	1438028	236.1125	ng/ml		91
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	427.0 -> 407.0	805767		ng/ml		98
Perfluorooctanoic acid (PFOA)	7.988	413.0 -> 368.8	859540	62.4386	ng/ml		90
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	448.9 -> 80.0	260648	59.4347	ng/ml		94
Perfluorononanoic acid (PFNA)	8.581	463.0 -> 418.8	720317	62.5290	ng/ml		98
Perfluorooctanesulfonic acid (PFOS)	8.617	498.9 -> 79.9	250196	57.7767	ng/ml	m	98
7-3FTCA	8.730	441.0 -> 337.0	4673875	1560.0533	ng/ml		99
9-Cl-PF3ONS	8.940	531.0 -> 351.0	3569017	233.7076	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.062	527.0 -> 80.9	270661		ng/ml		100
Perfluorodecanoic acid (PFDA)	9.101	513.0 -> 468.8	647505	62.4298	ng/ml		98
Perfluorononanesulfonate (L-PFNS)	9.116	548.9 -> 79.9	171971	60.4774	ng/ml		99
N-MeFOSAA	9.311	570.0 -> 418.9	217416	62.5164	ng/ml	m	95
N-EtFOSAA	9.552	584.0 -> 418.8	171725	62.4847	ng/ml	m	99
Perfluoroundecanoic acid (PFUnA)	9.562	563.0 -> 519.0	652221	62.5160	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.560	598.9 -> 98.9	74756	60.2625	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.667	497.9 -> 78.0	310731	62.4542	ng/ml		100
11-Cl-PF3OUdS	9.818	631.0 -> 451.0	2194996	236.3676	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.968	613.0 -> 568.8	560778	62.4944	ng/ml		98
Perfluorododecanesulfonic acid (PFDoS)	10.287	699.0 -> 80.0	37830	60.6491	ng/ml		98
Perfluorotridecanoic acid (PFTrDA)	10.307	663.0 -> 618.8	340806	62.5543	ng/ml		100
NMeFOSE	10.410	616.0 -> 59.0	149345	624.0917	ng/ml		100
NMeFOSA	10.432	512.0 -> 169.0	19879	62.3988	ng/ml		87
Perfluorotetradecanoic acid (PFTA)	10.590	713.0 -> 669.0	248188	62.4855	ng/ml		99
NEtFOSE	10.647	630.0 -> 59.0	151100	625.2593	ng/ml		100
NEtFOSA	10.688	526.0 -> 169.0	16132	62.4926	ng/ml		93

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

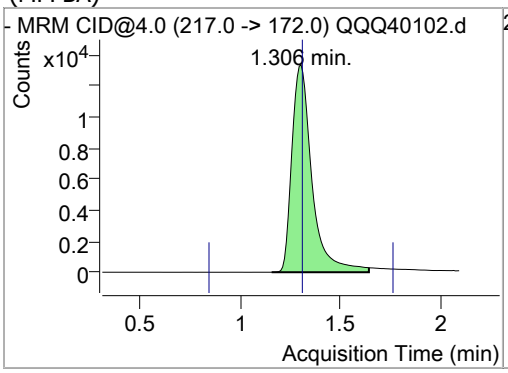
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	249.9446	1.30	-0.02	2121861				

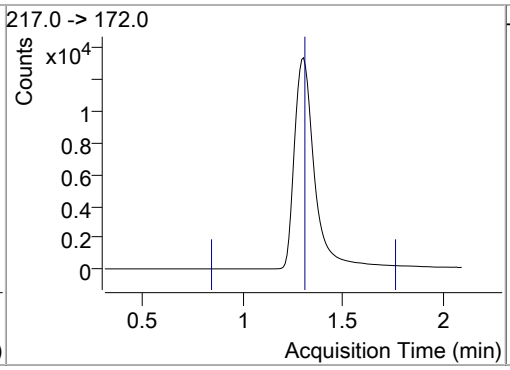


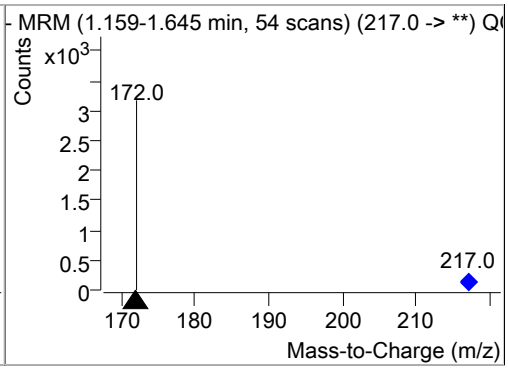




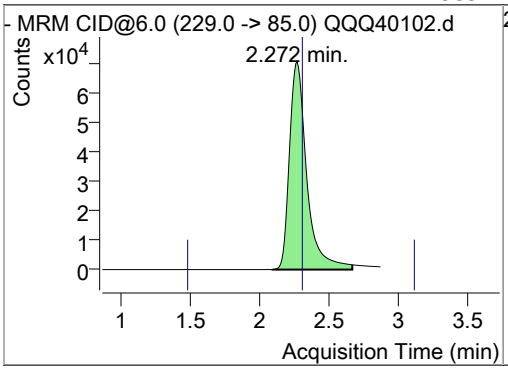
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	9.8075	1.31	-0.02	93179				

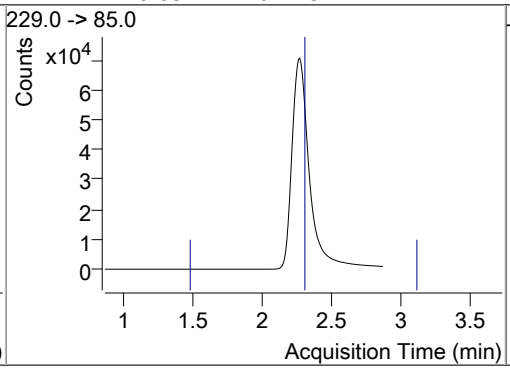


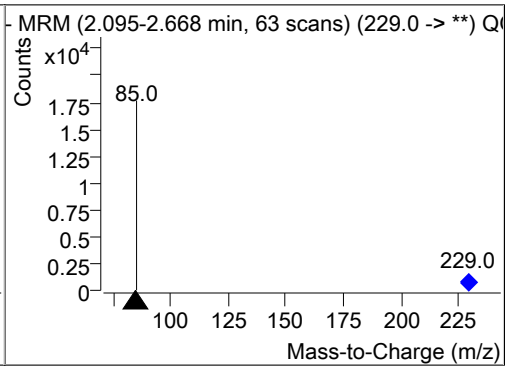




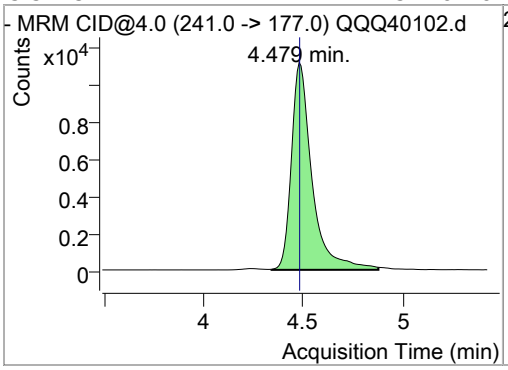
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	124.9591	2.27	-0.03	611792				

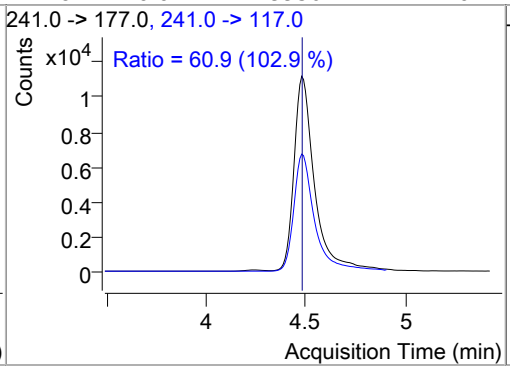


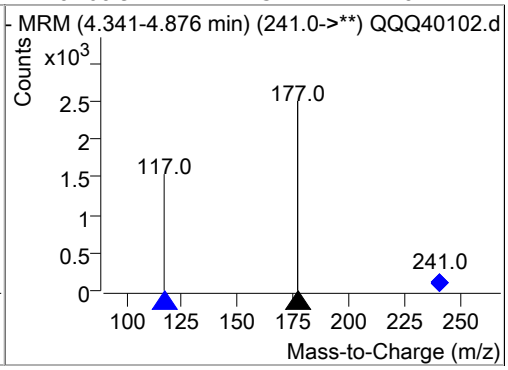




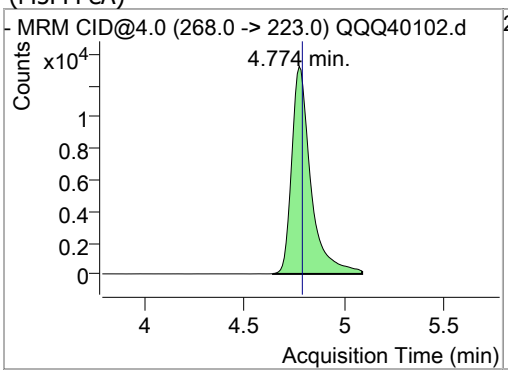
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	311.8718	4.48	-0.01	79956	241.0 -> 117.0	60.9	47.3	71.0

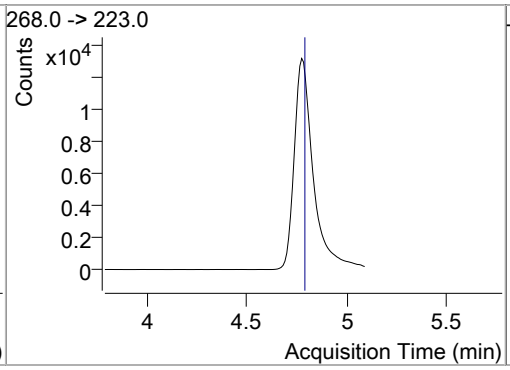


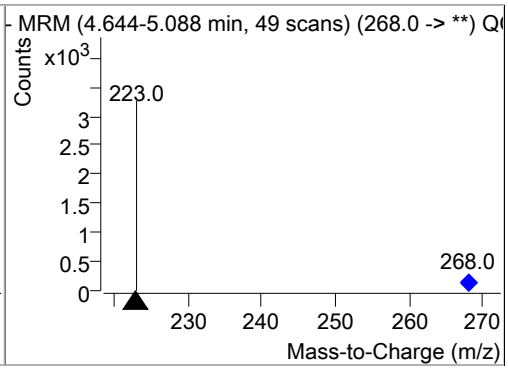




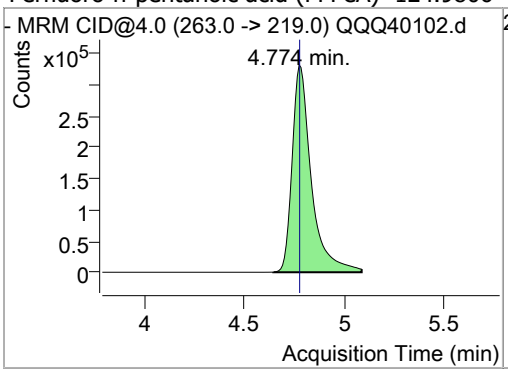
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.8436	4.77	-0.01	87348				

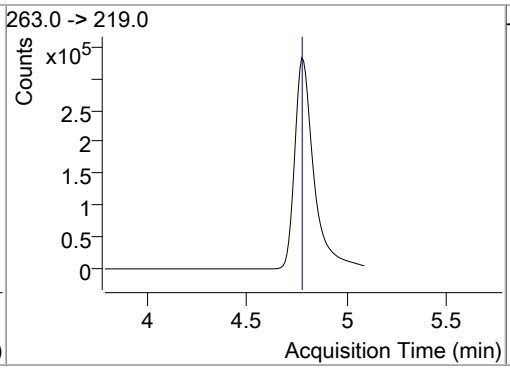


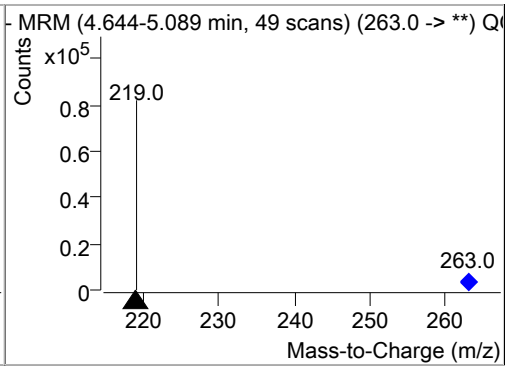




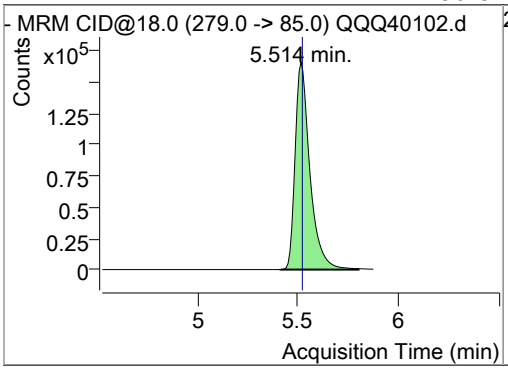
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	124.9806	4.77	-0.01	2222405				

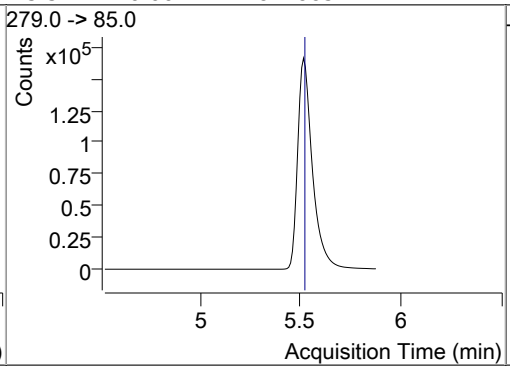


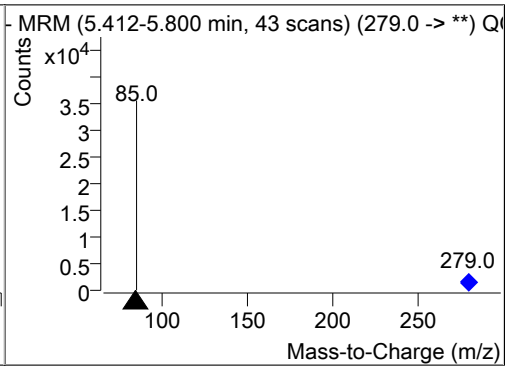




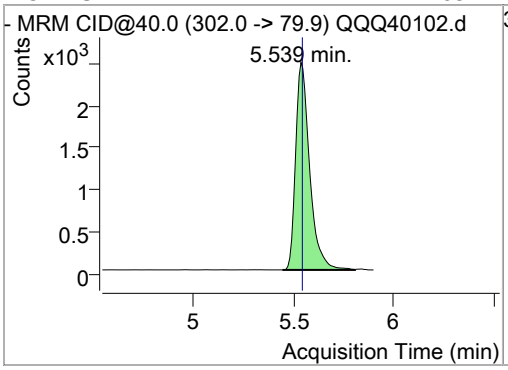
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	124.9649	5.51	0.00	847885				

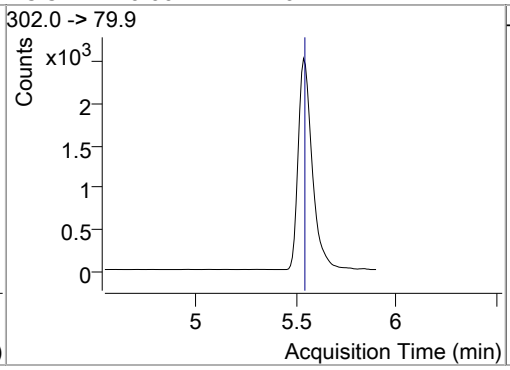


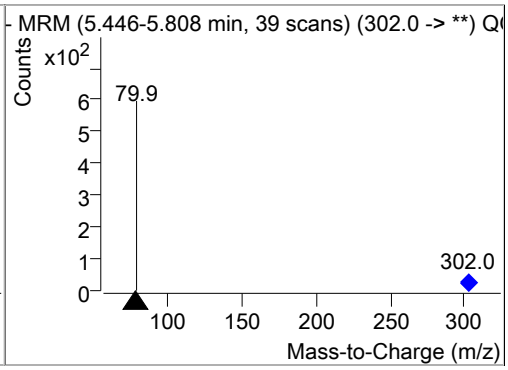




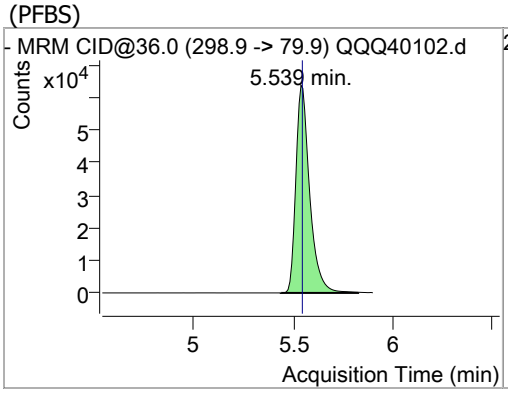
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.2205	5.54	0.00	12072				

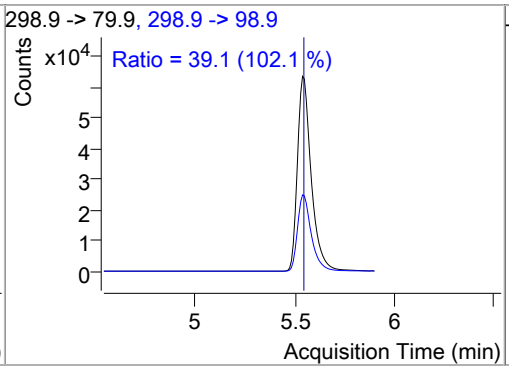


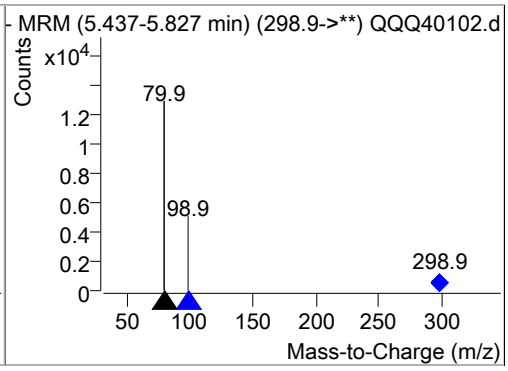




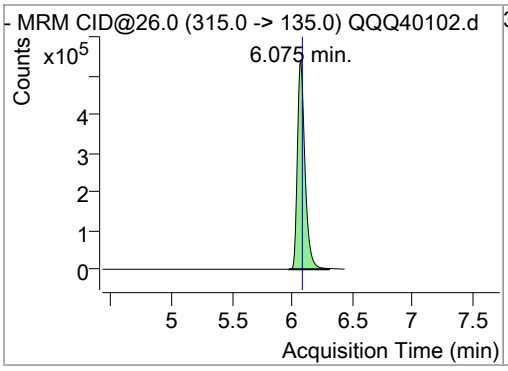
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	55.4084	5.54	0.00	307578	298.9 -> 98.9	39.1	30.7	46.0

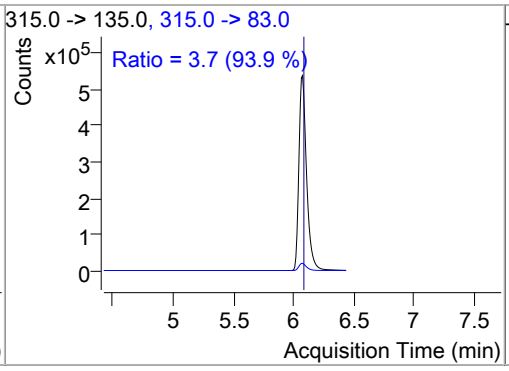


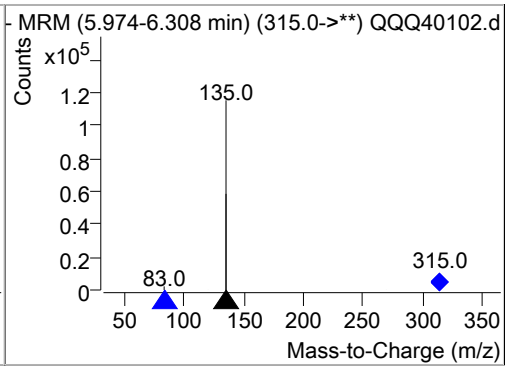




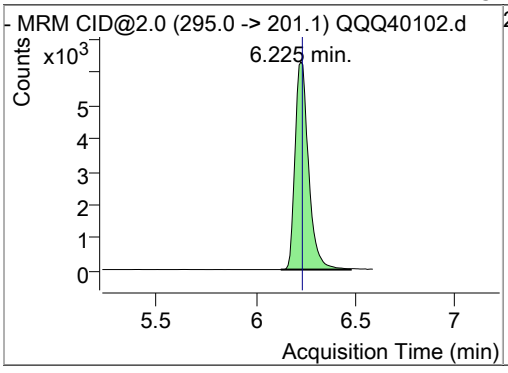
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	111.1181	6.08	0.00	2369090	315.0 -> 83.0	3.7	3.2	4.8

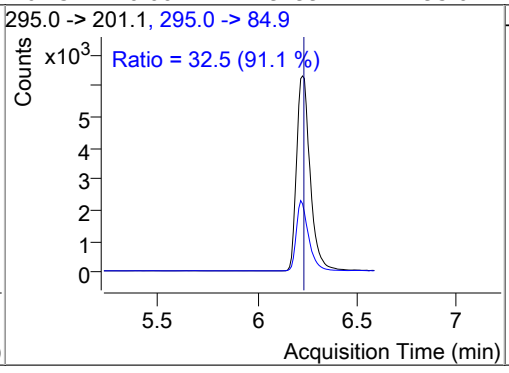


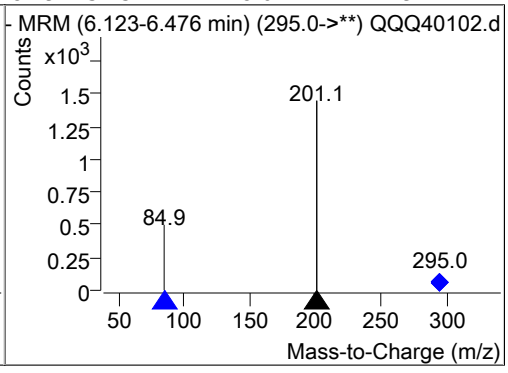




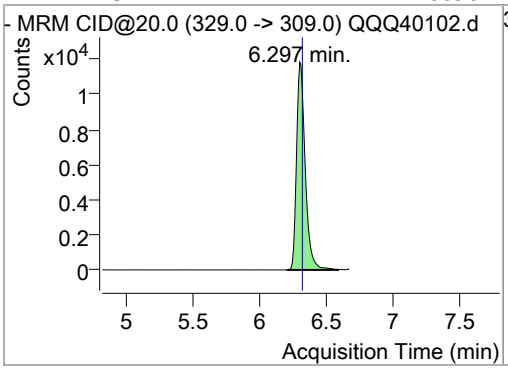
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	124.7243	6.23	0.00	29799	295.0 -> 84.9	32.5	28.6	42.9

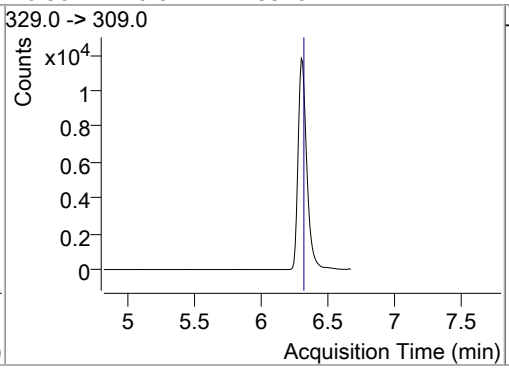


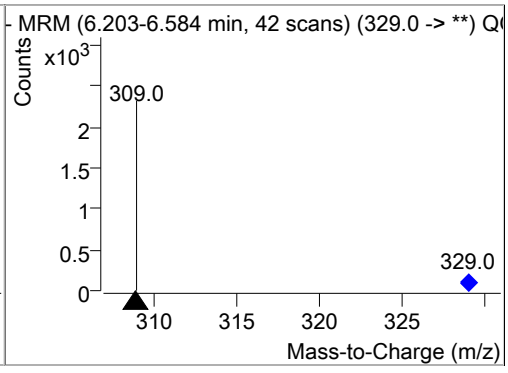




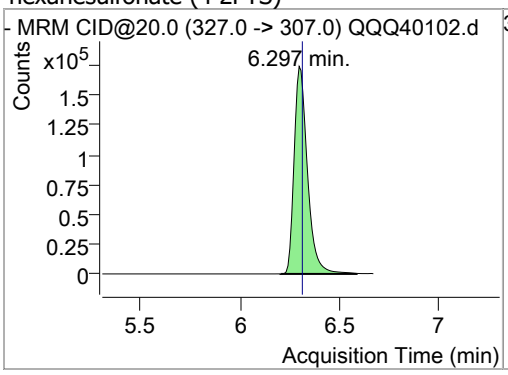
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	12.0890	6.30	-0.01	53264				

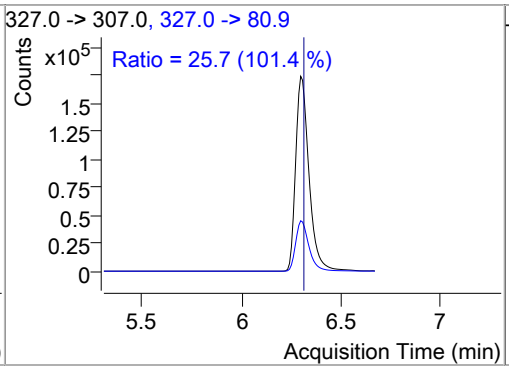


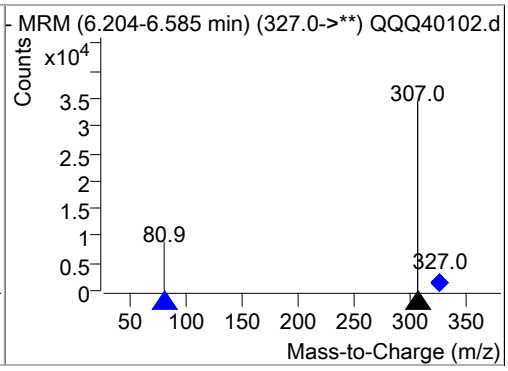




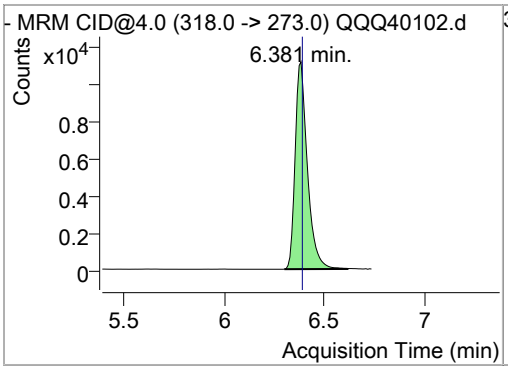
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)		6.30	-0.01	808055	327.0 -> 80.9	25.7	20.3	30.4

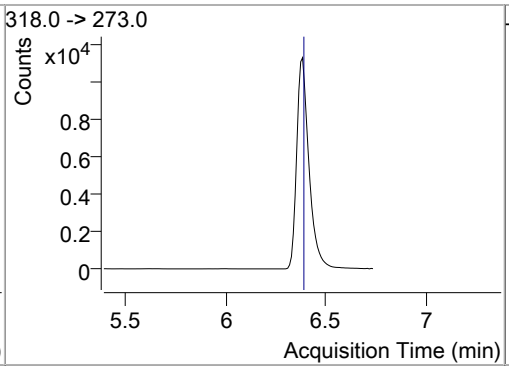


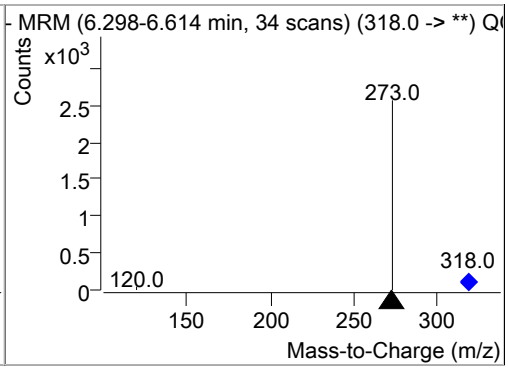




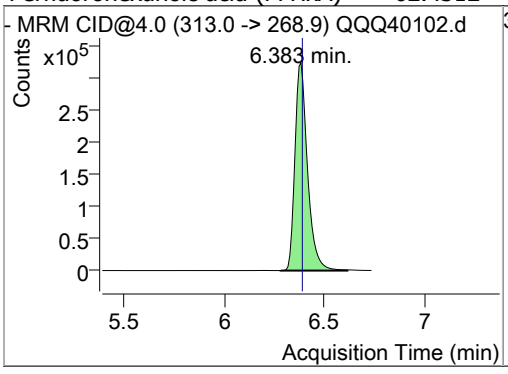
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.4598	6.38	0.00	47567				

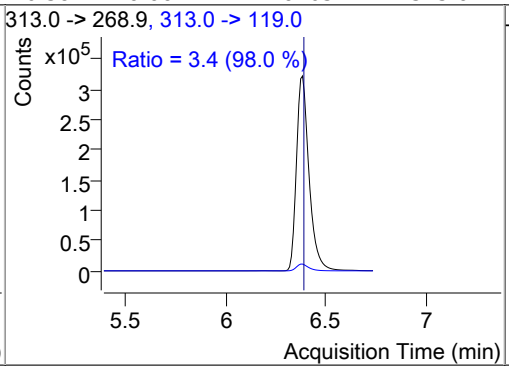


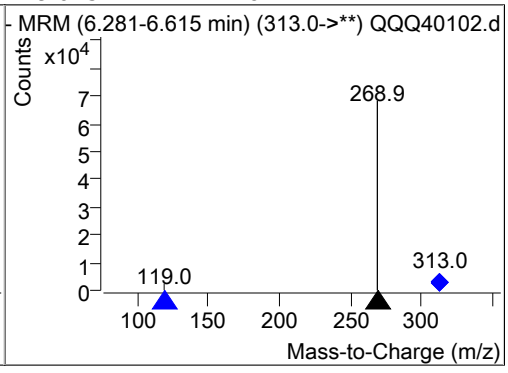




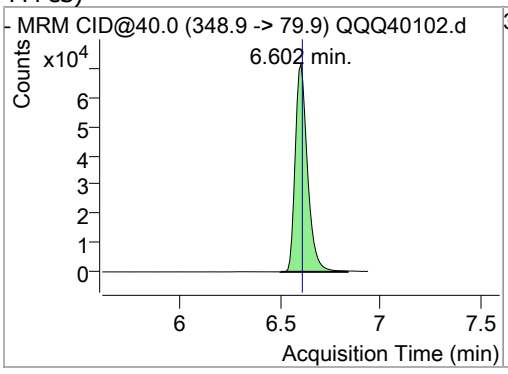
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	62.4312	6.38	0.00	1404632	313.0 -> 119.0	3.4	2.8	4.2

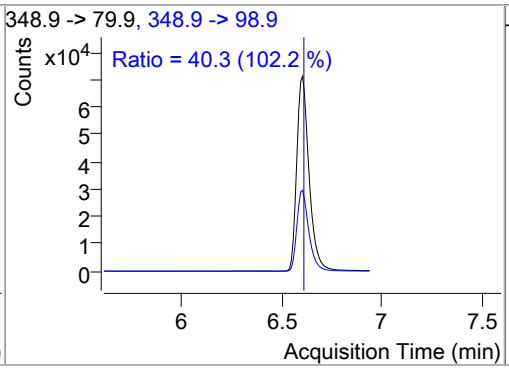


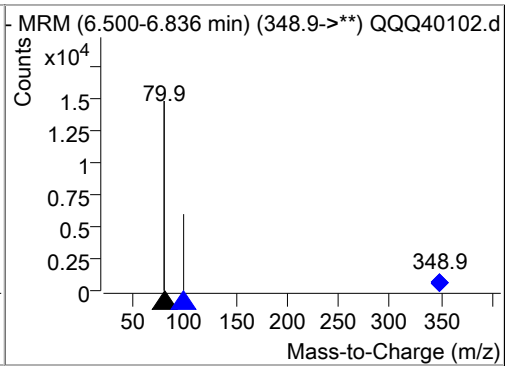




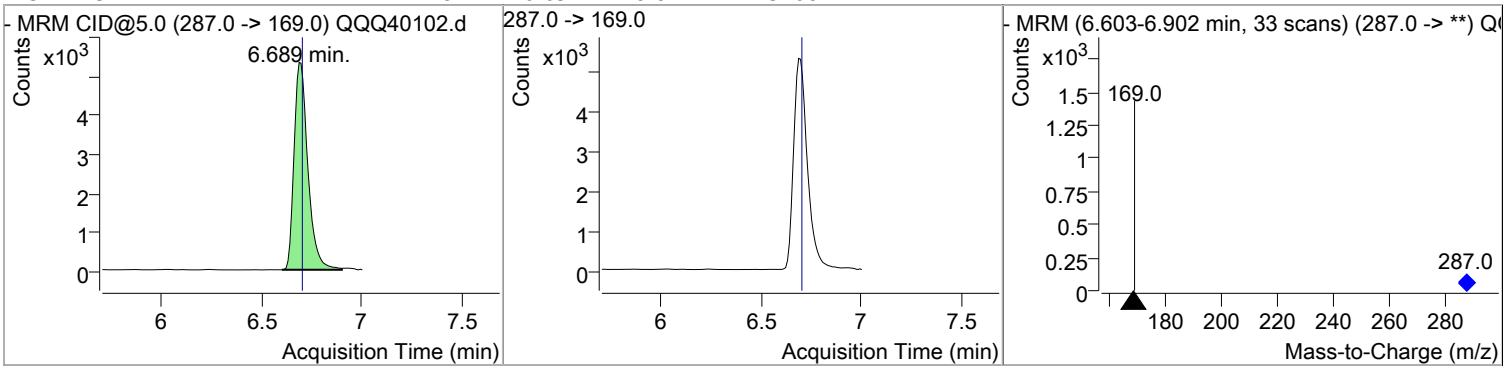
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	58.8256	6.60	0.00	304700	348.9 -> 98.9	40.3	31.5	47.3



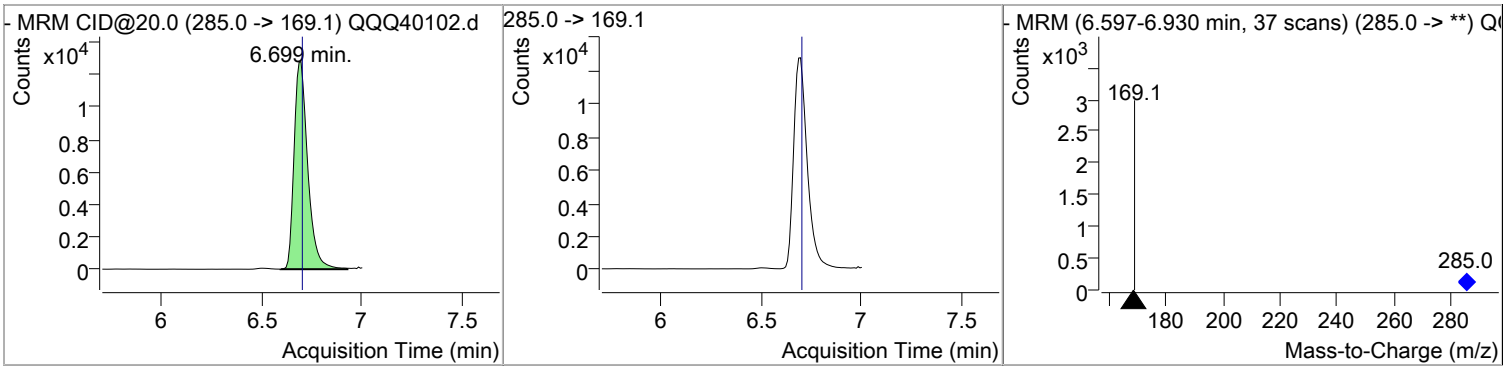




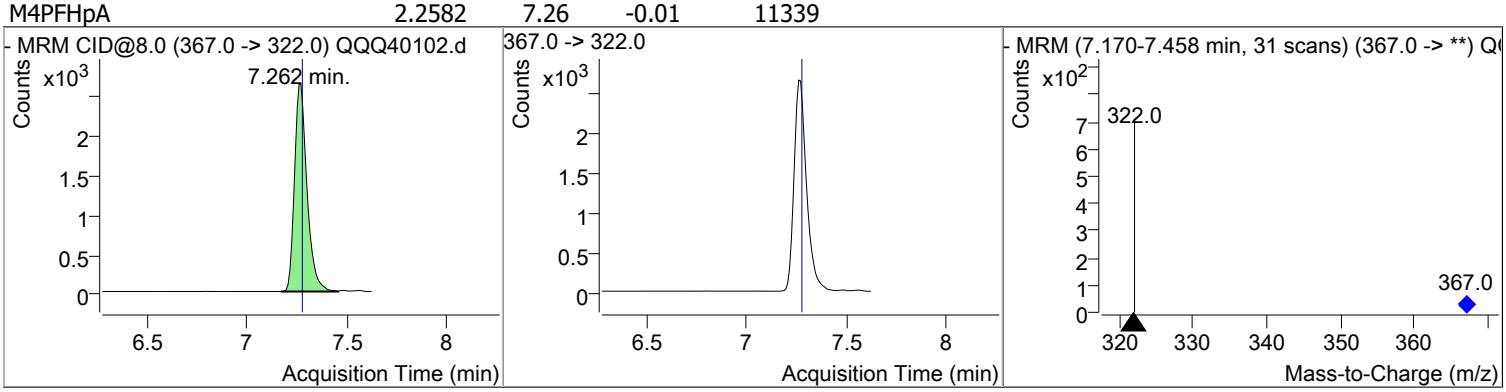
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	7.7484	6.69	-0.01	25468				



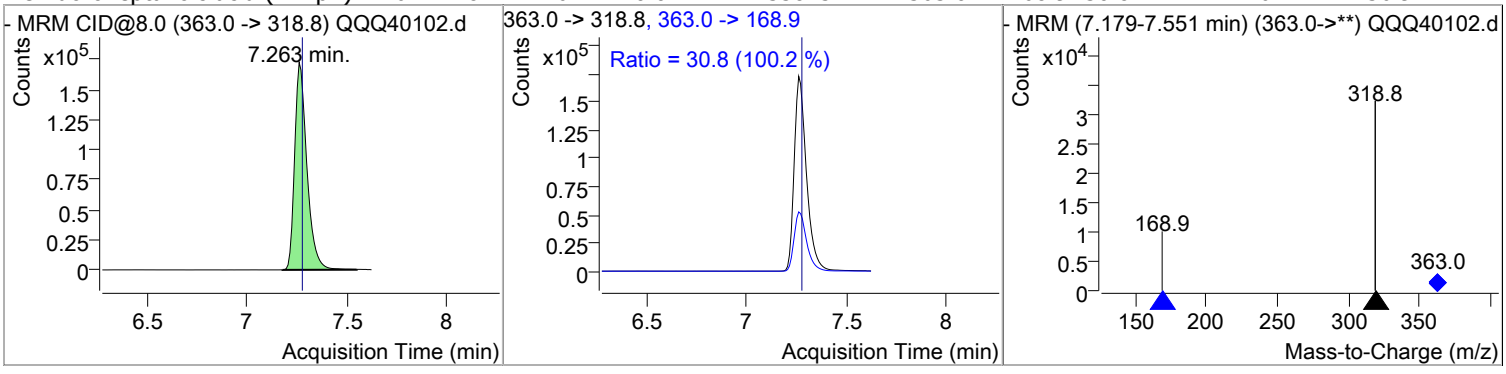
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	249.9177	6.70	0.00	60419				



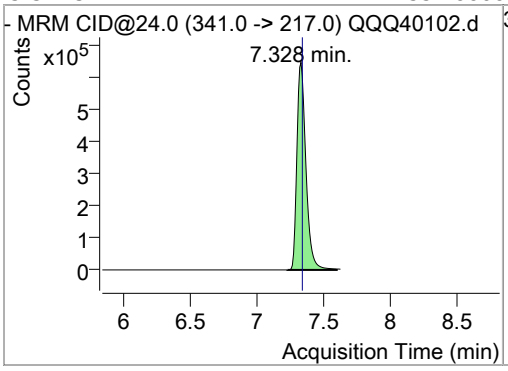
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.2582	7.26	-0.01	11339				

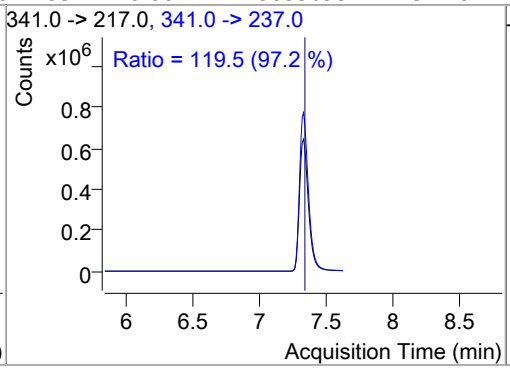


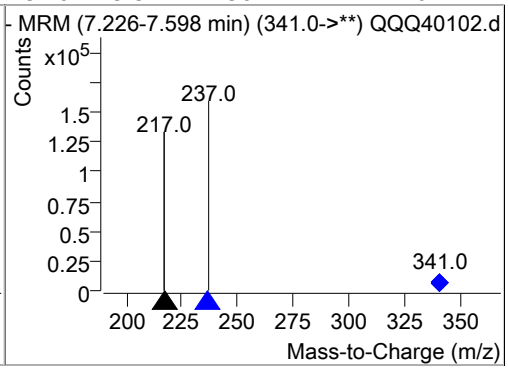
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	62.4148	7.26	-0.01	735815	363.0 -> 168.9	30.8	24.6	36.9



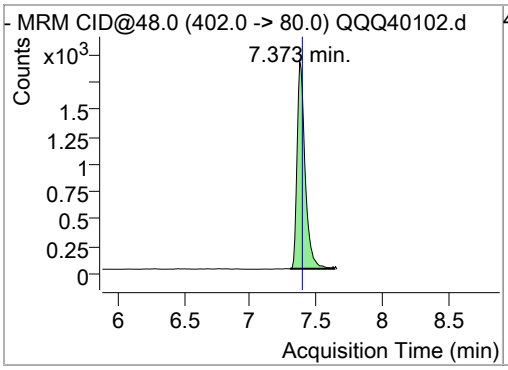
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	1557.8808	7.33	0.00	3053695	341.0 -> 237.0	119.5	98.4	147.6

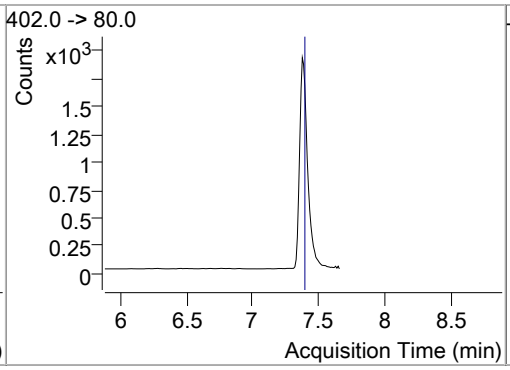


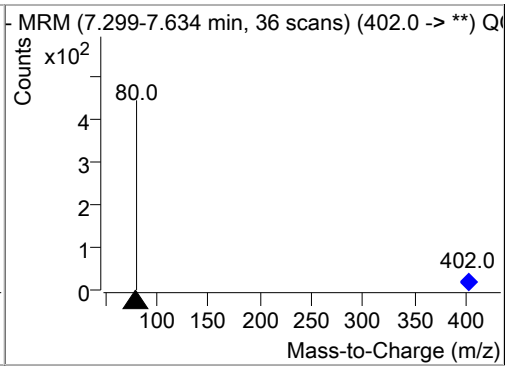




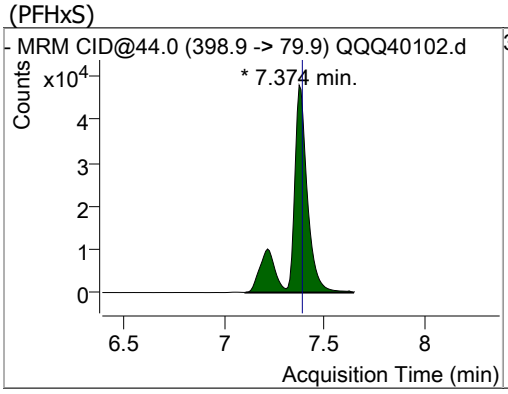
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.1337	7.37	-0.01	7992				

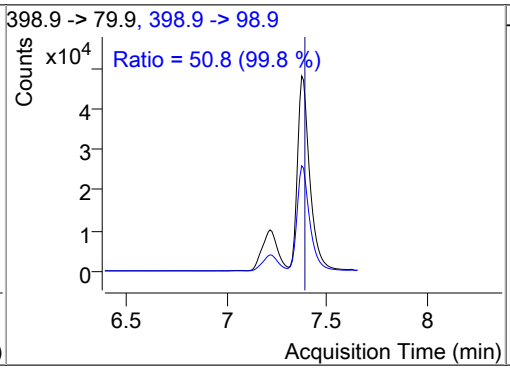


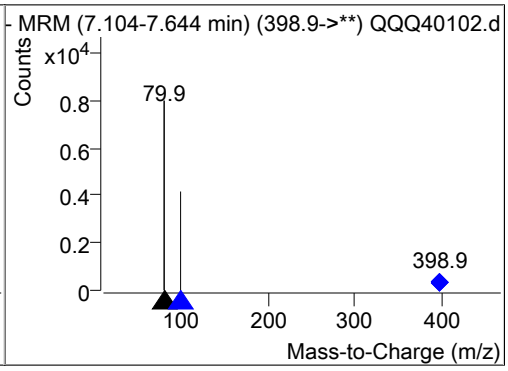




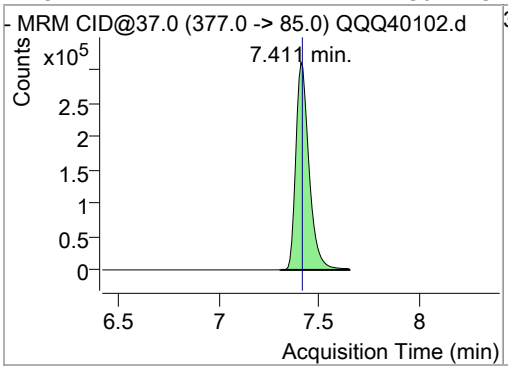
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	57.1370	7.37	-0.01	260924 (m)	398.9 -> 98.9	50.8	40.7	61.1

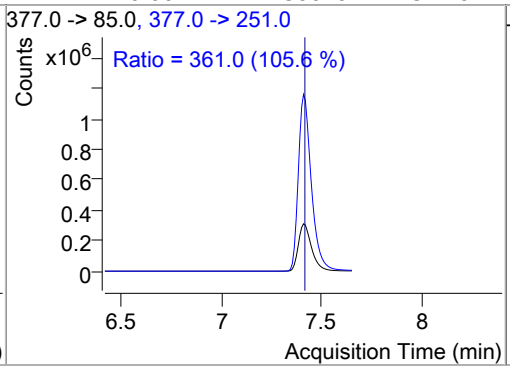


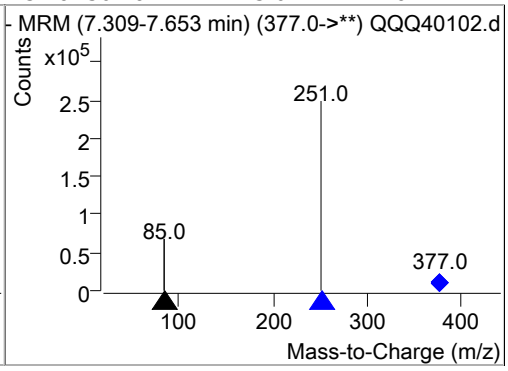




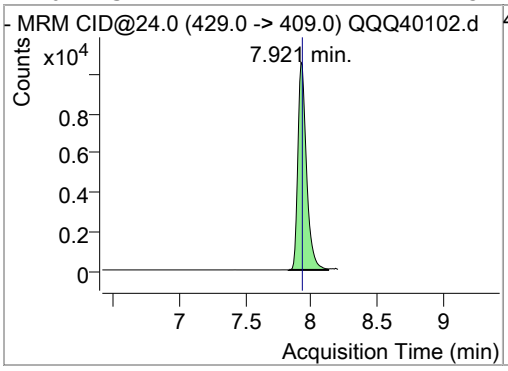
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	236.1125	7.41	0.00	1438028	377.0 -> 251.0	361.0	273.6	410.4

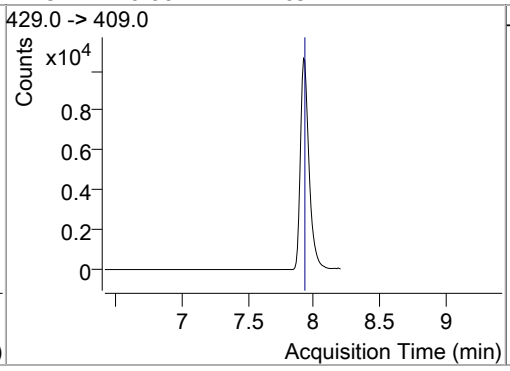


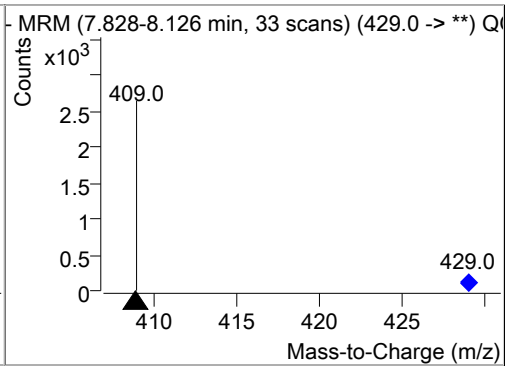




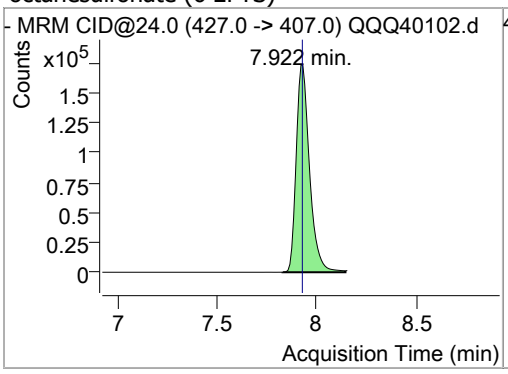
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	12.1715	7.92	0.00	47894				

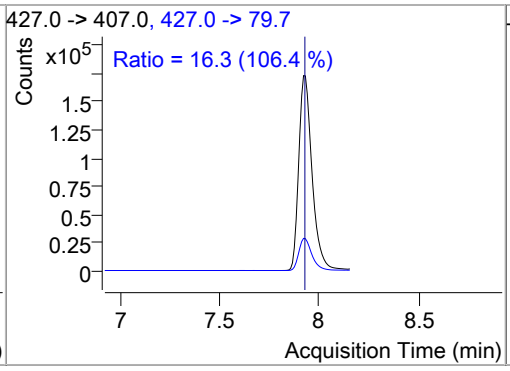


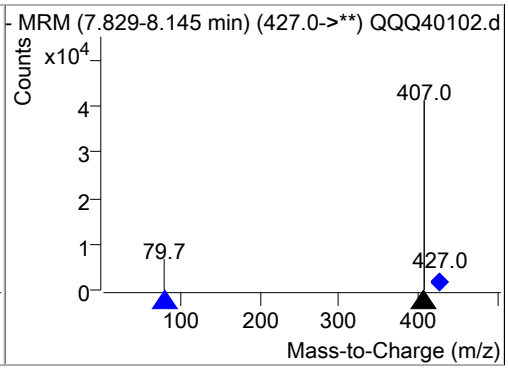




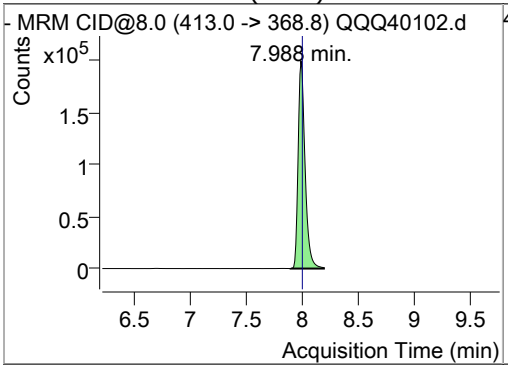
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)		7.92	0.00	805767	427.0 -> 79.7	16.3	12.2	18.4

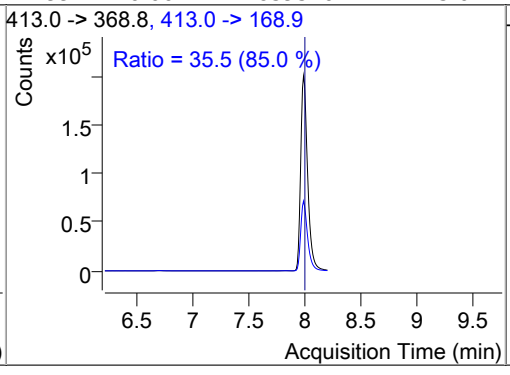


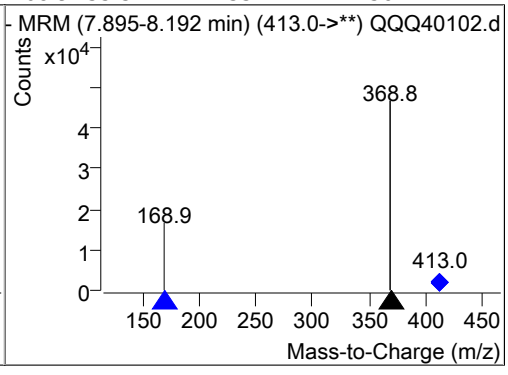




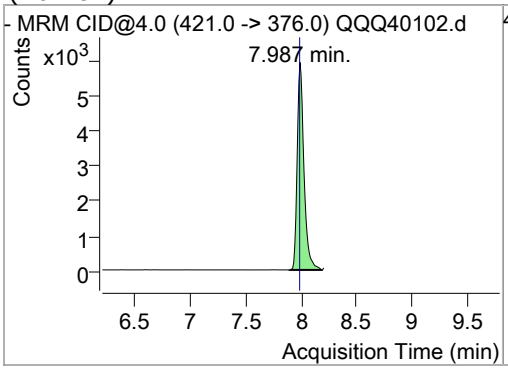
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	62.4386	7.99	0.00	859540	413.0 -> 168.9	35.5	33.4	50.1

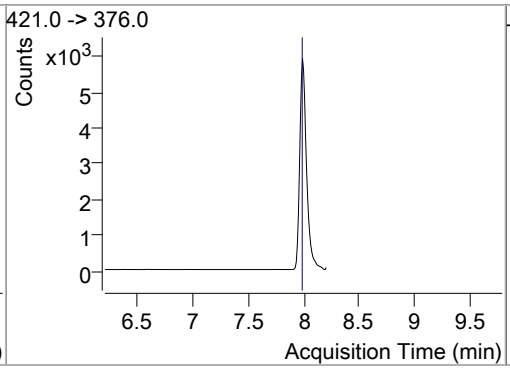


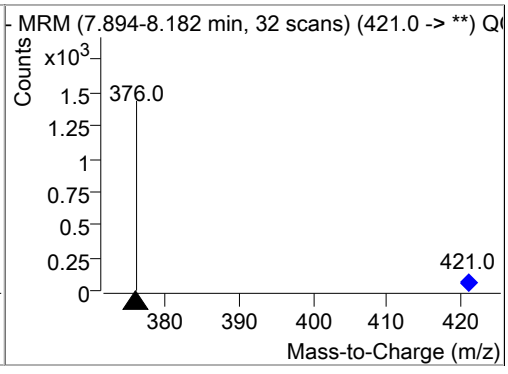




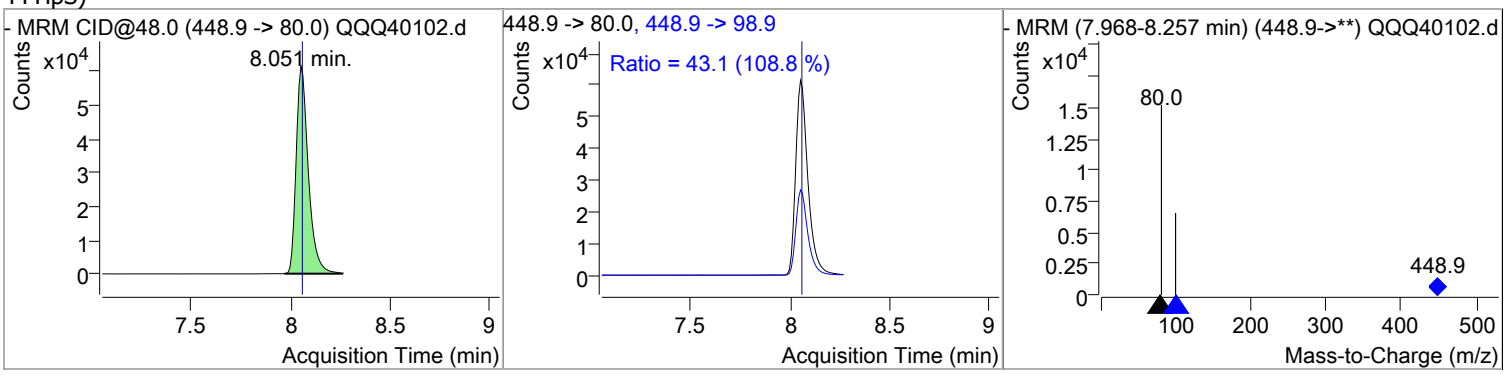
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.1963	7.99	-0.01	24944				



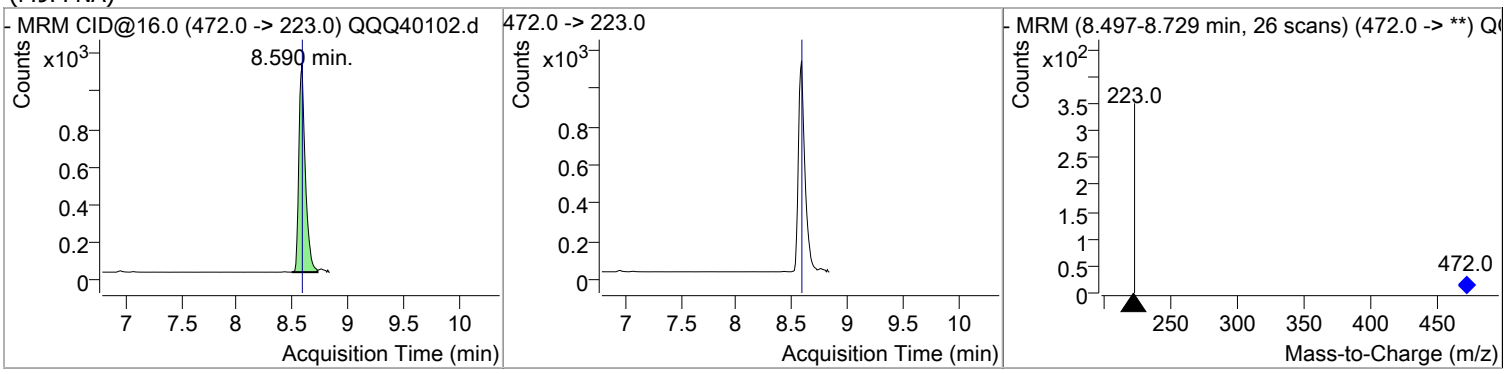




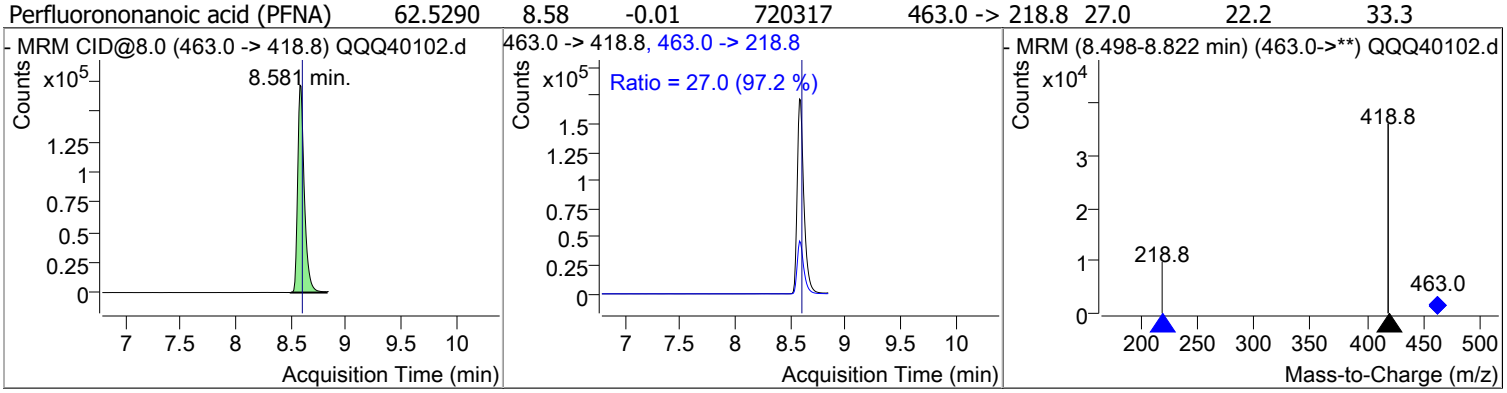
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	59.4347	8.05	0.00	260648	448.9 -> 98.9	43.1	31.7	47.5



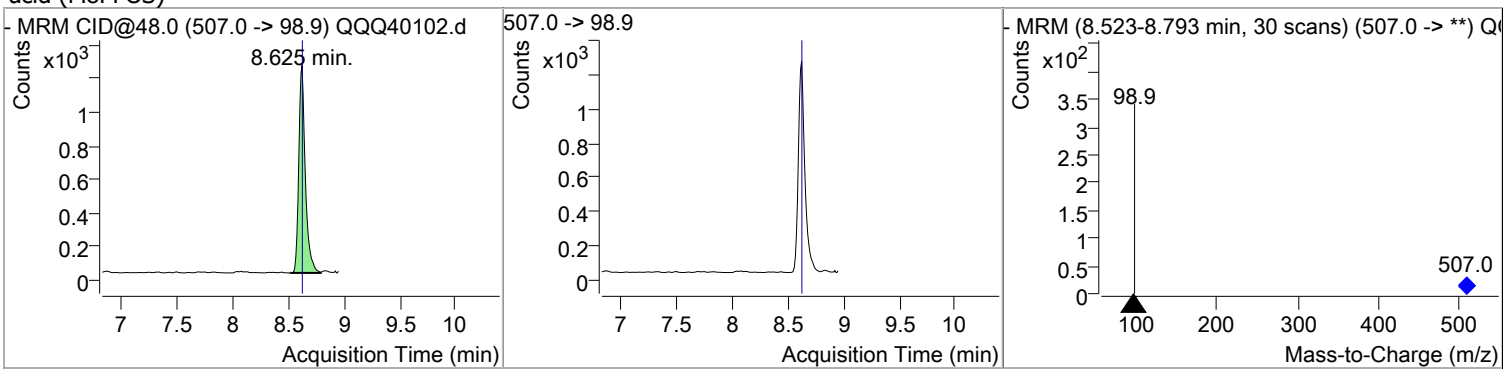
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2924	8.59	0.00	4458				



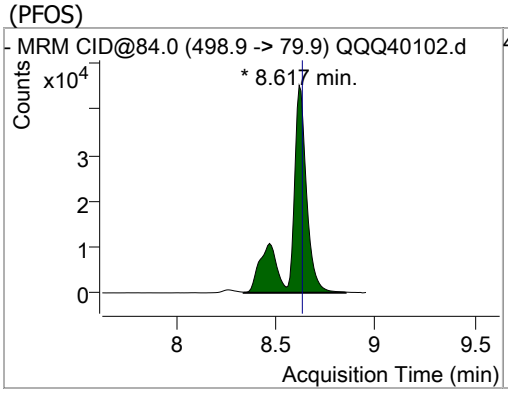
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	62.5290	8.58	-0.01	720317	463.0 -> 218.8	27.0	22.2	33.3

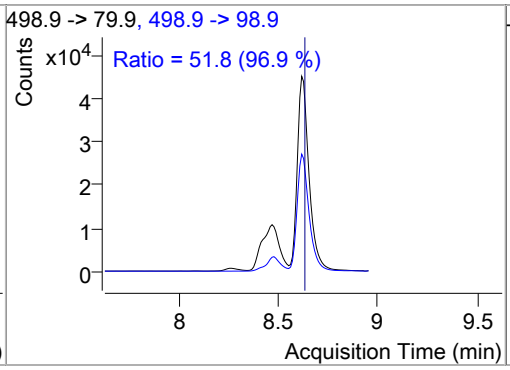


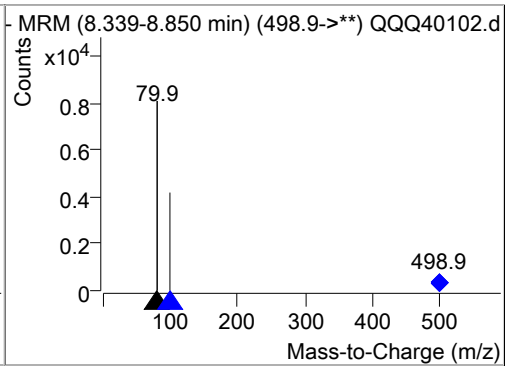
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.9394	8.63	0.00	5020				



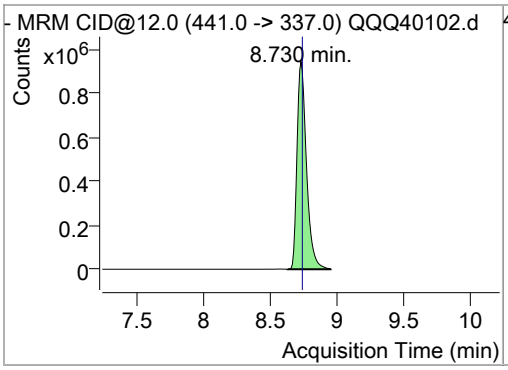
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	57.7767	8.62	-0.01	250196 (m)	498.9 -> 98.9	51.8	42.7	64.1

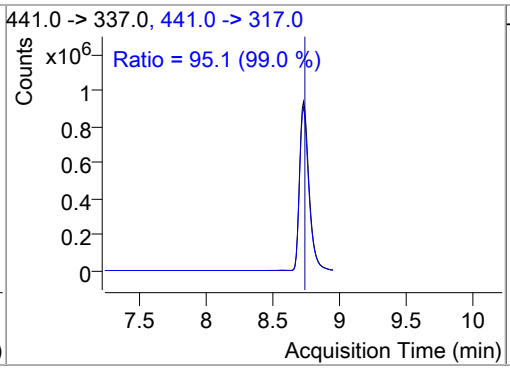


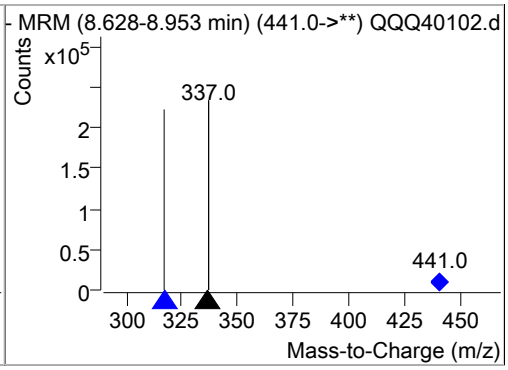




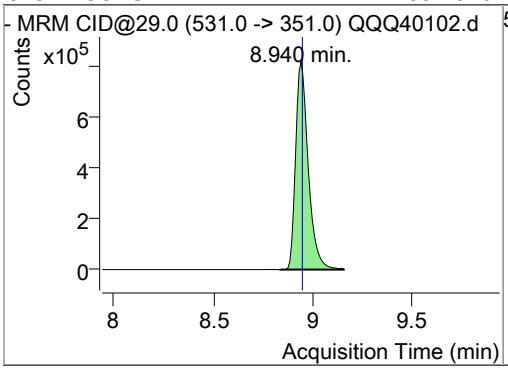
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	1560.0533	8.73	0.00	4673875	441.0 -> 317.0	95.1	76.9	115.4

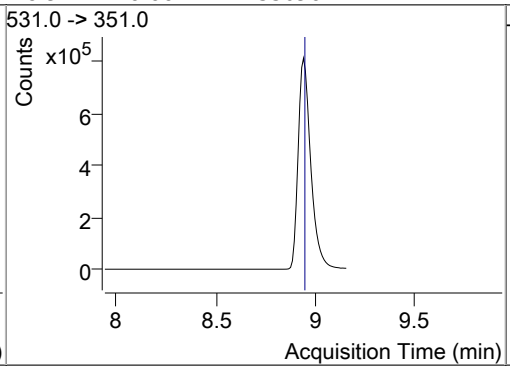


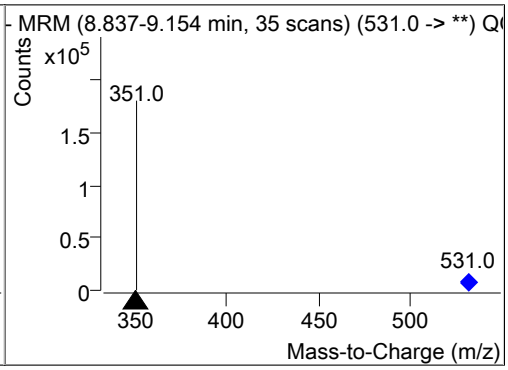




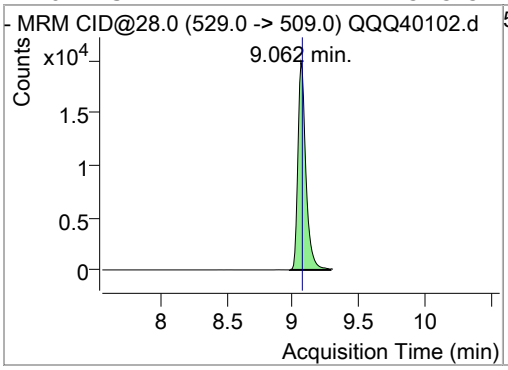
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	233.7076	8.94	0.00	3569017				

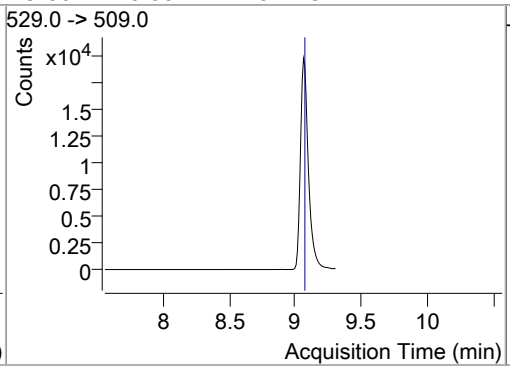


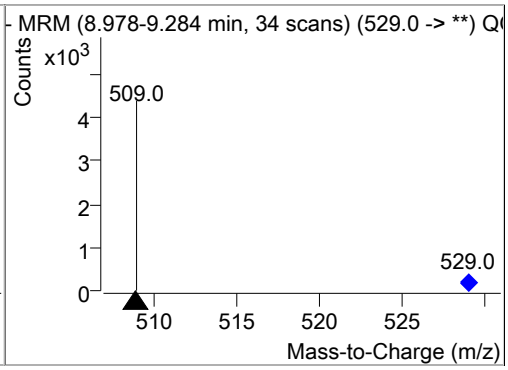




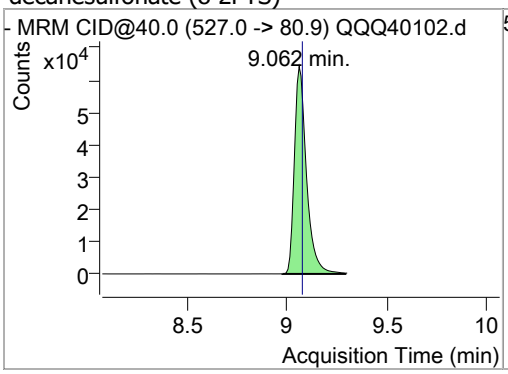
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	13.4313	9.06	0.00	82475				

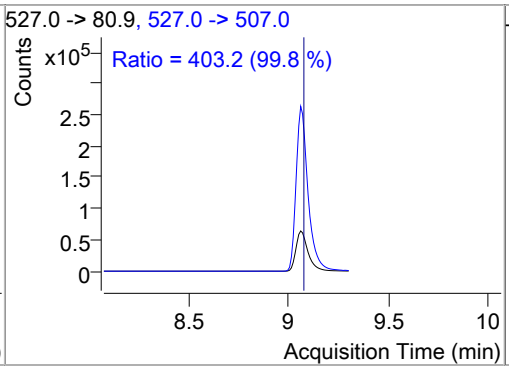


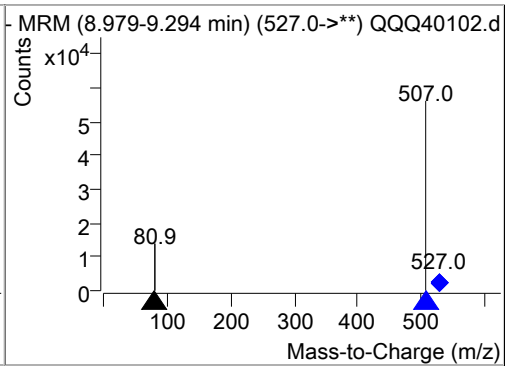




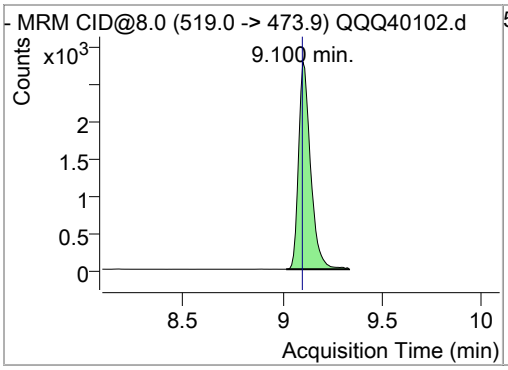
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)		9.06	-0.01	270661	527.0 -> 507.0	403.2	323.1	484.6

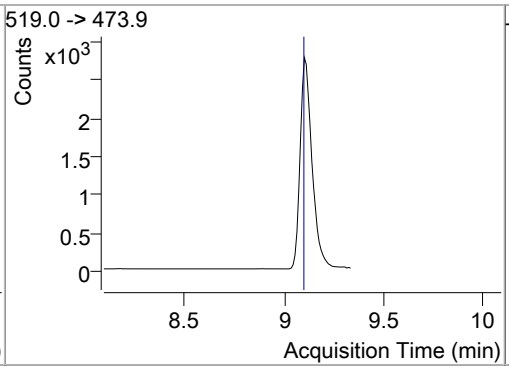


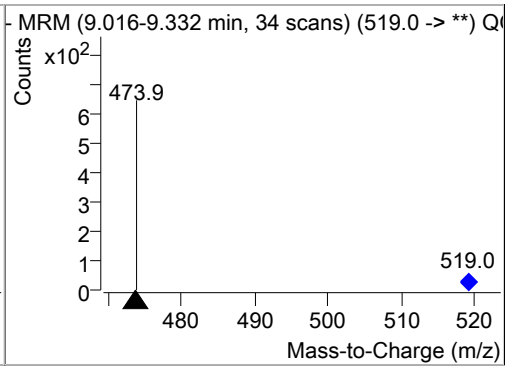




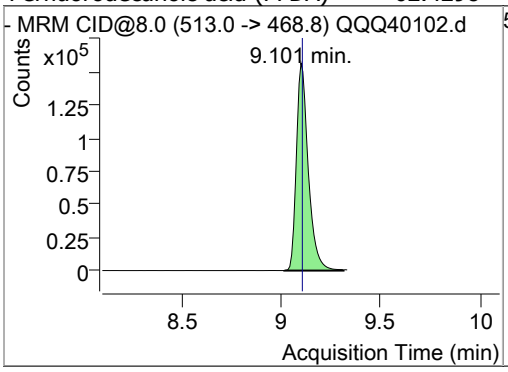
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.0641	9.10	0.00	11511				

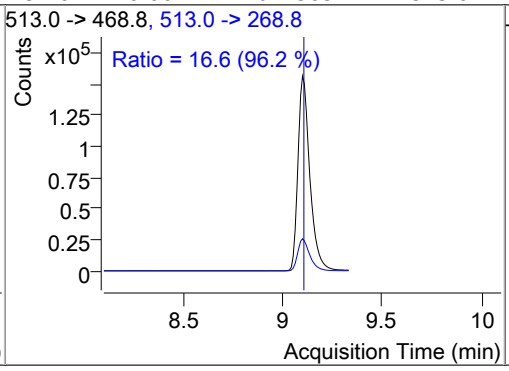


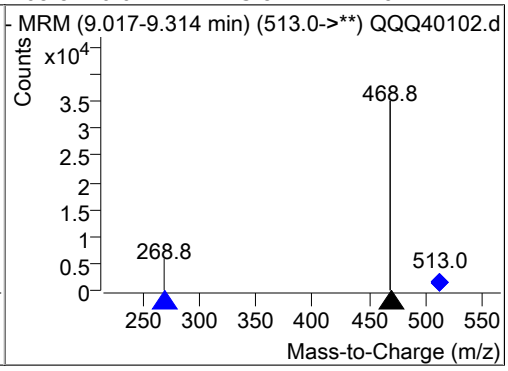




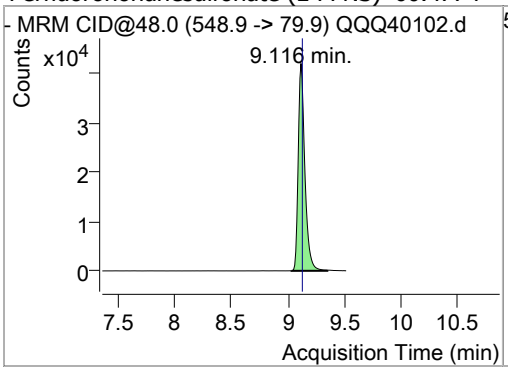
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	62.4298	9.10	0.00	647505	513.0 -> 268.8	16.6	13.8	20.7

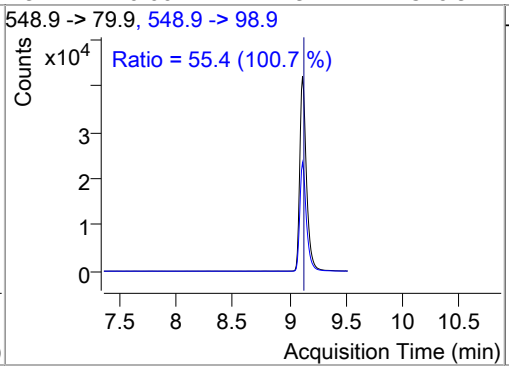


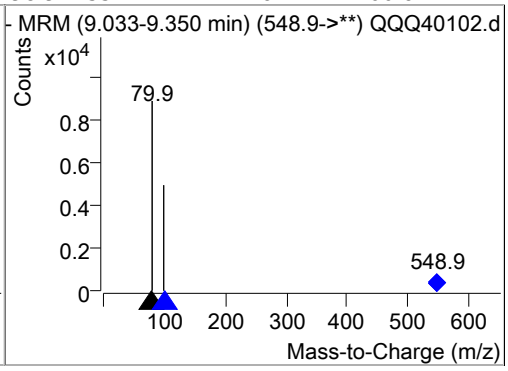




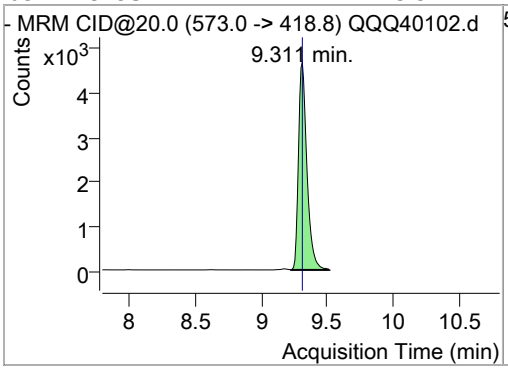
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	60.4774	9.12	0.00	171971	548.9 -> 98.9	55.4	44.0	66.0

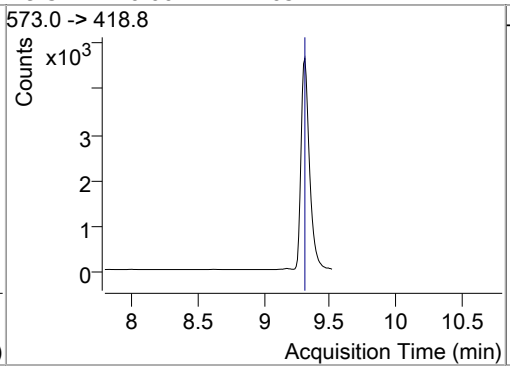


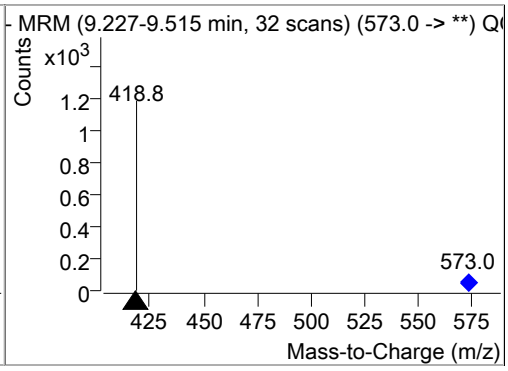




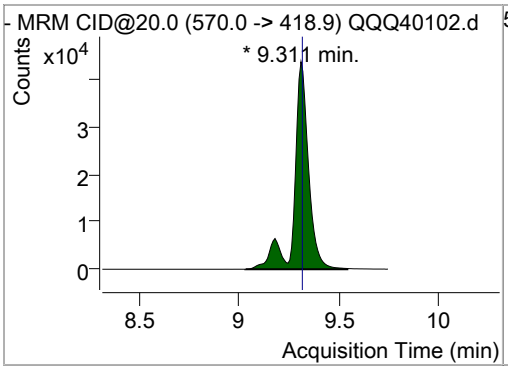
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.5212	9.31	0.00	20522				

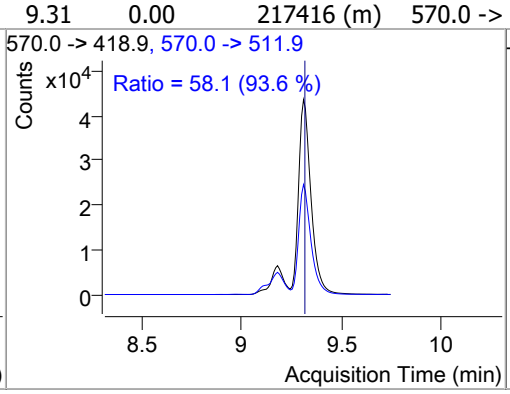


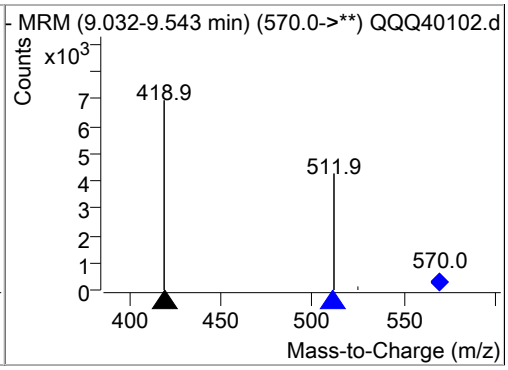




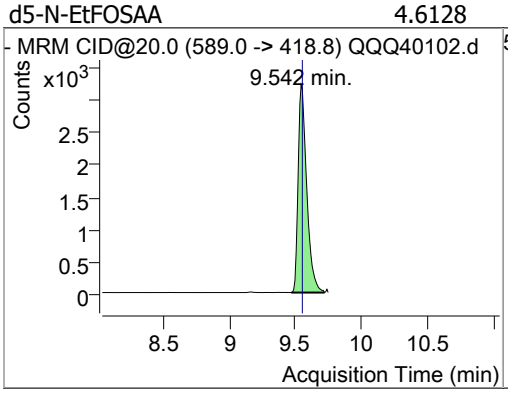
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	62.5164	9.31	0.00	217416 (m)	570.0 -> 511.9	58.1	49.6	74.4

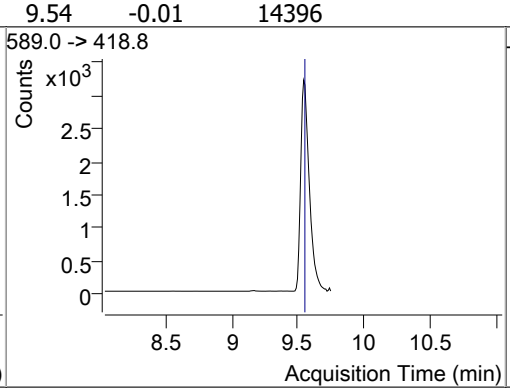


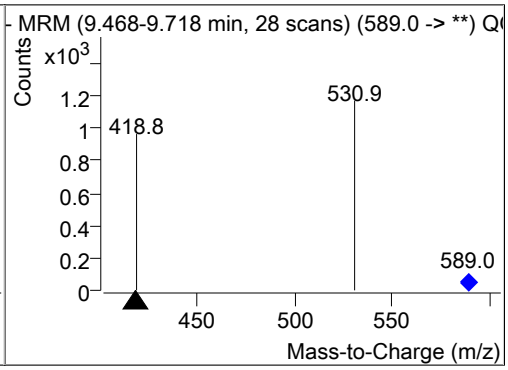




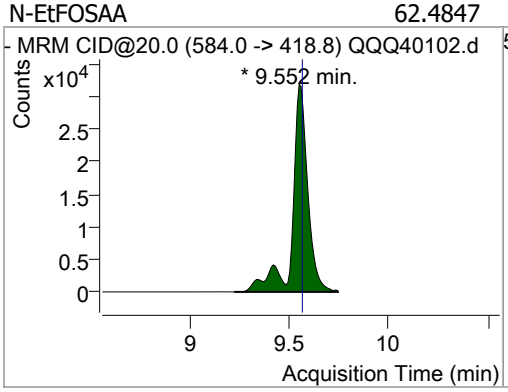
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.6128	9.54	-0.01	14396				

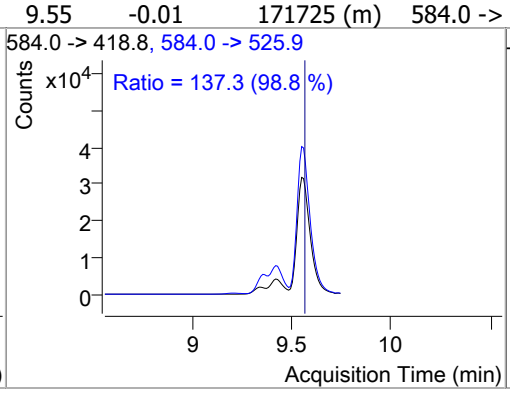


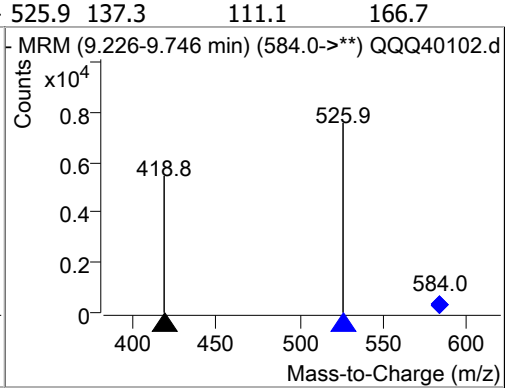




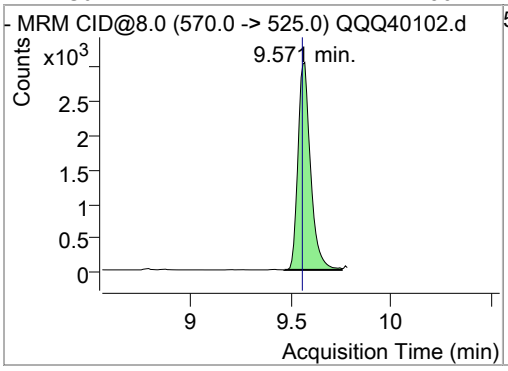
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	62.4847	9.55	-0.01	171725 (m)	584.0 -> 525.9	137.3	111.1	166.7

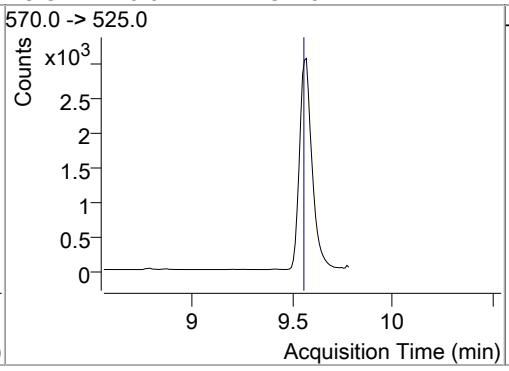


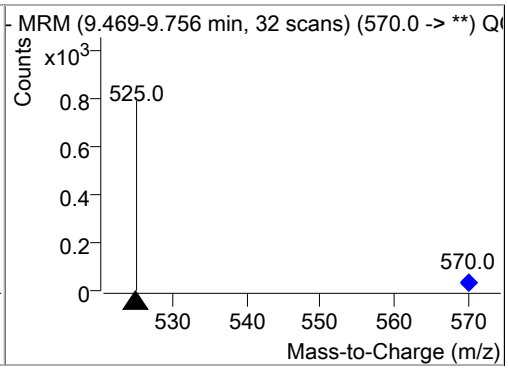




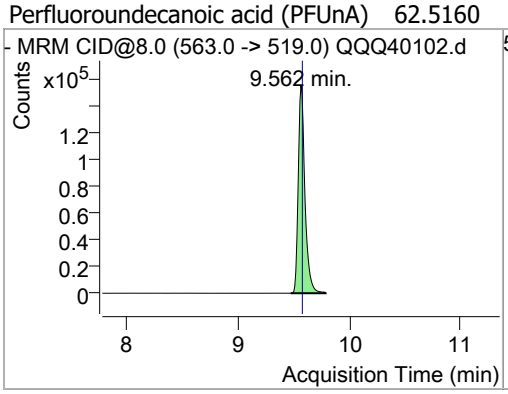
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.1061	9.57	0.01	13248				

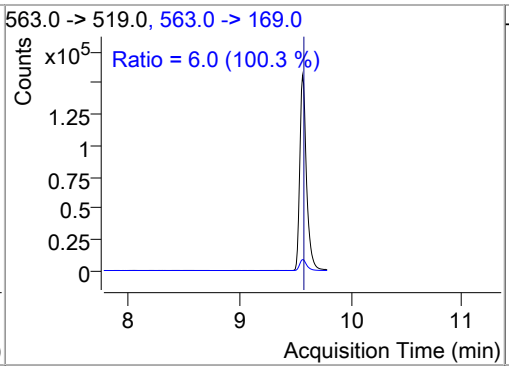


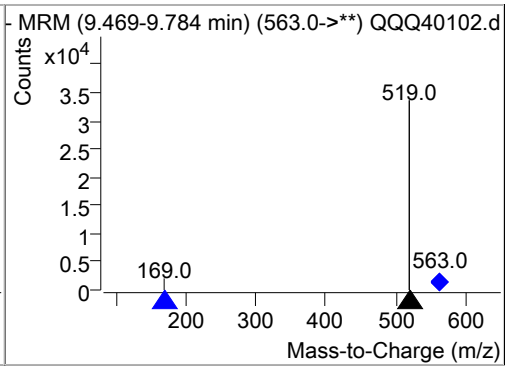




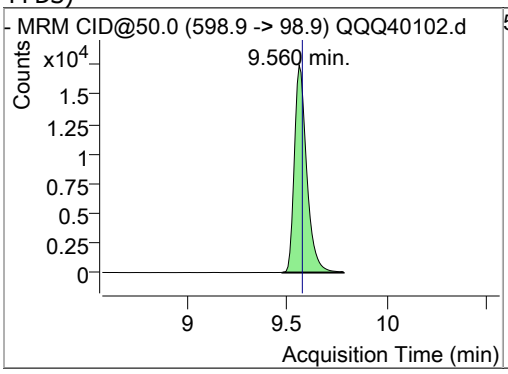
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	62.5160	9.56	0.00	652221	563.0 -> 169.0	6.0	4.8	7.2

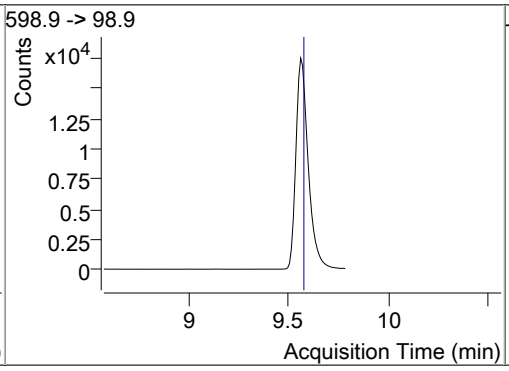


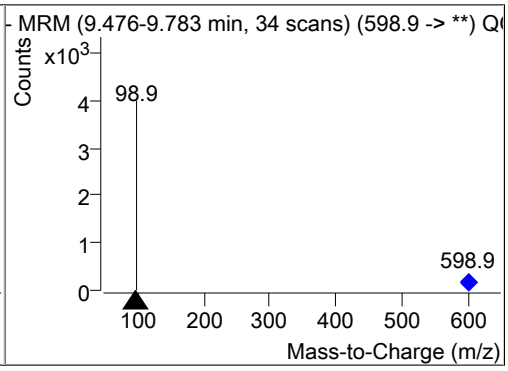




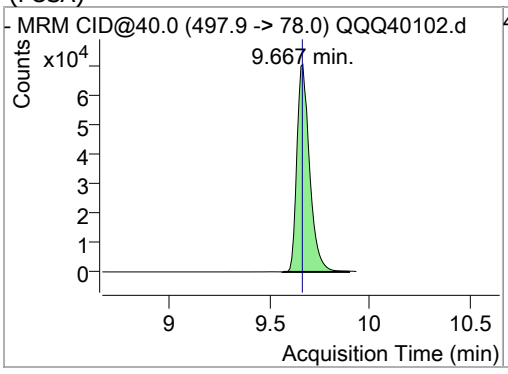
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	60.2625	9.56	-0.01	74756				

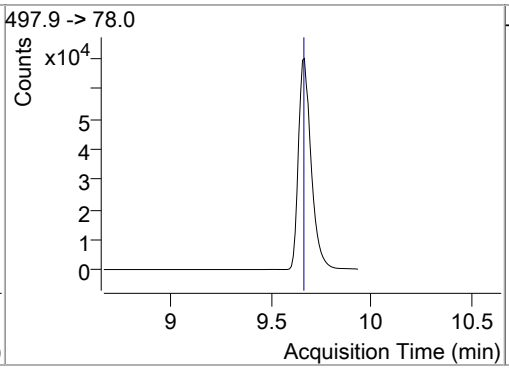


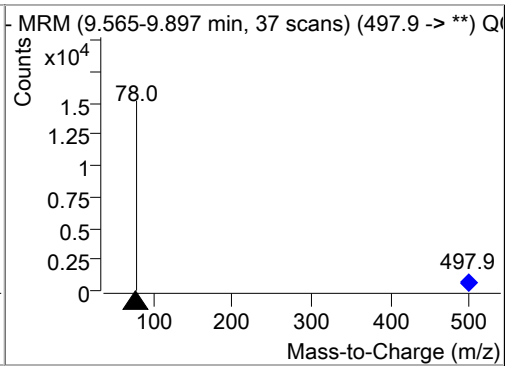




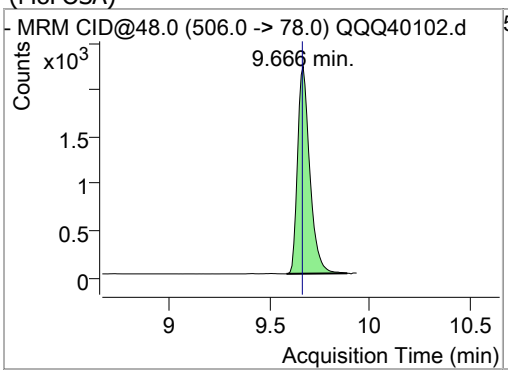
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	62.4542	9.67	0.01	310731				

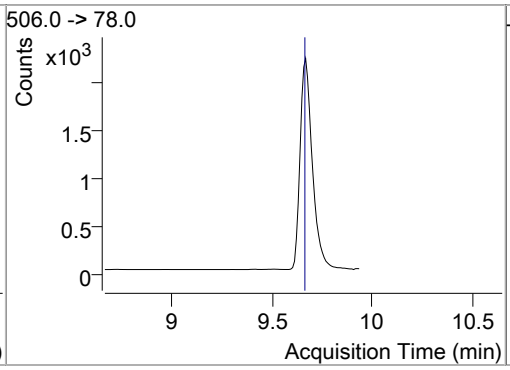


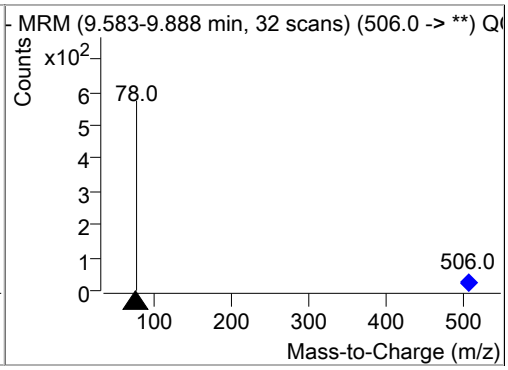




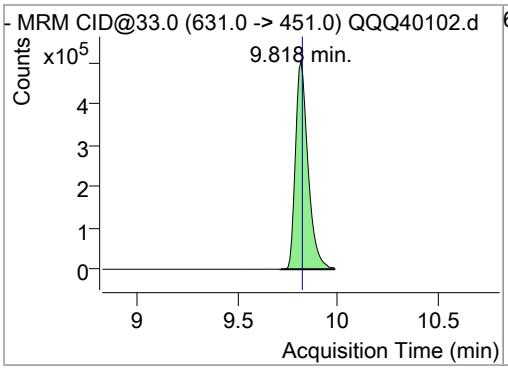
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5105	9.67	0.00	9385				

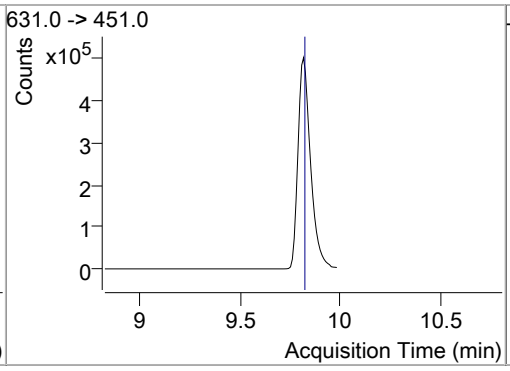


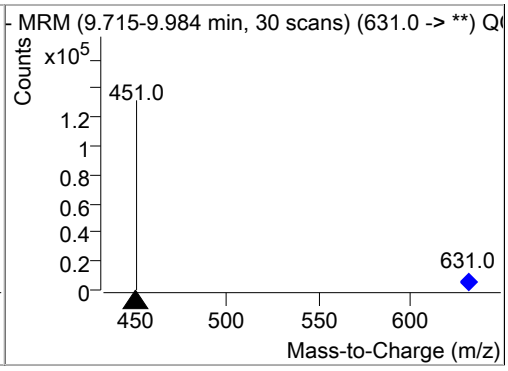




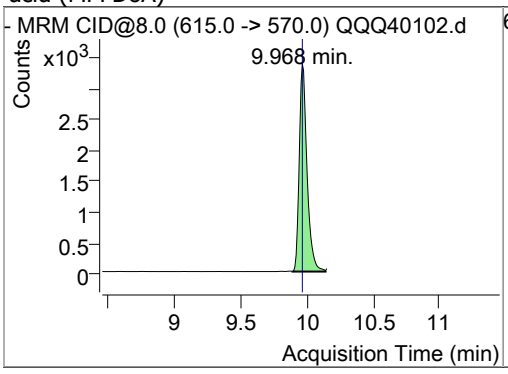
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	236.3676	9.82	0.00	2194996				

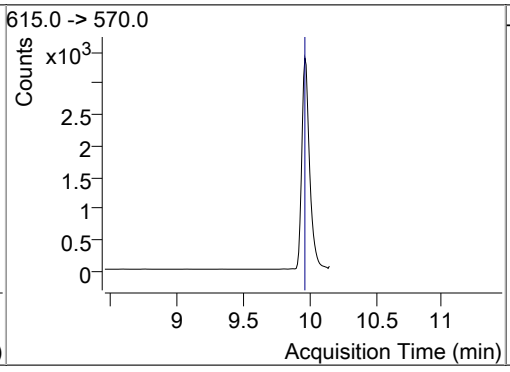


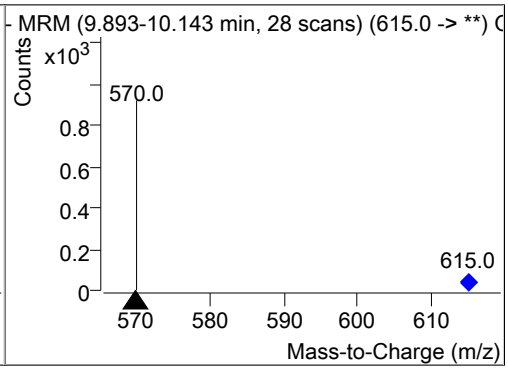




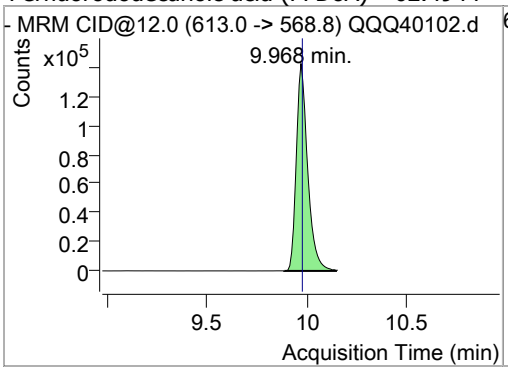
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.3804	9.97	0.00	13669				

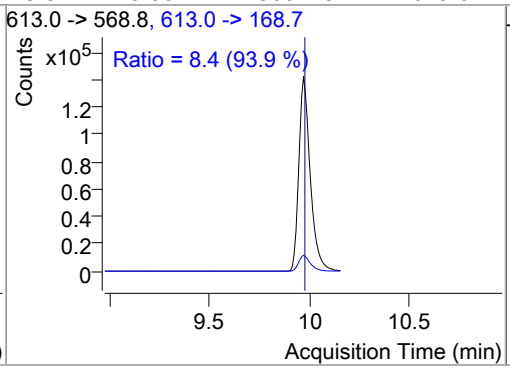


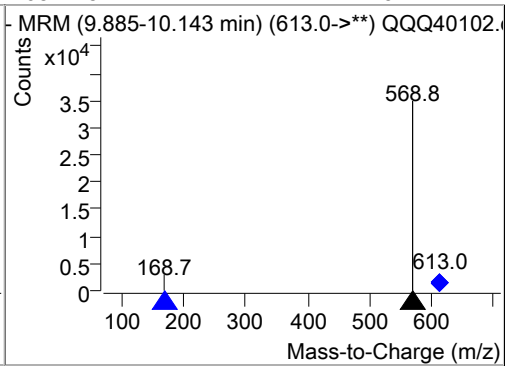




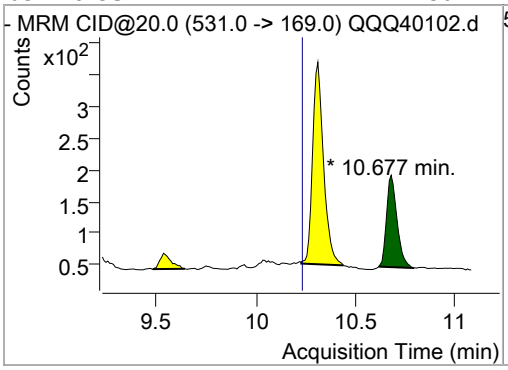
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	62.4944	9.97	0.00	560778	613.0 -> 168.7	8.4	7.2	10.7

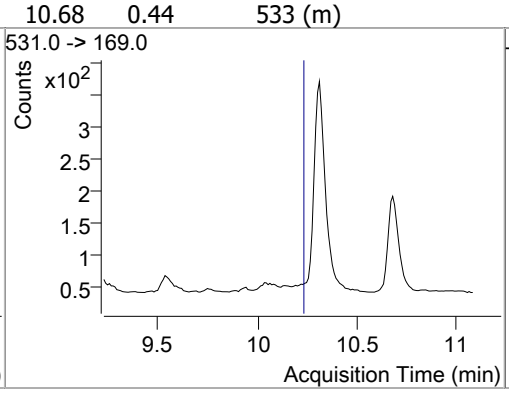


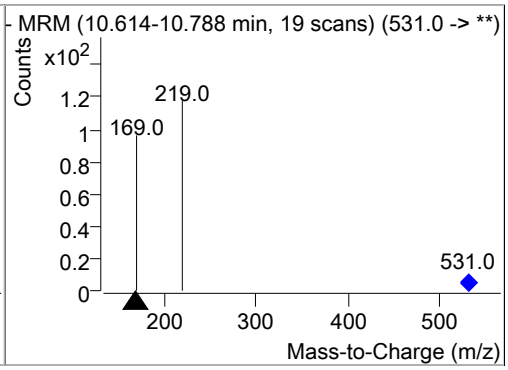




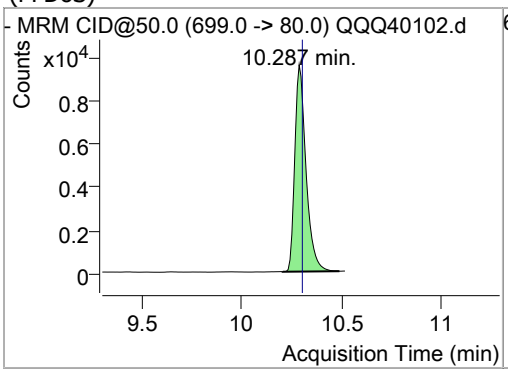
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.7567	10.68	0.44	533 (m)				

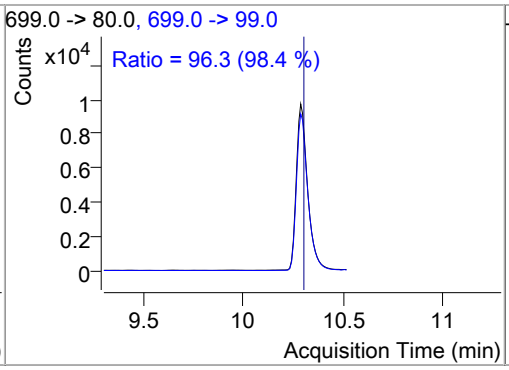


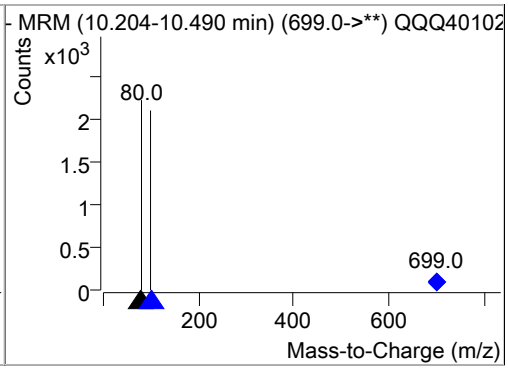




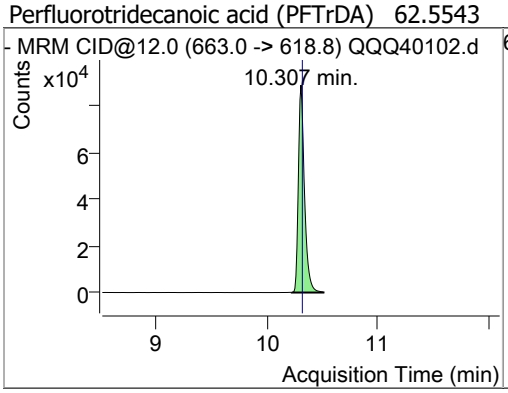
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	60.6491	10.29	-0.01	37830	699.0 -> 99.0	96.3	78.3	117.4

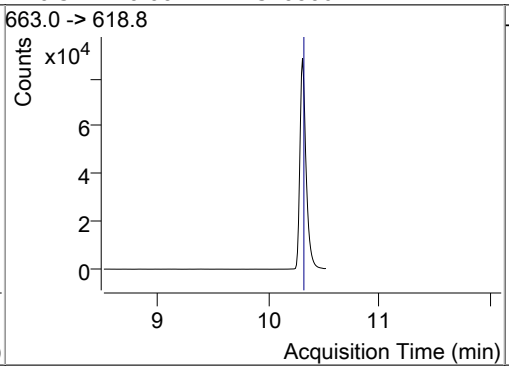


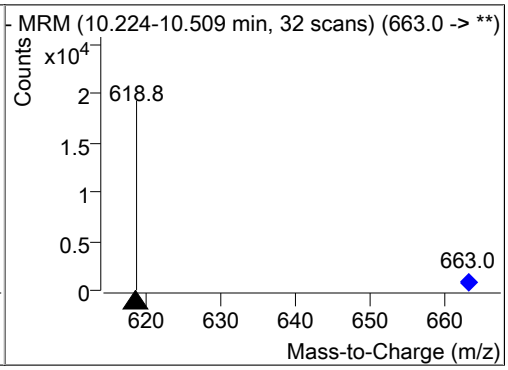




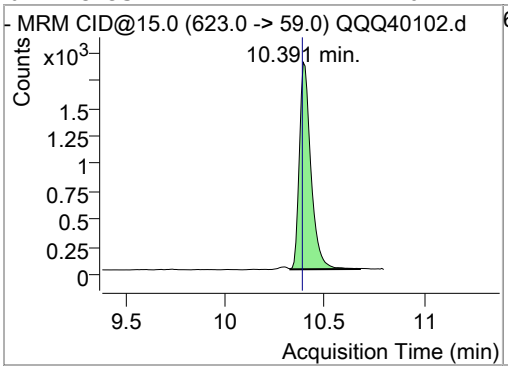
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	62.5543	10.31	0.00	340806				

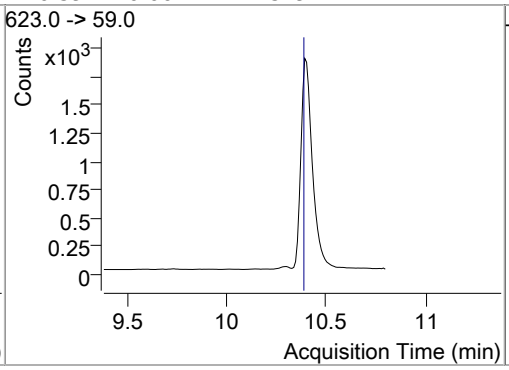


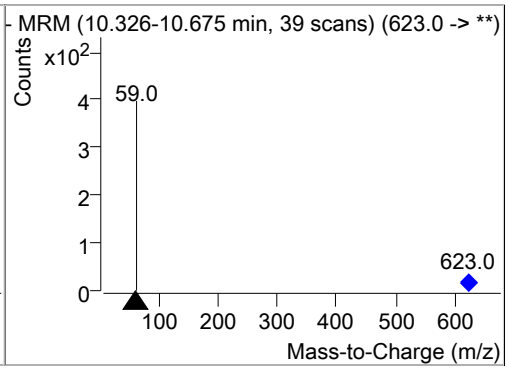




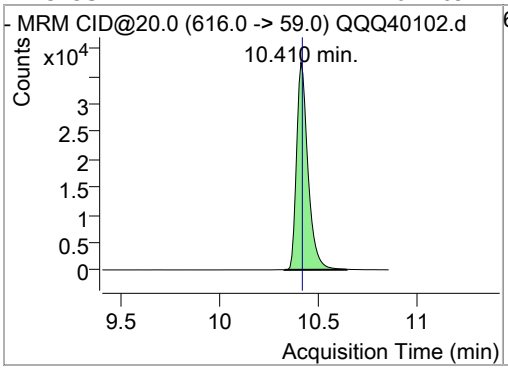
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	26.1747	10.39	0.00	7529				

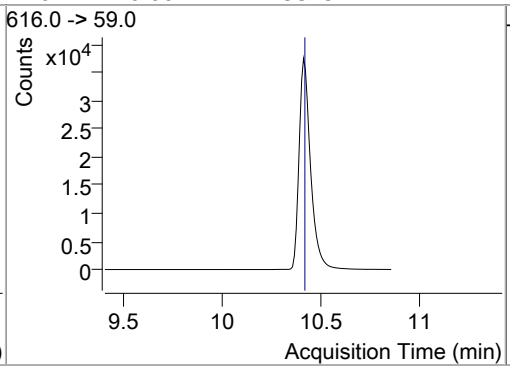


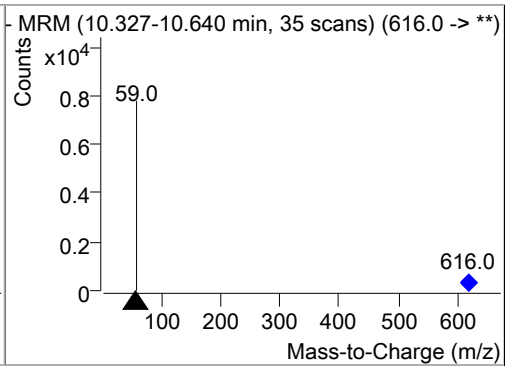




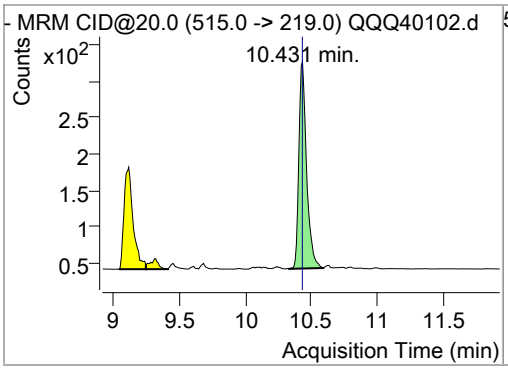
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	624.0917	10.41	0.00	149345				

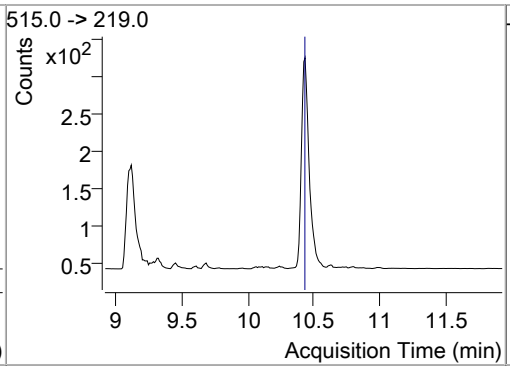


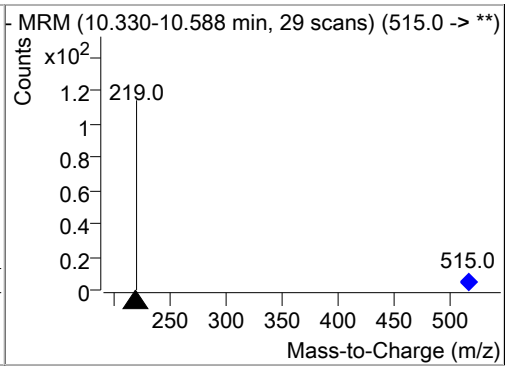




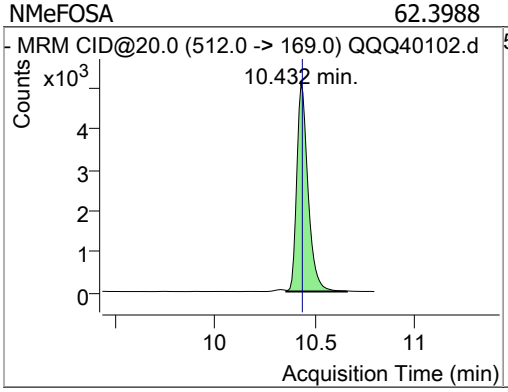
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.9693	10.43	0.00	1149				

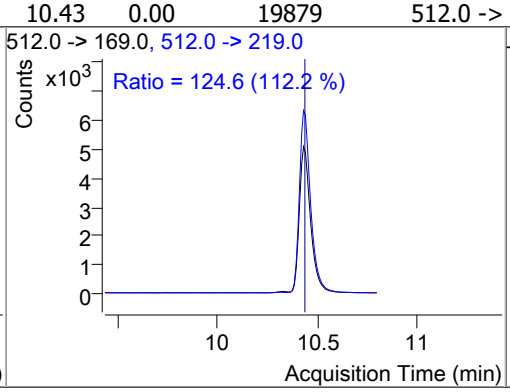


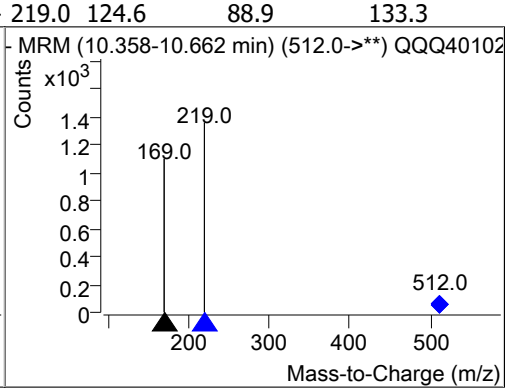




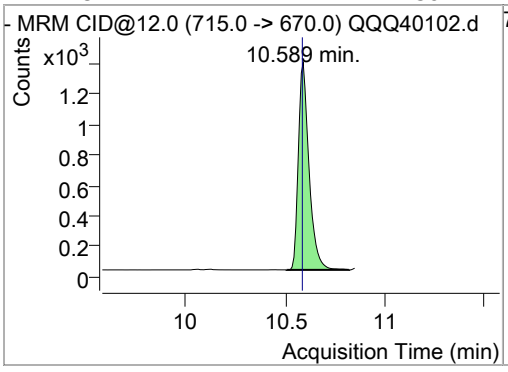
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	62.3988	10.43	0.00	19879	512.0 -> 219.0	124.6	88.9	133.3

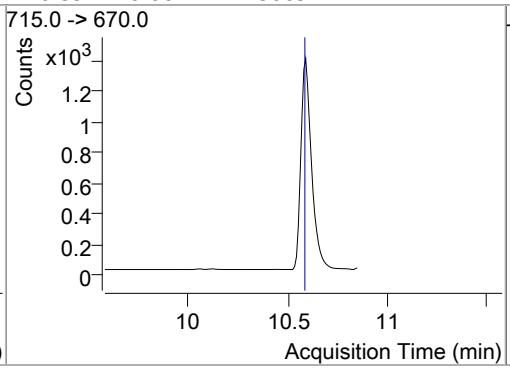


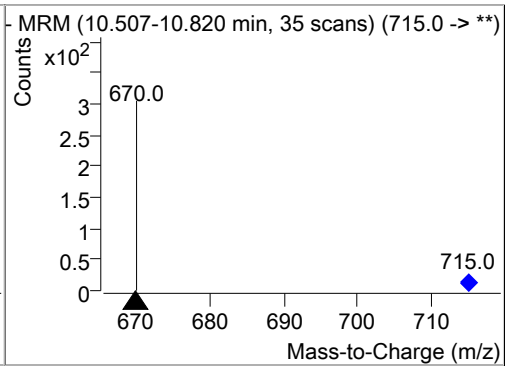




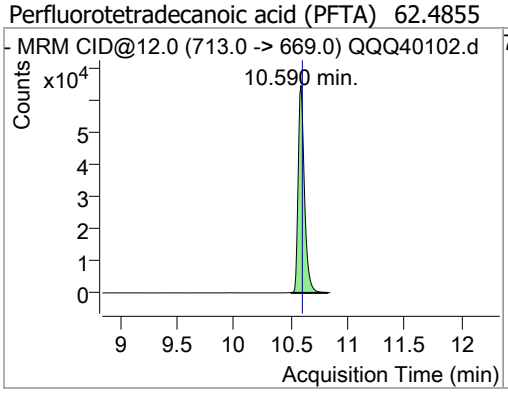
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.3827	10.59	0.00	5089				

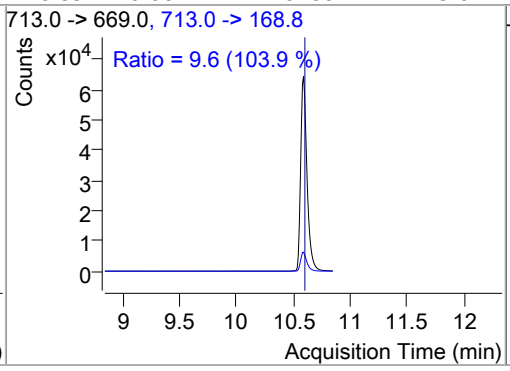


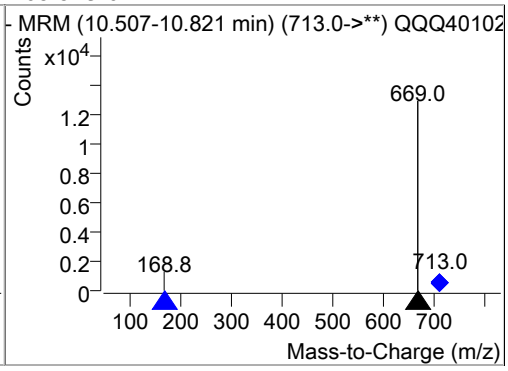




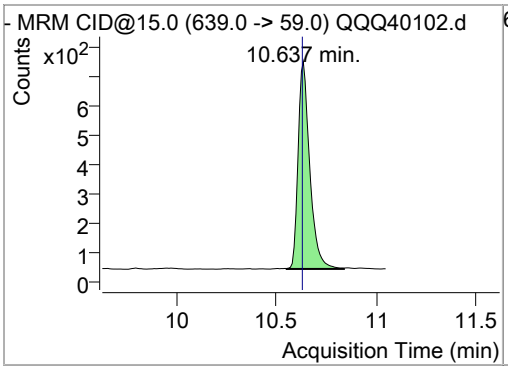
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	62.4855	10.59	0.00	248188	713.0 -> 168.8	9.6	7.4	11.1

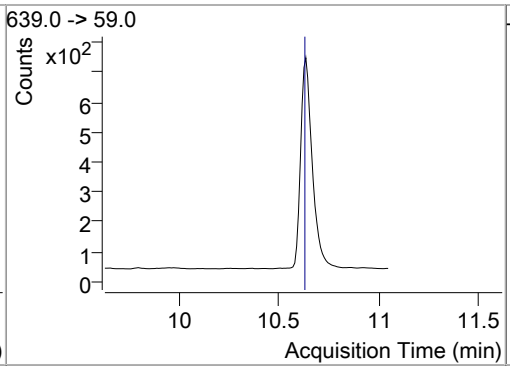


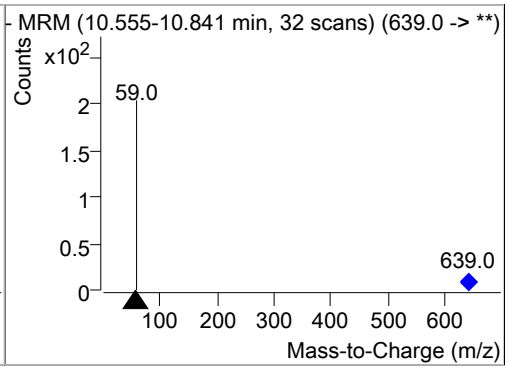




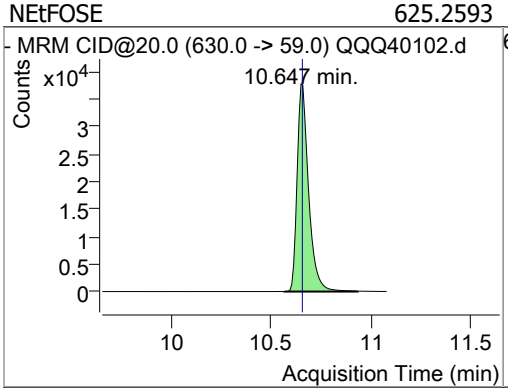
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	24.7663	10.64	0.00	2862				

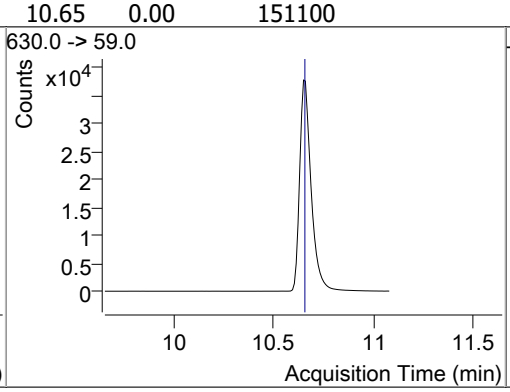


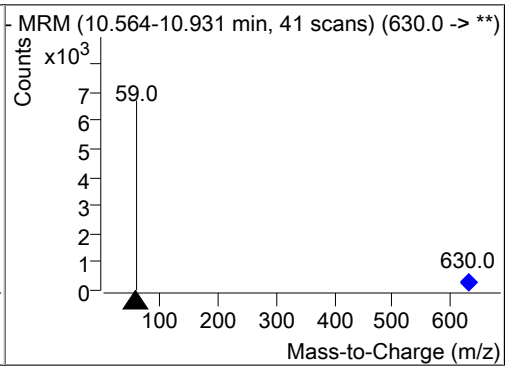




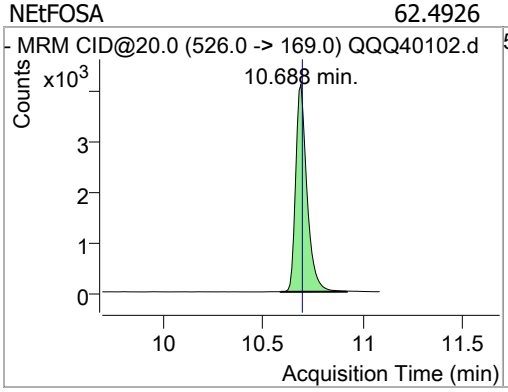
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	625.2593	10.65	0.00	151100				

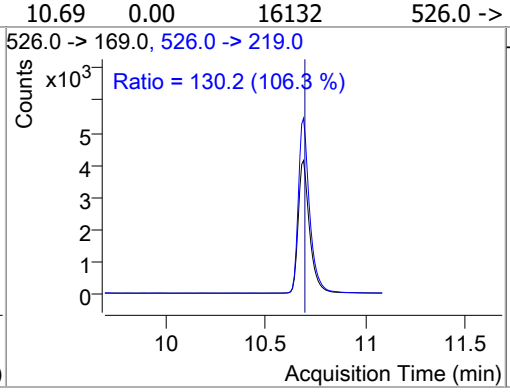


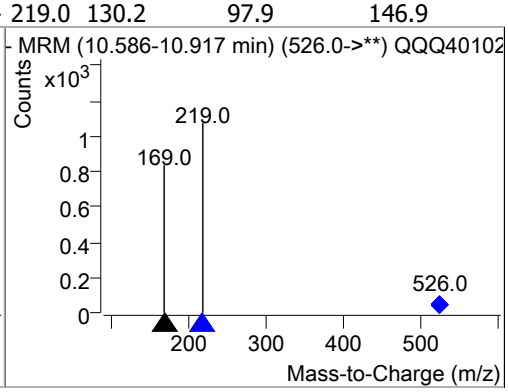




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	62.4926	10.69	0.00	16132	526.0 -> 219.0	130.2	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 5:07:21 AM	**Data File**	QQQ40102.d
Sample Type	Cal	**Sampe Name**	SEQ-CAL8
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.301	2121861	298723	0.523			1.76			2207.26
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	93179	13336	0.487			1.55			2107.79
PFMPA	2.272	611792	70547	0.573			1.59			72640.68
3:3FTCA	4.479	79956	11140	0.535			1.82			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	87348	13179	0.445			1.84			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.774	2222405	332504	0.444			1.96			118277.48
PFMBA	5.514	847885	166090	0.389			1.87			∞
M3PFBS	5.539	12072	2481	0.362			1.82			15624.39
Perfluorobutanesulfonic acid (PFBS)	5.539	307578	63699	0.389			1.86			322.69
PFEESA	6.075	2369090	537779	0.334			1.46			167115.90
NFDHA	6.225	29799	6289	0.352			1.53			24849.89
M2-4-2FTS	6.297	53264	11750	0.381			1.77			1518.89
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	808055	174366	0.381			1.74			∞
M5PFHxA	6.381	47567	11195	0.316			1.47			302.98
Perfluorohexanoic acid (PFHxA)	6.383	1404632	321879	0.334			1.40			∞
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.602	304700	71196	0.336			1.42			∞
M3-HFPO-DA	6.689	25468	5326	0.299			1.82			2270.14
HFPO-DA	6.699	60419	12749	0.333			1.36			443.88
M4PFHpA	7.262	11339	2610	0.288			1.75			20148.64
Perfluoroheptanoic acid (PFHpA)	7.263	735815	172695	0.371			1.84			∞
5-3FTCA	7.328	3053695	646834	0.371			1.49			∞
M3PFHxS	7.373	7992	1895	0.335			2.07			∞
Perfluorohexanesulfonic acid (PFHxS)	7.374	260924	47979	0.540			2.02			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.411	1438028	311677	0.345			1.71			49763.44
M2-6-2FTS	7.921	47894	10573	0.297			1.92			∞
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	805767	173265	0.316			1.83			64205.18
Perfluorooctanoic acid (PFOA)	7.988	859540	199641	0.297			1.64			∞
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	24944	5897	0.288			1.63			33.99
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	260648	61415	0.289			1.74			∞
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.590	4458	1101	0.232			1.50			∞
Perfluorononanoic acid (PFNA)	8.581	720317	172125	0.325			1.95			9075.02
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.625	5020	1239	0.269			1.37			1029.42
Perfluorooctanesulfonic acid (PFOS)	8.617	250196	45034	0.511			1.79			178.11
7-3FTCA	8.730	4673875	941222	0.325			1.67			∞
9-Cl-PF3ONS	8.940	3569017	812759	0.317			1.63			∞
M2-8-2FTS	9.062	82475	19744	0.306			1.76			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.062	270661	64246	0.315			1.78			19422.90
M6PFDA	9.100	11511	2751	0.315			1.85			11254.63
Perfluorodecanoic acid (PFDA)	9.101	647505	156470	0.297			1.77			9474.31
Perfluorononanesulfonate (L-PFNS)	9.116	171971	42157	0.317			1.67			7350.75
d3-N-MeFOSAA	9.311	20522	4637	0.288			1.56			∞
N-MeFOSAA	9.311	217416	43609	0.511			1.71			∞
d5-N-EtFOSAA	9.542	14396	3193	0.250			2.09			27.61
N-EtFOSAA	9.552	171725	31766	0.520			1.89			∞
M7PFUdA	9.571	13248	3024	0.287			1.21			∞
Perfluoroundecanoic acid (PFUnA)	9.562	652221	156039	0.314			1.66			7358.00
Perfluoro-1-decanesulfonate (L-PFDS)	9.560	74756	17432	0.306			1.76			3216.14
Perfluoro-1-octanesulfonamide (FOSA)	9.667	310731	70209	0.333			1.50			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	9385	2209	0.304			1.55			∞
11-Cl-PF3OUdS	9.818	2194996	501345	0.269			1.58			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.968	13669	3357	0.250			1.72			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.968	560778	142371	0.259			1.63			19745.66
d5-NEtFOSA	10.677	533	146	0.173			1.47			21.79
Perfluorododecanesulfonic acid (PFDoS)	10.287	37830	9671	0.285			1.79			2795.79
Perfluorotridecanoic acid (PFTrDA)	10.307	340806	88531	0.285			1.63			7054.39
d7-NMeFOSE	10.391	7529	1868	0.349			2.04			∞
NMeFOSE	10.410	149345	37422	0.312			1.77			∞
d3-NMeFOSA	10.431	1149	284	0.258			1.60			186.62
NMeFOSA	10.432	19879	5051	0.304			1.78			859.45
M2PFTeDA	10.589	5089	1372	0.313			1.59			∞
Perfluorotetradecanoic acid (PFTA)	10.590	248188	64323	0.313			1.55			12340.45
d9-NEtFOSE	10.637	2862	706	0.286			1.59			363.76
NEtFOSE	10.647	151100	37757	0.367			1.99			1083.64
NEtFOSA	10.688	16132	4099	0.330			1.51			6849.62

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Laboratory ID: S4F1245-SCV1
Sequence: S4F1245
Standard ID: S23I340

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DIFF	QC LIMIT
Perfluorobutanesulfonic acid (PFBS)	10.0	11.8	17.9	30.00
Perfluorohexanoic acid (PFHxA)	10.0	11.1	11.4	30.00
Perfluoroheptanoic acid (PFHpA)	10.0	10.3	3.1	30.00
Perfluorohexanesulfonic acid (PFHxS)	10.0	11.7	17.1	30.00
Perfluorooctanoic acid (PFOA)	10.0	10.3	2.6	30.00
Perfluorooctanesulfonic acid (PFOS)	10.0	10.5	4.5	30.00
Perfluorononanoic acid (PFNA)	10.0	9.98	-0.2	30.00
Perfluorodecanoic acid (PFDA)	10.0	10.7	7.3	30.00
Perfluoroundecanoic acid (PFUnA)	10.0	10.8	8.4	30.00
Perfluorododecanoic acid (PFDoA)	10.0	9.35	-6.5	30.00
Perfluorotridecanoic acid (PFTrDA)	10.0	10.8	8.0	30.00
Perfluorotetradecanoic acid (PFTA)	10.0	11.5	15.2	30.00
N-MeFOSAA	10.0	11.5	15.0	30.00
N-EtFOSAA	10.0	11.1	10.5	30.00
Perfluoropentanoic acid (PFPeA)	10.0	11.8	18.5	30.00
Perfluoro-1-octanesulfonamide (FOSA)	10.0	11.3	12.6	30.00
Perfluoro-1-heptanesulfonic acid (PFHpS)	10.0	10.3	2.6	30.00
Perfluoro-1-decanesulfonic acid (PFDS)	10.0	10.3	3.0	30.00
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	10.0	10.8	8.4	30.00
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	10.0	10.7	6.9	30.00
Perfluoro-n-butanoic acid (PFBA)	10.0	11.4	14.1	30.00
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	10.0	9.92	-0.8	30.00
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	10.0	10.6	6.3	30.00
Perfluoro-4-oxapentanoic acid (PFMPA)	10.0	11.0	10.4	30.00
Perfluoro-5-oxahexanoic acid (PFMBA)	10.0	10.5	5.0	30.00
Perfluoro-1-pentanesulfonate (PFPeS)	10.0	11.9	19.4	30.00
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	10.0	11.2	12.5	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Laboratory ID: S4F1245-SCV1
Sequence: S4F1245
Standard ID: S23I340

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DIFF	QC LIMIT
HFPO-DA (Gen-X)	10.0	10.7	6.7	30.00
11CL-PF3OUdS	10.0	10.3	2.6	30.00
9CL-PF3ONS	10.0	9.83	-1.7	30.00
ADONA	10.0	9.76	-2.4	30.00
Perfluorododecanesulfonic acid (PFDoS)	10.0	10.2	2.0	30.00
Perfluoro-1-nonanesulfonic acid (PFNS)	10.0	11.7	17.1	30.00
3-Perfluoropropyl propanoic acid (FPrPA)	10.0	10.5	5.4	30.00
3-Perfluoropentyl propanoic acid (FPePA)	10.0	12.3	22.8	30.00
3-Perfluoroheptyl propanoic acid (FHpPA)	10.0	12.9	29.0	30.00
N-MeFOSE	10.0	11.0	10.4	30.00
N-MeFOSA	10.0	9.85	-1.5	30.00
N-EtFOSE	10.0	10.3	2.9	30.00
N-EtFOSA	10.0	9.61	-3.9	30.00
M3PFBS	2.33	2.45	5.3	
M5PFHxA	2.50	2.50	0.08	
M4PFHpA	2.50	2.48	-1.0	
M3PFHxS	2.37	2.46	3.8	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.50	2.43	-2.9	
M6PFDA	1.25	1.23	-1.3	
M7PFUdA	1.25	1.28	2.4	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.25	1.25	-0.05	
M2PFTeDA	1.25	1.18	-5.6	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0	9.79	-2.1	
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.40	2.41	0.4	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	5.00	5.11	2.1	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.50	2.36	-5.7	
d3-N-MeFOSAA	5.00	4.81	-3.8	

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 1633 Draft 3

Laboratory: York Analytical Laboratories, Inc. - Stratford
SDG: 24F1801
Client: Adirondack Environmental Services, Inc.
Project: 240625028
Calibration: SF40019
Laboratory ID: S4F1245-SCV1
Sequence: S4F1245
Standard ID: S23I340

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DIFF	QC LIMIT
d5-N-EtFOSAA	5.00	4.87	-2.6	
M2-6:2 FTS	4.76	4.69	-1.4	
M2-8:2 FTS	4.80	4.60	-4.1	
M9PFNA	1.25	1.40	11.8	
M2-4:2 FTS	4.69	4.83	2.9	
d-N-MeFOSA	2.50	2.57	2.6	
d-N-EtFOSA	2.50	2.76	10.6	
M3HFPO-DA	10.0	11.0	9.8	
d9-N-EtFOSE	25.0	28.2	12.8	
d7-N-MeFOSE	25.0	25.4	1.7	

* Values outside of QC limits

Data File	QQQ40103.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	6/12/2024 5:23:25 AM
Sample Name	SEQ-SCV1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File		Comment	10ng/mL
Tune File		Tune Date	
Batch Name	2024-06-11B-1633-ICAL.batch.bin	Last Calib Update	6/12/2024 6:47:09 PM
Ref Library			

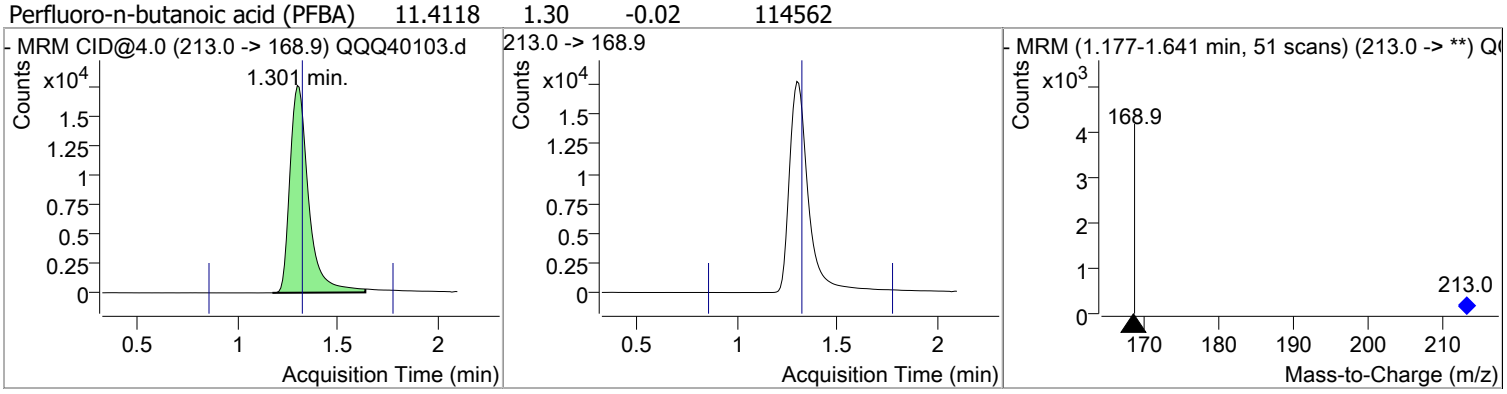
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.306	217.0 -> 172.0	111554	10.0000	ng/ml	-0.018
M3PFBA	1.308	216.0 -> 172.0	22508	5.0000	ng/ml	-0.009
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.783	268.0 -> 223.0	100696	5.0000	ng/ml	0.000
MPFHxA	6.373	315.0 -> 269.8	32913	2.5000	ng/ml	-0.009
MPFHxS	7.382	403.0 -> 103.0	3738	2.3700	ng/ml	0.000
M3PFBS-EIS	5.539	302.0 -> 79.9	16307	2.3300	ng/ml	0.000
M5PFHxA-EIS	6.372	318.0 -> 273.0	52915	2.5000	ng/ml	-0.009
M2-4-2FTS-EIS	6.297	329.0 -> 309.0	25993	4.6900	ng/ml	-0.009
M3PFHxS-EIS	7.373	402.0 -> 80.0	11314	2.3700	ng/ml	-0.009
M3-HFPO-DA-EIS	6.689	287.0 -> 169.0	39470	10.0000	ng/ml	-0.009
M4PFHpA-EIS	7.262	367.0 -> 322.0	13592	2.5000	ng/ml	-0.009
M2-6-2FTS-EIS	7.921	429.0 -> 409.0	22569	4.7550	ng/ml	0.000
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.987	421.0 -> 376.0	28889	2.5000	ng/ml	-0.009
MPFOA	7.987	417.0 -> 372.0	41378	2.5000	ng/ml	0.000
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.616	507.0 -> 98.9	4707	2.3950	ng/ml	-0.009
MPFNA	8.590	468.0 -> 423.0	18691	1.2500	ng/ml	0.000
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.581	472.0 -> 223.0	5663	1.2500	ng/ml	-0.009
MPFOS	8.617	503.0 -> 80.0	9795	2.3950	ng/ml	-0.009
M2-8-2FTS-EIS	9.052	529.0 -> 509.0	34553	4.8000	ng/ml	-0.010
MPFDA	9.091	515.0 -> 469.8	10057	1.2500	ng/ml	-0.019
M6PFDA-EIS	9.090	519.0 -> 473.9	14935	1.2500	ng/ml	-0.009
d3-N-MeFOSAA-EIS	9.292	573.0 -> 418.8	20369	5.0000	ng/ml	-0.019
d5-N-EtFOSAA-EIS	9.523	589.0 -> 418.8	17255	5.0000	ng/ml	-0.028
M7PFUdA-EIS	9.534	570.0 -> 525.0	17152	1.2500	ng/ml	-0.028
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.639	506.0 -> 78.0	10042	2.5000	ng/ml	-0.028
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.930	615.0 -> 570.0	13842	1.2500	ng/ml	-0.038
M2PFTeDA-EIS	10.534	715.0 -> 670.0	4860	1.2500	ng/ml	-0.055
d7-NMeFOSE-EIS	10.354	623.0 -> 59.0	8336	25.0000	ng/ml	-0.037
d3-NMeFOSA-EIS	10.385	515.0 -> 219.0	1132	2.5000	ng/ml	-0.046
d9-NEtFOSE-EIS	10.591	639.0 -> 59.0	3708	25.0000	ng/ml	-0.046
d5-NEtFOSA-EIS	10.622	531.0 -> 169.0	609	2.5000	ng/ml	-0.046
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	217.0 -> 172.0	111554	9.7876	ng/ml	-0.018
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	268.0 -> 223.0	100696	5.1058	ng/ml	0.000
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.539	302.0 -> 79.9	16307	2.4544	ng/ml	0.000
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.297	329.0 -> 309.0	25993	4.8274	ng/ml	-0.009

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.372	318.0 -> 273.0	52915	2.5021	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.689	287.0 -> 169.0	39470	10.9807	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.262	367.0 -> 322.0	13592	2.4752	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.373	402.0 -> 80.0	11260	2.4598	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.921	429.0 -> 409.0	22568	4.6931	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	421.0 -> 376.0	28886	2.4272	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.581	472.0 -> 223.0	5699	1.3981	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.616	507.0 -> 98.9	4691	2.4096	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.052	529.0 -> 509.0	34552	4.6043	ng/ml		-0.010
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.090	519.0 -> 473.9	14935	1.2341	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.292	573.0 -> 418.8	20369	4.8077	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.523	589.0 -> 418.8	17323	4.8698	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.534	570.0 -> 525.0	17152	1.2800	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.639	506.0 -> 78.0	10042	2.3566	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.930	615.0 -> 570.0	13842	1.2494	ng/ml		-0.038
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.622	531.0 -> 169.0	609	2.7647	ng/ml	m	0.386
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.354	623.0 -> 59.0	8336	25.4244	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.385	515.0 -> 219.0	1132	2.5655	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.534	715.0 -> 670.0	4860	1.1802	ng/ml		-0.055
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.591	639.0 -> 59.0	3716	28.2083	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.301	213.0 -> 168.9	114562	11.4118	ng/ml		100
PFMPA	2.281	229.0 -> 85.0	57733	11.0392	ng/ml		100
3:3FTCA	4.498	241.0 -> 177.0	2946	10.5424	ng/ml		93
Perfluoro-n-pentanoic acid (PFPeA)	4.784	263.0 -> 219.0	236222	11.8473	ng/ml		100
PFMBA	5.514	279.0 -> 85.0	88095	10.5008	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.539	298.9 -> 79.9	85829	11.7915	ng/ml		100
PFEESA	6.066	315.0 -> 135.0	273377	9.9221	ng/ml		100
NFDHA	6.216	295.0 -> 201.1	3637	10.6269	ng/ml		90
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	327.0 -> 307.0	66667	11.2464	ng/ml		99

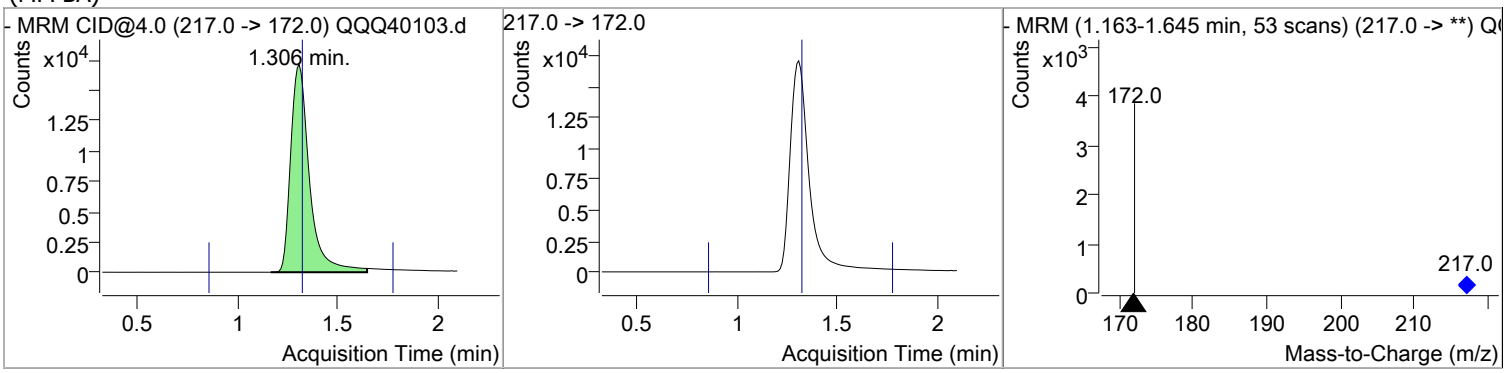
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.373	313.0 -> 268.9	285421	11.1402	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.593	348.9 -> 79.9	72273	11.9420	ng/ml		98
HFPO-DA	6.689	285.0 -> 169.1	4005	10.6741	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.263	363.0 -> 318.8	140711	10.3112	ng/ml		100
5-3FTCA	7.328	341.0 -> 217.0	35073	12.2768	ng/ml		95
Perfluorohexanesulfonic acid (PFHxS)	7.383	398.9 -> 79.9	68253	11.7074	ng/ml	m	99
ADONA	7.411	377.0 -> 85.0	90661	9.7607	ng/ml		100
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	427.0 -> 407.0	60148	10.8445	ng/ml		99
Perfluorooctanoic acid (PFOA)	7.988	413.0 -> 368.8	148729	10.2639	ng/ml		94
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	448.9 -> 80.0	51391	10.2599	ng/ml		100
Perfluorononanoic acid (PFNA)	8.591	463.0 -> 418.8	156004	9.9819	ng/ml		99
Perfluorooctanesulfonic acid (PFOS)	8.617	498.9 -> 79.9	47147	10.4522	ng/ml	m	97
7-3FTCA	8.730	441.0 -> 337.0	62567	12.9014	ng/ml		98
9-Cl-PF3ONS	8.930	531.0 -> 351.0	221397	9.8326	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	527.0 -> 80.9	17714	10.6855	ng/ml		94
Perfluorodecanoic acid (PFDA)	9.091	513.0 -> 468.8	142477	10.7350	ng/ml		99
Perfluorononanesulfonate (L-PFNS)	9.107	548.9 -> 79.9	34956	11.7117	ng/ml		99
N-MeFOSAA	9.292	570.0 -> 418.9	39888	11.4951	ng/ml	m	97
N-EtFOSAA	9.533	584.0 -> 418.8	35344	11.0511	ng/ml	m	99
Perfluoroundecanoic acid (PFUnA)	9.535	563.0 -> 519.0	127803	10.8417	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.532	598.9 -> 98.9	14427	10.2997	ng/ml		100
Perfluoro-1-octanesulfonamide (FOSA)	9.639	497.9 -> 78.0	62201	11.2612	ng/ml	m	100
11-Cl-PF3OUdS	9.780	631.0 -> 451.0	138424	10.2573	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.931	613.0 -> 568.8	86988	9.3494	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.241	699.0 -> 80.0	7417	10.1950	ng/ml		95
Perfluorotridecanoic acid (PFTrDA)	10.260	663.0 -> 618.8	59645	10.7989	ng/ml		100
NMeFOSE	10.364	616.0 -> 59.0	3335	11.0401	ng/ml		100
NMeFOSA	10.386	512.0 -> 169.0	3625	9.8488	ng/ml		82
Perfluorotetradecanoic acid (PFTA)	10.535	713.0 -> 669.0	45458	11.5156	ng/ml		98
NEtFOSE	10.610	630.0 -> 59.0	2979	10.2928	ng/ml		100
NEtFOSA	10.632	526.0 -> 169.0	3021	9.6103	ng/ml		96

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

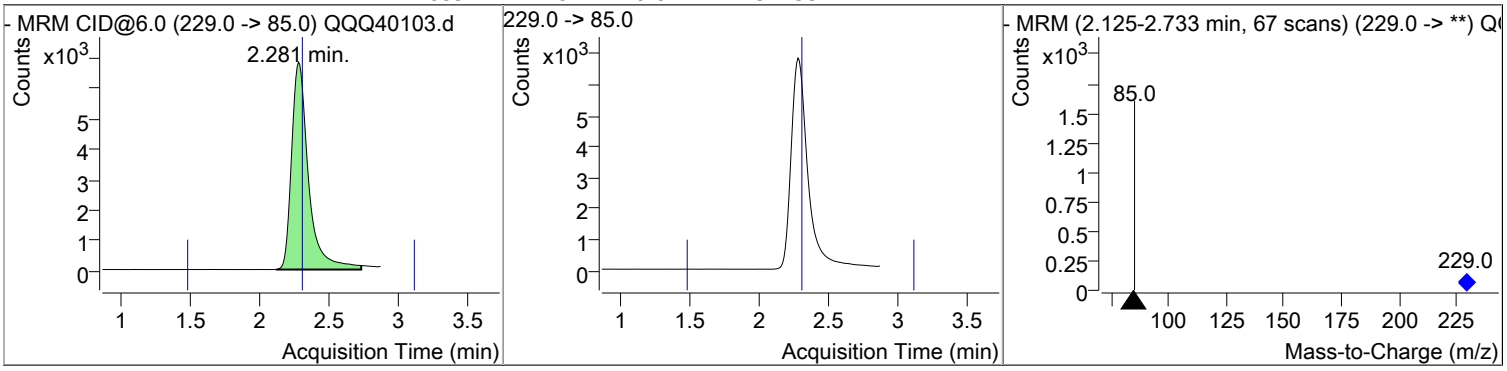
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	11.4118	1.30	-0.02	114562				



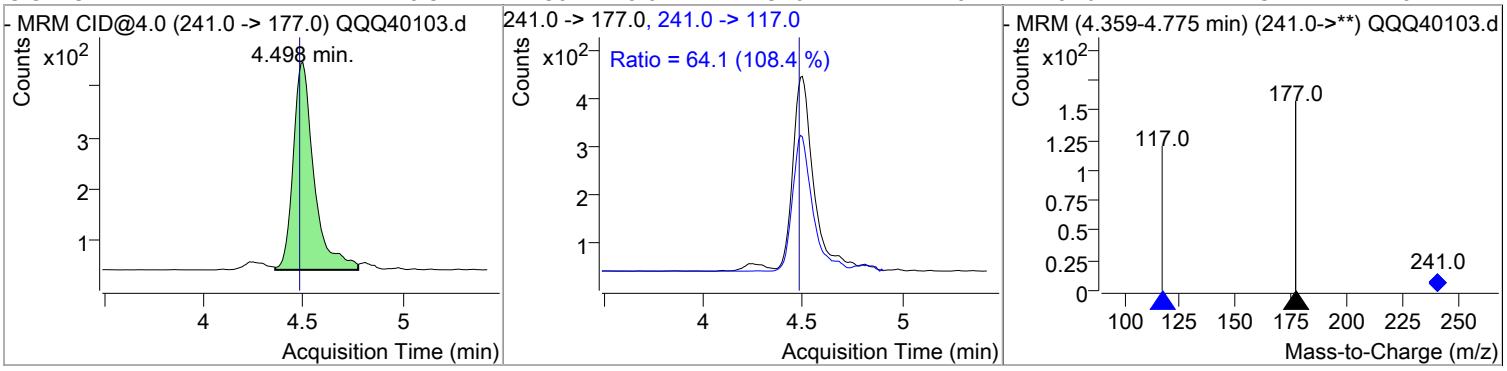
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	9.7876	1.31	-0.02	111554				



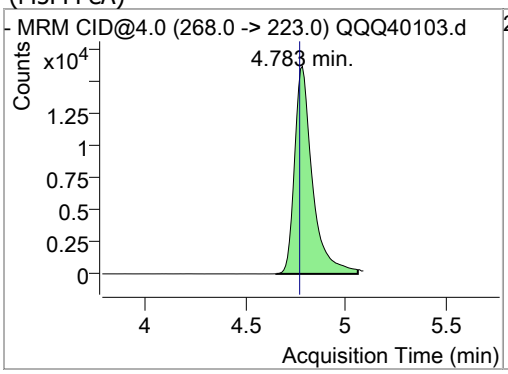
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	11.0392	2.28	-0.02	57733				

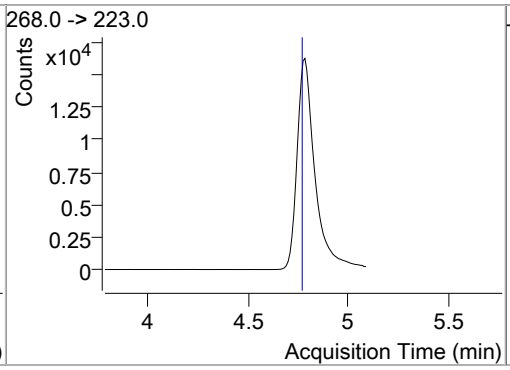


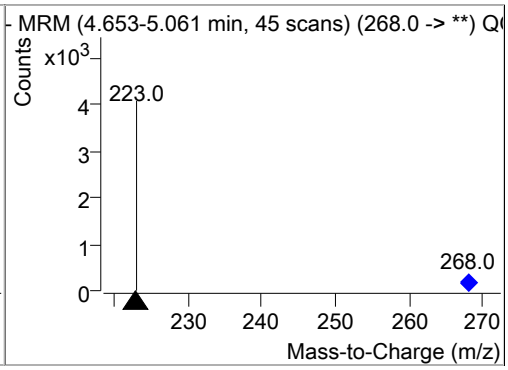
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	10.5424	4.50	0.01	2946	241.0 -> 117.0	64.1	47.3	71.0



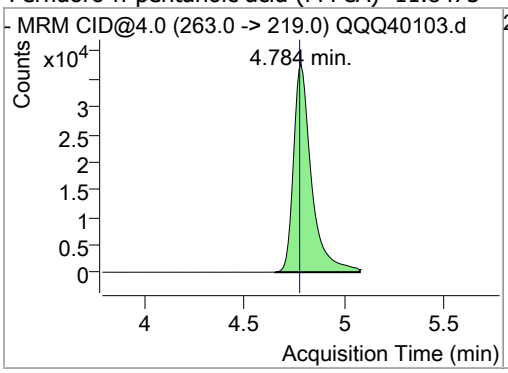
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.1058	4.78	0.00	100696				

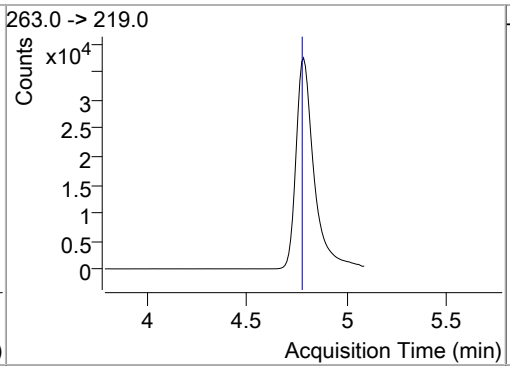


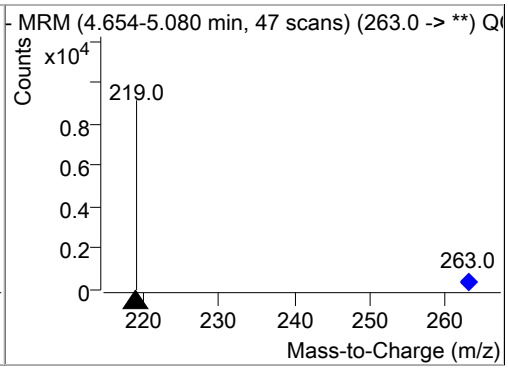




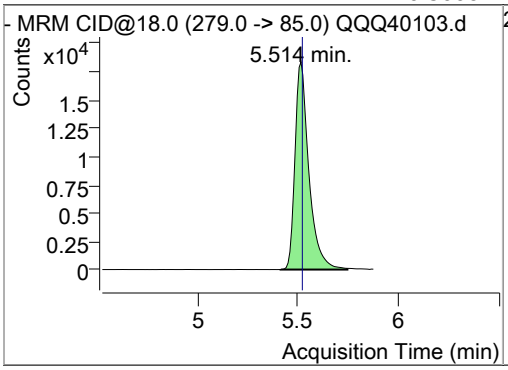
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	11.8473	4.78	0.00	236222				

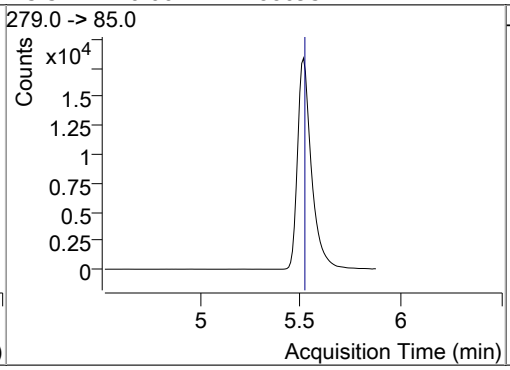


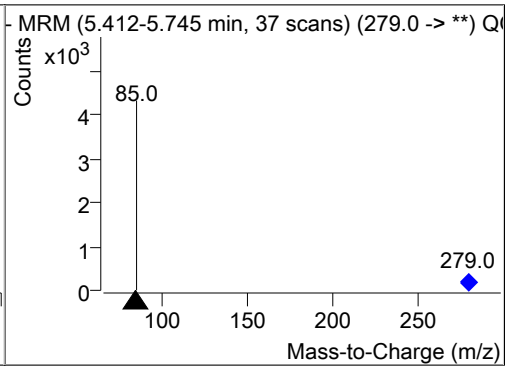




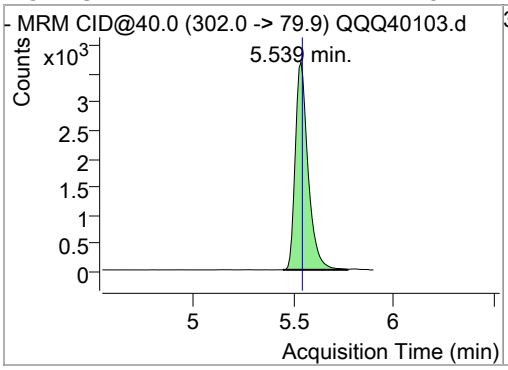
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	10.5008	5.51	0.00	88095				

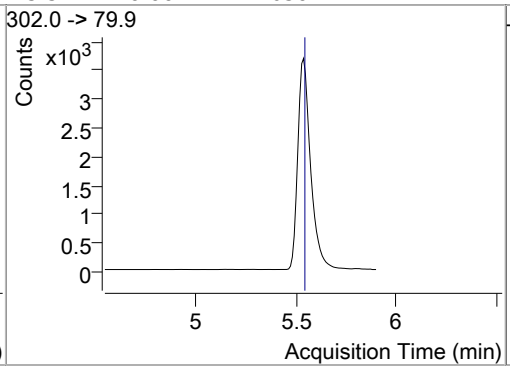


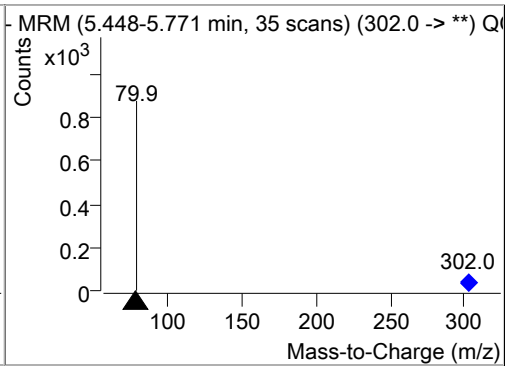




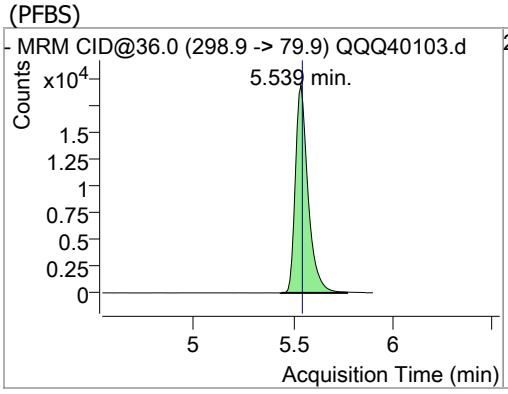
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.4544	5.54	0.00	16307				

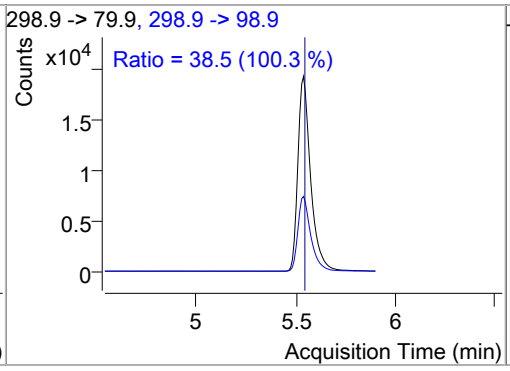


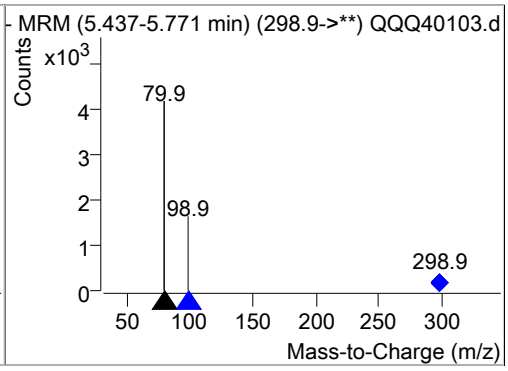




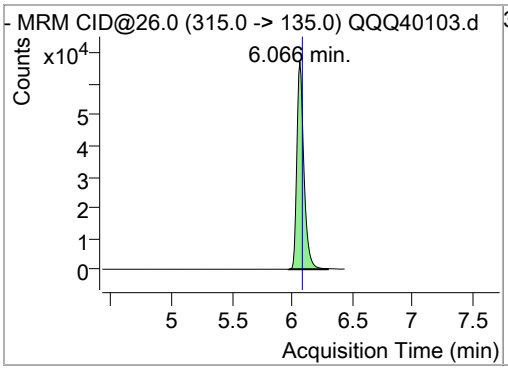
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	11.7915	5.54	0.00	85829	298.9 -> 98.9	38.5	30.7	46.0

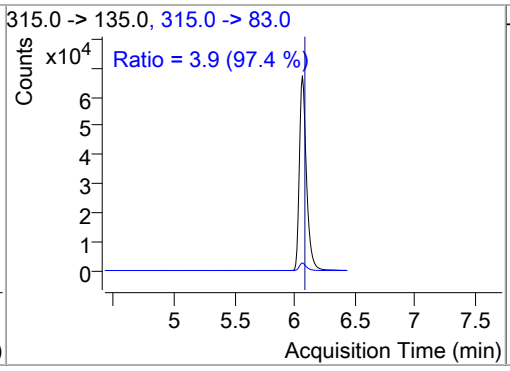


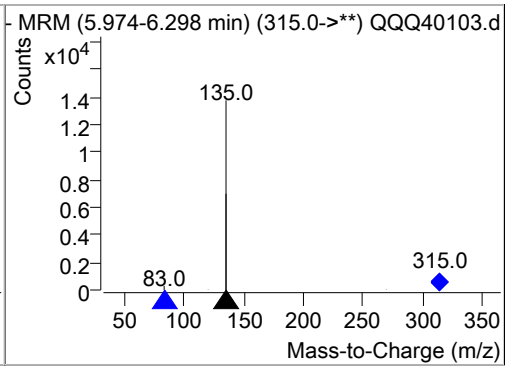




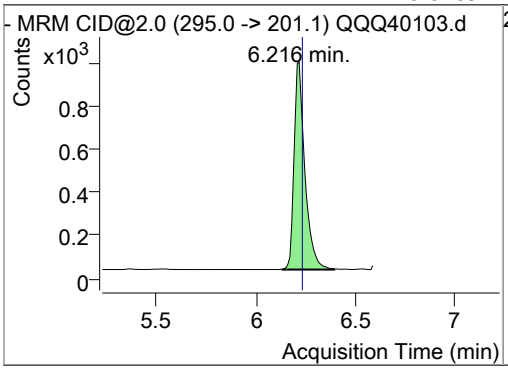
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	9.9221	6.07	-0.01	273377	315.0 -> 83.0	3.9	3.2	4.8

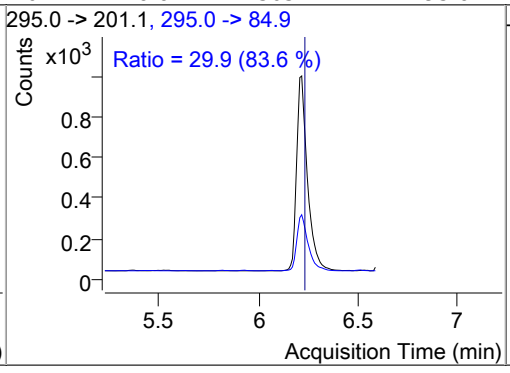


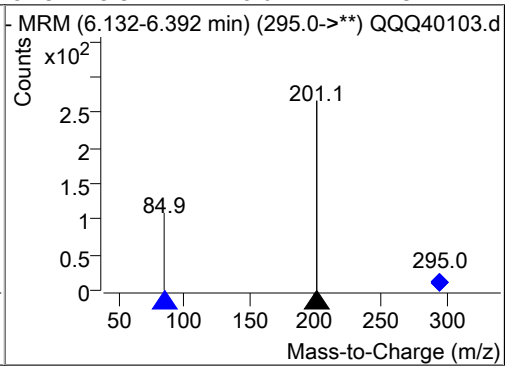




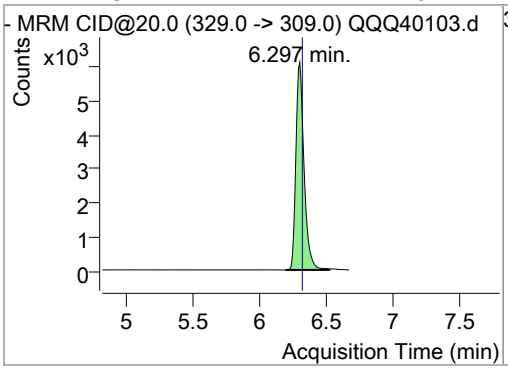
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	10.6269	6.22	-0.01	3637	295.0 -> 84.9	29.9	28.6	42.9

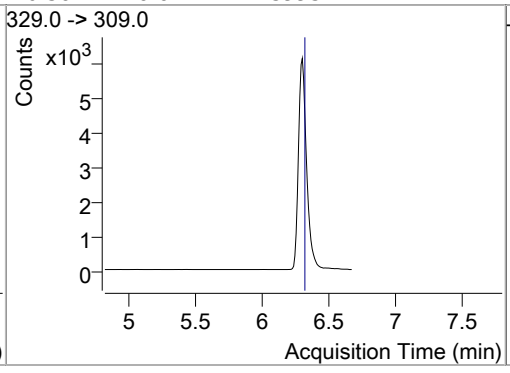


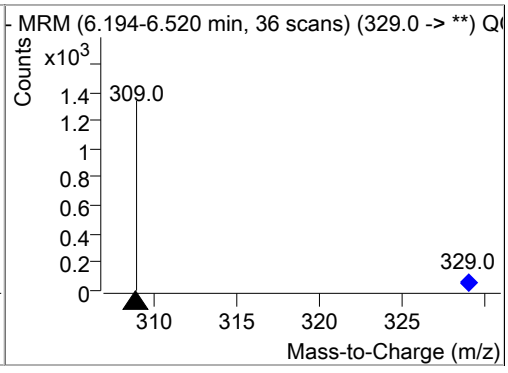




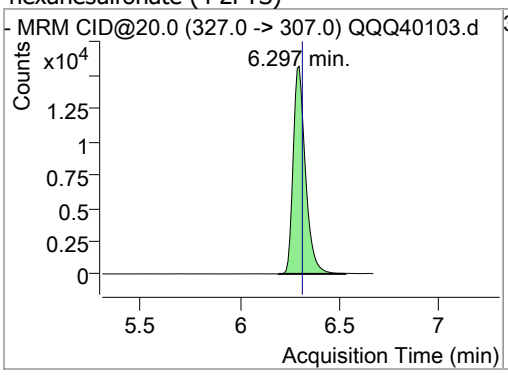
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.8274	6.30	-0.01	25993				

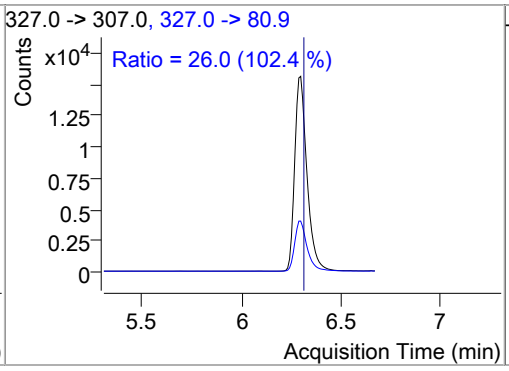


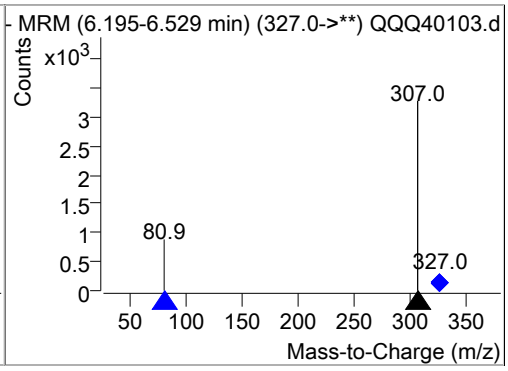




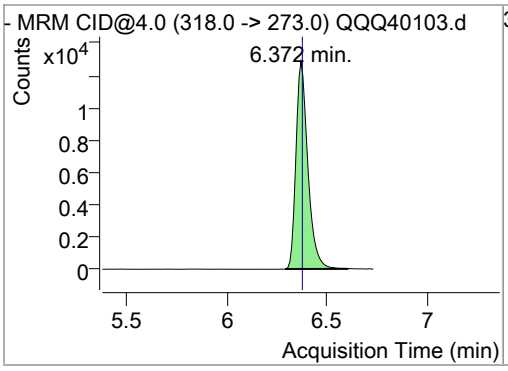
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	11.2464	6.30	-0.01	66667	327.0 -> 80.9	26.0	20.3	30.4

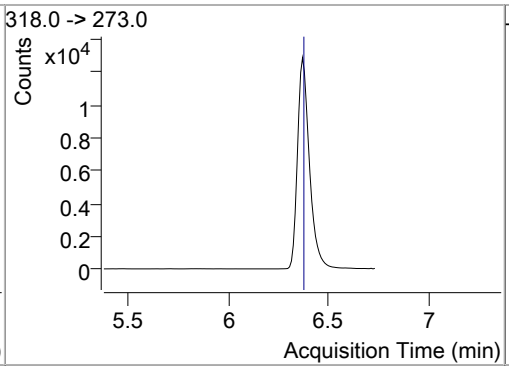


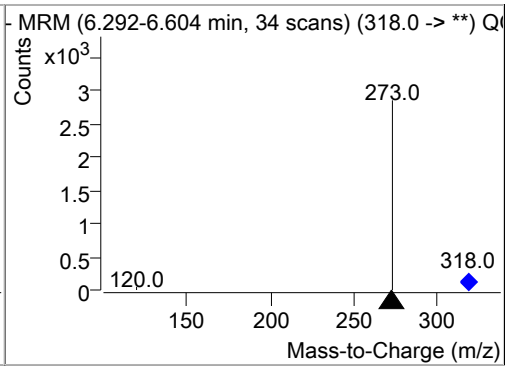




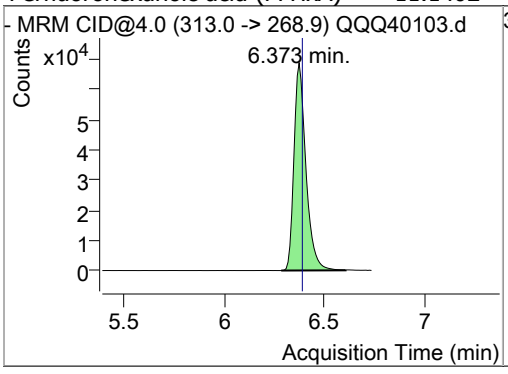
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.5021	6.37	-0.01	52915				

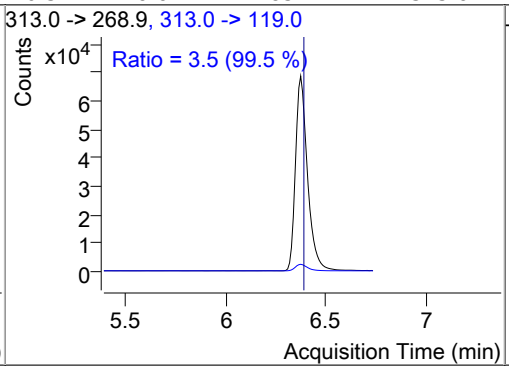


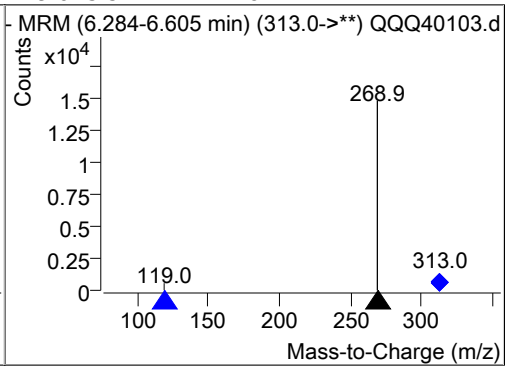




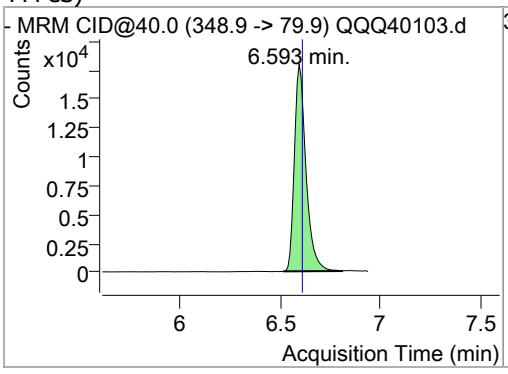
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	11.1402	6.37	-0.01	285421	313.0 -> 119.0	3.5	2.8	4.2

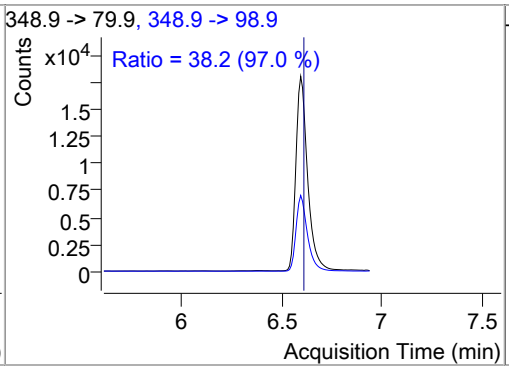


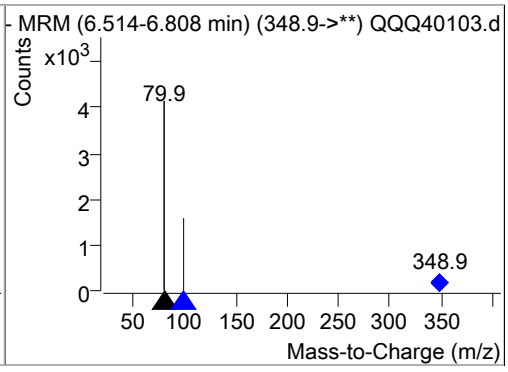




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	11.9420	6.59	-0.01	72273	348.9 -> 98.9	38.2	31.5	47.3

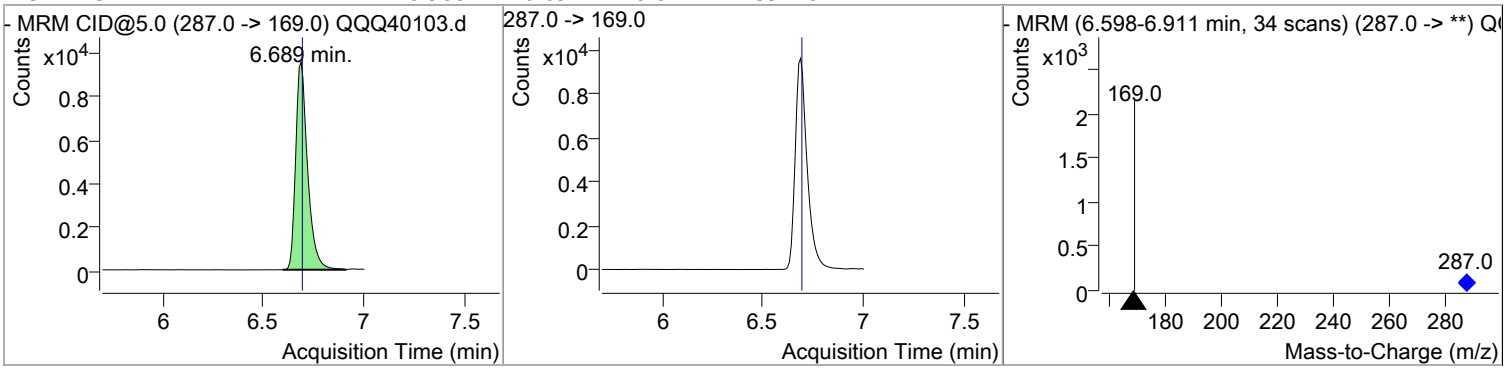




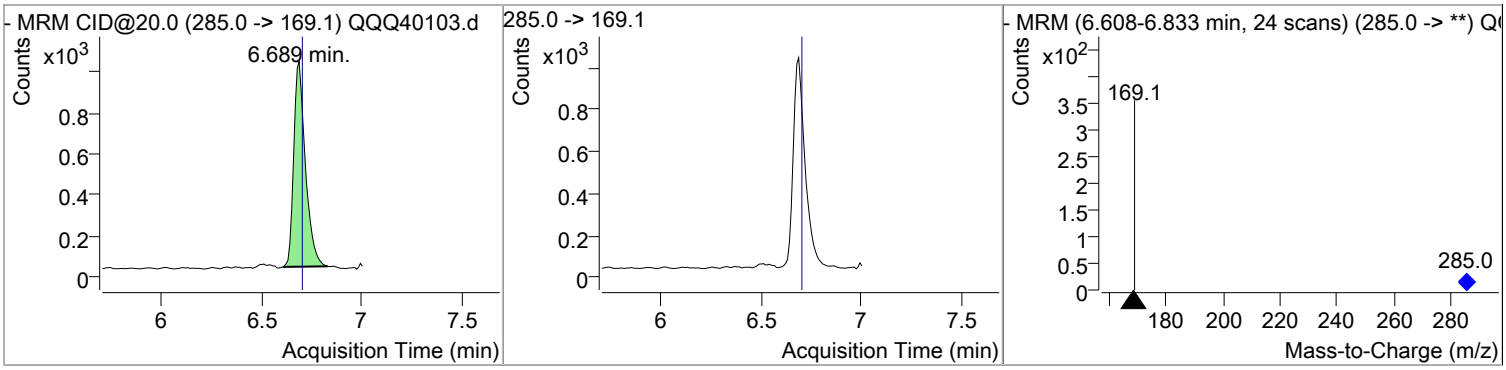


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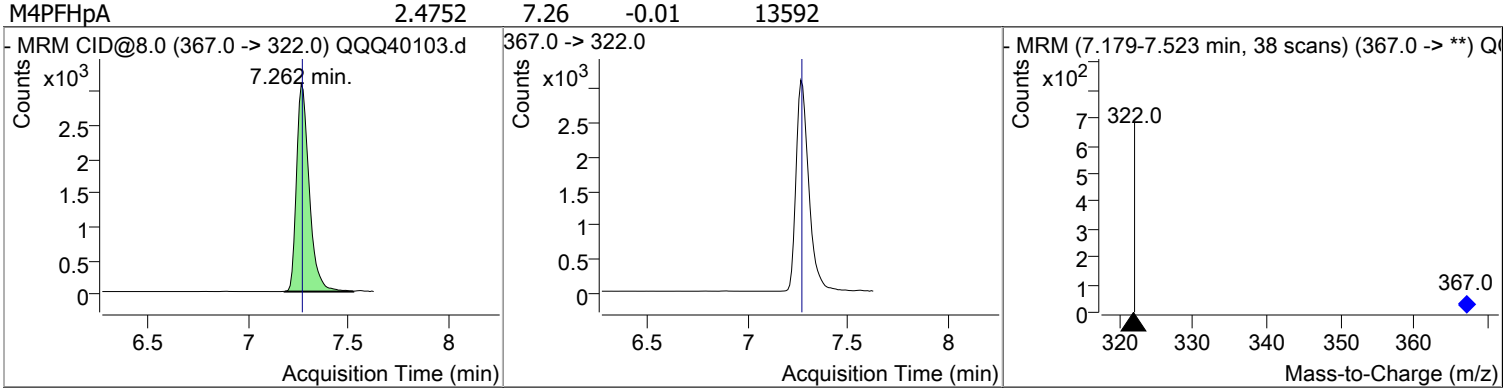
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.9807	6.69	-0.01	39470				



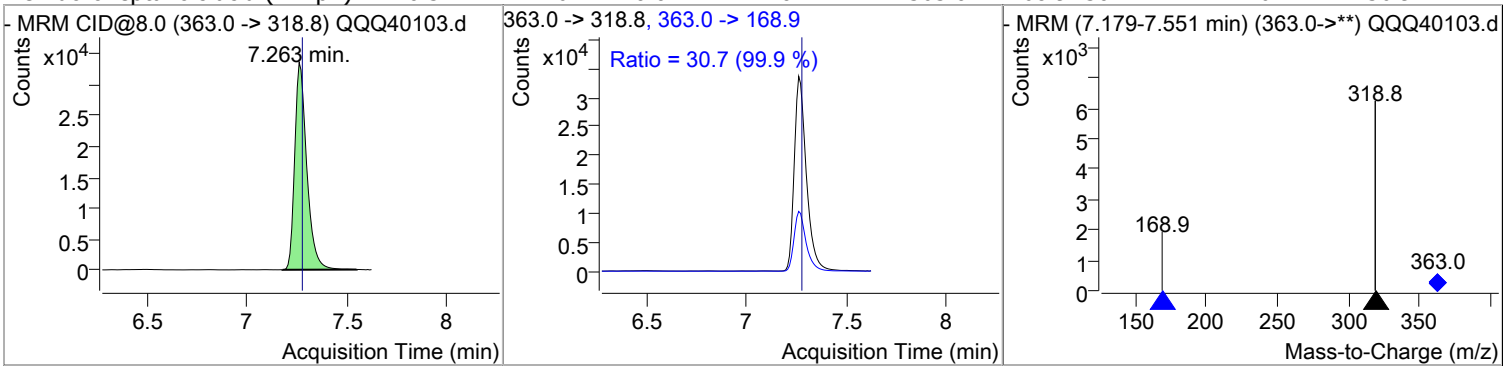
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	10.6741	6.69	-0.01	4005				



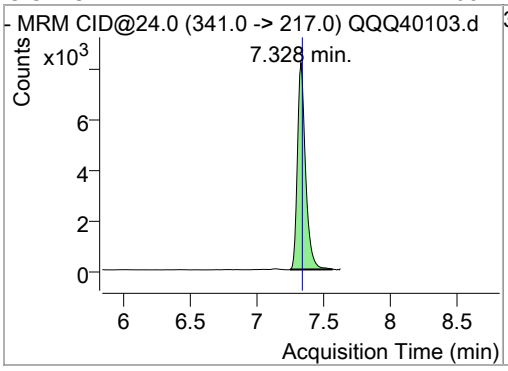
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.4752	7.26	-0.01	13592				

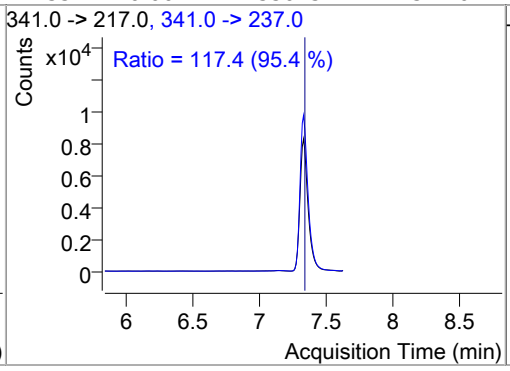


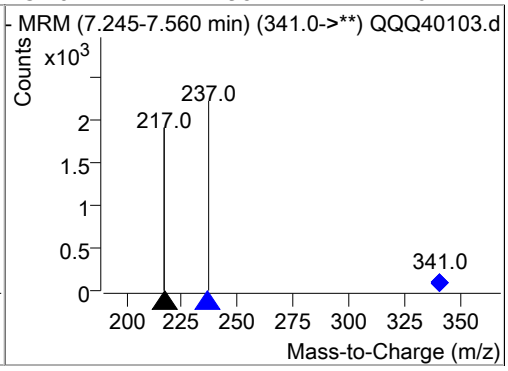
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	10.3112	7.26	-0.01	140711	363.0 -> 168.9	30.7	24.6	36.9



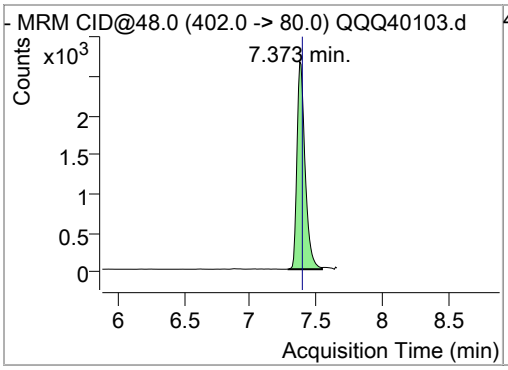
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	12.2768	7.33	0.00	35073	341.0 -> 237.0	117.4	98.4	147.6

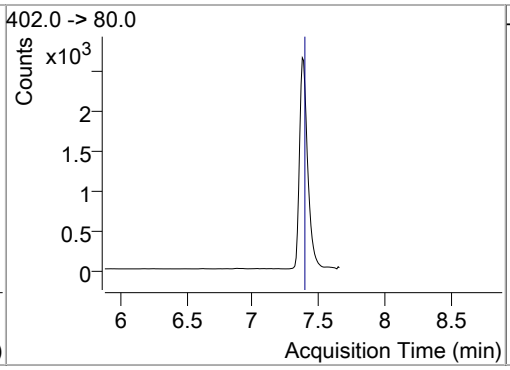


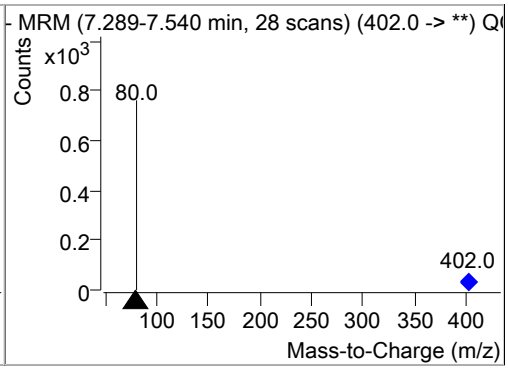




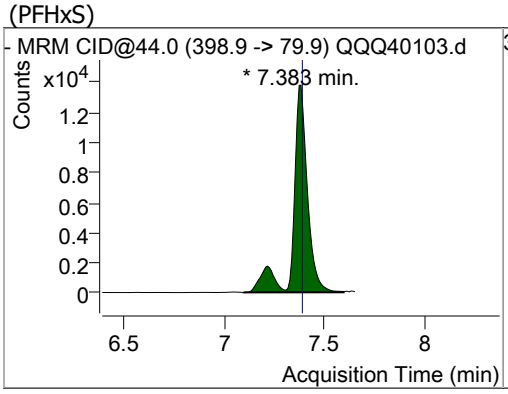
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.4598	7.37	-0.01	11260				

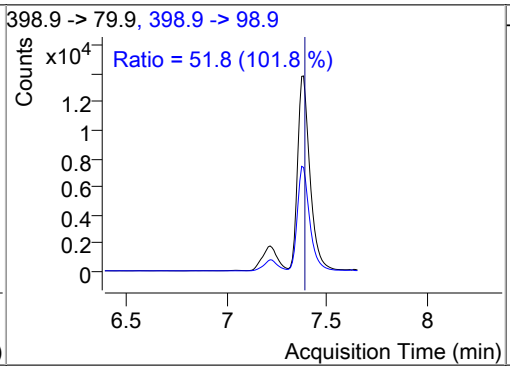


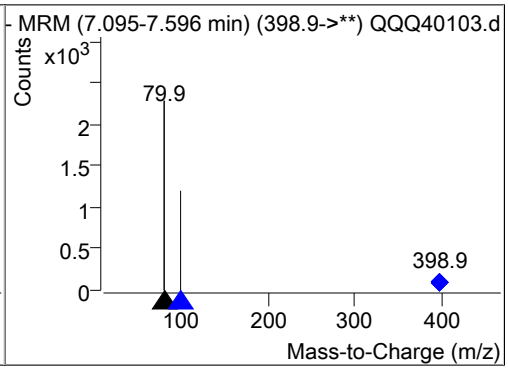




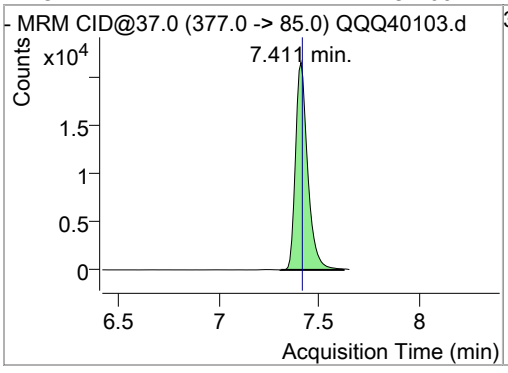
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	11.7074	7.38	0.00	68253 (m)	398.9 -> 98.9	51.8	40.7	61.1

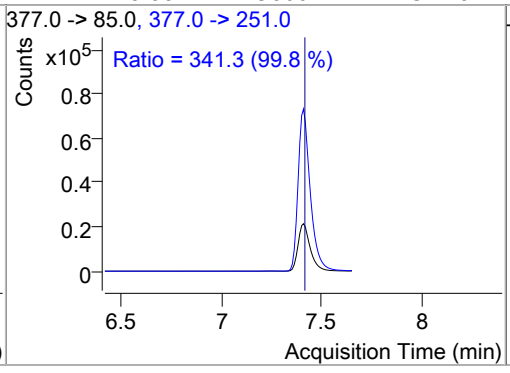


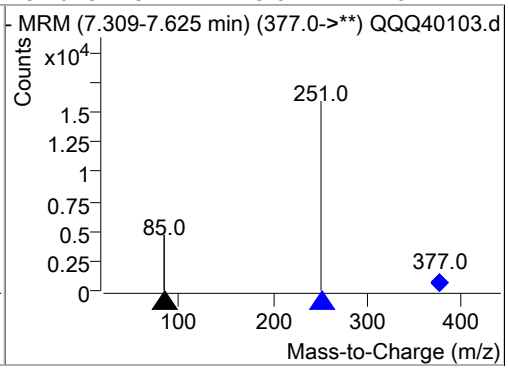




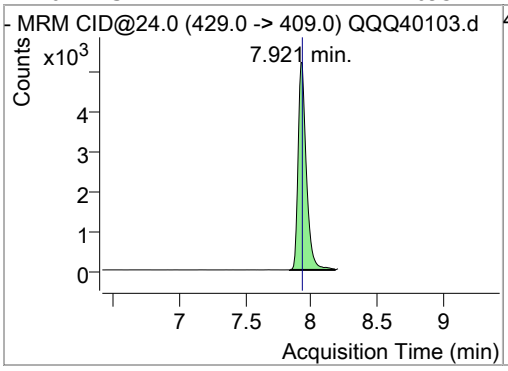
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	9.7607	7.41	0.00	90661	377.0 -> 251.0	341.3	273.6	410.4

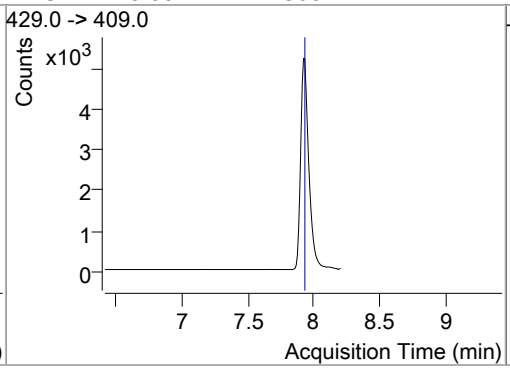


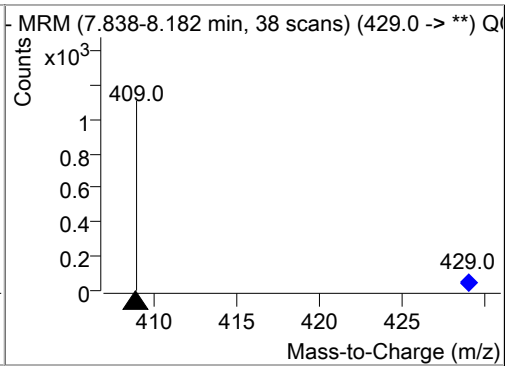




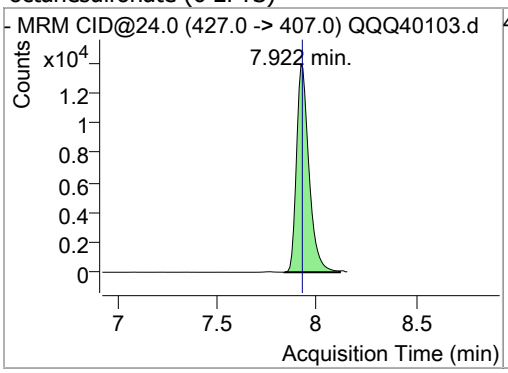
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.6931	7.92	0.00	22568				

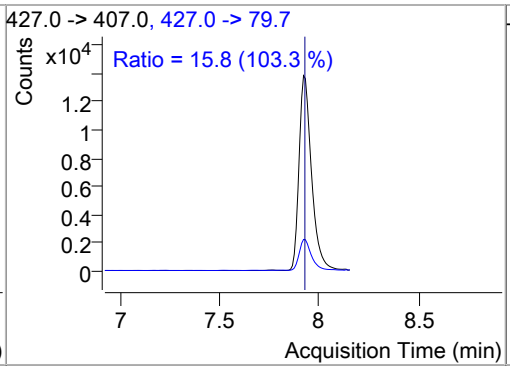


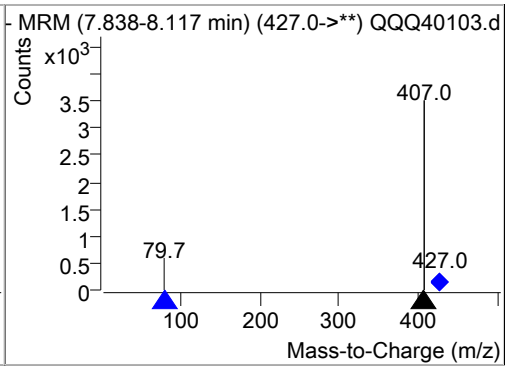




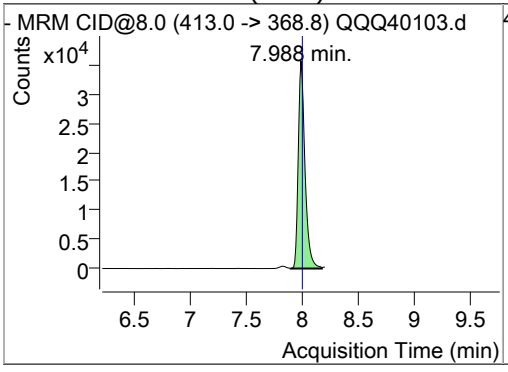
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	10.8445	7.92	0.00	60148	427.0 -> 79.7	15.8	12.2	18.4

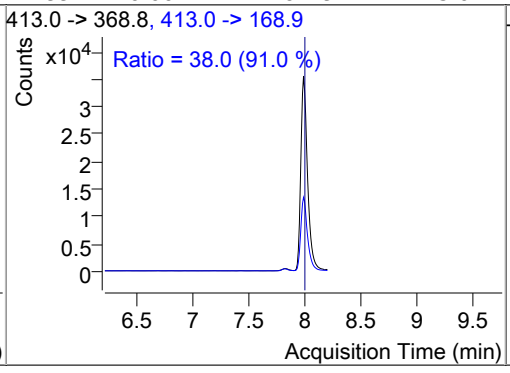


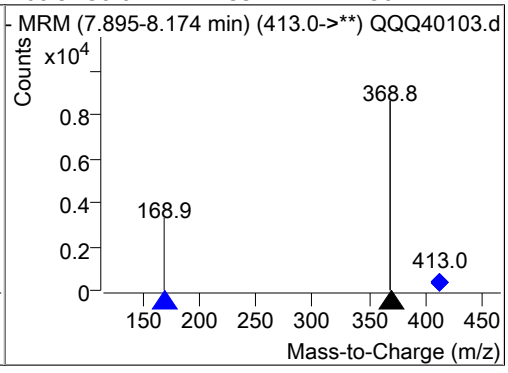




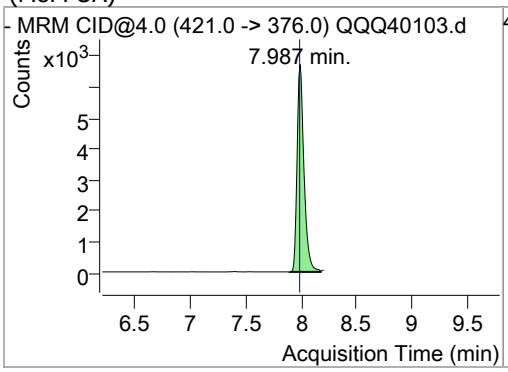
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	10.2639	7.99	0.00	148729	413.0 -> 168.9	38.0	33.4	50.1

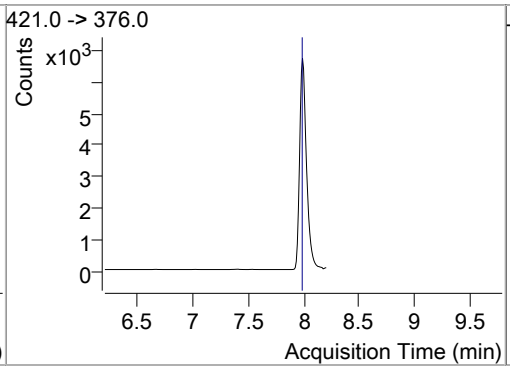


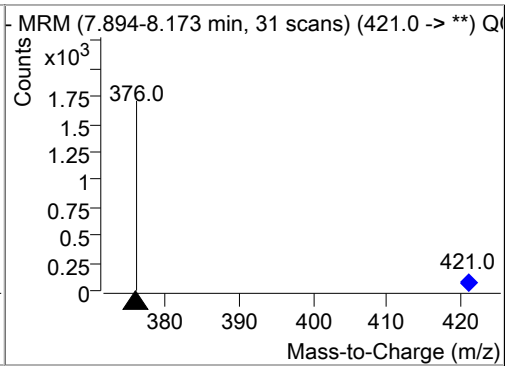




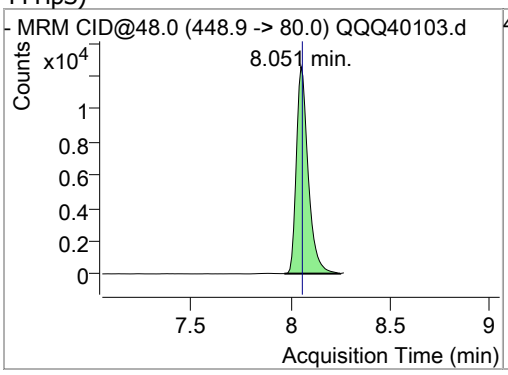
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4272	7.99	-0.01	28886				

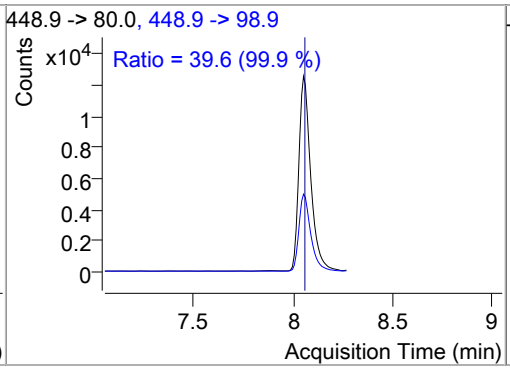


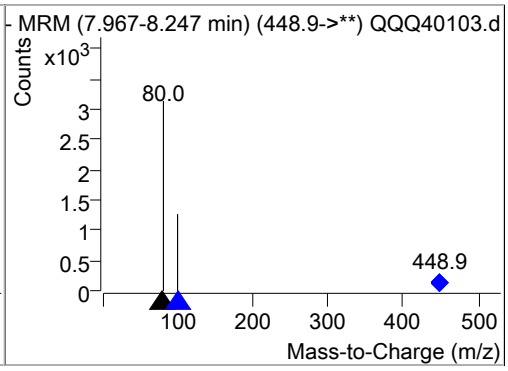




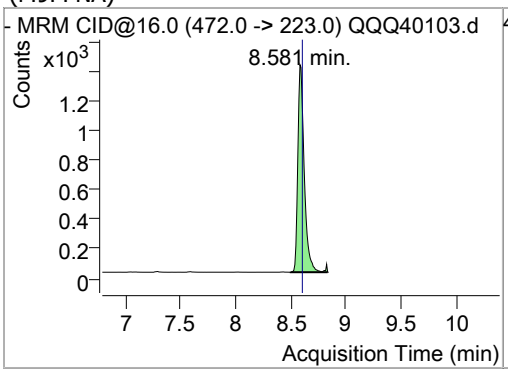
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	10.2599	8.05	0.00	51391	448.9 -> 98.9	39.6	31.7	47.5

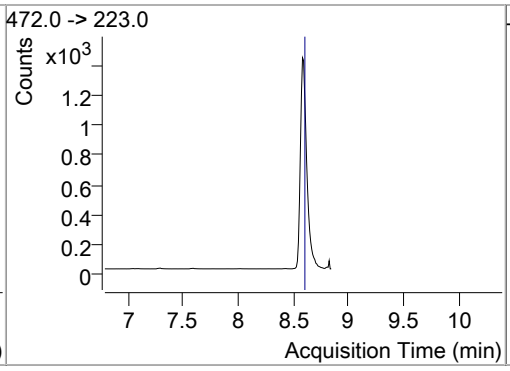


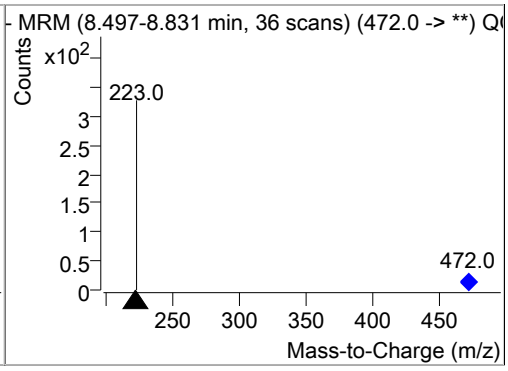




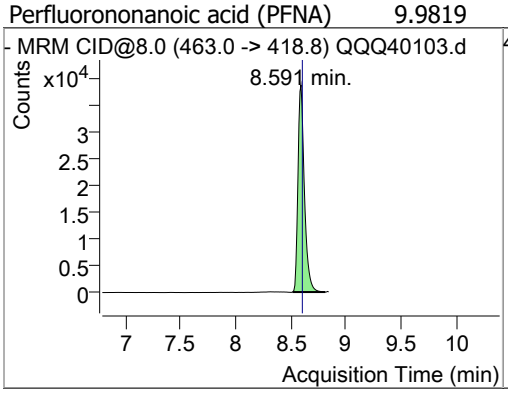
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.3981	8.58	-0.01	5699				

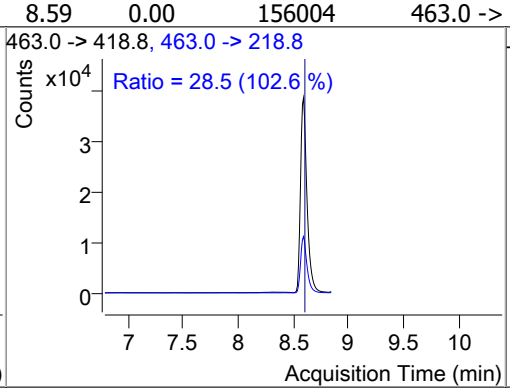


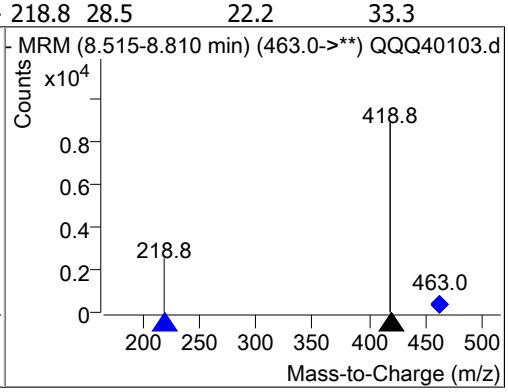




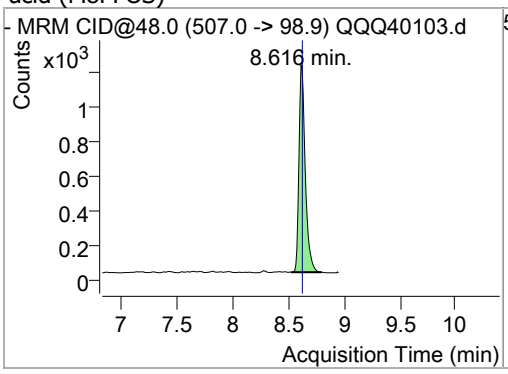
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	9.9819	8.59	0.00	156004	463.0 -> 218.8	28.5	22.2	33.3

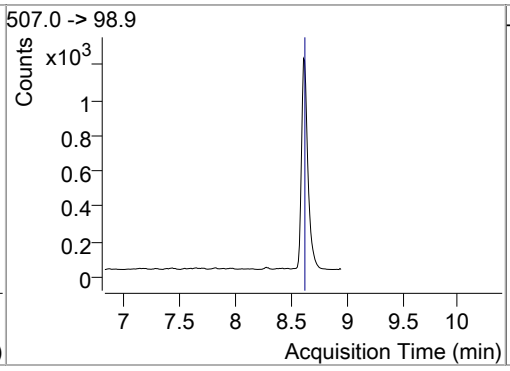


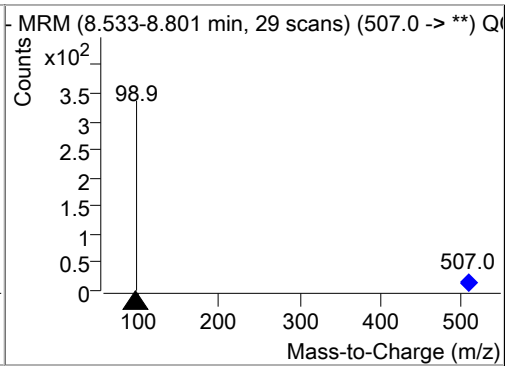




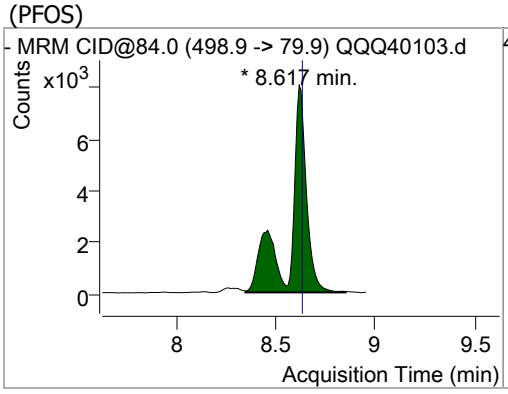
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.4096	8.62	-0.01	4691				

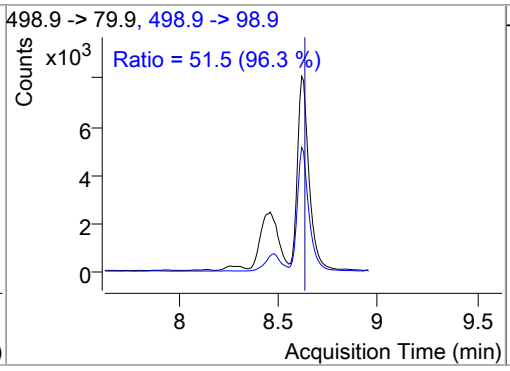


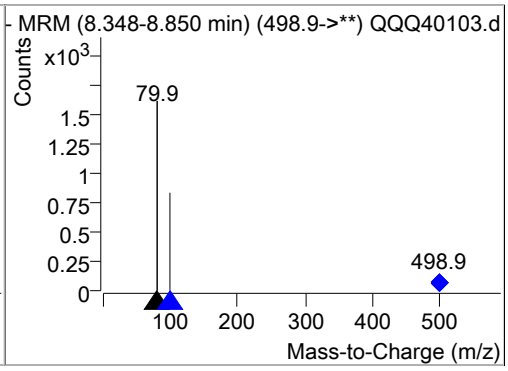




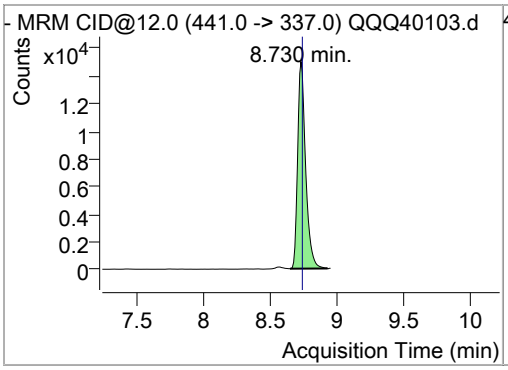
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	10.4522	8.62	-0.01	47147 (m)	498.9 -> 98.9	51.5	42.7	64.1

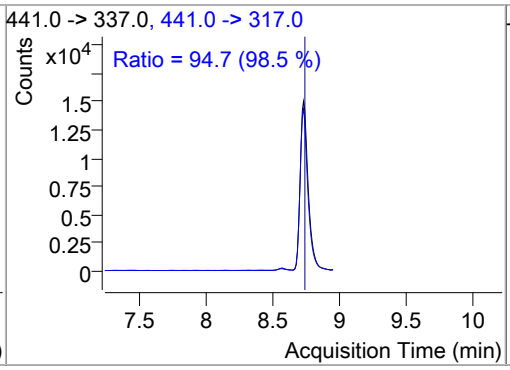


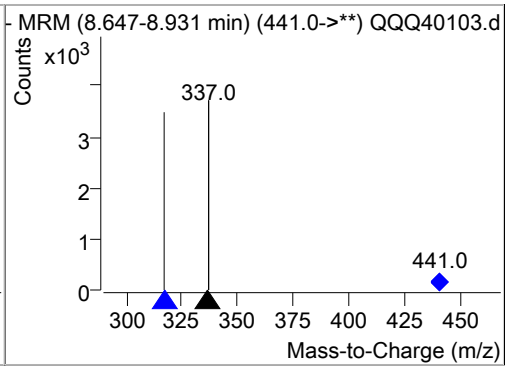




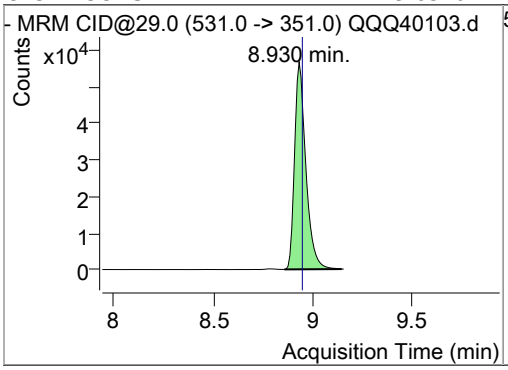
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	12.9014	8.73	0.00	62567	441.0 -> 317.0	94.7	76.9	115.4

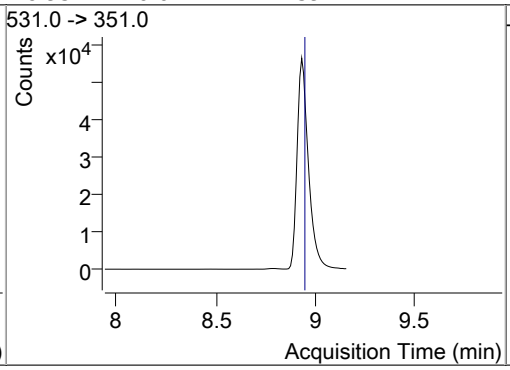


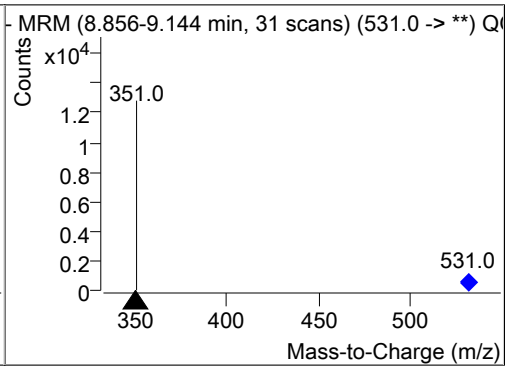




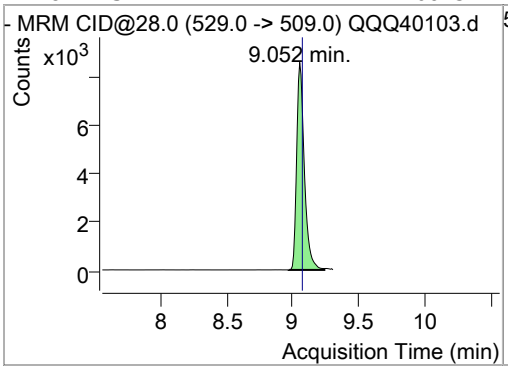
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	9.8326	8.93	-0.01	221397				

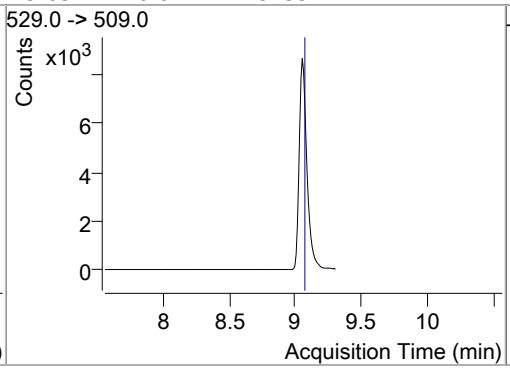


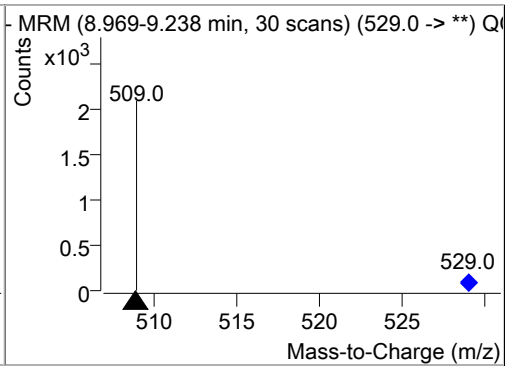




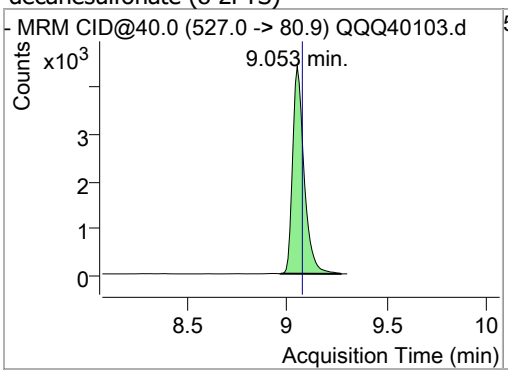
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.6043	9.05	-0.01	34552				

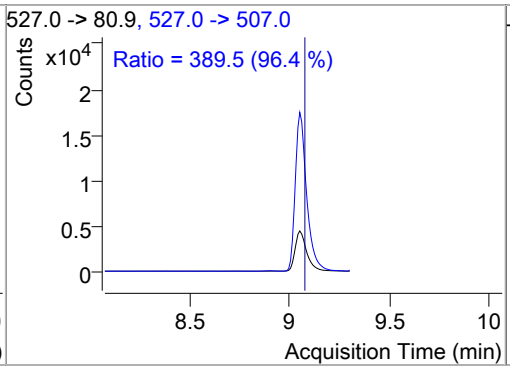


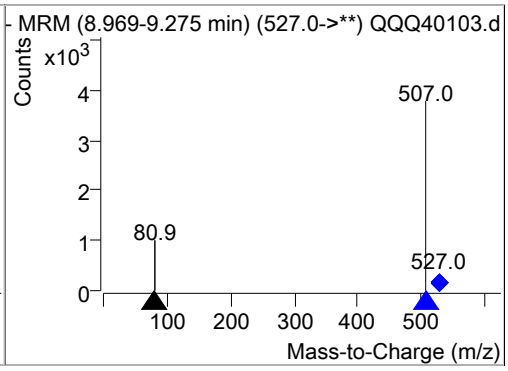




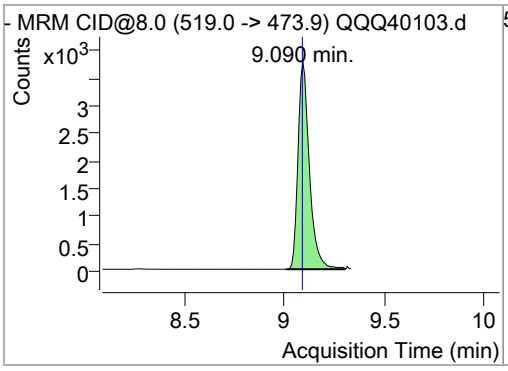
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	10.6855	9.05	-0.02	17714	527.0 -> 507.0	389.5	323.1	484.6

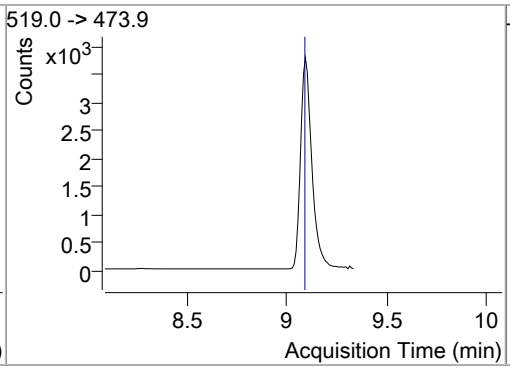


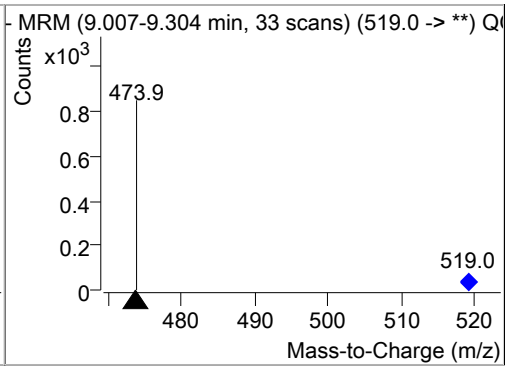




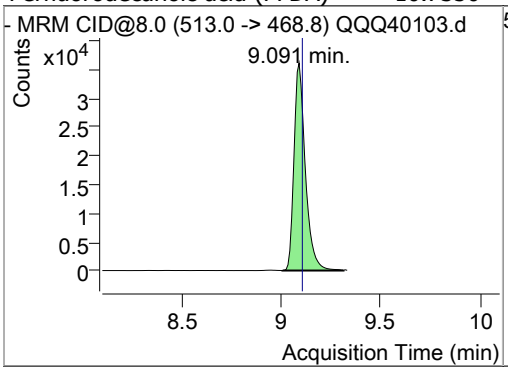
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2341	9.09	-0.01	14935				

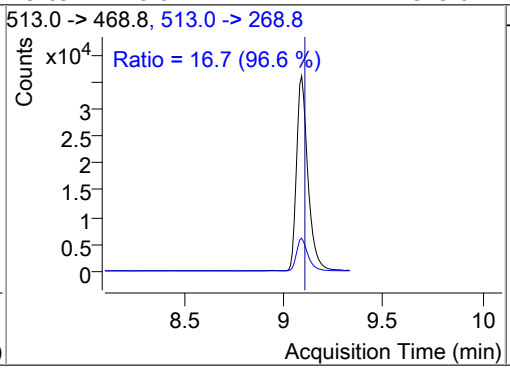


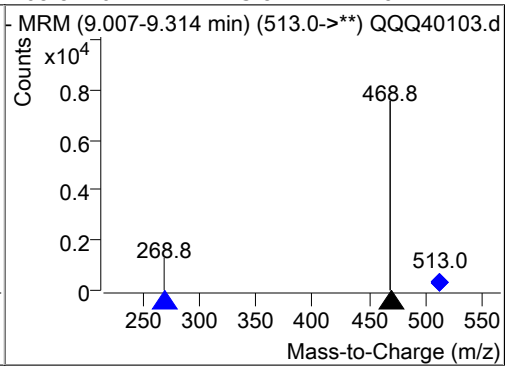




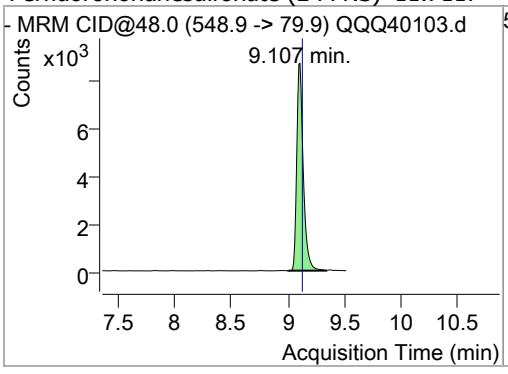
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	10.7350	9.09	-0.01	142477	513.0 -> 268.8	16.7	13.8	20.7

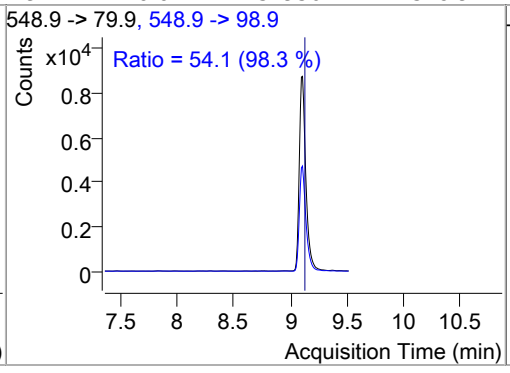


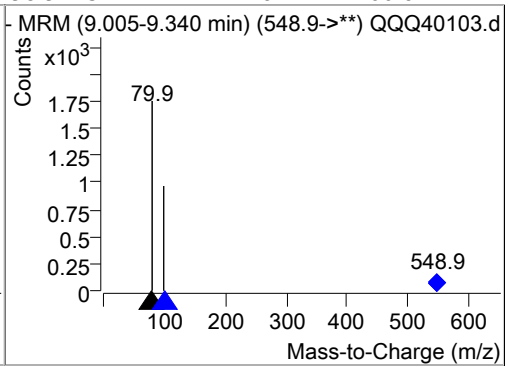




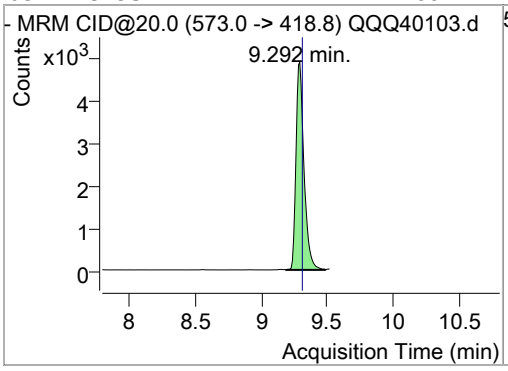
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	11.7117	9.11	-0.01	34956	548.9 -> 98.9	54.1	44.0	66.0

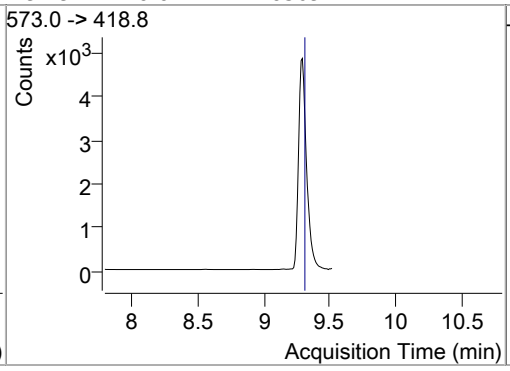


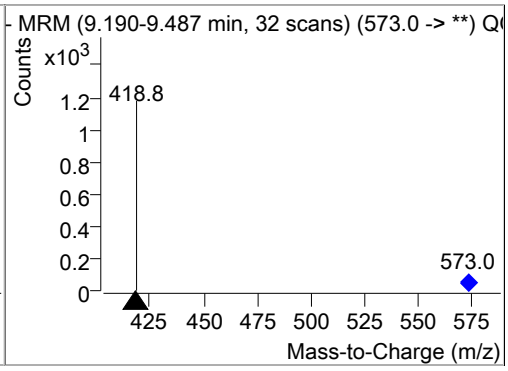




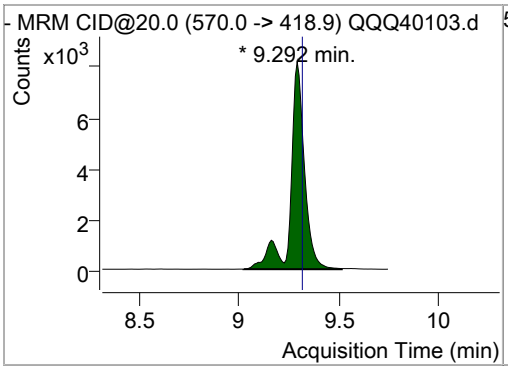
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.8077	9.29	-0.02	20369				

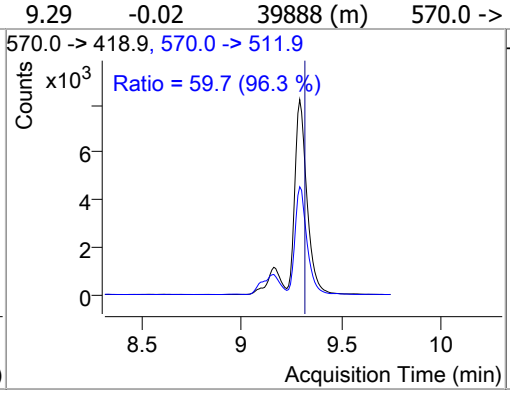


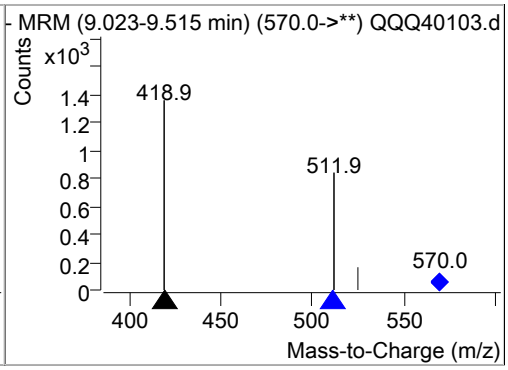




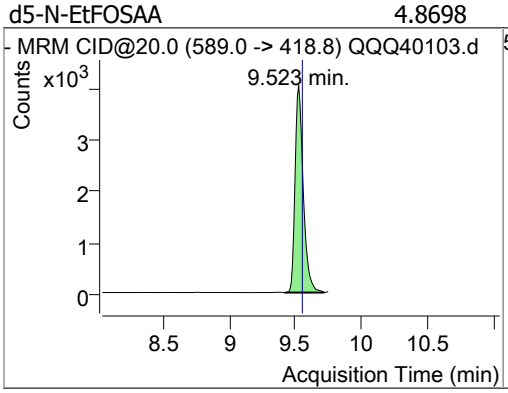
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	11.4951	9.29	-0.02	39888 (m)	570.0 -> 511.9	59.7	49.6	74.4

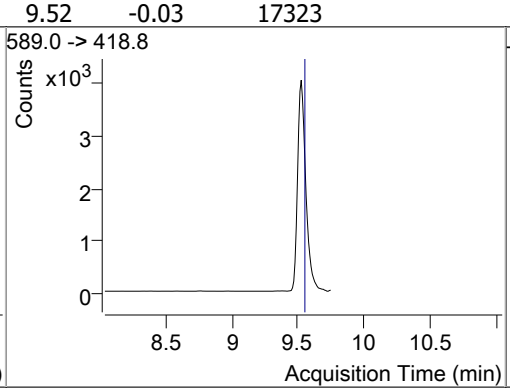


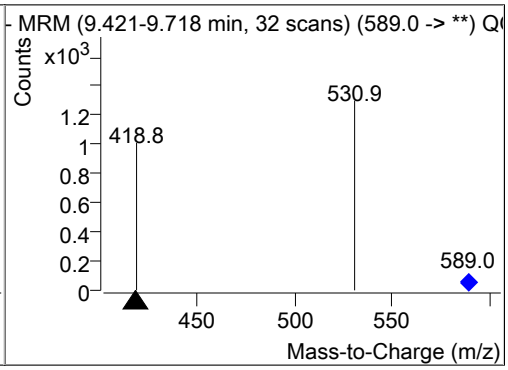




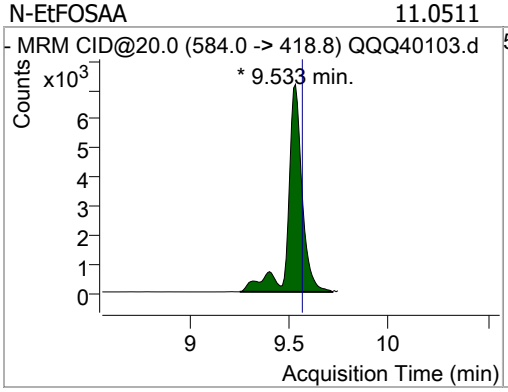
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	4.8698	9.52	-0.03	17323				

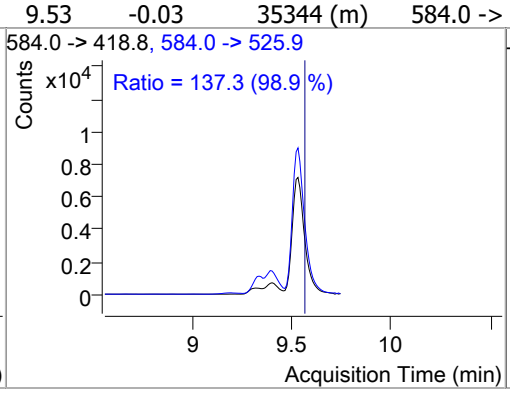


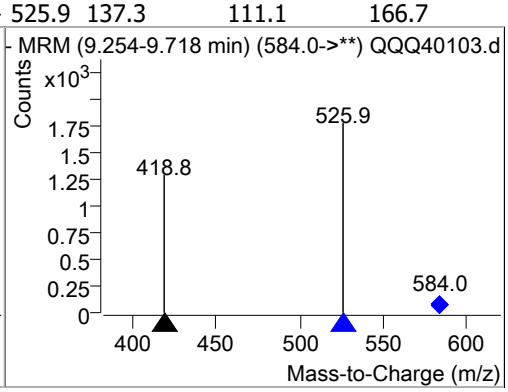




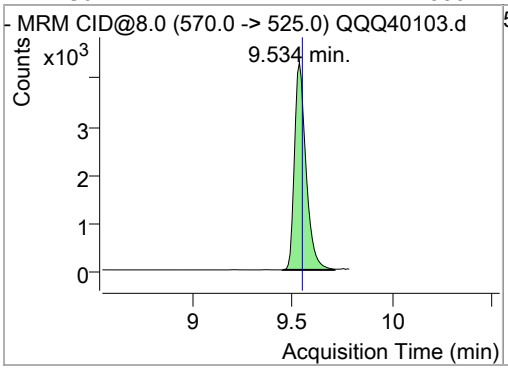
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	11.0511	9.53	-0.03	35344 (m)	584.0 -> 525.9	137.3	111.1	166.7

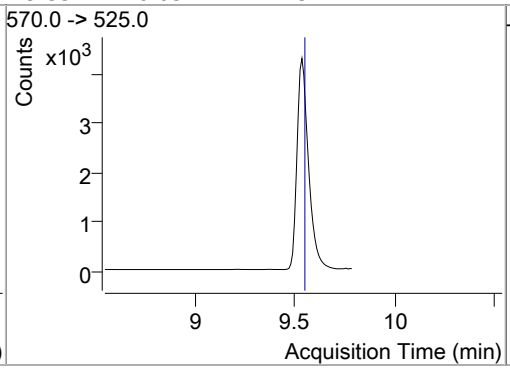


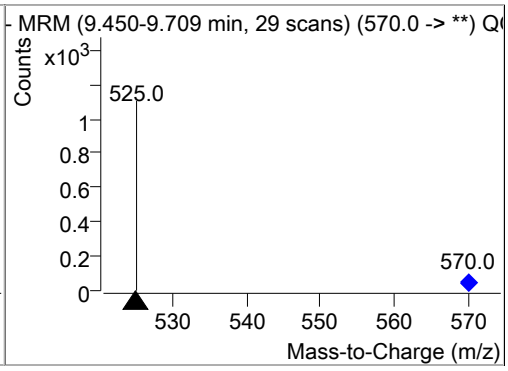




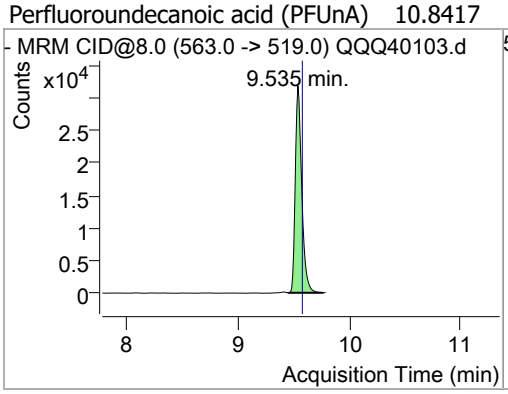
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2800	9.53	-0.03	17152				

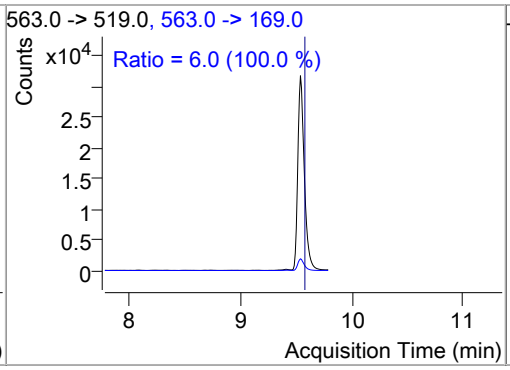


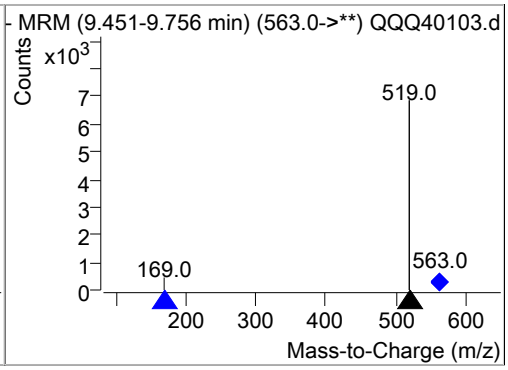




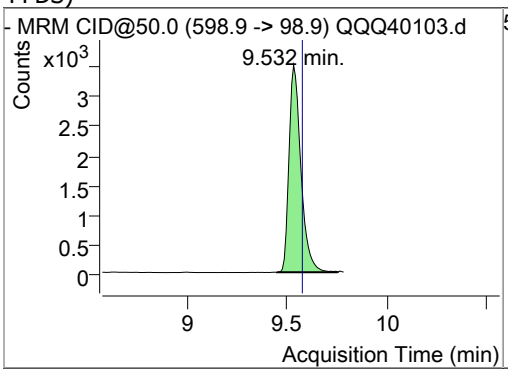
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	10.8417	9.53	-0.03	127803	563.0 -> 169.0	6.0	4.8	7.2

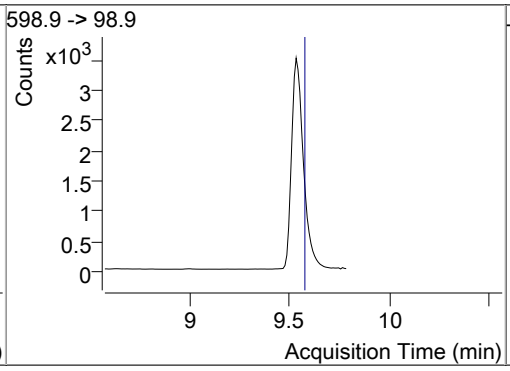


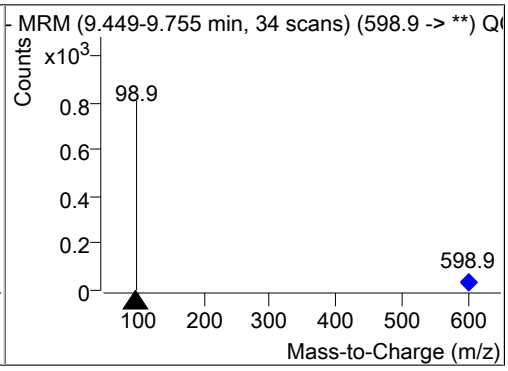




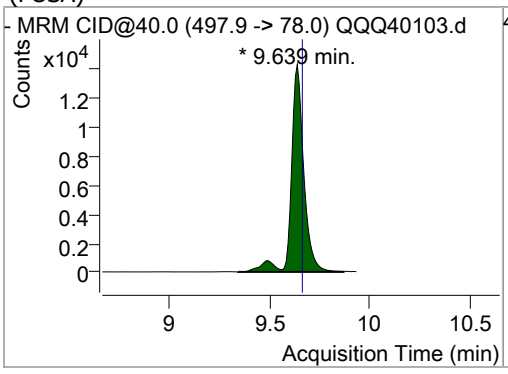
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	10.2997	9.53	-0.04	14427				

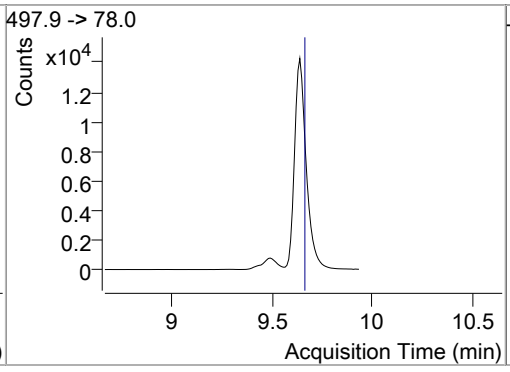


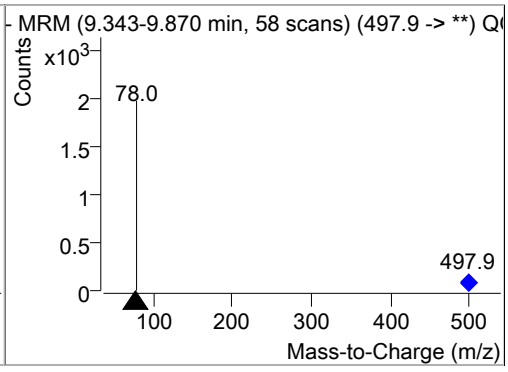




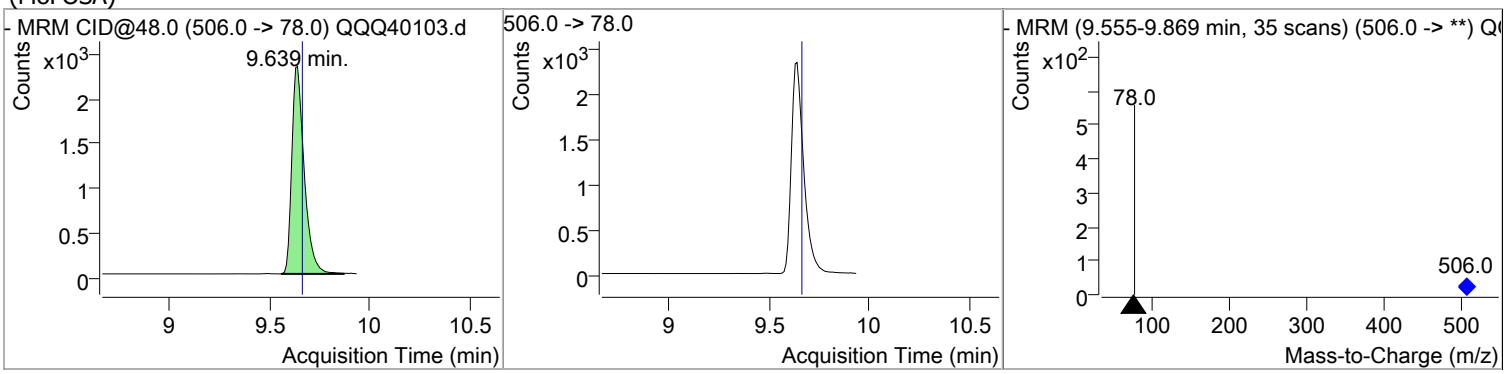
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	11.2612	9.64	-0.02	62201 (m)				



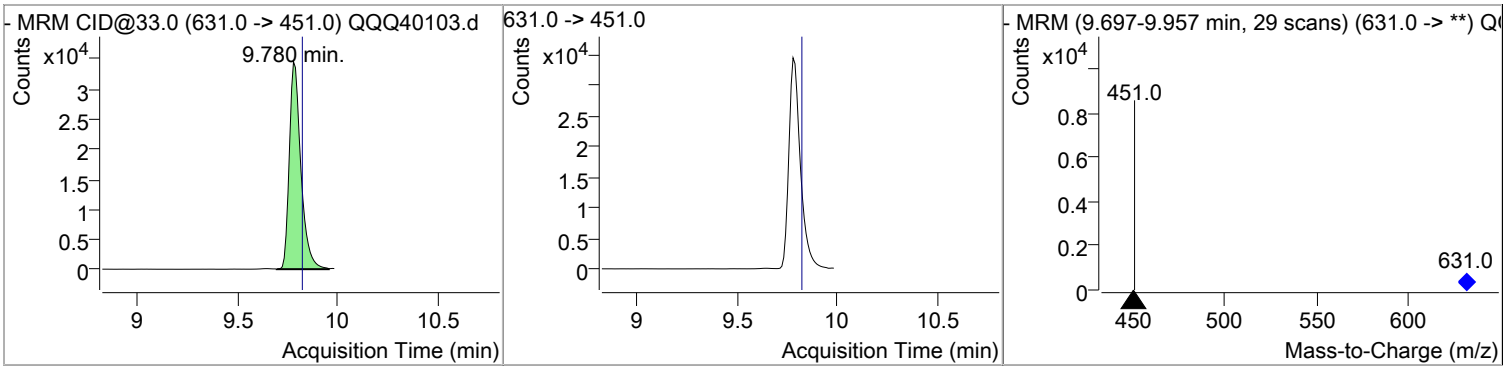




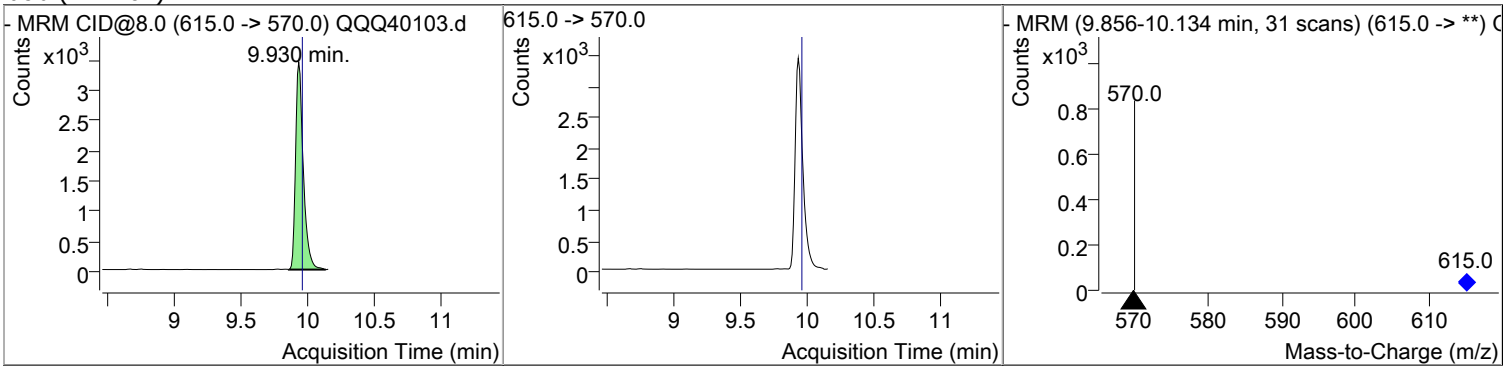
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.3566	9.64	-0.03	10042				



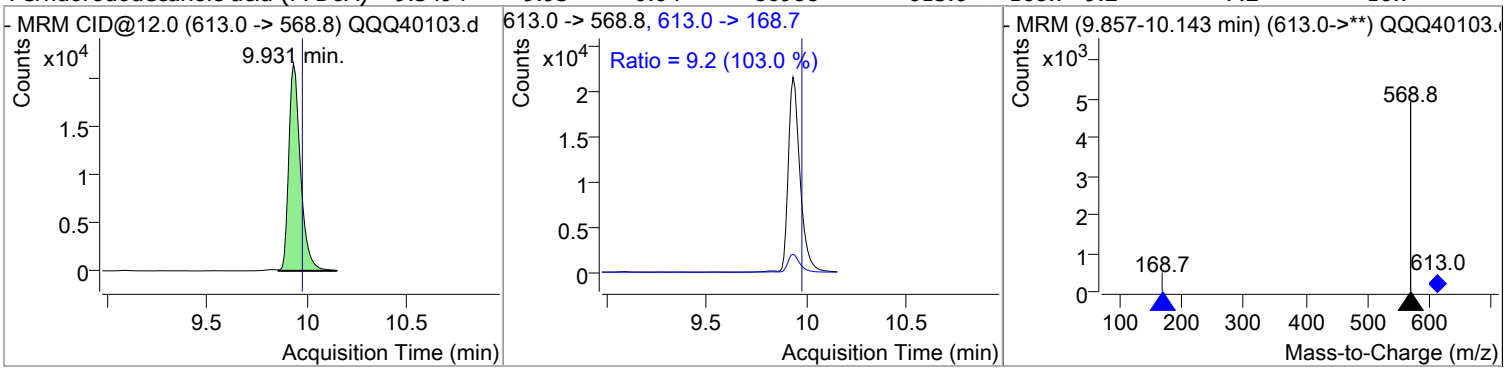
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	10.2573	9.78	-0.04	138424				



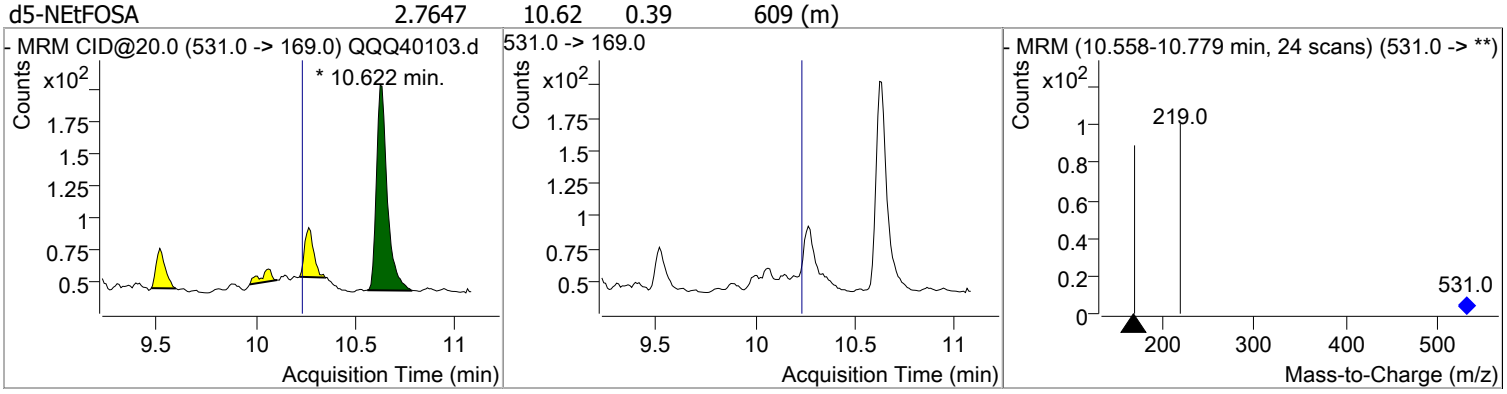
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.2494	9.93	-0.04	13842				



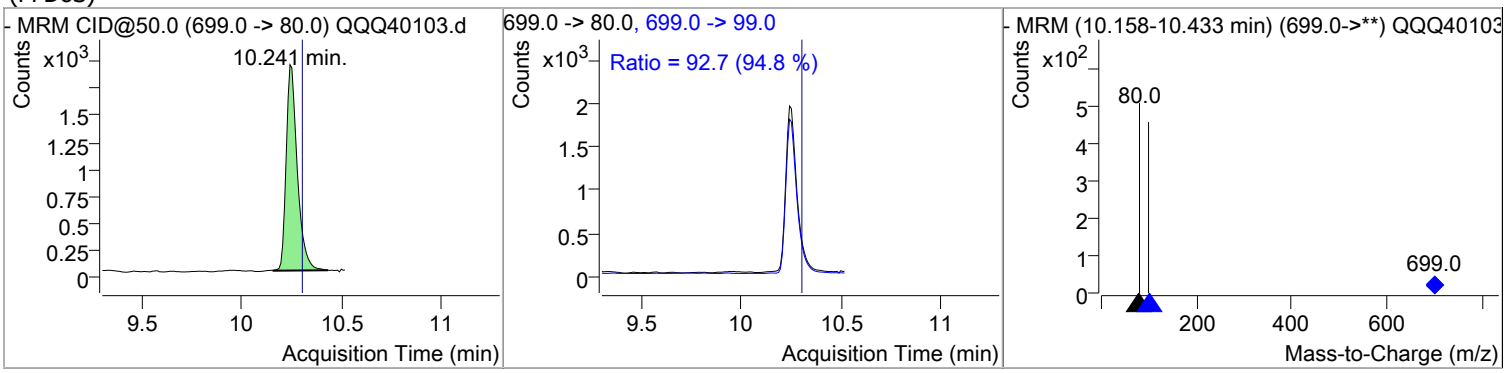
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	9.3494	9.93	-0.04	86988	613.0 -> 168.7	9.2	7.2	10.7



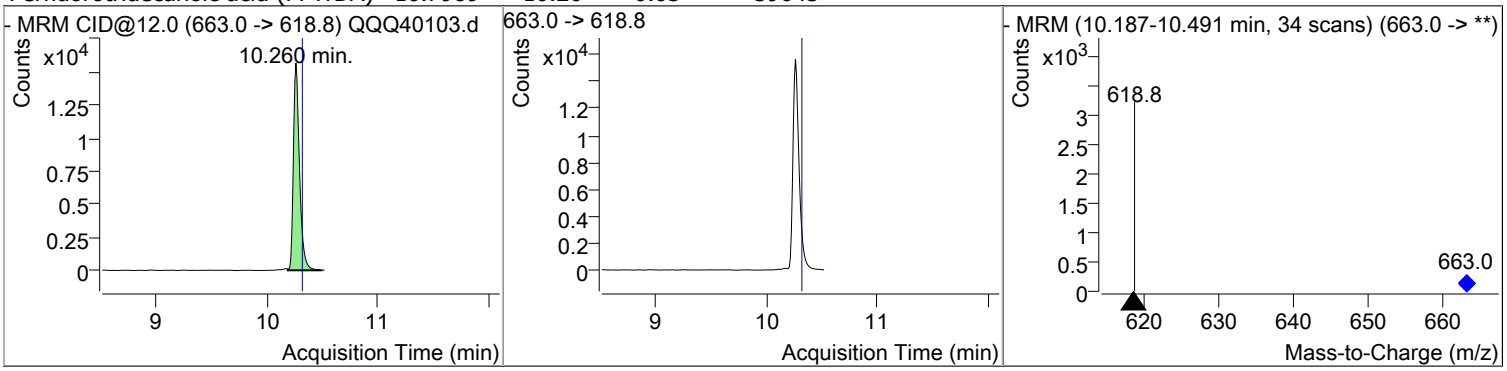
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.7647	10.62	0.39	609 (m)				



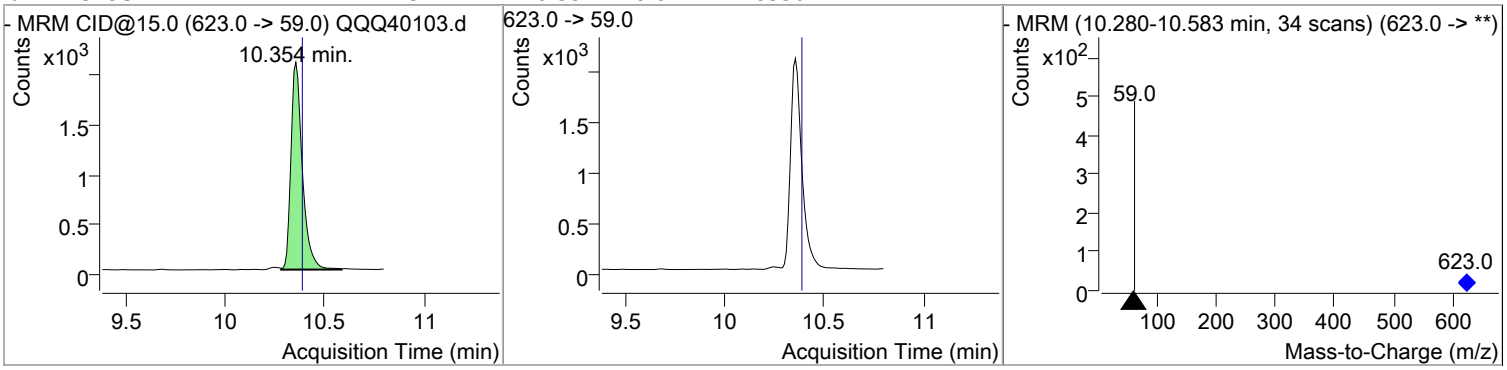
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	10.1950	10.24	-0.06	7417	699.0 -> 99.0	92.7	78.3	117.4



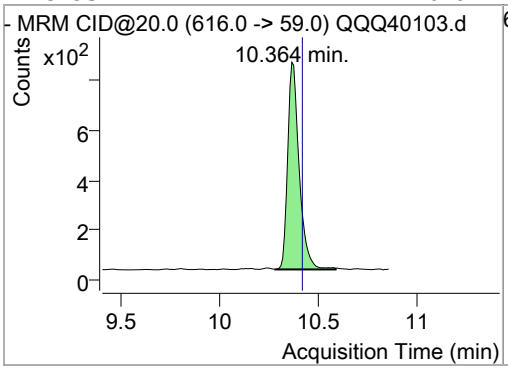
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	10.7989	10.26	-0.05	59645				

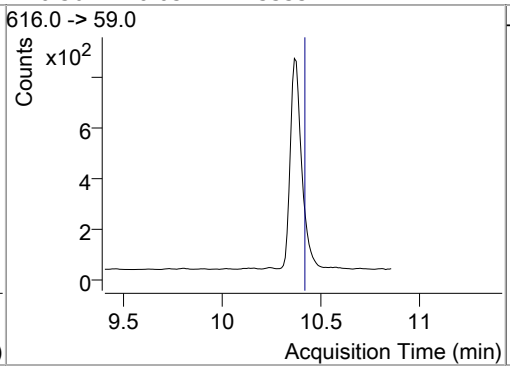


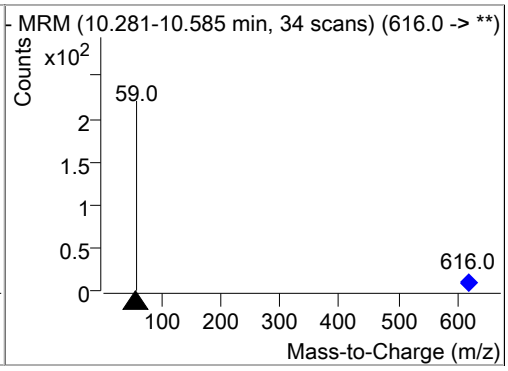
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	25.4244	10.35	-0.04	8336				



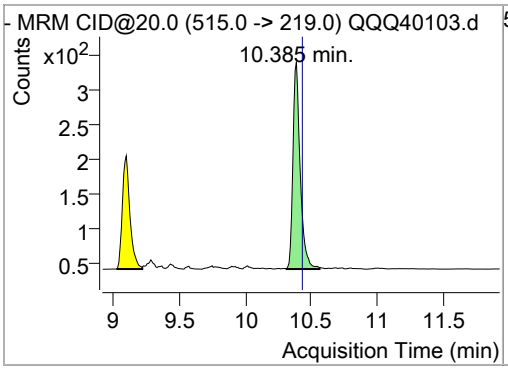
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	11.0401	10.36	-0.05	3335				

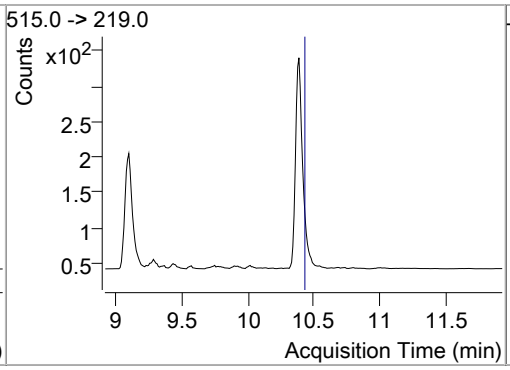


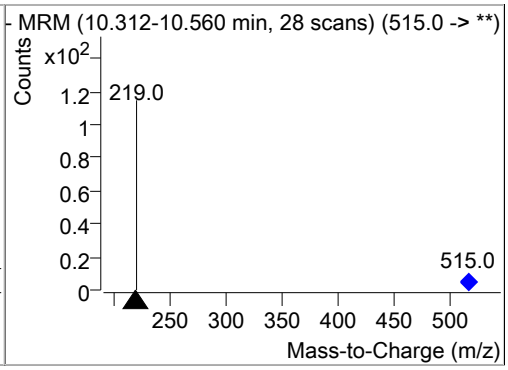




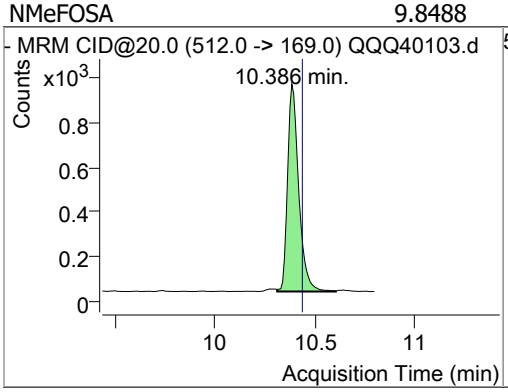
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.5655	10.39	-0.05	1132				

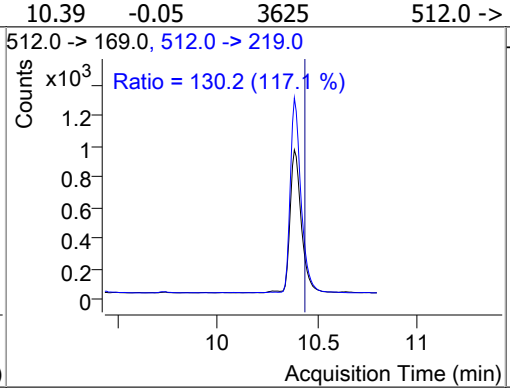


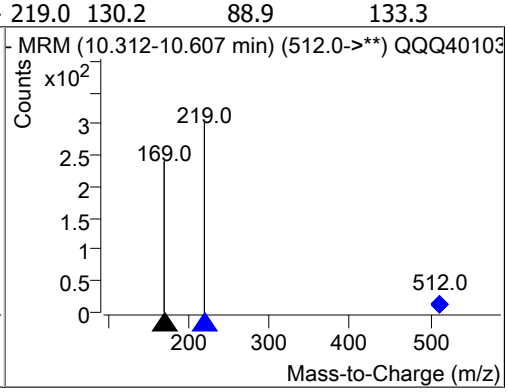




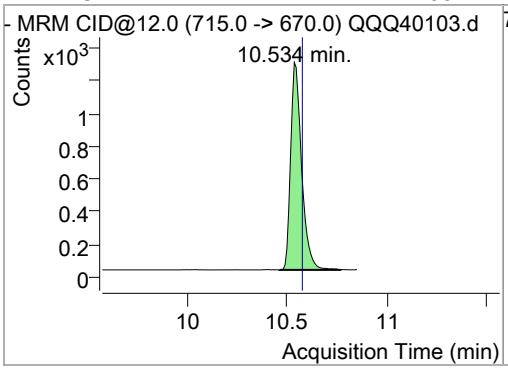
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	9.8488	10.39	-0.05	3625	512.0 -> 219.0	130.2	88.9	133.3

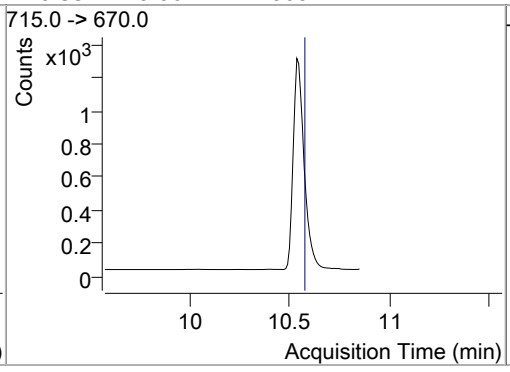


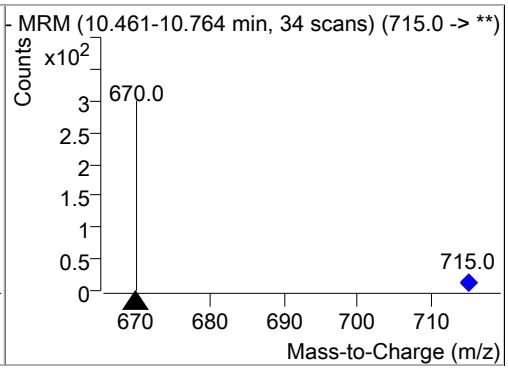




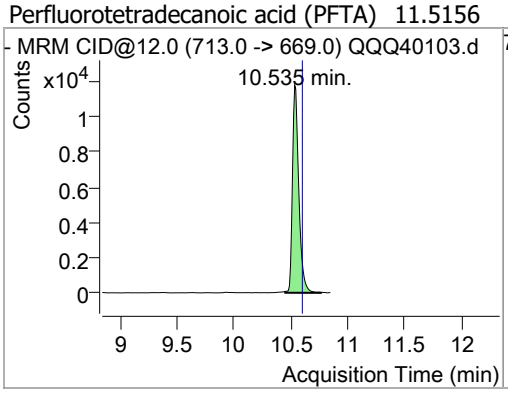
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.1802	10.53	-0.06	4860				

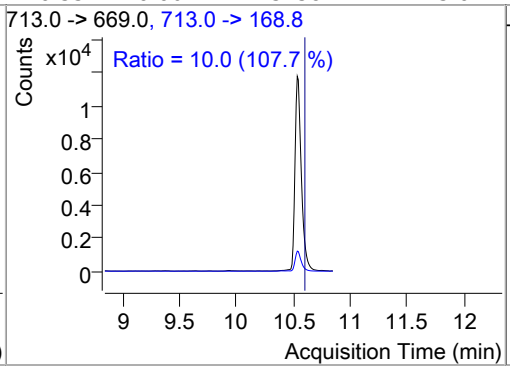


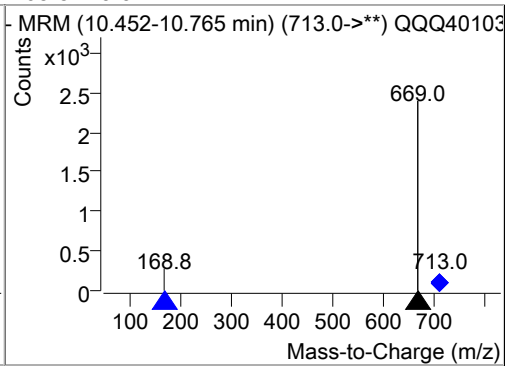




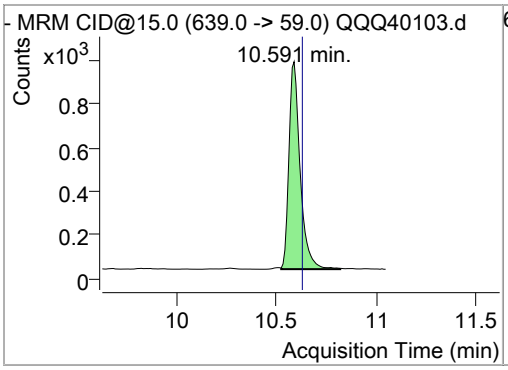
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	11.5156	10.53	-0.06	45458	713.0 -> 168.8	10.0	7.4	11.1

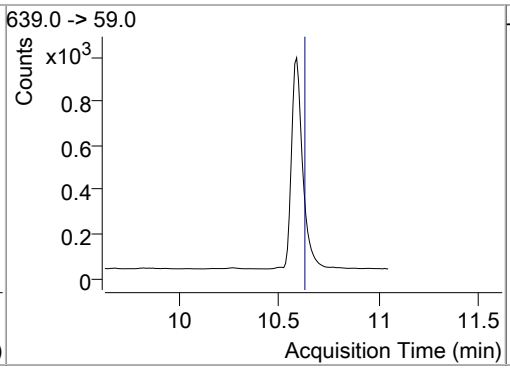


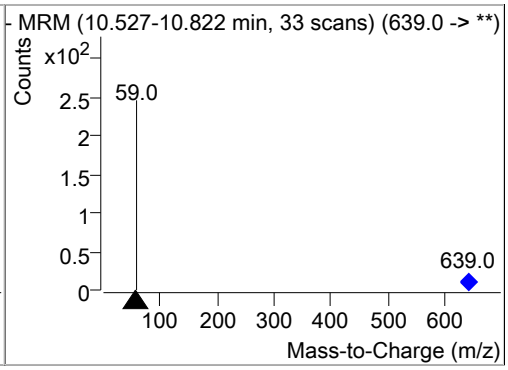




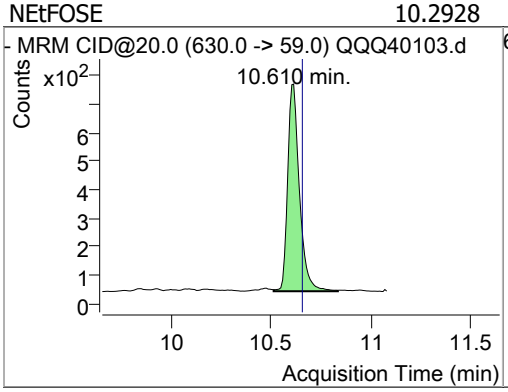
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	28.2083	10.59	-0.05	3716				

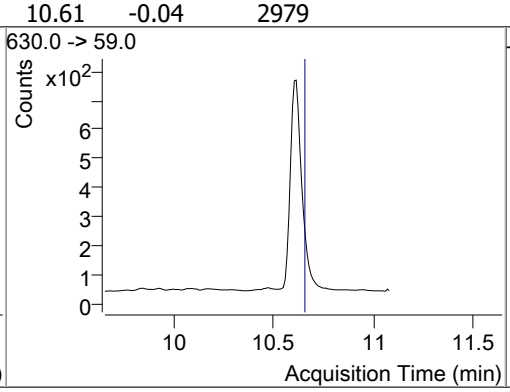


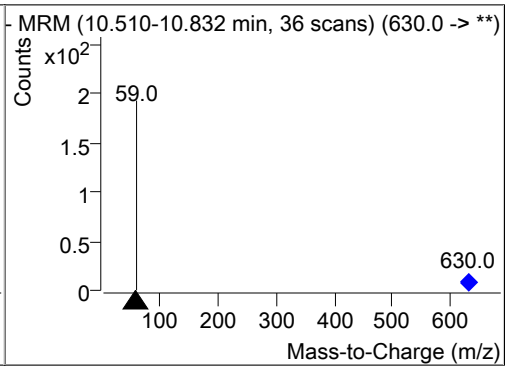




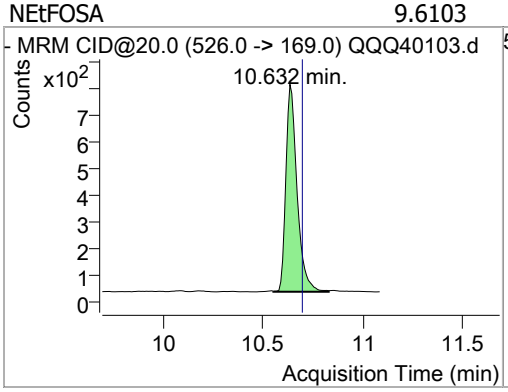
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	10.2928	10.61	-0.04	2979				

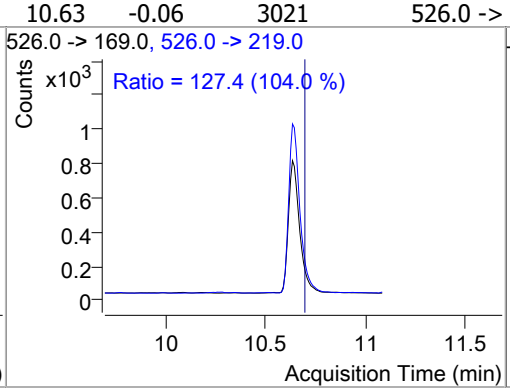


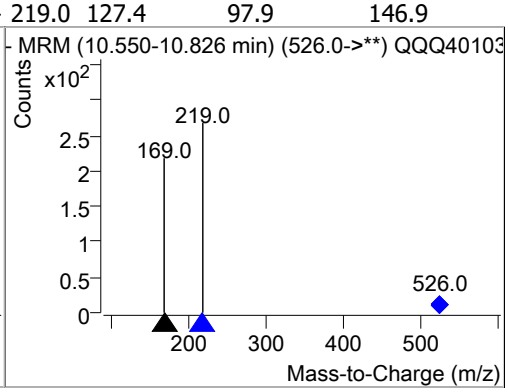




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	9.6103	10.63	-0.06	3021	526.0 -> 219.0	127.4	97.9	146.9







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-06-11B-1633-ICAL.batch.bin		
Analysis Time Stamp	6/12/2024 6:47:10 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	6/12/2024 6:50:37 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	6/12/2024 6:47:09 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	6/12/2024 5:23:25 AM	**Data File**	QQQ40103.d
Sample Type	Sample	**Sampe Name**	SEQ-SCV1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-butanoic acid (PFBA)	1.301	114562	17669	0.464			1.72			4574.93
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	111554	17065	0.482			1.53			297.29
PFMPA	2.281	57733	6831	0.607			1.72			5474.10
3:3FTCA	4.498	2946	405	0.416			1.40			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	100696	16188	0.408			1.69			7923.37
Perfluoro-n-pentanoic acid (PFPeA)	4.784	236222	37542	0.426			1.74			4891.45
PFMBA	5.514	88095	18332	0.333			1.70			310.13
M3PFBS	5.539	16307	3665	0.323			1.57			7443.63
Perfluorobutanesulfonic acid (PFBS)	5.539	85829	19302	0.334			1.61			∞
PFEESA	6.066	273377	67257	0.325			1.61			518.24
NFDHA	6.216	3637	963	0.260			1.63			722.90
M2-4-2FTS	6.297	25993	6096	0.325			1.40			8593.02
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	66667	15636	0.335			1.39			∞
M5PFHxA	6.372	52915	12795	0.312			1.61			5629.09
Perfluorohexanoic acid (PFHxA)	6.373	285421	68820	0.322			1.58			1359.70
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.593	72273	17906	0.294			1.66			182.57
M3-HFPO-DA	6.689	39470	9560	0.314			1.53			4319.20
HFPO-DA	6.689	4005	993	0.224			1.57			79.22
M4PFHpA	7.262	13592	3073	0.343			1.81			20499.73
Perfluoroheptanoic acid (PFHpA)	7.263	140711	33558	0.371			1.82			3561.71
5-3FTCA	7.328	35073	8261	0.315			1.53			1231.63
M3PFHxS	7.373	11260	2642	0.252			1.96			9442.92
Perfluorohexanesulfonic acid (PFHxS)	7.383	68253	13769	0.502			1.46			371.37

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.411	90661	21420	0.316			1.51			∞
M2-6-2FTS	7.921	22568	5224	0.344			1.88			70.75
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	60148	13822	0.279			1.86			∞
Perfluorooctanoic acid (PFOA)	7.988	148729	35561	0.279			1.68			∞
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.987	28886	6705	0.279			1.64			54474.27
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	51391	12512	0.280			1.76			5228.52
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.581	5699	1407	0.334			2.05			∞
Perfluorononanoic acid (PFNA)	8.591	156004	38524	0.296			1.49			132.61
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.616	4691	1193	0.269			2.11			166.63
Perfluorooctanesulfonic acid (PFOS)	8.617	47147	7994	0.502			1.78			192.36
7-3FTCA	8.730	62567	14967	0.284			1.68			137.71
9-Cl-PF3ONS	8.930	221397	56524	0.288			1.70			2791.92
M2-8-2FTS	9.052	34552	8574	0.269			1.73			13562.50
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.053	17714	4413	0.306			1.75			1259.08
M6PFDA	9.090	14935	3760	0.297			1.61			17876.65
Perfluorodecanoic acid (PFDA)	9.091	142477	36084	0.306			1.55			∞
Perfluorononanesulfonate (L-PFNS)	9.107	34956	8704	0.335			1.41			1480.45
d3-N-MeFOSAA	9.292	20369	4852	0.297			1.47			745.42
N-MeFOSAA	9.292	39888	8175	0.492			1.73			1194.50
d5-N-EtFOSAA	9.523	17323	4026	0.296			1.55			∞
N-EtFOSAA	9.533	35344	7155	0.464			1.46			∞
M7PFUdA	9.534	17152	4287	0.259			1.65			∞
Perfluoroundecanoic acid (PFUnA)	9.535	127803	31673	0.305			1.68			249.19
Perfluoro-1-decanesulfonate (L-PFDS)	9.532	14427	3484	0.306			1.79			1052.22
Perfluoro-1-octanesulfonamide (FOSA)	9.639	62201	14223	0.527			1.47			421.34
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.639	10042	2327	0.314			1.58			∞
11-Cl-PF3OUdS	9.780	138424	34535	0.260			1.84			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.930	13842	3433	0.277			1.76			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.931	86988	21481	0.287			1.71			∞
d5-NEtFOSA	10.622	609	160	0.221			2.07			19.87
Perfluorododecanesulfonic acid (PFDoS)	10.241	7417	1910	0.275			1.99			56.73
Perfluorotridecanoic acid (PFTrDA)	10.260	59645	15559	0.304			1.69			∞
d7-NMeFOSE	10.354	8336	2090	0.303			1.65			686.50
NMeFOSE	10.364	3335	829	0.303			1.85			209.86
d3-NMeFOSA	10.385	1132	299	0.248			1.48			248.57
NMeFOSA	10.386	3625	932	0.295			1.77			455.94
M2PFTeDA	10.534	4860	1274	0.304			2.06			1453.30
Perfluorotetradecanoic acid (PFTA)	10.535	45458	11726	0.313			1.91			1742.30
d9-NEtFOSE	10.591	3716	956	0.295			1.56			848.57
NEtFOSE	10.610	2979	727	0.322			1.33			263.30
NEtFOSA	10.632	3021	774	0.277			1.86			352.67

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41361.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV1	Injection Time:	09:07

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A	9.45	8.85	0.8591385	0.978082		-6.4	30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A	9.60	9.00	0.2419004	0.2297812		-6.2	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A	9.38	8.80	1.185549	1.182313		-6.2	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A	9.50	7.64	1.255886	1.332346		-19.6	30
3-Perfluoroheptyl propanoic acid (FHpPA)	A	62.6	66.1	0.2201101	0.2234207		5.6	30
3-Perfluoropentyl propanoic acid (FPePA)	A	62.6	55.9	0.1241024	0.1414675		-10.7	30
3-Perfluoropropyl propanoic acid (FPrPA)	A	12.5	11.5	1.286716E-02	1.542585E-02		-8.2	30
9CL-PF3ONS	A	9.35	9.47	1.369128	1.530244		1.3	30
ADONA	A	9.45	9.10	0.556015	0.5327751		-3.7	30
HFPO-DA (Gen-X)	A	10.0	10.8	2.239571E-02	2.375341E-02		7.9	30
N-EtFOSA	A	2.50	2.66	1.287944	1.33125		6.5	30
N-EtFOSAA	A	2.50	2.60	0.94945	0.8957032		3.9	30
N-EtFOSE	A	25.0	22.1	1.993152	1.922664		-11.4	30
N-MeFOSA	A	2.50	2.58	0.7524916	0.8698845		3.3	30
N-MeFOSAA	A	2.50	2.65	0.8763811	0.9230069		6.0	30
N-MeFOSE	A	25.0	25.8	0.824401	0.8448223		3.1	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A	4.45	4.24	1.241156	1.252835		-4.8	30
Perfluoro-1-decanesulfonic acid (PFDS)	A	2.41	2.15	0.7352727	0.8048415		-10.7	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A	2.38	2.16	2.525683	2.411202		-9.3	30
Perfluoro-1-nonanesulfonic acid (PFNS)	A	2.40	2.44	0.1655348	0.174111		1.6	30
Perfluoro-1-octanesulfonamide (FOSA)	A	2.50	2.45	1.385288	1.398276		-2.1	30
Perfluoro-1-pentanesulfonate (PFPeS)	A	2.35	2.30	1.400558	1.312208		-2.2	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A	5.00	4.48	1.573594E-02	1.571333E-02		-10.5	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41361.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV1	Injection Time:	09:07

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A	5.00	4.90	0.2604373	0.2929917		-2.0	30
Perfluoro-5-oxahexanoic acid (PFMBA)	A	5.00	5.09	0.4108024	0.425029		1.8	30
Perfluorobutanesulfonic acid (PFBS)	A	2.22	2.19	1.128938	1.081747		-1.3	30
Perfluorodecanoic acid (PFDA)	A	2.50	2.49	1.09146	1.141539		-0.2	30
Perfluorododecanesulfonic acid (PFDoS)	A	2.42	2.44	0.4284993	0.4623443		0.9	30
Perfluorododecanoic acid (PFDoA)	A	2.50	2.70	0.8702134	0.8789971		8.0	30
Perfluoroheptanoic acid (PFHpA)	A	2.50	2.84	2.370614	2.531482		13.5	30
Perfluorohexanesulfonic acid (PFHxS)	A	2.28	2.22	1.39602	1.195371		-2.7	30
Perfluorohexanoic acid (PFHxA)	A	2.50	2.40	1.166423	1.106748		-4.1	30
Perfluoro-n-butanoic acid (PFBA)	A	10.0	9.86	0.9037138	0.8651131		-1.4	30
Perfluorononanoic acid (PFNA)	A	2.50	2.57	3.453721	3.328803		2.6	30
Perfluorooctanesulfonic acid (PFOS)	A	2.32	2.23	2.631087	2.284422		-4.0	30
Perfluorooctanoic acid (PFOA)	A	2.50	2.76	1.254067	1.131049		10.3	30
Perfluoropentanoic acid (PFPeA)	A	5.00	5.06	1.003786	0.9708576		1.3	30
Perfluorotetradecanoic acid (PFTA)	A	2.50	2.61	1.041146	1.017133		4.3	30
Perfluorotridecanoic acid (PFTrDA)	A	2.50	2.58	1.484165	1.299997		3.2	30
Perfluoroundecanoic acid (PFUnA)	A	2.50	2.19	0.9068038	0.8503675		-12.5	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41361.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 9:07:41 AM
Sample Name	SEQ-CCV1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	2.5 - 62.5 ng/mL
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

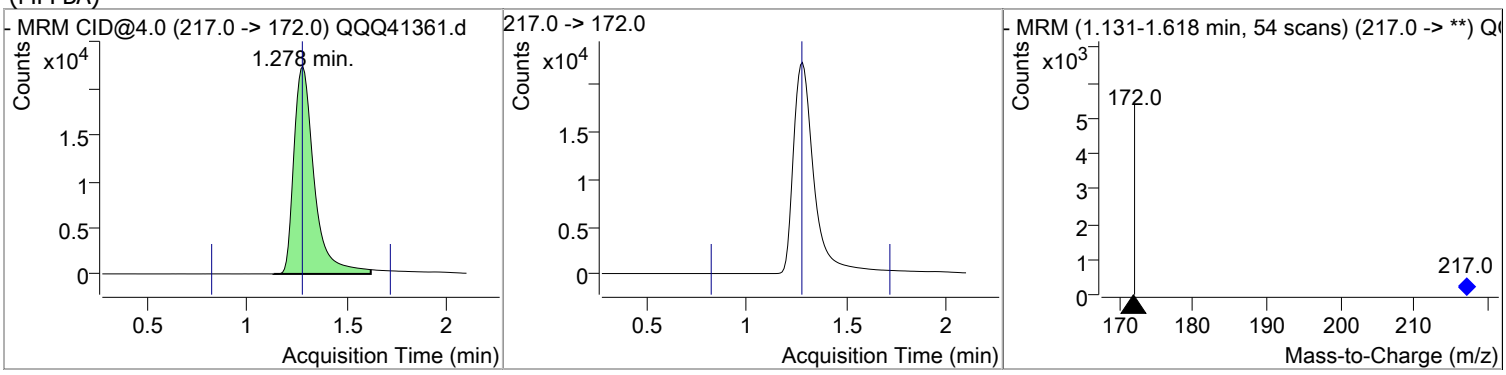
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.271	216.0 -> 172.0	31608	5.0000	ng/ml	0.018
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.278	217.0 -> 172.0	158484	10.0000	ng/ml	0.028
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.690	268.0 -> 223.0	126101	5.0000	ng/ml	-0.037
MPFHxA	6.299	315.0 -> 269.8	40070	2.5000	ng/ml	-0.074
MPFHxS	7.242	403.0 -> 103.0	4463	2.3700	ng/ml	-0.140
M3PFBS-EIS	5.474	302.0 -> 79.9	19626	2.3300	ng/ml	-0.056
M5PFHxA-EIS	6.298	318.0 -> 273.0	65280	2.5000	ng/ml	-0.074
M2-4-2FTS-EIS	6.223	329.0 -> 309.0	24141	4.6900	ng/ml	-0.074
M3PFHxS-EIS	7.243	402.0 -> 80.0	13599	2.3700	ng/ml	-0.140
M3-HFPO-DA-EIS	6.597	287.0 -> 169.0	47358	10.0000	ng/ml	-0.093
M4PFHpA-EIS	7.142	367.0 -> 322.0	15548	2.5000	ng/ml	-0.120
M2-6-2FTS-EIS	7.772	429.0 -> 409.0	15507	4.7550	ng/ml	-0.158
MPFOA	7.830	417.0 -> 372.0	48987	2.5000	ng/ml	-0.167
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.829	421.0 -> 376.0	37618	2.5000	ng/ml	-0.167
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.477	507.0 -> 98.9	5790	2.3950	ng/ml	-0.149
MPFNA	8.442	468.0 -> 423.0	23561	1.2500	ng/ml	-0.158
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.442	472.0 -> 223.0	6063	1.2500	ng/ml	-0.148
MPFOS	8.477	503.0 -> 80.0	11805	2.3950	ng/ml	-0.149
M2-8-2FTS-EIS	8.931	529.0 -> 509.0	38882	4.8000	ng/ml	-0.112
MPFDA	8.970	515.0 -> 469.8	15435	1.2500	ng/ml	-0.111
M6PFDA-EIS	8.960	519.0 -> 473.9	20989	1.2500	ng/ml	-0.121
d3-N-MeFOSAA-EIS	9.171	573.0 -> 418.8	29176	5.0000	ng/ml	-0.111
M7PFUdA-EIS	9.432	570.0 -> 525.0	30670	1.2500	ng/ml	-0.083
d5-N-EtFOSAA-EIS	9.412	589.0 -> 418.8	29699	5.0000	ng/ml	-0.093
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.546	506.0 -> 78.0	18619	2.5000	ng/ml	-0.102
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.847	615.0 -> 570.0	26399	1.2500	ng/ml	-0.046
M2PFTeDA-EIS	10.534	715.0 -> 670.0	12429	1.2500	ng/ml	0.046
d7-NMeFOSE-EIS	10.299	623.0 -> 59.0	14632	25.0000	ng/ml	0.000
d3-NMeFOSA-EIS	10.330	515.0 -> 219.0	2015	2.5000	ng/ml	0.000
d9-NEtFOSE-EIS	10.564	639.0 -> 59.0	6764	25.0000	ng/ml	0.028
d5-NEtFOSA-EIS	10.604	531.0 -> 169.0	1196	2.5000	ng/ml	0.028
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.278	217.0 -> 172.0	158484	10.0128	ng/ml	0.028
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.690	268.0 -> 223.0	126101	4.9332	ng/ml	-0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.474	302.0 -> 79.9	19626	2.4647	ng/ml	-0.056
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.223	329.0 -> 309.0	24182	4.5488	ng/ml	-0.074

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.298	318.0 -> 273.0	65280	2.5528	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.597	287.0 -> 169.0	47350	10.5929	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.142	367.0 -> 322.0	15548	2.7372	ng/ml		-0.120
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.243	402.0 -> 80.0	13599	2.4478	ng/ml		-0.140
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.772	429.0 -> 409.0	15520	4.3591	ng/ml		-0.158
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.829	421.0 -> 376.0	37618	2.4113	ng/ml		-0.167
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.442	472.0 -> 223.0	6063	1.2075	ng/ml		-0.148
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.477	507.0 -> 98.9	5790	2.6743	ng/ml		-0.149
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.931	529.0 -> 509.0	38882	4.6504	ng/ml		-0.112
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	8.960	519.0 -> 473.9	20989	1.2412	ng/ml		-0.121
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.171	573.0 -> 418.8	29176	5.2304	ng/ml		-0.111
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.412	589.0 -> 418.8	29699	6.0288	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.432	570.0 -> 525.0	30670	1.3400	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.546	506.0 -> 78.0	18622	2.6253	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.847	615.0 -> 570.0	26402	1.3121	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.299	623.0 -> 59.0	14632	25.7052	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.330	515.0 -> 219.0	2017	2.8145	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.534	715.0 -> 670.0	12429	1.3844	ng/ml		0.046
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.564	639.0 -> 59.0	6768	26.7049	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.604	531.0 -> 169.0	1203	2.7405	ng/ml	m	0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.274	213.0 -> 168.9	137106	9.8581	ng/ml		100
PFMPA	2.190	229.0 -> 85.0	36947	4.9004	ng/ml		100
3:3FTCA	4.387	241.0 -> 177.0	5035	11.4758	ng/ml		96
Perfluoro-n-pentanoic acid (PFPeA)	4.691	263.0 -> 219.0	122426	5.0634	ng/ml		100
PFMBA	5.449	279.0 -> 85.0	53597	5.0888	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.474	298.9 -> 79.9	18853	2.1916	ng/ml		98
PFEESA	6.001	315.0 -> 135.0	145577	4.2365	ng/ml		100
NFDHA	6.151	295.0 -> 201.1	2052	4.4750	ng/ml	#	88
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.223	327.0 -> 307.0	53545	8.7998	ng/ml		97

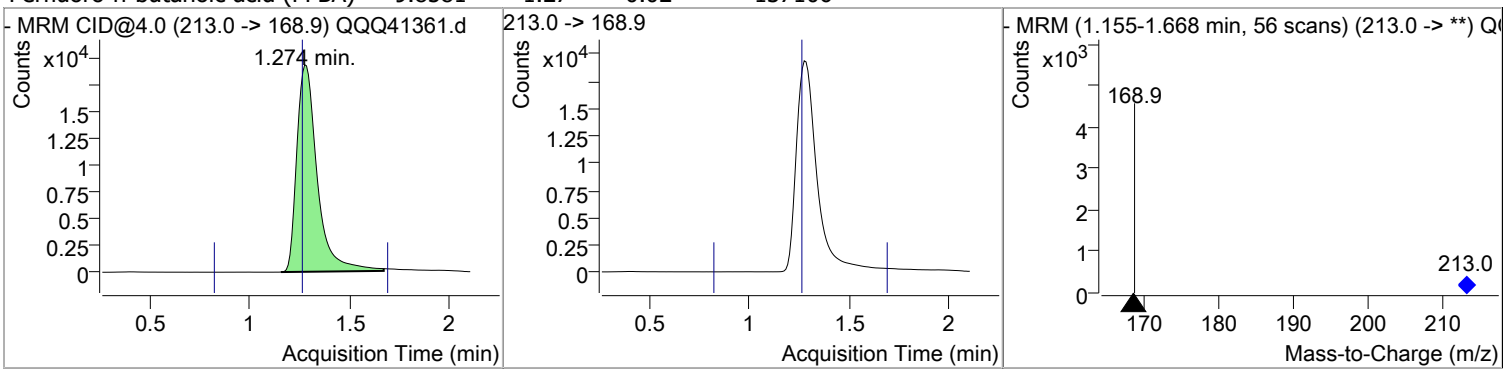
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.299	313.0 -> 268.9	72248	2.3975	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.509	348.9 -> 79.9	16775	2.2993	ng/ml		99
HFPO-DA	6.597	285.0 -> 169.1	4500	10.7932	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.142	363.0 -> 318.8	39359	2.8376	ng/ml		99
5-3FTCA	7.208	341.0 -> 217.0	231244	55.8913	ng/ml		98
Perfluorohexanesulfonic acid (PFHxS)	7.243	398.9 -> 79.9	14826	2.2192	ng/ml	m	97
ADONA	7.271	377.0 -> 85.0	95374	9.0987	ng/ml		95
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.773	427.0 -> 407.0	39256	7.6351	ng/ml		96
Perfluorooctanoic acid (PFOA)	7.830	413.0 -> 368.8	42548	2.7566	ng/ml		99
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.893	448.9 -> 80.0	13290	2.1593	ng/ml		97
Perfluorononanoic acid (PFNA)	8.442	463.0 -> 418.8	40368	2.5658	ng/ml		98
Perfluorooctanesulfonic acid (PFOS)	8.478	498.9 -> 79.9	12274	2.2275	ng/ml	m	100
7-3FTCA	8.619	441.0 -> 337.0	365205	66.0997	ng/ml		99
9-Cl-PF3ONS	8.800	531.0 -> 351.0	271035	9.4742	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.931	527.0 -> 80.9	17154	9.0009	ng/ml		89
Perfluorodecanoic acid (PFDA)	8.961	513.0 -> 468.8	47919	2.4938	ng/ml		97
Perfluorononanesulfonate (L-PFNS)	8.977	548.9 -> 79.9	10539	2.4391	ng/ml		97
N-MeFOSAA	9.181	570.0 -> 418.9	13465	2.6492	ng/ml	m	87
Perfluoroundecanoic acid (PFUnA)	9.423	563.0 -> 519.0	52161	2.1874	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.421	598.9 -> 98.9	4492	2.1519	ng/ml		100
N-EtFOSAA	9.422	584.0 -> 418.8	13301	2.5966	ng/ml	m	97
Perfluoro-1-octanesulfonamide (FOSA)	9.546	497.9 -> 78.0	26035	2.4472	ng/ml		100
11-Cl-PF3OUdS	9.687	631.0 -> 451.0	175090	8.8476	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.848	613.0 -> 568.8	46410	2.6998	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.204	699.0 -> 80.0	2591	2.4408	ng/ml		94
Perfluorotridecanoic acid (PFTrDA)	10.214	663.0 -> 618.8	32314	2.5791	ng/ml		100
NMeFOSE	10.318	616.0 -> 59.0	12361	25.7870	ng/ml		100
NMeFOSA	10.340	512.0 -> 169.0	1753	2.5827	ng/ml		84
Perfluorotetradecanoic acid (PFTA)	10.535	713.0 -> 669.0	25283	2.6081	ng/ml		99
NEtFOSE	10.574	630.0 -> 59.0	13004	22.1497	ng/ml		100
NEtFOSA	10.614	526.0 -> 169.0	1592	2.6625	ng/ml		95

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

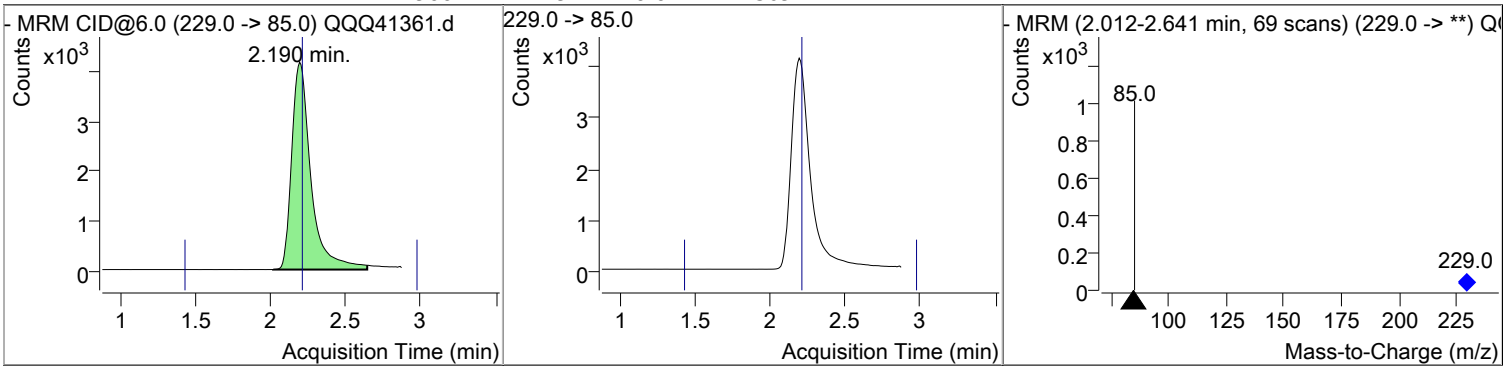
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.0128	1.28	0.03	158484				



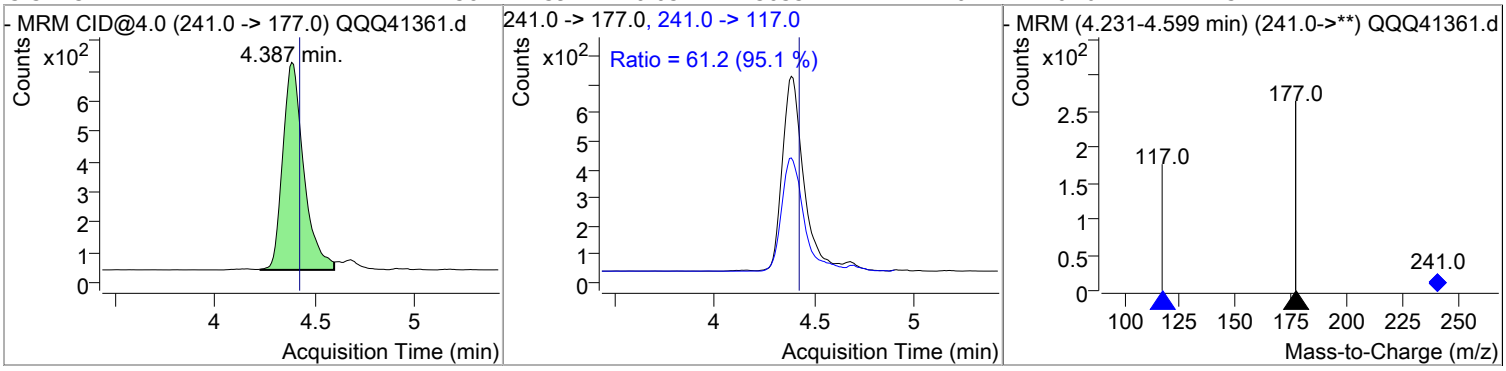
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	9.8581	1.27	0.02	137106				



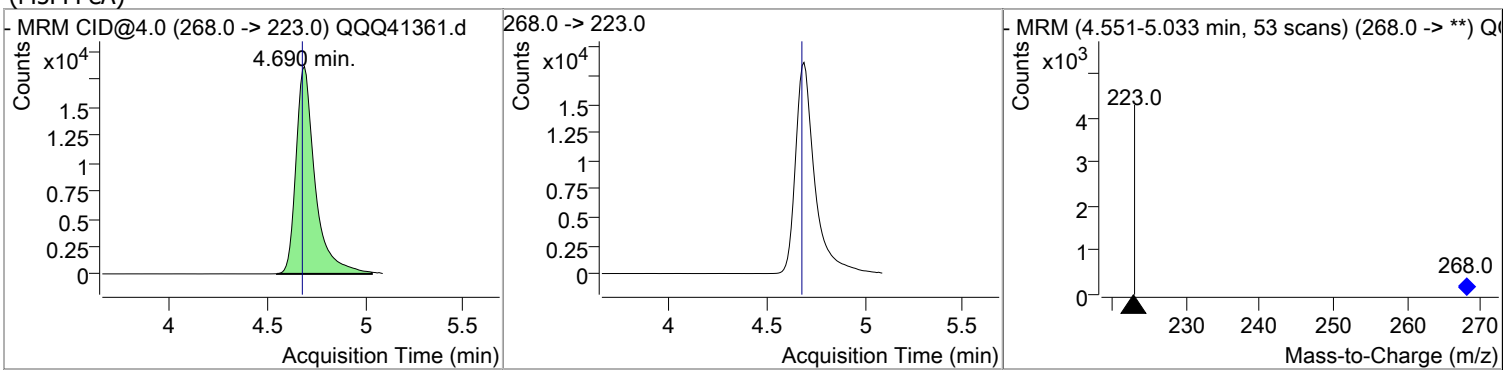
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	4.9004	2.19	-0.01	36947				



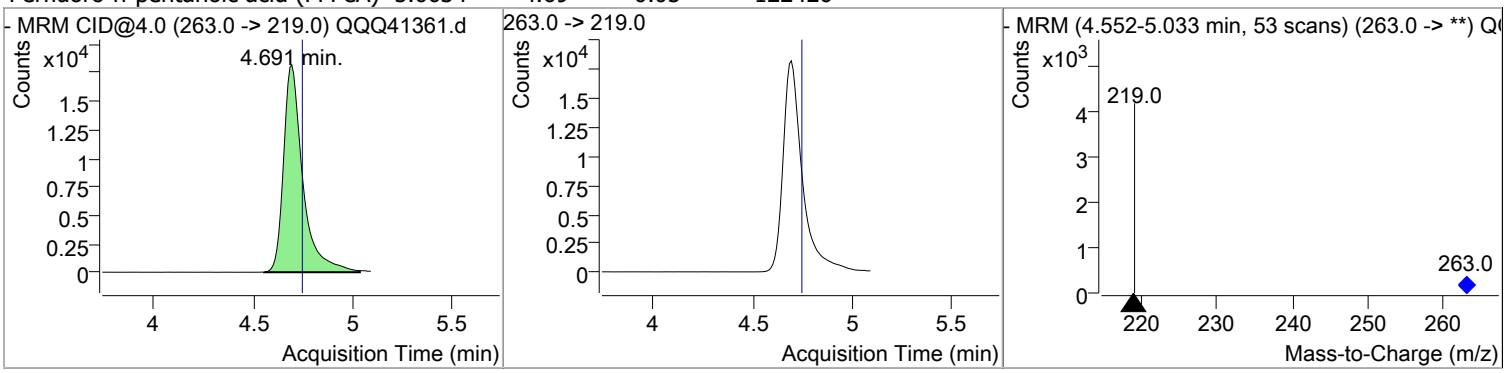
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	11.4758	4.39	-0.05	5035	241.0 -> 117.0	61.2	51.4	77.2



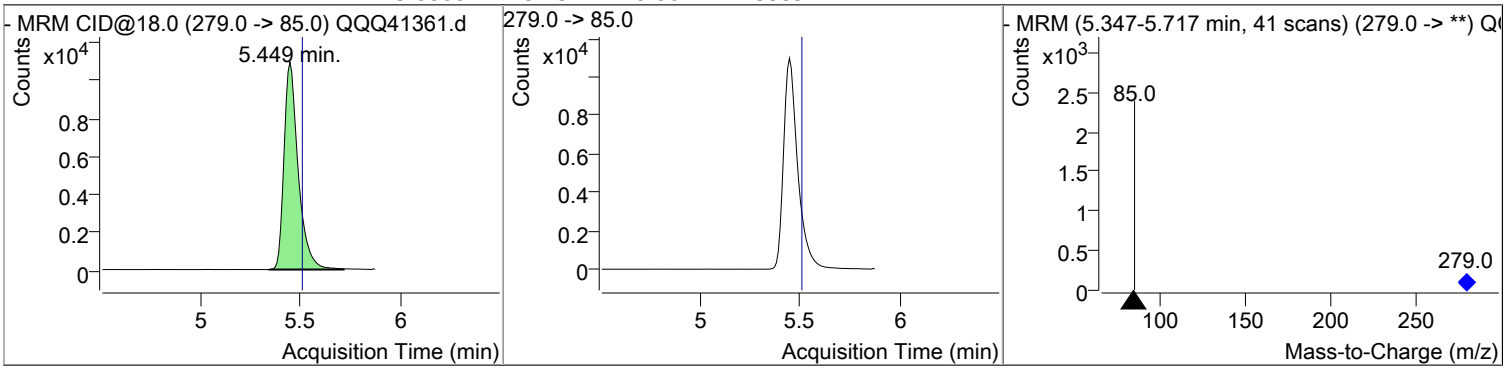
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.9332	4.69	-0.04	126101				



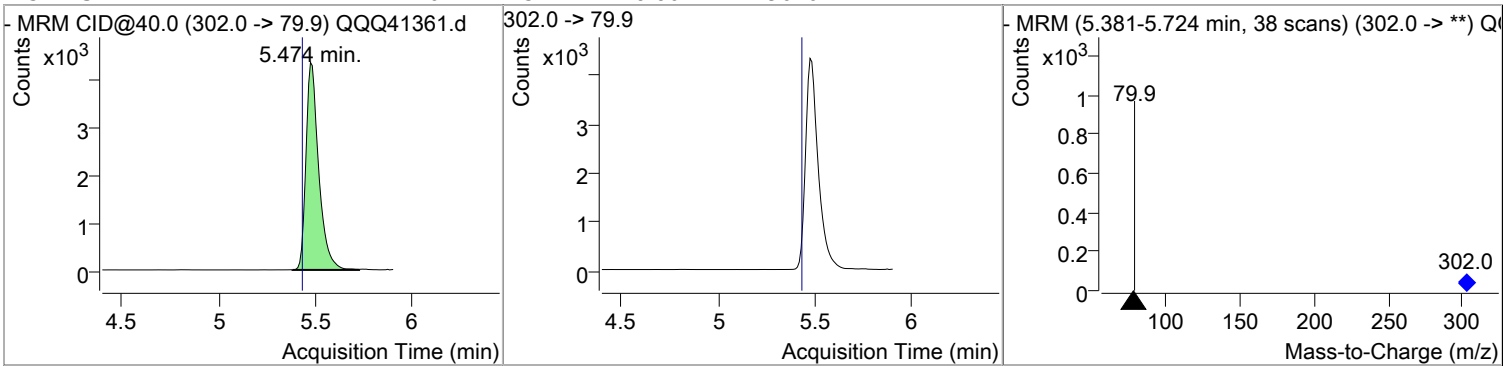
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	5.0634	4.69	-0.05	122426				



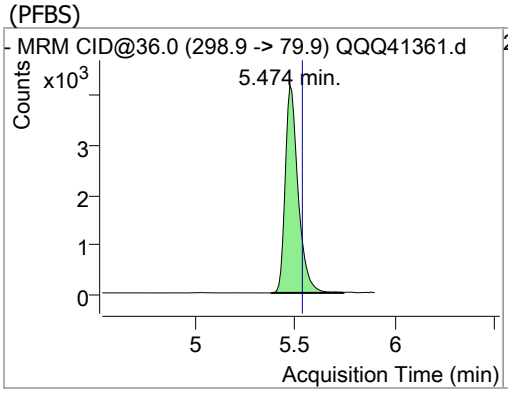
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	5.0888	5.45	-0.06	53597				

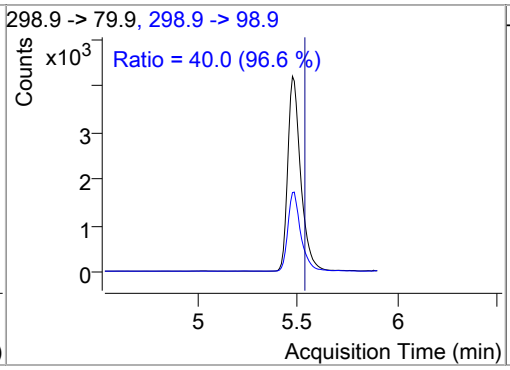


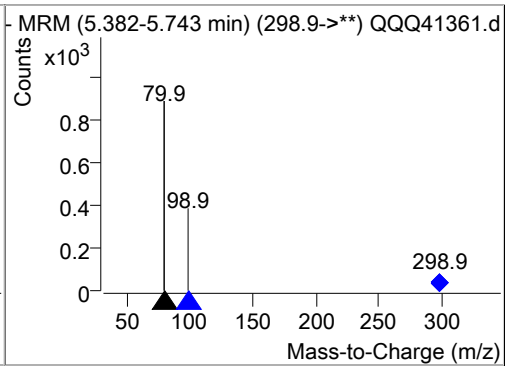
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.4647	5.47	-0.06	19626				



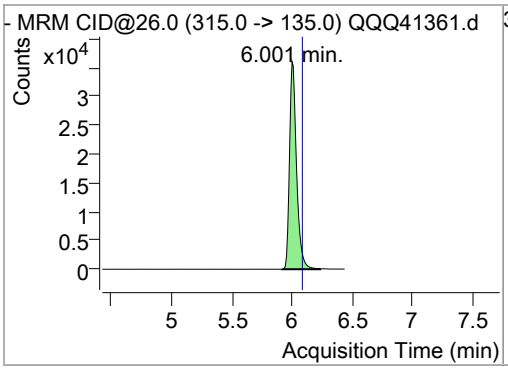
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.1916	5.47	-0.06	18853	298.9 -> 98.9	40.0	33.1	49.7

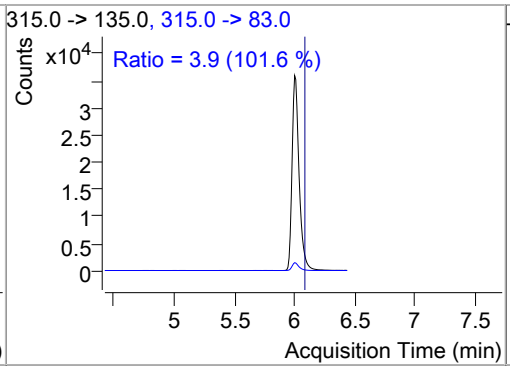


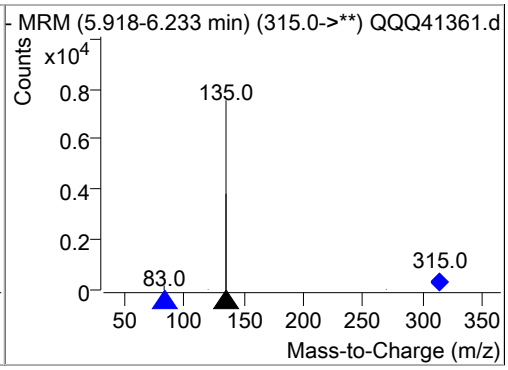




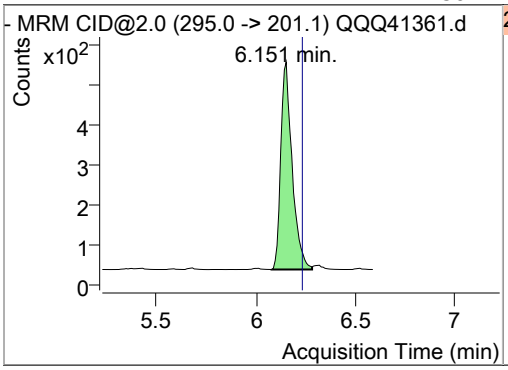
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	4.2365	6.00	-0.07	145577	315.0 -> 83.0	3.9	3.1	4.7

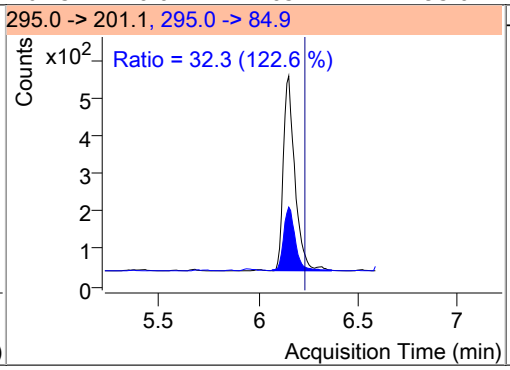


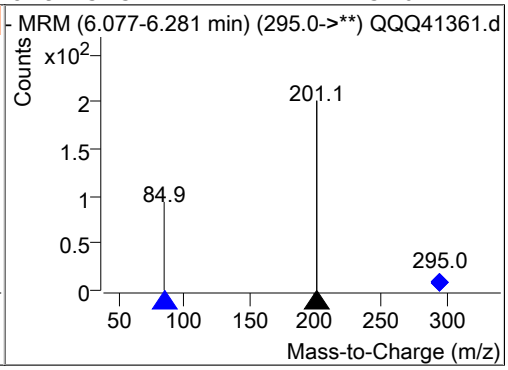




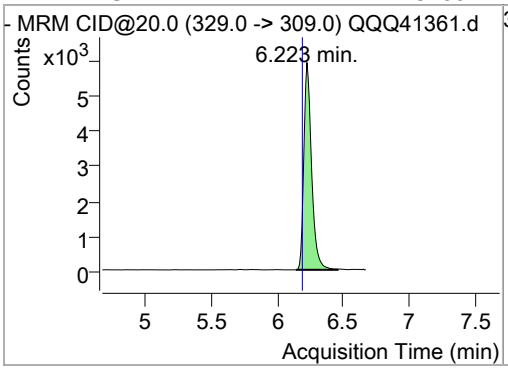
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	4.4750	6.15	-0.07	2052	295.0 -> 84.9	32.3	21.1	31.6

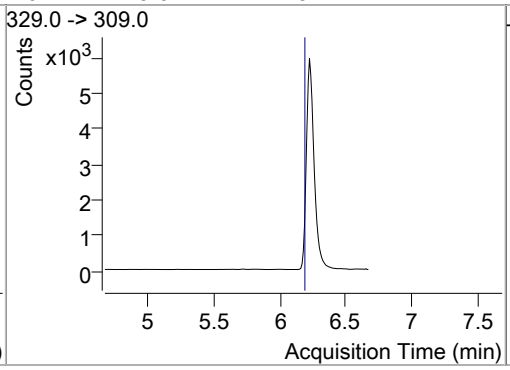


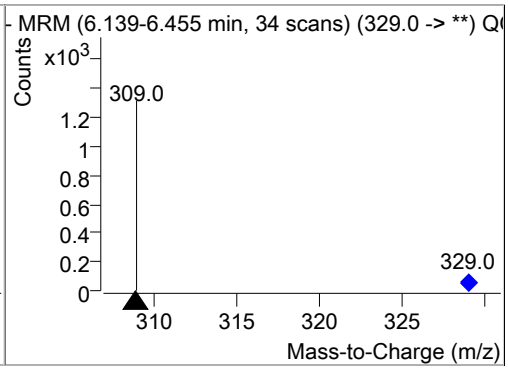




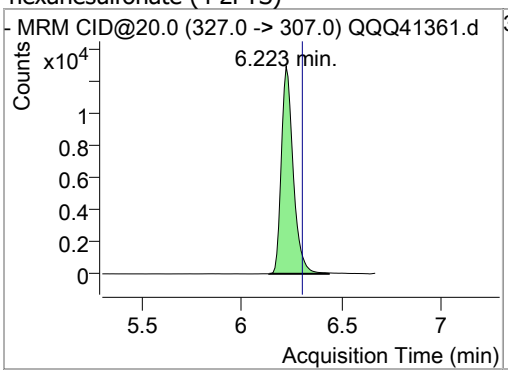
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.5488	6.22	-0.07	24182				

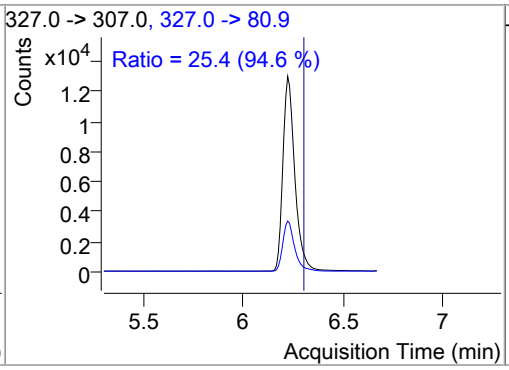


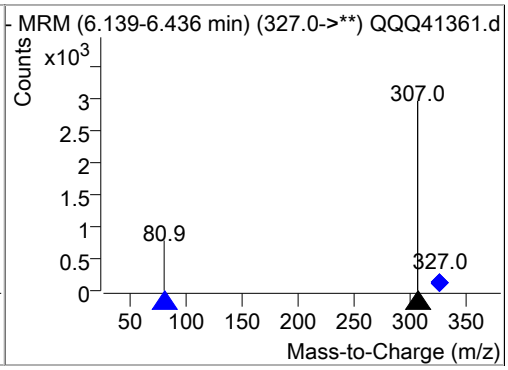




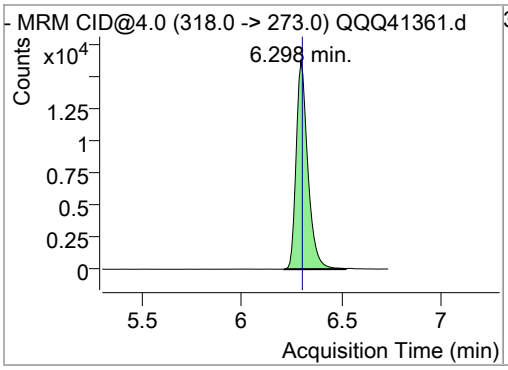
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	8.7998	6.22	-0.07	53545	327.0 -> 80.9	25.4	21.5	32.2

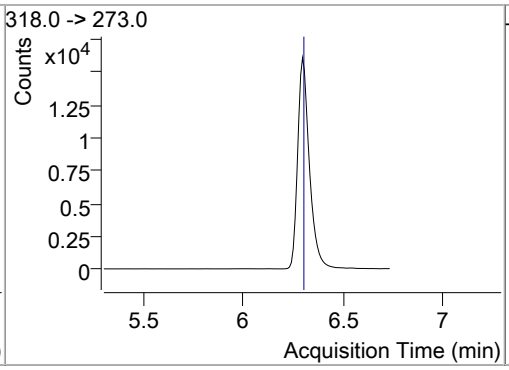


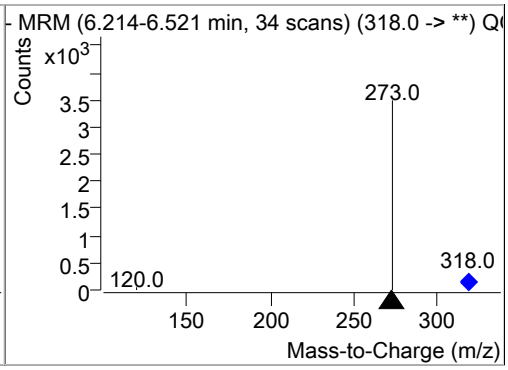




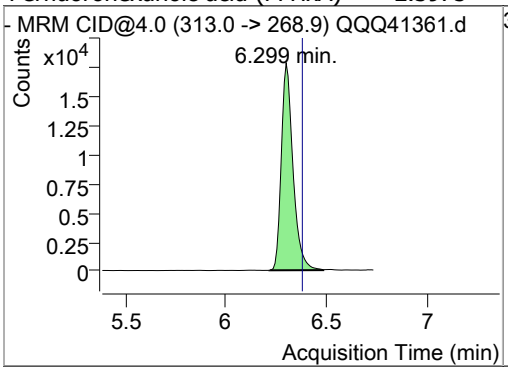
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.5528	6.30	-0.07	65280				

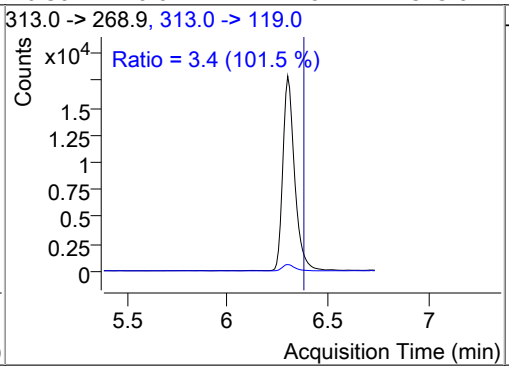


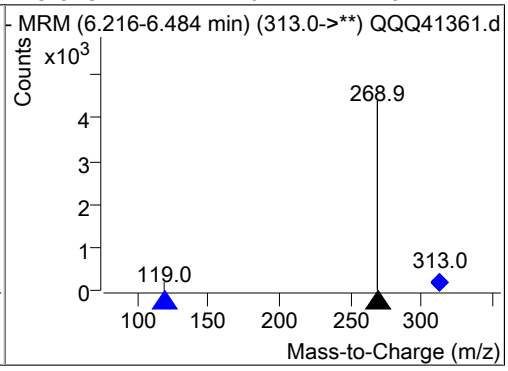




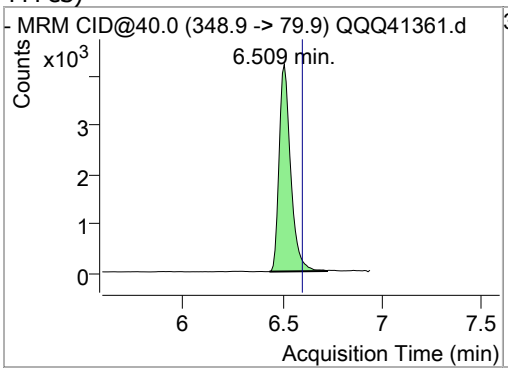
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	2.3975	6.30	-0.07	72248	313.0 -> 119.0	3.4	2.6	4.0

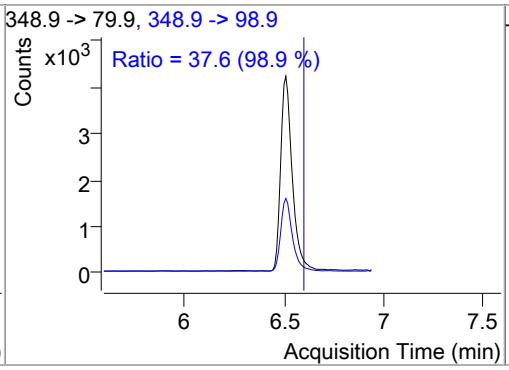


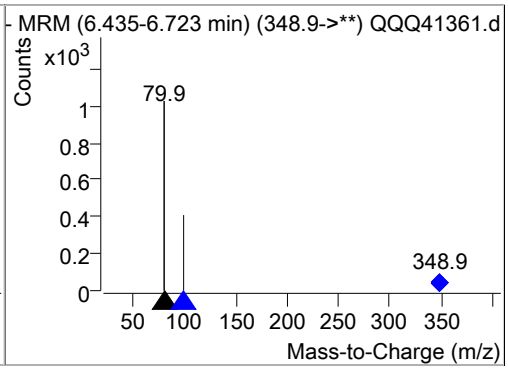




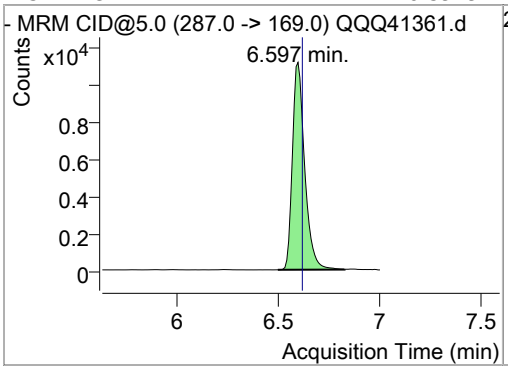
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	2.2993	6.51	-0.08	16775	348.9 -> 98.9	37.6	30.4	45.6

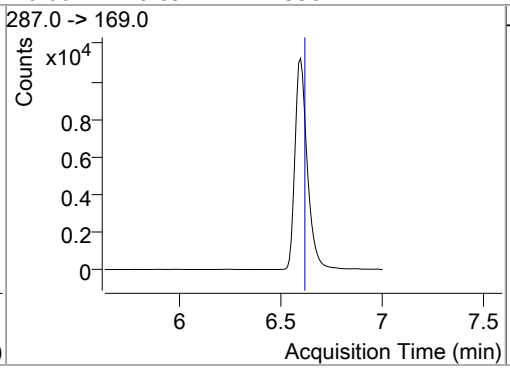


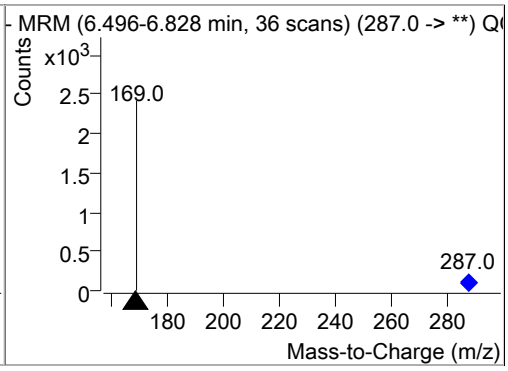




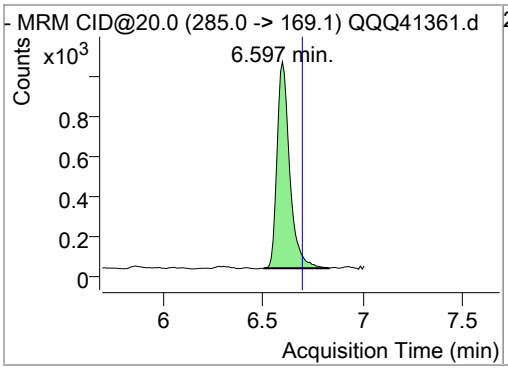
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.5929	6.60	-0.09	47350				

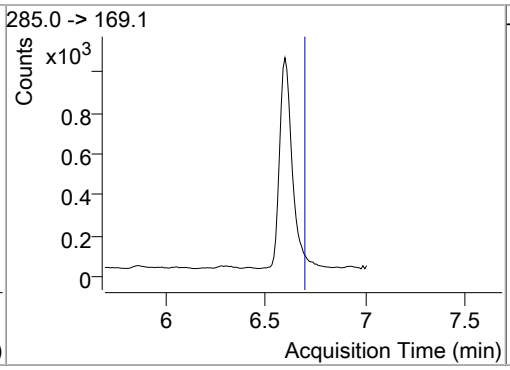


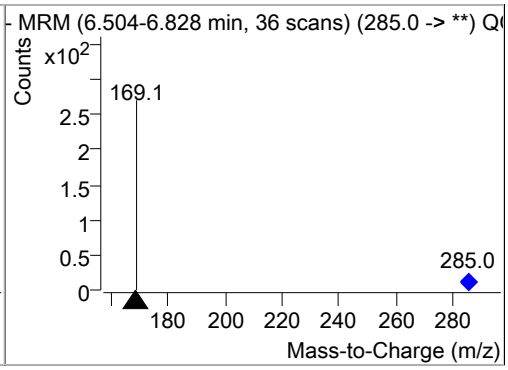




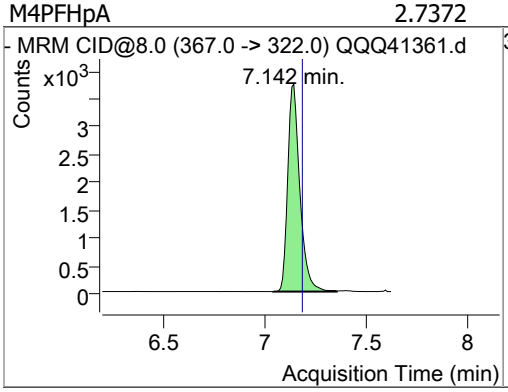
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	10.7932	6.60	-0.09	4500				

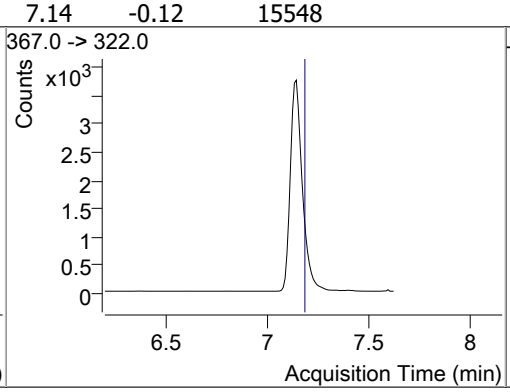


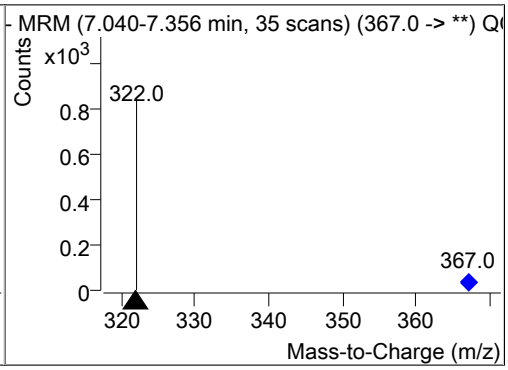




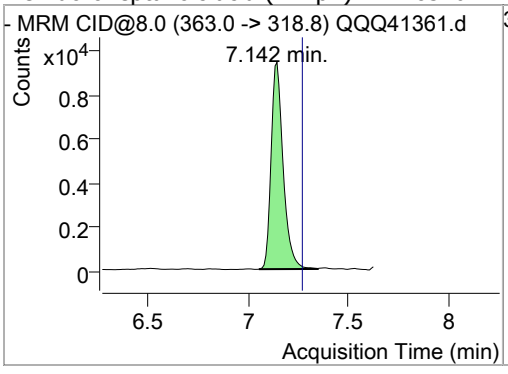
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.7372	7.14	-0.12	15548				

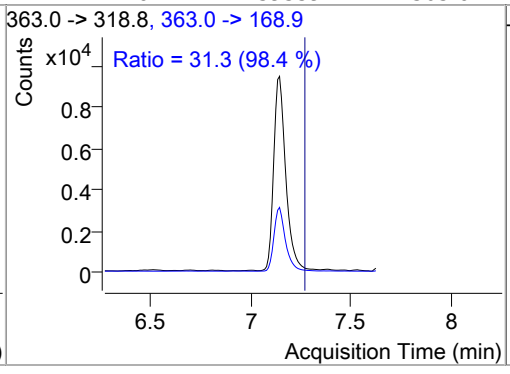


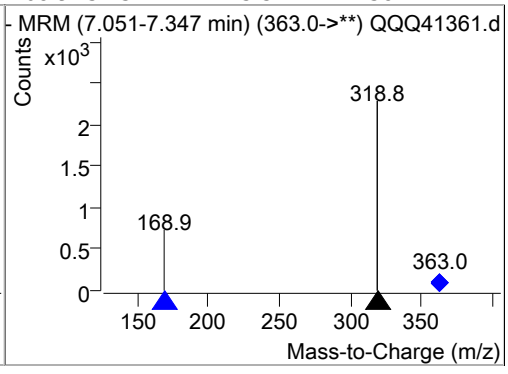




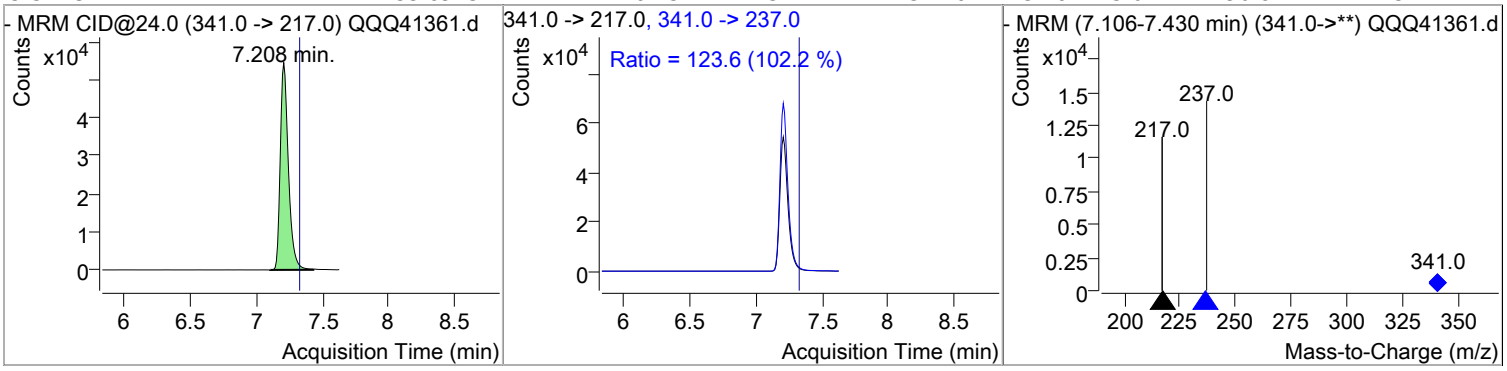
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	2.8376	7.14	-0.12	39359	363.0 -> 168.9	31.3	25.5	38.2



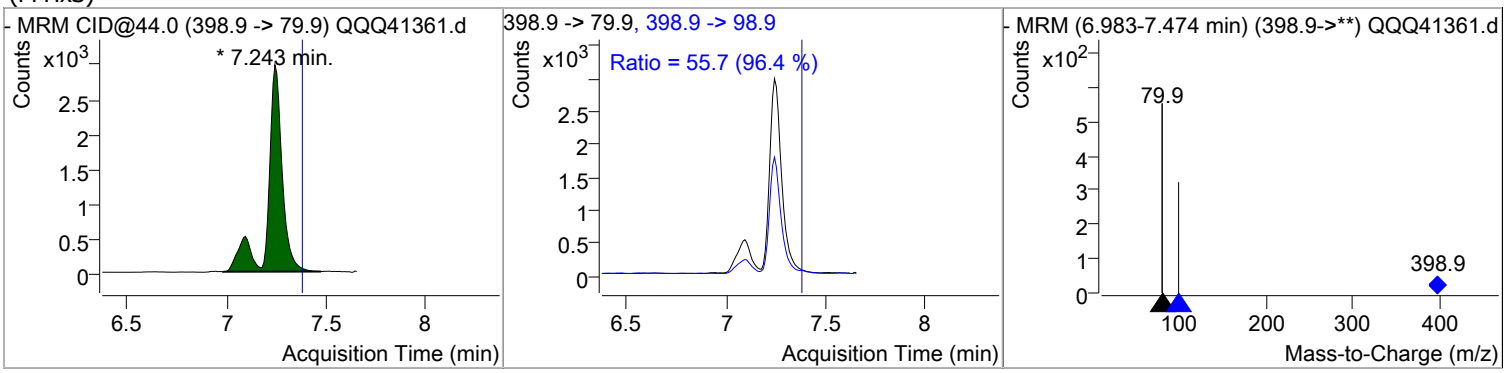




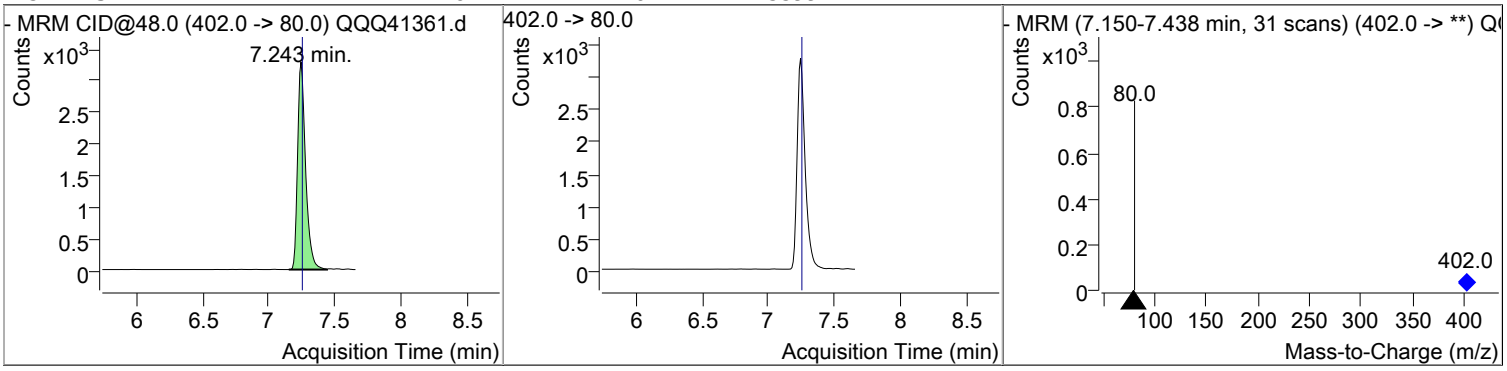
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	55.8913	7.21	-0.13	231244	341.0 -> 237.0	123.6	96.8	145.2



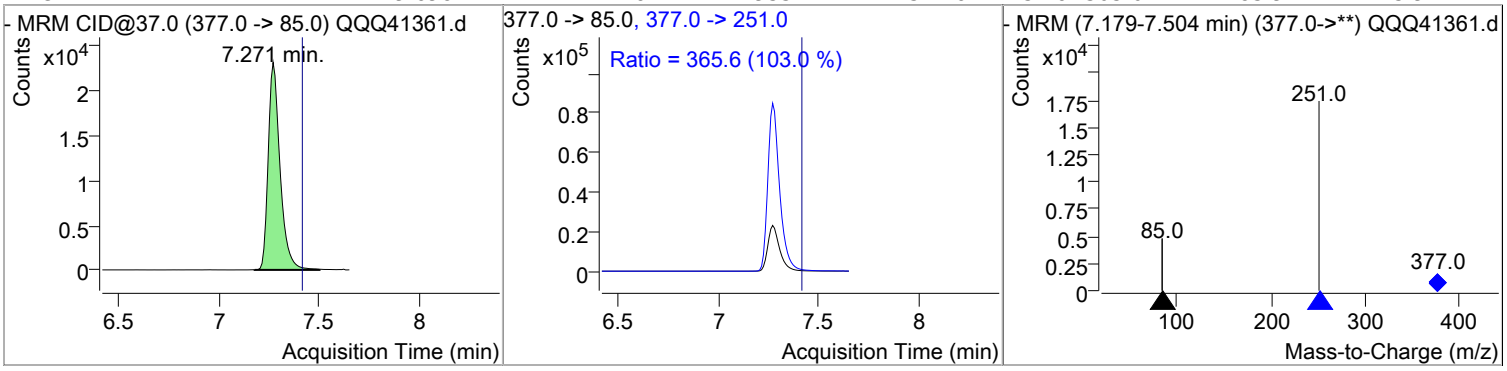
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	2.2192	7.24	-0.13	14826 (m)	398.9 -> 98.9	55.7	46.2	69.3



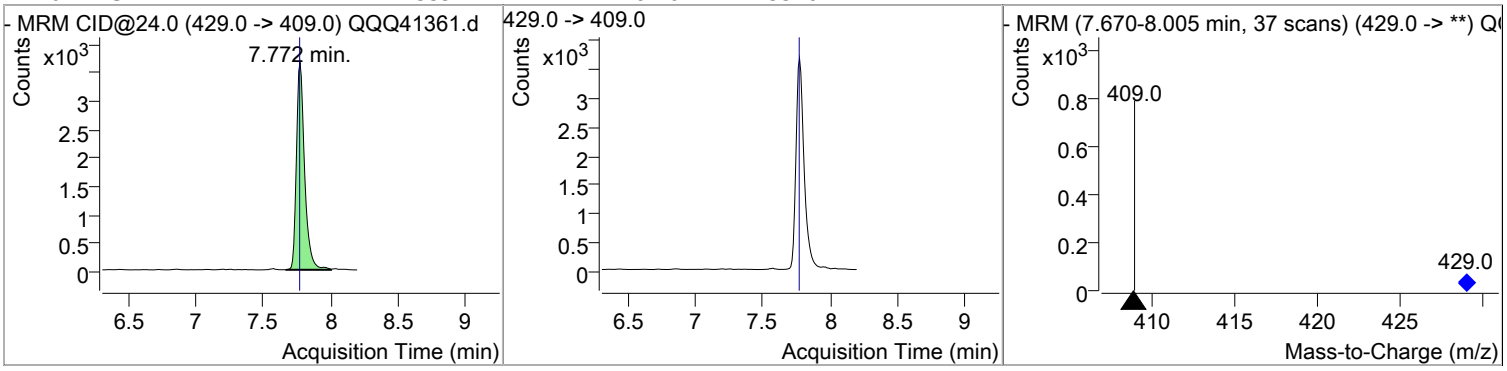
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.4478	7.24	-0.14	13599				



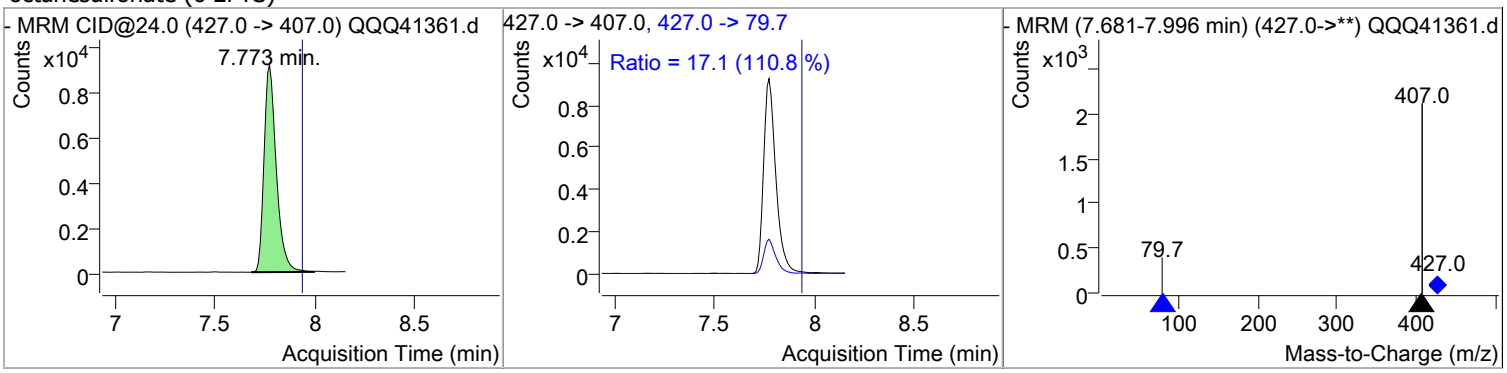
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	9.0987	7.27	-0.14	95374	377.0 -> 251.0	365.6	283.9	425.9



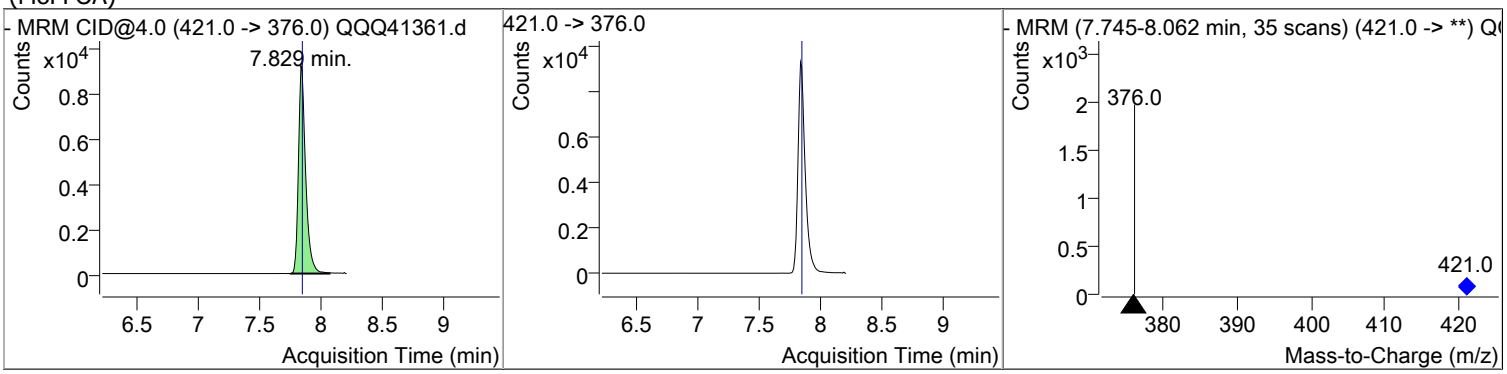
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.3591	7.77	-0.16	15520				



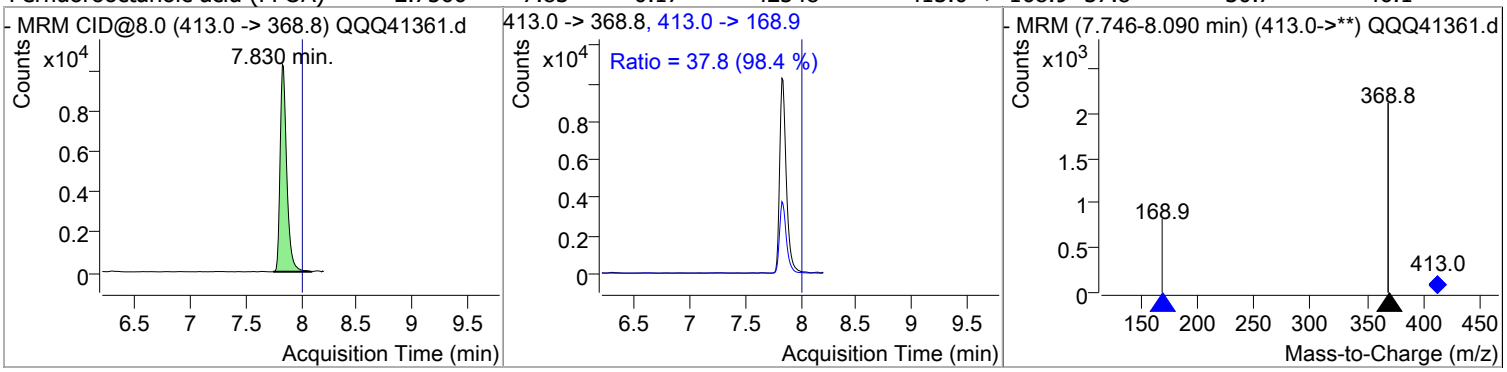
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.6351	7.77	-0.16	39256	427.0 -> 79.7	17.1	12.3	18.5



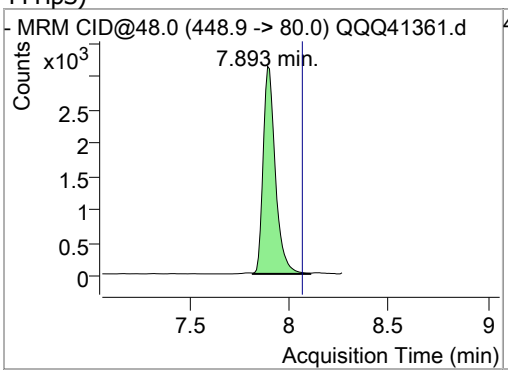
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4113	7.83	-0.17	37618				

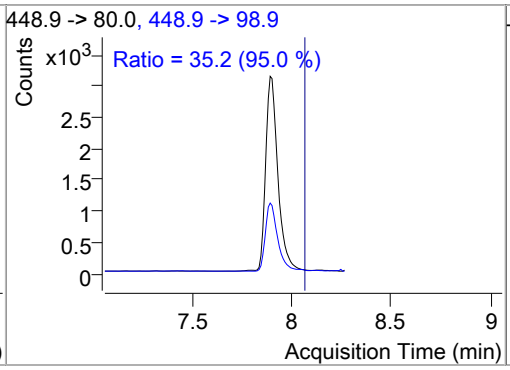


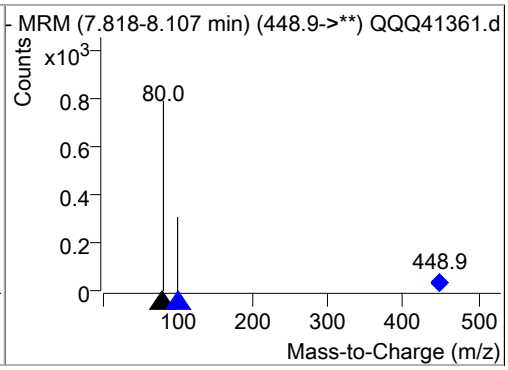
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	2.7566	7.83	-0.17	42548	413.0 -> 168.9	37.8	30.7	46.1



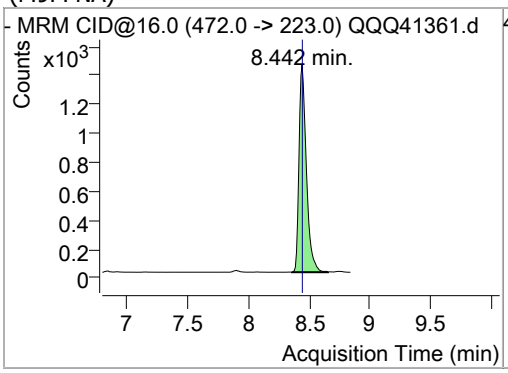
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	2.1593	7.89	-0.17	13290	448.9 -> 98.9	35.2	29.6	44.4

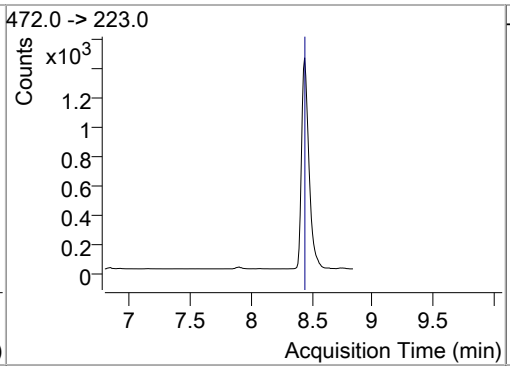


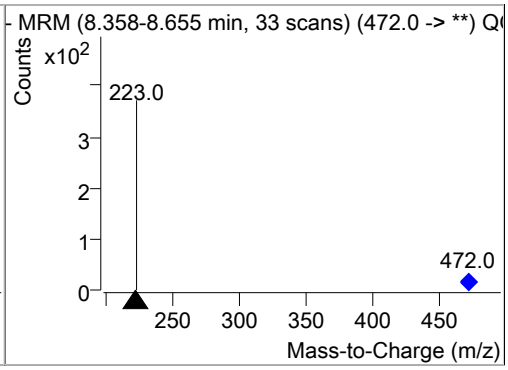




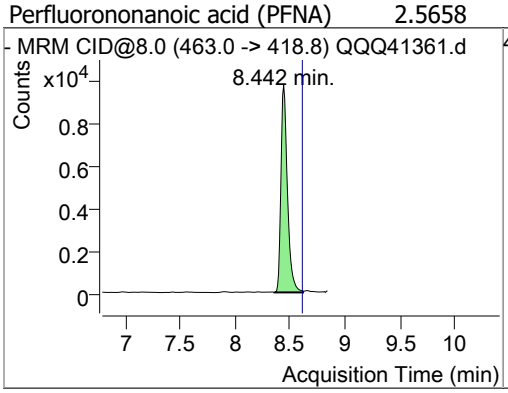
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2075	8.44	-0.15	6063				

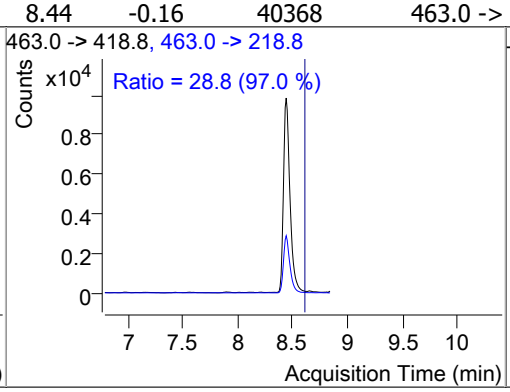


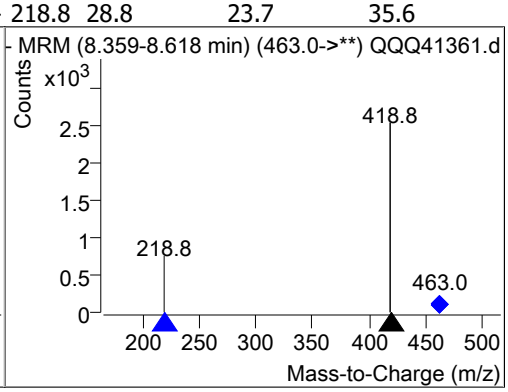




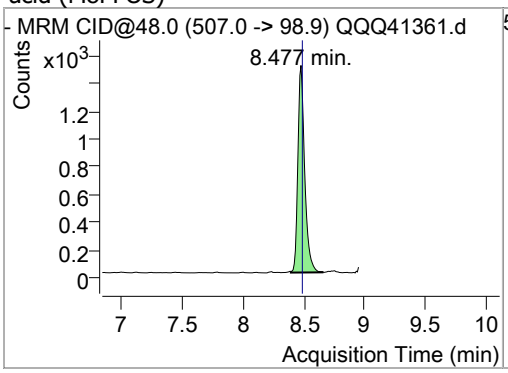
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	2.5658	8.44	-0.16	40368	463.0 -> 218.8	28.8	23.7	35.6

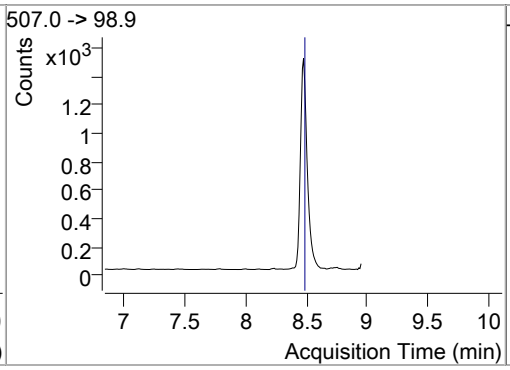


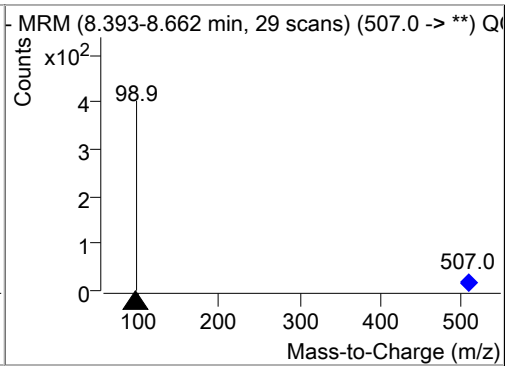




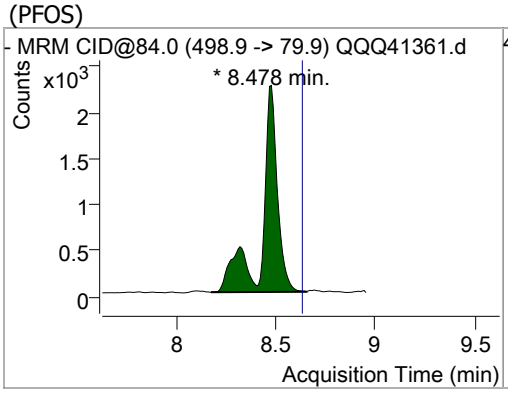
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.6743	8.48	-0.15	5790				

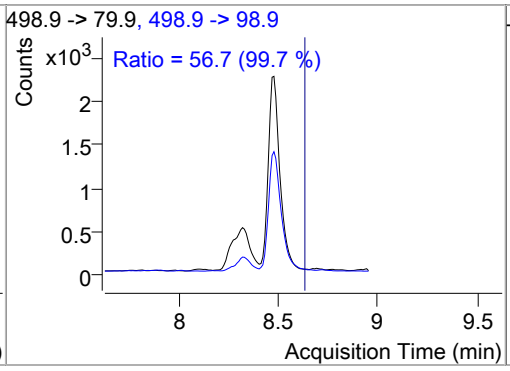


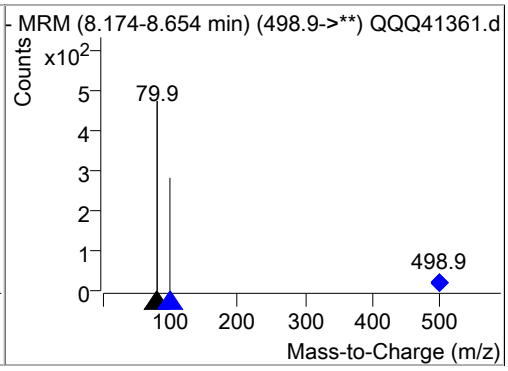




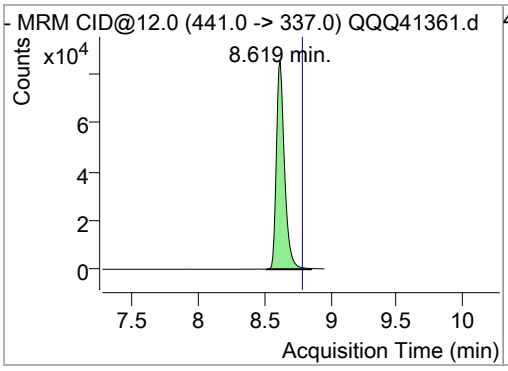
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.2275	8.48	-0.15	12274 (m)	498.9 -> 98.9	56.7	45.5	68.3

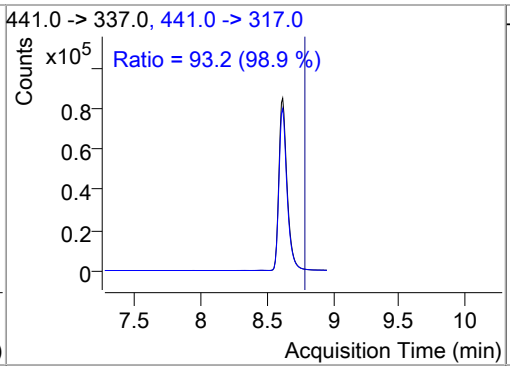


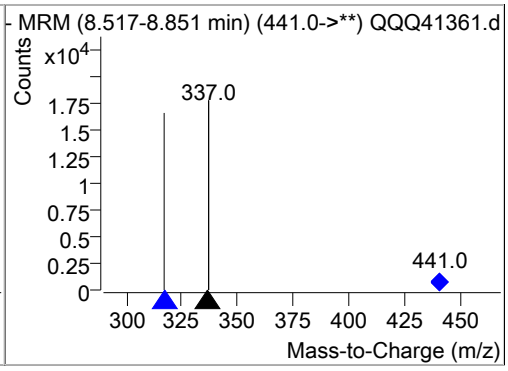




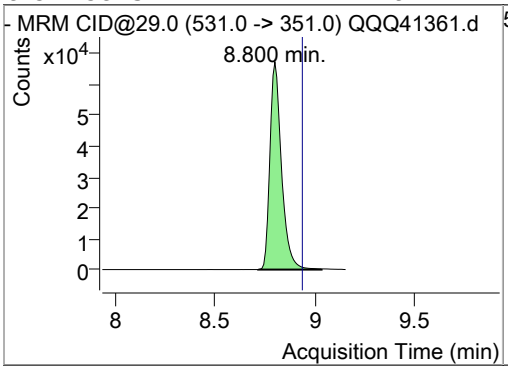
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	66.0997	8.62	-0.16	365205	441.0 -> 317.0	93.2	75.4	113.1

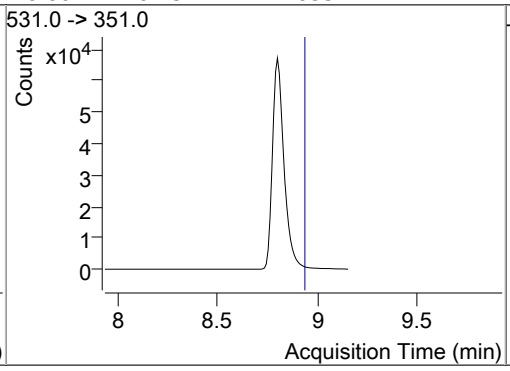


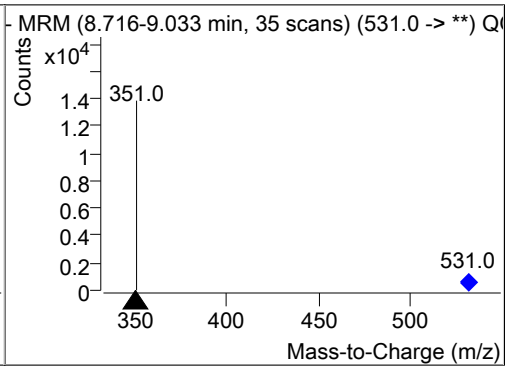




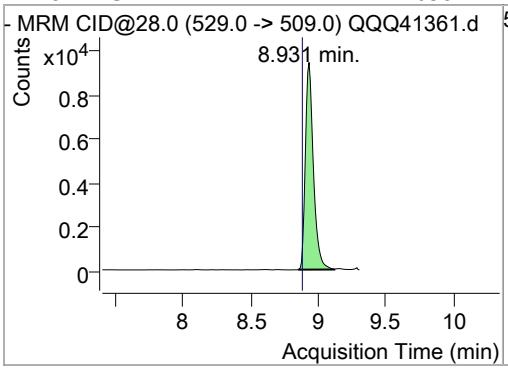
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	9.4742	8.80	-0.13	271035				

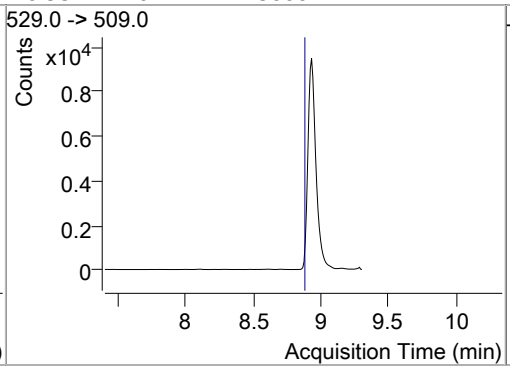


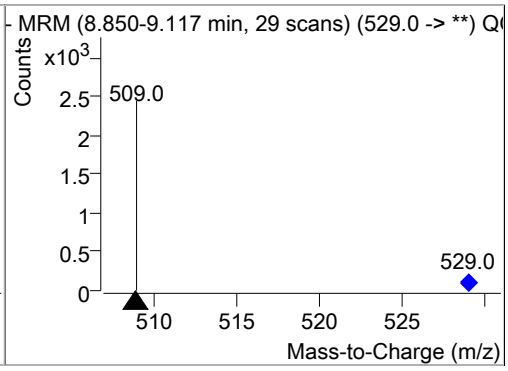




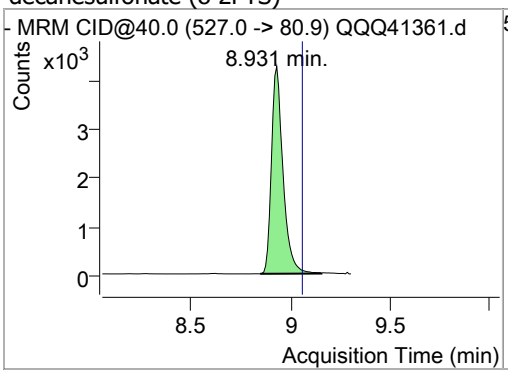
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.6504	8.93	-0.11	38882				

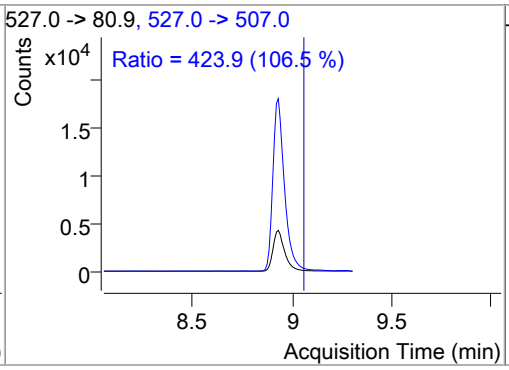


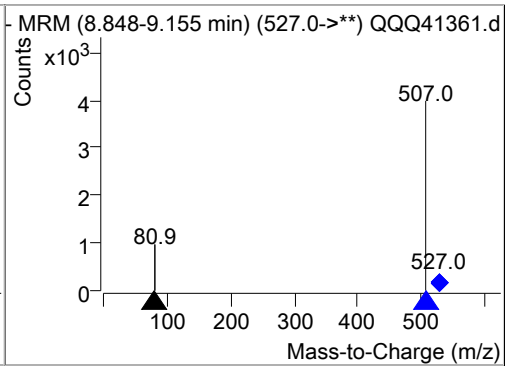




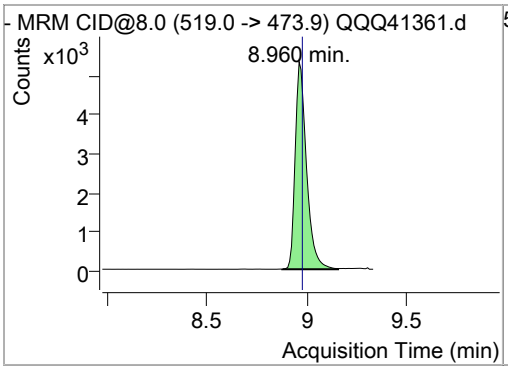
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.0009	8.93	-0.12	17154	527.0 -> 507.0	423.9	318.3	477.4

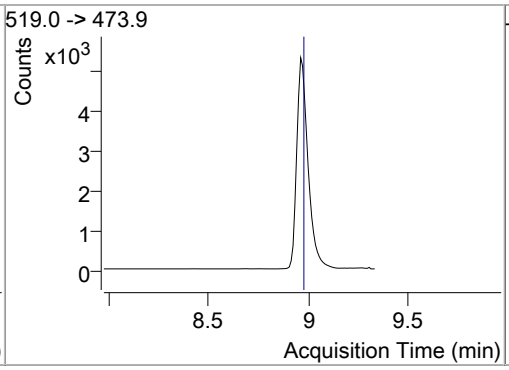


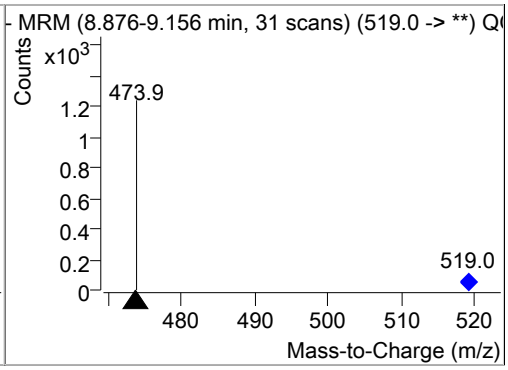




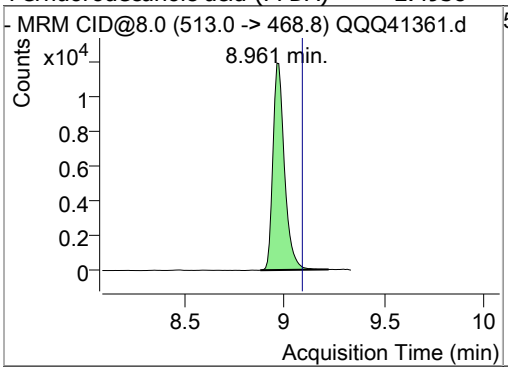
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2412	8.96	-0.12	20989				

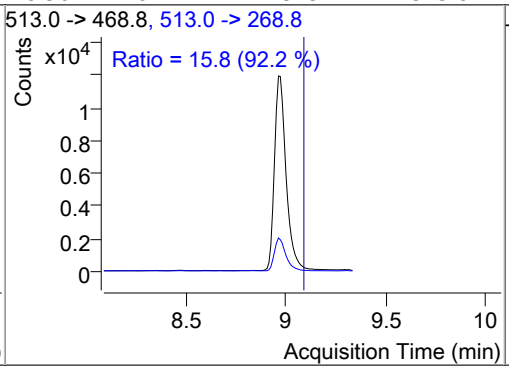


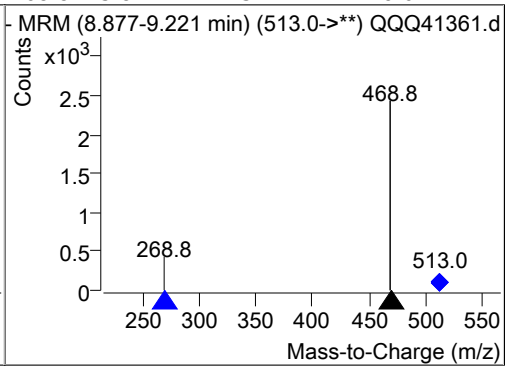




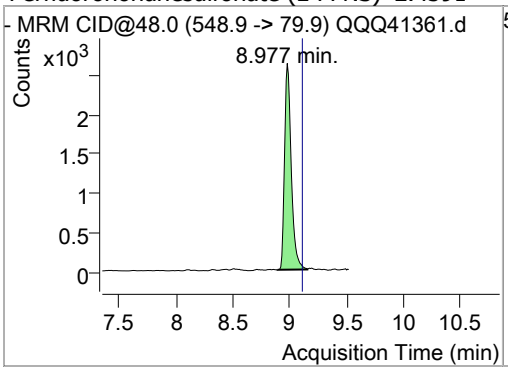
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	2.4938	8.96	-0.12	47919	513.0 -> 268.8	15.8	13.7	20.6

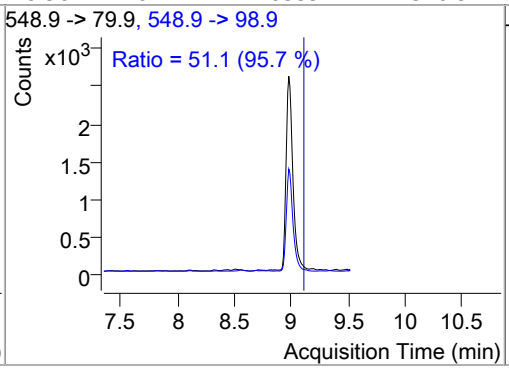


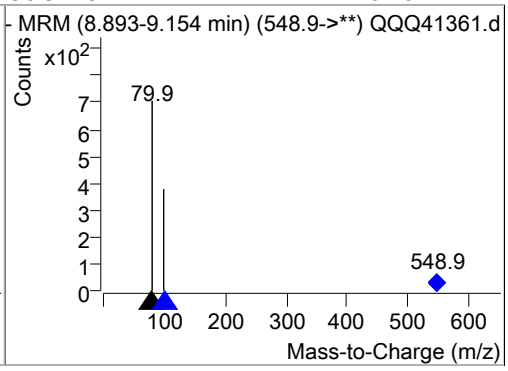




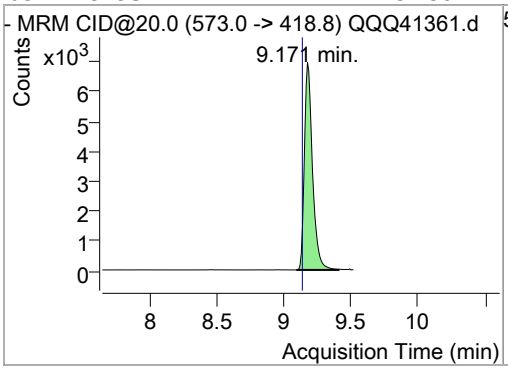
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	2.4391	8.98	-0.12	10539	548.9 -> 98.9	51.1	42.7	64.0

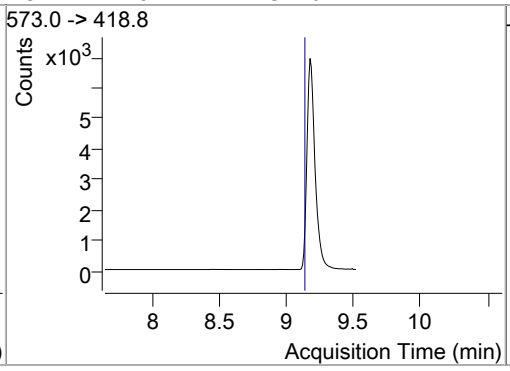


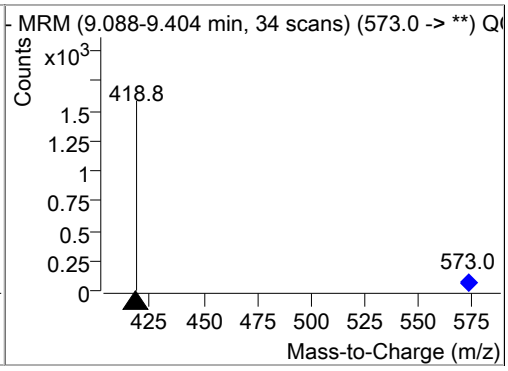




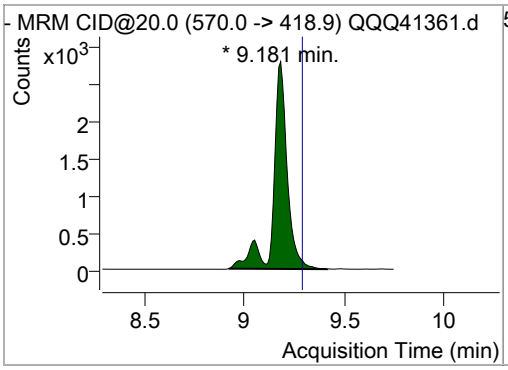
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.2304	9.17	-0.11	29176				

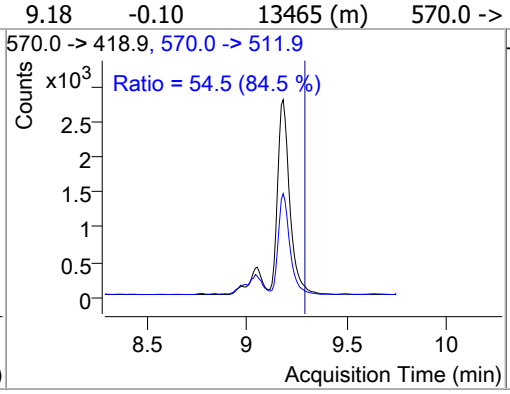


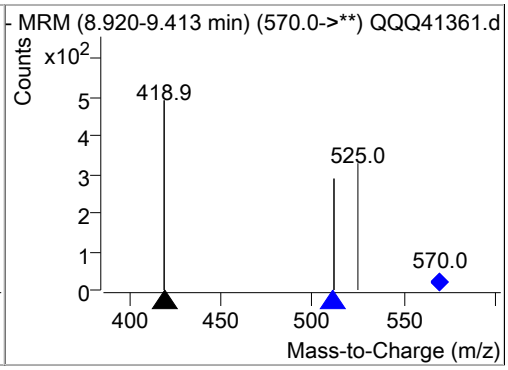




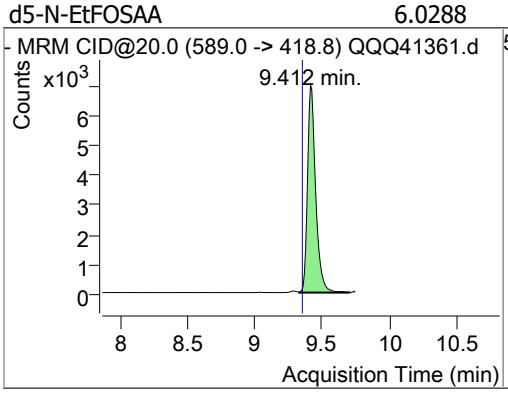
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	2.6492	9.18	-0.10	13465 (m)	570.0 -> 511.9	54.5	51.6	77.4

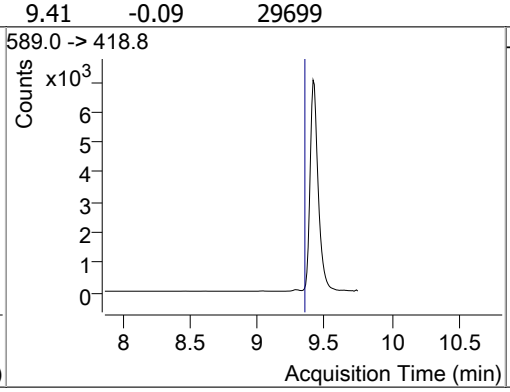


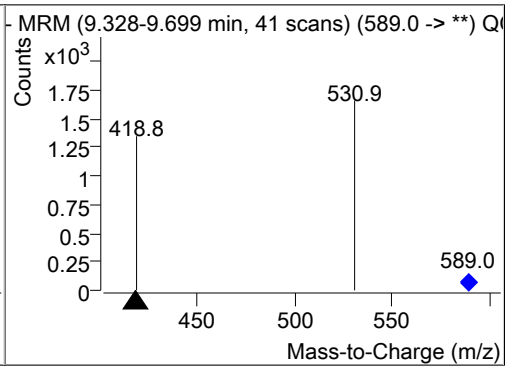




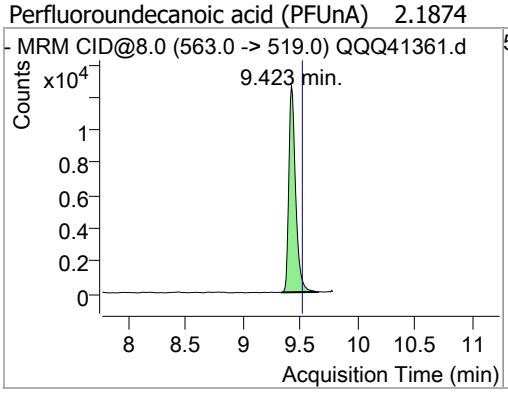
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.0288	9.41	-0.09	29699				

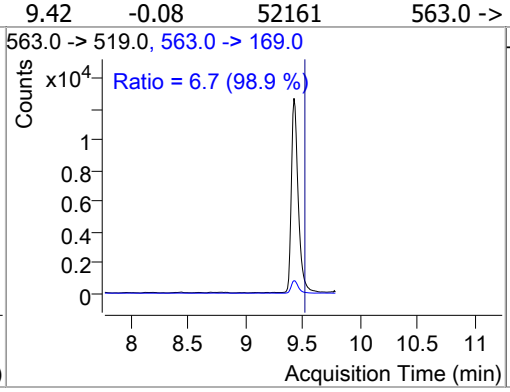


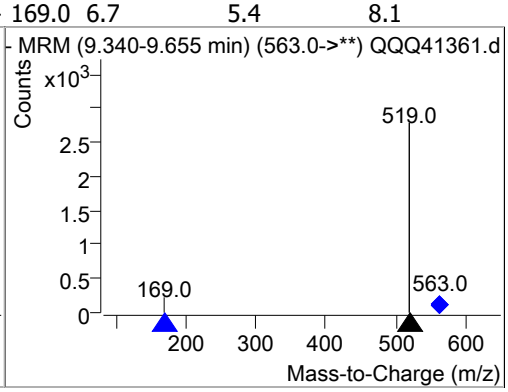




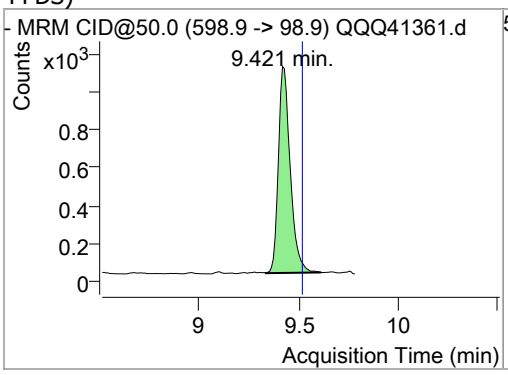
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.1874	9.42	-0.08	52161	563.0 -> 169.0	6.7	5.4	8.1

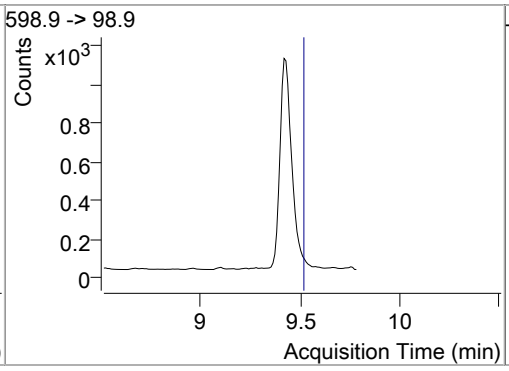


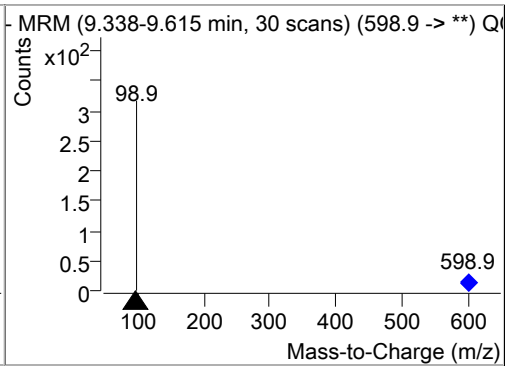




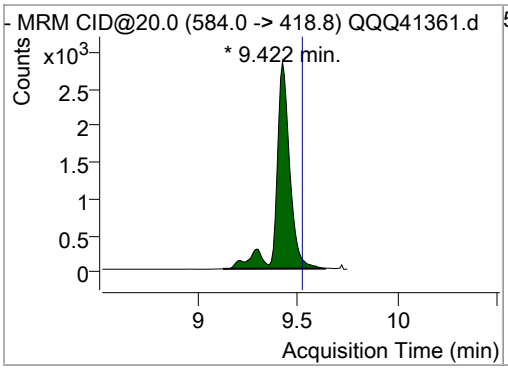
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.1519	9.42	-0.09	4492				

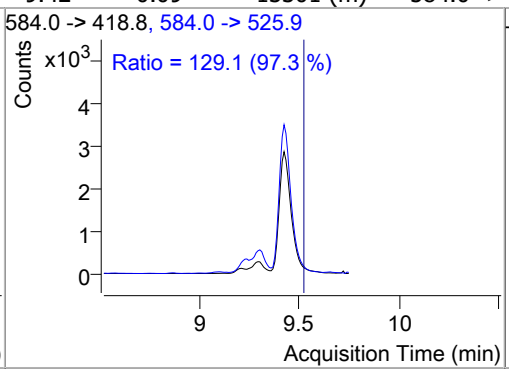


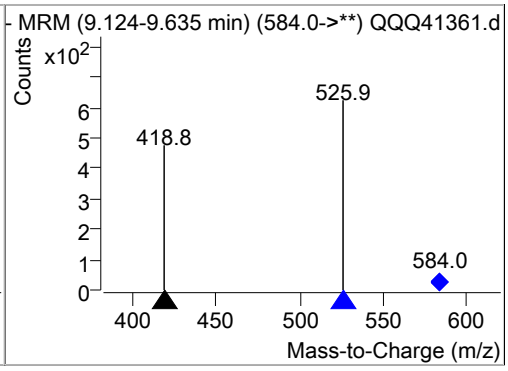




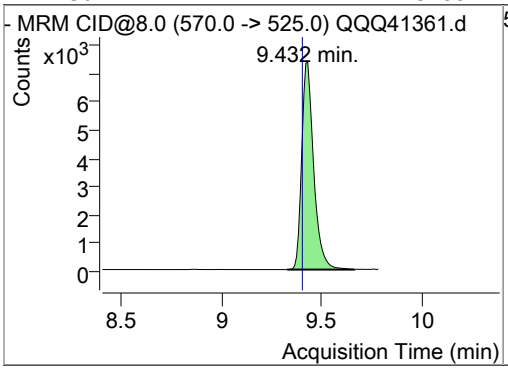
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	2.5966	9.42	-0.09	13301 (m)	584.0 -> 525.9	129.1	106.2	159.3

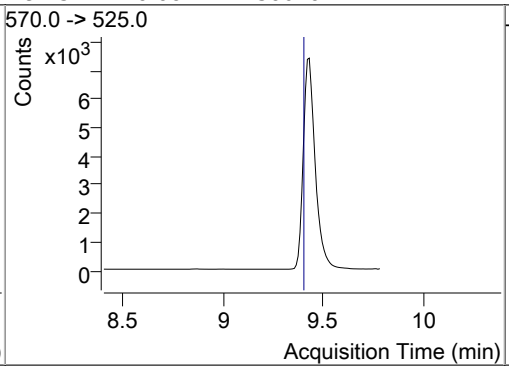


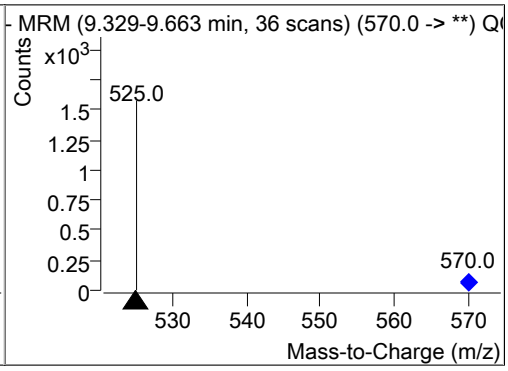




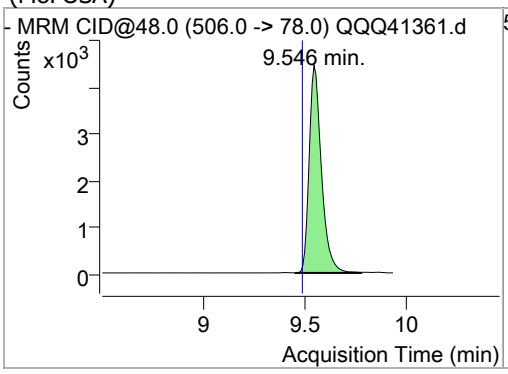
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.3400	9.43	-0.08	30670				

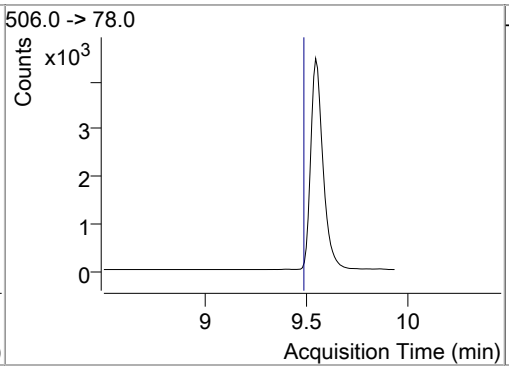


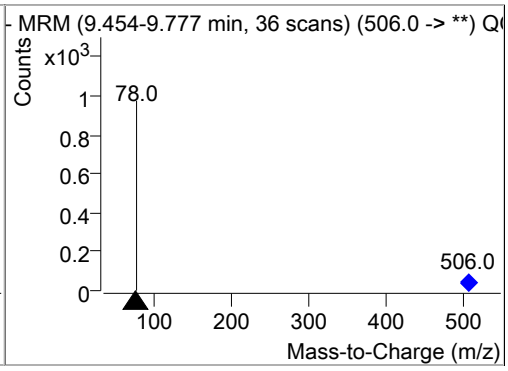




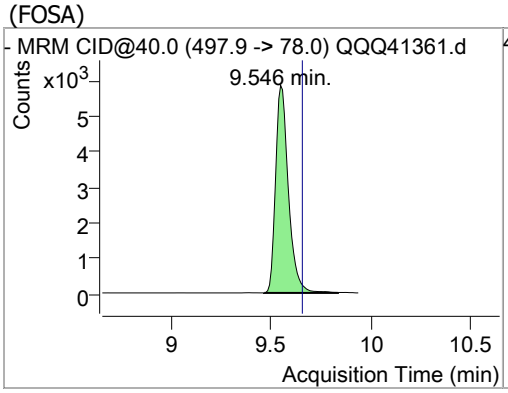
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.6253	9.55	-0.10	18622				

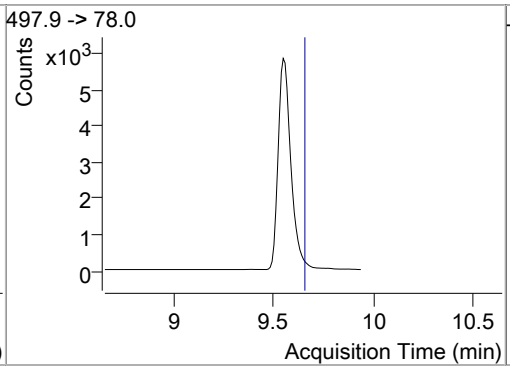


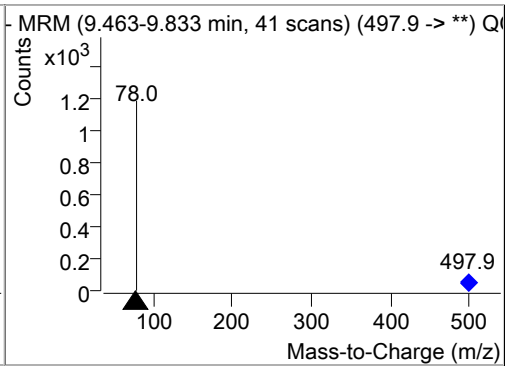




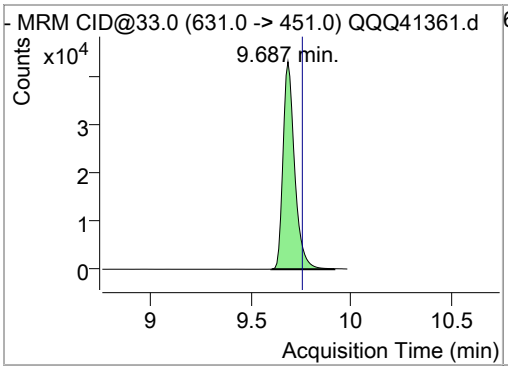
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	2.4472	9.55	-0.10	26035				

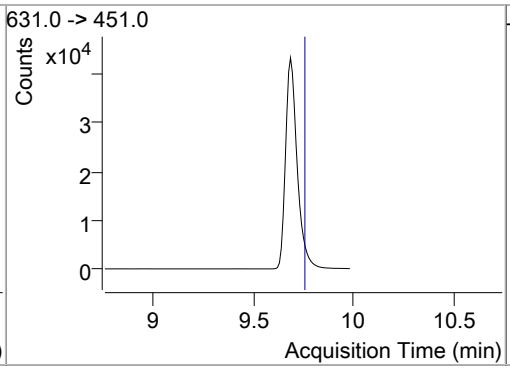


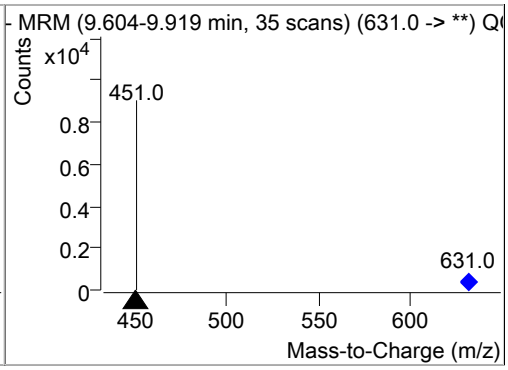




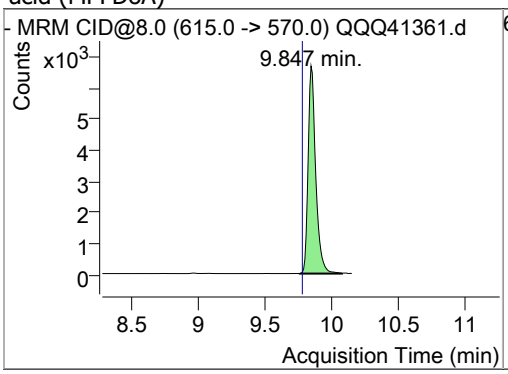
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	8.8476	9.69	-0.07	175090				

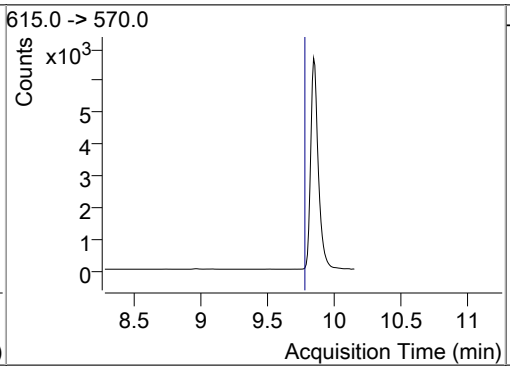


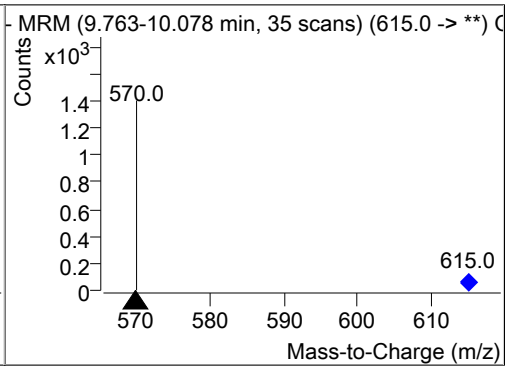




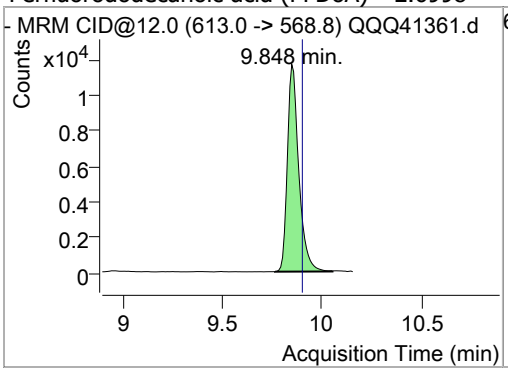
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.3121	9.85	-0.05	26402				

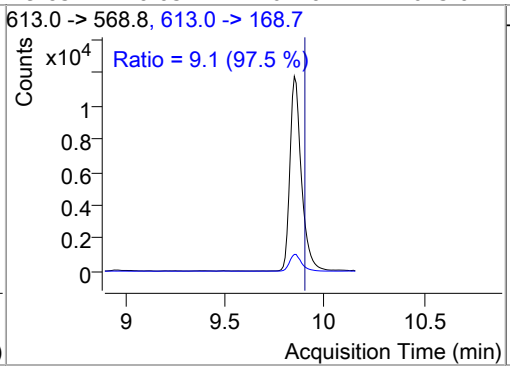


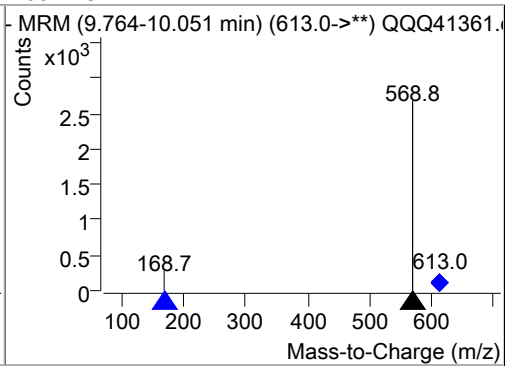




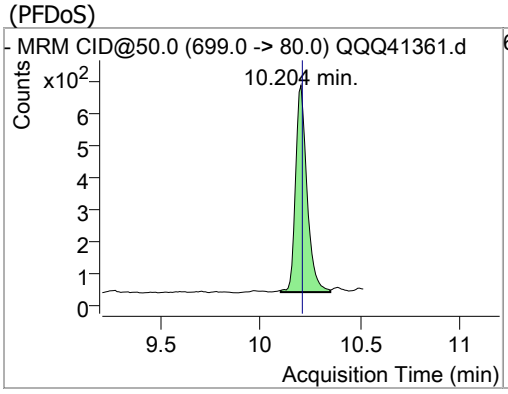
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	2.6998	9.85	-0.05	46410	613.0 -> 168.7	9.1	7.4	11.2

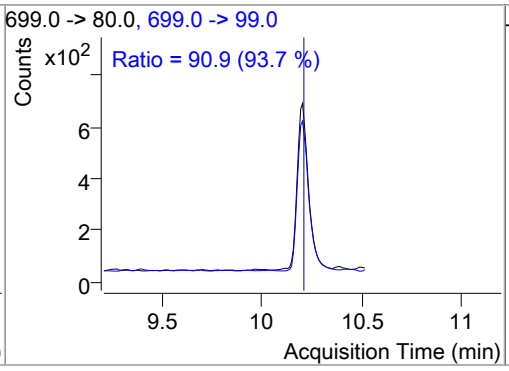


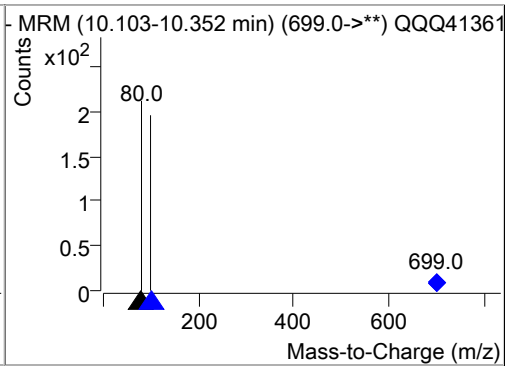




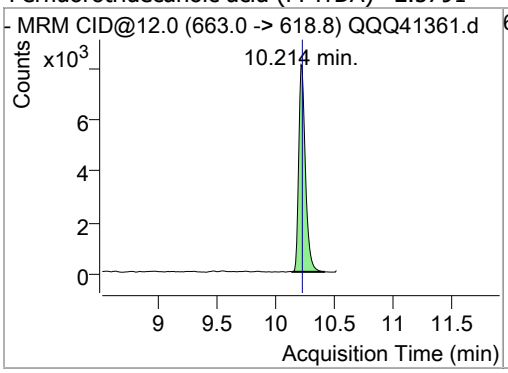
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.4408	10.20	0.00	2591	699.0 -> 99.0	90.9	77.6	116.4

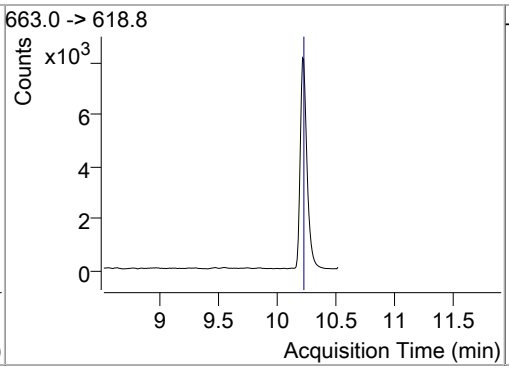


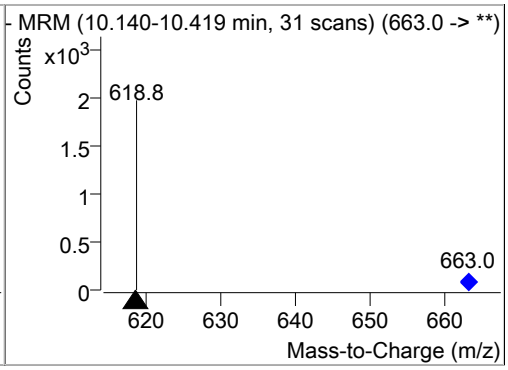




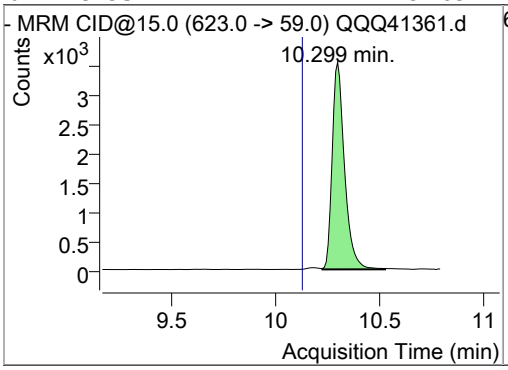
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	2.5791	10.21	0.00	32314				

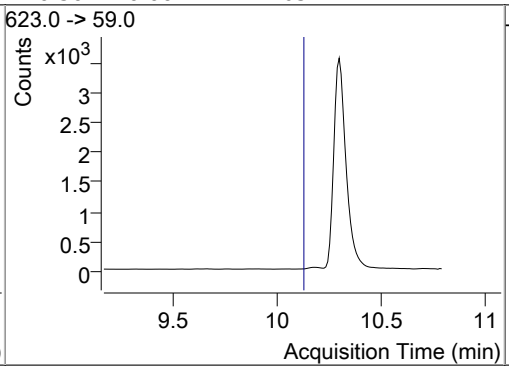


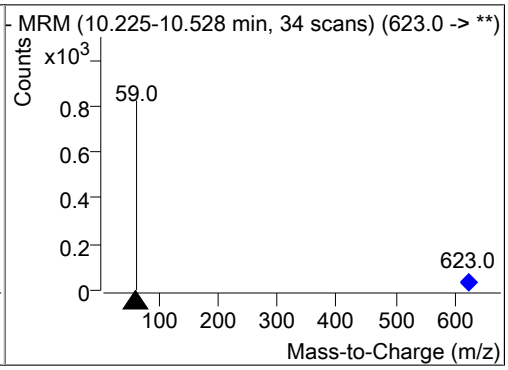




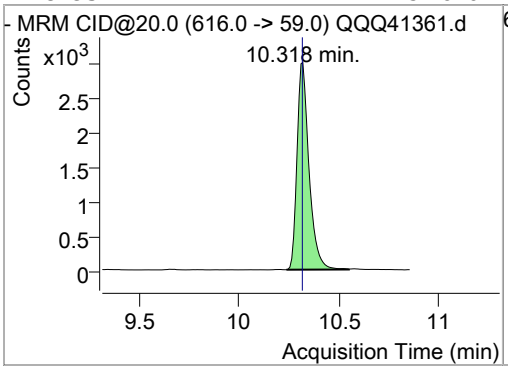
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	25.7052	10.30	0.00	14632				

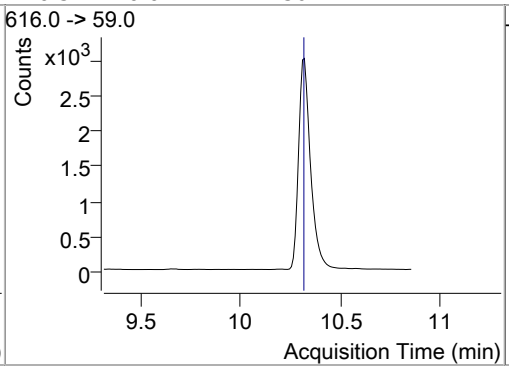


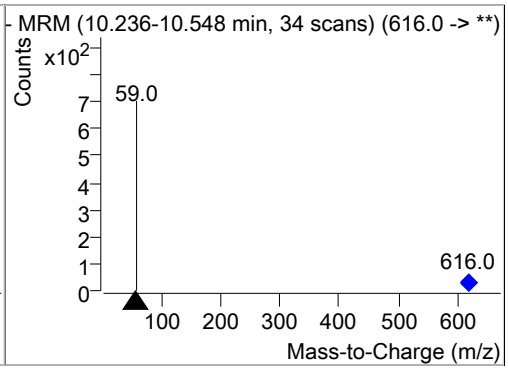




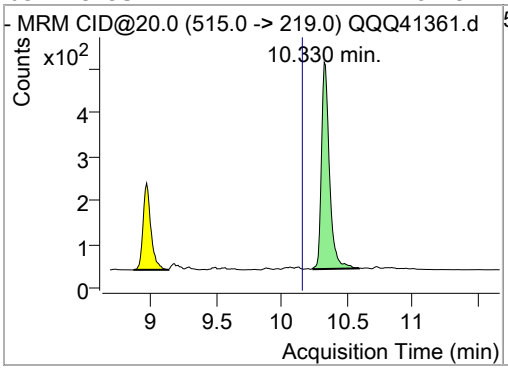
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	25.7870	10.32	0.01	12361				

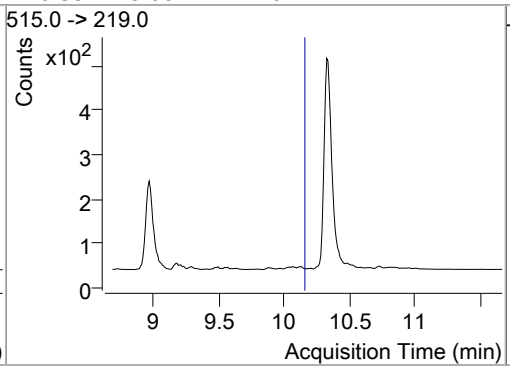


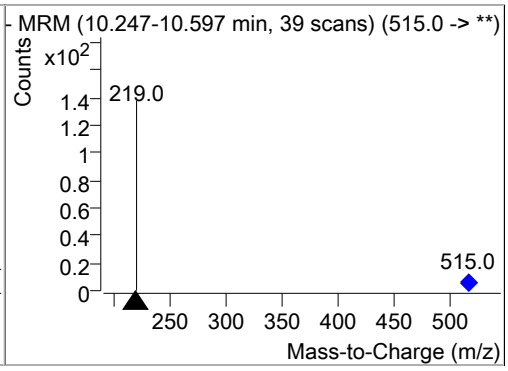




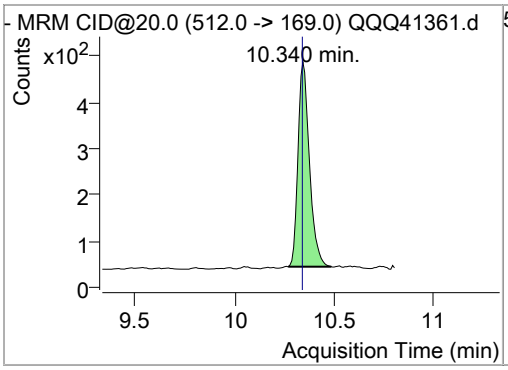
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.8145	10.33	0.00	2017				

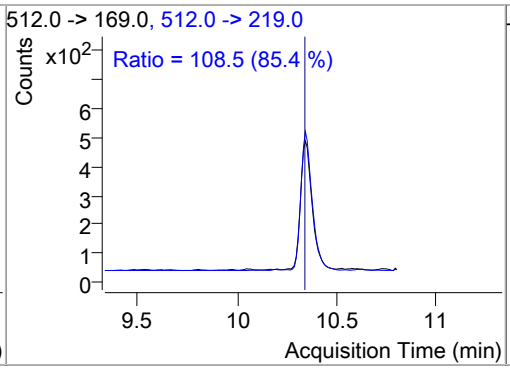


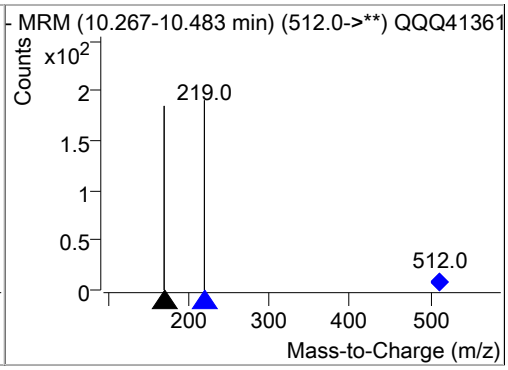




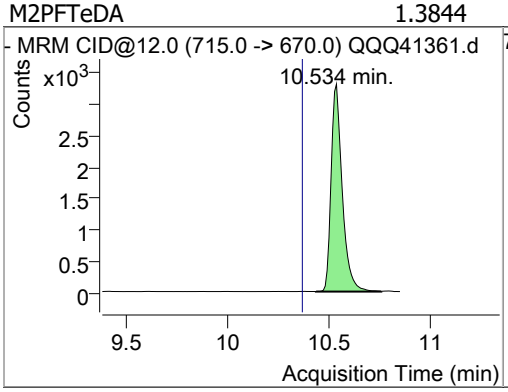
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	2.5827	10.34	0.01	1753	512.0 -> 219.0	108.5	101.6	152.5

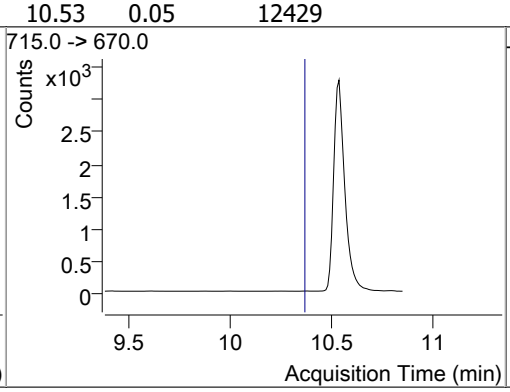


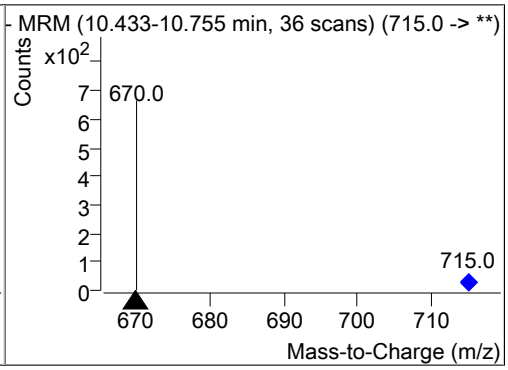




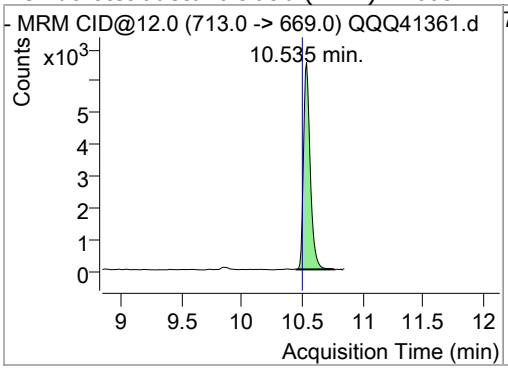
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.3844	10.53	0.05	12429				

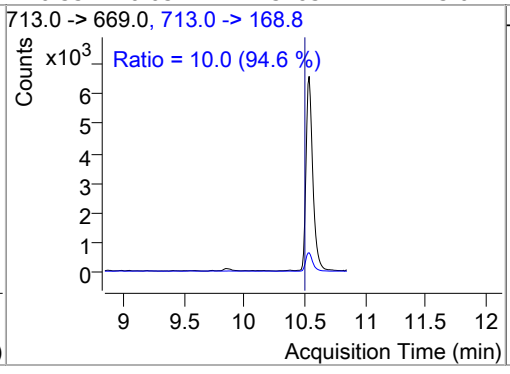


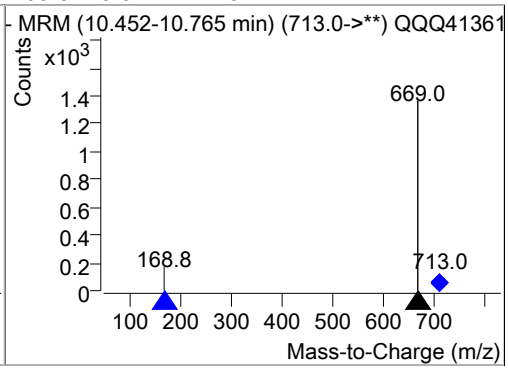




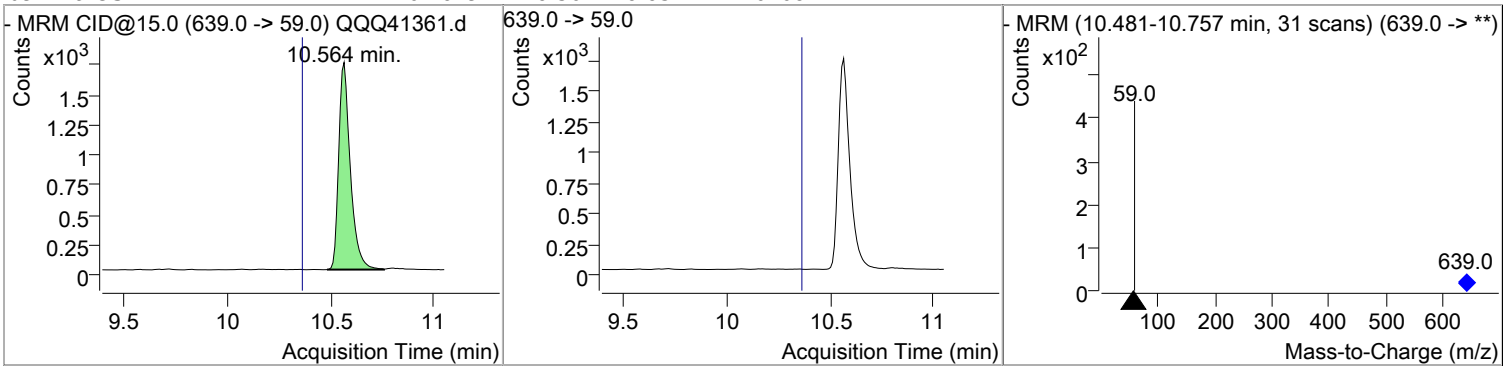
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	2.6081	10.53	0.05	25283	713.0 -> 168.8	10.0	8.4	12.7



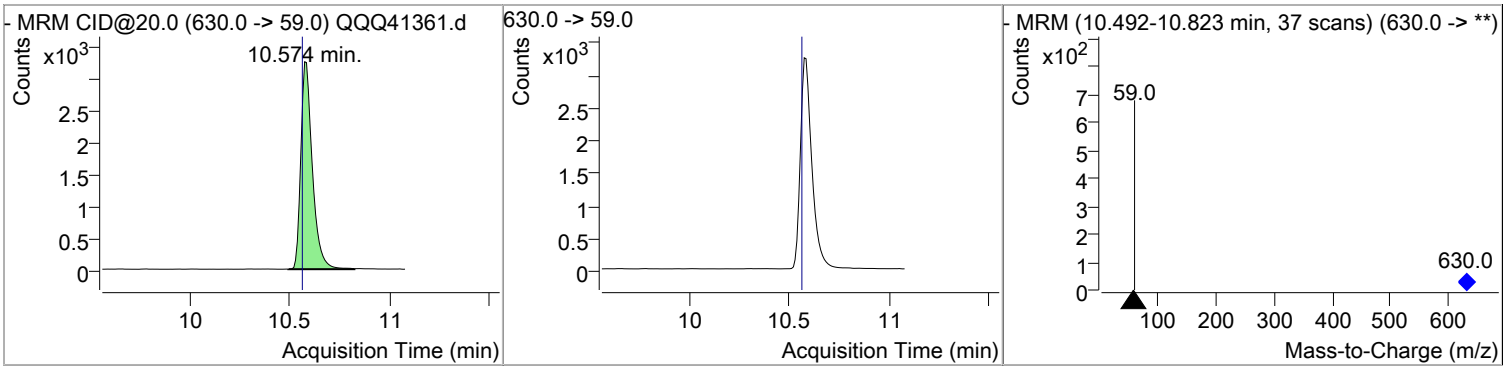




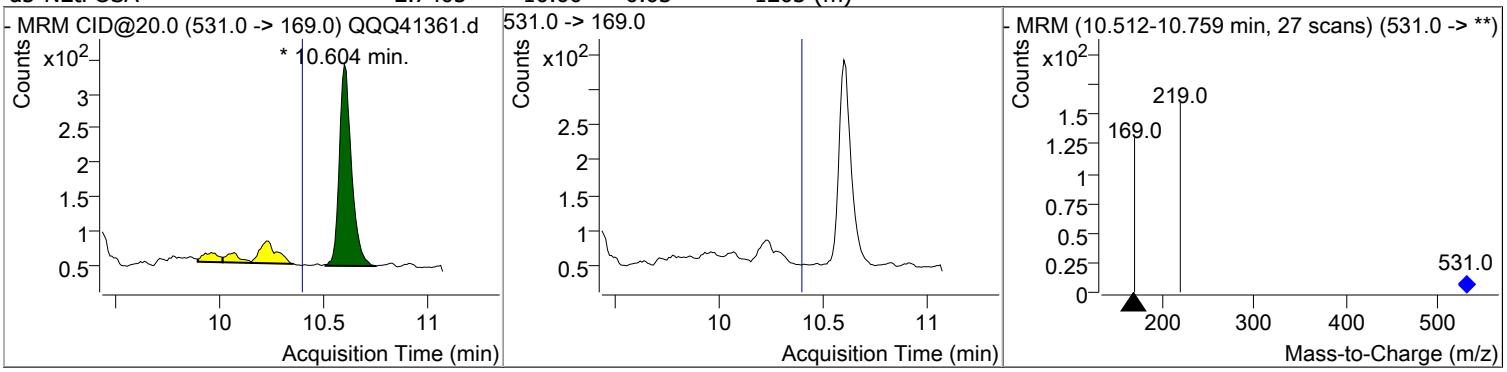
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	26.7049	10.56	0.03	6768				



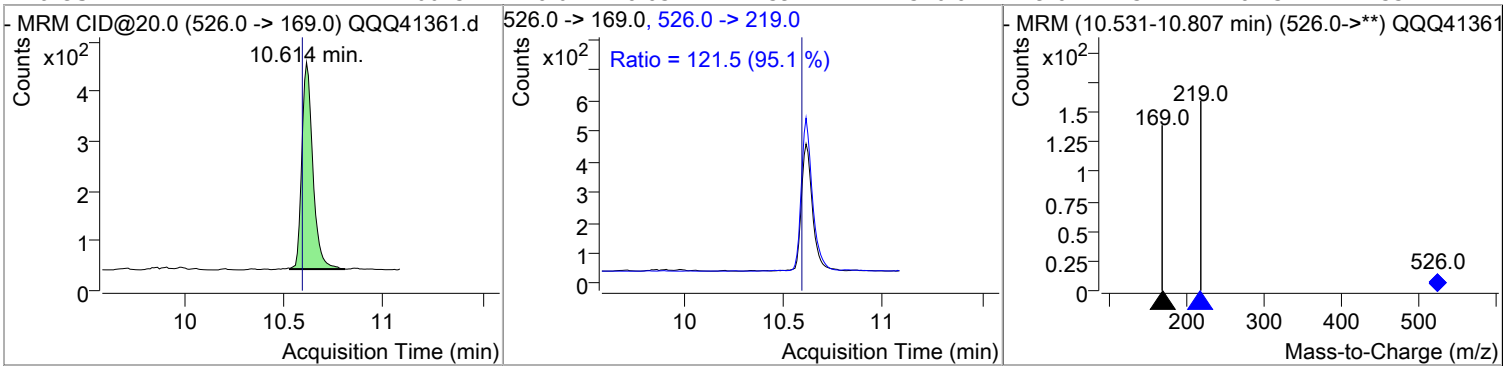
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	22.1497	10.57	0.02	13004				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.7405	10.60	0.03	1203 (m)				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.6625	10.61	0.03	1592	526.0 -> 219.0	121.5	102.3	153.4



Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 9:07:41 AM	**Data File**	QQQ41361.d
Sample Type	Sample	**Sampe Name**	SEQ-CCV1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.278	158484	22377	0.487			1.62			32205.84
Perfluoro-n-butanoic acid (PFBA)	1.274	137106	19299	0.514			1.83			2575.91
PFMPA	2.190	36947	4137	0.628			1.70			1424.96
3:3FTCA	4.387	5035	688	0.369			1.64			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.690	126101	18667	0.482			1.65			17328.73
Perfluoro-n-pentanoic acid (PFPeA)	4.691	122426	18173	0.482			1.69			1449.92
PFMBA	5.449	53597	10932	0.370			1.75			11811.67
M3PFBS	5.474	19626	4296	0.344			1.98			9230.30
Perfluorobutanesulfonic acid (PFBS)	5.474	18853	4168	0.362			1.91			66896.19
PFEESA	6.001	145577	35935	0.315			1.80			27376.73
NFDHA	6.151	2052	517	0.204			1.57			∞
M2-4-2FTS	6.223	24182	5933	0.316			1.66			1234.52
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.223	53545	12948	0.298			1.67			453.43
M5PFHxA	6.298	65280	16054	0.306			1.64			1232.66
Perfluorohexanoic acid (PFHxA)	6.299	72248	17844	0.269			1.61			979.98
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.509	16775	4179	0.288			1.56			701.46
M3-HFPO-DA	6.597	47350	11167	0.332			1.49			2199.43
HFPO-DA	6.597	4500	1022	0.324			1.66			298.77
M4PFHpA	7.142	15548	3730	0.315			1.36			26727.30
Perfluoroheptanoic acid (PFHpA)	7.142	39359	9400	0.295			1.39			200.45
5-3FTCA	7.208	231244	54505	0.325			1.59			323.34
Perfluorohexanesulfonic acid (PFHxS)	7.243	14826	2948	0.491			1.63			600.03
M3PFHxS	7.243	13599	3255	0.288			1.68			15379.98

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.271	95374	23151	0.325			1.66			1351.41
M2-6-2FTS	7.772	15520	3645	0.335			1.60			11722.67
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.773	39256	9206	0.315			1.53			646.31
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.829	37618	9224	0.316			1.87			507.93
Perfluorooctanoic acid (PFOA)	7.830	42548	10244	0.344			1.90			1900.97
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.893	13290	3113	0.288			1.83			∞
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.442	6063	1433	0.297			1.74			7852.70
Perfluorononanoic acid (PFNA)	8.442	40368	9808	0.260			1.68			1114.65
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.477	5790	1483	0.269			1.52			∞
Perfluorooctanesulfonic acid (PFOS)	8.478	12274	2239	0.480			1.40			183.03
7-3FTCA	8.619	365205	85264	0.334			1.49			∞
9-Cl-PF3ONS	8.800	271035	67170	0.318			1.61			∞
M2-8-2FTS	8.931	38882	9446	0.267			1.51			5609.70
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.931	17154	4263	0.307			1.52			46.30
M6PFDA	8.960	20989	5315	0.280			1.97			23272.93
Perfluorodecanoic acid (PFDA)	8.961	47919	11872	0.343			1.88			640.87
Perfluorononanesulfonate (L-PFNS)	8.977	10539	2581	0.261			1.70			127.46
d3-N-MeFOSAA	9.171	29176	6926	0.316			1.81			40066.36
N-MeFOSAA	9.181	13465	2774	0.493			1.49			∞
d5-N-EtFOSAA	9.412	29699	7025	0.371			1.81			∞
Perfluoroundecanoic acid (PFUnA)	9.423	52161	12642	0.315			1.81			394.54
Perfluoro-1-decanesulfonate (L-PFDS)	9.421	4492	1086	0.278			1.84			354.62
N-EtFOSAA	9.422	13301	2819	0.511			1.70			∞
M7PFUdA	9.432	30670	7390	0.334			1.37			28613.04
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.546	18622	4441	0.324			1.69			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.546	26035	5833	0.370			1.70			∞
11-Cl-PF3OUdS	9.687	175090	43353	0.315			1.63			666.53
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.847	26402	6674	0.315			1.75			67864.12

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.848	46410	11708	0.288			1.76			137.45
Perfluorododecanesulfonic acid (PFDoS)	10.204	2591	648	0.249			1.42			178.29
Perfluorotridecanoic acid (PFTrDA)	10.214	32314	8089	0.279			1.92			602.77
d7-NMeFOSE	10.299	14632	3528	0.303			1.57			∞
NMeFOSE	10.318	12361	2979	0.311			1.44			∞
d3-NMeFOSA	10.330	2017	473	0.350			1.92			62.74
NMeFOSA	10.340	1753	440	0.216			1.62			265.97
M2PFTeDA	10.534	12429	3264	0.322			1.48			∞
Perfluorotetradecanoic acid (PFTA)	10.535	25283	6537	0.313			1.54			275.24
d9-NEtFOSE	10.564	6768	1729	0.276			1.56			510.51
NEtFOSE	10.574	13004	3233	0.331			1.99			617.37
d5-NEtFOSA	10.604	1203	293	0.247			1.59			108.95
NEtFOSA	10.614	1592	416	0.276			1.55			∞

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41376.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV2	Injection Time:	13:09

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A	9.45	9.89	0.8591385	1.093427		4.6	30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A	9.60	10.1	0.2419004	0.2577331		5.2	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A	9.38	8.97	1.185549	1.203073		-4.4	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A	9.50	7.48	1.255886	1.305503		-21.2	30
3-Perfluoroheptyl propanoic acid (FHpPA)	A	62.6	67.3	0.2201101	0.2273814		7.5	30
3-Perfluoropentyl propanoic acid (FPePA)	A	62.6	56.5	0.1241024	0.1430617		-9.7	30
3-Perfluoropropyl propanoic acid (FPrPA)	A	12.5	10.1	1.286716E-02	0.0136266		-18.8	30
9CL-PF3ONS	A	9.35	10.7	1.369128	1.734541		14.9	30
ADONA	A	9.45	9.46	0.556015	0.5536746		0.06	30
HFPO-DA (Gen-X)	A	10.0	10.1	2.239571E-02	2.225507E-02		1.1	30
N-EtFOSA	A	2.50	2.49	1.287944	1.245937		-0.3	30
N-EtFOSAA	A	2.50	2.56	0.94945	0.8817235		2.3	30
N-EtFOSE	A	25.0	22.8	1.993152	1.98076		-8.7	30
N-MeFOSA	A	2.50	2.63	0.7524916	0.8849674		5.1	30
N-MeFOSAA	A	2.50	2.41	0.8763811	0.8407272		-3.5	30
N-MeFOSE	A	25.0	24.6	0.824401	0.8054215		-1.7	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A	4.45	4.34	1.241156	1.283248		-2.5	30
Perfluoro-1-decanesulfonic acid (PFDS)	A	2.41	2.30	0.7352727	0.8604703		-4.5	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A	2.38	2.14	2.525683	2.390038		-10.1	30
Perfluoro-1-nonanesulfonic acid (PFNS)	A	2.40	2.65	0.1655348	0.1910512		10.3	30
Perfluoro-1-octanesulfonamide (FOSA)	A	2.50	2.59	1.385288	1.479323		3.6	30
Perfluoro-1-pentanesulfonate (PFPeS)	A	2.35	2.33	1.400558	1.328729		-0.9	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A	5.00	4.13	1.573594E-02	1.451783E-02		-17.4	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41376.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV2	Injection Time:	13:09

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A	5.00	4.93	0.2604373	0.2948425		-1.4	30
Perfluoro-5-oxahexanoic acid (PFMBA)	A	5.00	5.12	0.4108024	0.4276991		2.4	30
Perfluorobutanesulfonic acid (PFBS)	A	2.22	2.25	1.128938	1.108756		1.2	30
Perfluorodecanoic acid (PFDA)	A	2.50	2.68	1.09146	1.228585		7.4	30
Perfluorododecanesulfonic acid (PFDoS)	A	2.42	2.56	0.4284993	0.4846222		5.7	30
Perfluorododecanoic acid (PFDoA)	A	2.50	2.39	0.8702134	0.7776963		-4.4	30
Perfluoroheptanoic acid (PFHpA)	A	2.50	2.93	2.370614	2.610645		17.0	30
Perfluorohexanesulfonic acid (PFHxS)	A	2.28	2.27	1.39602	1.221758		-0.5	30
Perfluorohexanoic acid (PFHxA)	A	2.50	2.41	1.166423	1.113037		-3.6	30
Perfluoro-n-butanoic acid (PFBA)	A	10.0	9.86	0.9037138	0.8650834		-1.4	30
Perfluorononanoic acid (PFNA)	A	2.50	2.67	3.453721	3.463302		6.8	30
Perfluorooctanesulfonic acid (PFOS)	A	2.32	2.27	2.631087	2.32769		-2.2	30
Perfluorooctanoic acid (PFOA)	A	2.50	2.80	1.254067	1.147528		11.9	30
Perfluoropentanoic acid (PFPeA)	A	5.00	5.13	1.003786	0.9837192		2.6	30
Perfluorotetradecanoic acid (PFTA)	A	2.50	2.62	1.041146	1.022804		4.9	30
Perfluorotridecanoic acid (PFTrDA)	A	2.50	2.69	1.484165	1.355521		7.6	30
Perfluoroundecanoic acid (PFUnA)	A	2.50	2.19	0.9068038	0.8507112		-12.5	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41376.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 1:09:05 PM
Sample Name	SEQ-CCV2	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	2.5 - 62.5 ng/mL
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

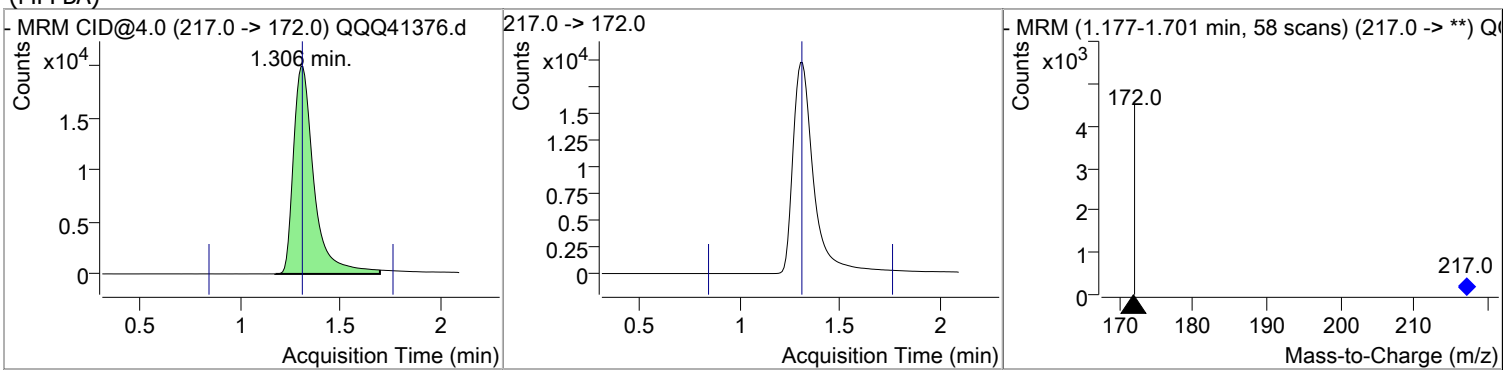
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.308	216.0 -> 172.0	27064	5.0000	ng/ml	0.055
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.306	217.0 -> 172.0	142352	10.0000	ng/ml	0.055
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.783	268.0 -> 223.0	112618	5.0000	ng/ml	0.055
MPFHxA	6.382	315.0 -> 269.8	36260	2.5000	ng/ml	0.009
MPFHxS	7.326	403.0 -> 103.0	3983	2.3700	ng/ml	-0.056
M3PFBS-EIS	5.566	302.0 -> 79.9	16918	2.3300	ng/ml	0.037
M5PFHxA-EIS	6.381	318.0 -> 273.0	58326	2.5000	ng/ml	0.009
M2-4-2FTS-EIS	6.306	329.0 -> 309.0	21039	4.6900	ng/ml	0.009
M3PFHxS-EIS	7.317	402.0 -> 80.0	12149	2.3700	ng/ml	-0.065
M3-HFPO-DA-EIS	6.680	287.0 -> 169.0	42065	10.0000	ng/ml	-0.009
M4PFHpA-EIS	7.216	367.0 -> 322.0	13224	2.5000	ng/ml	-0.046
M2-6-2FTS-EIS	7.847	429.0 -> 409.0	12407	4.7550	ng/ml	-0.084
MPFOA	7.913	417.0 -> 372.0	44352	2.5000	ng/ml	-0.084
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.913	421.0 -> 376.0	34092	2.5000	ng/ml	-0.084
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.542	507.0 -> 98.9	5228	2.3950	ng/ml	-0.083
MPFNA	8.507	468.0 -> 423.0	22553	1.2500	ng/ml	-0.093
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.506	472.0 -> 223.0	5804	1.2500	ng/ml	-0.084
MPFOS	8.542	503.0 -> 80.0	12610	2.3950	ng/ml	-0.083
M2-8-2FTS-EIS	8.997	529.0 -> 509.0	28644	4.8000	ng/ml	-0.046
MPFDA	9.035	515.0 -> 469.8	16691	1.2500	ng/ml	-0.047
M6PFDA-EIS	9.035	519.0 -> 473.9	19690	1.2500	ng/ml	-0.047
d3-N-MeFOSAA-EIS	9.245	573.0 -> 418.8	29320	5.0000	ng/ml	-0.037
M7PFUdA-EIS	9.506	570.0 -> 525.0	30408	1.2500	ng/ml	-0.009
d5-N-EtFOSAA-EIS	9.495	589.0 -> 418.8	29003	5.0000	ng/ml	-0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.648	506.0 -> 78.0	19145	2.5000	ng/ml	0.000
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.940	615.0 -> 570.0	27950	1.2500	ng/ml	0.047
M2PFTeDA-EIS	10.645	715.0 -> 670.0	11301	1.2500	ng/ml	0.157
d7-NMeFOSE-EIS	10.419	623.0 -> 59.0	18457	25.0000	ng/ml	0.120
d3-NMeFOSA-EIS	10.459	515.0 -> 219.0	1974	2.5000	ng/ml	0.129
d9-NEtFOSE-EIS	10.693	639.0 -> 59.0	7611	25.0000	ng/ml	0.156
d5-NEtFOSA-EIS	10.733	531.0 -> 169.0	1228	2.5000	ng/ml	0.156
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	217.0 -> 172.0	142361	10.5043	ng/ml	0.055
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	268.0 -> 223.0	112622	4.8688	ng/ml	0.055
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.566	302.0 -> 79.9	16918	2.3806	ng/ml	0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.306	329.0 -> 309.0	21099	4.4473	ng/ml	0.009

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.381	318.0 -> 273.0	58326	2.5206	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.680	287.0 -> 169.0	42065	10.3996	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.216	367.0 -> 322.0	13224	2.5727	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.317	402.0 -> 80.0	12149	2.4504	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.847	429.0 -> 409.0	12407	3.9050	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	421.0 -> 376.0	34095	2.4139	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.506	472.0 -> 223.0	5804	1.2076	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.542	507.0 -> 98.9	5228	2.2609	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.997	529.0 -> 509.0	28706	3.8471	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.035	519.0 -> 473.9	19690	1.0767	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.245	573.0 -> 418.8	29320	4.9207	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.495	589.0 -> 418.8	29003	5.5115	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.506	570.0 -> 525.0	30408	1.2286	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	506.0 -> 78.0	19145	2.5268	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	615.0 -> 570.0	27950	1.2845	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.419	623.0 -> 59.0	18457	30.3541	ng/ml		0.120
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.459	515.0 -> 219.0	1975	2.5788	ng/ml		0.129
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.645	715.0 -> 670.0	11301	1.1641	ng/ml		0.157
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.693	639.0 -> 59.0	7611	28.1163	ng/ml		0.156
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.733	531.0 -> 169.0	1228	2.6189	ng/ml	m	0.156
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.310	213.0 -> 168.9	123147	9.8577	ng/ml		100
PFMPA	2.254	229.0 -> 85.0	33204	4.9313	ng/ml		100
3:3FTCA	4.479	241.0 -> 177.0	3974	10.1460	ng/ml		93
Perfluoro-n-pentanoic acid (PFPeA)	4.784	263.0 -> 219.0	110784	5.1303	ng/ml		100
PFMBA	5.541	279.0 -> 85.0	48166	5.1209	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.567	298.9 -> 79.9	16657	2.2461	ng/ml		95
PFEESA	6.084	315.0 -> 135.0	133228	4.3402	ng/ml		100
NFDHA	6.235	295.0 -> 201.1	1694	4.1302	ng/ml		100
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.307	327.0 -> 307.0	47485	8.9652	ng/ml		99

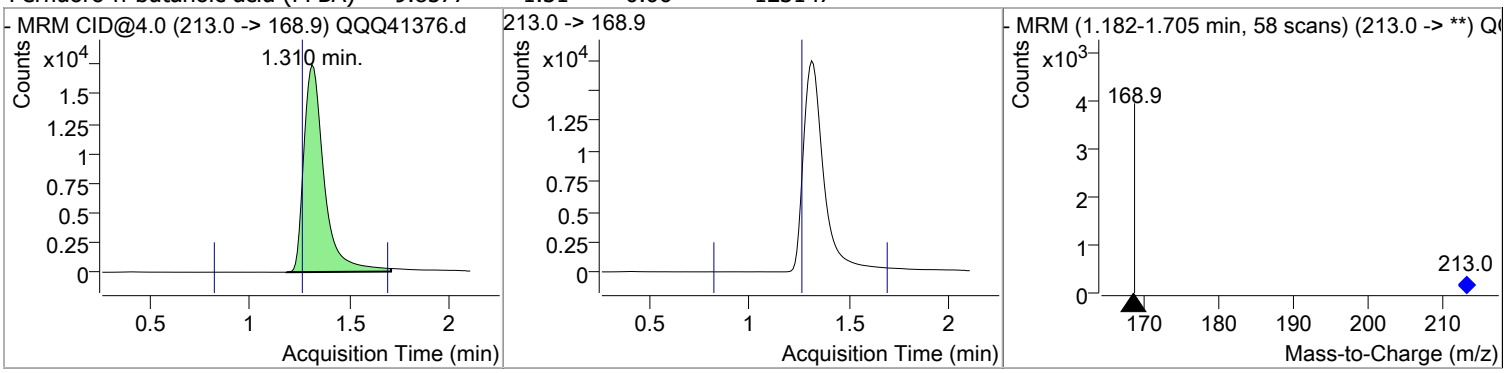
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.383	313.0 -> 268.9	64919	2.4112	ng/ml		99
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.584	348.9 -> 79.9	15175	2.3280	ng/ml		99
HFPO-DA	6.680	285.0 -> 169.1	3745	10.1117	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.217	363.0 -> 318.8	34524	2.9252	ng/ml		98
5-3FTCA	7.291	341.0 -> 217.0	208940	56.5277	ng/ml		97
Perfluorohexanesulfonic acid (PFHxS)	7.317	398.9 -> 79.9	13537	2.2678	ng/ml	m	97
ADONA	7.355	377.0 -> 85.0	88038	9.4554	ng/ml		99
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	427.0 -> 407.0	30775	7.4813	ng/ml		98
Perfluorooctanoic acid (PFOA)	7.913	413.0 -> 368.8	39121	2.7980	ng/ml		93
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.976	448.9 -> 80.0	11896	2.1402	ng/ml		96
Perfluorononanoic acid (PFNA)	8.507	463.0 -> 418.8	40202	2.6693	ng/ml		98
Perfluorooctanesulfonic acid (PFOS)	8.543	498.9 -> 79.9	11294	2.2701	ng/ml	m	97
7-3FTCA	8.693	441.0 -> 337.0	332087	67.2878	ng/ml		97
9-Cl-PF3ONS	8.866	531.0 -> 351.0	272886	10.7435	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.997	527.0 -> 80.9	14174	10.0958	ng/ml		100
Perfluorodecanoic acid (PFDA)	9.035	513.0 -> 468.8	48381	2.6841	ng/ml		98
Perfluorononanesulfonate (L-PFNS)	9.042	548.9 -> 79.9	10328	2.6470	ng/ml		93
N-MeFOSAA	9.255	570.0 -> 418.9	12325	2.4130	ng/ml	m	86
Perfluoroundecanoic acid (PFUnA)	9.497	563.0 -> 519.0	51737	2.1883	ng/ml		99
Perfluoro-1-decanesulfonate (L-PFDS)	9.504	598.9 -> 98.9	4337	2.3009	ng/ml		100
N-EtFOSAA	9.505	584.0 -> 418.8	12786	2.5563	ng/ml	m	100
Perfluoro-1-octanesulfonamide (FOSA)	9.648	497.9 -> 78.0	28322	2.5892	ng/ml		100
11-Cl-PF3OUdS	9.771	631.0 -> 451.0	173863	9.8890	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.950	613.0 -> 568.8	43473	2.3893	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.306	699.0 -> 80.0	2453	2.5586	ng/ml		93
Perfluorotridecanoic acid (PFTrDA)	10.325	663.0 -> 618.8	30637	2.6898	ng/ml		100
NMeFOSE	10.438	616.0 -> 59.0	14865	24.5862	ng/ml		100
NMeFOSA	10.460	512.0 -> 169.0	1747	2.6287	ng/ml		99
Perfluorotetradecanoic acid (PFTA)	10.645	713.0 -> 669.0	23117	2.6226	ng/ml		99
NEtFOSE	10.712	630.0 -> 59.0	15076	22.8216	ng/ml		100
NEtFOSA	10.743	526.0 -> 169.0	1530	2.4932	ng/ml		98

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

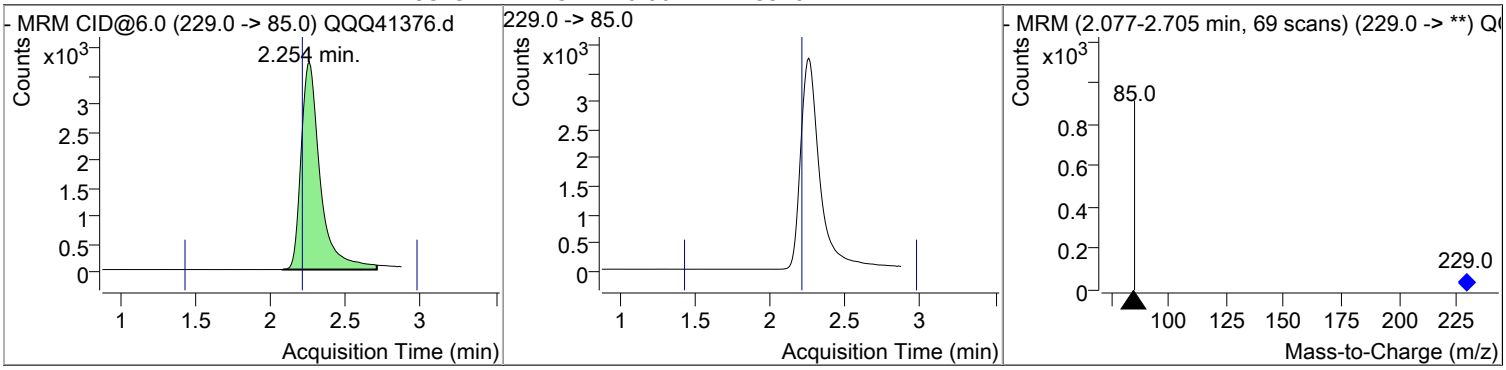
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.5043	1.31	0.06	142361				



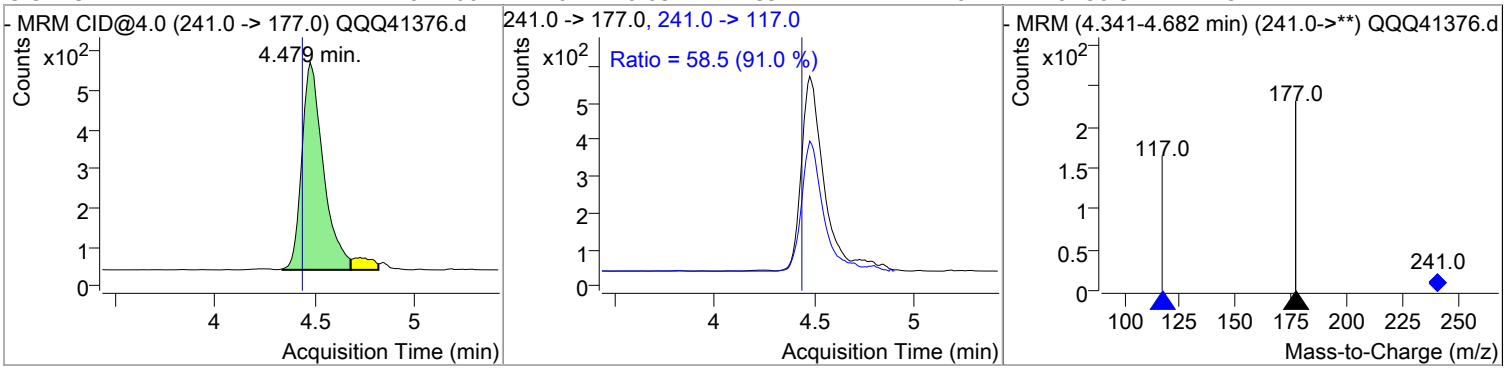
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	9.8577	1.31	0.06	123147				



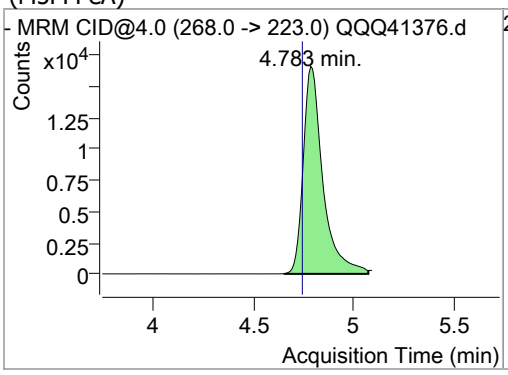
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	4.9313	2.25	0.06	33204				

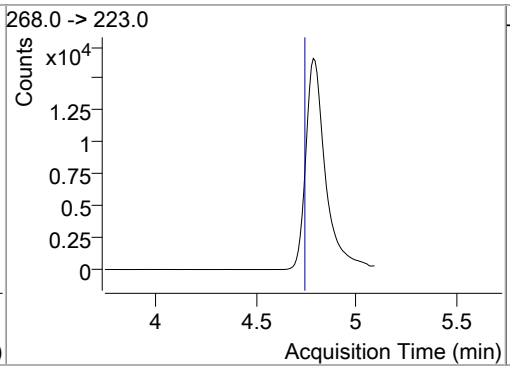


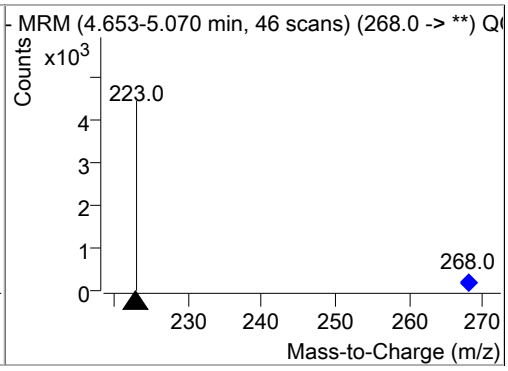
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	10.1460	4.48	0.05	3974	241.0 -> 117.0	58.5	51.4	77.2



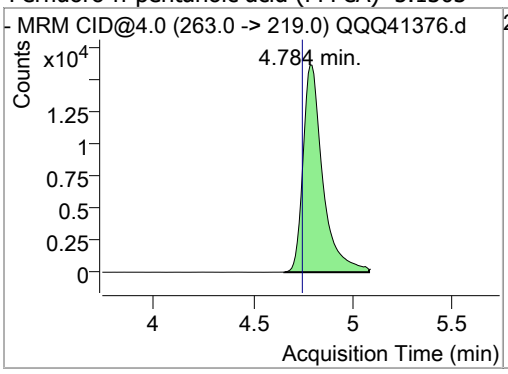
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.8688	4.78	0.06	112622				

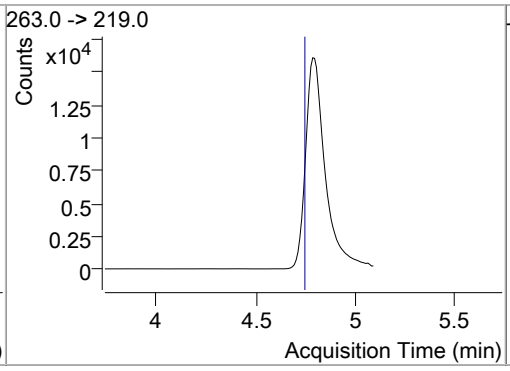


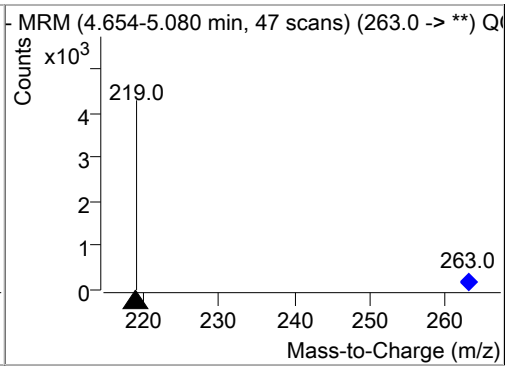




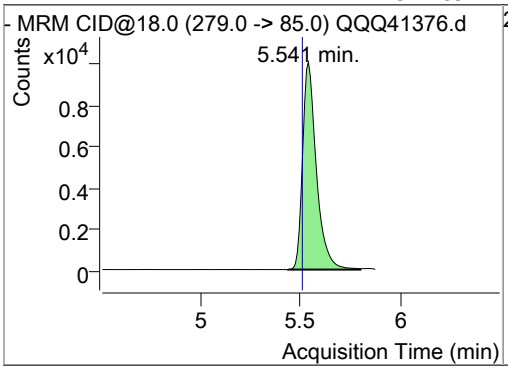
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	5.1303	4.78	0.05	110784				

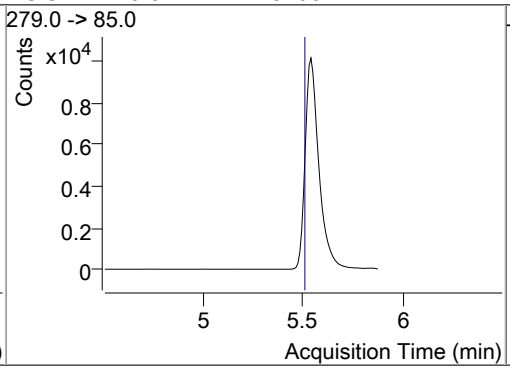


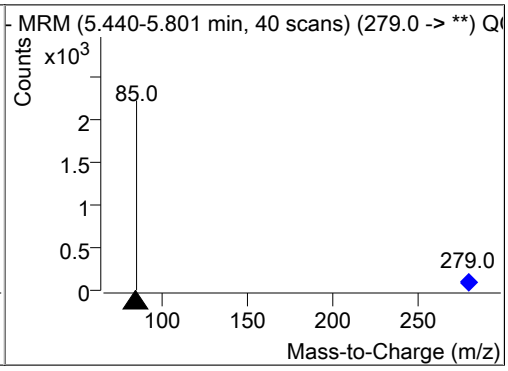




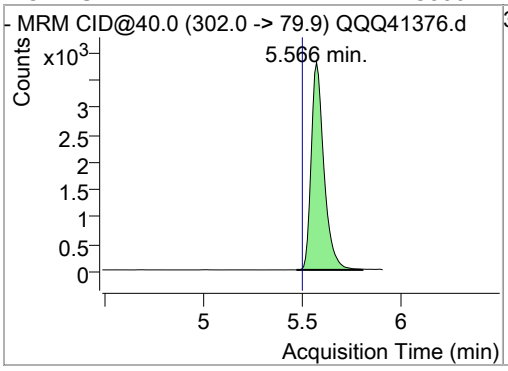
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	5.1209	5.54	0.04	48166				

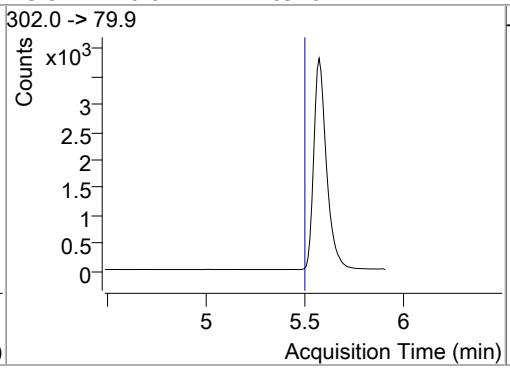


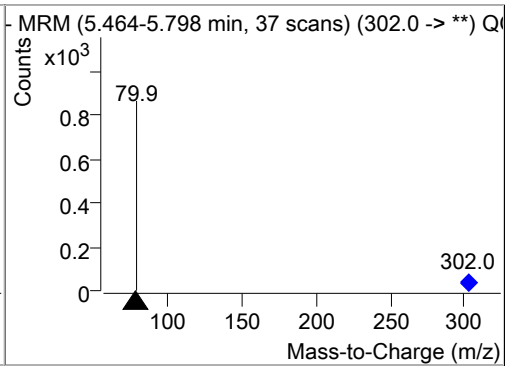




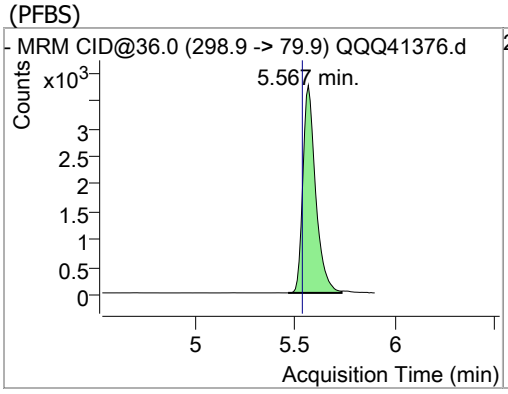
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.3806	5.57	0.04	16918				

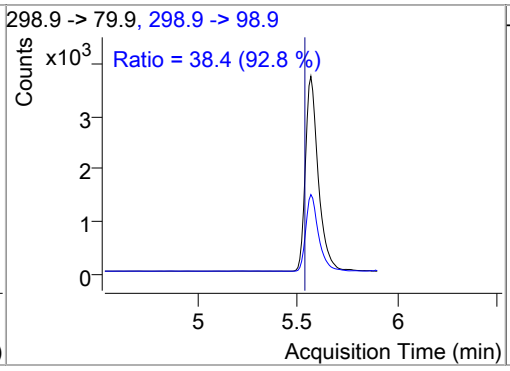


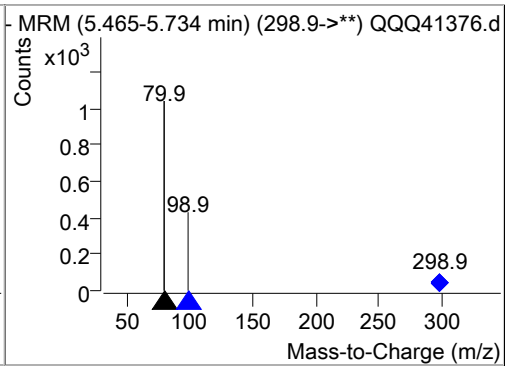




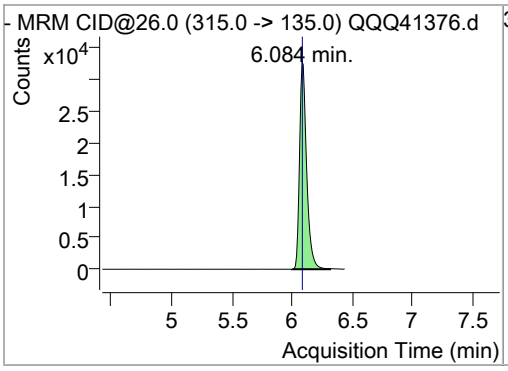
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.2461	5.57	0.04	16657	298.9 -> 98.9	38.4	33.1	49.7

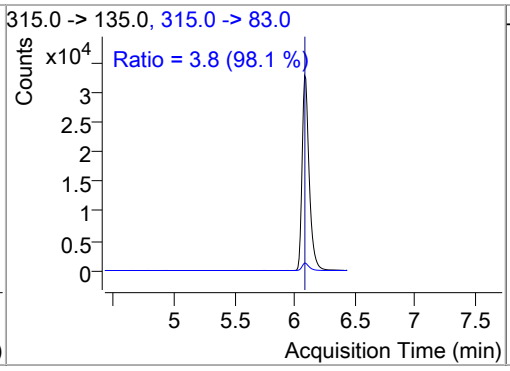


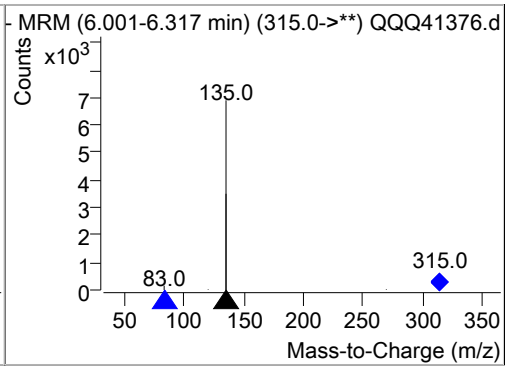




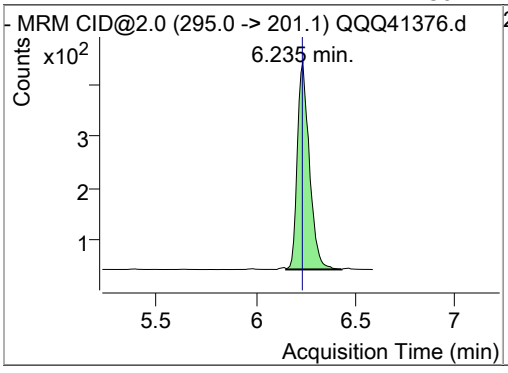
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	4.3402	6.08	0.01	133228	315.0 -> 83.0	3.8	3.1	4.7

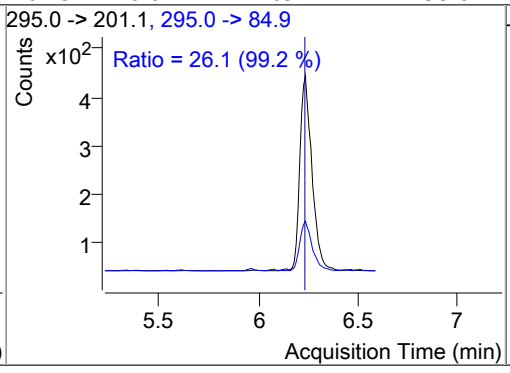


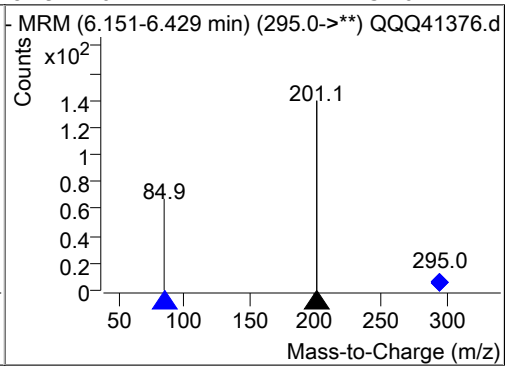




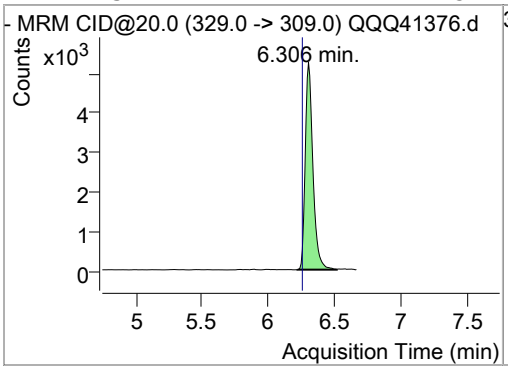
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	4.1302	6.23	0.01	1694	295.0 -> 84.9	26.1	21.1	31.6

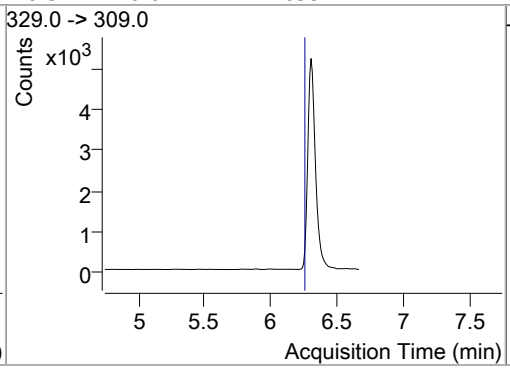


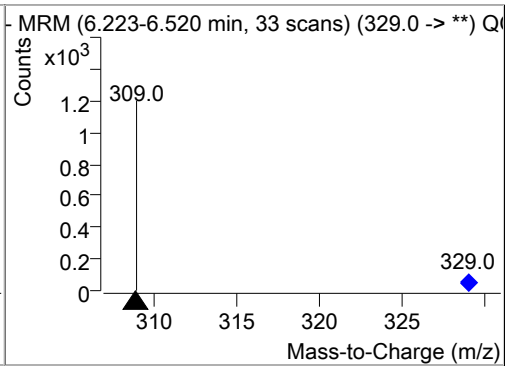




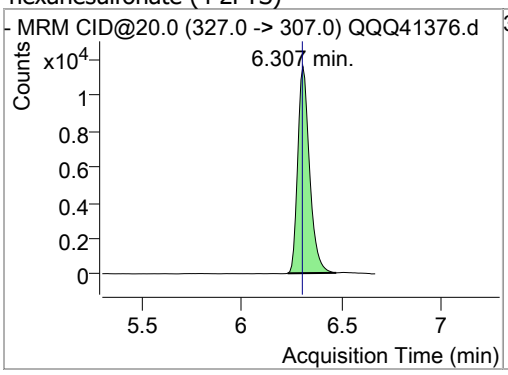
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.4473	6.31	0.01	21099				

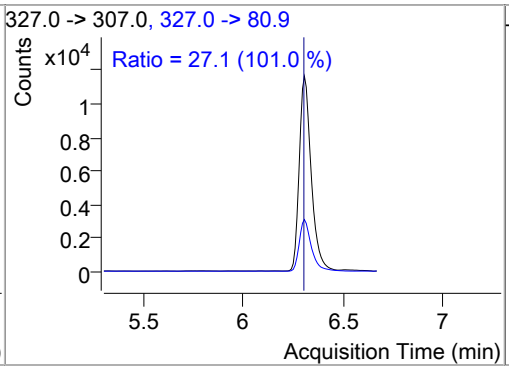


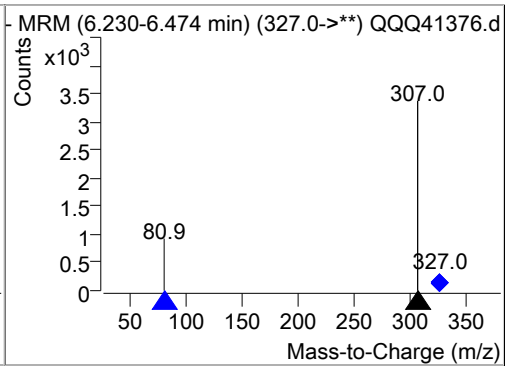




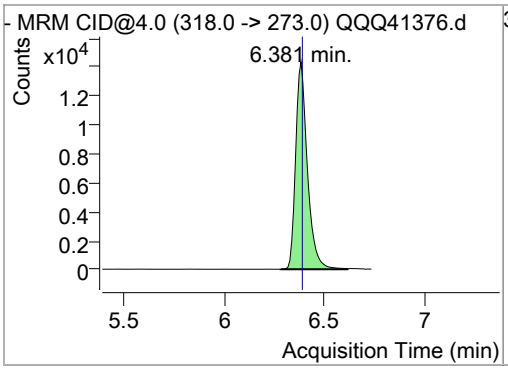
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	8.9652	6.31	0.01	47485	327.0 -> 80.9	27.1	21.5	32.2

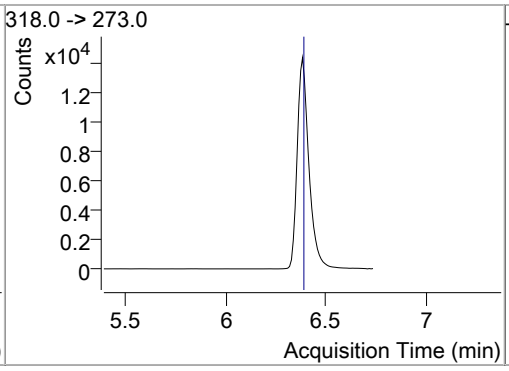


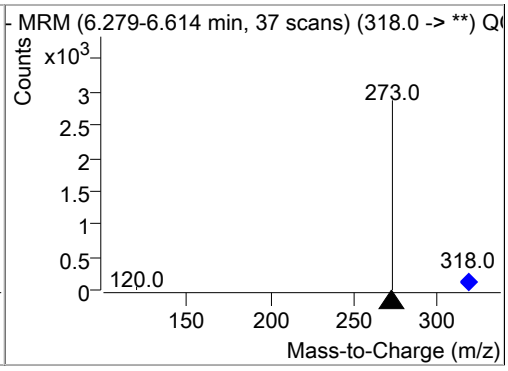




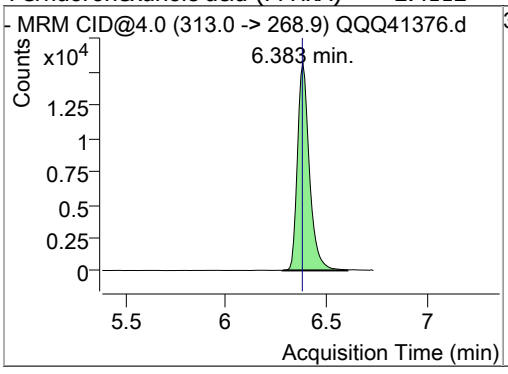
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.5206	6.38	0.01	58326				

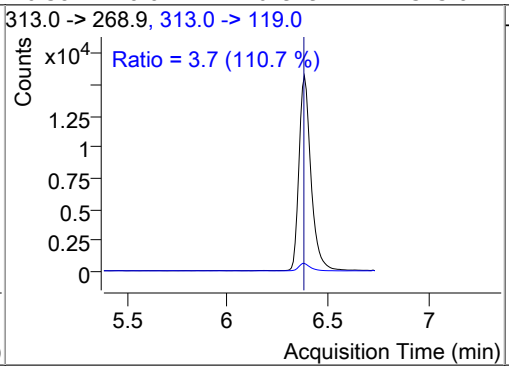


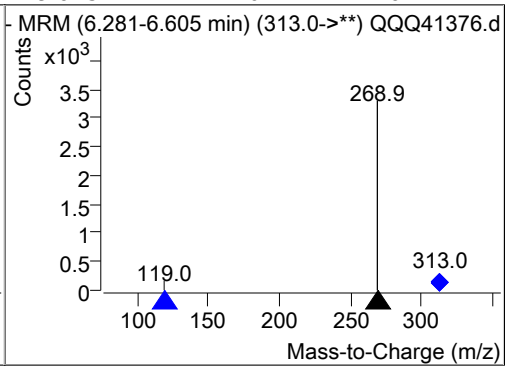




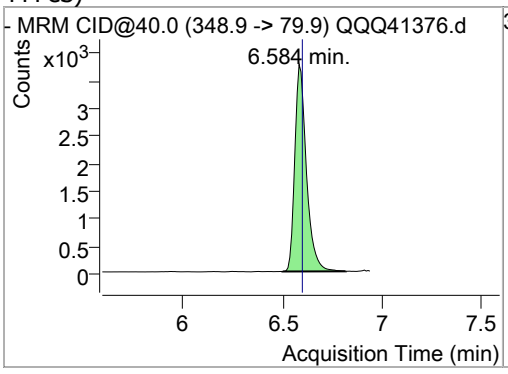
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	2.4112	6.38	0.01	64919	313.0 -> 119.0	3.7	2.6	4.0

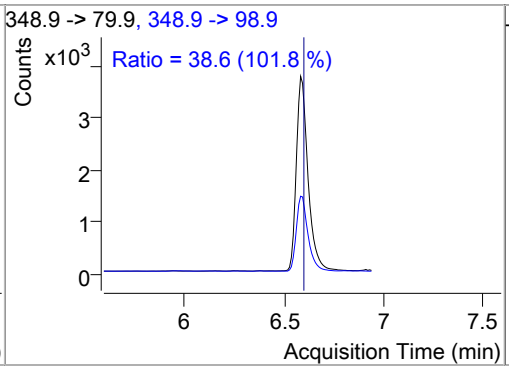


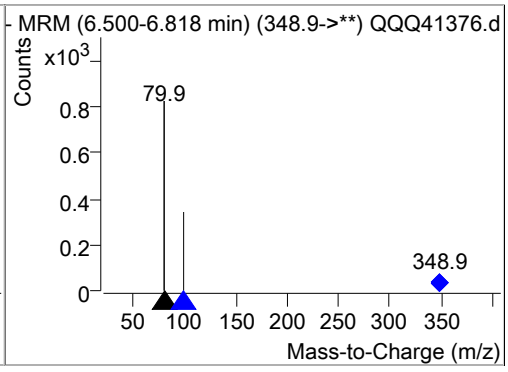




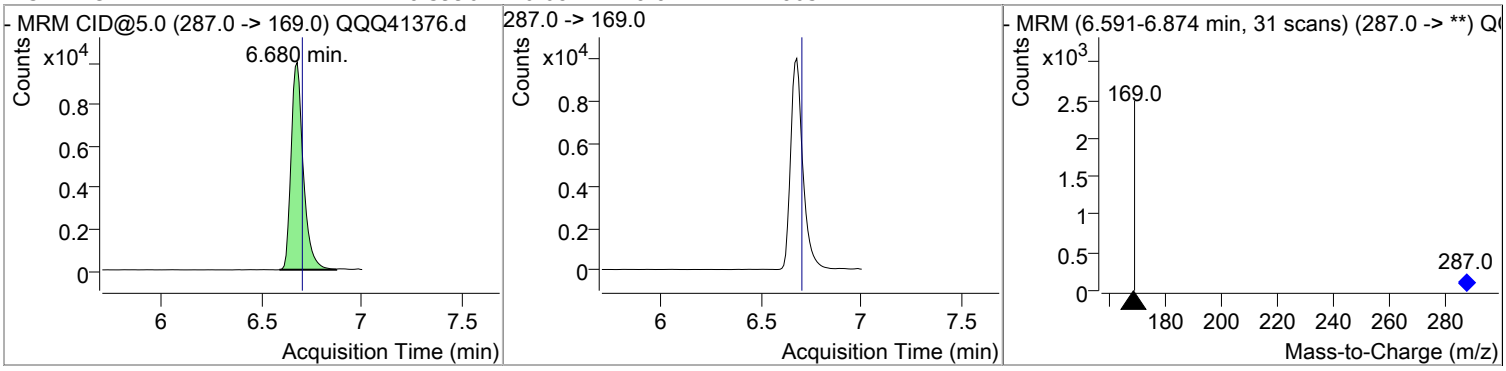
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	2.3280	6.58	-0.01	15175	348.9 -> 98.9	38.6	30.4	45.6



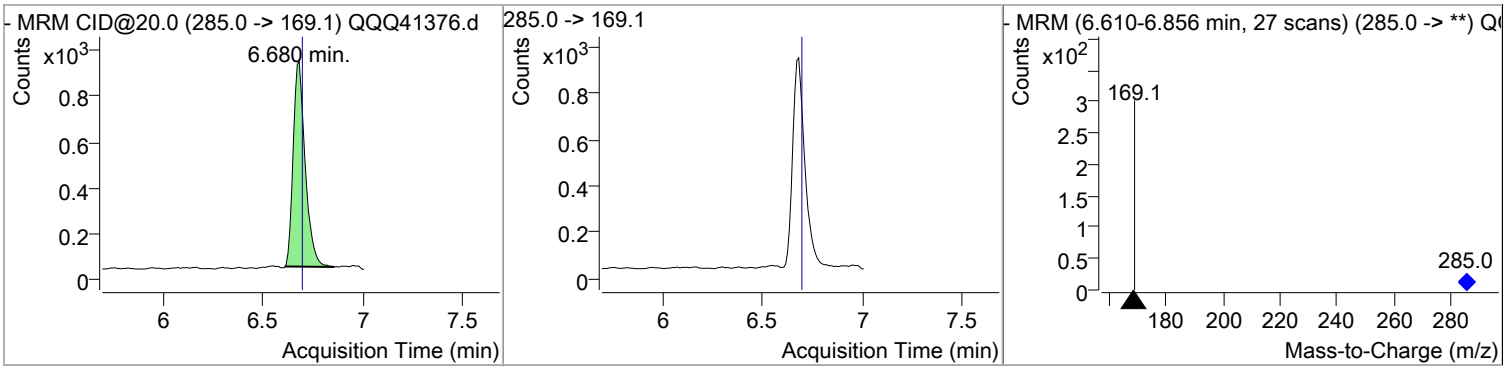




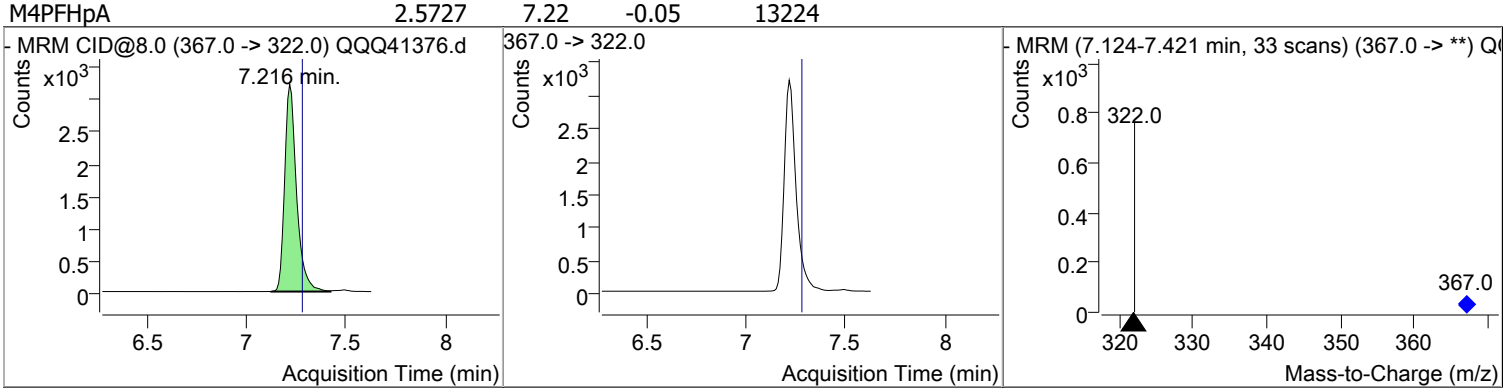
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.3996	6.68	-0.01	42065				



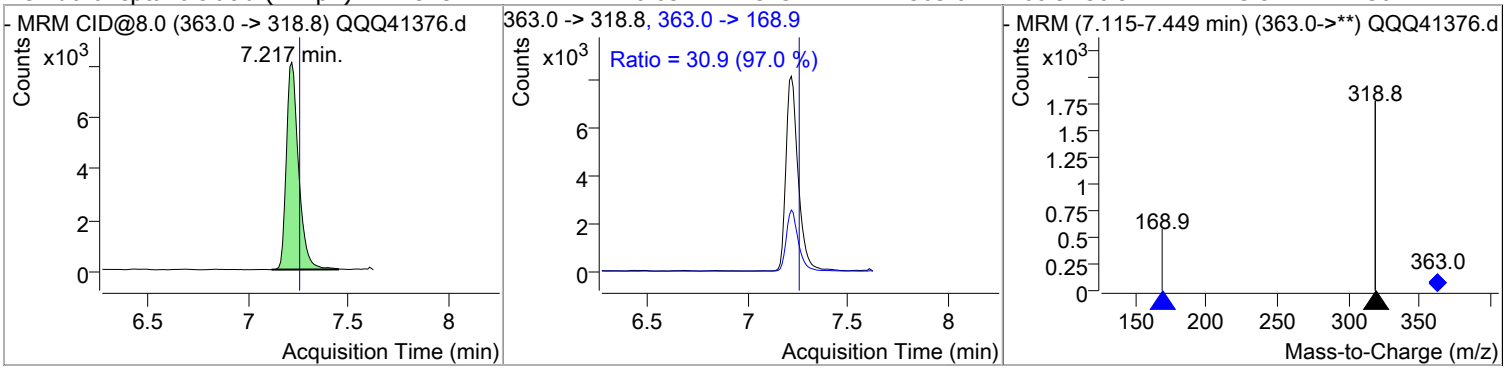
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	10.1117	6.68	-0.01	3745				



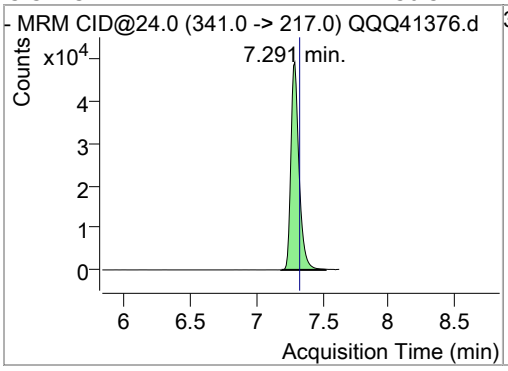
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.5727	7.22	-0.05	13224				

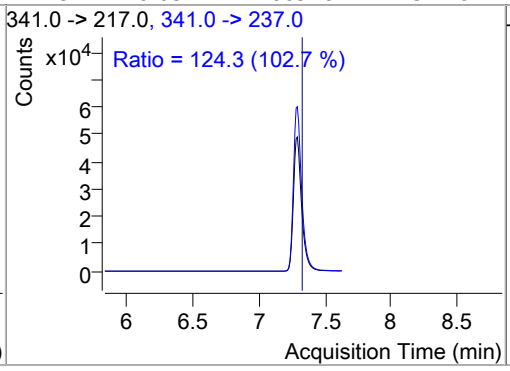


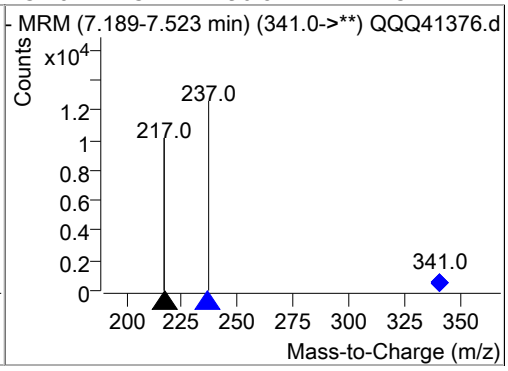
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	2.9252	7.22	-0.05	34524	363.0 -> 168.9	30.9	25.5	38.2



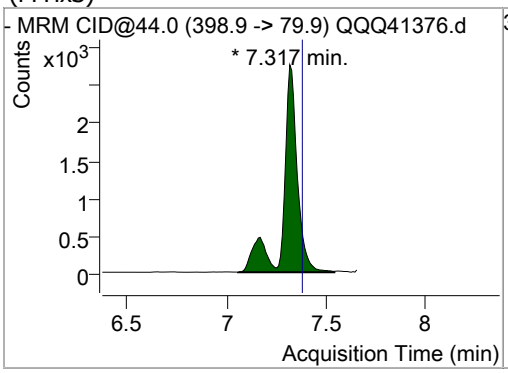
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	56.5277	7.29	-0.05	208940	341.0 -> 237.0	124.3	96.8	145.2

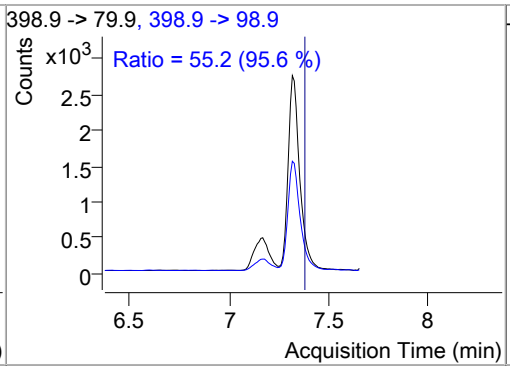


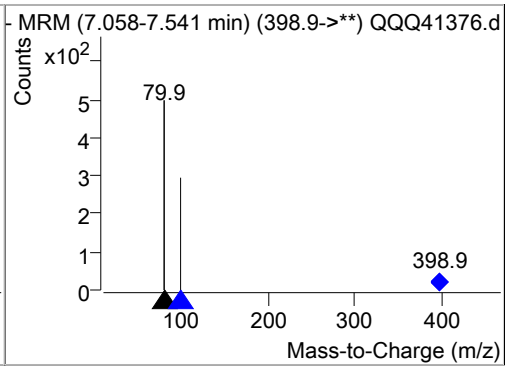




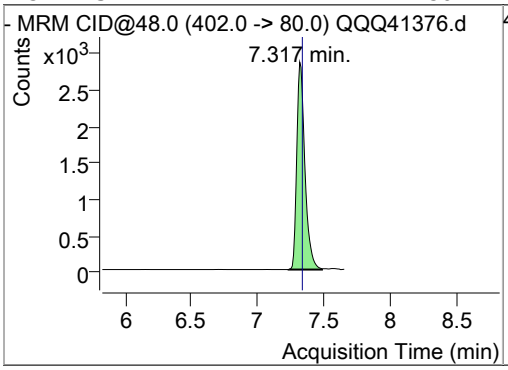
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	2.2678	7.32	-0.06	13537 (m)	398.9 -> 98.9	55.2	46.2	69.3

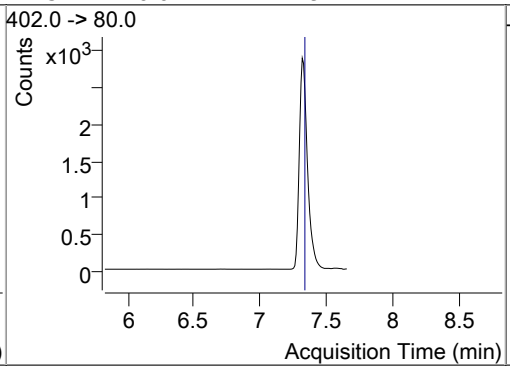


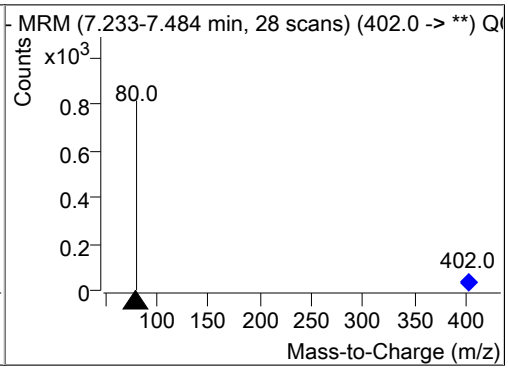




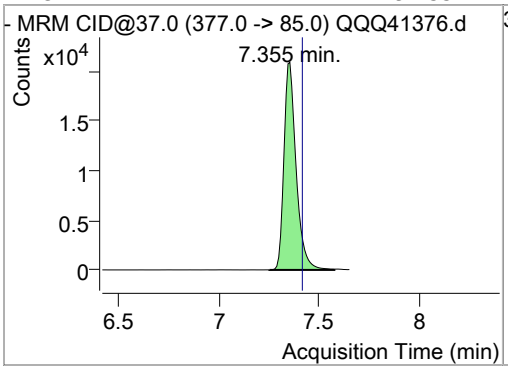
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.4504	7.32	-0.07	12149				

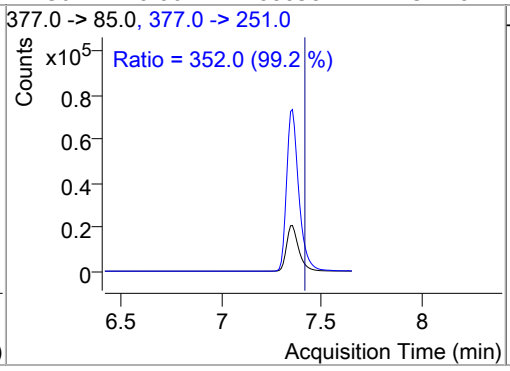


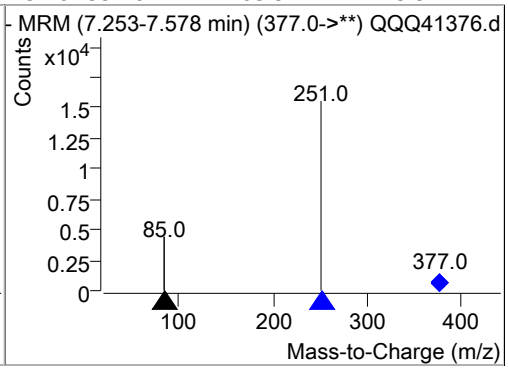




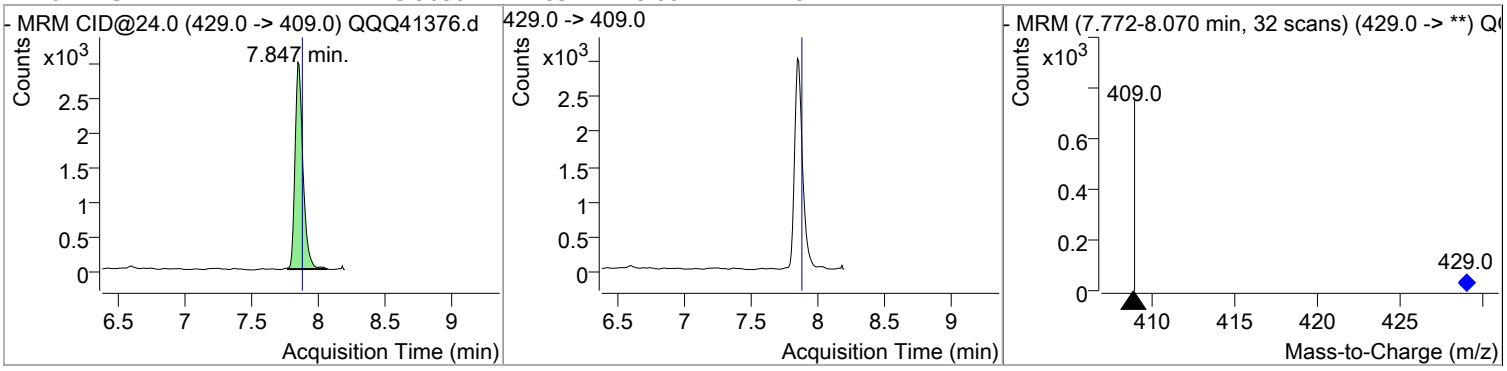
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	9.4554	7.36	-0.06	88038	377.0 -> 251.0	352.0	283.9	425.9



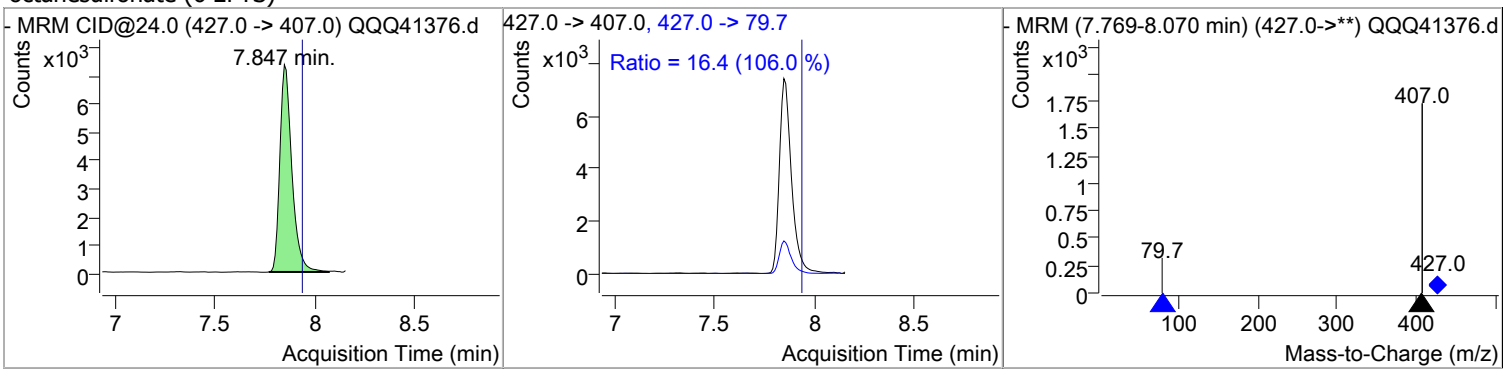




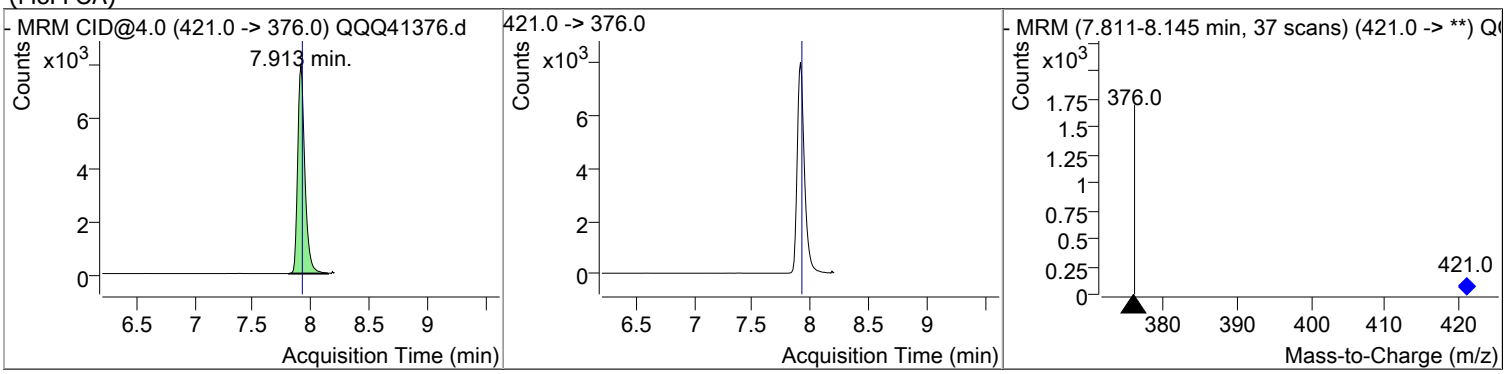
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	3.9050	7.85	-0.08	12407				



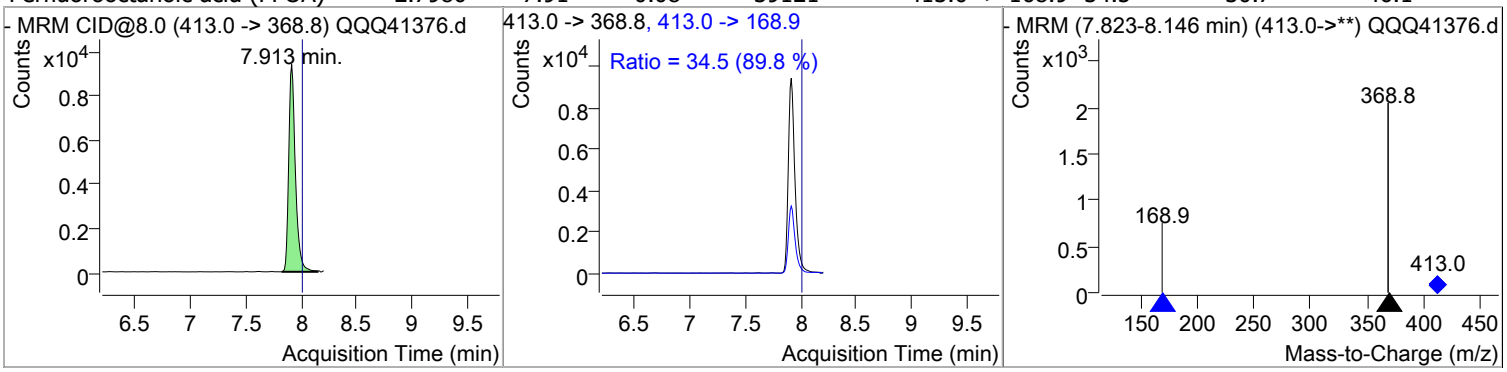
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.4813	7.85	-0.08	30775	427.0 -> 79.7	16.4	12.3	18.5



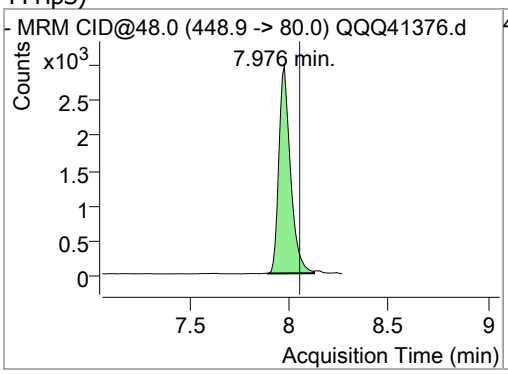
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4139	7.91	-0.08	34095				

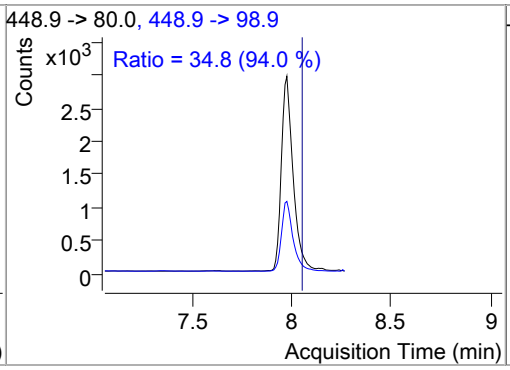


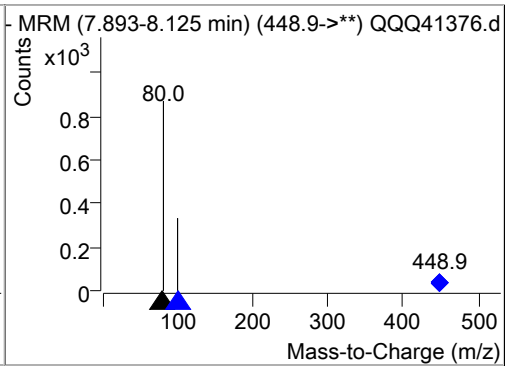
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	2.7980	7.91	-0.08	39121	413.0 -> 168.9	34.5	30.7	46.1



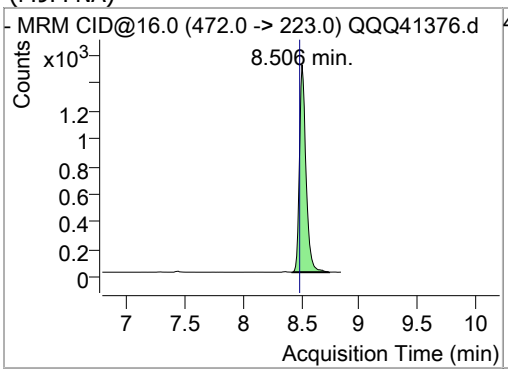
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	2.1402	7.98	-0.08	11896	448.9 -> 98.9	34.8	29.6	44.4

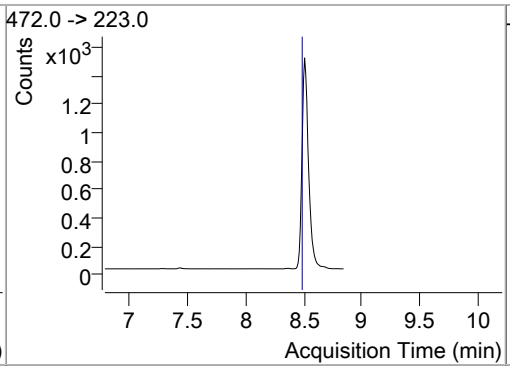


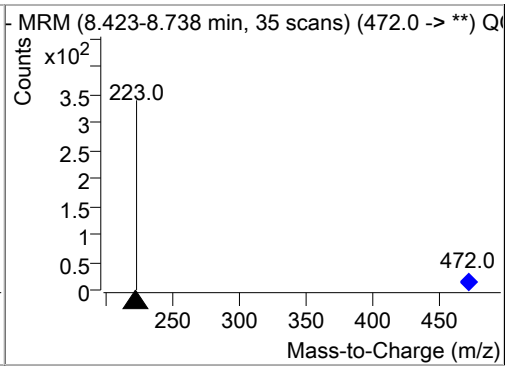




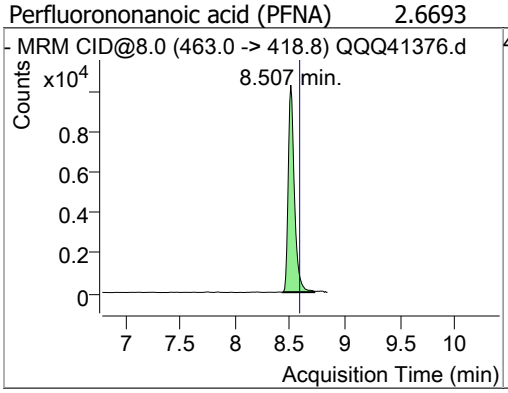
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2076	8.51	-0.08	5804				

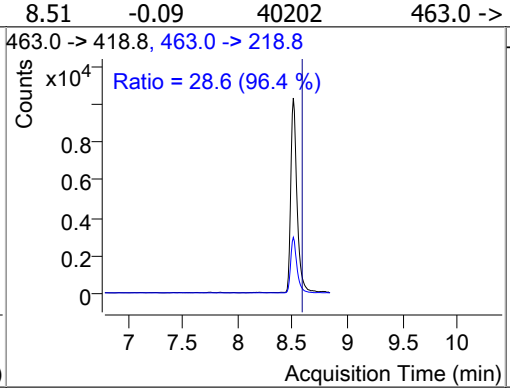


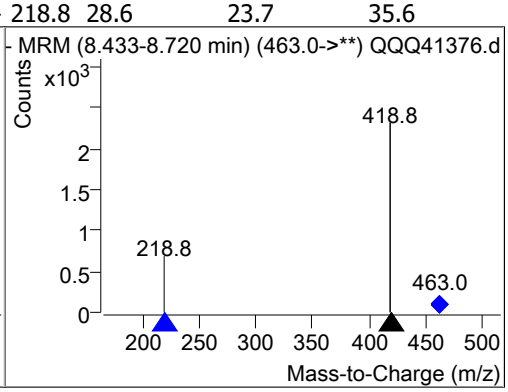




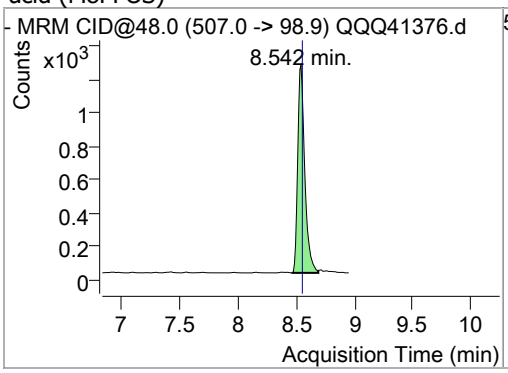
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	2.6693	8.51	-0.09	40202	463.0 -> 218.8	28.6	23.7	35.6

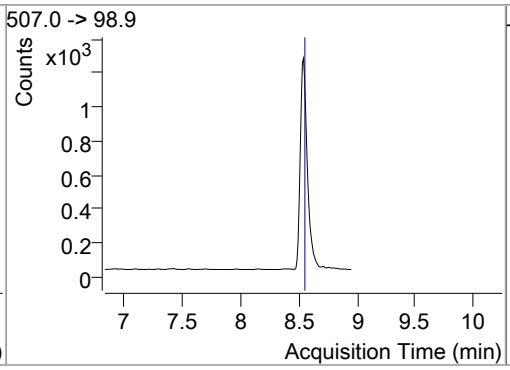


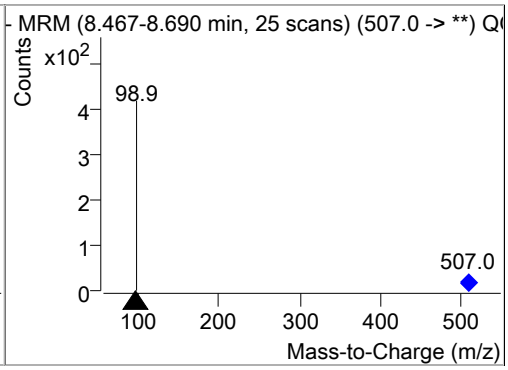




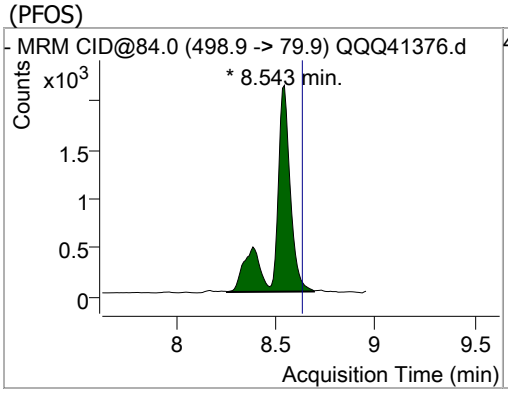
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.2609	8.54	-0.08	5228				

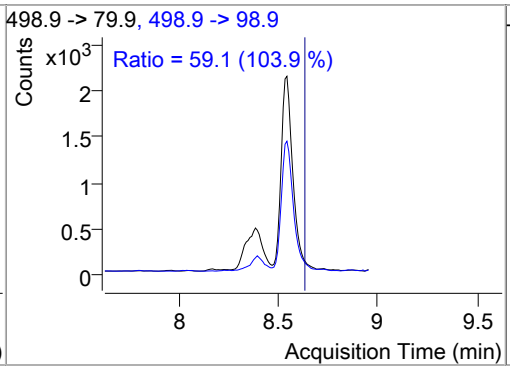


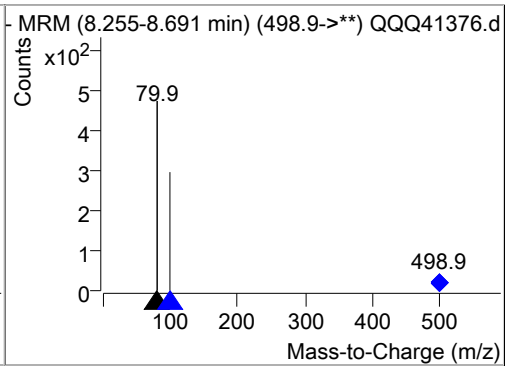




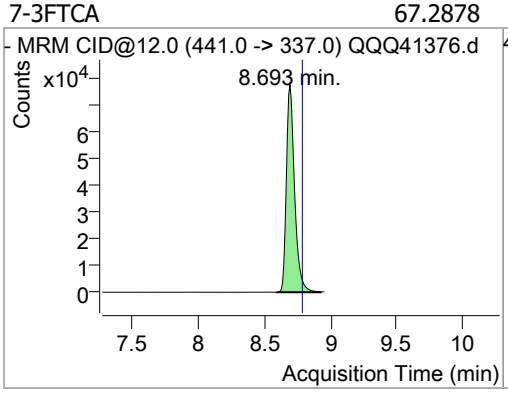
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.2701	8.54	-0.08	11294 (m)	498.9 -> 98.9	59.1	45.5	68.3

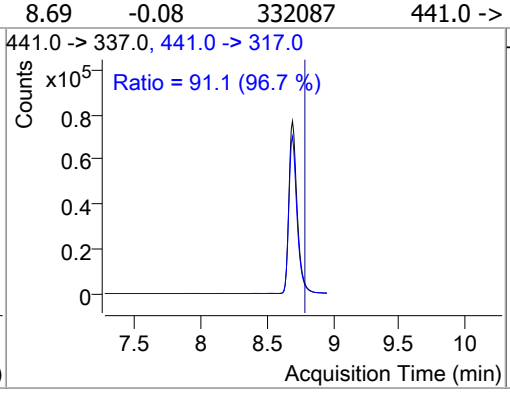


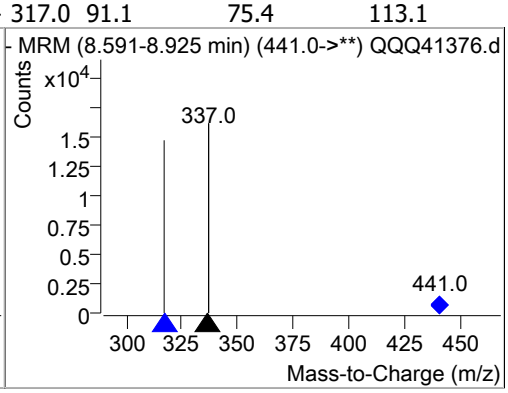




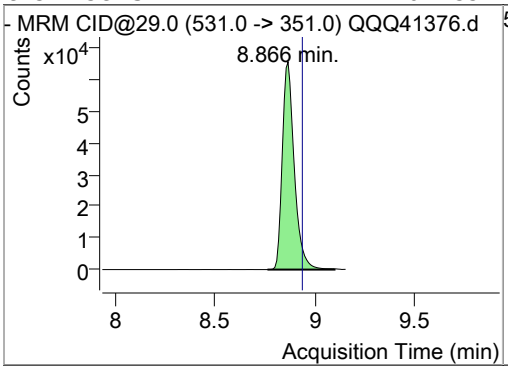
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	67.2878	8.69	-0.08	332087	441.0 -> 317.0	91.1	75.4	113.1

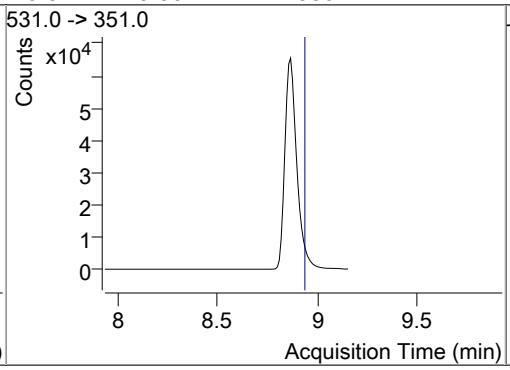


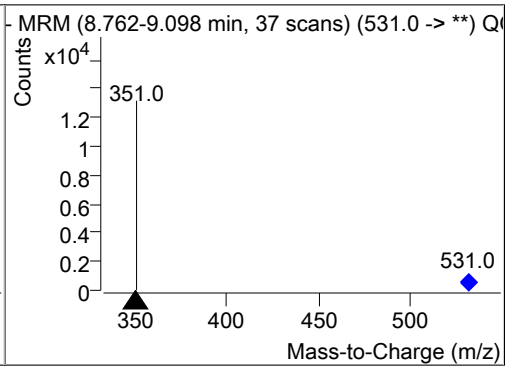




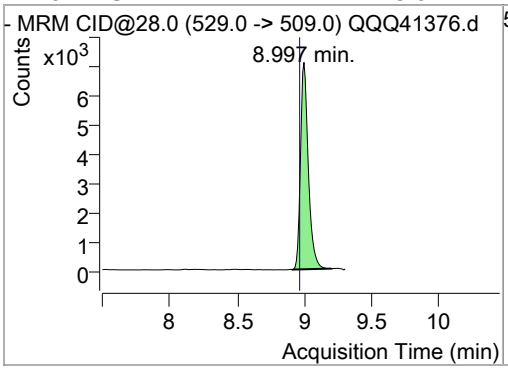
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	10.7435	8.87	-0.06	272886				

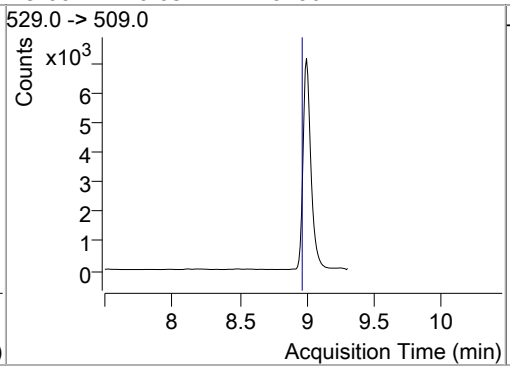


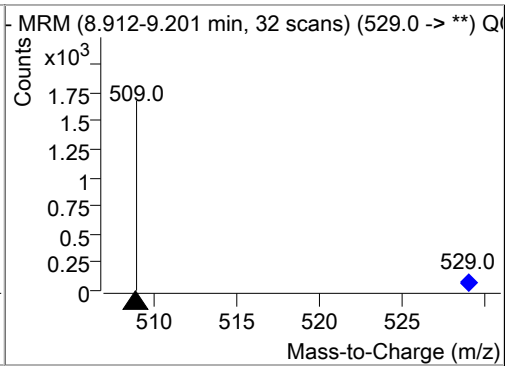




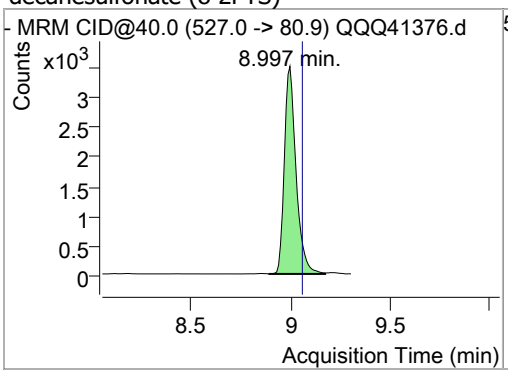
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	3.8471	9.00	-0.05	28706				

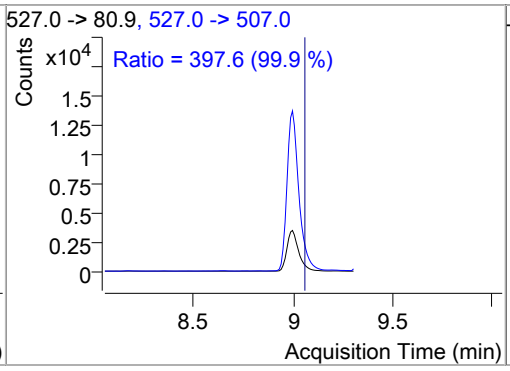


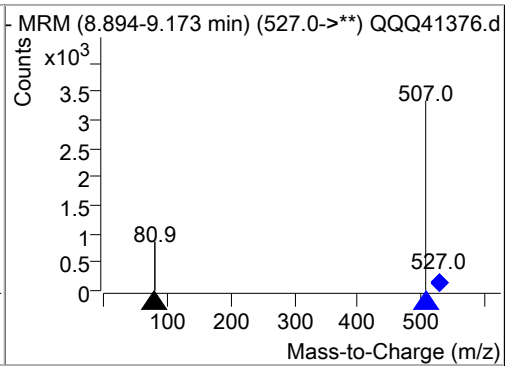




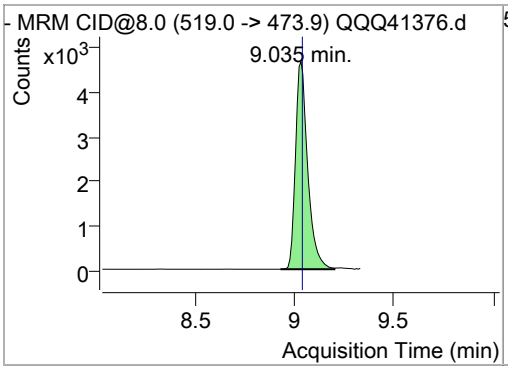
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	10.0958	9.00	-0.06	14174	527.0 -> 507.0	397.6	318.3	477.4

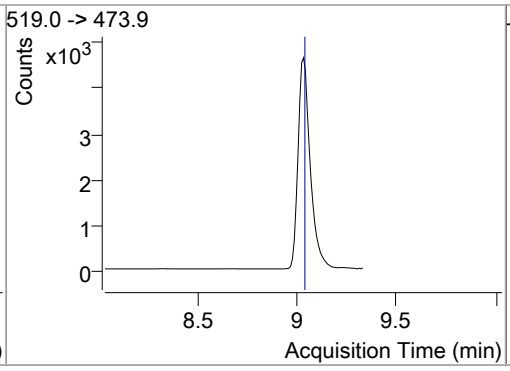


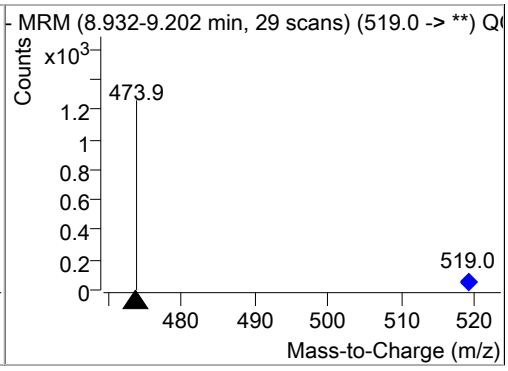




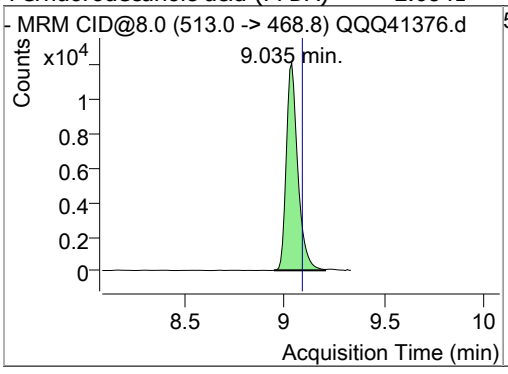
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.0767	9.03	-0.05	19690				

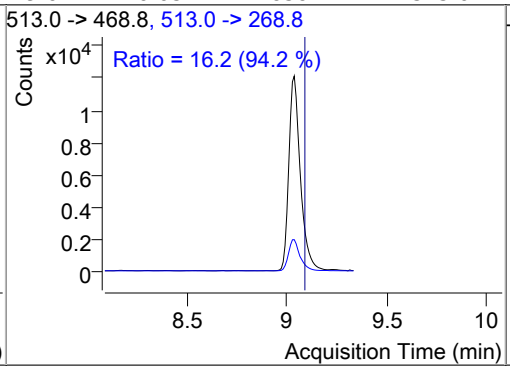


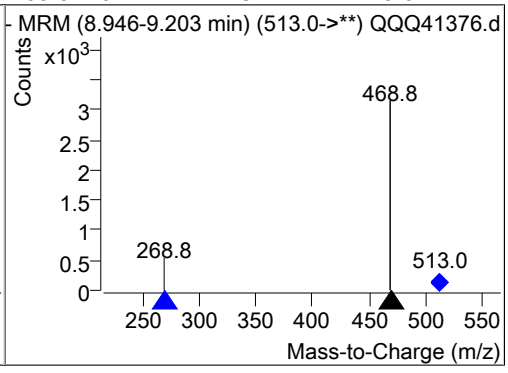




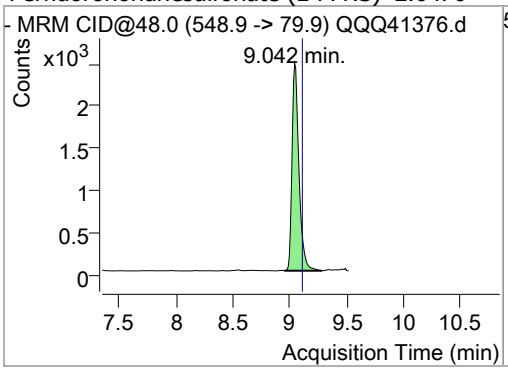
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	2.6841	9.04	-0.05	48381	513.0 -> 268.8	16.2	13.7	20.6

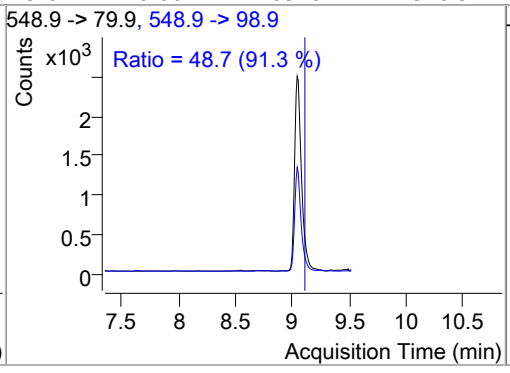


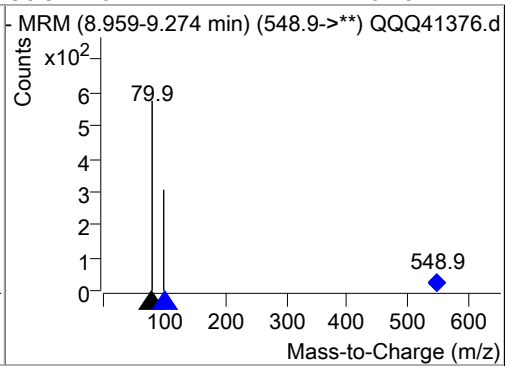




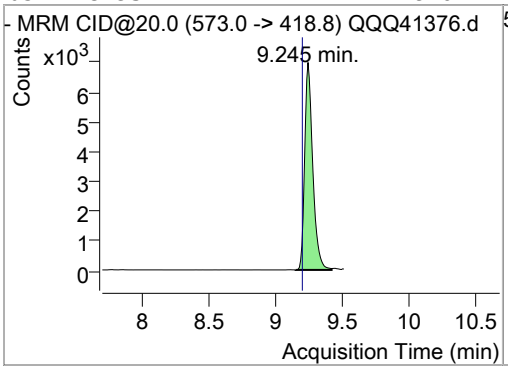
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	2.6470	9.04	-0.06	10328	548.9 -> 98.9	48.7	42.7	64.0

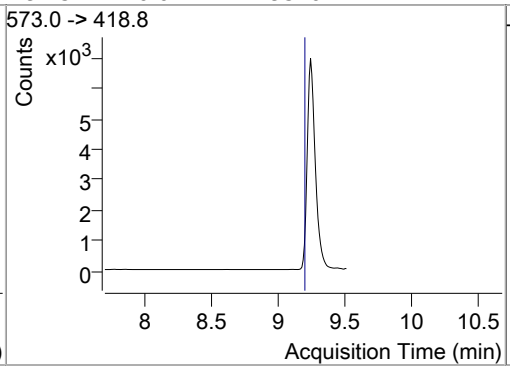


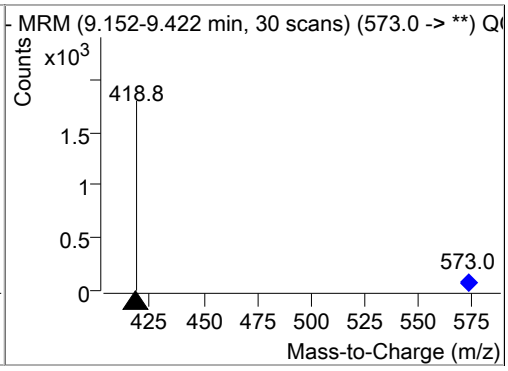




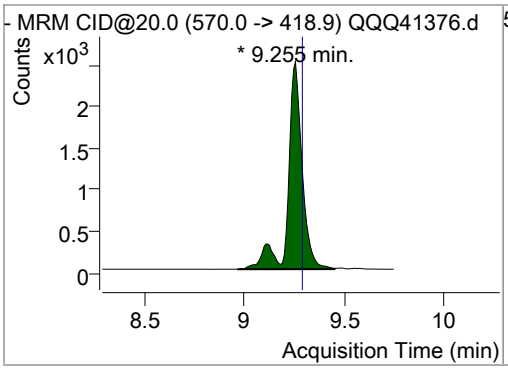
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.9207	9.25	-0.04	29320				

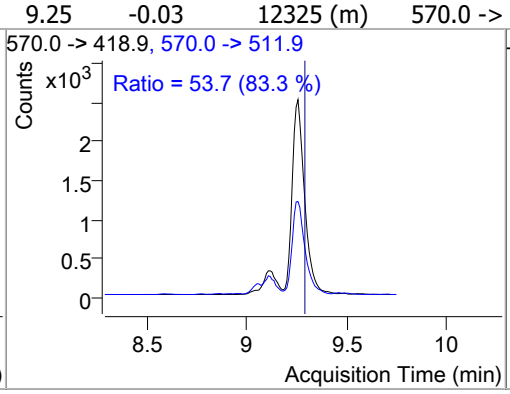


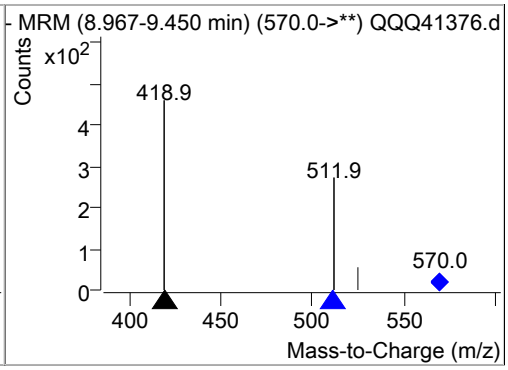




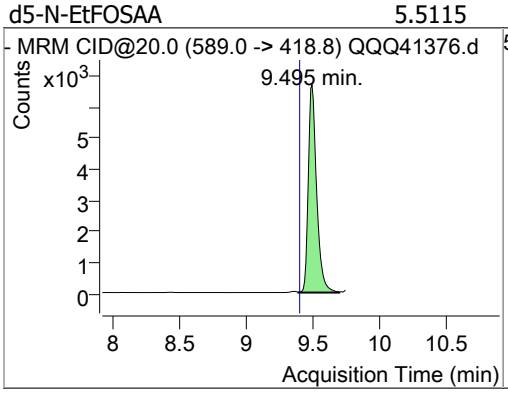
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	2.4130	9.25	-0.03	12325 (m)	570.0 -> 511.9	53.7	51.6	77.4

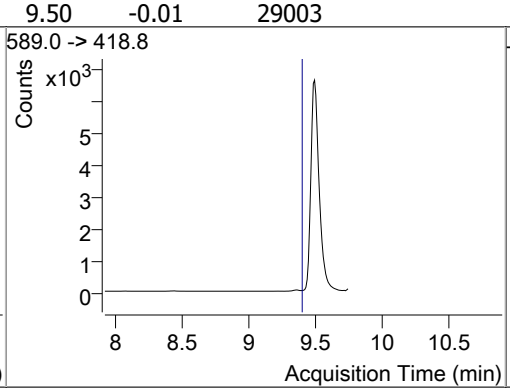


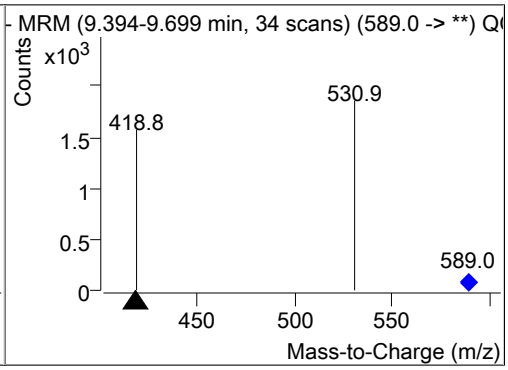




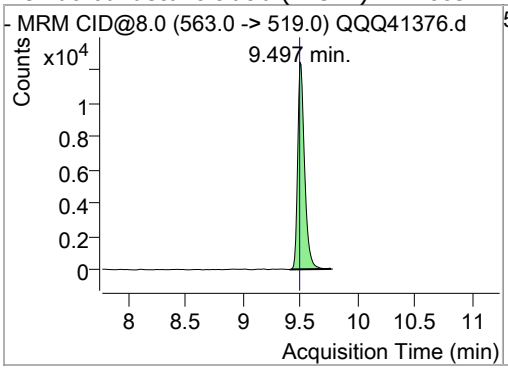
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.5115	9.50	-0.01	29003				

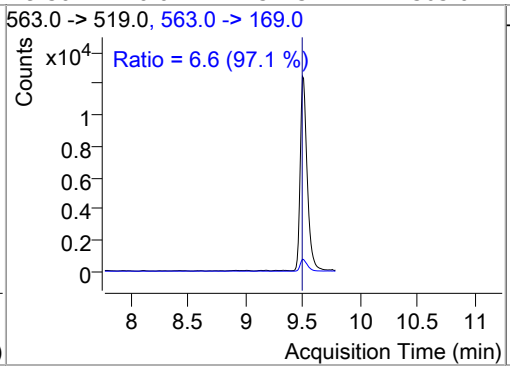


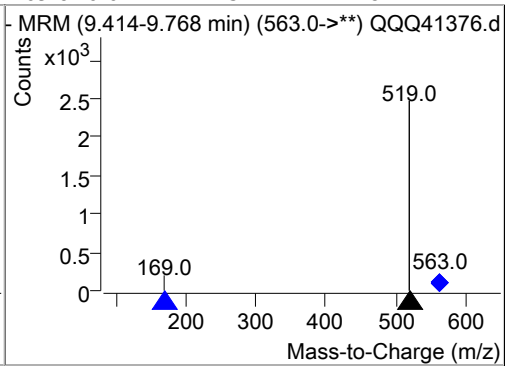




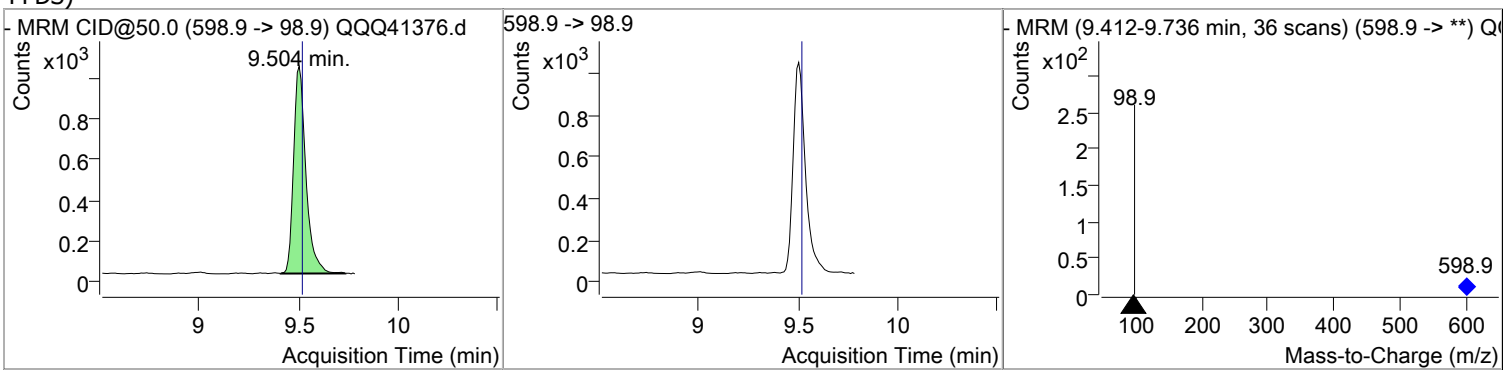
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.1883	9.50	-0.01	51737	563.0 -> 169.0	6.6	5.4	8.1



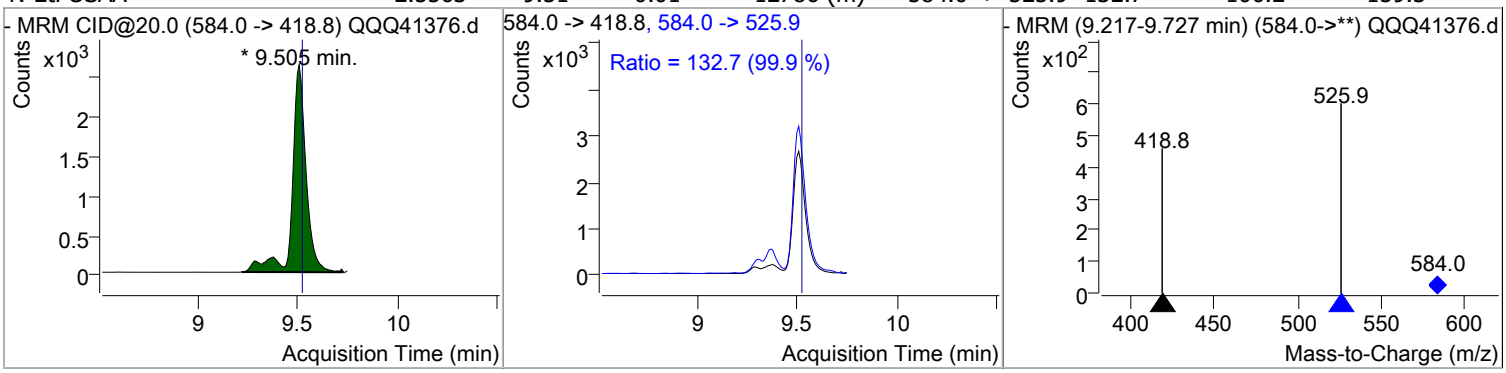




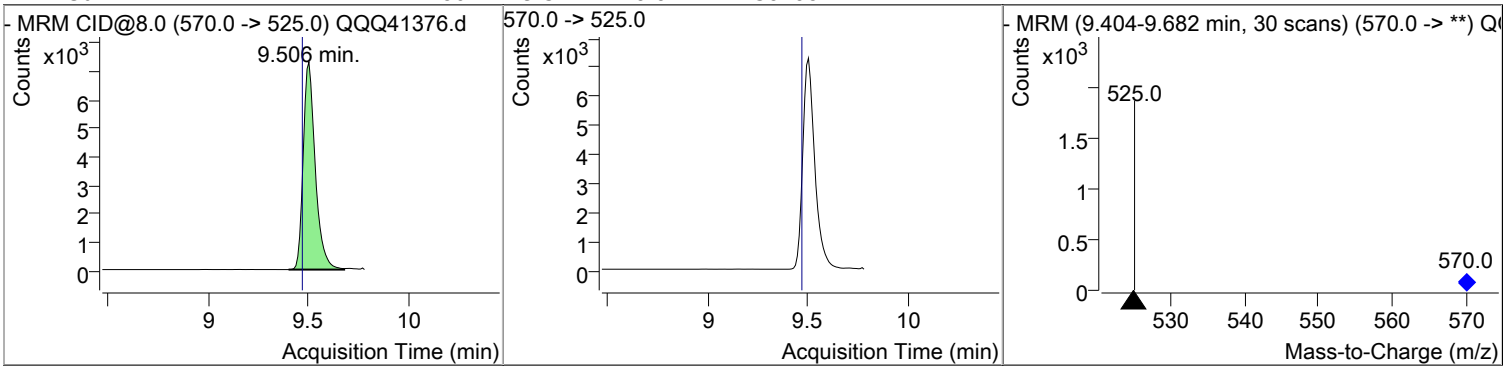
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.3009	9.50	-0.01	4337				



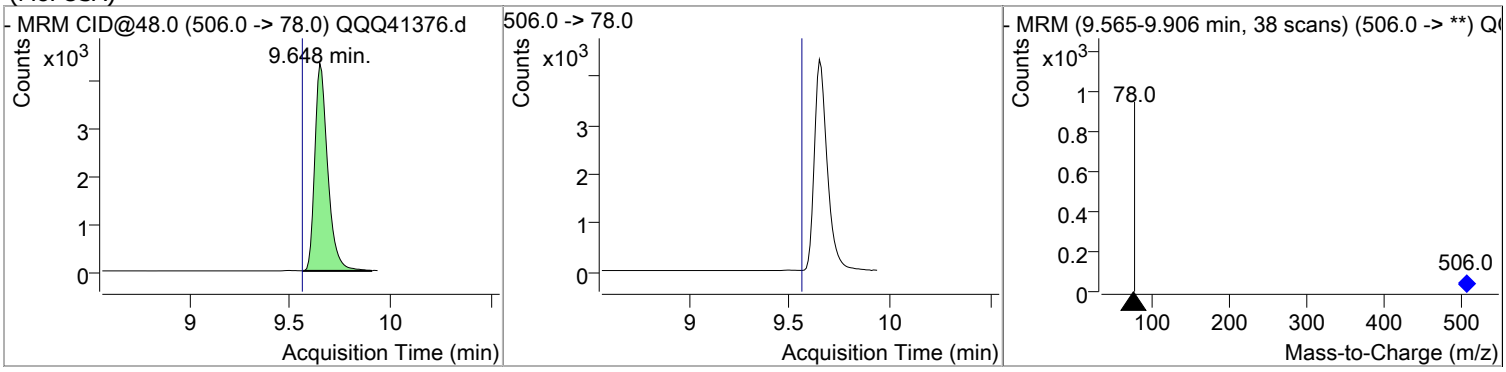
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	2.5563	9.51	-0.01	12786 (m)	584.0 -> 525.9	132.7	106.2	159.3



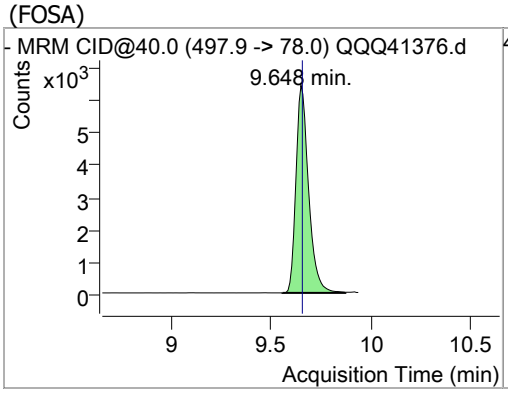
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2286	9.51	-0.01	30408				

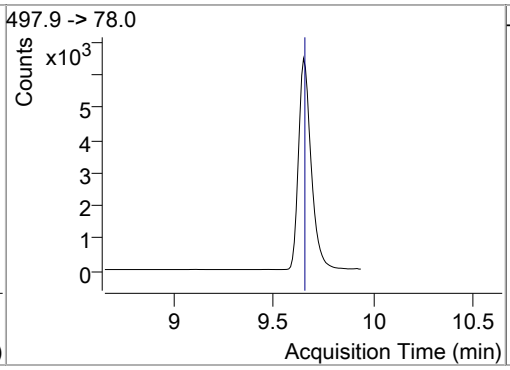


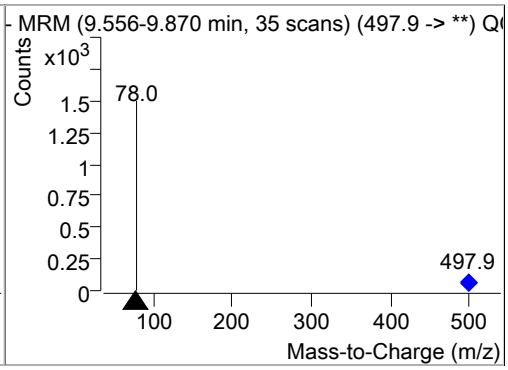
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.5268	9.65	0.00	19145				



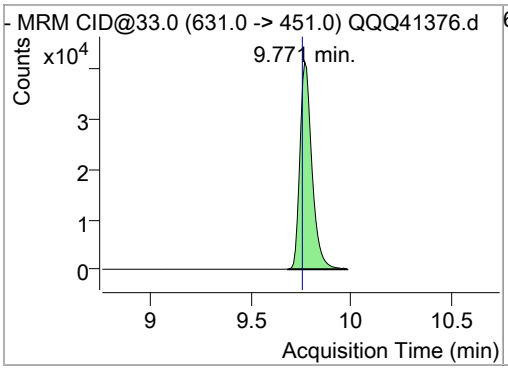
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	2.5892	9.65	0.00	28322				

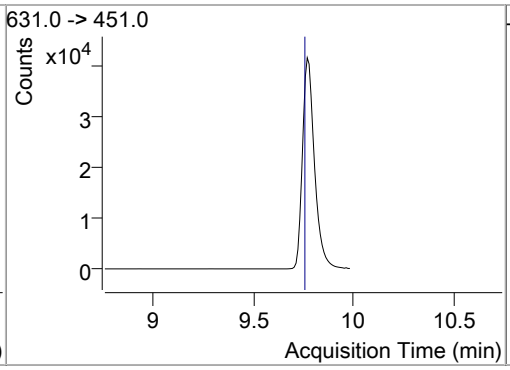


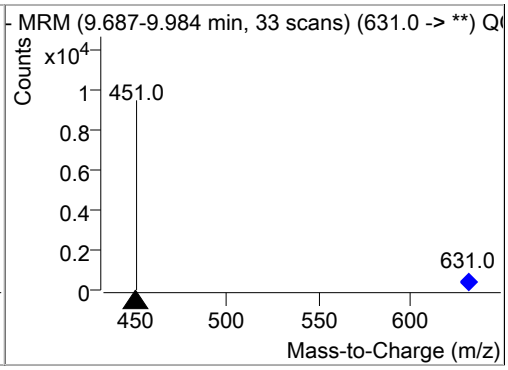




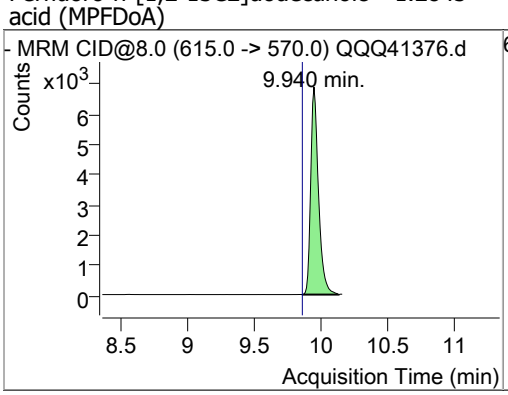
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	9.8890	9.77	0.02	173863				

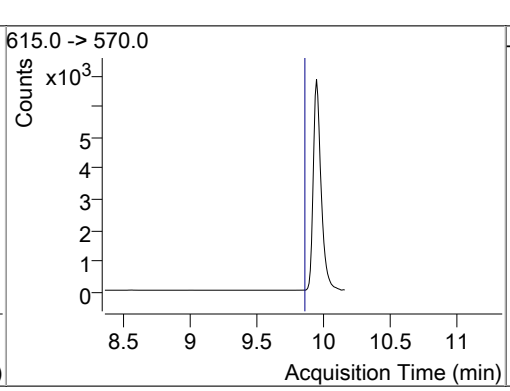


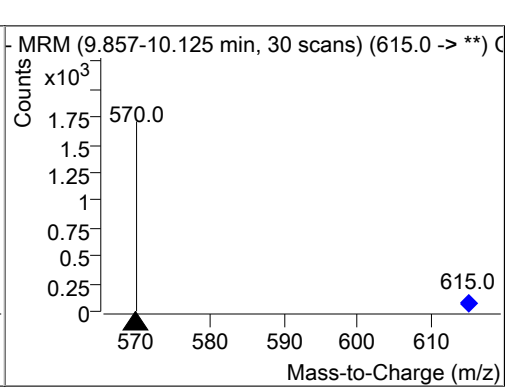




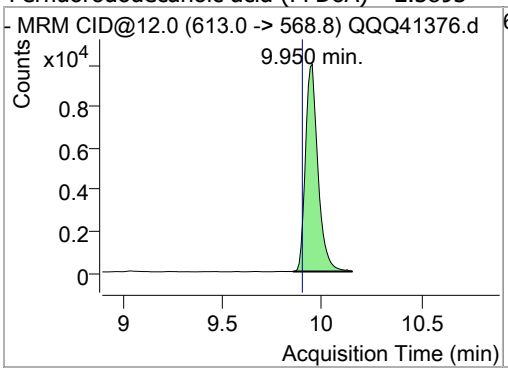
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.2845	9.94	0.05	27950				

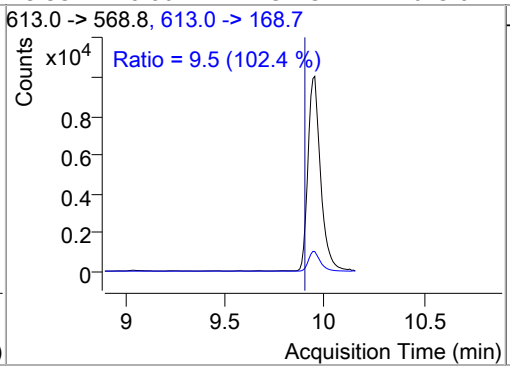


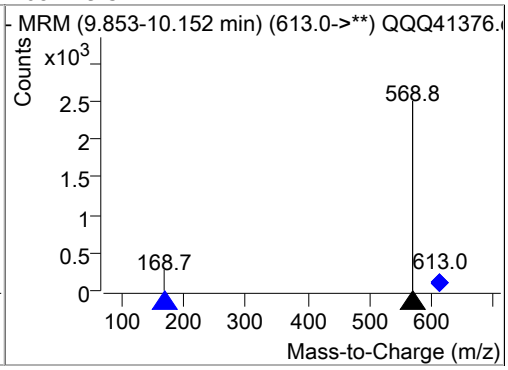




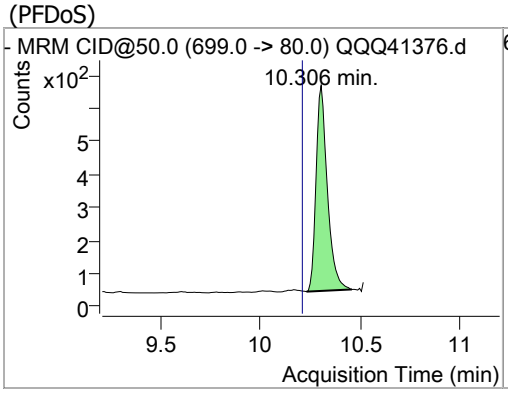
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	2.3893	9.95	0.06	43473	613.0 -> 168.7	9.5	7.4	11.2

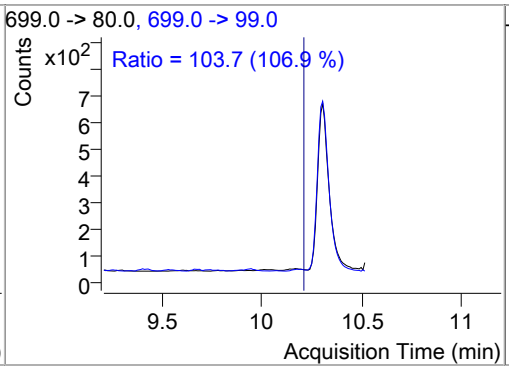


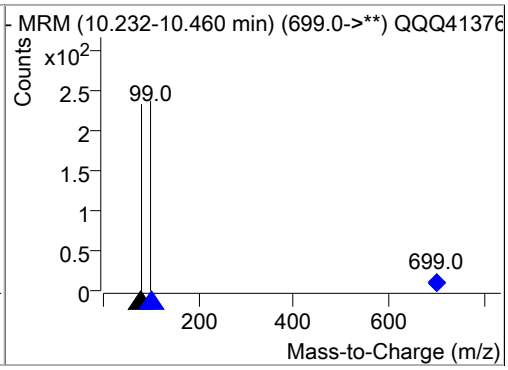




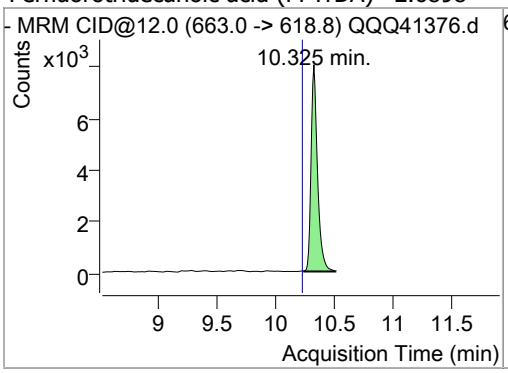
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.5586	10.31	0.10	2453	699.0 -> 99.0	103.7	77.6	116.4

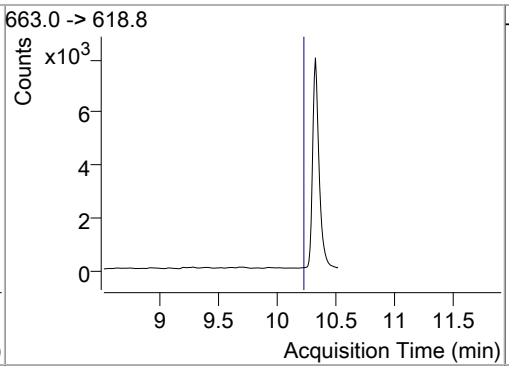


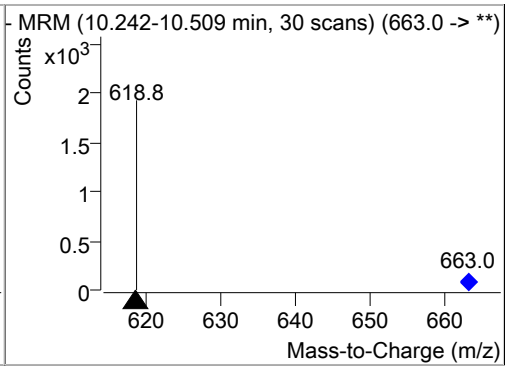




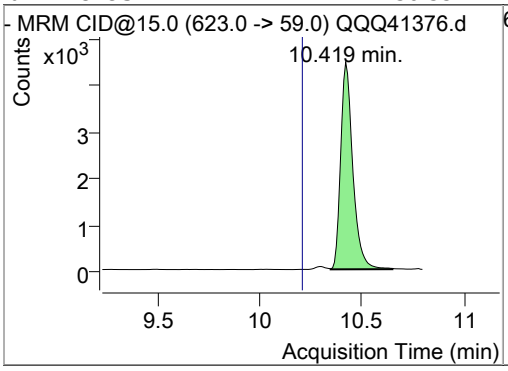
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	2.6898	10.32	0.11	30637				

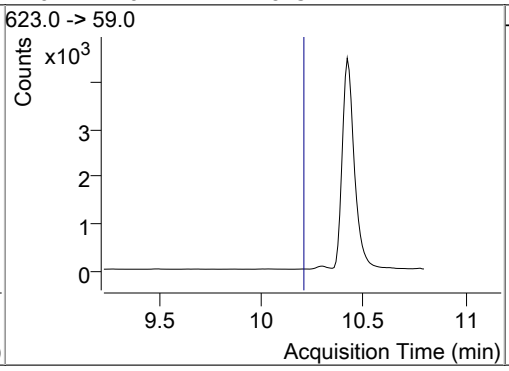


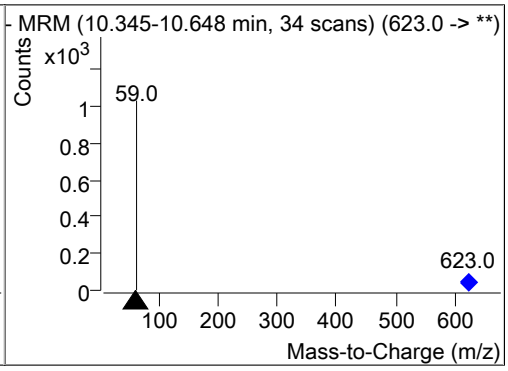




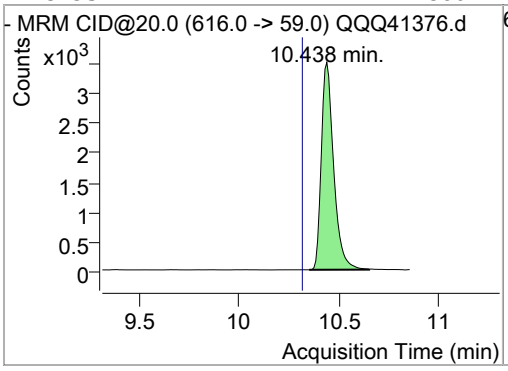
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	30.3541	10.42	0.12	18457				

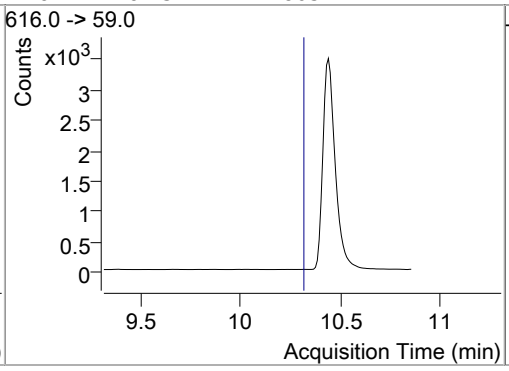


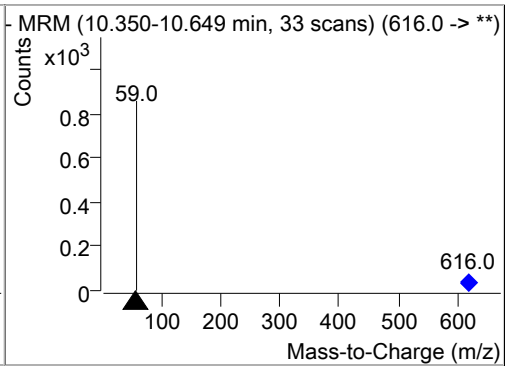




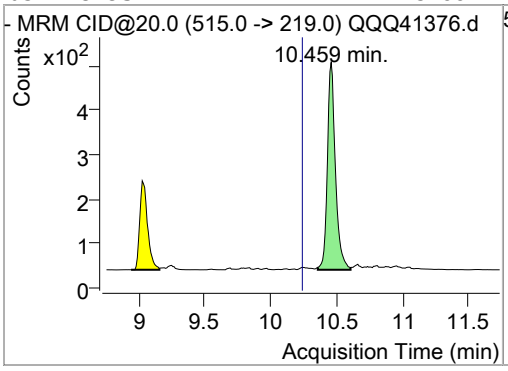
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	24.5862	10.44	0.13	14865				

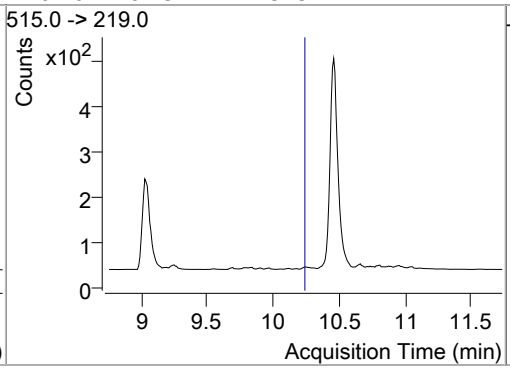


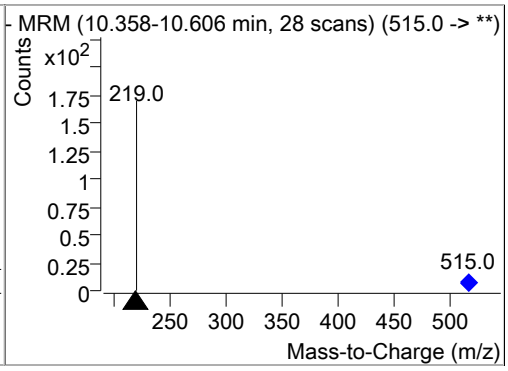




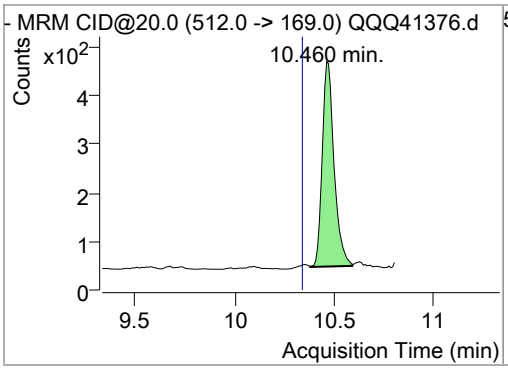
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.5788	10.46	0.13	1975				

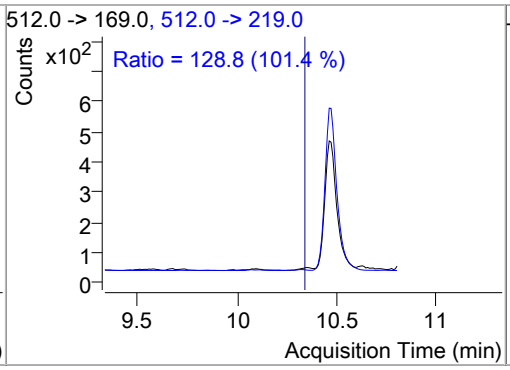


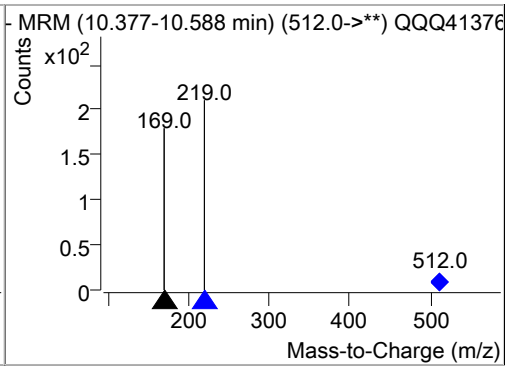




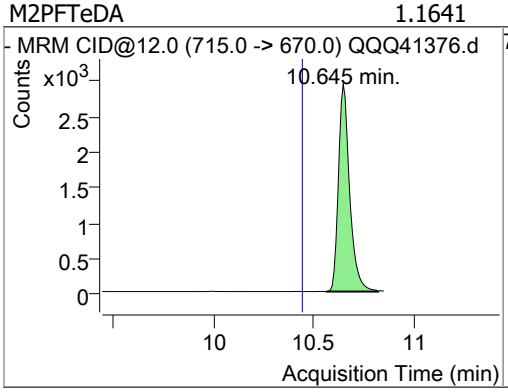
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	2.6287	10.46	0.13	1747	512.0 -> 219.0	128.8	101.6	152.5

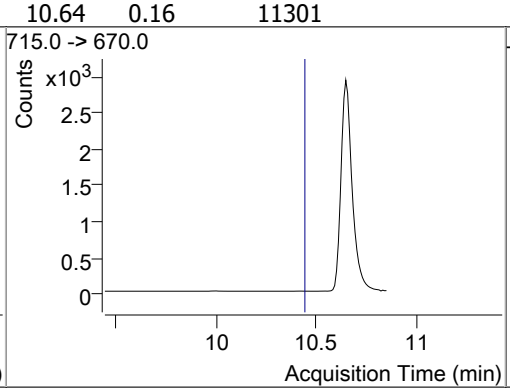


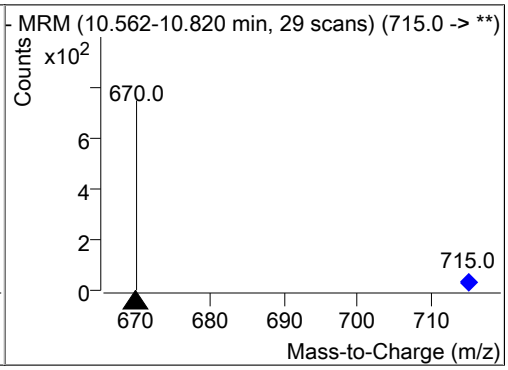




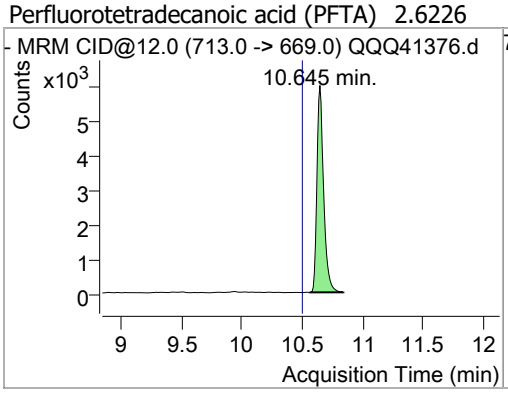
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.1641	10.64	0.16	11301				

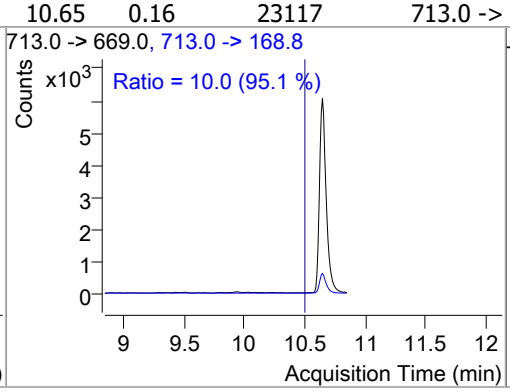


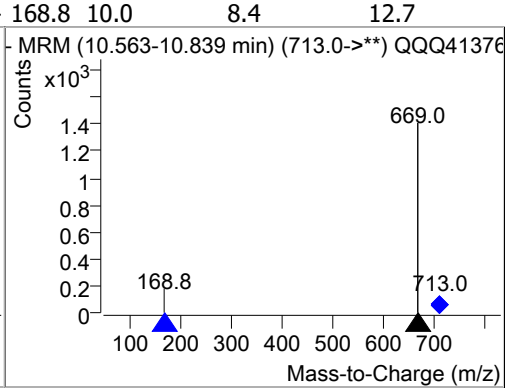




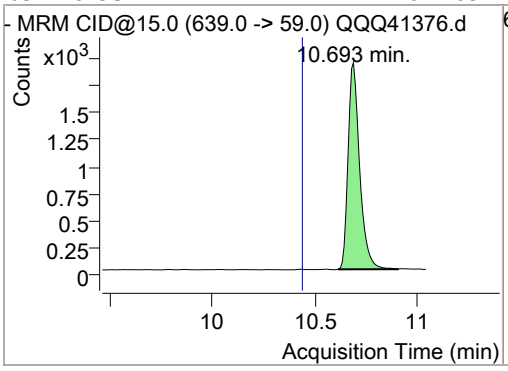
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	2.6226	10.65	0.16	23117	713.0 -> 168.8	10.0	8.4	12.7

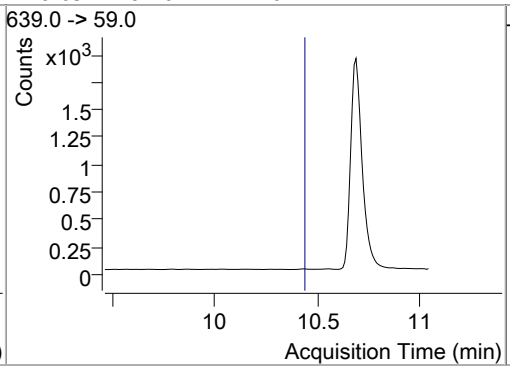


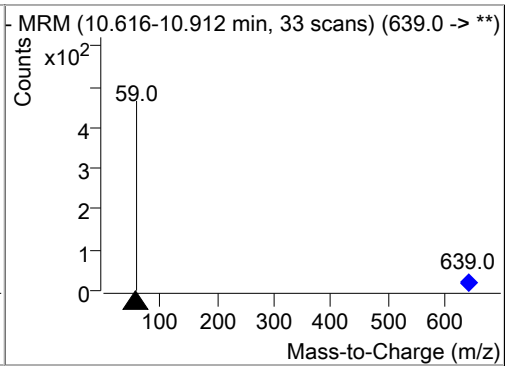




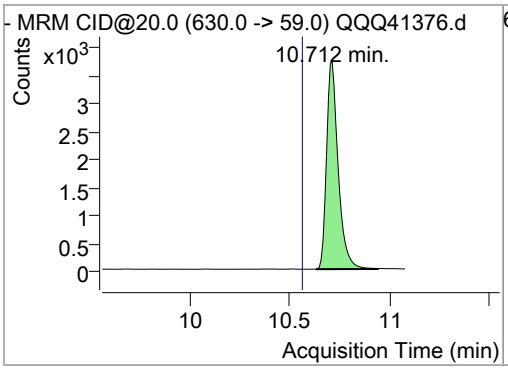
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	28.1163	10.69	0.16	7611				

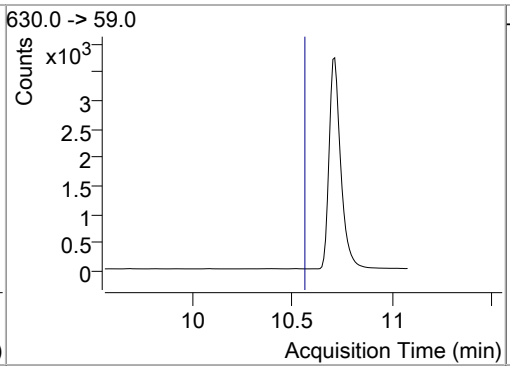


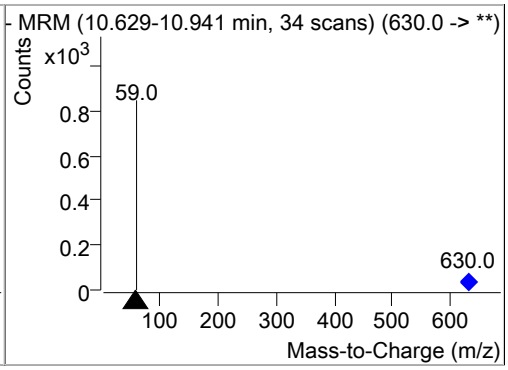




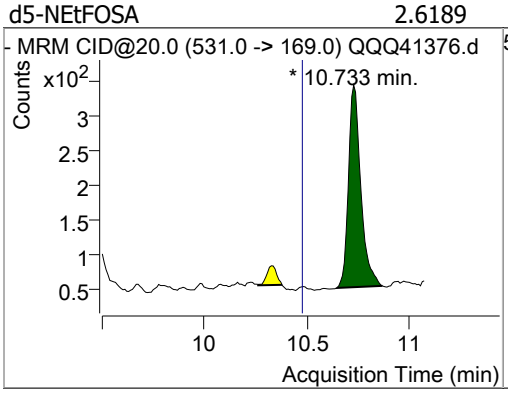
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	22.8216	10.71	0.16	15076				

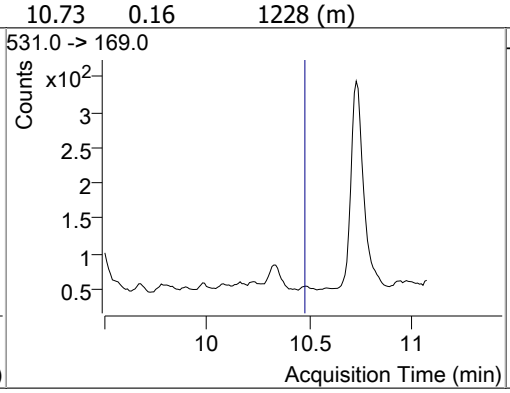


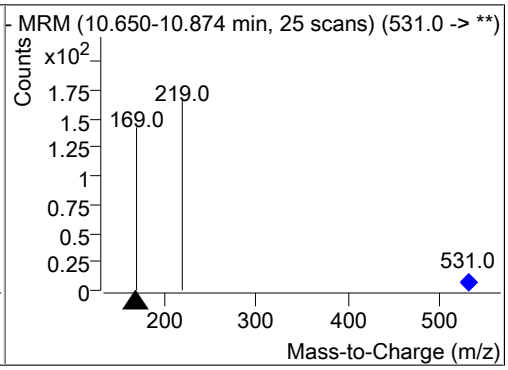




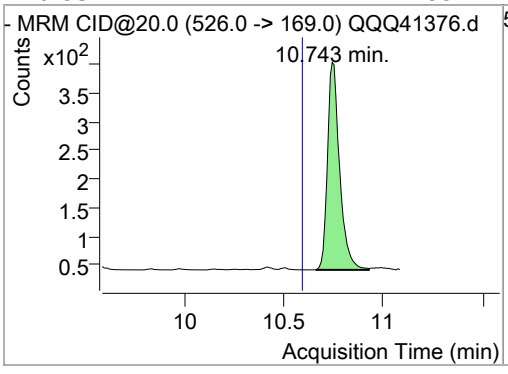
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.6189	10.73	0.16	1228 (m)				

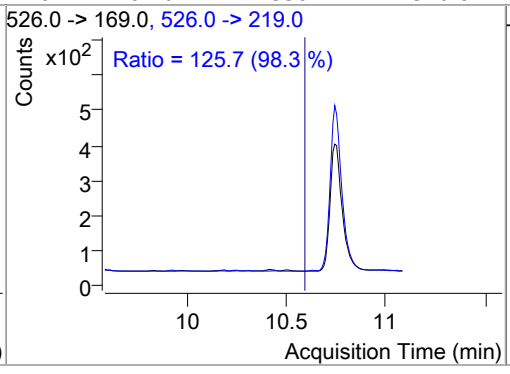


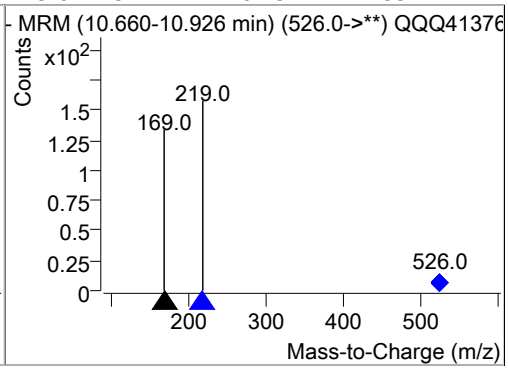




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.4932	10.74	0.16	1530	526.0 -> 219.0	125.7	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 1:09:05 PM	**Data File**	QQQ41376.d
Sample Type	Sample	**Sampe Name**	SEQ-CCV2
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	142361	19845	0.523			1.93			2299.15
Perfluoro-n-butanoic acid (PFBA)	1.310	123147	17395	0.523			1.78			9727.46
PFMPA	2.254	33204	3722	0.628			1.71			149.09
3:3FTCA	4.479	3974	530	0.341			1.95			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	112622	16537	0.417			1.89			352.49
Perfluoro-n-pentanoic acid (PFPeA)	4.784	110784	16067	0.426			1.98			7422.24
PFMBA	5.541	48166	10075	0.361			1.72			∞
M3PFBS	5.566	16918	3774	0.334			1.64			∞
Perfluorobutanesulfonic acid (PFBS)	5.567	16657	3730	0.269			1.67			∞
PFEESA	6.084	133228	32703	0.316			1.84			146.24
NFDHA	6.235	1694	402	0.278			1.51			∞
M2-4-2FTS	6.306	21099	5235	0.297			1.57			3141.06
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.307	47485	11565	0.243			1.54			557.86
M5PFHxA	6.381	58326	14332	0.334			1.47			861.96
Perfluorohexanoic acid (PFHxA)	6.383	64919	15639	0.325			1.46			141.30
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.584	15175	3752	0.317			1.81			952.91
M3-HFPO-DA	6.680	42065	9987	0.283			1.34			∞
HFPO-DA	6.680	3745	900	0.247			1.37			261.52
M4PFHpA	7.216	13224	3198	0.297			1.61			28089.89
Perfluoroheptanoic acid (PFHpA)	7.217	34524	8136	0.333			1.55			570.77
5-3FTCA	7.291	208940	48975	0.334			1.41			23861.38
Perfluorohexanesulfonic acid (PFHxS)	7.317	13537	2727	0.483			1.80			∞
M3PFHxS	7.317	12149	2852	0.251			1.91			44650.99

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.355	88038	20792	0.325			1.40			∞
M2-6-2FTS	7.847	12407	2982	0.297			1.80			415.56
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	30775	7343	0.301			1.79			50.94
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	34095	7938	0.334			1.46			372.44
Perfluorooctanoic acid (PFOA)	7.913	39121	9372	0.323			1.55			2896.99
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.976	11896	2930	0.232			1.45			1155.02
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.506	5804	1487	0.315			1.65			∞
Perfluorononanoic acid (PFNA)	8.507	40202	10248	0.287			1.65			95.30
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.542	5228	1245	0.223			1.56			∞
Perfluorooctanesulfonic acid (PFOS)	8.543	11294	2109	0.436			1.35			296.50
7-3FTCA	8.693	332087	77187	0.334			1.57			∞
9-Cl-PF3ONS	8.866	272886	65424	0.336			1.42			702.77
M2-8-2FTS	8.997	28706	7117	0.289			1.53			885.32
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.997	14174	3478	0.280			1.43			∞
M6PFDA	9.035	19690	4632	0.270			1.56			40092.73
Perfluorodecanoic acid (PFDA)	9.035	48381	12084	0.256			1.46			2990.94
Perfluorononanesulfonate (L-PFNS)	9.042	10328	2460	0.315			1.84			∞
d3-N-MeFOSAA	9.245	29320	6958	0.270			1.66			∞
N-MeFOSAA	9.255	12325	2501	0.483			1.46			17527.64
d5-N-EtFOSAA	9.495	29003	6666	0.306			1.56			418.67
Perfluoroundecanoic acid (PFUnA)	9.497	51737	12396	0.354			1.99			3669.14
Perfluoro-1-decanesulfonate (L-PFDS)	9.504	4337	1012	0.324			1.49			326.50
N-EtFOSAA	9.505	12786	2629	0.510			1.45			53.47
M7PFUdA	9.506	30408	7277	0.278			1.43			68563.86
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	19145	4307	0.342			1.72			277.29
Perfluoro-1-octanesulfonamide (FOSA)	9.648	28322	6450	0.314			1.65			∞
11-Cl-PF3OUdS	9.771	173863	41550	0.297			1.69			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	27950	6872	0.268			1.66			48336.96

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.950	43473	9975	0.299			1.23			1685.18
Perfluorododecanesulfonic acid (PFDoS)	10.306	2453	622	0.229			1.59			∞
Perfluorotridecanoic acid (PFTrDA)	10.325	30637	8000	0.267			1.61			501.96
d7-NMeFOSE	10.419	18457	4465	0.303			1.62			1652.59
NMeFOSE	10.438	14865	3475	0.299			1.55			∞
d3-NMeFOSA	10.459	1975	466	0.248			1.38			52.44
NMeFOSA	10.460	1747	423	0.212			1.76			∞
M2PFTeDA	10.645	11301	2913	0.258			1.58			∞
Perfluorotetradecanoic acid (PFTA)	10.645	23117	6016	0.276			1.56			690.17
d9-NEtFOSE	10.693	7611	1922	0.296			1.50			200.97
NEtFOSE	10.712	15076	3715	0.311			1.44			522.77
d5-NEtFOSA	10.733	1228	291	0.224			1.64			62.33
NEtFOSA	10.743	1530	362	0.266			1.77			195.74

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41400.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV3	Injection Time:	17:15

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A	9.45	90.7	0.8591385	10.18368		860	30 *
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A	9.60	9.15	0.2419004	0.2336867		-4.6	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A	9.38	7.62	1.185549	1.032526		-18.8	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A	9.50	6.52	1.255886	1.138368		-31.3	30 *
3-Perfluoroheptyl propanoic acid (FHpPA)	A	62.6	37.5	0.2201101	0.1276435		-40.0	30 *
3-Perfluoropentyl propanoic acid (FPePA)	A	62.6	17.8	0.1241024	4.533689E-02		-71.6	30 *
3-Perfluoropropyl propanoic acid (FPrPA)	A	12.5	1.12	1.286716E-02	1.562881E-03		-91.0	30 *
9CL-PF3ONS	A	9.35	98.2	1.369128	15.40793		950	30 *
ADONA	A	9.45	80.4	0.556015	4.733661		751	30 *
HFPO-DA (Gen-X)	A	10.0	13.3	2.239571E-02	2.929388E-02		33.1	30 *
N-EtFOSA	A	2.50	2.66	1.287944	1.327962		6.2	30
N-EtFOSAA	A	2.50	2.60	0.94945	0.8977706		4.1	30
N-EtFOSE	A	25.0	23.8	1.993152	2.068615		-4.6	30
N-MeFOSA	A	2.50	2.36	0.7524916	0.798625		-5.4	30
N-MeFOSAA	A	2.50	2.46	0.8763811	0.8573473		-1.6	30
N-MeFOSE	A	25.0	25.9	0.824401	0.8474732		3.5	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A	4.45	3.83	1.241156	1.132596		-14.0	30
Perfluoro-1-decanesulfonic acid (PFDS)	A	2.41	2.30	0.7352727	0.8617473		-4.4	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A	2.38	1.95	2.525683	2.178097		-18.1	30
Perfluoro-1-nonanesulfonic acid (PFNS)	A	2.40	2.57	0.1655348	0.1980166		7.1	30
Perfluoro-1-octanesulfonamide (FOSA)	A	2.50	2.40	1.385288	1.370742		-4.0	30
Perfluoro-1-pentanesulfonate (PFPeS)	A	2.35	2.34	1.400558	1.337453		-0.3	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A	5.00	4.22	1.573594E-02	1.482827E-02		-15.6	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41400.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV3	Injection Time:	17:15

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A	5.00	5.32	0.2604373	0.3183072		6.5	30
Perfluoro-5-oxahexanoic acid (PFMBA)	A	5.00	4.95	0.4108024	0.4131076		-1.1	30
Perfluorobutanesulfonic acid (PFBS)	A	2.22	2.29	1.128938	1.13124		3.2	30
Perfluorodecanoic acid (PFDA)	A	2.50	2.33	1.09146	1.066931		-6.8	30
Perfluorododecanesulfonic acid (PFDoS)	A	2.42	2.95	0.4284993	0.55854		21.9	30
Perfluorododecanoic acid (PFDoA)	A	2.50	2.83	0.8702134	0.9226816		13.3	30
Perfluoroheptanoic acid (PFHpA)	A	2.50	2.54	2.370614	2.259652		1.4	30
Perfluorohexanesulfonic acid (PFHxS)	A	2.28	2.34	1.39602	1.262793		2.8	30
Perfluorohexanoic acid (PFHxA)	A	2.50	2.46	1.166423	1.135007		-1.6	30
Perfluoro-n-butanoic acid (PFBA)	A	10.0	9.96	0.9037138	0.8742608		-0.4	30
Perfluorononanoic acid (PFNA)	A	2.50	2.70	3.453721	3.5014		7.9	30
Perfluorooctanesulfonic acid (PFOS)	A	2.32	1.97	2.631087	2.028275		-14.9	30
Perfluorooctanoic acid (PFOA)	A	2.50	2.73	1.254067	1.118556		9.0	30
Perfluoropentanoic acid (PFPeA)	A	5.00	5.04	1.003786	0.9661716		0.8	30
Perfluorotetradecanoic acid (PFTA)	A	2.50	2.51	1.041146	0.9787923		0.4	30
Perfluorotridecanoic acid (PFTrDA)	A	2.50	2.43	1.484165	1.226375		-2.7	30
Perfluoroundecanoic acid (PFUnA)	A	2.50	2.38	0.9068038	0.9232859		-4.9	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41400.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 5:15:45 PM
Sample Name	SEQ-CCV3	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	2.5 - 62.5 ng/mL
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

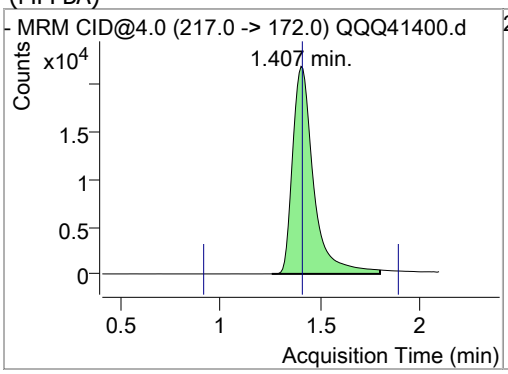
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
M3PFBA	1.409	216.0 -> 172.0	32112	5.0000	ng/ml		0.156
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.407	217.0 -> 172.0	160134	10.0000	ng/ml		0.156
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.922	268.0 -> 223.0	114939	5.0000	ng/ml		0.194
MPFHxA	6.484	315.0 -> 269.8	45658	2.5000	ng/ml		0.111
MPFHxS	7.410	403.0 -> 103.0	3784	2.3700	ng/ml		0.028
M3PFBS-EIS	5.660	302.0 -> 79.9	13011	2.3300	ng/ml		0.130
M5PFHxA-EIS	6.483	318.0 -> 273.0	57207	2.5000	ng/ml		0.112
M2-4-2FTS-EIS	6.408	329.0 -> 309.0	8707	4.6900	ng/ml		0.111
M3PFHxS-EIS	7.410	402.0 -> 80.0	10135	2.3700	ng/ml		0.028
M3-HFPO-DA-EIS	6.781	287.0 -> 169.0	4756	10.0000	ng/ml		0.092
M4PFHpA-EIS	7.309	367.0 -> 322.0	12953	2.5000	ng/ml		0.047
M2-6-2FTS-EIS	7.912	429.0 -> 409.0	8614	4.7550	ng/ml		-0.019
MPFOA	7.969	417.0 -> 372.0	37624	2.5000	ng/ml		-0.028
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.978	421.0 -> 376.0	31723	2.5000	ng/ml		-0.019
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.570	507.0 -> 98.9	5698	2.3950	ng/ml		-0.056
MPFNA	8.544	468.0 -> 423.0	20328	1.2500	ng/ml		-0.056
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.553	472.0 -> 223.0	5430	1.2500	ng/ml		-0.037
MPFOS	8.580	503.0 -> 80.0	11941	2.3950	ng/ml		-0.046
M2-8-2FTS-EIS	9.024	529.0 -> 509.0	25735	4.8000	ng/ml		-0.019
MPFDA	9.063	515.0 -> 469.8	12720	1.2500	ng/ml		-0.019
M6PFDA-EIS	9.063	519.0 -> 473.9	19216	1.2500	ng/ml		-0.019
d3-N-MeFOSAA-EIS	9.292	573.0 -> 418.8	26630	5.0000	ng/ml		0.009
M7PFUdA-EIS	9.543	570.0 -> 525.0	29490	1.2500	ng/ml		0.028
d5-N-EtFOSAA-EIS	9.542	589.0 -> 418.8	34902	5.0000	ng/ml		0.037
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.722	506.0 -> 78.0	14756	2.5000	ng/ml		0.074
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.995	615.0 -> 570.0	26370	1.2500	ng/ml		0.102
M2PFTeDA-EIS	10.718	715.0 -> 670.0	15137	1.2500	ng/ml		0.230
d7-NMeFOSE-EIS	10.474	623.0 -> 59.0	7224	25.0000	ng/ml		0.175
d3-NMeFOSA-EIS	10.514	515.0 -> 219.0	684	2.5000	ng/ml		0.184
d9-NEtFOSE-EIS	10.757	639.0 -> 59.0	2923	25.0000	ng/ml		0.221
d5-NEtFOSA-EIS	10.797	531.0 -> 169.0	406	2.5000	ng/ml	m	0.221
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.407	217.0 -> 172.0	160134	9.9584	ng/ml		0.156
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.922	268.0 -> 223.0	114932	3.9459	ng/ml		0.194
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.660	302.0 -> 79.9	13011	1.9272	ng/ml		0.130
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.408	329.0 -> 309.0	8695	1.9292	ng/ml		0.111

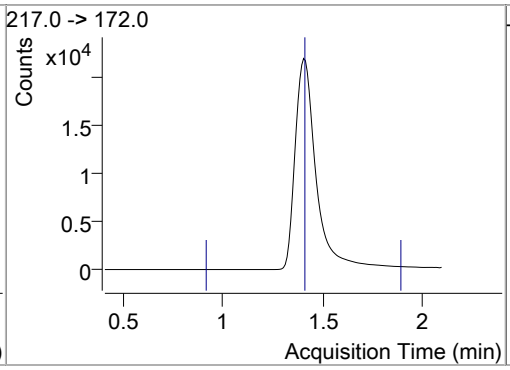
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.483	318.0 -> 273.0	57207	1.9633	ng/ml		0.112
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.781	287.0 -> 169.0	4757	0.9339	ng/ml		0.092
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.309	367.0 -> 322.0	12953	2.0012	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.410	402.0 -> 80.0	10135	2.1517	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.912	429.0 -> 409.0	8609	2.8521	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.978	421.0 -> 376.0	31724	2.6477	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.553	472.0 -> 223.0	5430	1.2533	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	507.0 -> 98.9	5655	2.5822	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.024	529.0 -> 509.0	25375	3.5797	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.063	519.0 -> 473.9	19216	1.3788	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.292	573.0 -> 418.8	26629	4.7194	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.542	589.0 -> 418.8	34903	7.0042	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.543	570.0 -> 525.0	29490	1.5634	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.722	506.0 -> 78.0	14756	2.0566	ng/ml		0.074
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.995	615.0 -> 570.0	26379	1.5907	ng/ml		0.102
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.474	623.0 -> 59.0	7224	12.5466	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.514	515.0 -> 219.0	684	0.9432	ng/ml		0.184
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.718	715.0 -> 670.0	15137	2.0460	ng/ml		0.230
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.757	639.0 -> 59.0	2923	11.4009	ng/ml		0.221
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.797	531.0 -> 169.0	406	0.9136	ng/ml	m	0.221
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.411	213.0 -> 168.9	139999	9.9621	ng/ml		100
PFMPA	2.401	229.0 -> 85.0	36586	5.3227	ng/ml		100
3:3FTCA	4.645	241.0 -> 177.0	447	1.1214	ng/ml	#	82
Perfluoro-n-pentanoic acid (PFPeA)	4.923	263.0 -> 219.0	111051	5.0390	ng/ml		100
PFMBA	5.643	279.0 -> 85.0	47482	4.9453	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.660	298.9 -> 79.9	13070	2.2915	ng/ml		98
PFEESA	6.187	315.0 -> 135.0	115332	3.8270	ng/ml		100
NFDHA	6.337	295.0 -> 201.1	1697	4.2197	ng/ml		95
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.409	327.0 -> 307.0	16866	7.6186	ng/ml		98

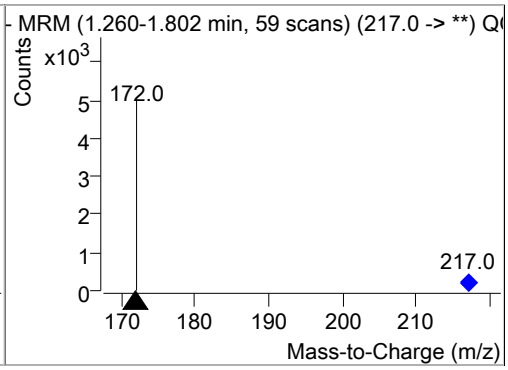
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.484	313.0 -> 268.9	64931	2.4588	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.686	348.9 -> 79.9	12742	2.3431	ng/ml		100
HFPO-DA	6.773	285.0 -> 169.1	557	13.3138	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.309	363.0 -> 318.8	29268	2.5362	ng/ml		93
5-3FTCA	7.430	341.0 -> 217.0	64944	17.7888	ng/ml		97
Perfluorohexanesulfonic acid (PFHxS)	7.411	398.9 -> 79.9	11672	2.3435	ng/ml	m	97
ADONA	7.439	377.0 -> 85.0	85097	80.4145	ng/ml		99
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	427.0 -> 407.0	18631	6.5235	ng/ml		97
Perfluorooctanoic acid (PFOA)	7.969	413.0 -> 368.8	35485	2.7252	ng/ml		97
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	448.9 -> 80.0	11815	1.9499	ng/ml		97
Perfluorononanoic acid (PFNA)	8.544	463.0 -> 418.8	38023	2.6986	ng/ml		95
Perfluorooctanesulfonic acid (PFOS)	8.580	498.9 -> 79.9	10725	1.9749	ng/ml	m	90
7-3FTCA	8.776	441.0 -> 337.0	182846	37.5453	ng/ml		97
9-Cl-PF3ONS	8.893	531.0 -> 351.0	274058	98.2209	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.025	527.0 -> 80.9	11547	9.1539	ng/ml		99
Perfluorodecanoic acid (PFDA)	9.063	513.0 -> 468.8	41004	2.3308	ng/ml		96
Perfluorononanesulfonate (L-PFNS)	9.079	548.9 -> 79.9	10925	2.5693	ng/ml		99
N-MeFOSAA	9.292	570.0 -> 418.9	11416	2.4607	ng/ml	m	94
Perfluoroundecanoic acid (PFUnA)	9.544	563.0 -> 519.0	54455	2.3773	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.541	598.9 -> 98.9	4733	2.3044	ng/ml		100
N-EtFOSAA	9.552	584.0 -> 418.8	15667	2.6025	ng/ml	m	97
Perfluoro-1-octanesulfonamide (FOSA)	9.713	497.9 -> 78.0	20226	2.3989	ng/ml		100
11-Cl-PF3OUdS	9.818	631.0 -> 451.0	183072	90.7224	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.996	613.0 -> 568.8	48663	2.8337	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.361	699.0 -> 80.0	3081	2.9495	ng/ml		91
Perfluorotridecanoic acid (PFTrDA)	10.389	663.0 -> 618.8	37128	2.4325	ng/ml		100
NMeFOSE	10.493	616.0 -> 59.0	6122	25.8678	ng/ml		100
NMeFOSA	10.524	512.0 -> 169.0	546	2.3650	ng/ml		95
Perfluorotetradecanoic acid (PFTA)	10.719	713.0 -> 669.0	29633	2.5099	ng/ml		100
NEtFOSE	10.776	630.0 -> 59.0	6046	23.8381	ng/ml		100
NEtFOSA	10.808	526.0 -> 169.0	539	2.6559	ng/ml		87

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

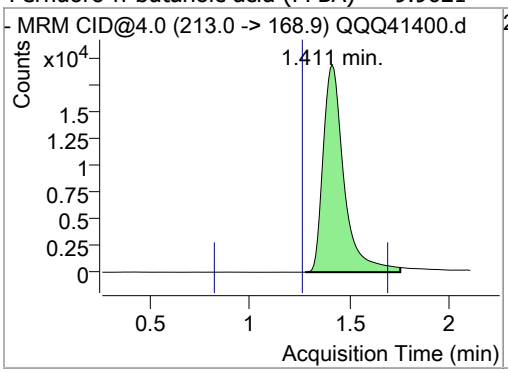
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	9.9584	1.41	0.16	160134				

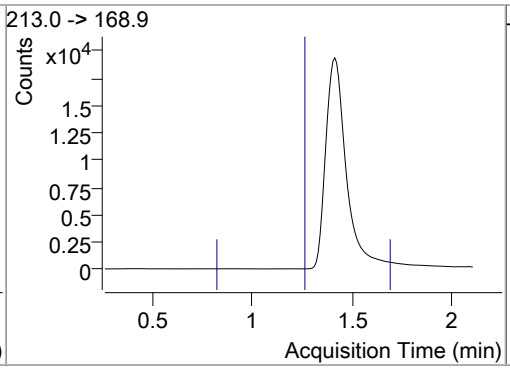


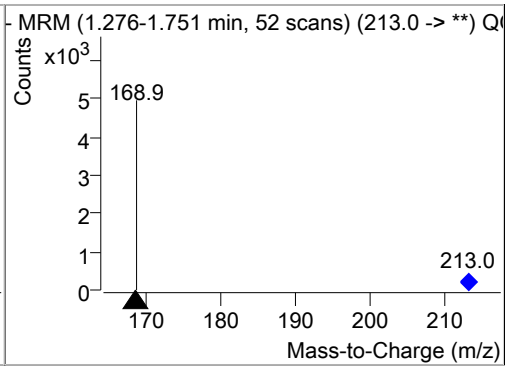




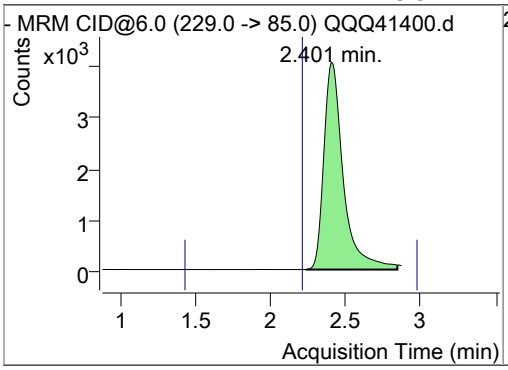
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	9.9621	1.41	0.16	139999				

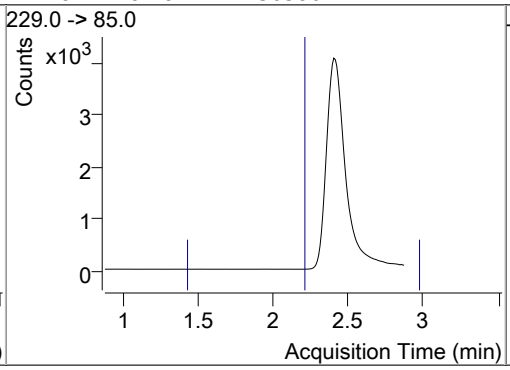


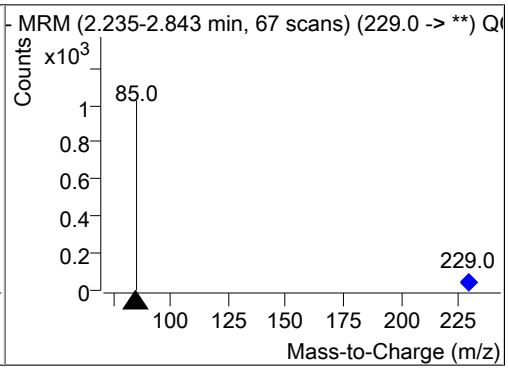




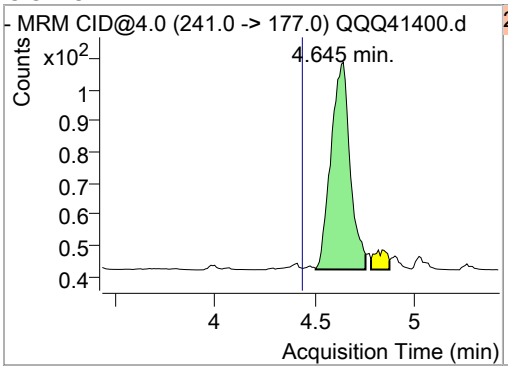
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	5.3227	2.40	0.20	36586				

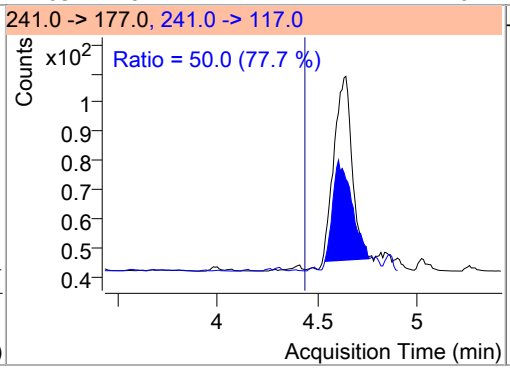


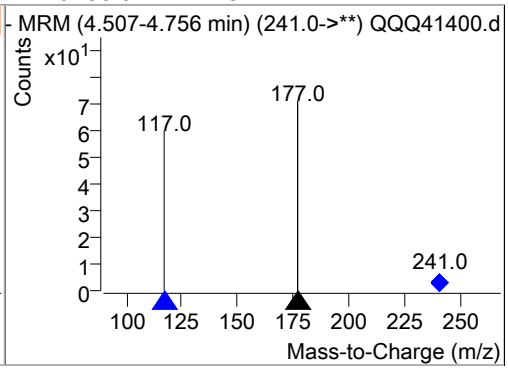




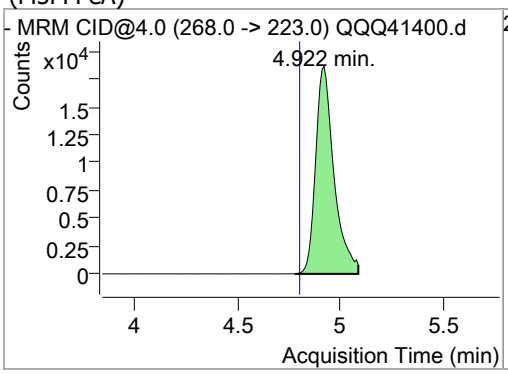
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	1.1214	4.65	0.21	447	241.0 -> 117.0	50.0	51.4	77.2

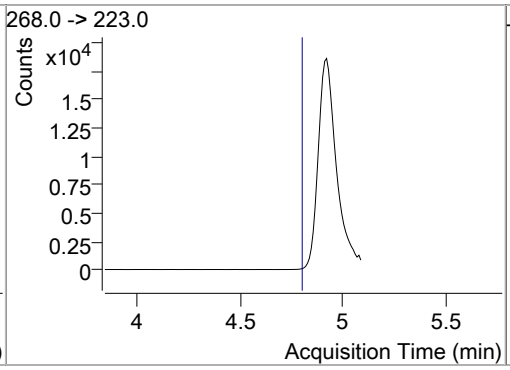


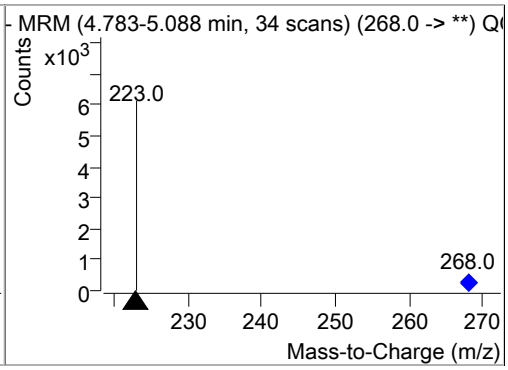




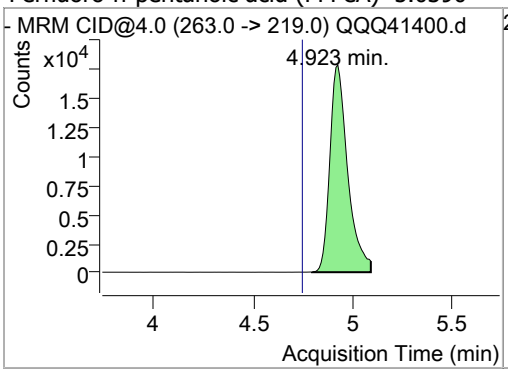
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	3.9459	4.92	0.19	114932				

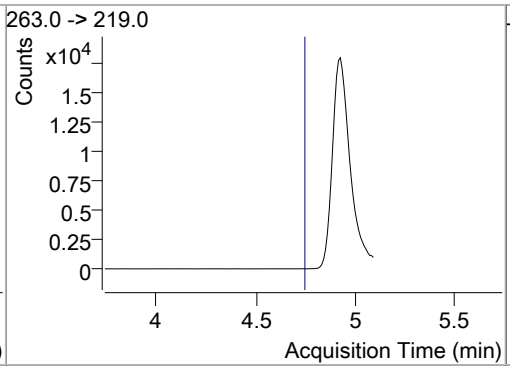


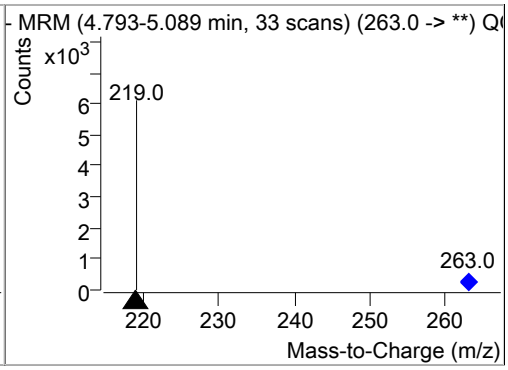




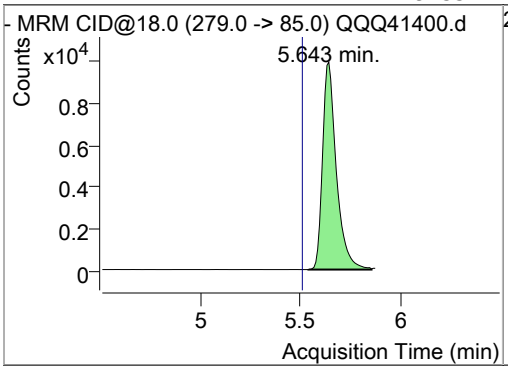
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	5.0390	4.92	0.19	111051				

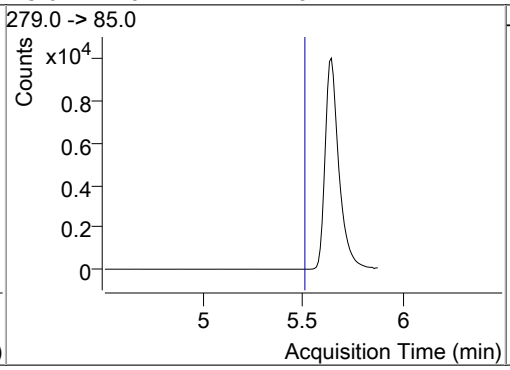


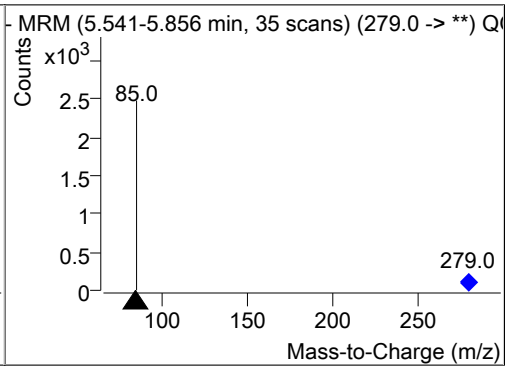




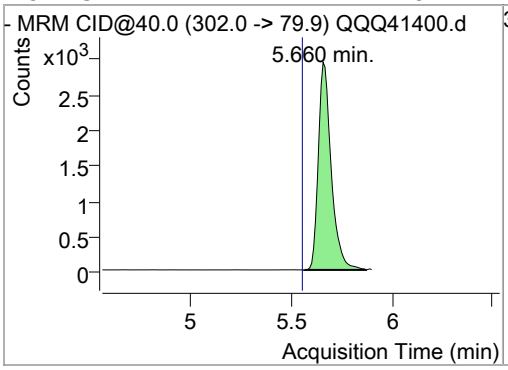
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	4.9453	5.64	0.14	47482				

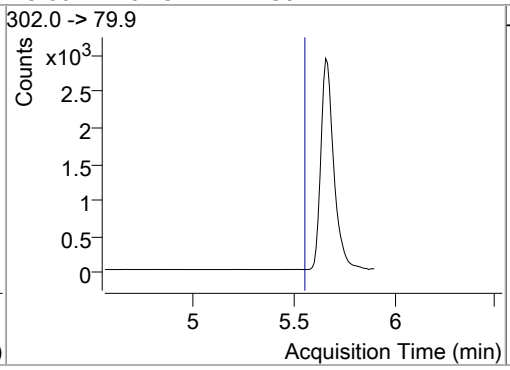


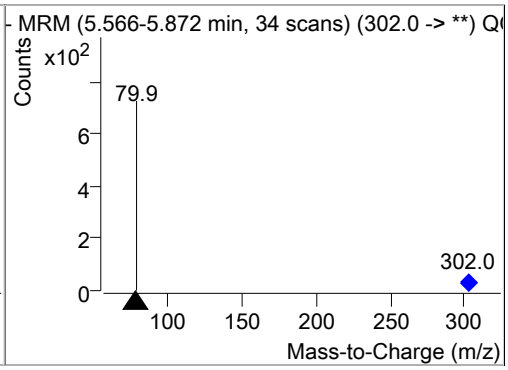




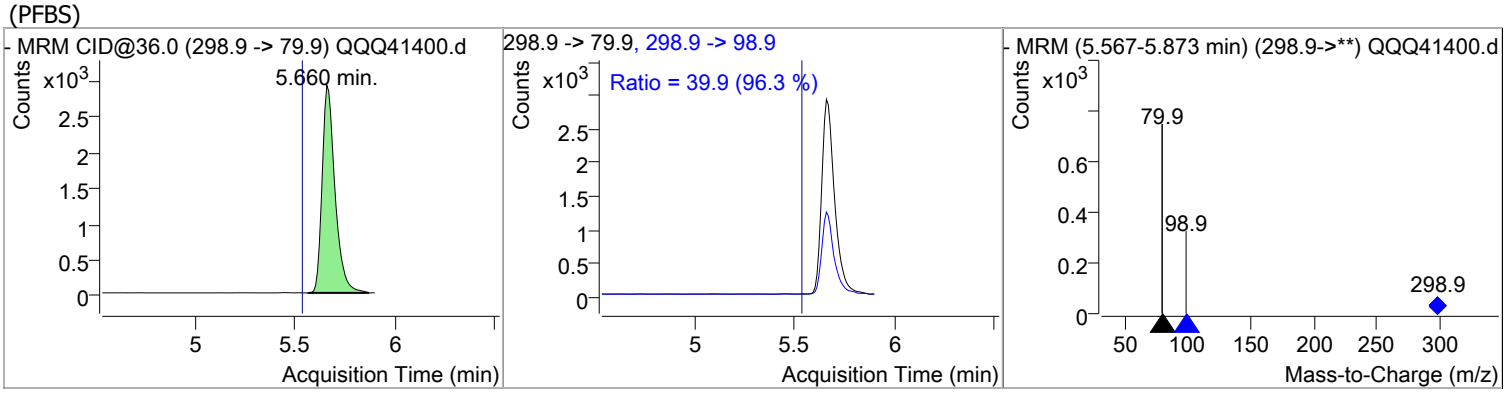
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	1.9272	5.66	0.13	13011				



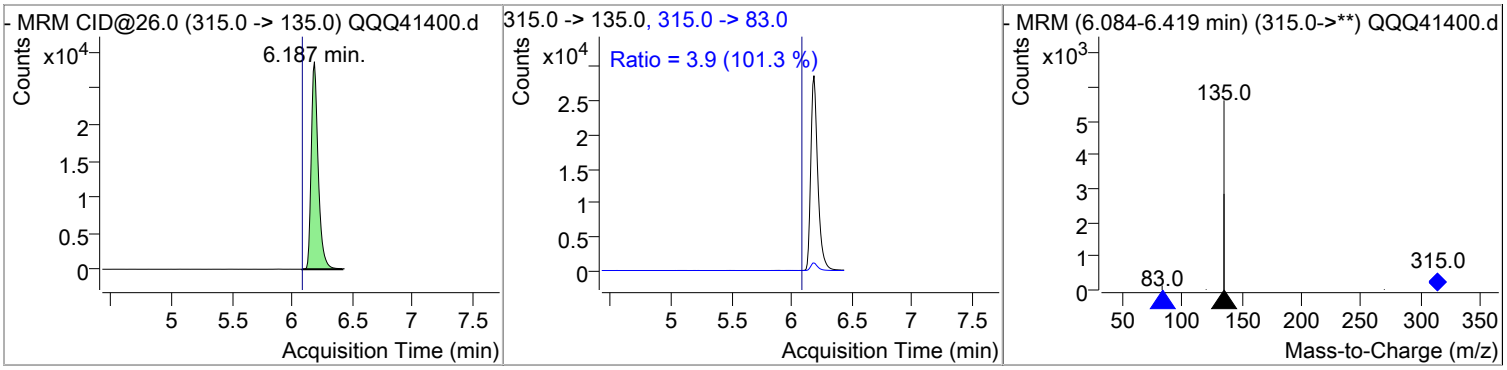




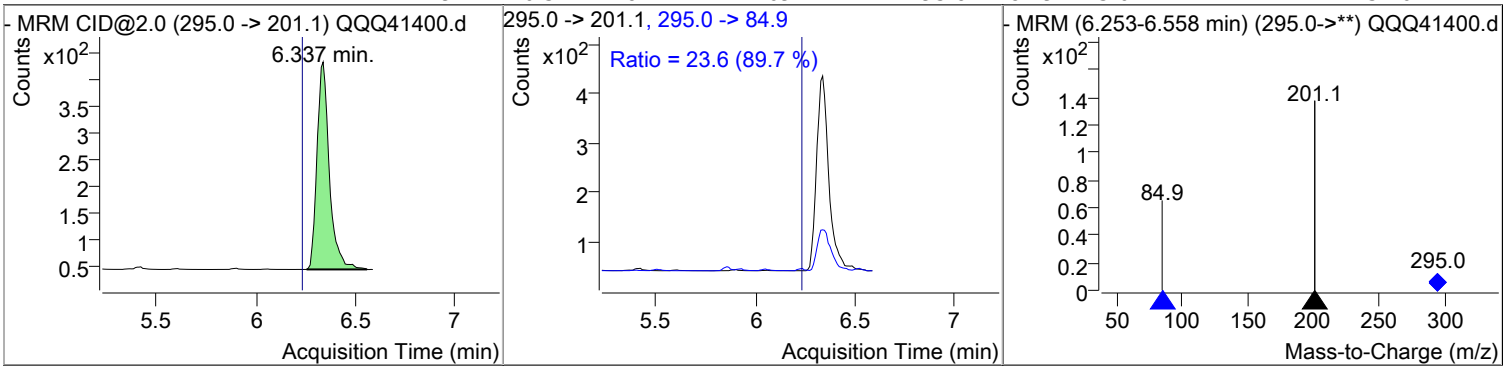
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.2915	5.66	0.13	13070	298.9 -> 98.9	39.9	33.1	49.7



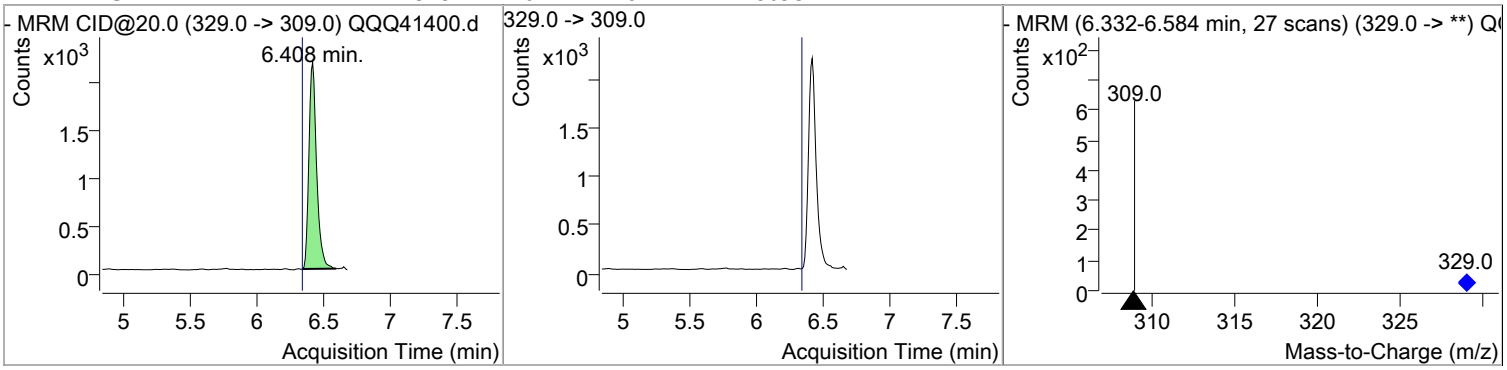
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	3.8270	6.19	0.11	115332	315.0 -> 83.0	3.9	3.1	4.7



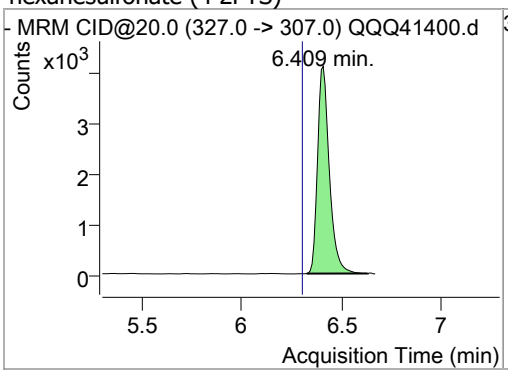
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	4.2197	6.34	0.11	1697	295.0 -> 84.9	23.6	21.1	31.6

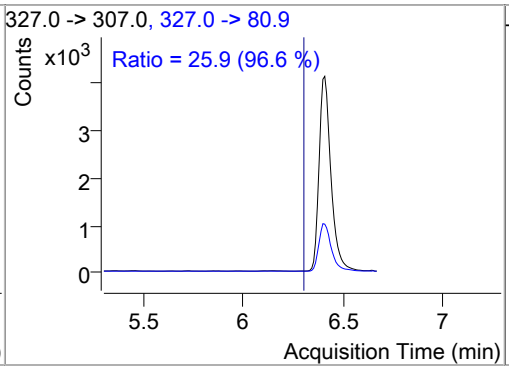


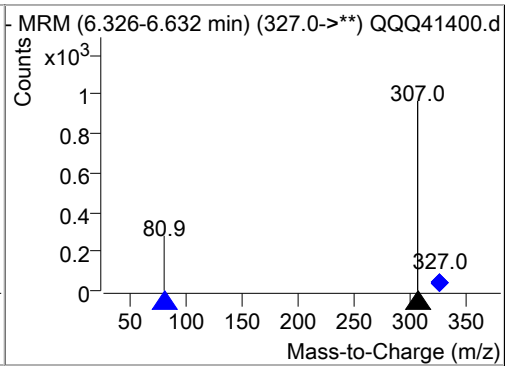
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	1.9292	6.41	0.11	8695				



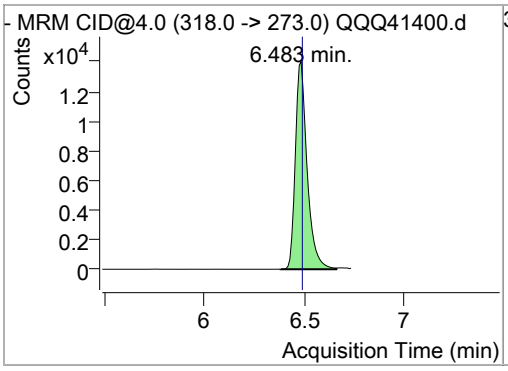
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	7.6186	6.41	0.11	16866	327.0 -> 80.9	25.9	21.5	32.2

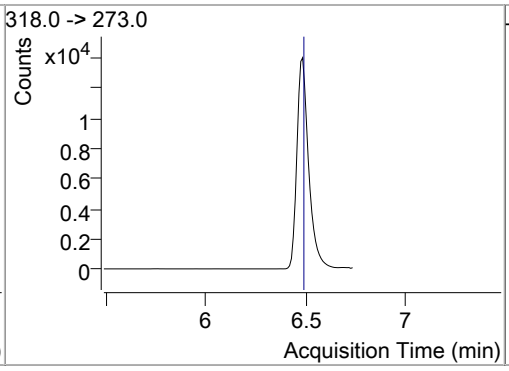


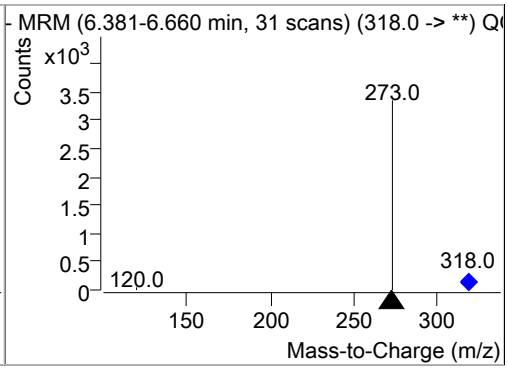




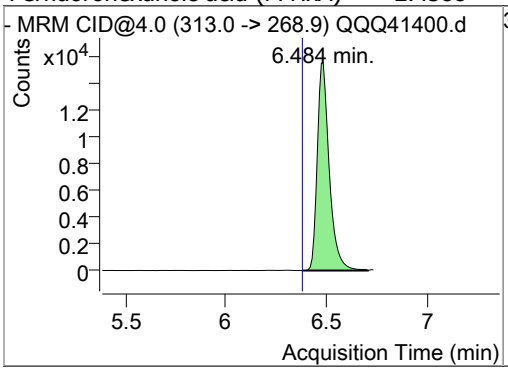
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	1.9633	6.48	0.11	57207				

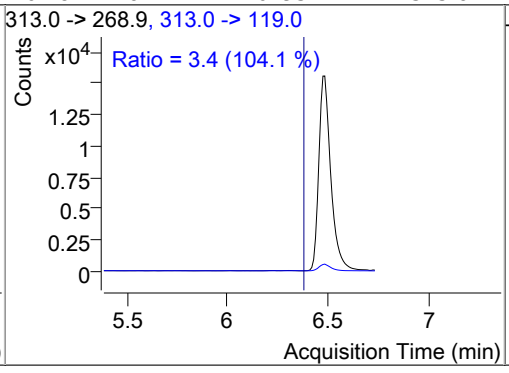


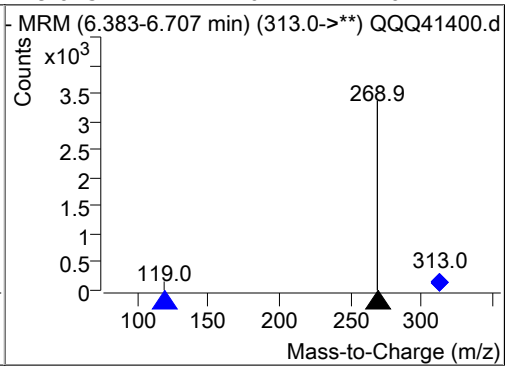




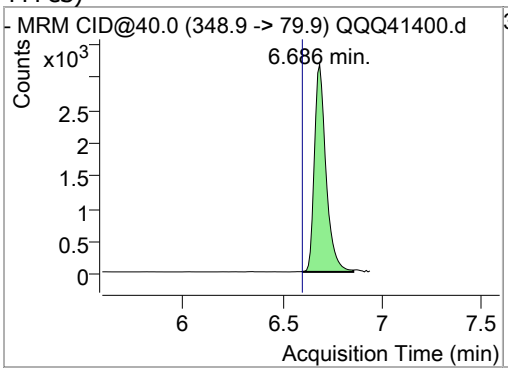
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	2.4588	6.48	0.11	64931	313.0 -> 119.0	3.4	2.6	4.0

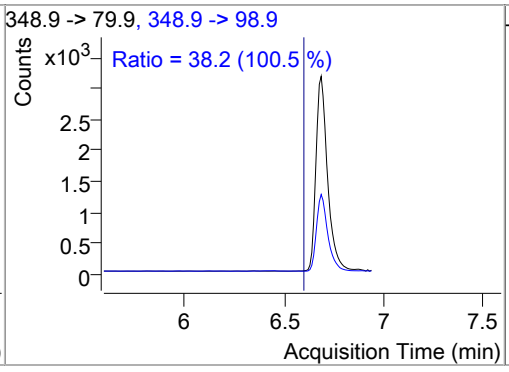


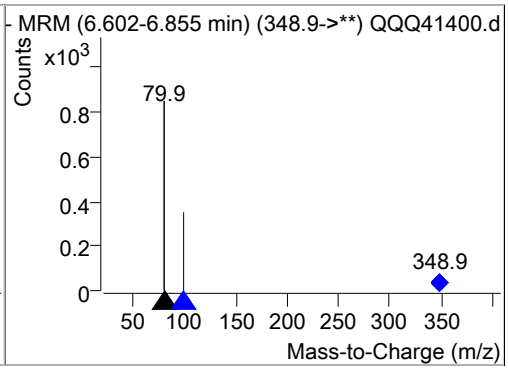




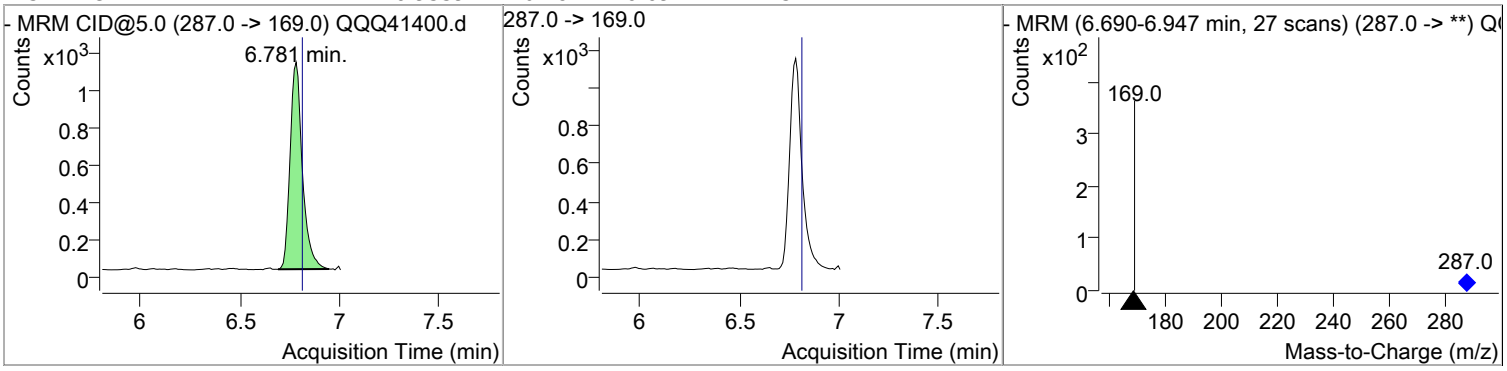
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	2.3431	6.69	0.09	12742	348.9 -> 98.9	38.2	30.4	45.6



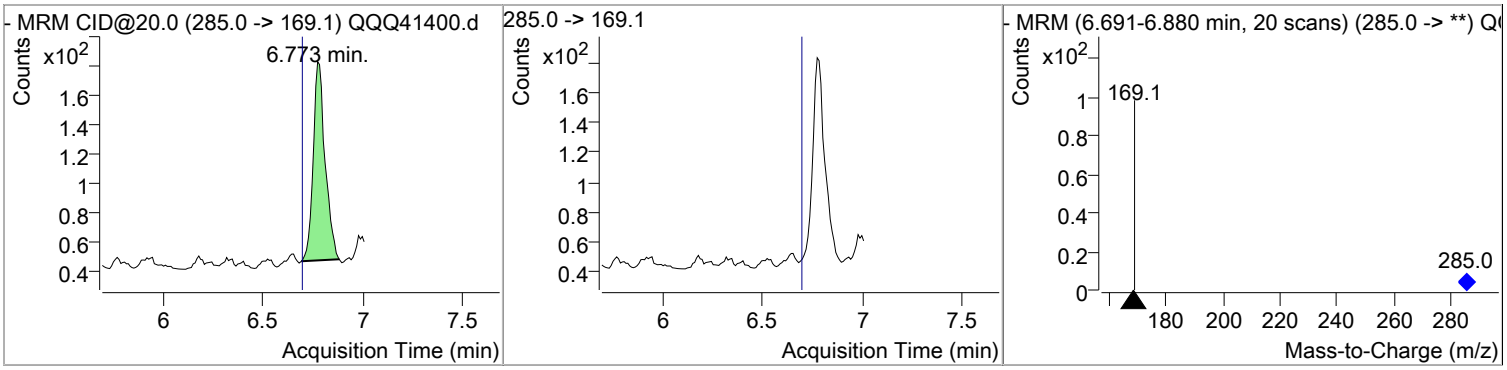




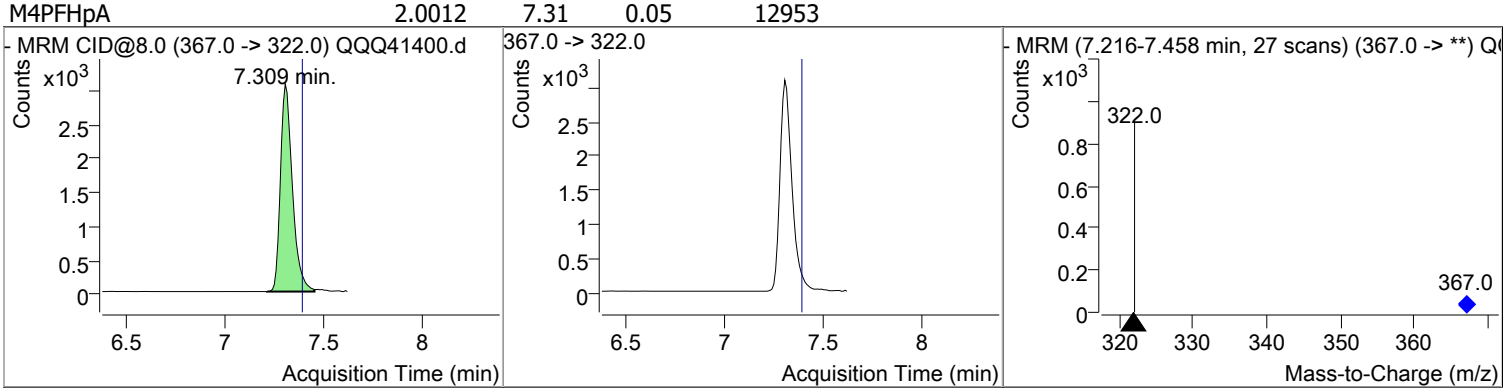
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	0.9339	6.78	0.09	4757				



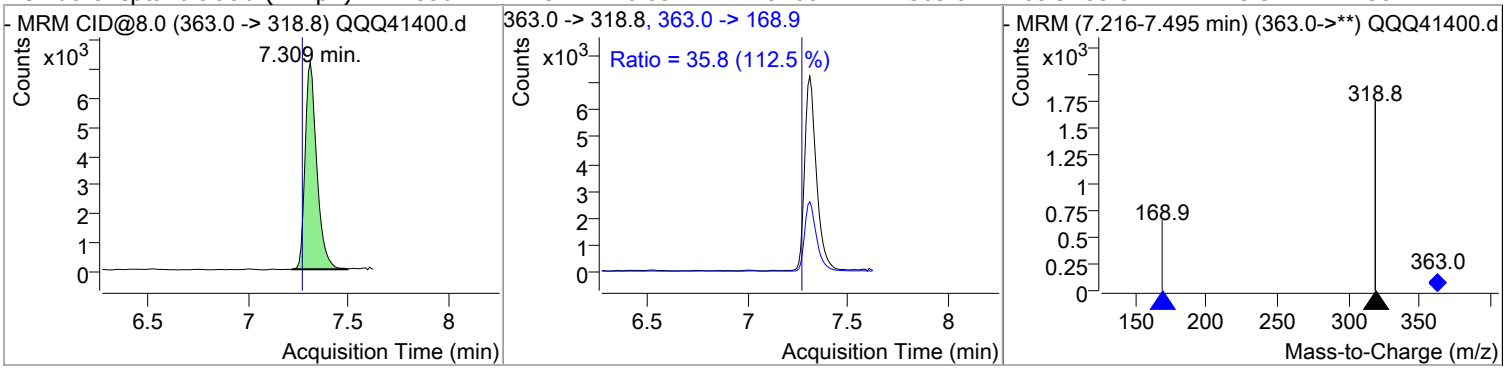
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	13.3138	6.77	0.08	557				



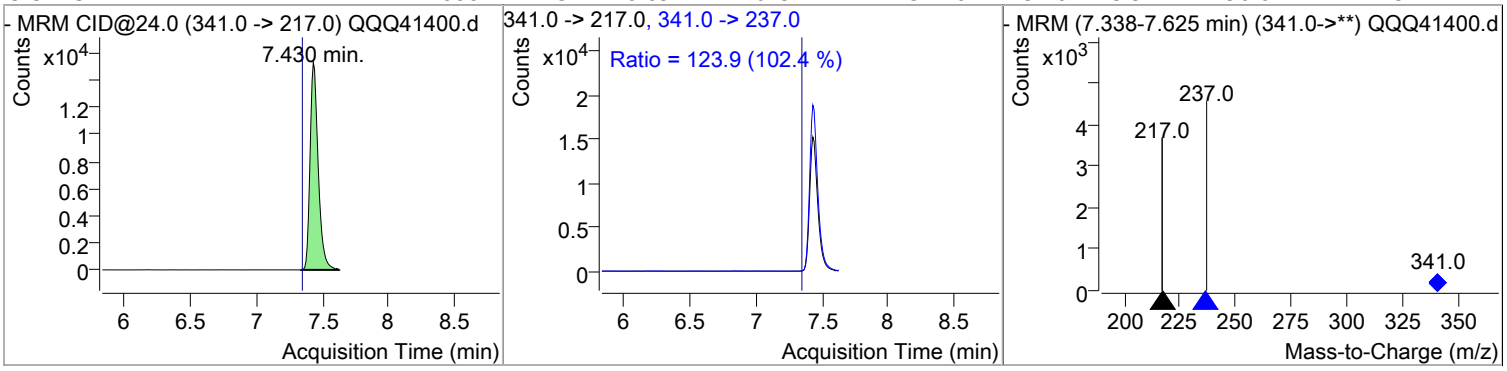
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.0012	7.31	0.05	12953				



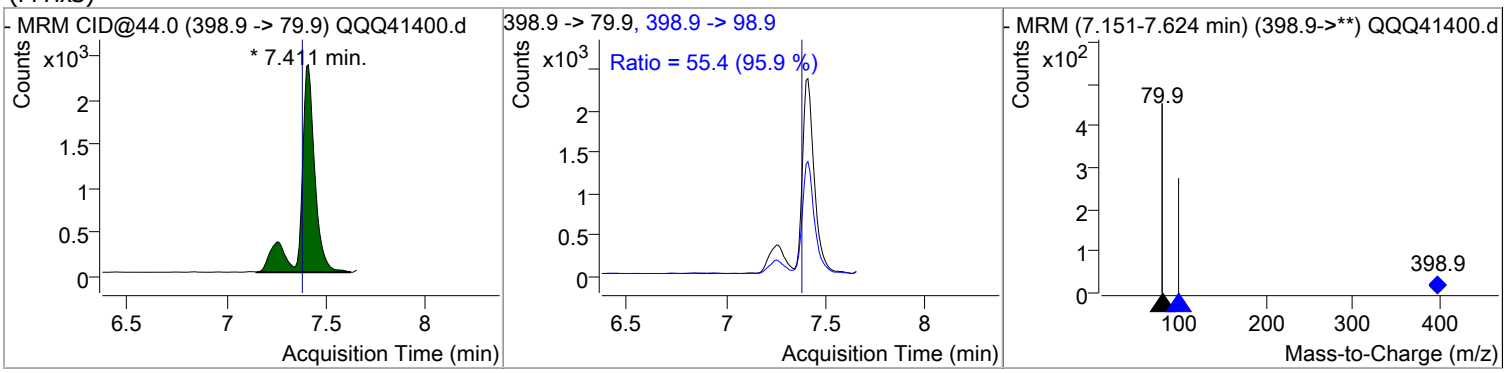
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	2.5362	7.31	0.05	29268	363.0 -> 168.9	35.8	25.5	38.2



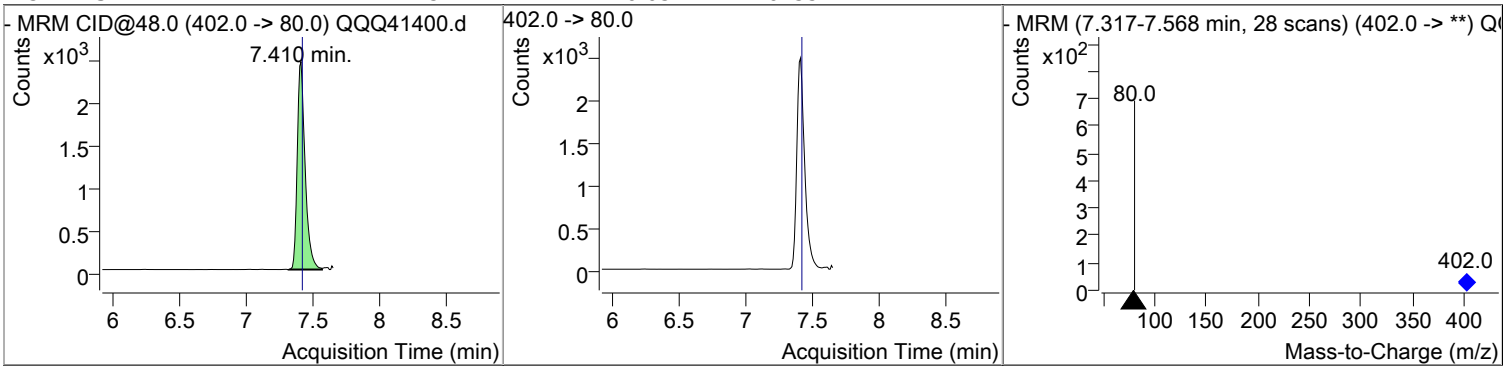
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	17.7888	7.43	0.09	64944	341.0 -> 237.0	123.9	96.8	145.2



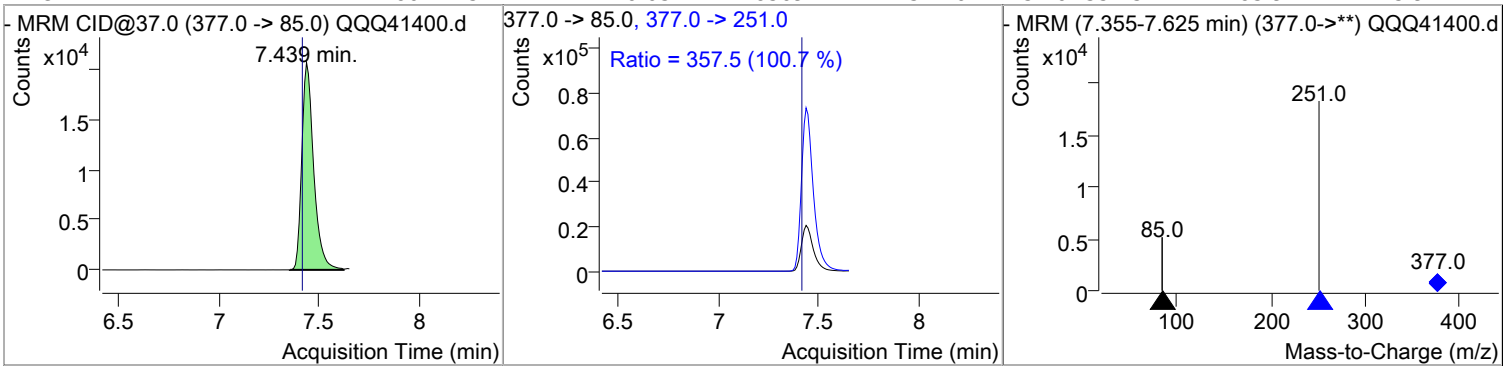
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	2.3435	7.41	0.04	11672 (m)	398.9 -> 98.9	55.4	46.2	69.3



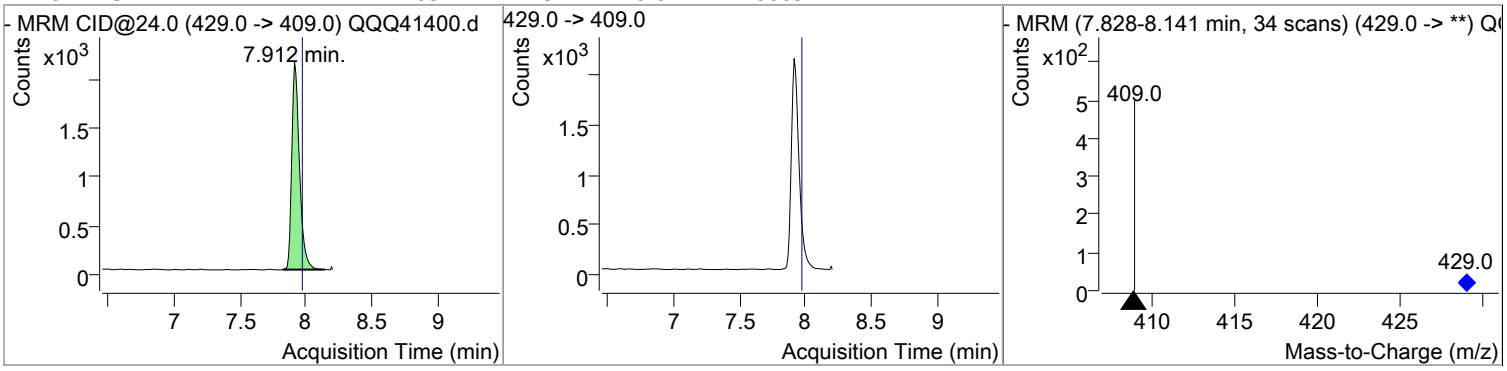
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.1517	7.41	0.03	10135				



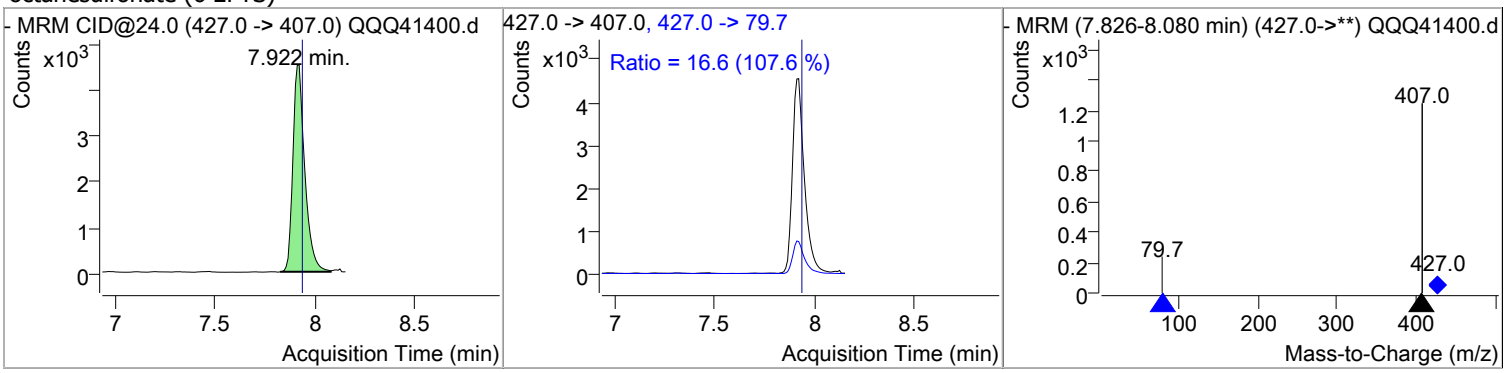
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	80.4145	7.44	0.03	85097	377.0 -> 251.0	357.5	283.9	425.9



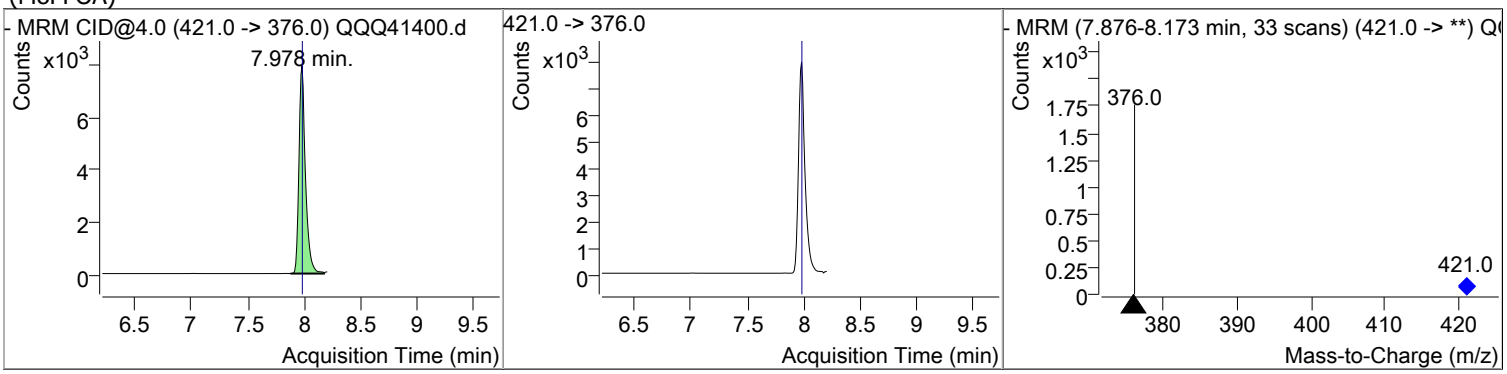
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	2.8521	7.91	-0.02	8609				



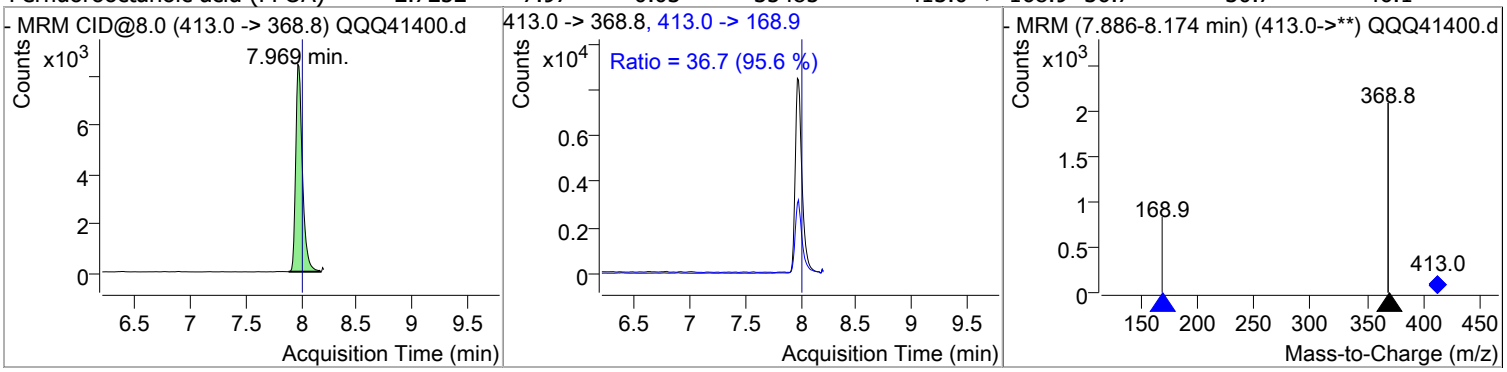
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	6.5235	7.92	-0.01	18631	427.0 -> 79.7	16.6	12.3	18.5



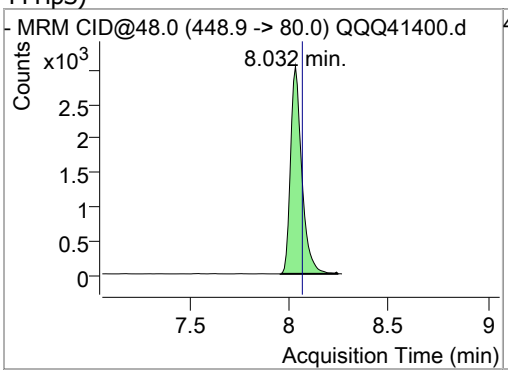
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.6477	7.98	-0.02	31724				

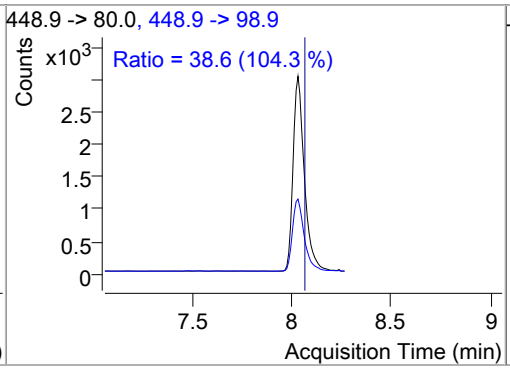


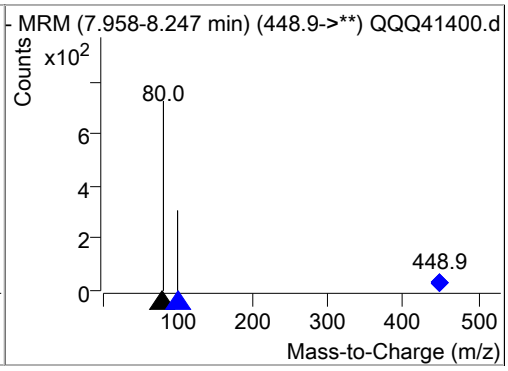
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	2.7252	7.97	-0.03	35485	413.0 -> 168.9	36.7	30.7	46.1



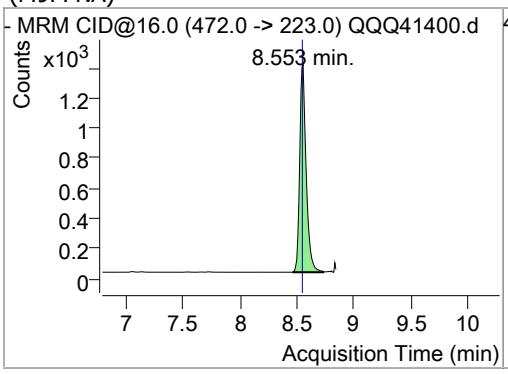
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	1.9499	8.03	-0.03	11815	448.9 -> 98.9	38.6	29.6	44.4

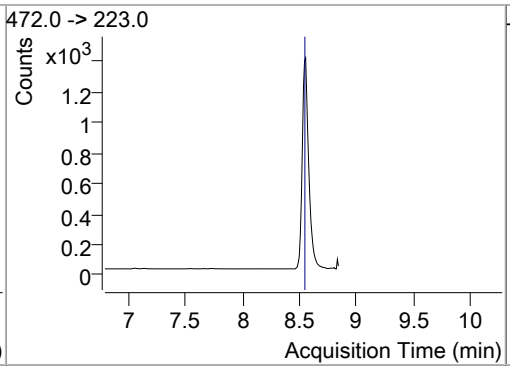


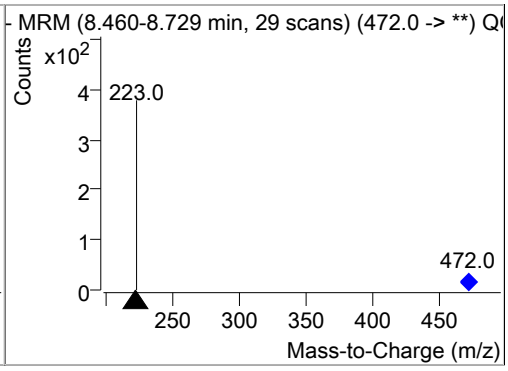




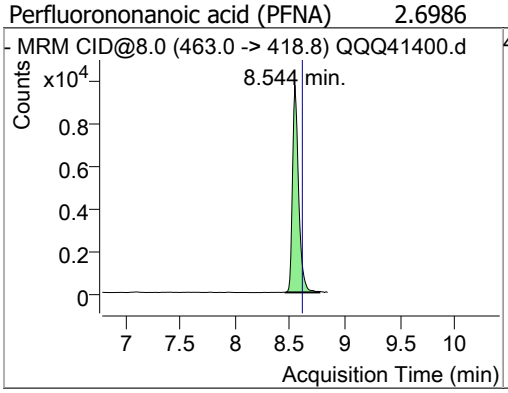
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2533	8.55	-0.04	5430				

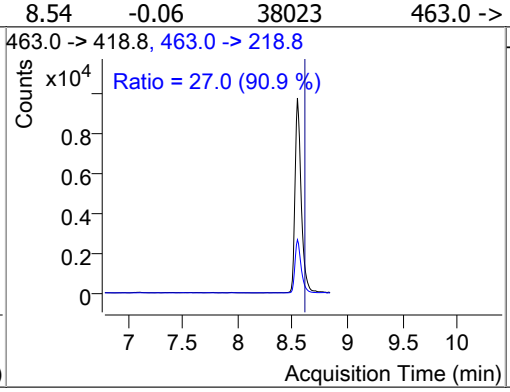


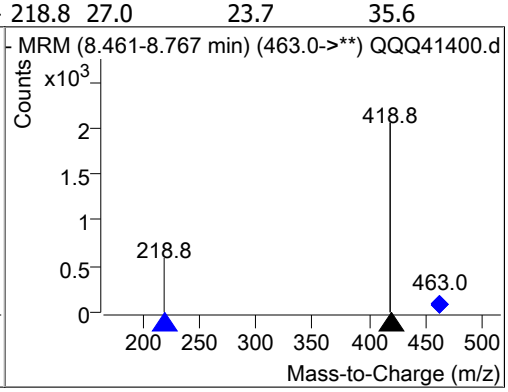




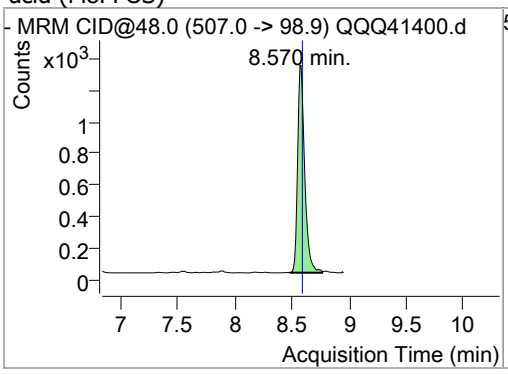
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	2.6986	8.54	-0.06	38023	463.0 -> 218.8	27.0	23.7	35.6

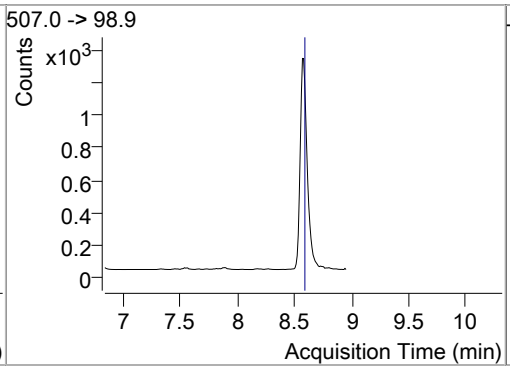


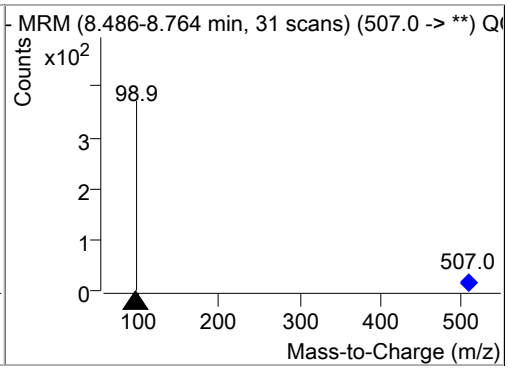




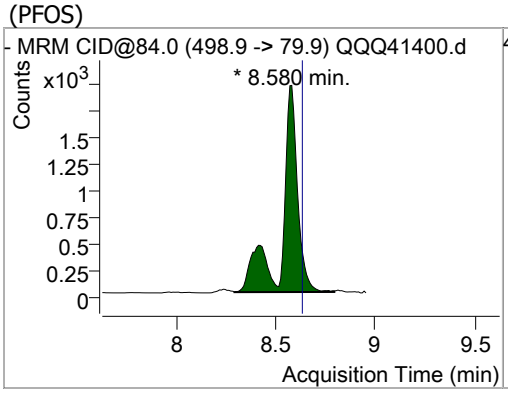
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.5822	8.57	-0.06	5655				

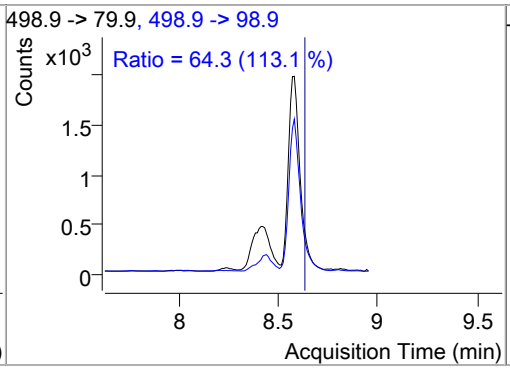


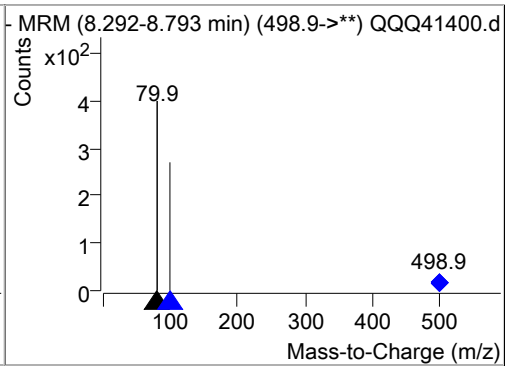




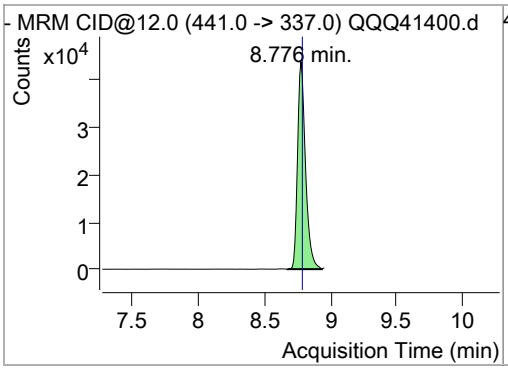
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	1.9749	8.58	-0.05	10725 (m)	498.9 -> 98.9	64.3	45.5	68.3

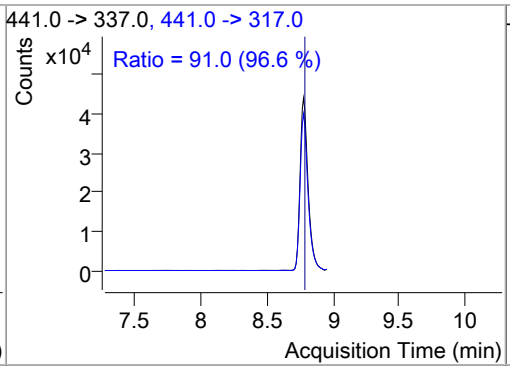


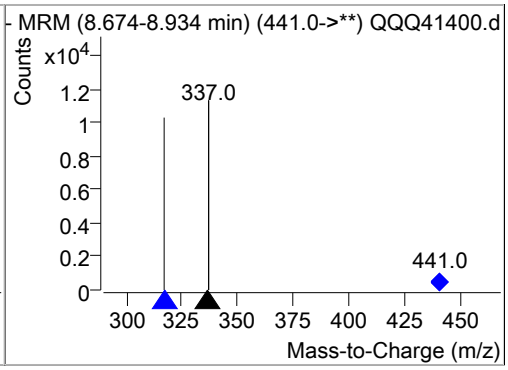




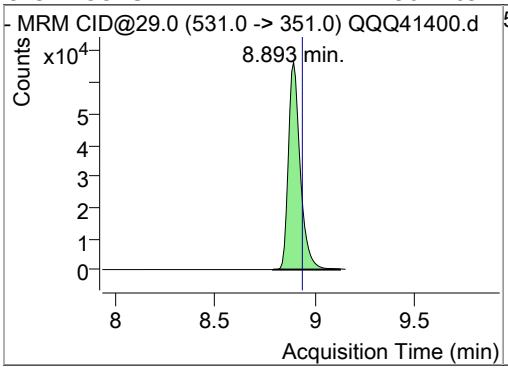
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	37.5453	8.78	0.00	182846	441.0 -> 317.0	91.0	75.4	113.1

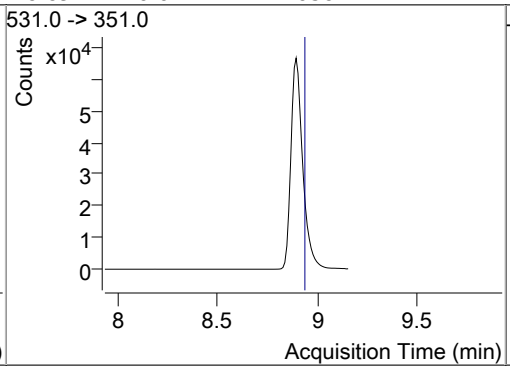


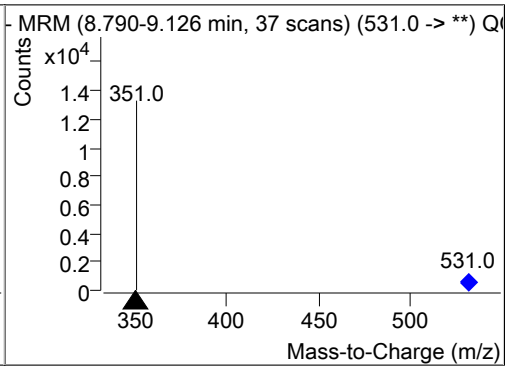




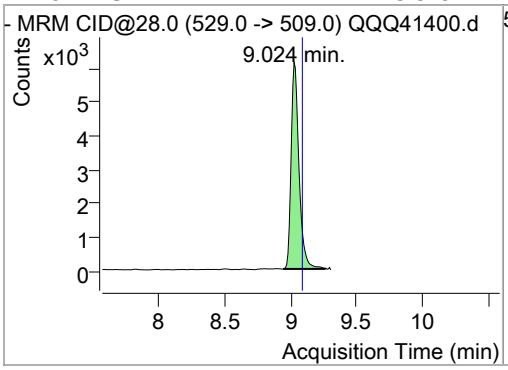
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	98.2209	8.89	-0.04	274058				

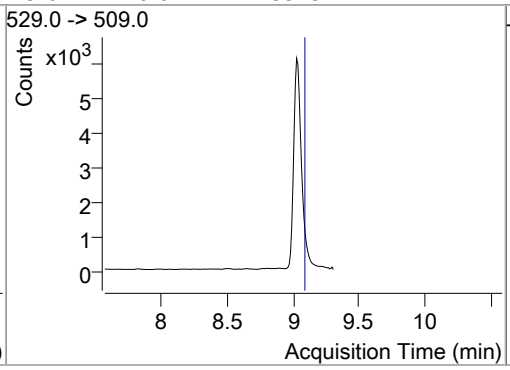


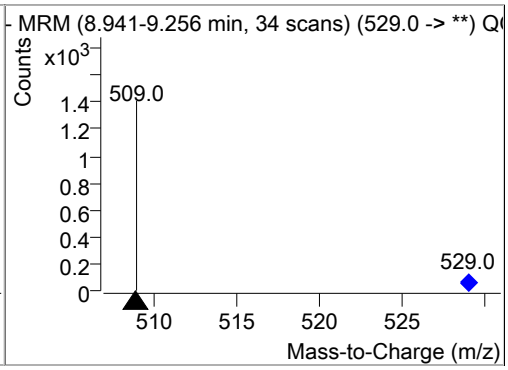




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	3.5797	9.02	-0.02	25375				

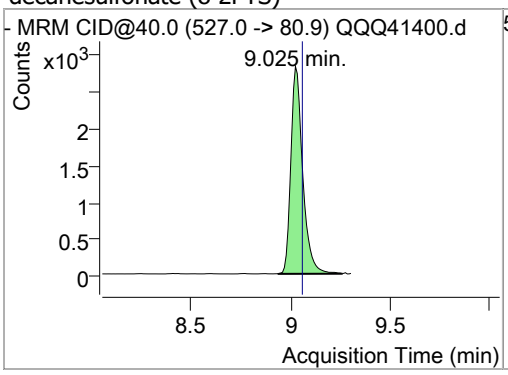


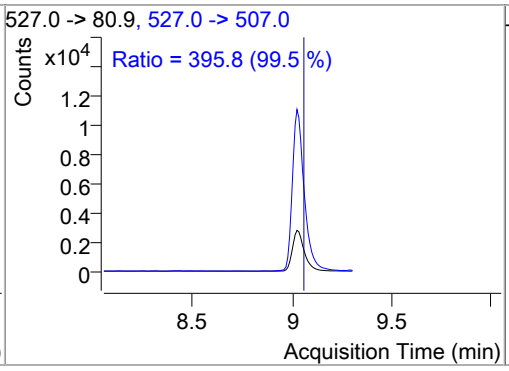


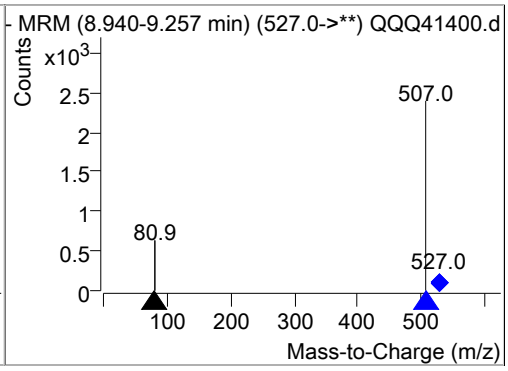


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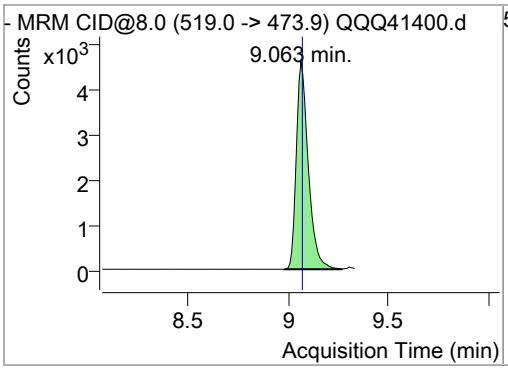
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.1539	9.02	-0.03	11547	527.0 -> 507.0	395.8	318.3	477.4

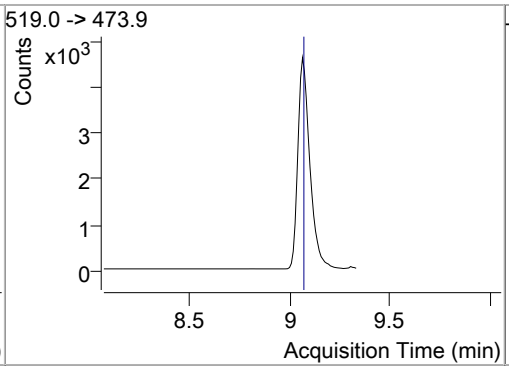


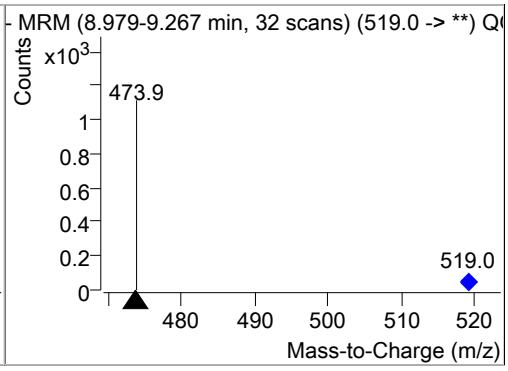




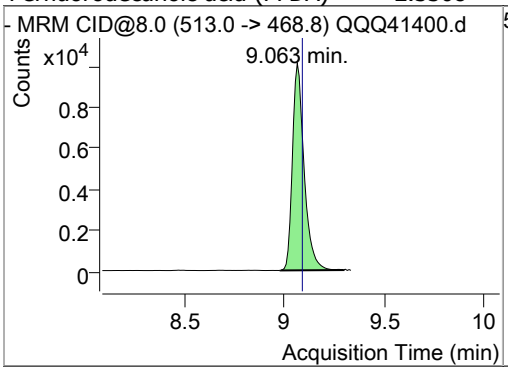
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.3788	9.06	-0.02	19216				

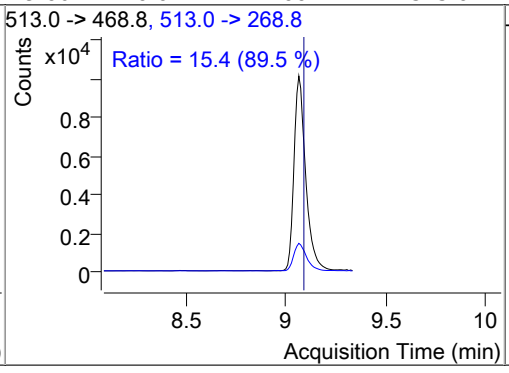


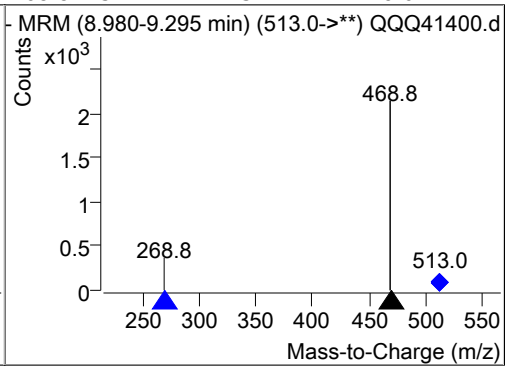




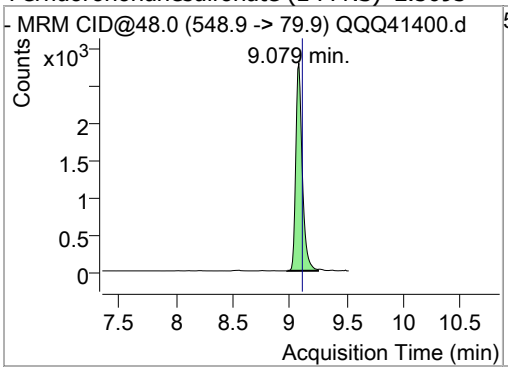
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	2.3308	9.06	-0.02	41004	513.0 -> 268.8	15.4	13.7	20.6

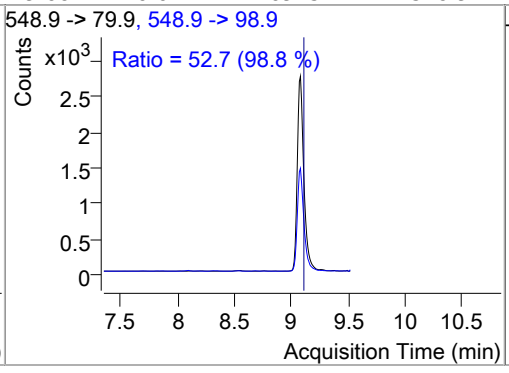


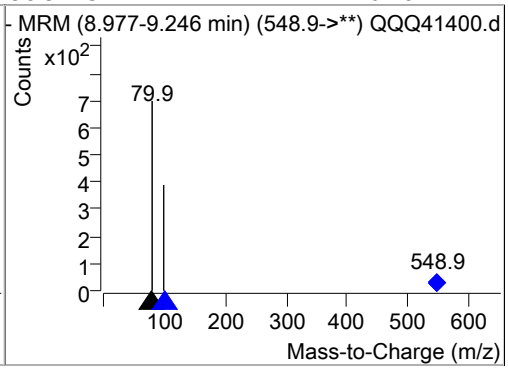




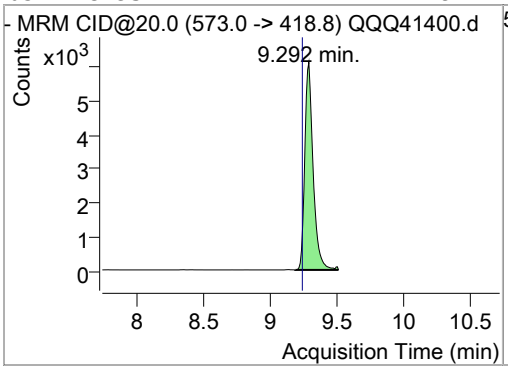
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	2.5693	9.08	-0.02	10925	548.9 -> 98.9	52.7	42.7	64.0

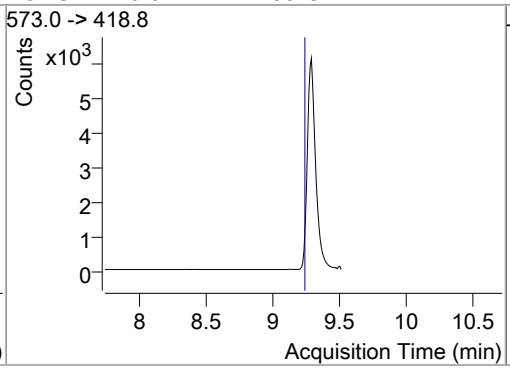


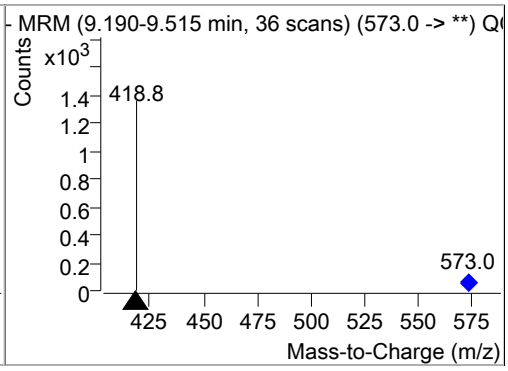




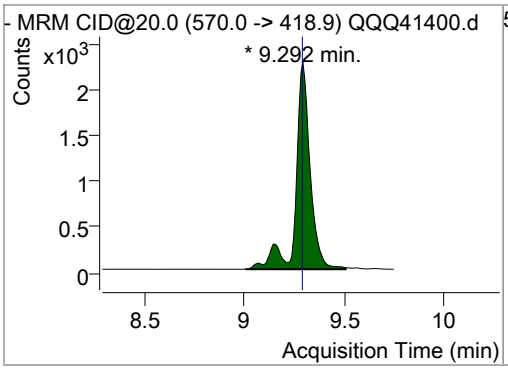
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.7194	9.29	0.01	26629				

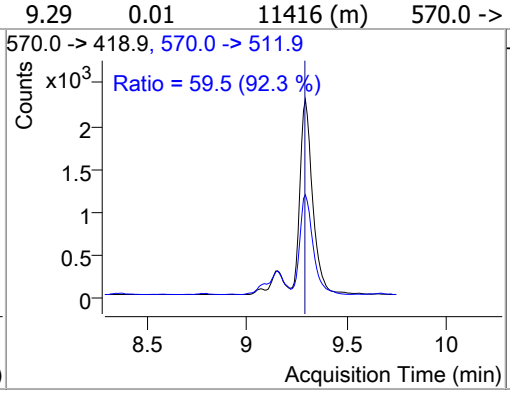


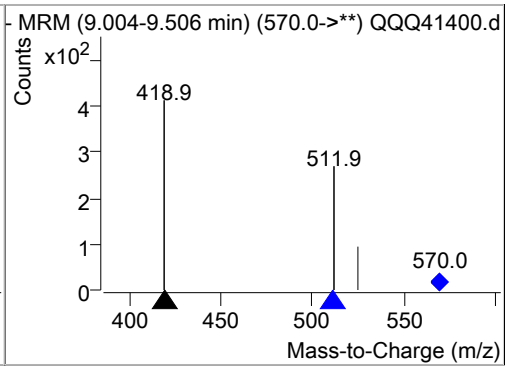




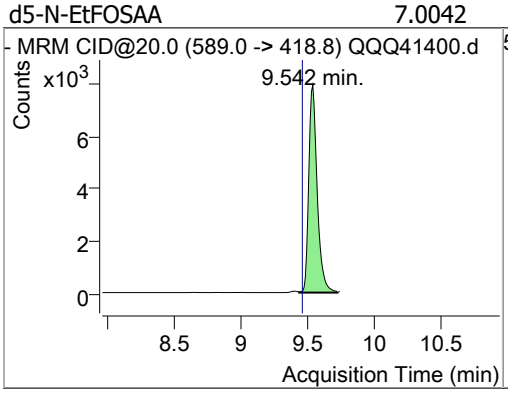
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	2.4607	9.29	0.01	11416 (m)	570.0 -> 511.9	59.5	51.6	77.4

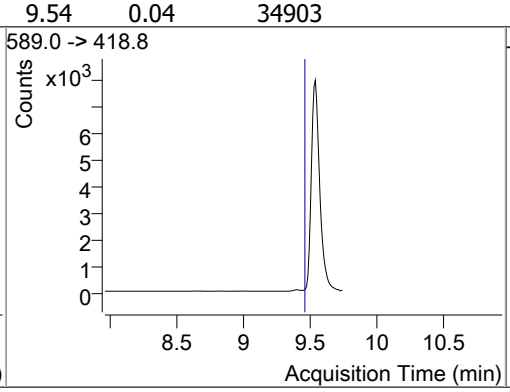


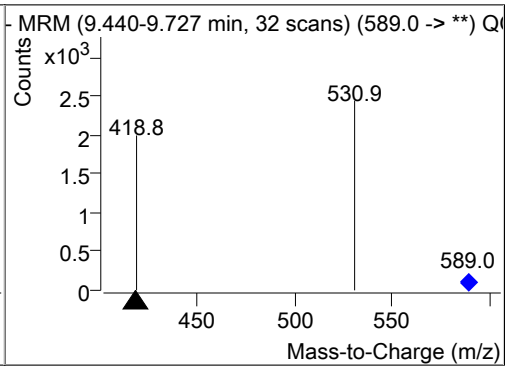




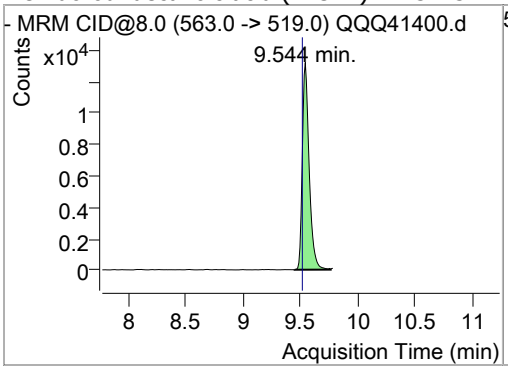
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	7.0042	9.54	0.04	34903				

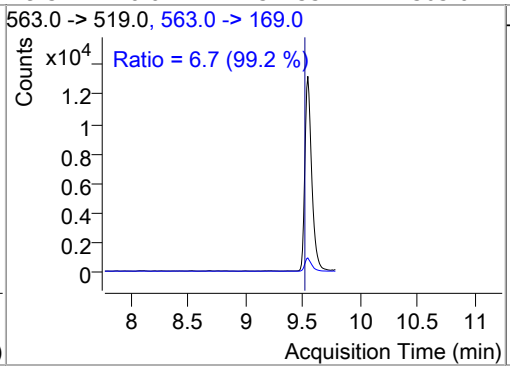


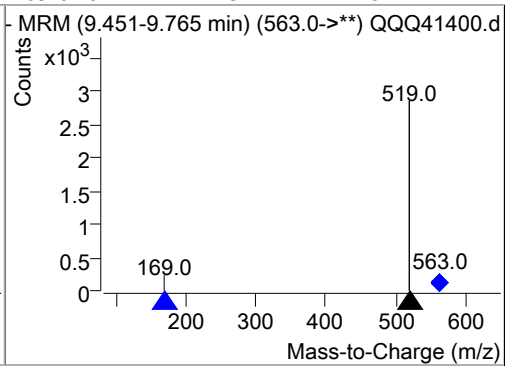




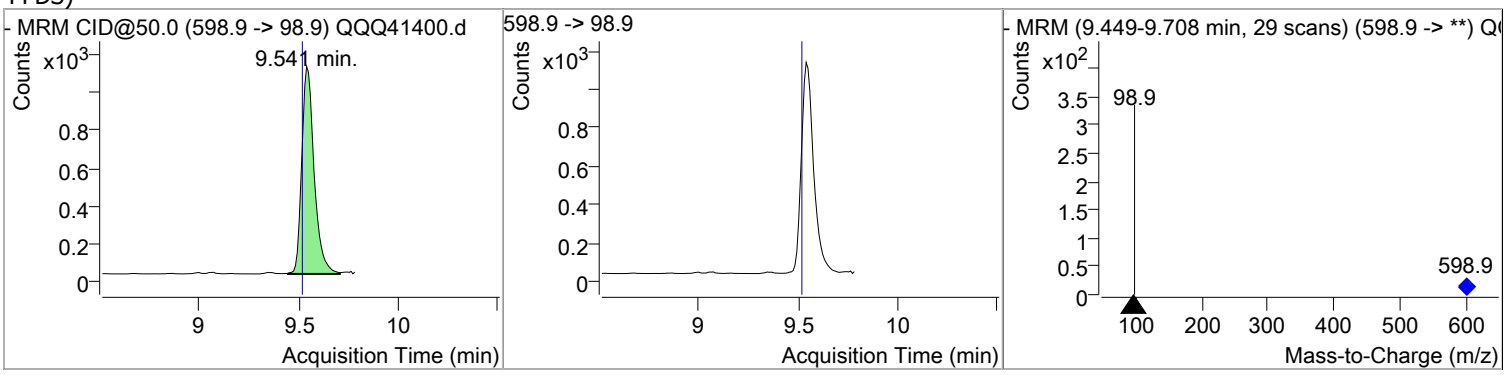
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.3773	9.54	0.04	54455	563.0 -> 169.0	6.7	5.4	8.1



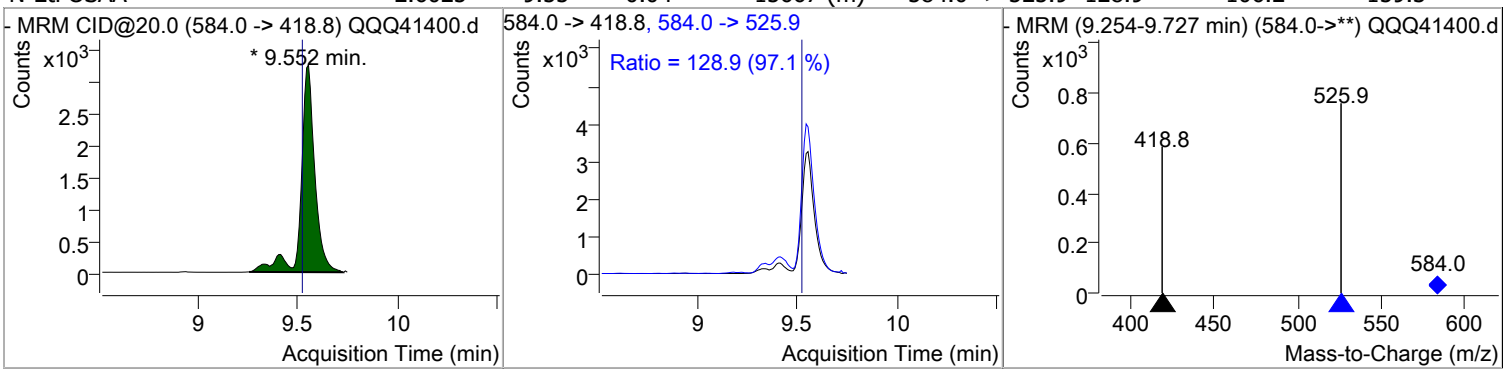




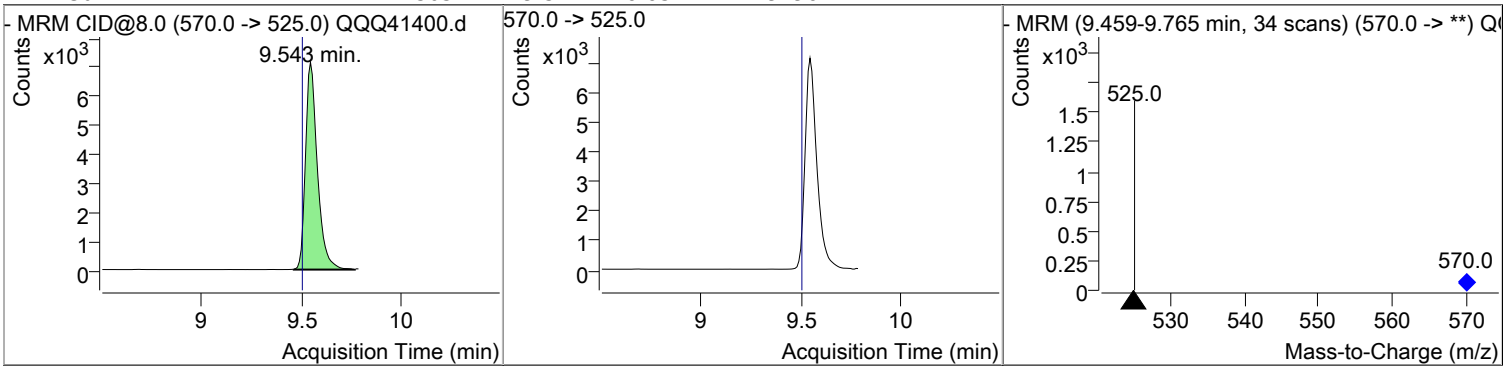
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.3044	9.54	0.03	4733				



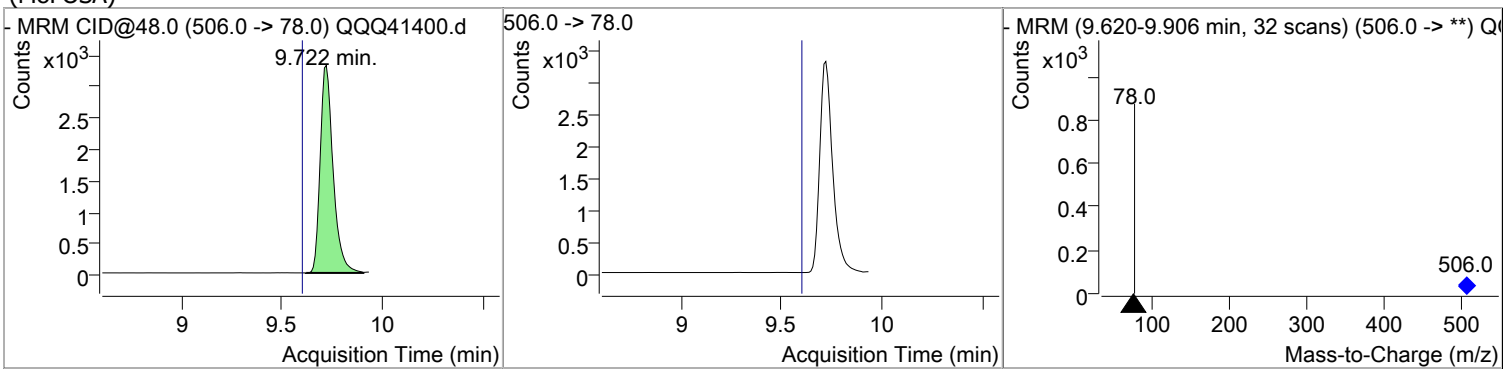
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	2.6025	9.55	0.04	15667 (m)	584.0 -> 525.9	128.9	106.2	159.3



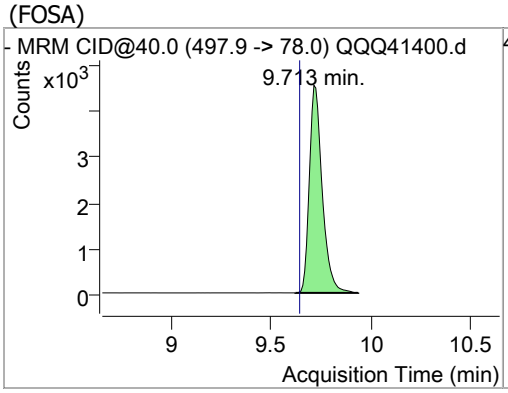
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.5634	9.54	0.03	29490				

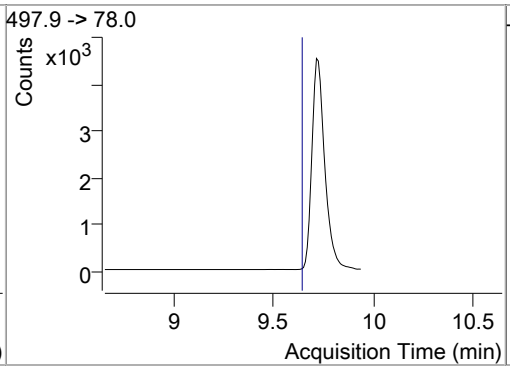


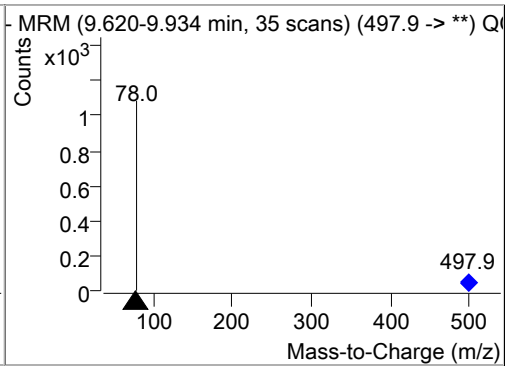
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.0566	9.72	0.07	14756				



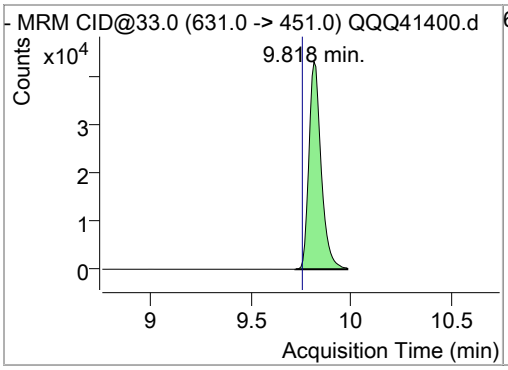
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	2.3989	9.71	0.06	20226				

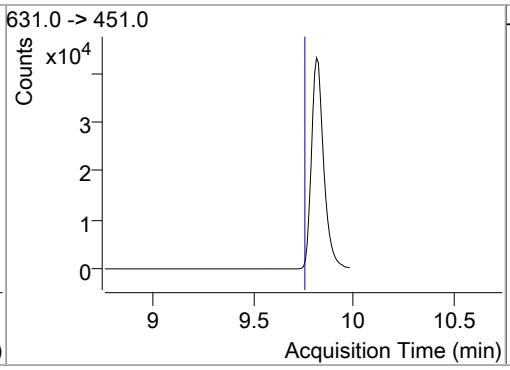


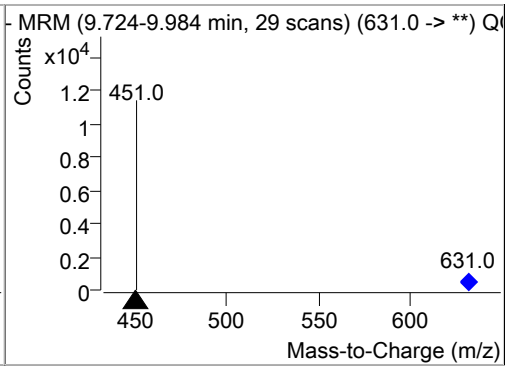




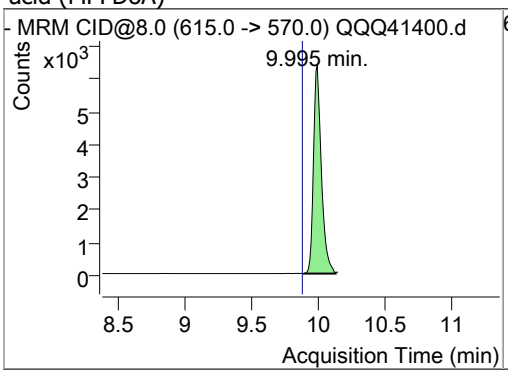
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	90.7224	9.82	0.07	183072				

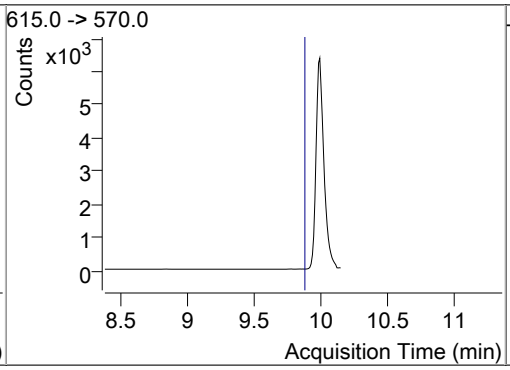


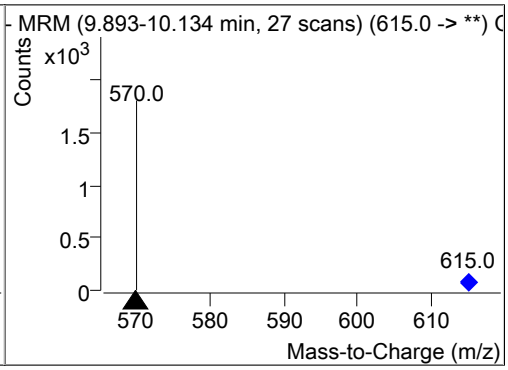




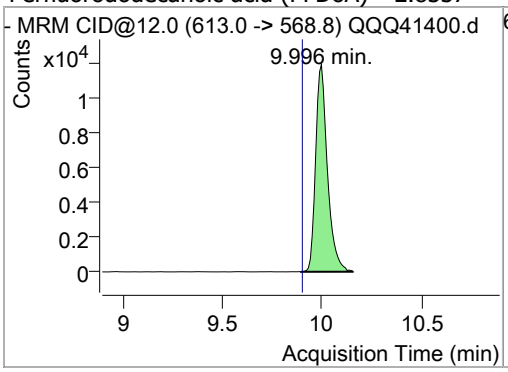
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.5907	10.00	0.10	26379				

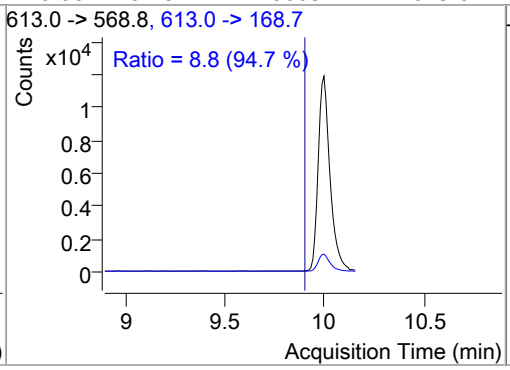


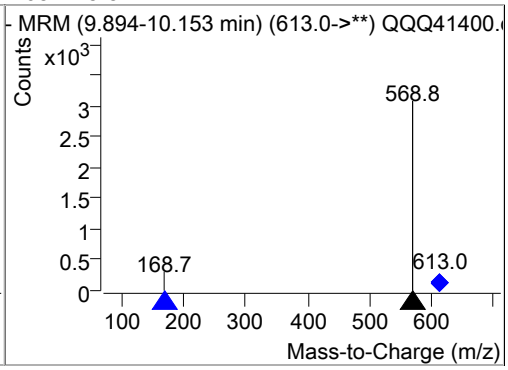




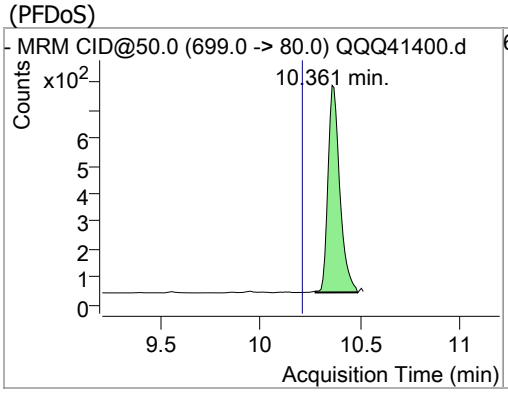
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	2.8337	10.00	0.10	48663	613.0 -> 168.7	8.8	7.4	11.2

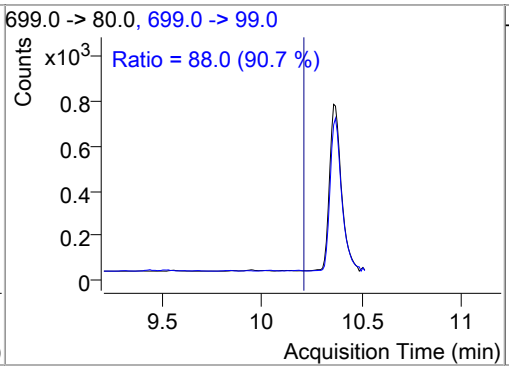


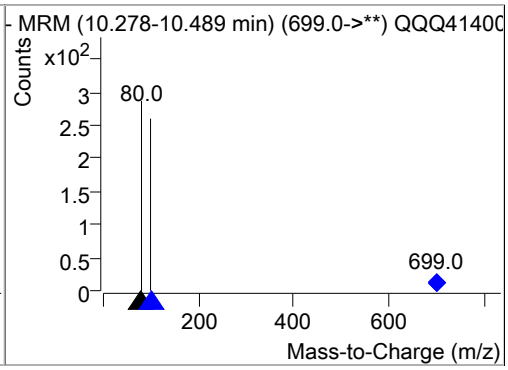




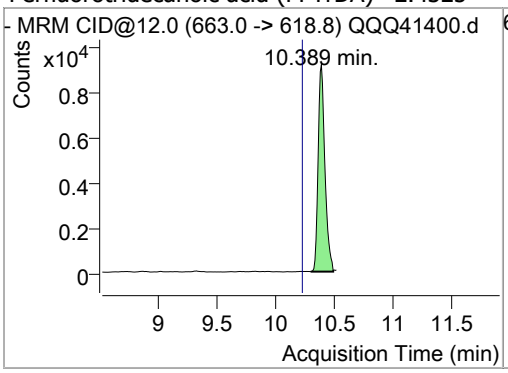
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.9495	10.36	0.16	3081	699.0 -> 99.0	88.0	77.6	116.4

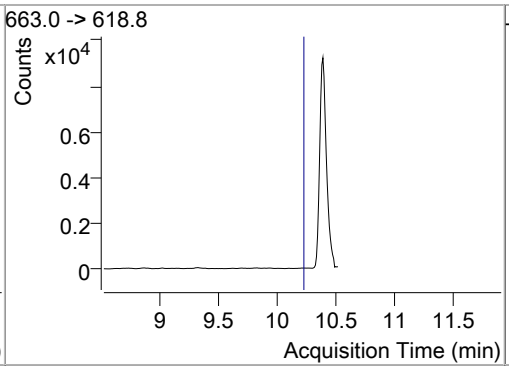


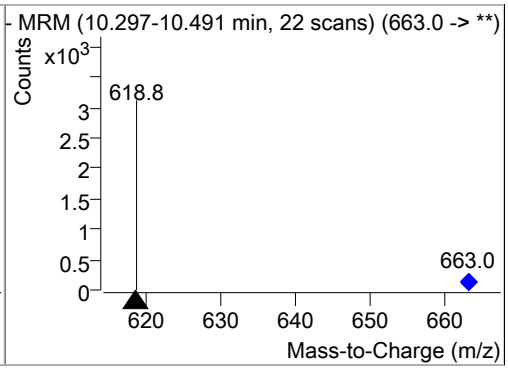




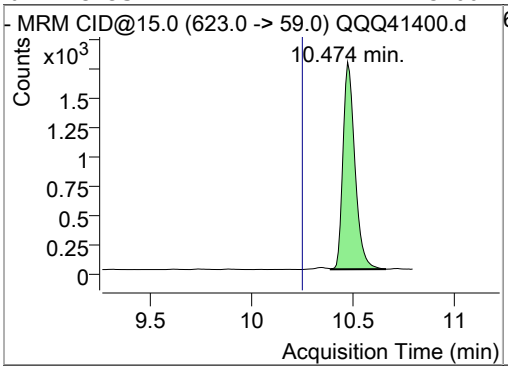
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	2.4325	10.39	0.17	37128				

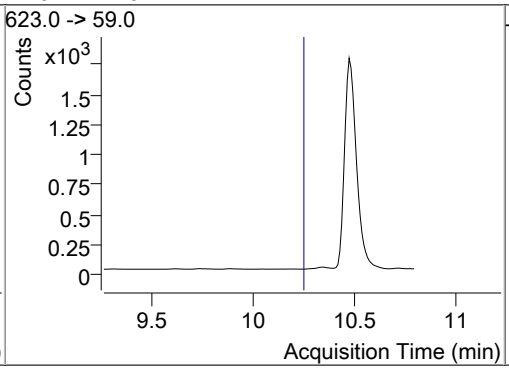


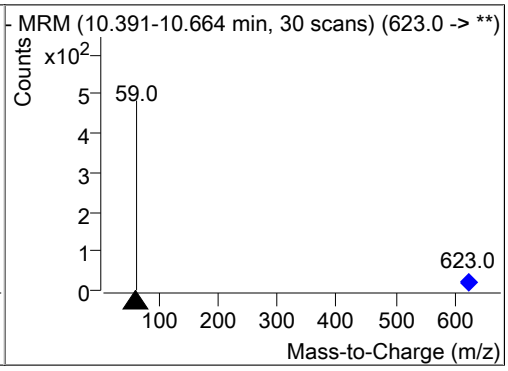




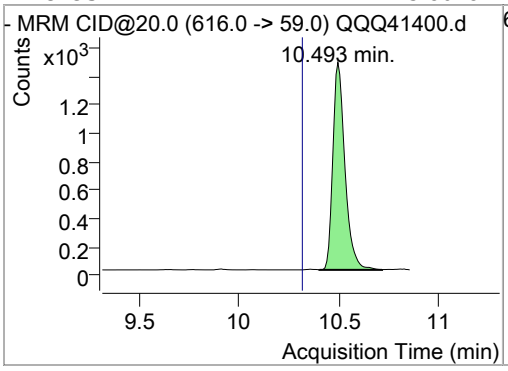
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	12.5466	10.47	0.17	7224				

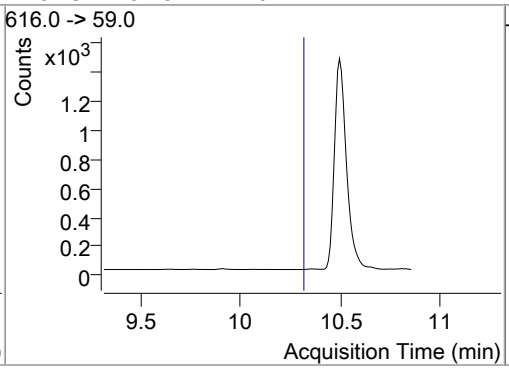


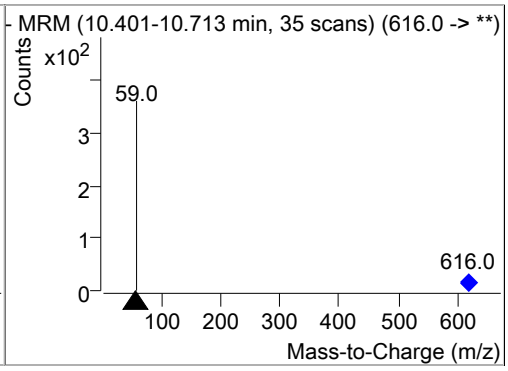




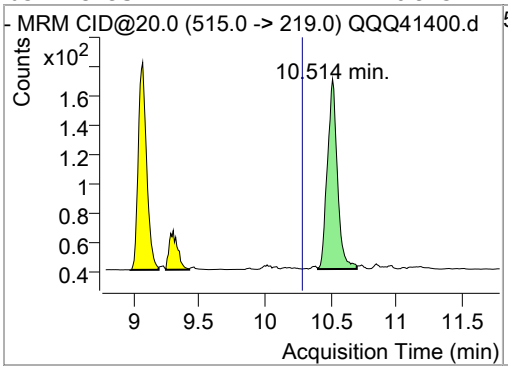
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	25.8678	10.49	0.18	6122				

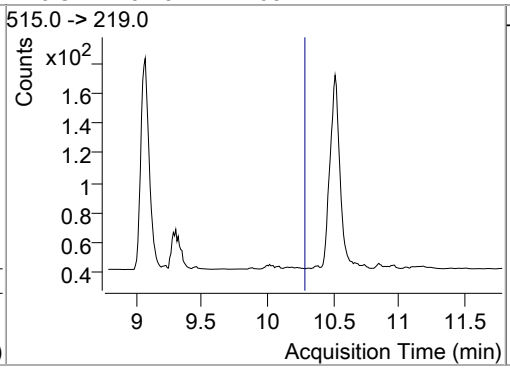


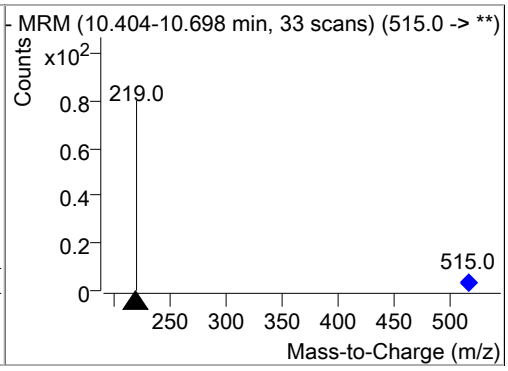




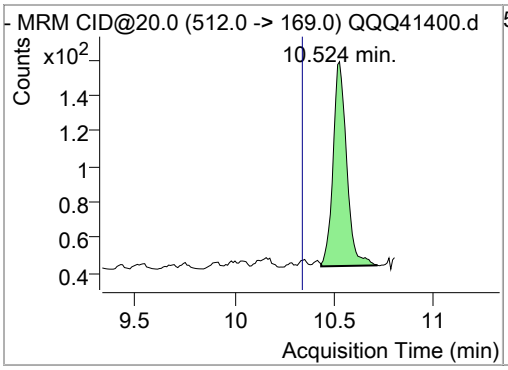
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	0.9432	10.51	0.18	684				

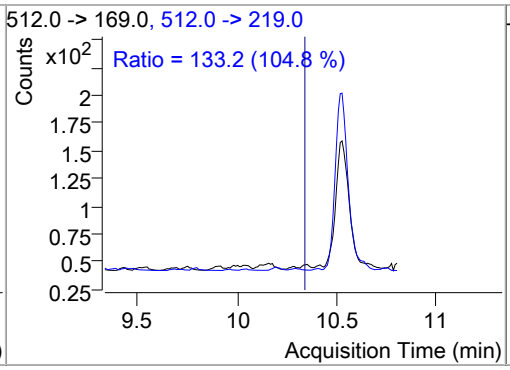


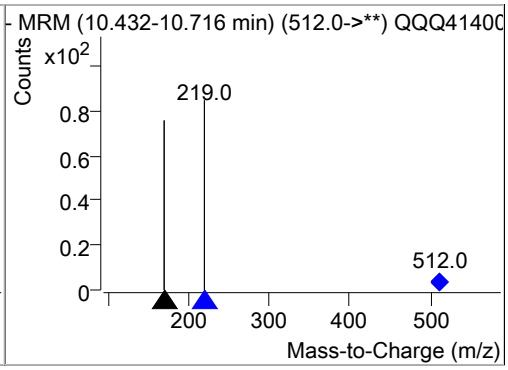




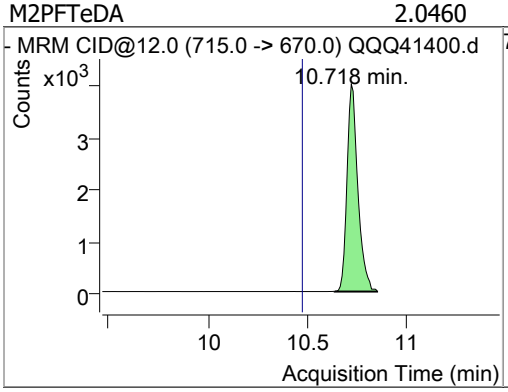
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	2.3650	10.52	0.19	546	512.0 -> 219.0	133.2	101.6	152.5

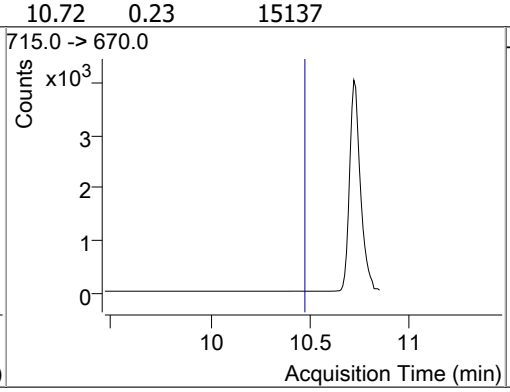


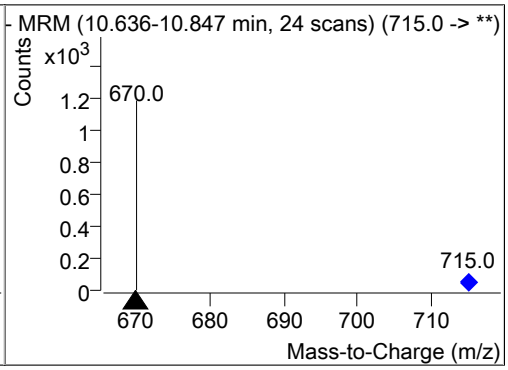




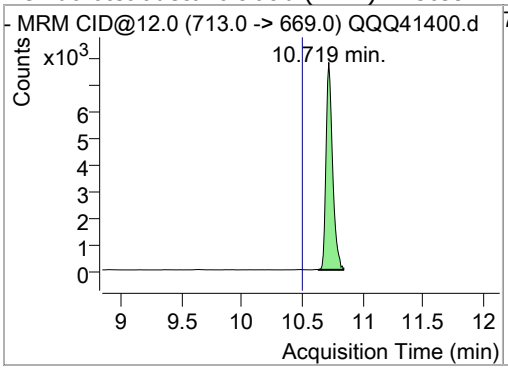
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	2.0460	10.72	0.23	15137				

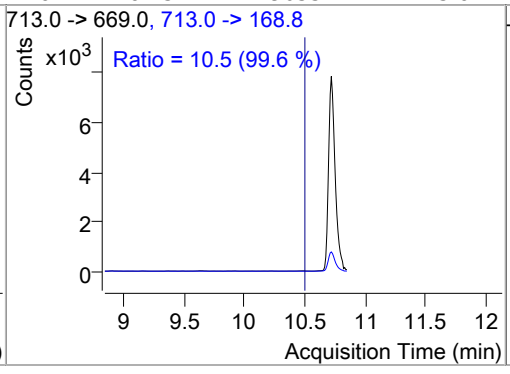


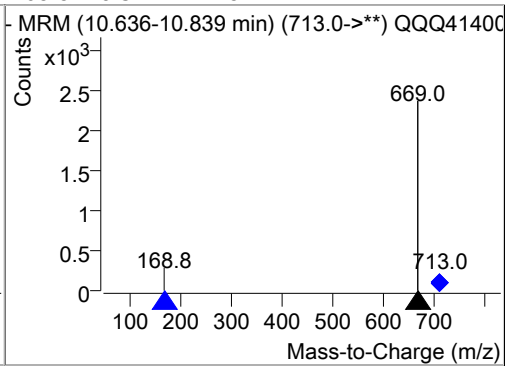




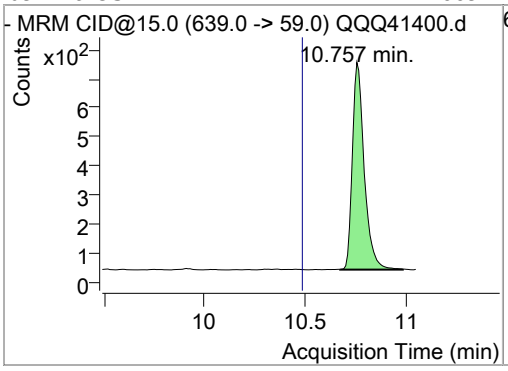
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	2.5099	10.72	0.23	29633	713.0 -> 168.8	10.5	8.4	12.7

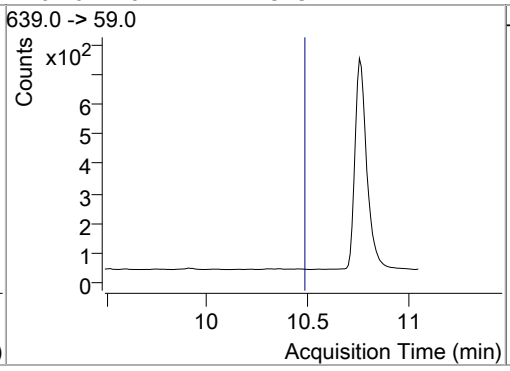


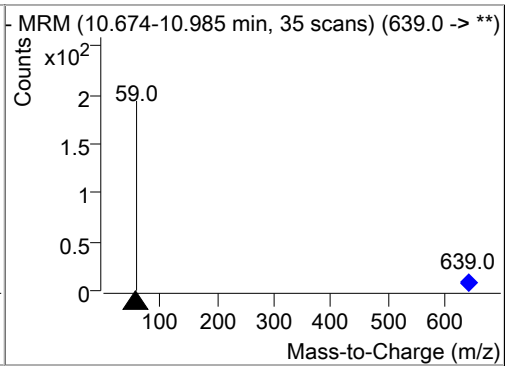




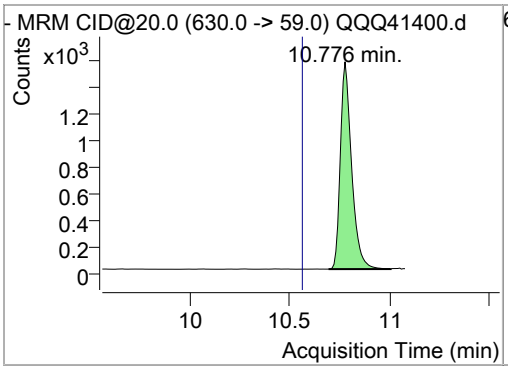
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	11.4009	10.76	0.22	2923				

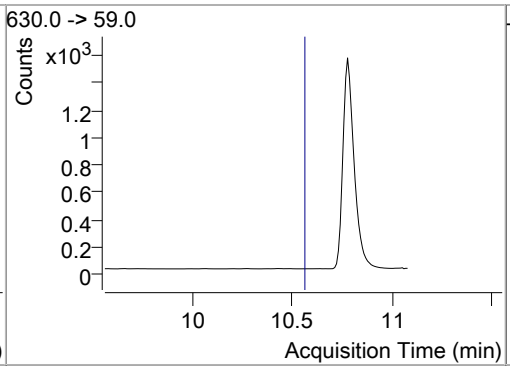


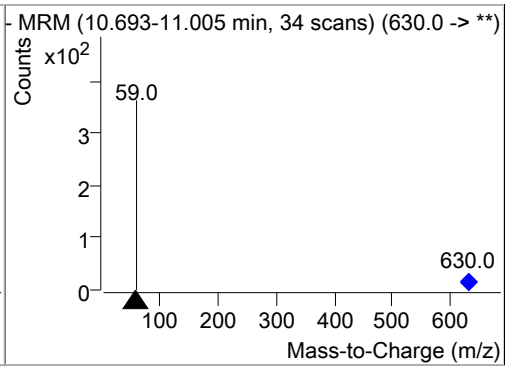




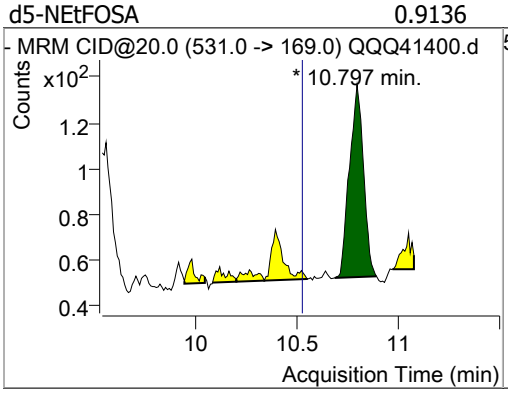
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	23.8381	10.78	0.22	6046				

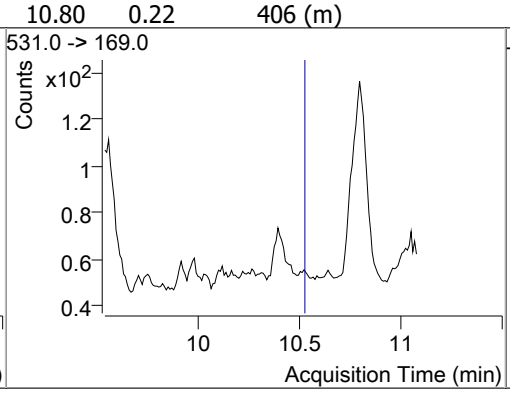


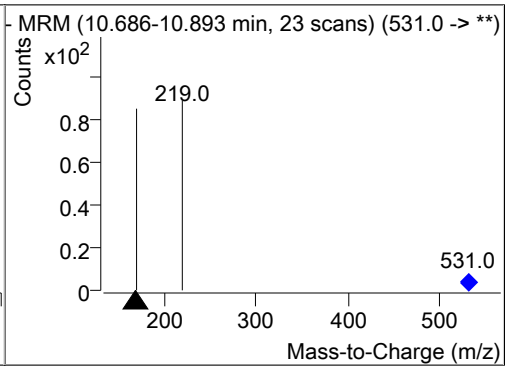




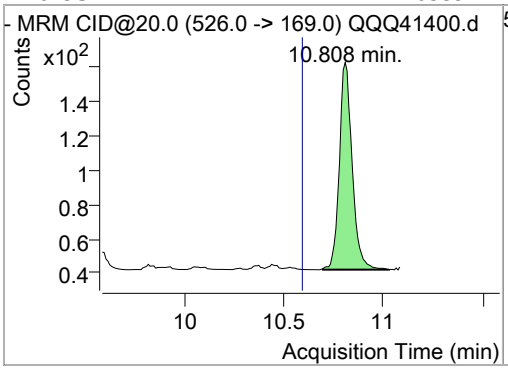
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	0.9136	10.80	0.22	406 (m)				

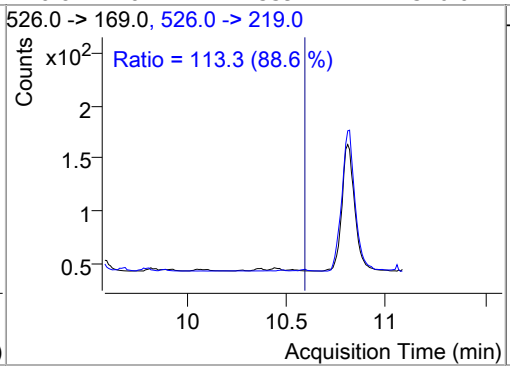


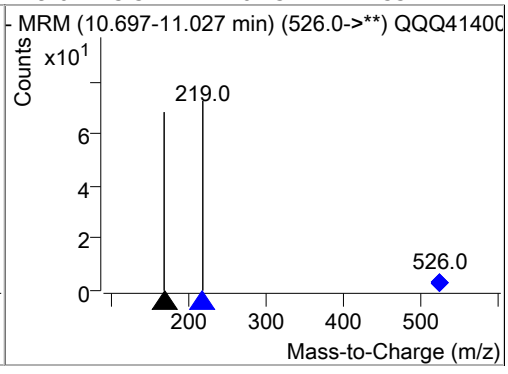




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.6559	10.81	0.22	539	526.0 -> 219.0	113.3	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 5:15:45 PM	**Data File**	QQQ41400.d
Sample Type	Sample	**Sampe Name**	SEQ-CCV3
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.407	160134	21856	0.541			1.75			63137.14
Perfluoro-n-butanoic acid (PFBA)	1.411	139999	19308	0.475			1.63			8911.66
PFMPA	2.401	36586	4043	0.607			1.85			19900.39
3:3FTCA	4.645	447	67	0.250			0.92			64.47
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.922	114932	18566	0.305			1.69			5043.66
Perfluoro-n-pentanoic acid (PFPeA)	4.923	111051	17825	0.296			1.70			∞
PFMBA	5.643	47482	9933	0.315			1.62			18693.48
M3PFBS	5.660	13011	2921	0.306			1.85			112.03
Perfluorobutanesulfonic acid (PFBS)	5.660	13070	2899	0.306			1.85			323.68
PFEESA	6.187	115332	28675	0.334			1.51			∞
NFDHA	6.337	1697	393	0.305			1.36			5824.07
M2-4-2FTS	6.408	8695	2168	0.253			1.38			392.00
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.409	16866	4110	0.306			1.41			999.31
M5PFHxA	6.483	57207	13976	0.279			1.41			101043.00
Perfluorohexanoic acid (PFHxA)	6.484	64931	15547	0.324			1.40			2041.00
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.686	12742	3158	0.252			1.61			∞
M3-HFPO-DA	6.781	4757	1109	0.257			1.36			250.87
HFPO-DA	6.773	557	135	0.190			1.71			31.11
M4PFHpA	7.309	12953	3061	0.242			1.71			400.37
Perfluoroheptanoic acid (PFHpA)	7.309	29268	7182	0.279			1.58			524.98
5-3FTCA	7.430	64944	15258	0.288			1.65			6824.13
Perfluorohexanesulfonic acid (PFHxS)	7.411	11672	2356	0.474			1.50			∞
M3PFHxS	7.410	10135	2459	0.251			1.49			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.439	85097	20590	0.269			1.72			∞
M2-6-2FTS	7.912	8609	2132	0.312			1.83			∞
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.922	18631	4502	0.254			1.33			∞
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.978	31724	7934	0.297			1.44			∞
Perfluorooctanoic acid (PFOA)	7.969	35485	8437	0.288			2.03			29355.79
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	11815	3003	0.289			1.60			1219.76
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.553	5430	1378	0.269			1.27			∞
Perfluorononanoic acid (PFNA)	8.544	38023	9799	0.306			1.74			118.04
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	5655	1315	0.278			1.96			∞
Perfluorooctanesulfonic acid (PFOS)	8.580	10725	1931	0.501			1.34			46.32
7-3FTCA	8.776	182846	43864	0.260			1.56			∞
9-Cl-PF3ONS	8.893	274058	66574	0.336			1.57			953023.93
M2-8-2FTS	9.024	25375	6120	0.315			1.78			41.01
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.025	11547	2797	0.317			1.73			137.59
M6PFDA	9.063	19216	4590	0.288			1.78			32767.87
Perfluorodecanoic acid (PFDA)	9.063	41004	10098	0.316			1.68			1025.22
Perfluorononanesulfonate (L-PFNS)	9.079	10925	2751	0.269			1.42			10160.57
d3-N-MeFOSAA	9.292	26629	6090	0.325			1.38			∞
N-MeFOSAA	9.292	11416	2268	0.502			1.60			∞
d5-N-EtFOSAA	9.542	34903	7924	0.287			1.46			120.91
Perfluoroundecanoic acid (PFUnA)	9.544	54455	13177	0.314			1.62			3425.27
Perfluoro-1-decanesulfonate (L-PFDS)	9.541	4733	1098	0.259			1.71			∞
N-EtFOSAA	9.552	15667	3230	0.473			1.33			∞
M7PFUdA	9.543	29490	7151	0.305			1.66			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.722	14756	3302	0.286			1.46			24850.86
Perfluoro-1-octanesulfonamide (FOSA)	9.713	20226	4520	0.314			1.84			∞
11-Cl-PF3OUdS	9.818	183072	43076	0.260			1.58			1370165.43
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.995	26379	6371	0.240			1.45			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.996	48663	11869	0.259			1.40			2861.32
Perfluorododecanesulfonic acid (PFDoS)	10.361	3081	745	0.211			1.93			21.62
Perfluorotridecanoic acid (PFTrDA)	10.389	37128	9174	0.193			1.43			650.20
d7-NMeFOSE	10.474	7224	1760	0.273			1.70			∞
NMeFOSE	10.493	6122	1457	0.312			1.63			2966.24
d3-NMeFOSA	10.514	684	130	0.294			1.06			721.95
NMeFOSA	10.524	546	115	0.284			1.14			134.20
M2PFTeDA	10.718	15137	4008	0.212			1.67			51809.07
Perfluorotetradecanoic acid (PFTA)	10.719	29633	7812	0.203			1.66			6659.13
d9-NEtFOSE	10.757	2923	713	0.311			1.81			192.79
NEtFOSE	10.776	6046	1543	0.311			1.66			2714.58
d5-NEtFOSA	10.797	406	84	0.207			0.89			11.07
NEtFOSA	10.808	539	121	0.330			1.25			533.62

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41408.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV4	Injection Time:	19:29

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A	9.45	15.6	0.8591385	1.728982		65.3	30 *
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A	9.60	9.62	0.2419004	0.2455932		0.2	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A	9.38	8.00	1.185549	1.081024		-14.7	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A	9.50	7.19	1.255886	1.255027		-24.3	30
3-Perfluoroheptyl propanoic acid (FHpPA)	A	62.6	64.6	0.2201101	0.218432		3.2	30
3-Perfluoropentyl propanoic acid (FPePA)	A	62.6	33.4	0.1241024	8.476023E-02		-46.7	30 *
3-Perfluoropropyl propanoic acid (FPrPA)	A	12.5	4.68	1.286716E-02	6.260656E-03		-62.5	30 *
9CL-PF3ONS	A	9.35	18.6	1.369128	2.997265		99.1	30 *
ADONA	A	9.45	19.5	0.556015	1.144811		107	30 *
HFPO-DA (Gen-X)	A	10.0	12.6	2.239571E-02	2.763752E-02		25.6	30
N-EtFOSA	A	2.50	2.64	1.287944	1.319665		5.6	30
N-EtFOSAA	A	2.50	2.55	0.94945	0.878342		1.9	30
N-EtFOSE	A	25.0	28.4	1.993152	2.463037		13.6	30
N-MeFOSA	A	2.50	1.82	0.7524916	0.6205315		-27.2	30
N-MeFOSAA	A	2.50	2.50	0.8763811	0.8695481		-0.2	30
N-MeFOSE	A	25.0	24.1	0.824401	0.7907291		-3.4	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A	4.45	3.86	1.241156	1.142591		-13.2	30
Perfluoro-1-decanesulfonic acid (PFDS)	A	2.41	2.34	0.7352727	0.8739857		-3.0	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A	2.38	2.19	2.525683	2.440996		-8.2	30
Perfluoro-1-nonanesulfonic acid (PFNS)	A	2.40	2.50	0.1655348	0.185601		4.4	30
Perfluoro-1-octanesulfonamide (FOSA)	A	2.50	2.13	1.385288	1.214898		-15.0	30
Perfluoro-1-pentanesulfonate (PFPeS)	A	2.35	2.17	1.400558	1.235525		-7.8	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A	5.00	4.11	1.573594E-02	1.446336E-02		-17.7	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41408.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV4	Injection Time:	19:29

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A	5.00	5.20	0.2604373	0.3110473		4.0	30
Perfluoro-5-oxahexanoic acid (PFMBA)	A	5.00	5.00	0.4108024	0.4179705		0.08	30
Perfluorobutanesulfonic acid (PFBS)	A	2.22	2.36	1.128938	1.16386		6.2	30
Perfluorodecanoic acid (PFDA)	A	2.50	2.43	1.09146	1.114328		-2.6	30
Perfluorododecanesulfonic acid (PFDoS)	A	2.42	1.94	0.4284993	0.3670371		-20.0	30
Perfluorododecanoic acid (PFDoA)	A	2.50	2.51	0.8702134	0.8175366		0.5	30
Perfluoroheptanoic acid (PFHpA)	A	2.50	2.60	2.370614	2.316689		4.0	30
Perfluorohexanesulfonic acid (PFHxS)	A	2.28	2.32	1.39602	1.249769		1.7	30
Perfluorohexanoic acid (PFHxA)	A	2.50	2.45	1.166423	1.132506		-1.9	30
Perfluoro-n-butanoic acid (PFBA)	A	10.0	9.96	0.9037138	0.8741253		-0.4	30
Perfluorononanoic acid (PFNA)	A	2.50	2.51	3.453721	3.250023		0.2	30
Perfluorooctanesulfonic acid (PFOS)	A	2.32	2.39	2.631087	2.448688		3.0	30
Perfluorooctanoic acid (PFOA)	A	2.50	2.80	1.254067	1.149121		12.1	30
Perfluoropentanoic acid (PFPeA)	A	5.00	5.16	1.003786	0.9900835		3.3	30
Perfluorotetradecanoic acid (PFTA)	A	2.50	2.60	1.041146	1.012224		3.8	30
Perfluorotridecanoic acid (PFTrDA)	A	2.50	3.24	1.484165	1.632307		29.7	30
Perfluoroundecanoic acid (PFUnA)	A	2.50	2.76	0.9068038	1.071311		10.5	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41408.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 7:29:55 PM
Sample Name	SEQ-CCV4	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

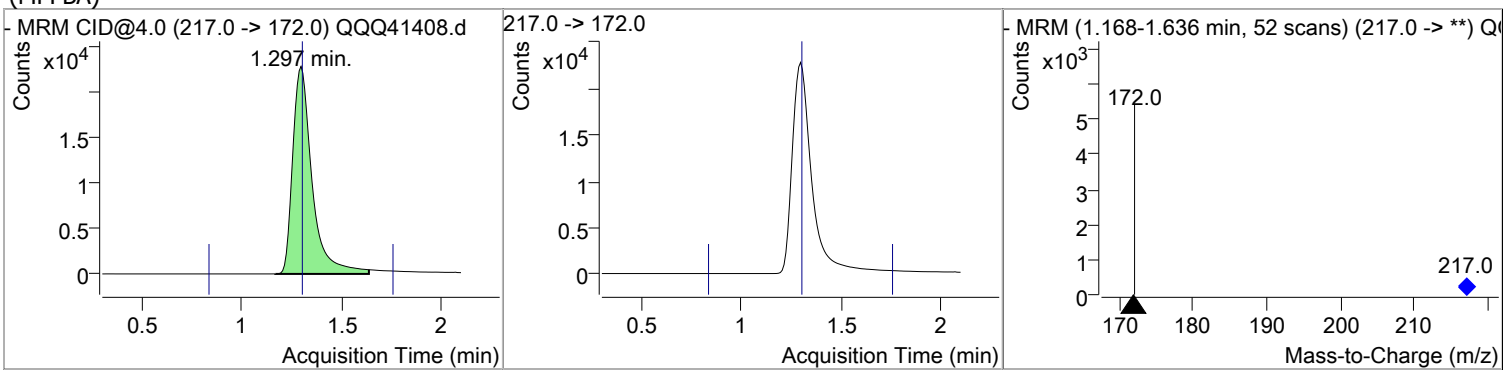
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
M3PFBA	1.299	216.0 -> 172.0	28746	5.0000	ng/ml		0.046
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.297	217.0 -> 172.0	153777	10.0000	ng/ml		0.046
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.728	268.0 -> 223.0	116926	5.0000	ng/ml		0.000
MPFHxA	6.336	315.0 -> 269.8	38261	2.5000	ng/ml		-0.037
MPFHxS	7.279	403.0 -> 103.0	4158	2.3700	ng/ml		-0.103
M3PFBS-EIS	5.520	302.0 -> 79.9	14263	2.3300	ng/ml		-0.010
M5PFHxA-EIS	6.335	318.0 -> 273.0	60738	2.5000	ng/ml		-0.037
M2-4-2FTS-EIS	6.260	329.0 -> 309.0	10639	4.6900	ng/ml		-0.037
M3PFHxS-EIS	7.280	402.0 -> 80.0	12621	2.3700	ng/ml		-0.103
M3-HFPO-DA-EIS	6.624	287.0 -> 169.0	21982	10.0000	ng/ml		-0.065
M4PFHpA-EIS	7.179	367.0 -> 322.0	14282	2.5000	ng/ml		-0.083
M2-6-2FTS-EIS	7.819	429.0 -> 409.0	19852	4.7550	ng/ml		-0.111
MPFOA	7.876	417.0 -> 372.0	51985	2.5000	ng/ml		-0.121
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.876	421.0 -> 376.0	40009	2.5000	ng/ml		-0.121
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.514	507.0 -> 98.9	5572	2.3950	ng/ml		-0.111
MPFNA	8.479	468.0 -> 423.0	23971	1.2500	ng/ml		-0.121
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.479	472.0 -> 223.0	6253	1.2500	ng/ml		-0.111
MPFOS	8.515	503.0 -> 80.0	12880	2.3950	ng/ml		-0.111
M2-8-2FTS-EIS	8.978	529.0 -> 509.0	81485	4.8000	ng/ml		-0.065
MPFDA	9.016	515.0 -> 469.8	13479	1.2500	ng/ml		-0.065
M6PFDA-EIS	9.016	519.0 -> 473.9	18613	1.2500	ng/ml		-0.065
d3-N-MeFOSAA-EIS	9.227	573.0 -> 418.8	37863	5.0000	ng/ml		-0.056
M7PFUdA-EIS	9.487	570.0 -> 525.0	19952	1.2500	ng/ml		-0.028
d5-N-EtFOSAA-EIS	9.477	589.0 -> 418.8	32123	5.0000	ng/ml		-0.028
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.685	506.0 -> 78.0	9928	2.5000	ng/ml		0.037
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.930	615.0 -> 570.0	14765	1.2500	ng/ml		0.037
M2PFTeDA-EIS	10.654	715.0 -> 670.0	4206	1.2500	ng/ml		0.166
d7-NMeFOSE-EIS	10.474	623.0 -> 59.0	3810	25.0000	ng/ml	m	0.175
d3-NMeFOSA-EIS	10.505	515.0 -> 219.0	470	2.5000	ng/ml	m	0.175
d9-NEtFOSE-EIS	10.748	639.0 -> 59.0	959	25.0000	ng/ml		0.212
d5-NEtFOSA-EIS	10.806	531.0 -> 169.0	167	2.5000	ng/ml	m	0.230
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	217.0 -> 172.0	153777	10.6828	ng/ml		0.046
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.728	268.0 -> 223.0	116926	4.7905	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.520	302.0 -> 79.9	14228	1.9176	ng/ml		-0.010
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.260	329.0 -> 309.0	10641	2.1483	ng/ml		-0.037

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.335	318.0 -> 273.0	60738	2.4875	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.624	287.0 -> 169.0	21982	5.1503	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.179	367.0 -> 322.0	14282	2.6332	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.280	402.0 -> 80.0	12621	2.4383	ng/ml		-0.103
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.819	429.0 -> 409.0	19897	5.9981	ng/ml		-0.111
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.876	421.0 -> 376.0	40008	2.4166	ng/ml		-0.121
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.479	472.0 -> 223.0	6252	1.2238	ng/ml		-0.111
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.514	507.0 -> 98.9	5589	2.3662	ng/ml		-0.111
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.978	529.0 -> 509.0	81485	10.4597	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.016	519.0 -> 473.9	18614	1.2605	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.227	573.0 -> 418.8	37866	6.2220	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.477	589.0 -> 418.8	32123	5.9769	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.487	570.0 -> 525.0	20060	1.0036	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.685	506.0 -> 78.0	9932	1.2834	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.930	615.0 -> 570.0	14765	0.8403	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.474	623.0 -> 59.0	3806	6.1286	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.505	515.0 -> 219.0	487	0.6225	ng/ml	m	0.175
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.654	715.0 -> 670.0	4203	0.5361	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.748	639.0 -> 59.0	1355	4.9012	ng/ml	m	0.212
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.806	531.0 -> 169.0	135	0.2823	ng/ml	m	0.230
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.292	213.0 -> 168.9	134420	9.9606	ng/ml		100
PFMPA	2.208	229.0 -> 85.0	36370	5.2017	ng/ml		100
3:3FTCA	4.424	241.0 -> 177.0	1901	4.6832	ng/ml		97
Perfluoro-n-pentanoic acid (PFPeA)	4.728	263.0 -> 219.0	115767	5.1634	ng/ml		100
PFMBA	5.495	279.0 -> 85.0	48872	5.0038	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.520	298.9 -> 79.9	14741	2.3573	ng/ml		95
PFEESA	6.048	315.0 -> 135.0	123529	3.8610	ng/ml		100
NFDHA	6.188	295.0 -> 201.1	1757	4.1145	ng/ml		96
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.260	327.0 -> 307.0	21575	7.9987	ng/ml		98

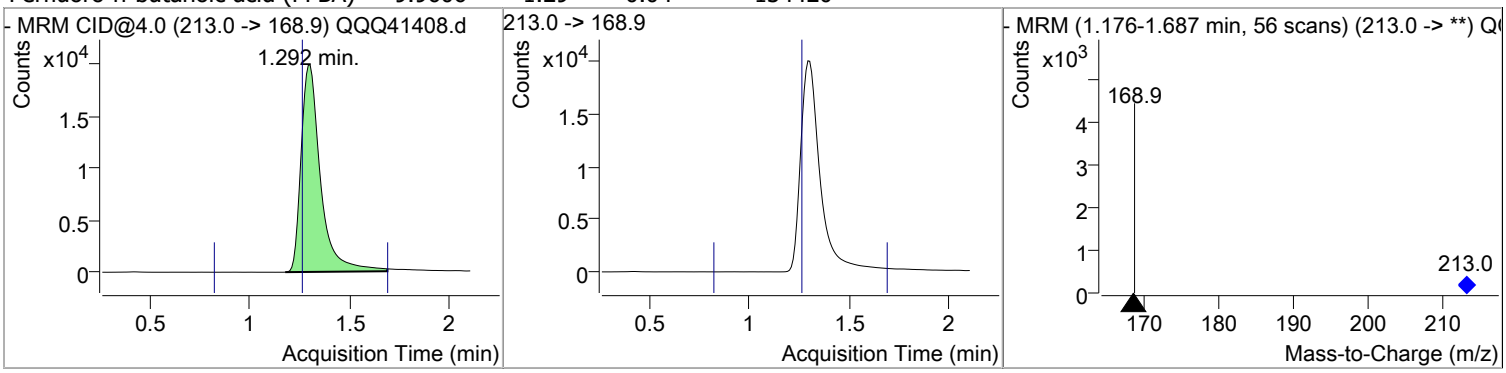
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.336	313.0 -> 268.9	68786	2.4534	ng/ml		99
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.546	348.9 -> 79.9	14658	2.1663	ng/ml		99
HFPO-DA	6.625	285.0 -> 169.1	2430	12.5601	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.179	363.0 -> 318.8	33086	2.5995	ng/ml		94
5-3FTCA	7.254	341.0 -> 217.0	128909	33.3508	ng/ml		97
Perfluorohexanesulfonic acid (PFHxS)	7.289	398.9 -> 79.9	14386	2.3195	ng/ml	m	94
ADONA	7.318	377.0 -> 85.0	95125	19.5359	ng/ml		97
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.820	427.0 -> 407.0	47338	7.1920	ng/ml		99
Perfluorooctanoic acid (PFOA)	7.876	413.0 -> 368.8	45975	2.8020	ng/ml		93
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.939	448.9 -> 80.0	12949	2.1860	ng/ml		92
Perfluorononanoic acid (PFNA)	8.479	463.0 -> 418.8	40647	2.5051	ng/ml		92
Perfluorooctanesulfonic acid (PFOS)	8.515	498.9 -> 79.9	12663	2.3894	ng/ml	m	98
7-3FTCA	8.674	441.0 -> 337.0	332207	64.6041	ng/ml		98
9-Cl-PF3ONS	8.847	531.0 -> 351.0	246415	18.6121	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.979	527.0 -> 80.9	38423	9.6203	ng/ml		93
Perfluorodecanoic acid (PFDA)	9.017	513.0 -> 468.8	41481	2.4344	ng/ml		98
Perfluorononanesulfonate (L-PFNS)	9.024	548.9 -> 79.9	10417	2.5049	ng/ml		96
N-MeFOSAA	9.227	570.0 -> 418.9	16462	2.4958	ng/ml	m	99
Perfluoroundecanoic acid (PFUnA)	9.488	563.0 -> 519.0	42750	2.7629	ng/ml		99
Perfluoro-1-decanesulfonate (L-PFDS)	9.486	598.9 -> 98.9	4695	2.3372	ng/ml		100
N-EtFOSAA	9.487	584.0 -> 418.8	14108	2.5465	ng/ml	m	100
Perfluoro-1-octanesulfonamide (FOSA)	9.685	497.9 -> 78.0	12062	2.1259	ng/ml		100
11-Cl-PF3OUdS	9.762	631.0 -> 451.0	143665	15.6202	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.931	613.0 -> 568.8	24142	2.5114	ng/ml		98
Perfluorododecanesulfonic acid (PFDoS)	10.306	699.0 -> 80.0	1980	1.9370	ng/ml		87
Perfluorotridecanoic acid (PFTrDA)	10.325	663.0 -> 618.8	13730	3.2421	ng/ml		100
NMeFOSE	10.484	616.0 -> 59.0	3012	24.1384	ng/ml		100
NMeFOSA	10.524	512.0 -> 169.0	292	1.8208	ng/ml	#	77
Perfluorotetradecanoic acid (PFTA)	10.655	713.0 -> 669.0	8514	2.5955	ng/ml		99
NEtFOSE	10.767	630.0 -> 59.0	2361	28.4059	ng/ml		100
NEtFOSA	10.808	526.0 -> 169.0	220	2.6395	ng/ml	m	97

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

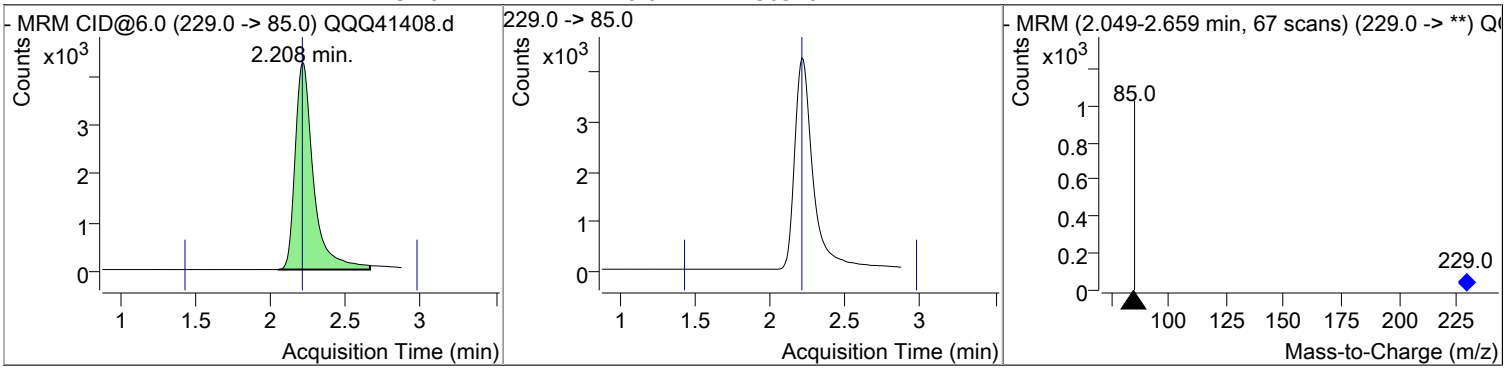
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.6828	1.30	0.05	153777				



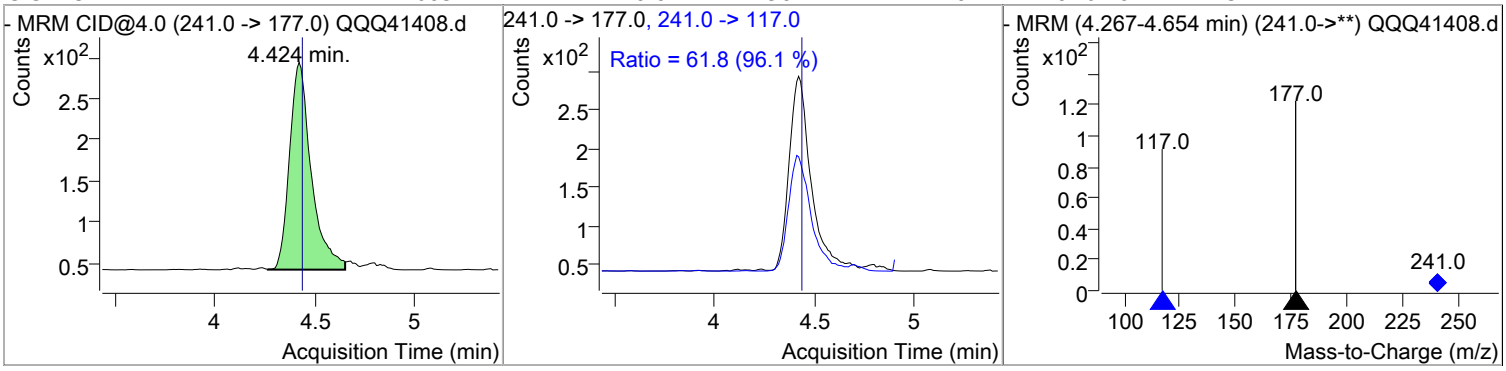
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	9.9606	1.29	0.04	134420				



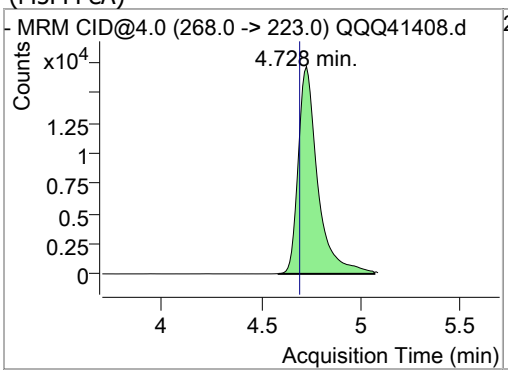
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	5.2017	2.21	0.01	36370				

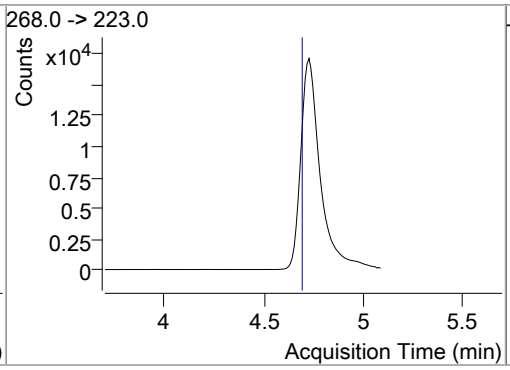


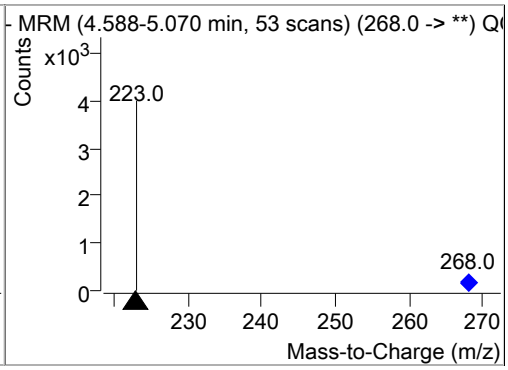
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	4.6832	4.42	-0.01	1901	241.0 -> 117.0	61.8	51.4	77.2



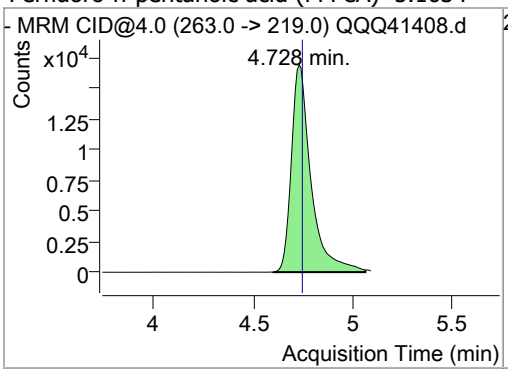
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.7905	4.73	0.00	116926				

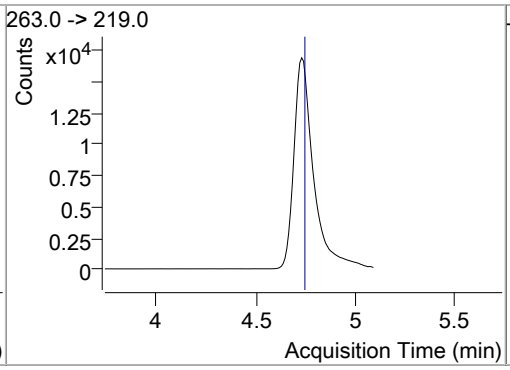


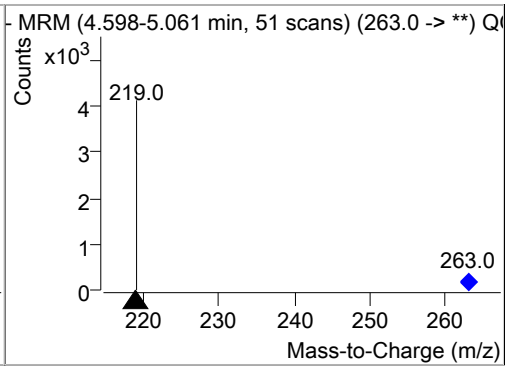




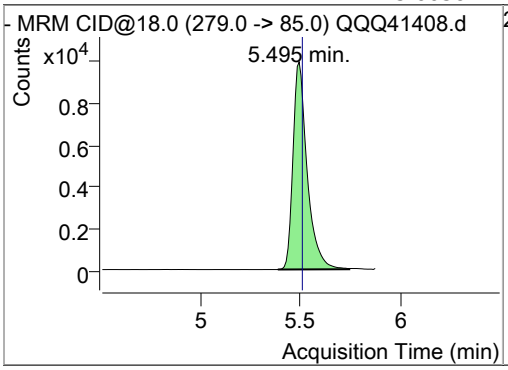
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	5.1634	4.73	-0.01	115767				

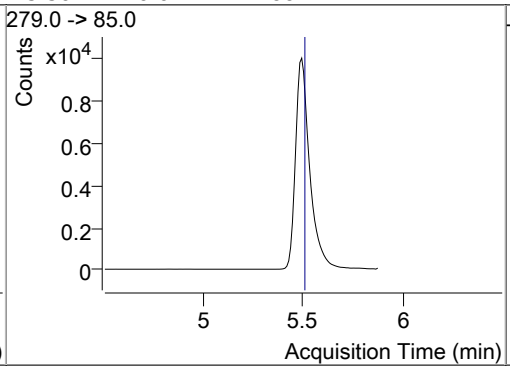


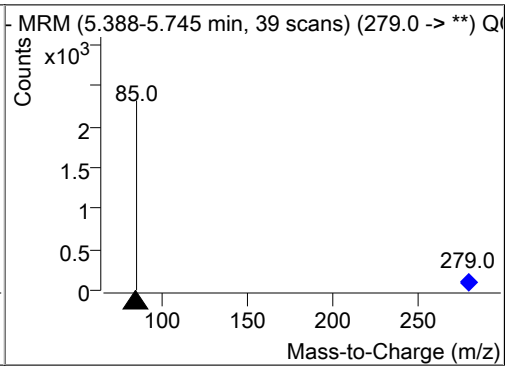




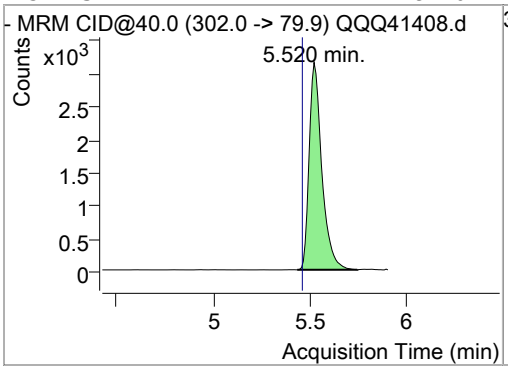
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	5.0038	5.50	-0.01	48872				

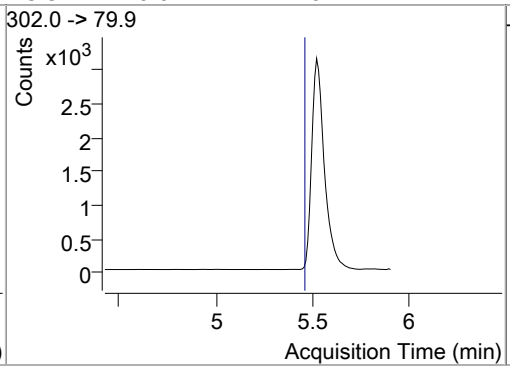


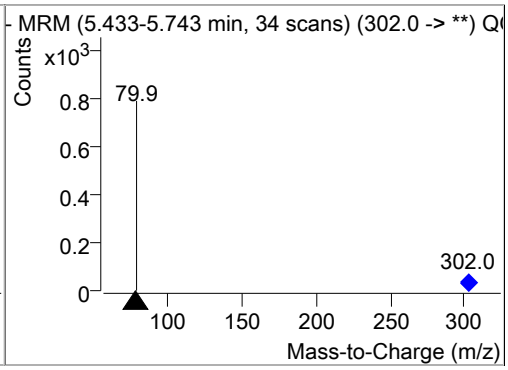




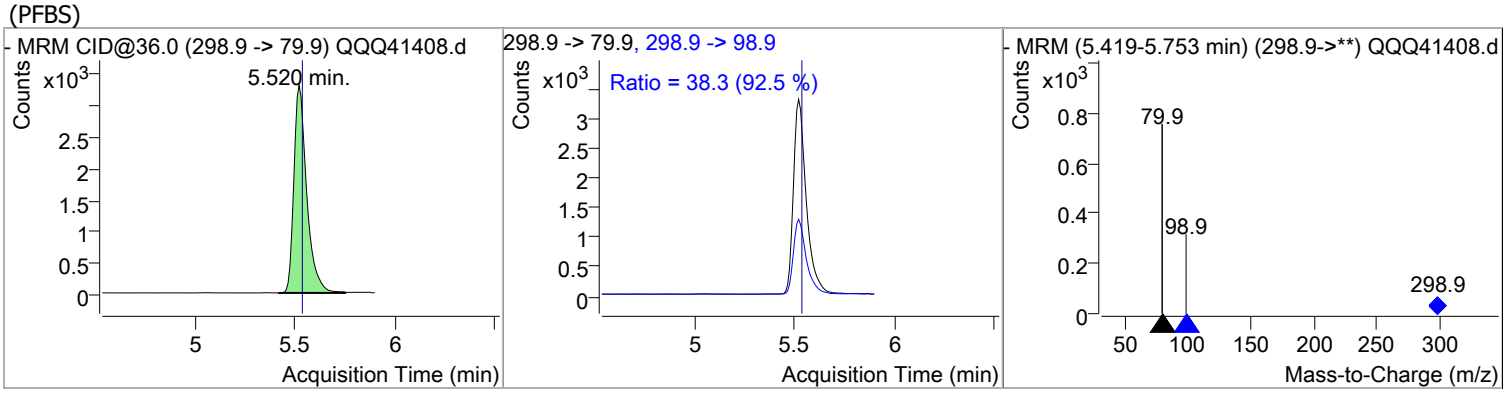
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	1.9176	5.52	-0.01	14228				



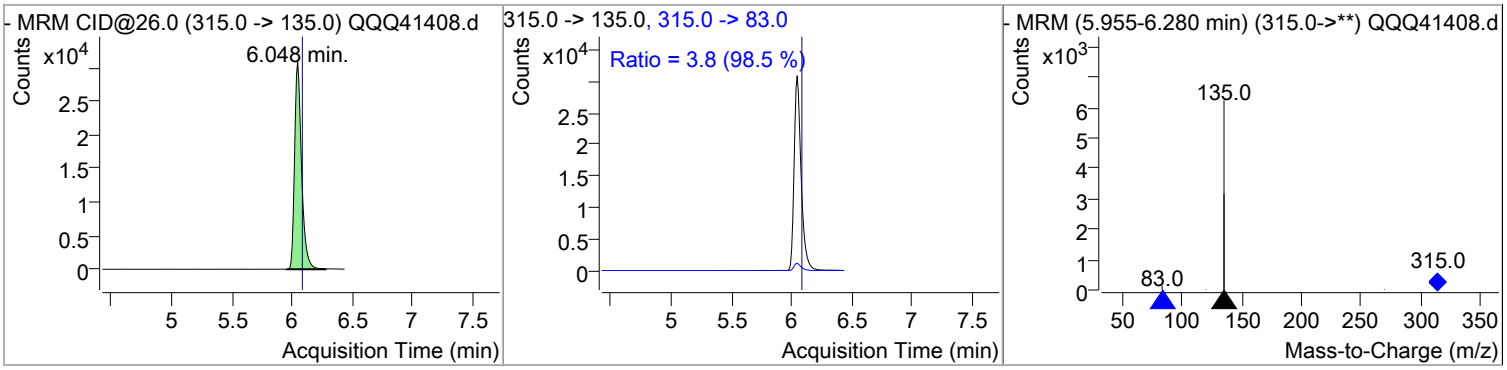




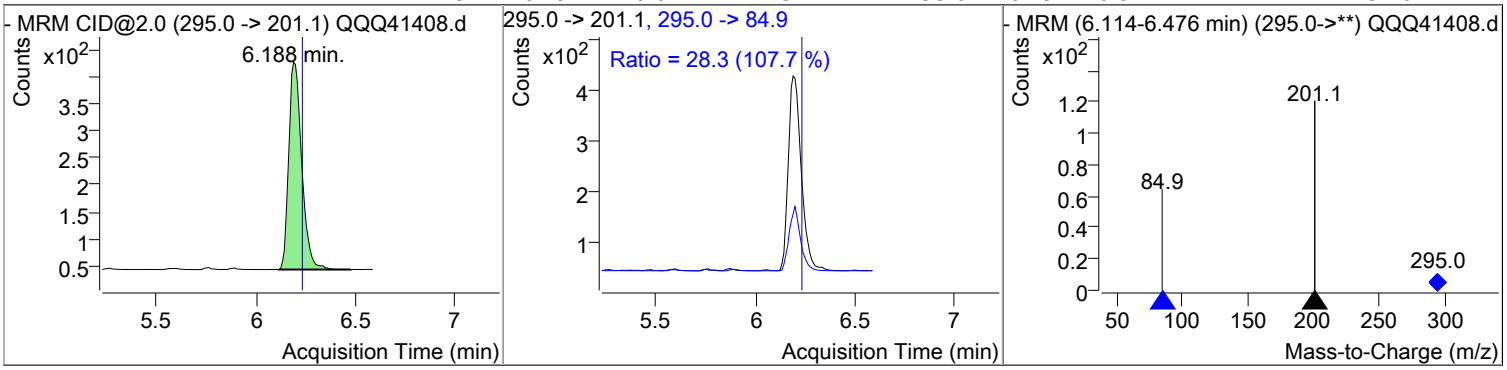
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.3573	5.52	-0.01	14741	298.9 -> 98.9	38.3	33.1	49.7



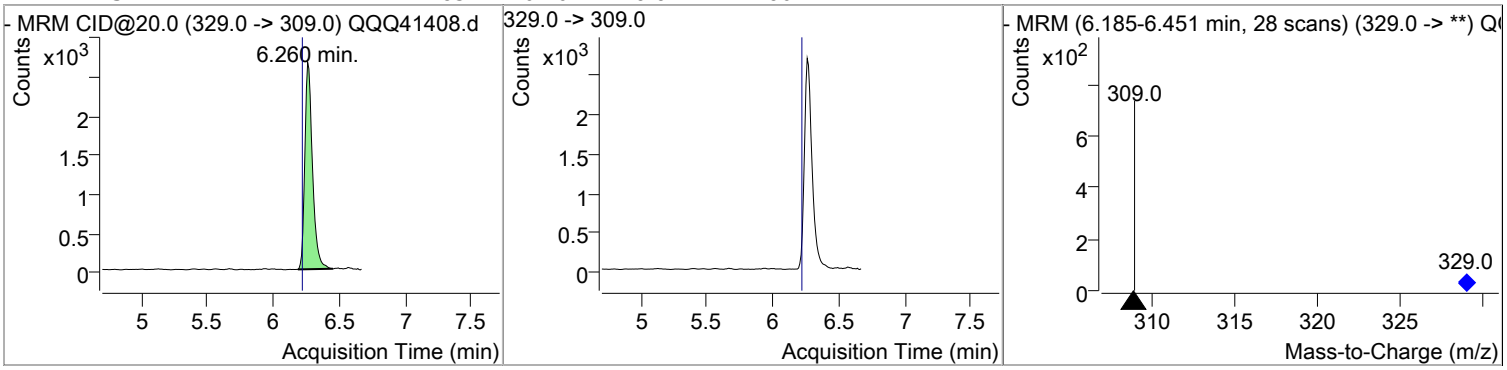
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	3.8610	6.05	-0.03	123529	315.0 -> 83.0	3.8	3.1	4.7



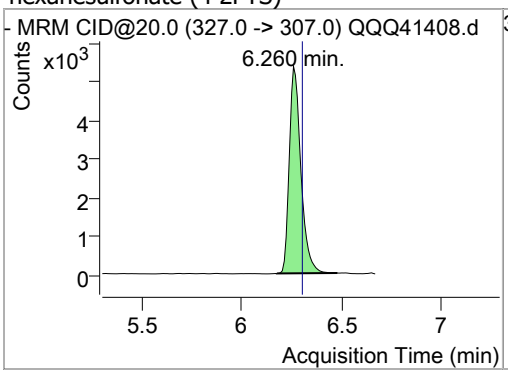
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	4.1145	6.19	-0.04	1757	295.0 -> 84.9	28.3	21.1	31.6

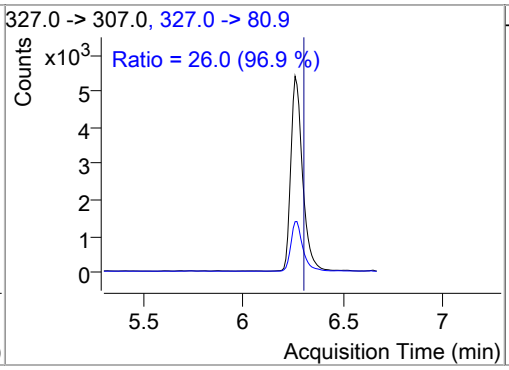


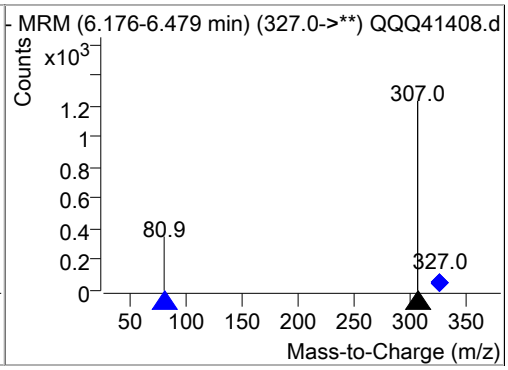
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	2.1483	6.26	-0.04	10641				



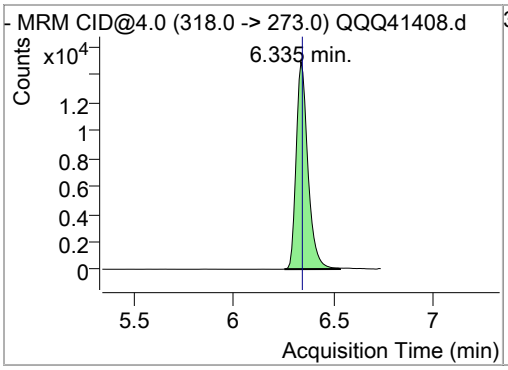
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	7.9987	6.26	-0.04	21575	327.0 -> 80.9	26.0	21.5	32.2

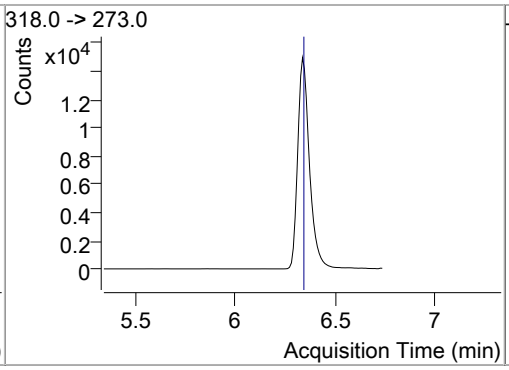


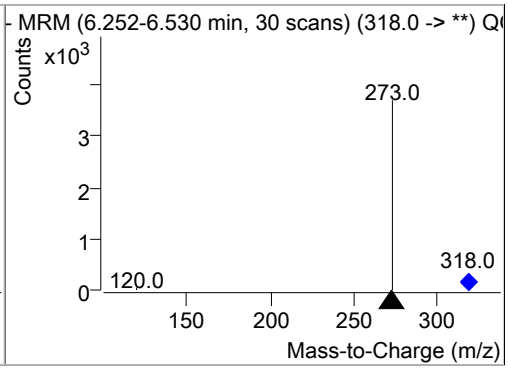




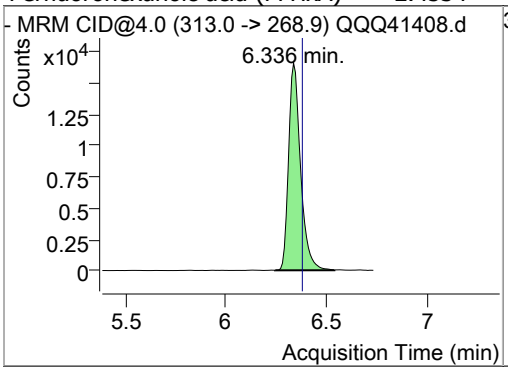
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.4875	6.33	-0.04	60738				

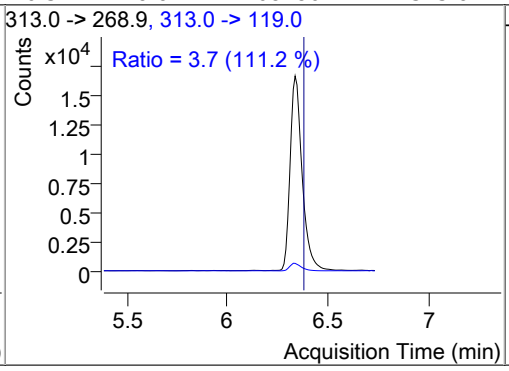


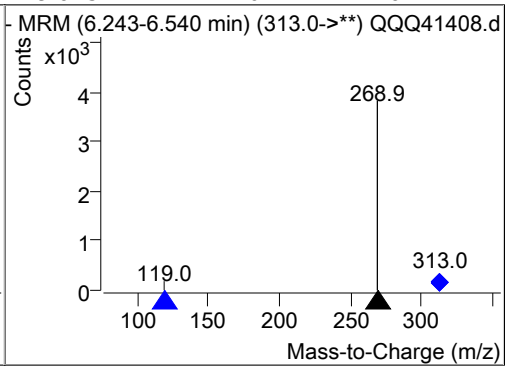




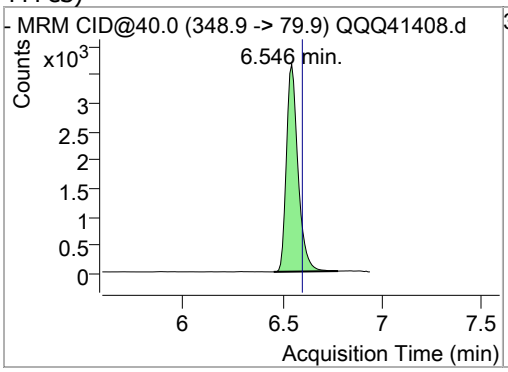
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	2.4534	6.34	-0.04	68786	313.0 -> 119.0	3.7	2.6	4.0

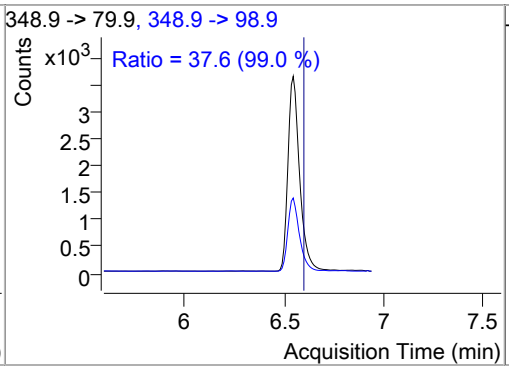


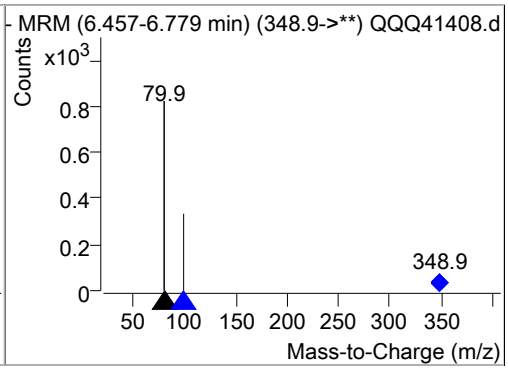




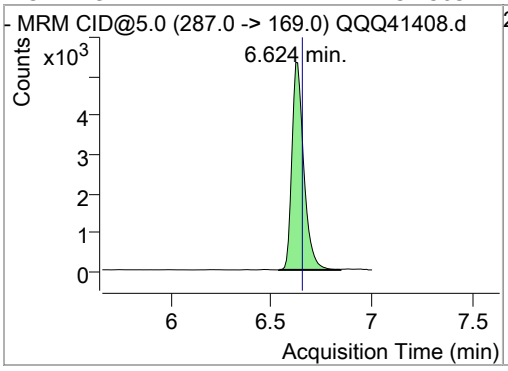
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	2.1663	6.55	-0.05	14658	348.9 -> 98.9	37.6	30.4	45.6

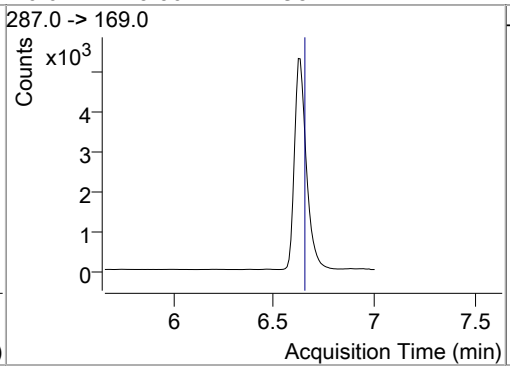


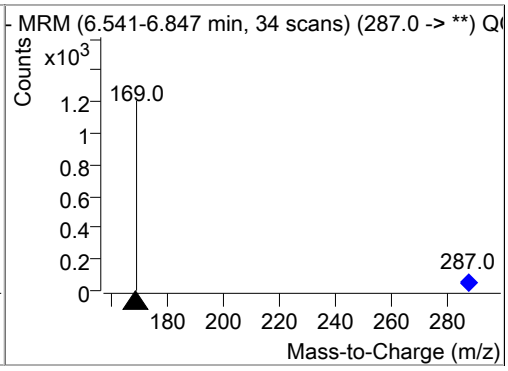




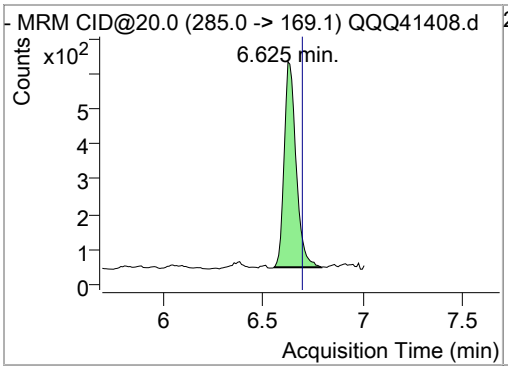
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	5.1503	6.62	-0.06	21982				

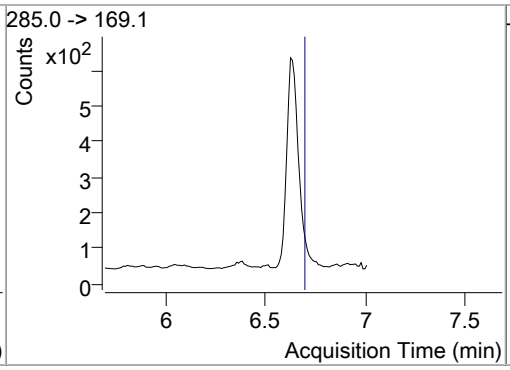


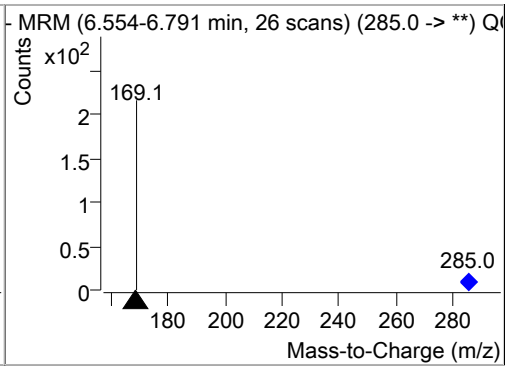




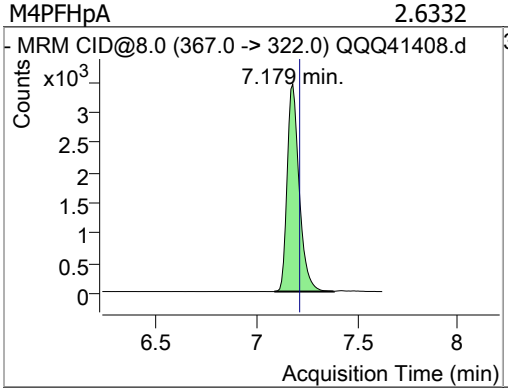
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	12.5601	6.62	-0.06	2430				

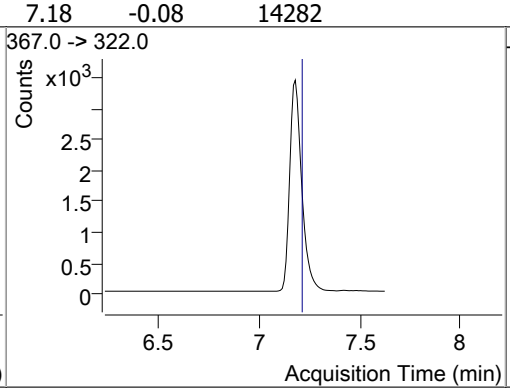


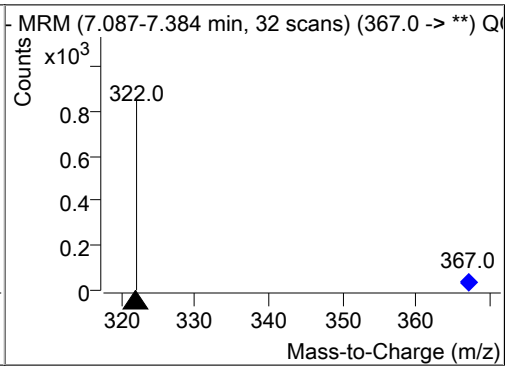




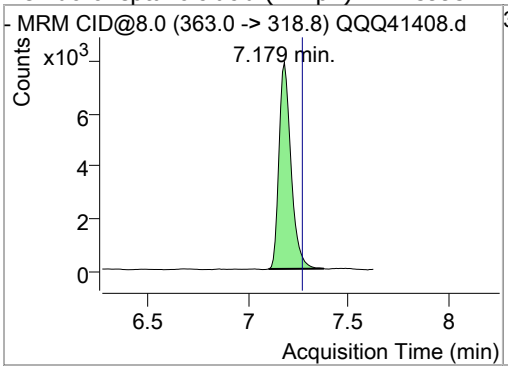
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.6332	7.18	-0.08	14282				

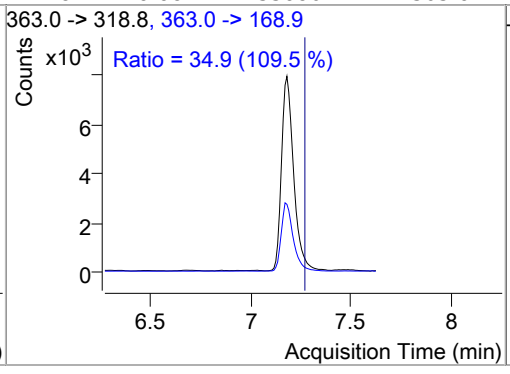


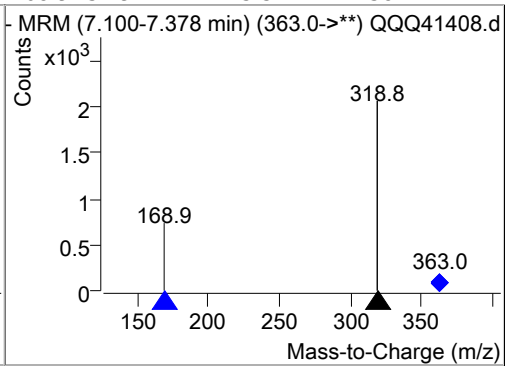




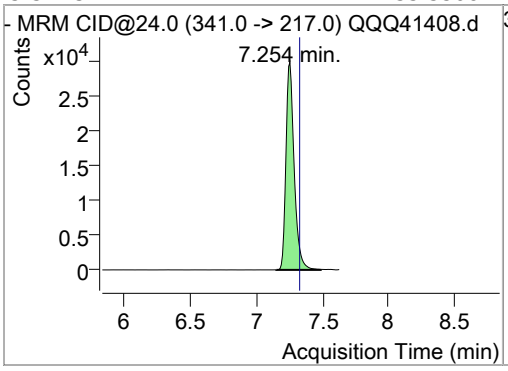
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	2.5995	7.18	-0.08	33086	363.0 -> 168.9	34.9	25.5	38.2

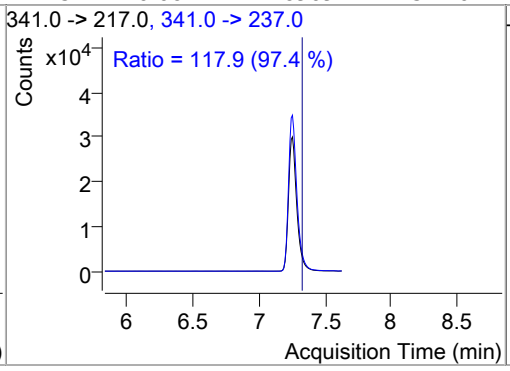


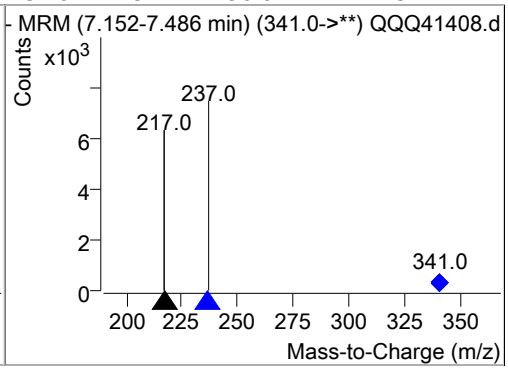




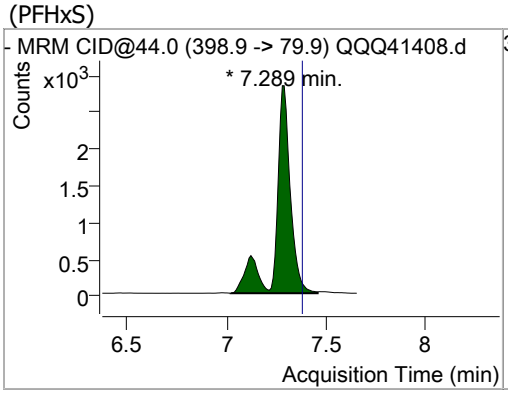
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	33.3508	7.25	-0.08	128909	341.0 -> 237.0	117.9	96.8	145.2

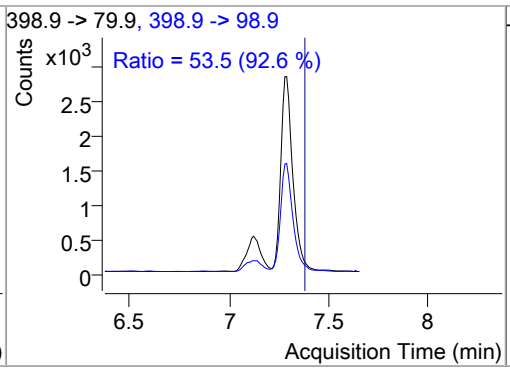


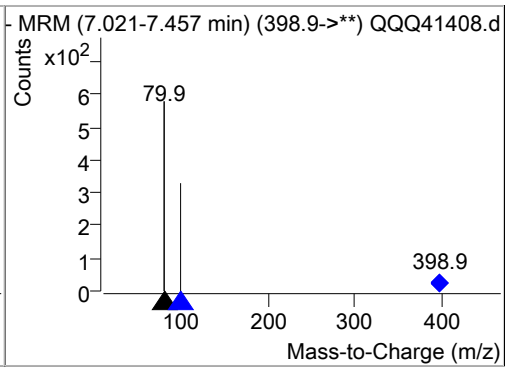




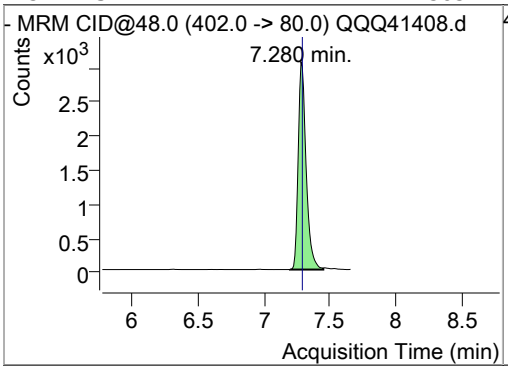
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	2.3195	7.29	-0.08	14386 (m)	398.9 -> 98.9	53.5	46.2	69.3

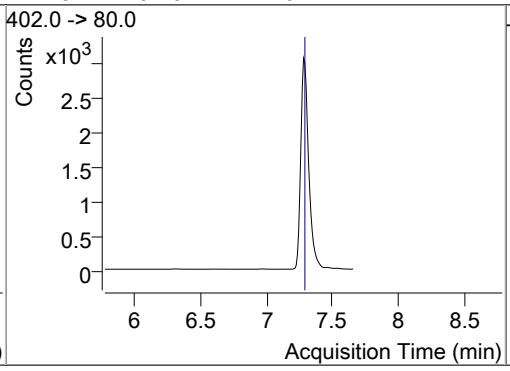


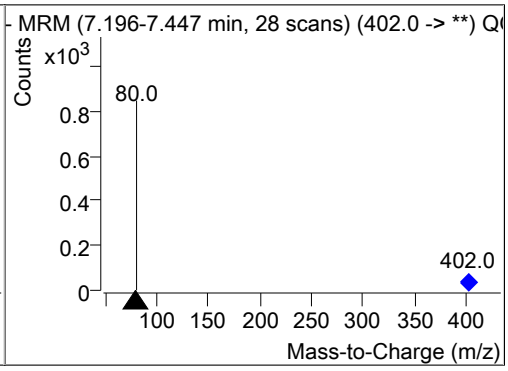




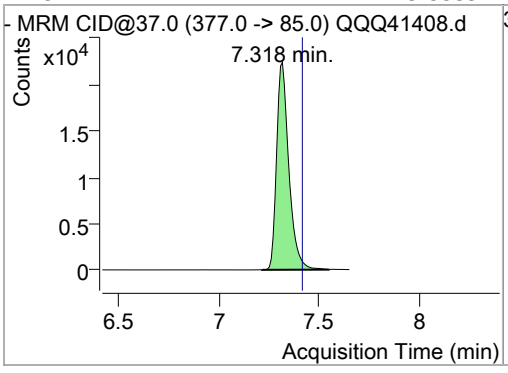
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.4383	7.28	-0.10	12621				

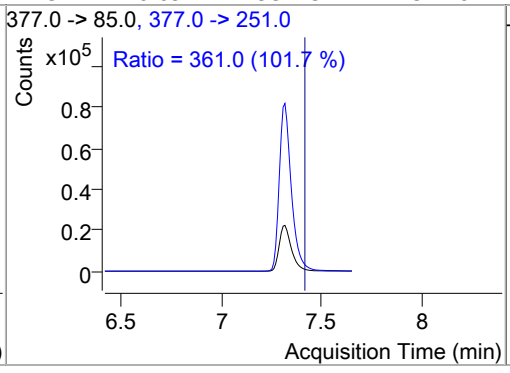


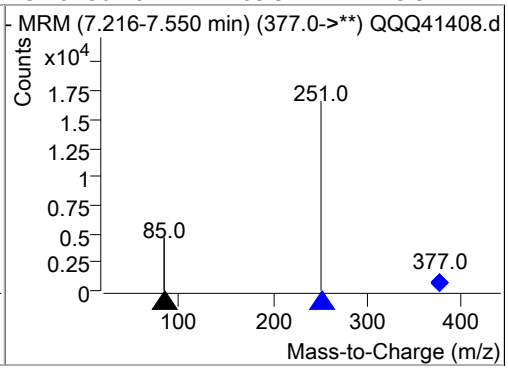




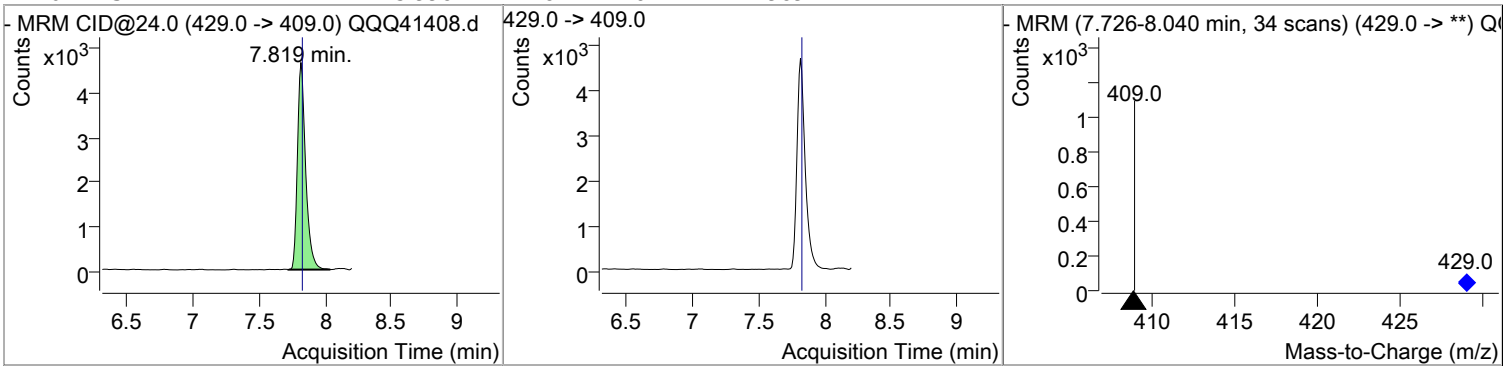
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	19.5359	7.32	-0.09	95125	377.0 -> 251.0	361.0	283.9	425.9



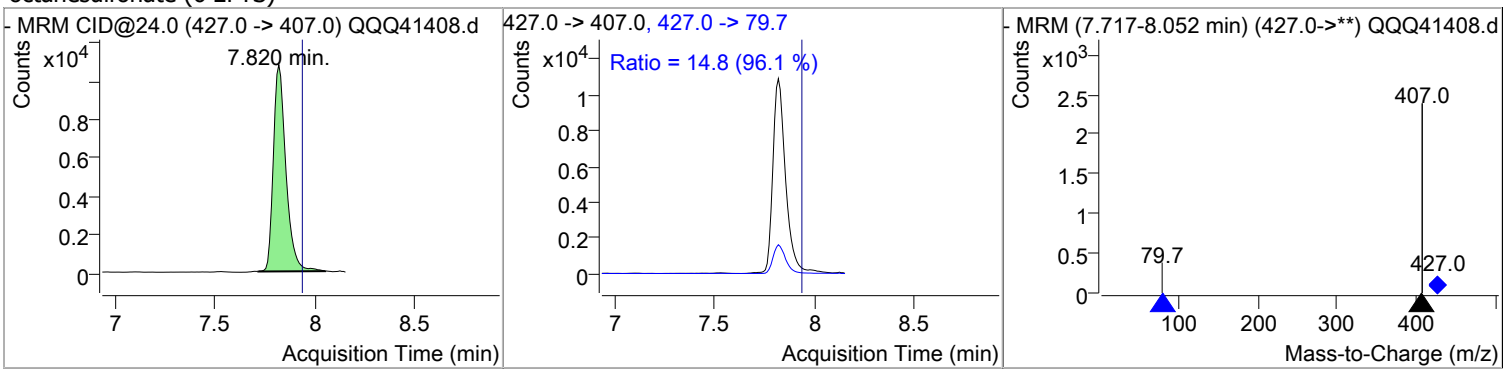




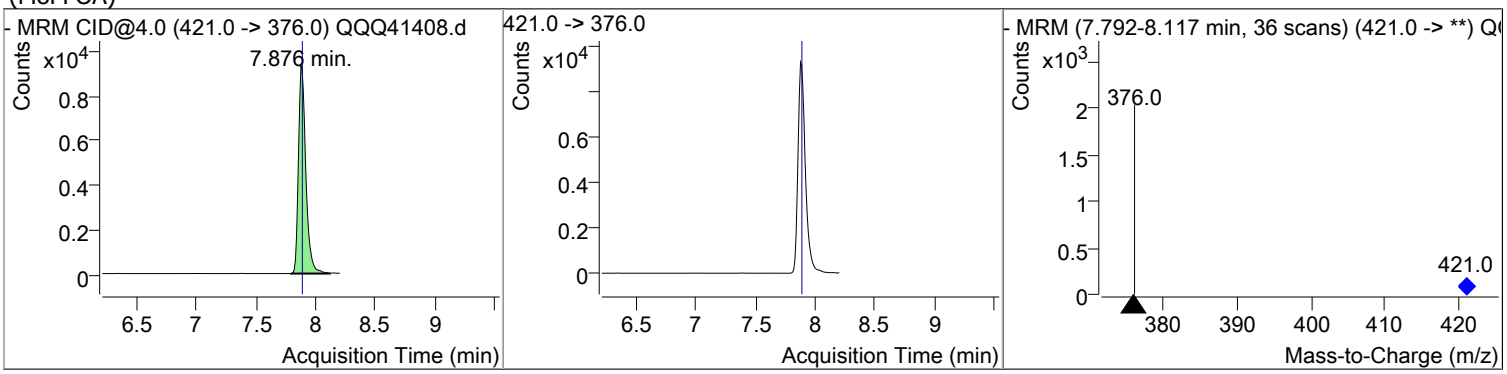
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.9981	7.82	-0.11	19897				



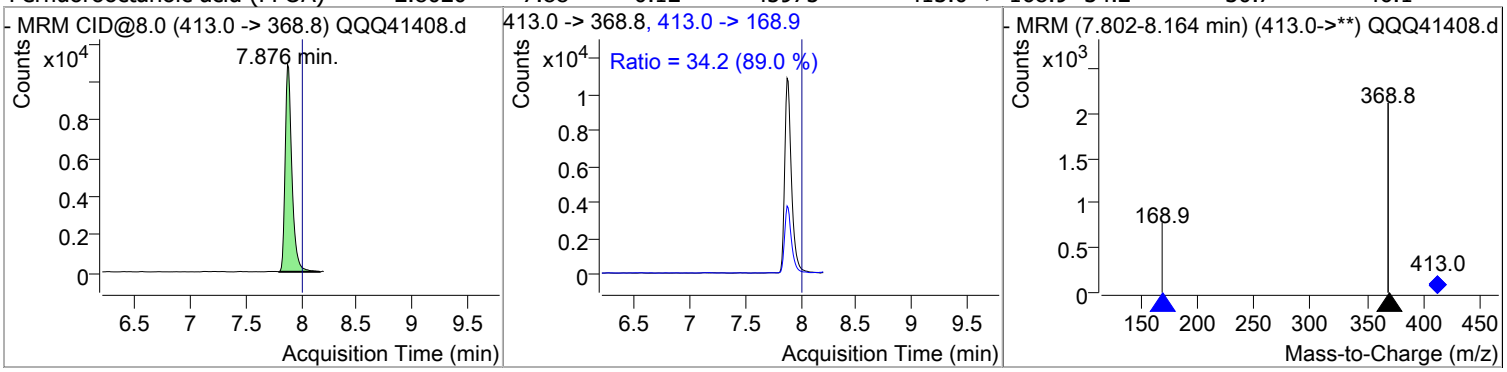
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.1920	7.82	-0.11	47338	427.0 -> 79.7	14.8	12.3	18.5



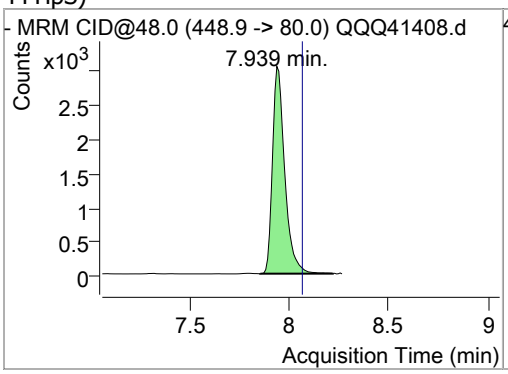
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4166	7.88	-0.12	40008				

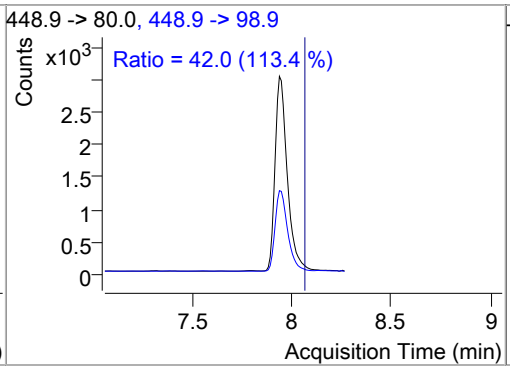


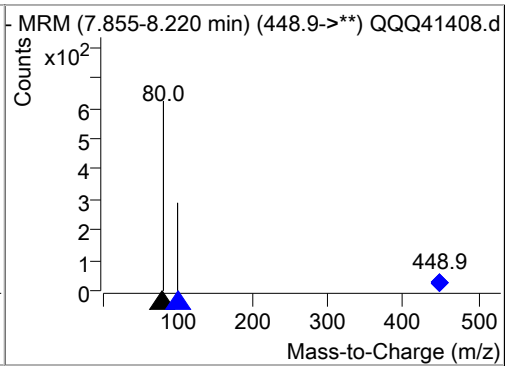
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	2.8020	7.88	-0.12	45975	413.0 -> 168.9	34.2	30.7	46.1



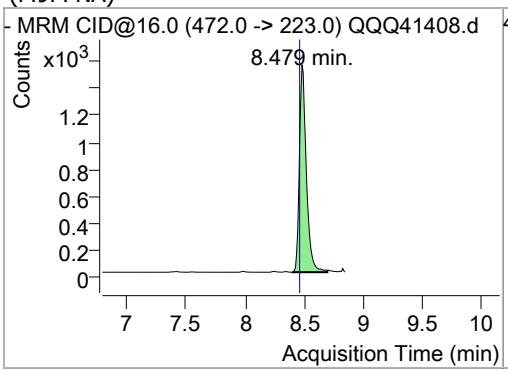
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	2.1860	7.94	-0.12	12949	448.9 -> 98.9	42.0	29.6	44.4

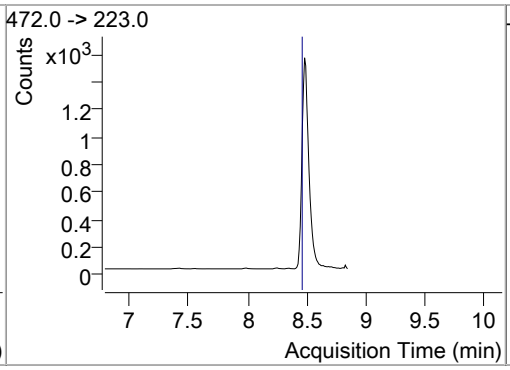


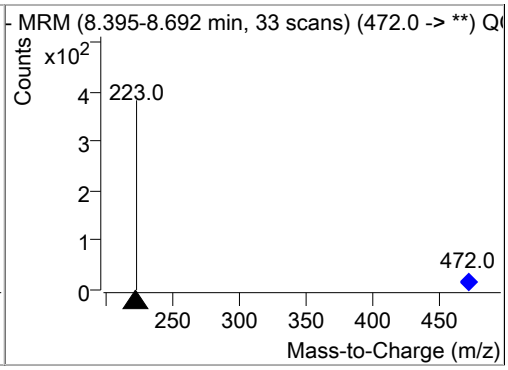




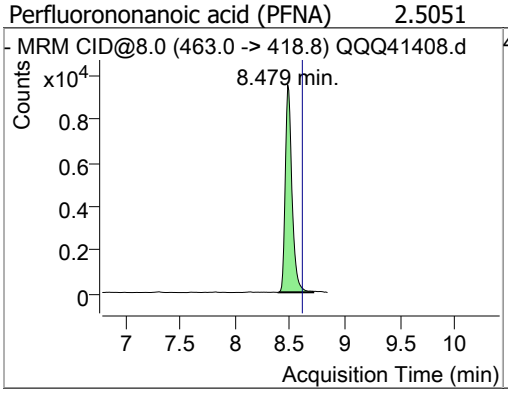
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2238	8.48	-0.11	6252				

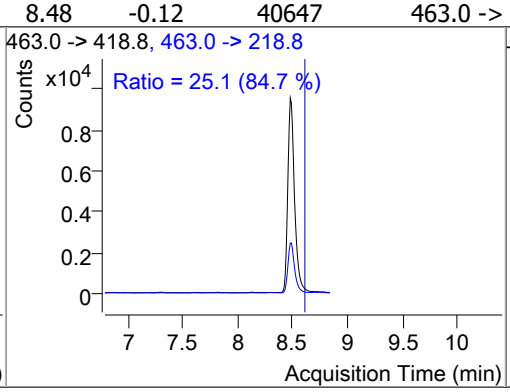


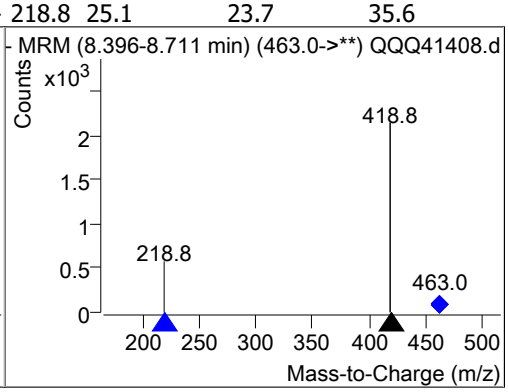




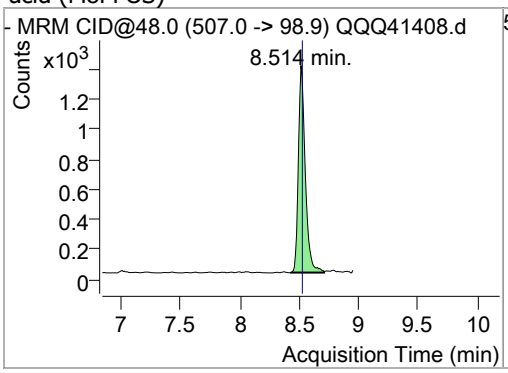
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	2.5051	8.48	-0.12	40647	463.0 -> 218.8	25.1	23.7	35.6

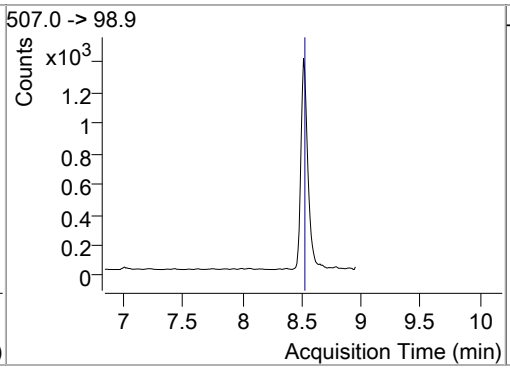


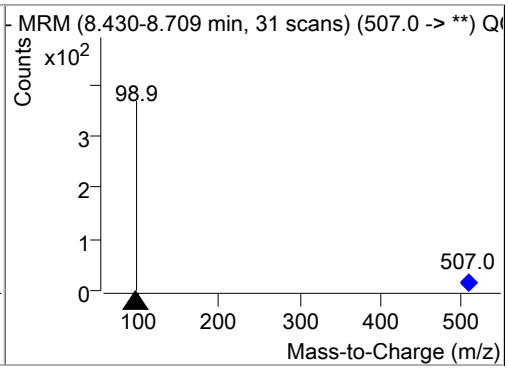




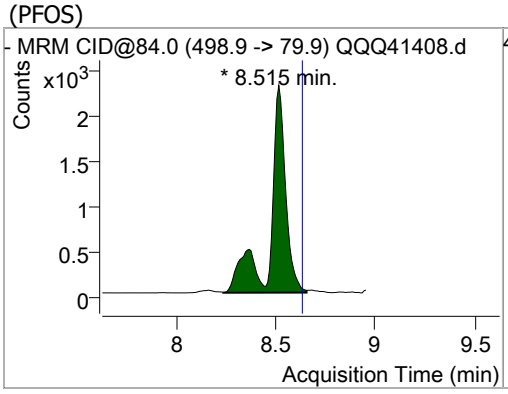
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.3662	8.51	-0.11	5589				

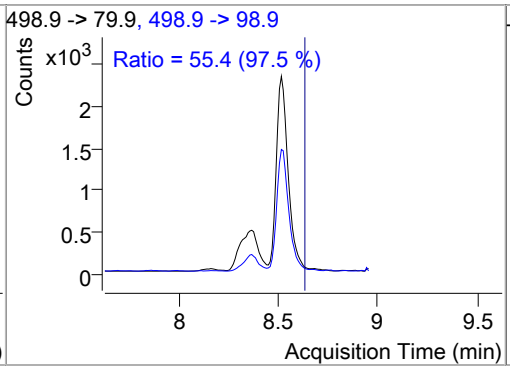


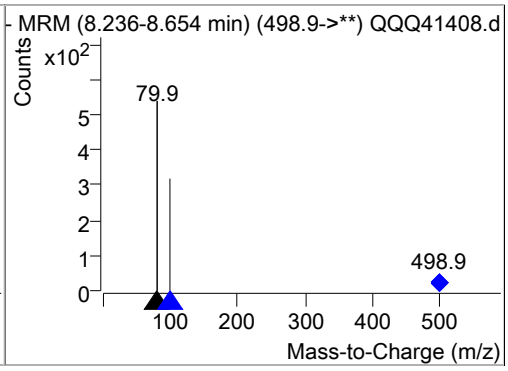




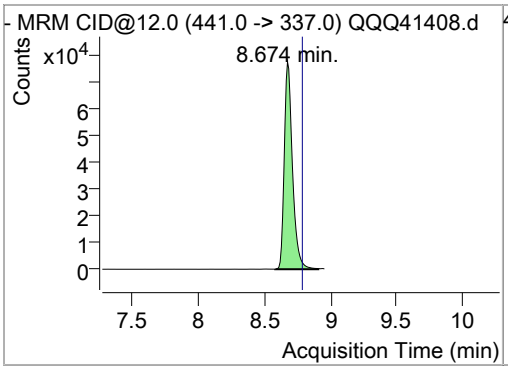
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.3894	8.52	-0.11	12663 (m)	498.9 -> 98.9	55.4	45.5	68.3

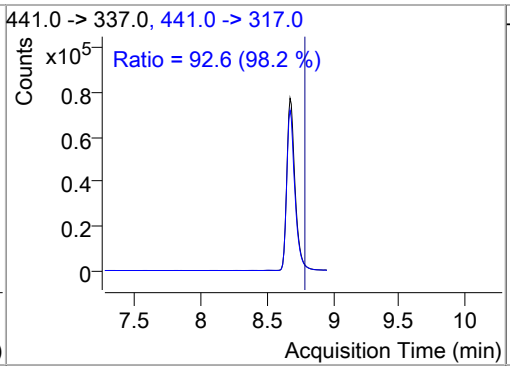


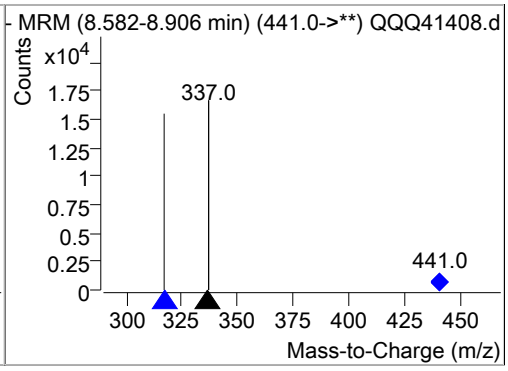




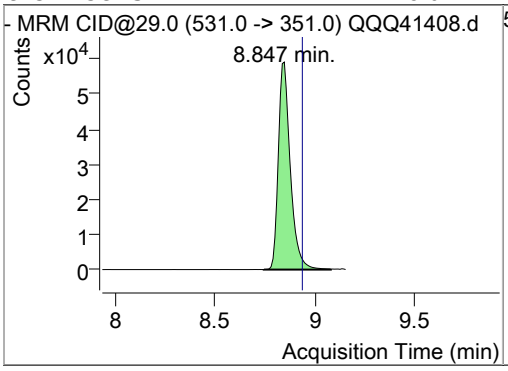
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	64.6041	8.67	-0.10	332207	441.0 -> 317.0	92.6	75.4	113.1

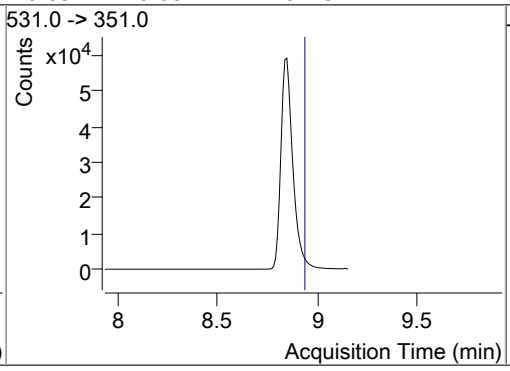


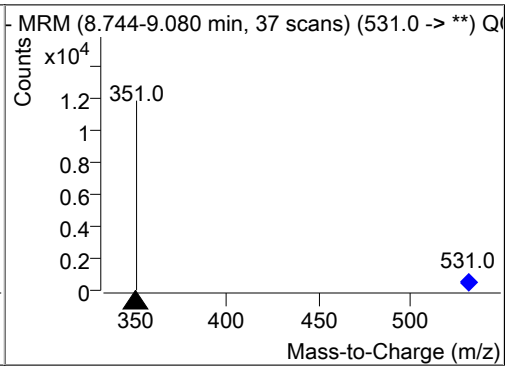




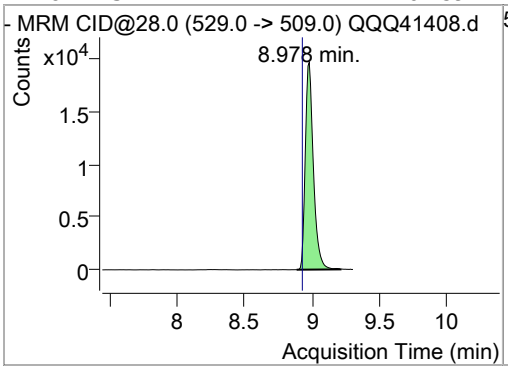
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	18.6121	8.85	-0.08	246415				

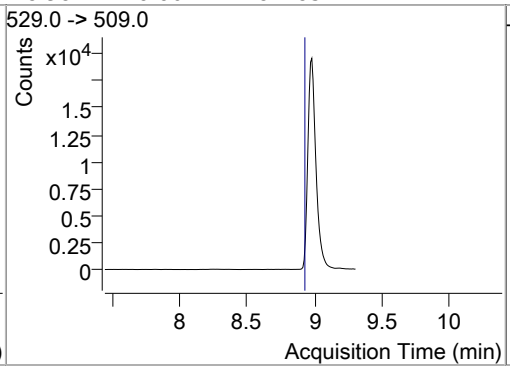


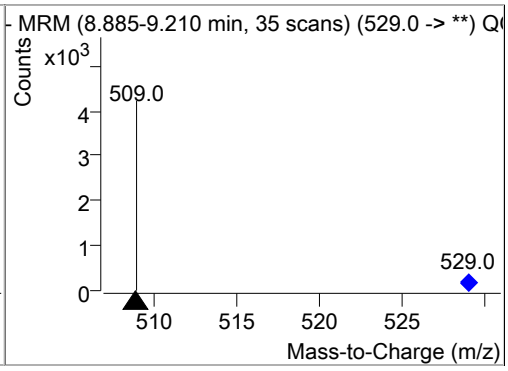




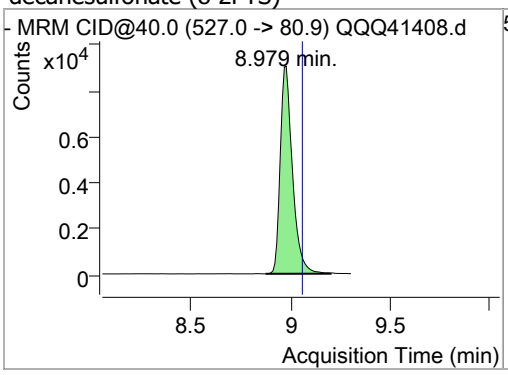
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	10.4597	8.98	-0.06	81485				

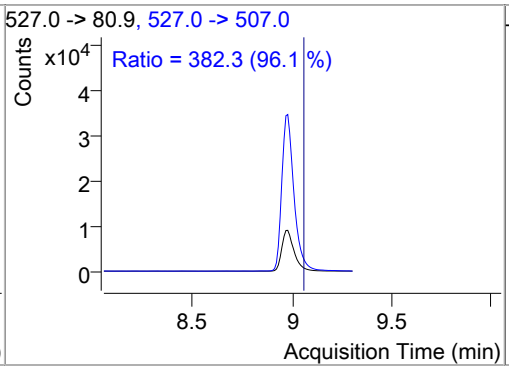


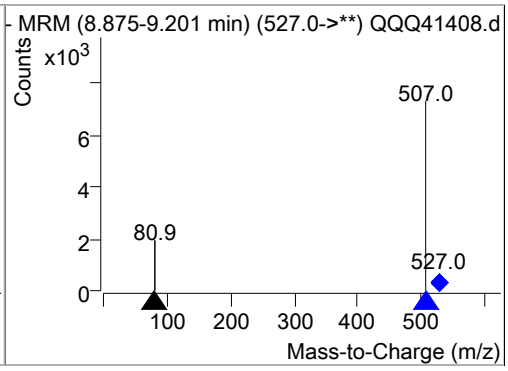




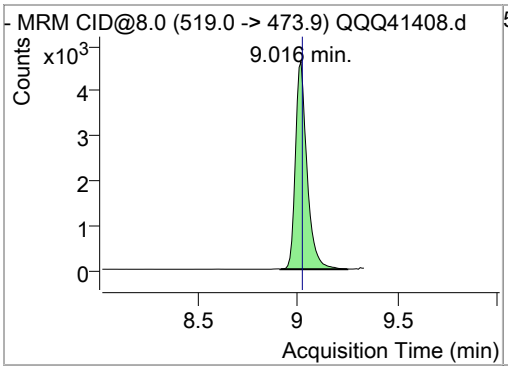
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.6203	8.98	-0.07	38423	527.0 -> 507.0	382.3	318.3	477.4

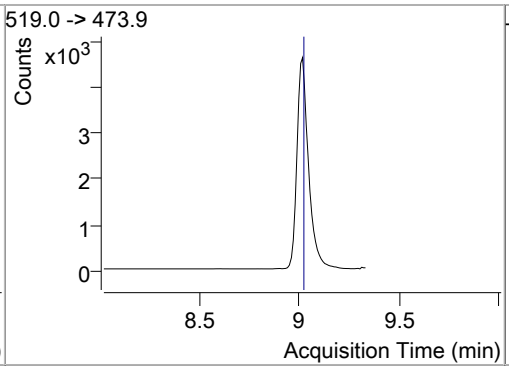


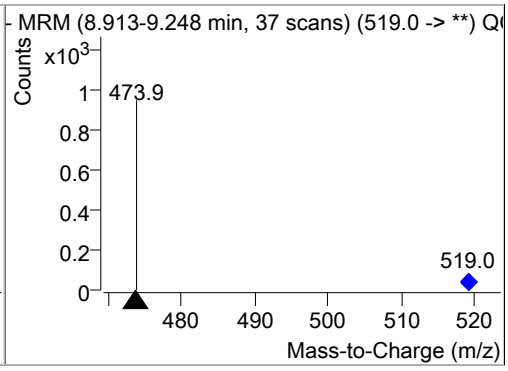




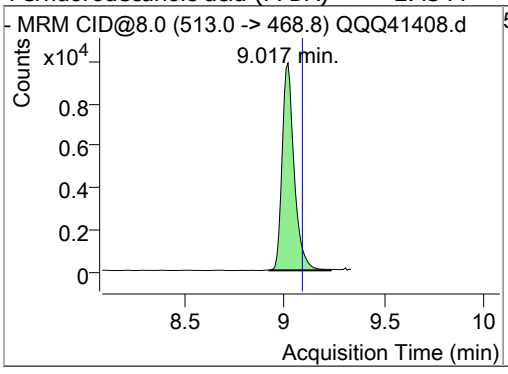
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2605	9.02	-0.07	18614				

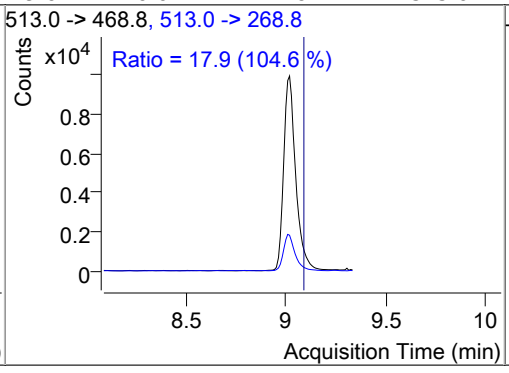


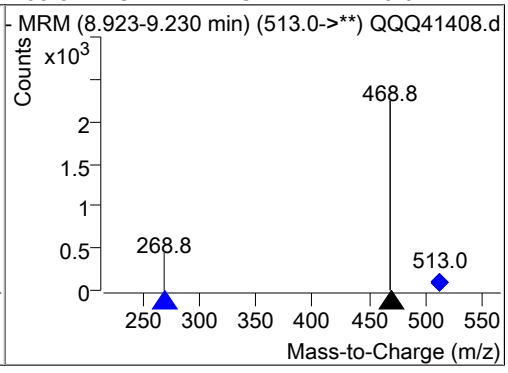




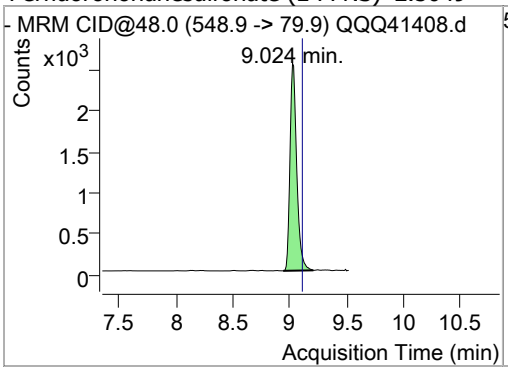
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	2.4344	9.02	-0.07	41481	513.0 -> 268.8	17.9	13.7	20.6

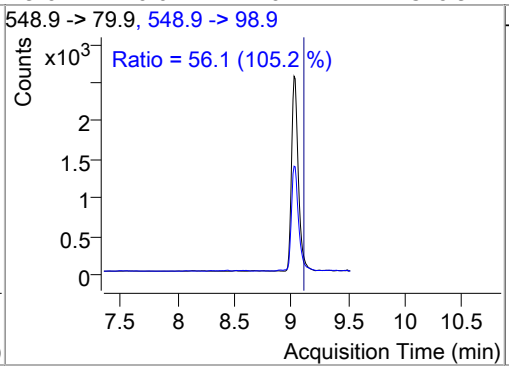


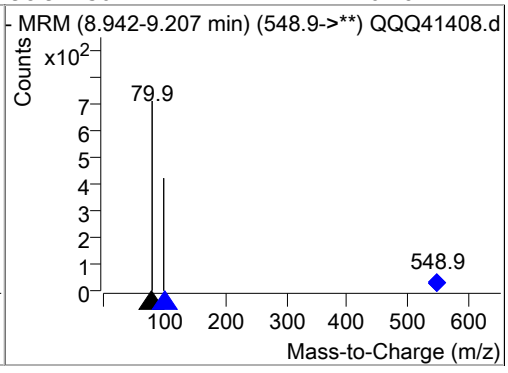




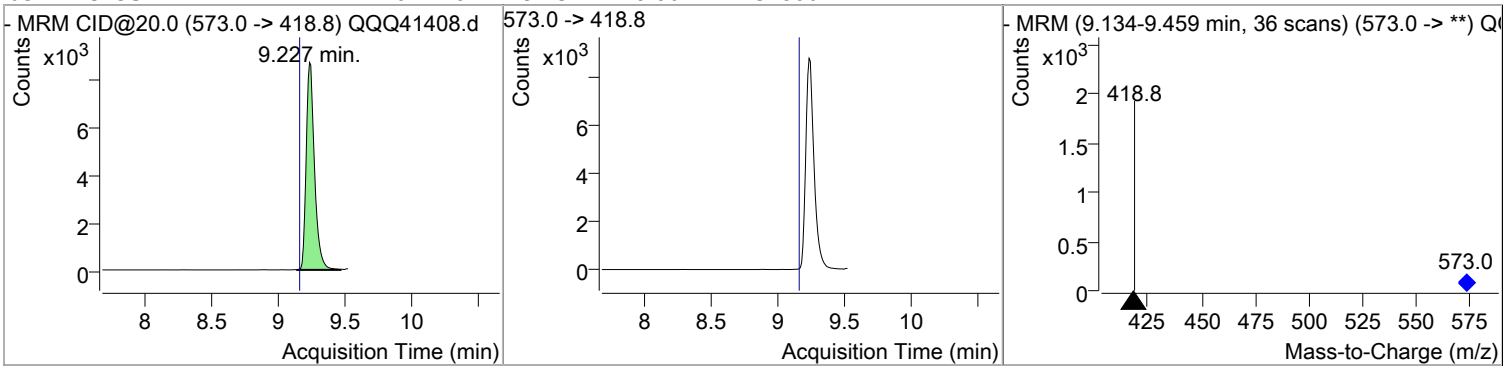
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	2.5049	9.02	-0.07	10417	548.9 -> 98.9	56.1	42.7	64.0



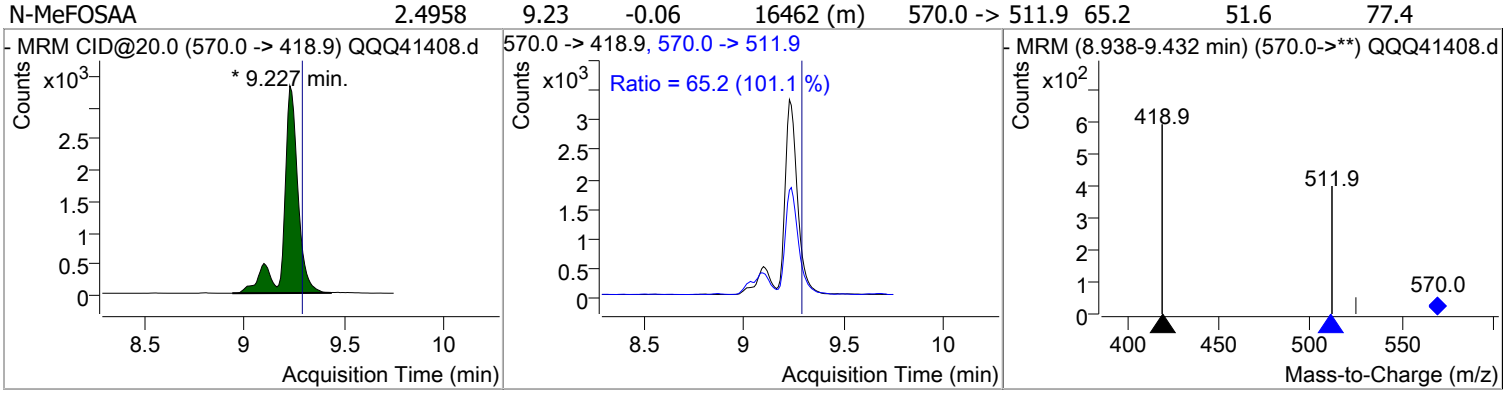




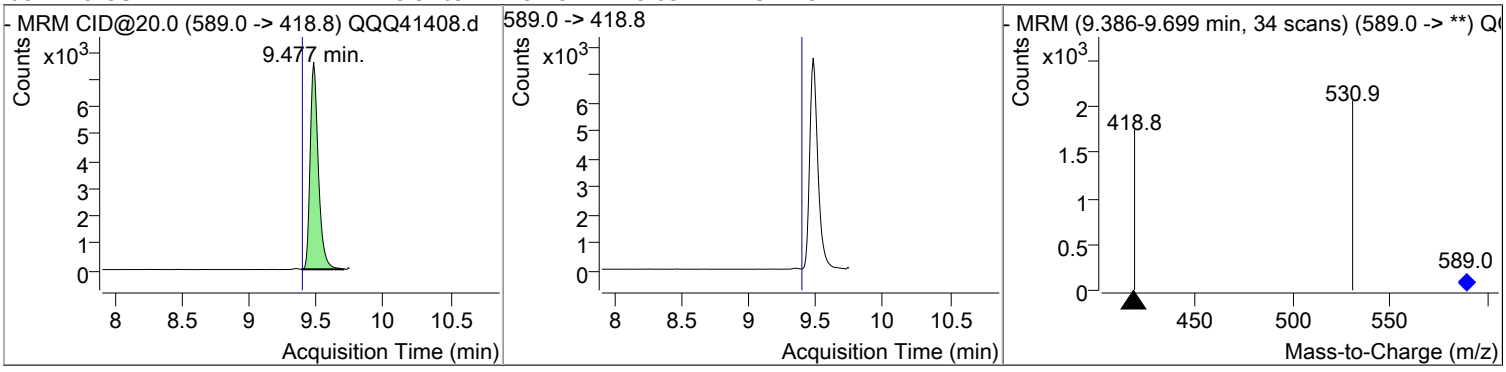
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	6.2220	9.23	-0.06	37866				



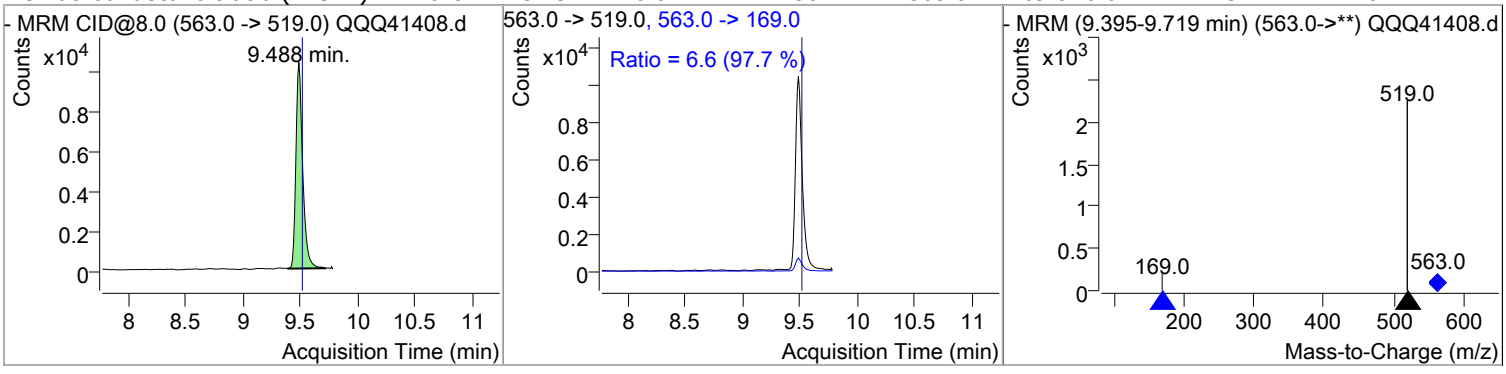
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	2.4958	9.23	-0.06	16462 (m)	570.0 -> 511.9	65.2	51.6	77.4



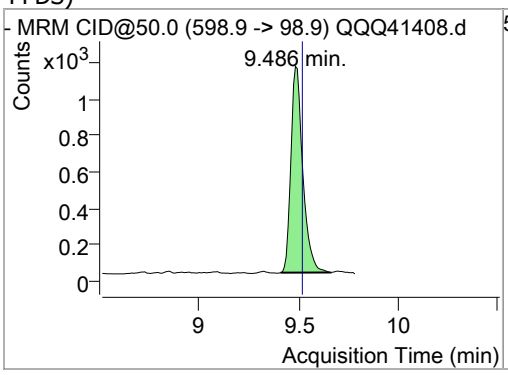
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.9769	9.48	-0.03	32123				

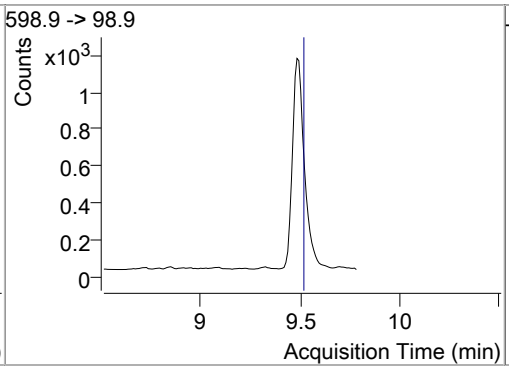


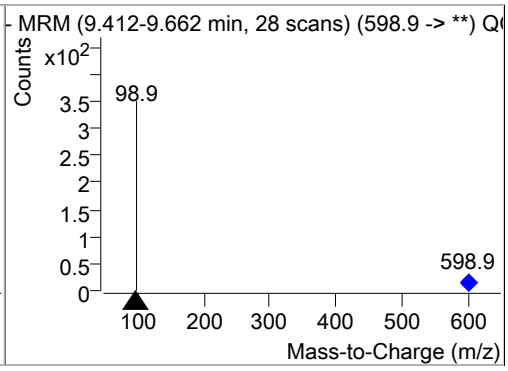
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.7629	9.49	-0.02	42750	563.0 -> 169.0	6.6	5.4	8.1



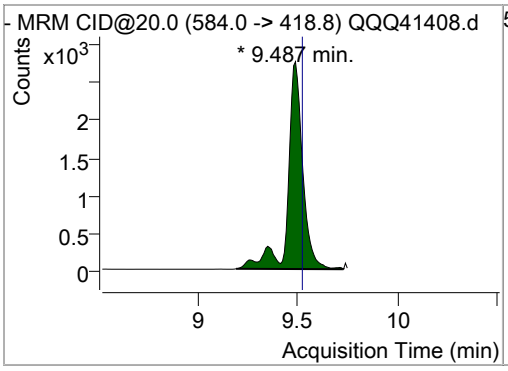
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.3372	9.49	-0.03	4695				

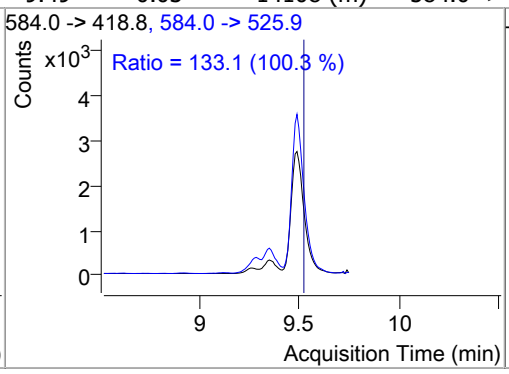


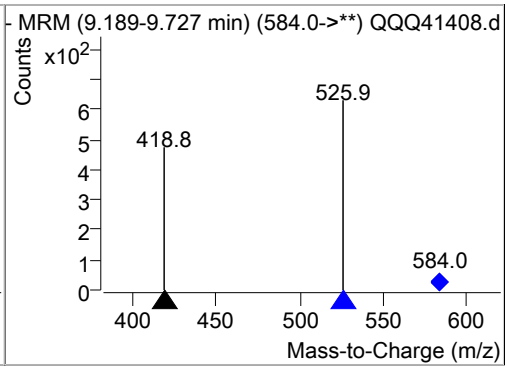




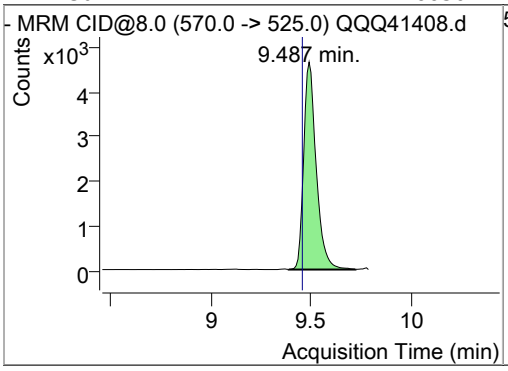
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	2.5465	9.49	-0.03	14108 (m)	584.0 -> 525.9	133.1	106.2	159.3

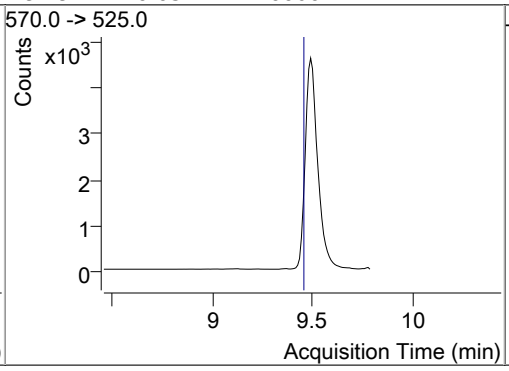


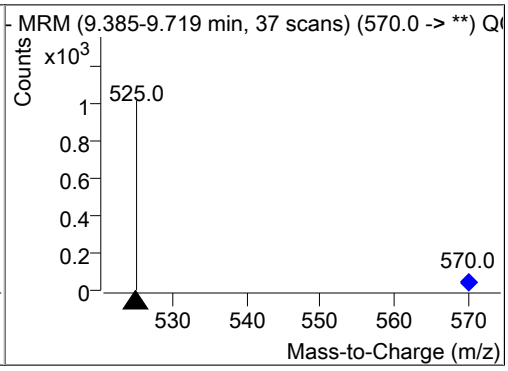




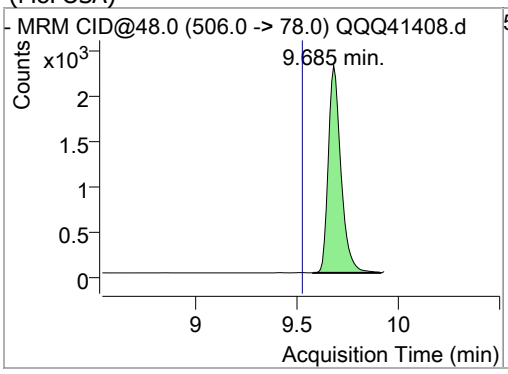
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.0036	9.49	-0.03	20060				

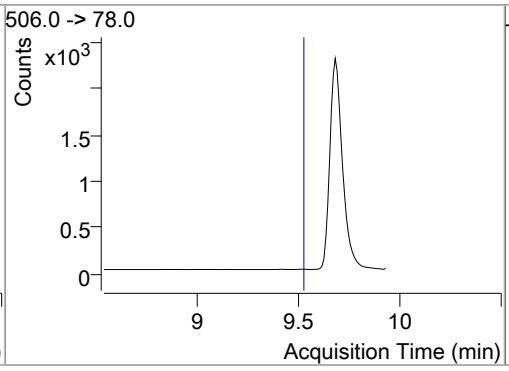


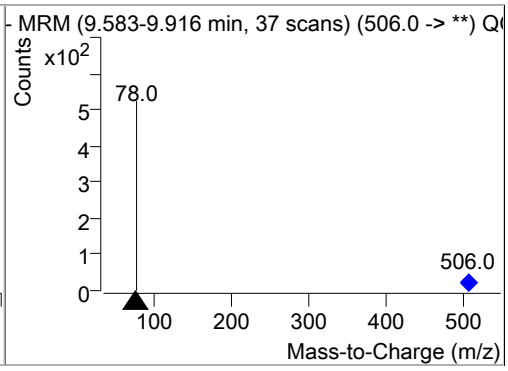




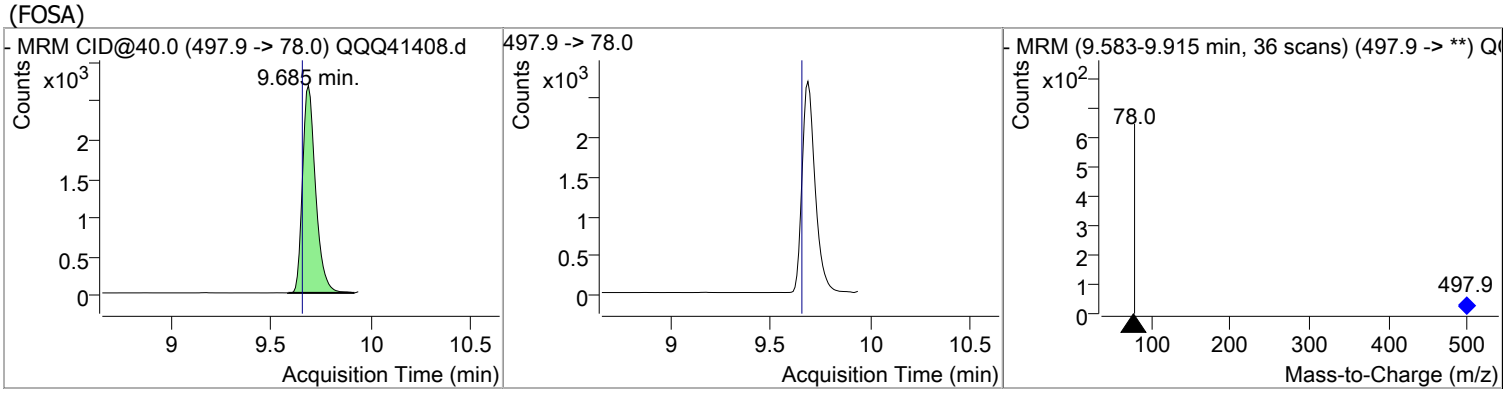
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	1.2834	9.68	0.04	9932				



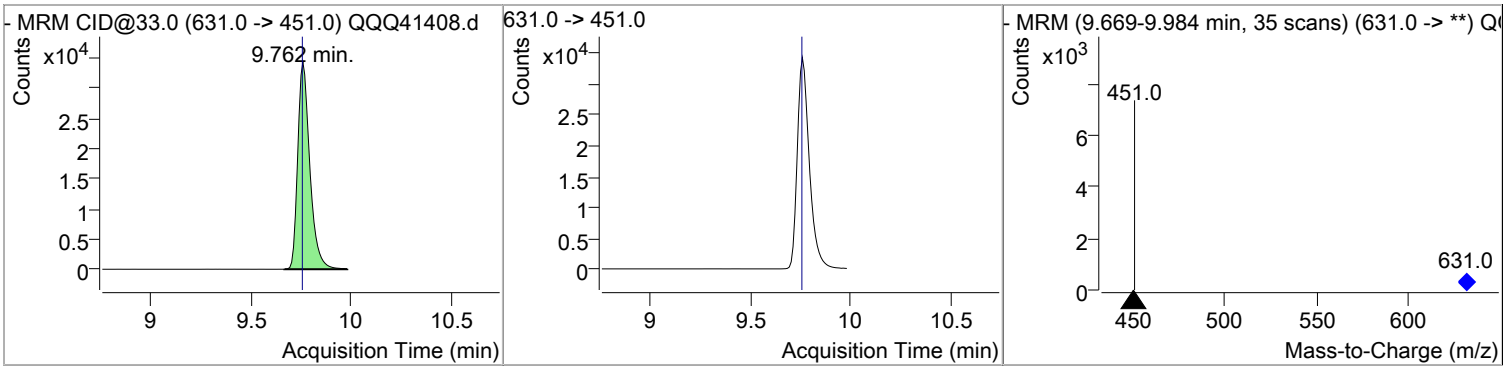




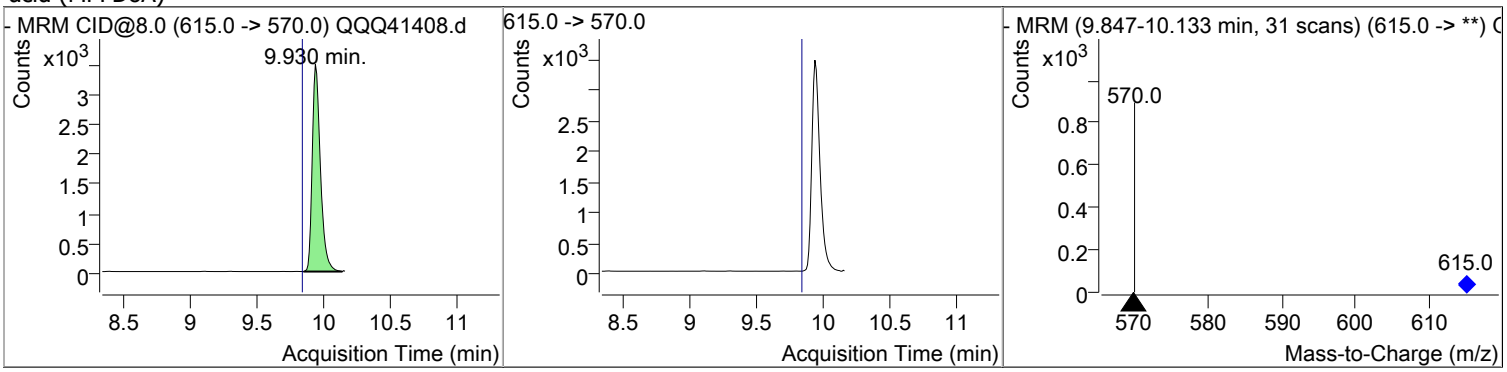
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	2.1259	9.69	0.04	12062				



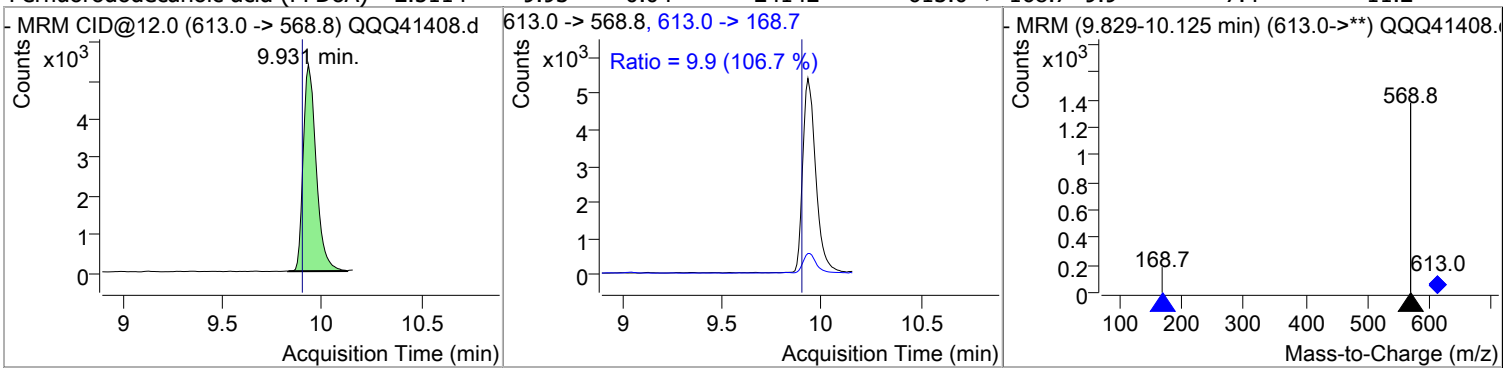
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	15.6202	9.76	0.01	143665				



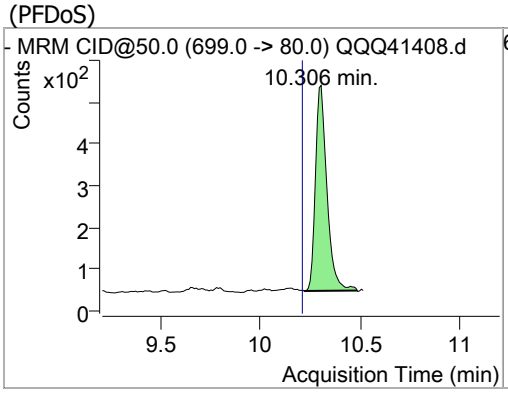
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	0.8403	9.93	0.04	14765				

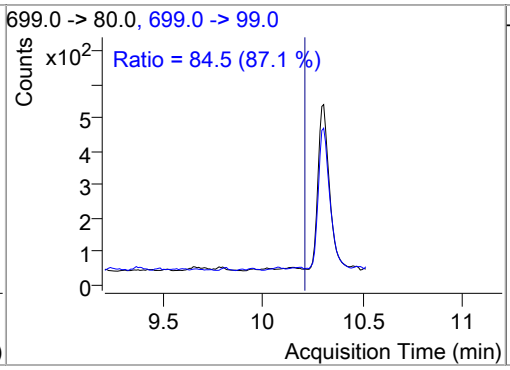


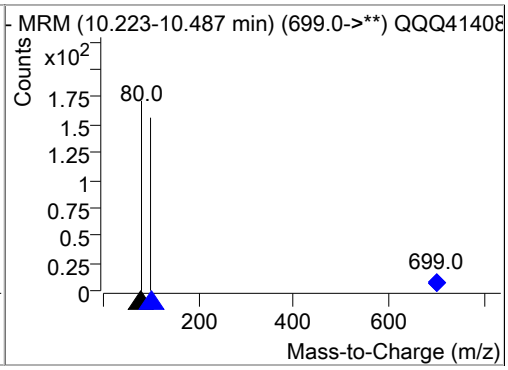
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	2.5114	9.93	0.04	24142	613.0 -> 168.7	9.9	7.4	11.2



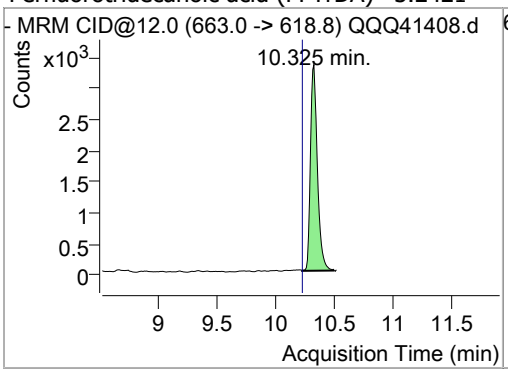
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	1.9370	10.31	0.10	1980	699.0 -> 99.0	84.5	77.6	116.4

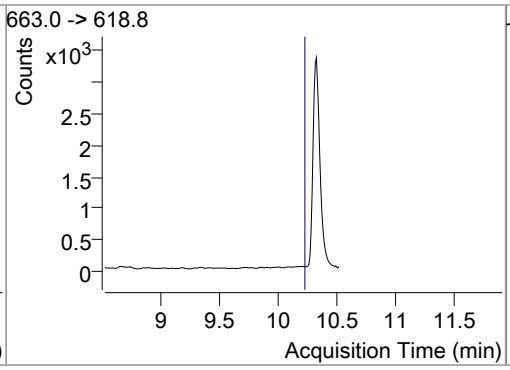


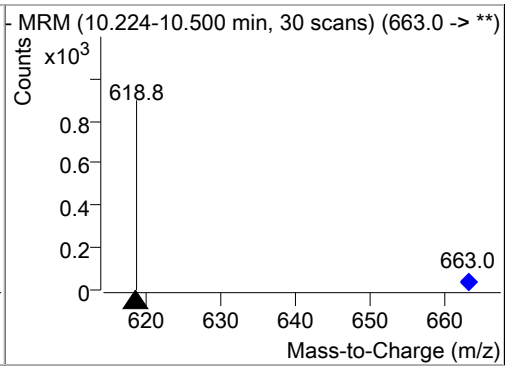




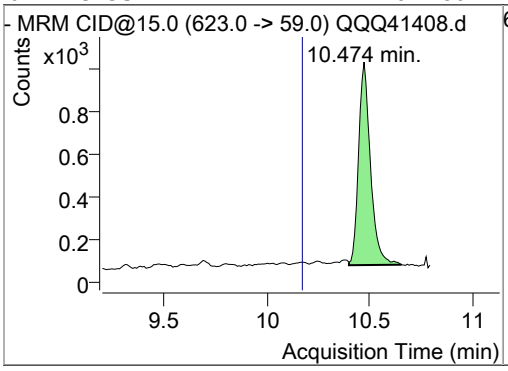
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	3.2421	10.32	0.11	13730				

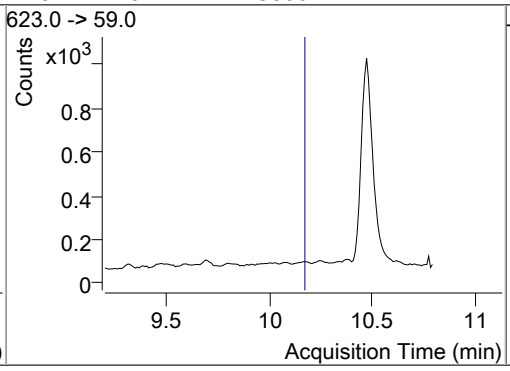


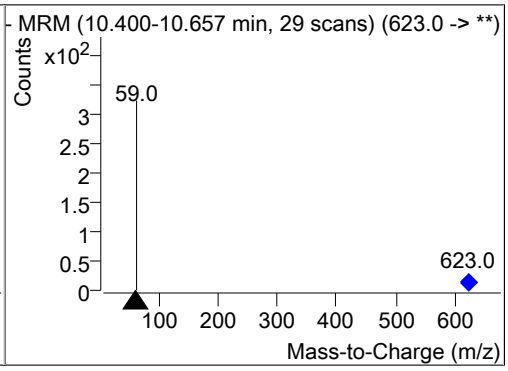




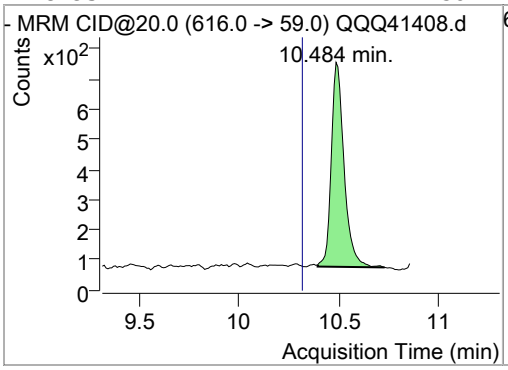
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	6.1286	10.47	0.17	3806				

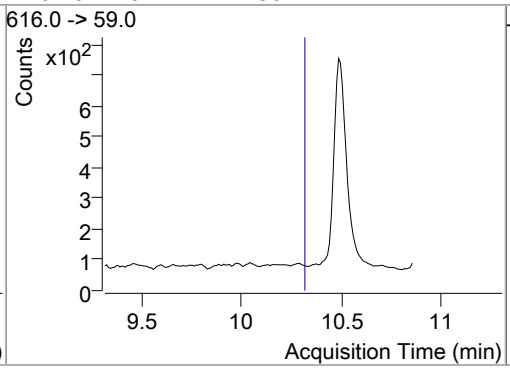


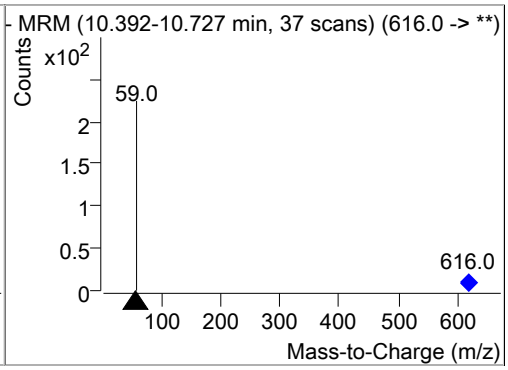




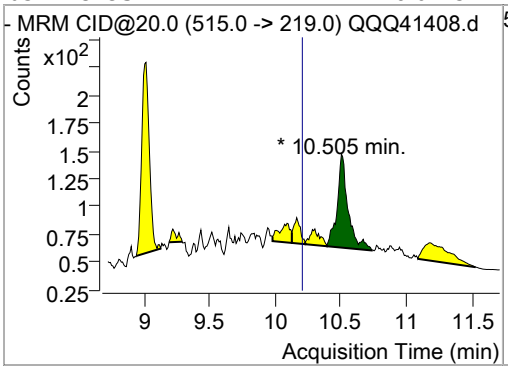
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	24.1384	10.48	0.17	3012				

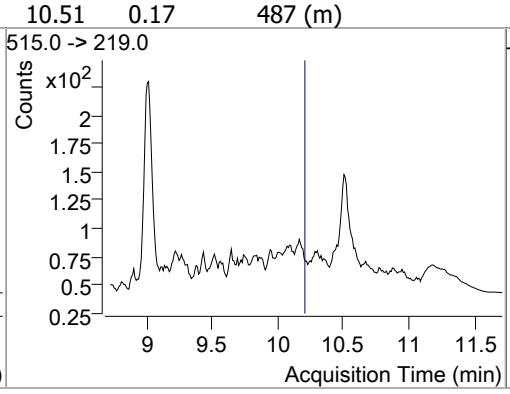


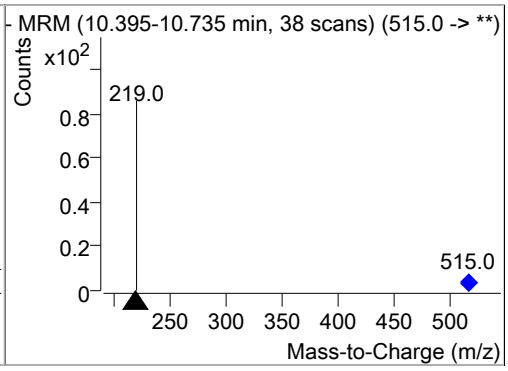




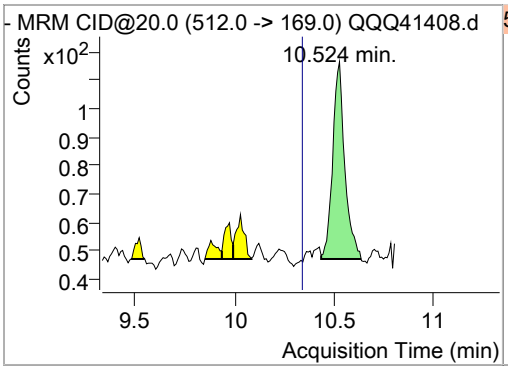
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	0.6225	10.51	0.17	487 (m)				

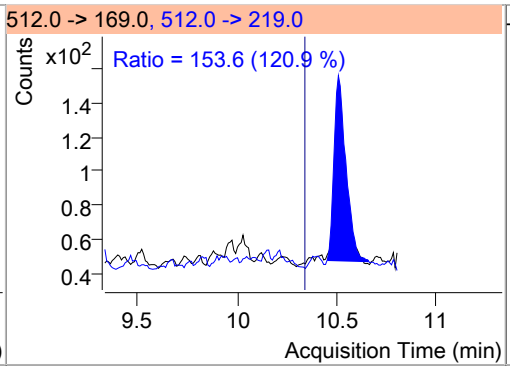


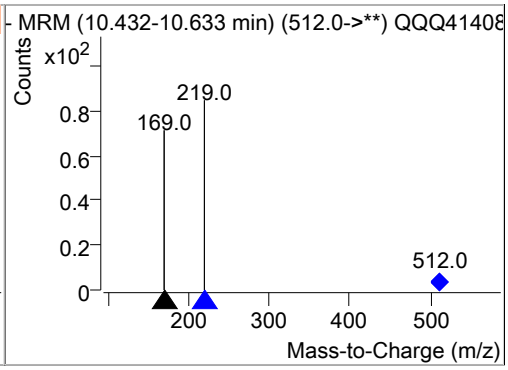




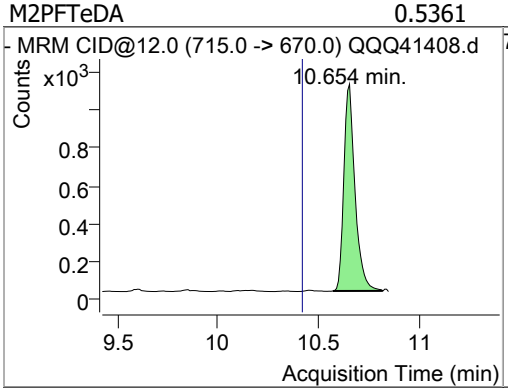
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	1.8208	10.52	0.19	292	512.0 -> 219.0	153.6	101.6	152.5

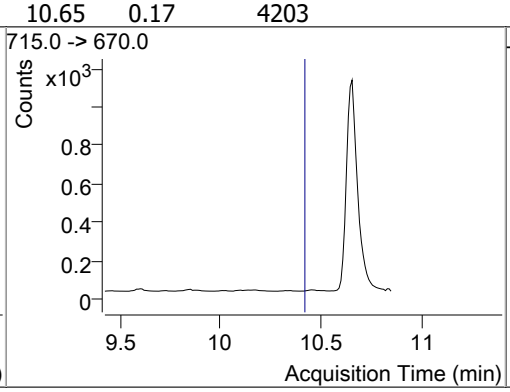


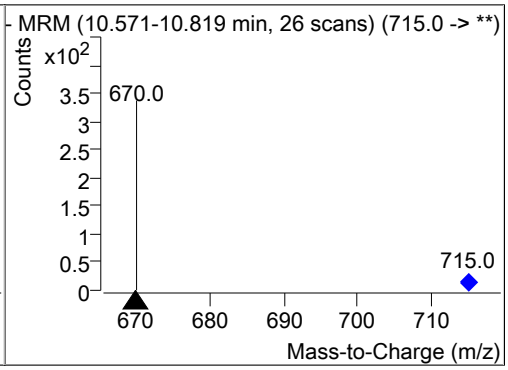




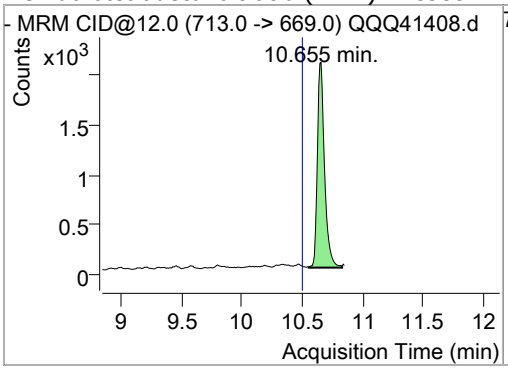
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	0.5361	10.65	0.17	4203				

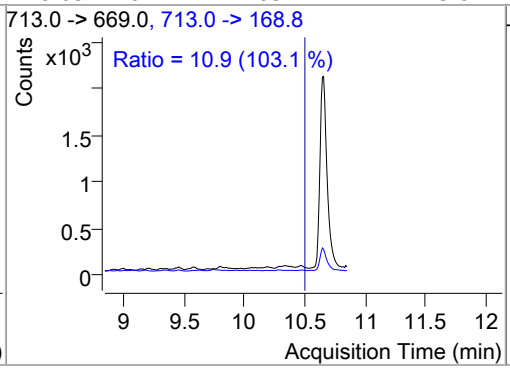


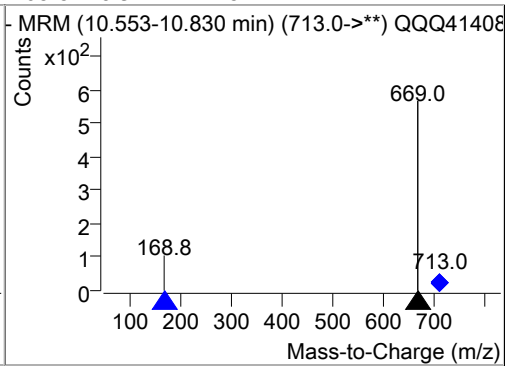




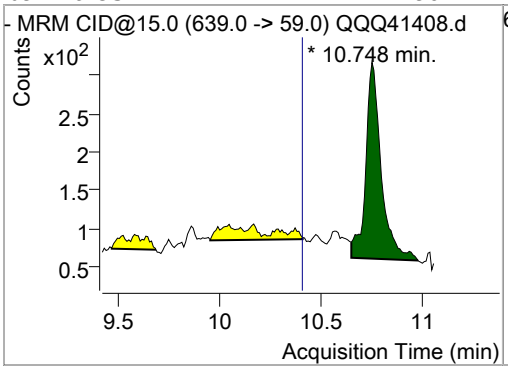
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	2.5955	10.65	0.17	8514	713.0 -> 168.8	10.9	8.4	12.7

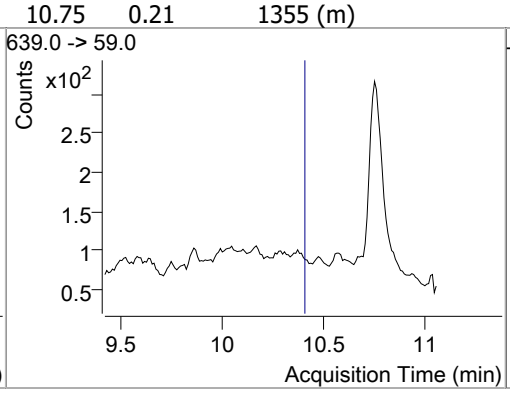


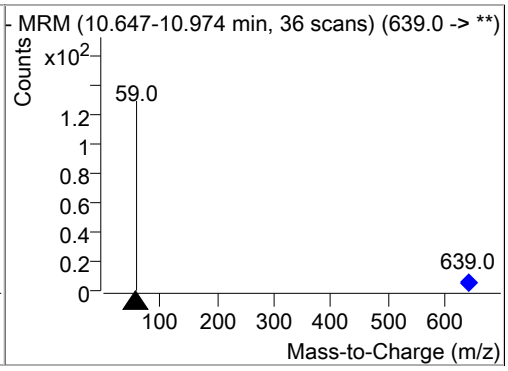




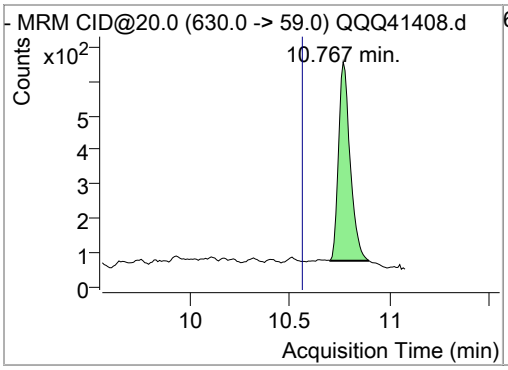
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	4.9012	10.75	0.21	1355 (m)				

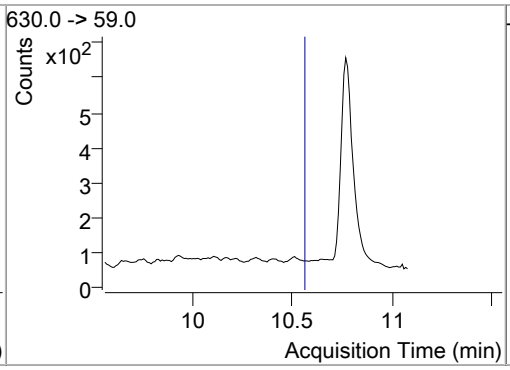


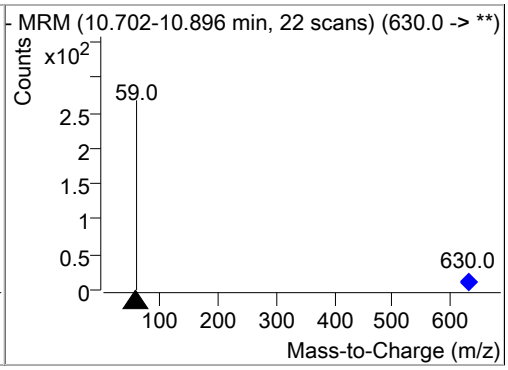




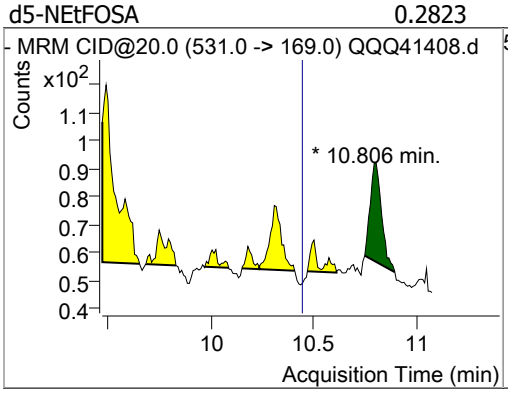
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	28.4059	10.77	0.21	2361				

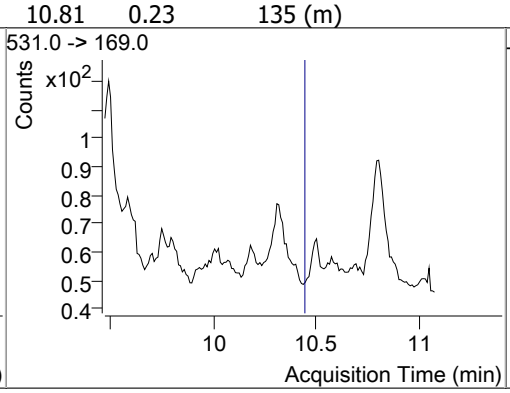


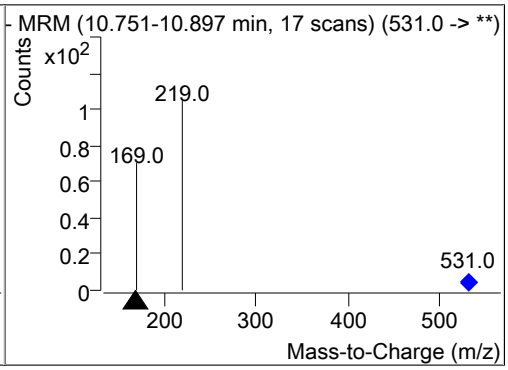




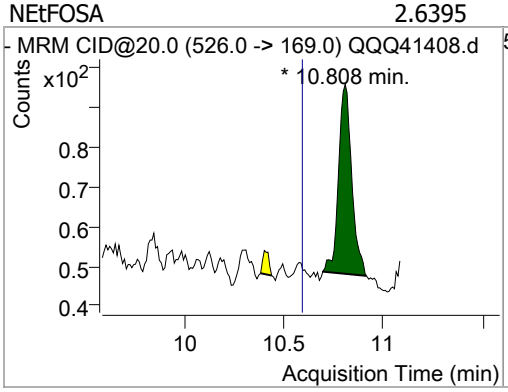
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	0.2823	10.81	0.23	135 (m)				

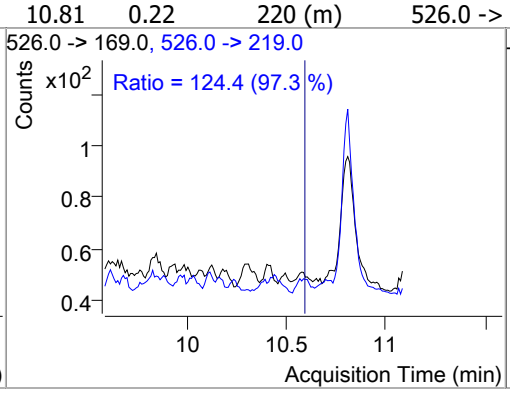


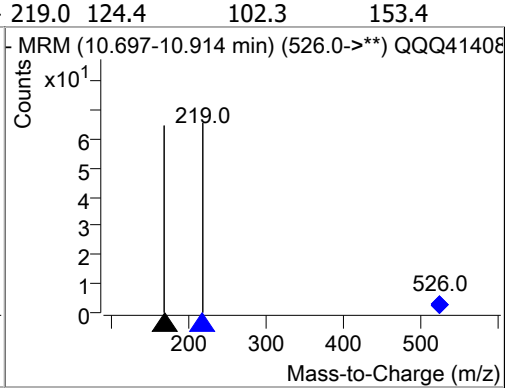




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.6395	10.81	0.22	220 (m)	526.0 -> 219.0	124.4	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 7:29:55 PM	**Data File**	QQQ41408.d
Sample Type	Sample	**Sampe Name**	SEQ-CCV4
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	153777	22810	0.468			1.68			73538.87
Perfluoro-n-butanoic acid (PFBA)	1.292	134420	19899	0.510			1.88			5028.98
PFMPA	2.208	36370	4256	0.610			1.80			475.56
3:3FTCA	4.424	1901	252	0.387			1.71			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.728	116926	17100	0.482			1.75			11444.56
Perfluoro-n-pentanoic acid (PFPeA)	4.728	115767	16876	0.463			1.79			7238.10
PFMBA	5.495	48872	9952	0.357			1.73			∞
M3PFBS	5.520	14228	3134	0.310			1.86			23801.58
Perfluorobutanesulfonic acid (PFBS)	5.520	14741	3280	0.334			1.78			4478.04
PFEESA	6.048	123529	30828	0.325			1.56			8110.41
NFDHA	6.188	1757	387	0.362			1.79			3651.09
M2-4-2FTS	6.260	10641	2643	0.266			1.78			285.18
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.260	21575	5355	0.303			1.81			556.32
M5PFHxA	6.335	60738	14896	0.278			1.64			132117.67
Perfluorohexanoic acid (PFHxA)	6.336	68786	16553	0.297			1.62			2130.89
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.546	14658	3634	0.322			1.50			945.98
M3-HFPO-DA	6.624	21982	5333	0.306			2.00			1804.68
HFPO-DA	6.625	2430	588	0.237			1.90			96.70
M4PFHpA	7.179	14282	3428	0.296			1.46			36334.28
Perfluoroheptanoic acid (PFHpA)	7.179	33086	7896	0.278			1.51			361.18
5-3FTCA	7.254	128909	29944	0.334			1.40			22438.67
Perfluorohexanesulfonic acid (PFHxS)	7.289	14386	2824	0.436			1.39			∞
M3PFHxS	7.280	12621	3046	0.251			1.86			32505.55

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.318	95125	22312	0.335			1.46			34863.71
M2-6-2FTS	7.819	19897	4647	0.314			1.60			∞
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.820	47338	10791	0.335			1.56			344.51
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.876	40008	9292	0.325			1.90			41623.17
Perfluorooctanoic acid (PFOA)	7.876	45975	10863	0.362			1.87			149.29
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.939	12949	3022	0.364			1.88			91.64
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.479	6252	1533	0.297			1.72			∞
Perfluorononanoic acid (PFNA)	8.479	40647	9531	0.315			1.80			141.01
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.514	5589	1381	0.278			1.71			168.50
Perfluorooctanesulfonic acid (PFOS)	8.515	12663	2308	0.418			1.61			∞
7-3FTCA	8.674	332207	77291	0.325			1.72			14548.83
9-Cl-PF3ONS	8.847	246415	59112	0.336			1.37			1315.28
M2-8-2FTS	8.978	81485	19494	0.326			1.41			274.98
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.979	38423	9012	0.326			1.43			2029.18
M6PFDA	9.016	18614	4611	0.336			1.43			∞
Perfluorodecanoic acid (PFDA)	9.017	41481	9893	0.308			1.40			72.02
Perfluorononanesulfonate (L-PFNS)	9.024	10417	2540	0.265			1.70			∞
d3-N-MeFOSAA	9.227	37866	8756	0.325			1.68			∞
N-MeFOSAA	9.227	16462	3310	0.493			1.87			22451.81
d5-N-EtFOSAA	9.477	32123	7572	0.313			1.57			∞
Perfluoroundecanoic acid (PFUnA)	9.488	42750	10404	0.324			1.54			38.48
Perfluoro-1-decanesulfonate (L-PFDS)	9.486	4695	1132	0.250			1.78			164.85
N-EtFOSAA	9.487	14108	2719	0.538			1.52			∞
M7PFUdA	9.487	20060	4617	0.333			1.56			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.685	9932	2285	0.332			1.56			63.59
Perfluoro-1-octanesulfonamide (FOSA)	9.685	12062	2658	0.332			1.50			∞
11-Cl-PF3OUdS	9.762	143665	34304	0.315			1.63			160992.09
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.930	14765	3464	0.286			1.78			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.931	24142	5363	0.296			1.69			120.77
Perfluorododecanesulfonic acid (PFDoS)	10.306	1980	493	0.264			1.36			43.58
Perfluorotridecanoic acid (PFTrDA)	10.325	13730	3311	0.276			1.39			420.97
d7-NMeFOSE	10.474	3806	942	0.257			1.39			17.36
NMeFOSE	10.484	3012	678	0.335			1.77			55.48
d3-NMeFOSA	10.505	487	84	0.340			1.17			4.28
NMeFOSA	10.524	292	69	0.201			1.21			6.26
M2PFTeDA	10.654	4203	1093	0.248			1.36			33.54
Perfluorotetradecanoic acid (PFTA)	10.655	8514	2059	0.276			1.39			97.36
d9-NEtFOSE	10.748	1355	256	0.327			1.17			13.59
NEtFOSE	10.767	2361	583	0.194			1.72			34.24
d5-NEtFOSA	10.806	135	35	0.147			0.94			5.51
NEtFOSA	10.808	220	48	0.217			1.29			9.79

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41420.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV5	Injection Time:	22:44

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A	9.45	10.3	0.8591385	1.140803		9.2	30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A	9.60	8.06	0.2419004	0.2058719		-16.0	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A	9.38	9.30	1.185549	1.244552		-0.9	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A	9.50	8.20	1.255886	1.430829		-13.7	30
3-Perfluoroheptyl propanoic acid (FHpPA)	A	62.6	60.5	0.2201101	0.2047035		-3.4	30
3-Perfluoropentyl propanoic acid (FPePA)	A	62.6	54.3	0.1241024	0.1374304		-13.3	30
3-Perfluoropropyl propanoic acid (FPrPA)	A	12.5	9.38	1.286716E-02	1.299047E-02		-24.9	30
9CL-PF3ONS	A	9.35	10.3	1.369128	1.668159		10.5	30
ADONA	A	9.45	9.77	0.556015	0.5721298		3.4	30
HFPO-DA (Gen-X)	A	10.0	10.6	2.239571E-02	2.328752E-02		5.8	30
N-EtFOSA	A	2.50	2.72	1.287944	1.36191		8.9	30
N-EtFOSAA	A	2.50	2.86	0.94945	0.9862314		14.3	30
N-EtFOSE	A	25.0	23.2	1.993152	2.011653		-7.3	30
N-MeFOSA	A	2.50	2.61	0.7524916	0.8773675		4.2	30
N-MeFOSAA	A	2.50	2.32	0.8763811	0.8090675		-7.1	30
N-MeFOSE	A	25.0	23.0	0.824401	0.7523866		-8.1	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A	4.45	4.18	1.241156	1.23622		-6.1	30
Perfluoro-1-decanesulfonic acid (PFDS)	A	2.41	2.27	0.7352727	0.8493271		-5.8	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A	2.38	2.14	2.525683	2.385374		-10.2	30
Perfluoro-1-nonanesulfonic acid (PFNS)	A	2.40	2.52	0.1655348	0.1818437		5.1	30
Perfluoro-1-octanesulfonamide (FOSA)	A	2.50	2.62	1.385288	1.494227		4.6	30
Perfluoro-1-pentanesulfonate (PFPeS)	A	2.35	2.41	1.400558	1.378856		2.8	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A	5.00	3.50	1.573594E-02	1.233067E-02		-30.0	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41420.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCV5	Injection Time:	22:44

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A	5.00	4.88	0.2604373	0.2917382		-2.4	30
Perfluoro-5-oxahexanoic acid (PFMBA)	A	5.00	5.02	0.4108024	0.4189442		0.3	30
Perfluorobutanesulfonic acid (PFBS)	A	2.22	2.20	1.128938	1.0843		-1.0	30
Perfluorodecanoic acid (PFDA)	A	2.50	2.35	1.09146	1.073527		-6.2	30
Perfluorododecanesulfonic acid (PFDoS)	A	2.42	2.59	0.4284993	0.4908538		7.1	30
Perfluorododecanoic acid (PFDoA)	A	2.50	2.49	0.8702134	0.8119124		-0.2	30
Perfluoroheptanoic acid (PFHpA)	A	2.50	2.77	2.370614	2.474801		11.0	30
Perfluorohexanesulfonic acid (PFHxS)	A	2.28	2.56	1.39602	1.379723		12.2	30
Perfluorohexanoic acid (PFHxA)	A	2.50	2.35	1.166423	1.087053		-5.8	30
Perfluoro-n-butanoic acid (PFBA)	A	10.0	9.95	0.9037138	0.8733574		-0.5	30
Perfluorononanoic acid (PFNA)	A	2.50	2.80	3.453721	3.636173		12.1	30
Perfluorooctanesulfonic acid (PFOS)	A	2.32	2.23	2.631087	2.283296		-4.0	30
Perfluorooctanoic acid (PFOA)	A	2.50	2.49	1.254067	1.026595		-0.2	30
Perfluoropentanoic acid (PFPeA)	A	5.00	5.02	1.003786	0.9619166		0.3	30
Perfluorotetradecanoic acid (PFTA)	A	2.50	2.64	1.041146	1.028897		5.5	30
Perfluorotridecanoic acid (PFTrDA)	A	2.50	2.59	1.484165	1.303447		3.4	30
Perfluoroundecanoic acid (PFUnA)	A	2.50	2.28	0.9068038	0.884885		-8.9	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41420.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 10:44:04 PM
Sample Name	SEQ-CCV5	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	2.5 - 62.5 ng/mL
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
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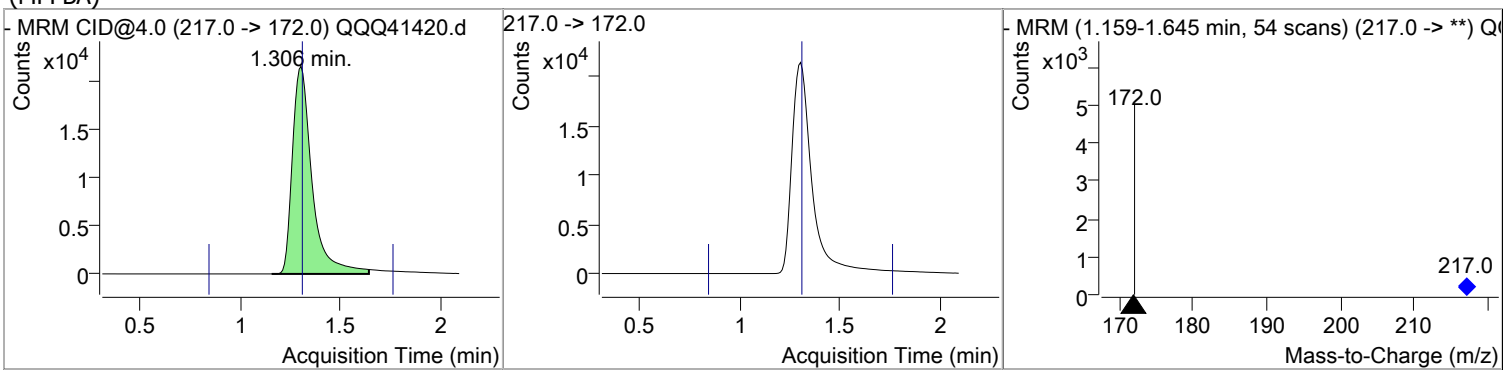
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.308	216.0 -> 172.0	27349	5.0000	ng/ml	0.055
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.306	217.0 -> 172.0	147191	10.0000	ng/ml	0.055
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.774	268.0 -> 223.0	118435	5.0000	ng/ml	0.046
MPFHxA	6.391	315.0 -> 269.8	37490	2.5000	ng/ml	0.019
MPFHxS	7.354	403.0 -> 103.0	3800	2.3700	ng/ml	-0.028
M3PFBS-EIS	5.566	302.0 -> 79.9	16719	2.3300	ng/ml	0.037
M5PFHxA-EIS	6.390	318.0 -> 273.0	59479	2.5000	ng/ml	0.019
M2-4-2FTS-EIS	6.315	329.0 -> 309.0	17536	4.6900	ng/ml	0.019
M3PFHxS-EIS	7.354	402.0 -> 80.0	11596	2.3700	ng/ml	-0.028
M3-HFPO-DA-EIS	6.689	287.0 -> 169.0	41214	10.0000	ng/ml	0.000
M4PFHpA-EIS	7.244	367.0 -> 322.0	13138	2.5000	ng/ml	-0.019
M2-6-2FTS-EIS	7.893	429.0 -> 409.0	10908	4.7550	ng/ml	-0.037
MPFOA	7.950	417.0 -> 372.0	41130	2.5000	ng/ml	-0.047
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.950	421.0 -> 376.0	32562	2.5000	ng/ml	-0.047
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.570	507.0 -> 98.9	5490	2.3950	ng/ml	-0.056
MPFNA	8.544	468.0 -> 423.0	21217	1.2500	ng/ml	-0.056
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.544	472.0 -> 223.0	5002	1.2500	ng/ml	-0.046
MPFOS	8.570	503.0 -> 80.0	11343	2.3950	ng/ml	-0.056
M2-8-2FTS-EIS	9.024	529.0 -> 509.0	36573	4.8000	ng/ml	-0.019
MPFDA	9.063	515.0 -> 469.8	14338	1.2500	ng/ml	-0.019
M6PFDA-EIS	9.053	519.0 -> 473.9	20065	1.2500	ng/ml	-0.028
d3-N-MeFOSAA-EIS	9.273	573.0 -> 418.8	30842	5.0000	ng/ml	-0.009
M7PFUdA-EIS	9.525	570.0 -> 525.0	26802	1.2500	ng/ml	0.010
d5-N-EtFOSAA-EIS	9.514	589.0 -> 418.8	29211	5.0000	ng/ml	0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.703	506.0 -> 78.0	18093	2.5000	ng/ml	0.055
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.949	615.0 -> 570.0	25431	1.2500	ng/ml	0.056
M2PFTeDA-EIS	10.645	715.0 -> 670.0	9476	1.2500	ng/ml	0.157
d7-NMeFOSE-EIS	10.465	623.0 -> 59.0	16596	25.0000	ng/ml	0.166
d3-NMeFOSA-EIS	10.496	515.0 -> 219.0	1755	2.5000	ng/ml	0.166
d9-NEtFOSE-EIS	10.729	639.0 -> 59.0	5513	25.0000	ng/ml	0.193
d5-NEtFOSA-EIS	10.769	531.0 -> 169.0	889	2.5000	ng/ml	0.193
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	217.0 -> 172.0	147191	10.7478	ng/ml	0.055
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	268.0 -> 223.0	118435	4.9520	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.566	302.0 -> 79.9	16720	2.4662	ng/ml	0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.315	329.0 -> 309.0	17536	3.8744	ng/ml	0.019

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.390	318.0 -> 273.0	59479	2.4860	ng/ml		0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.689	287.0 -> 169.0	41214	9.8546	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.244	367.0 -> 322.0	13138	2.4721	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.354	402.0 -> 80.0	11610	2.4545	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.893	429.0 -> 409.0	10899	3.5958	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	421.0 -> 376.0	32562	2.4859	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.544	472.0 -> 223.0	5000	1.1059	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	507.0 -> 98.9	5497	2.6428	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.024	529.0 -> 509.0	36562	5.1363	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.053	519.0 -> 473.9	20065	1.2773	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.273	573.0 -> 418.8	30842	5.7545	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.514	589.0 -> 418.8	29211	6.1713	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.525	570.0 -> 525.0	26802	1.2605	ng/ml		0.010
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.703	506.0 -> 78.0	18093	2.6547	ng/ml		0.055
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.949	615.0 -> 570.0	25431	1.3605	ng/ml		0.056
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.465	623.0 -> 59.0	16611	30.3712	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.496	515.0 -> 219.0	1736	2.5204	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.645	715.0 -> 670.0	9476	1.1363	ng/ml		0.157
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.729	639.0 -> 59.0	5513	22.6394	ng/ml		0.193
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.769	531.0 -> 169.0	890	2.1111	ng/ml	m	0.193
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.301	213.0 -> 168.9	128550	9.9518	ng/ml		100
PFMPA	2.235	229.0 -> 85.0	34552	4.8795	ng/ml		100
3:3FTCA	4.461	241.0 -> 177.0	3863	9.3813	ng/ml		96
Perfluoro-n-pentanoic acid (PFPeA)	4.774	263.0 -> 219.0	113925	5.0168	ng/ml		100
PFMBA	5.541	279.0 -> 85.0	49618	5.0155	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.567	298.9 -> 79.9	16098	2.1968	ng/ml		98
PFEESA	6.103	315.0 -> 135.0	130883	4.1799	ng/ml		99
NFDHA	6.235	295.0 -> 201.1	1467	3.5012	ng/ml		95
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.316	327.0 -> 307.0	40943	9.2971	ng/ml		99

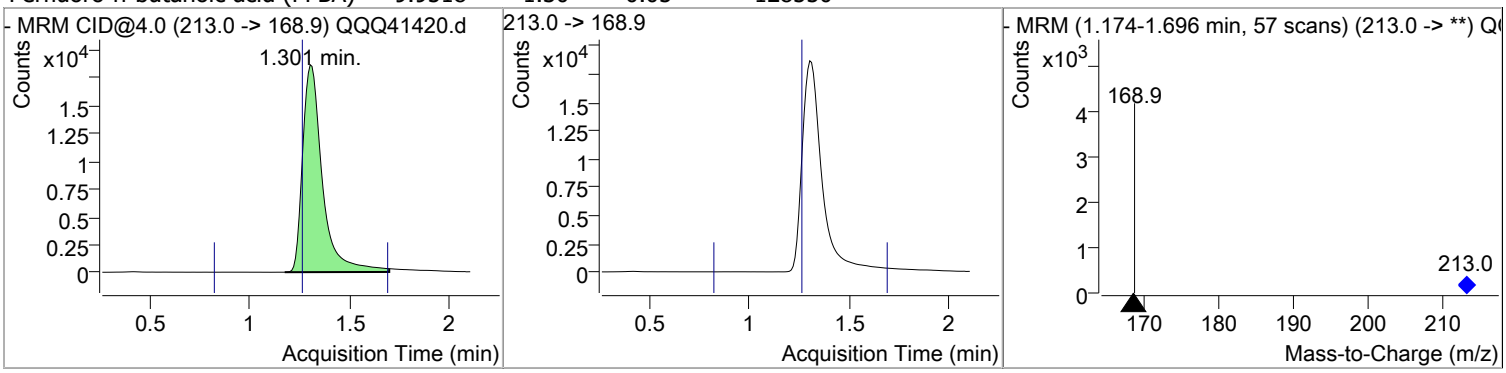
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.392	313.0 -> 268.9	64657	2.3548	ng/ml		99
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.602	348.9 -> 79.9	15030	2.4148	ng/ml		99
HFPO-DA	6.689	285.0 -> 169.1	3839	10.5813	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.244	363.0 -> 318.8	32514	2.7748	ng/ml		96
5-3FTCA	7.319	341.0 -> 217.0	204683	54.2804	ng/ml		99
Perfluorohexanesulfonic acid (PFHxS)	7.355	398.9 -> 79.9	14591	2.5590	ng/ml	m	91
ADONA	7.383	377.0 -> 85.0	89132	9.7703	ng/ml		98
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.894	427.0 -> 407.0	29654	8.1995	ng/ml		98
Perfluorooctanoic acid (PFOA)	7.951	413.0 -> 368.8	33428	2.4940	ng/ml		96
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.014	448.9 -> 80.0	12467	2.1361	ng/ml		93
Perfluorononanoic acid (PFNA)	8.544	463.0 -> 418.8	36374	2.8023	ng/ml		93
Perfluorooctanesulfonic acid (PFOS)	8.571	498.9 -> 79.9	11632	2.2263	ng/ml	m	96
7-3FTCA	8.739	441.0 -> 337.0	304878	60.4931	ng/ml		98
9-Cl-PF3ONS	8.893	531.0 -> 351.0	257132	10.3309	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.025	527.0 -> 80.9	14456	8.0643	ng/ml		91
Perfluorodecanoic acid (PFDA)	9.063	513.0 -> 468.8	43081	2.3452	ng/ml		100
Perfluorononanesulfonate (L-PFNS)	9.070	548.9 -> 79.9	10338	2.5233	ng/ml		93
N-MeFOSAA	9.283	570.0 -> 418.9	12477	2.3221	ng/ml	m	97
Perfluoroundecanoic acid (PFUnA)	9.525	563.0 -> 519.0	47434	2.2773	ng/ml		98
Perfluoro-1-decanesulfonate (L-PFDS)	9.523	598.9 -> 98.9	4495	2.2711	ng/ml		100
N-EtFOSAA	9.524	584.0 -> 418.8	14404	2.8573	ng/ml	m	96
Perfluoro-1-octanesulfonamide (FOSA)	9.704	497.9 -> 78.0	27035	2.6154	ng/ml		100
11-Cl-PF3OUdS	9.790	631.0 -> 451.0	177725	10.3166	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.959	613.0 -> 568.8	41296	2.4942	ng/ml		97
Perfluorododecanesulfonic acid (PFDoS)	10.315	699.0 -> 80.0	2608	2.5915	ng/ml		94
Perfluorotridecanoic acid (PFTrDA)	10.334	663.0 -> 618.8	24703	2.5860	ng/ml		100
NMeFOSE	10.475	616.0 -> 59.0	12486	22.9696	ng/ml		100
NMeFOSA	10.506	512.0 -> 169.0	1540	2.6055	ng/ml		93
Perfluorotetradecanoic acid (PFTA)	10.645	713.0 -> 669.0	19500	2.6382	ng/ml		98
NEtFOSE	10.748	630.0 -> 59.0	11089	23.1790	ng/ml		100
NEtFOSA	10.780	526.0 -> 169.0	1210	2.7232	ng/ml		89

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

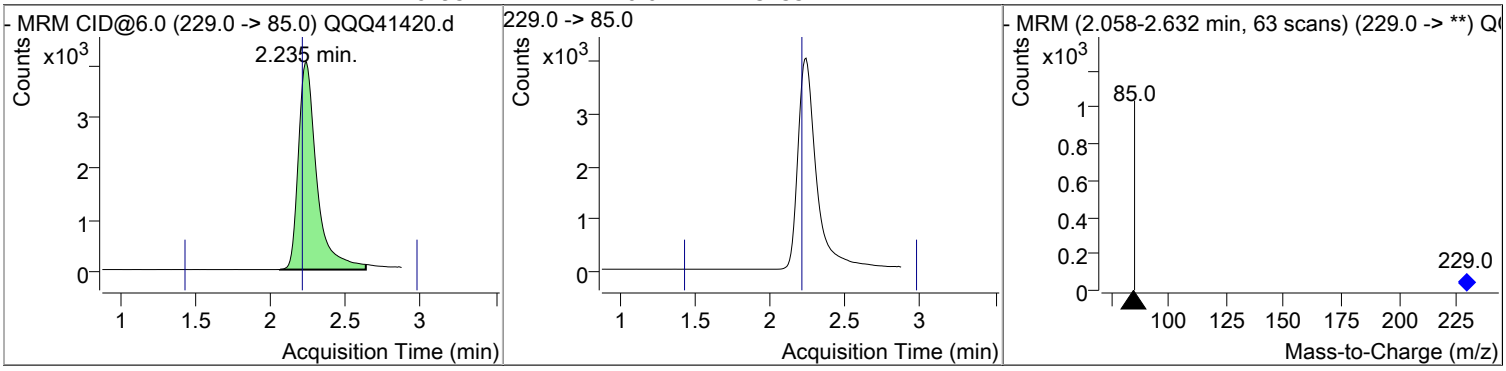
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.7478	1.31	0.06	147191				



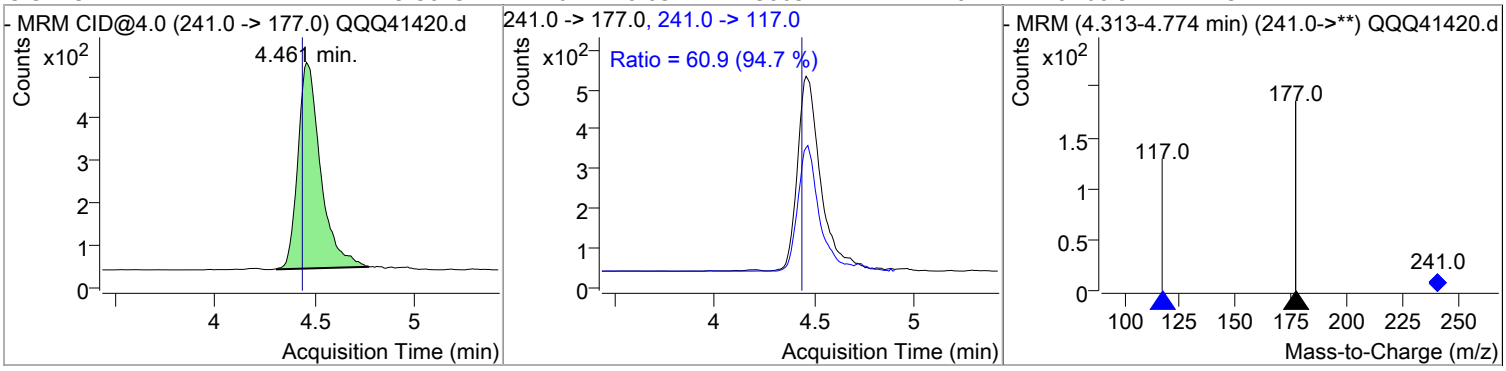
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	9.9518	1.30	0.05	128550				



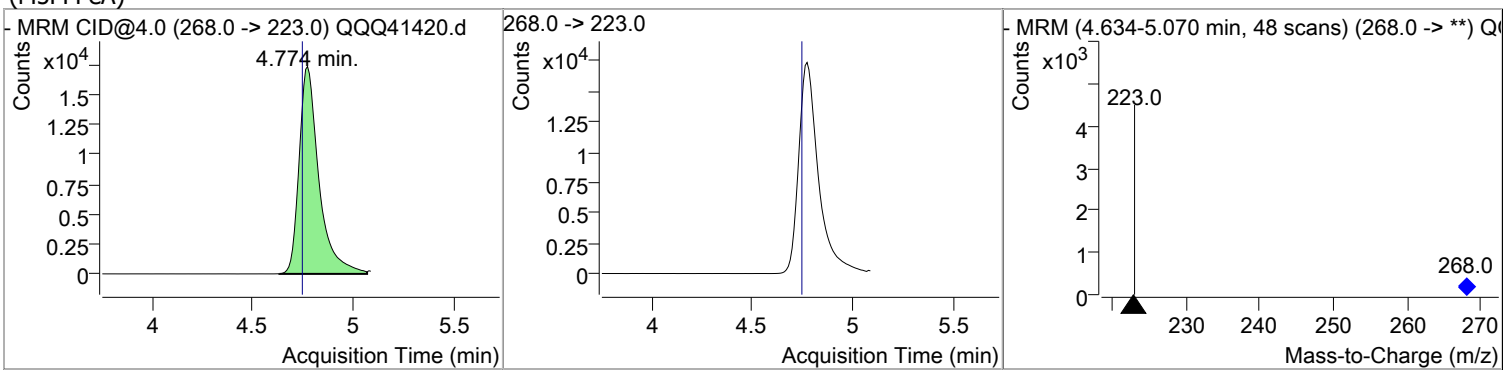
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	4.8795	2.24	0.04	34552				



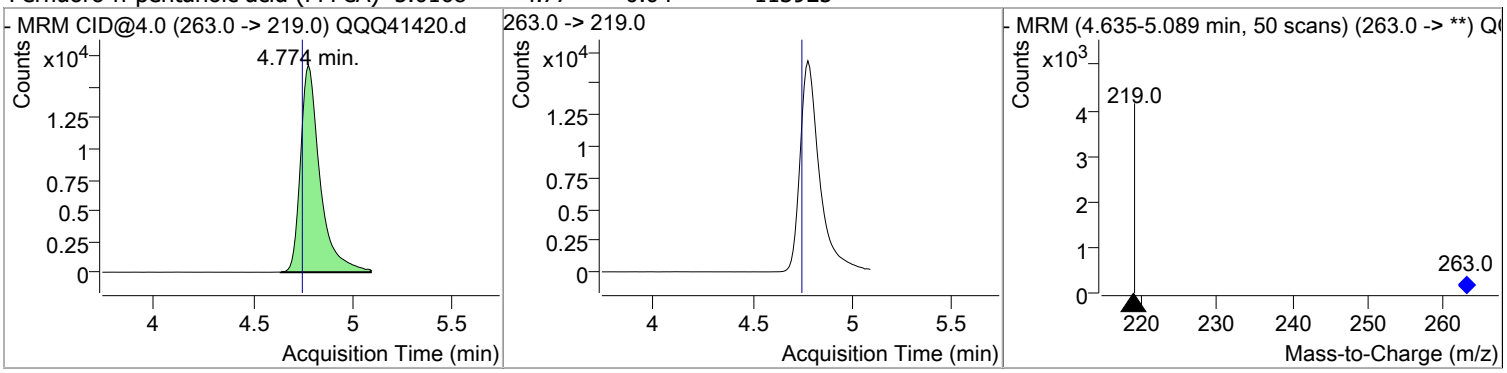
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	9.3813	4.46	0.03	3863	241.0 -> 117.0	60.9	51.4	77.2



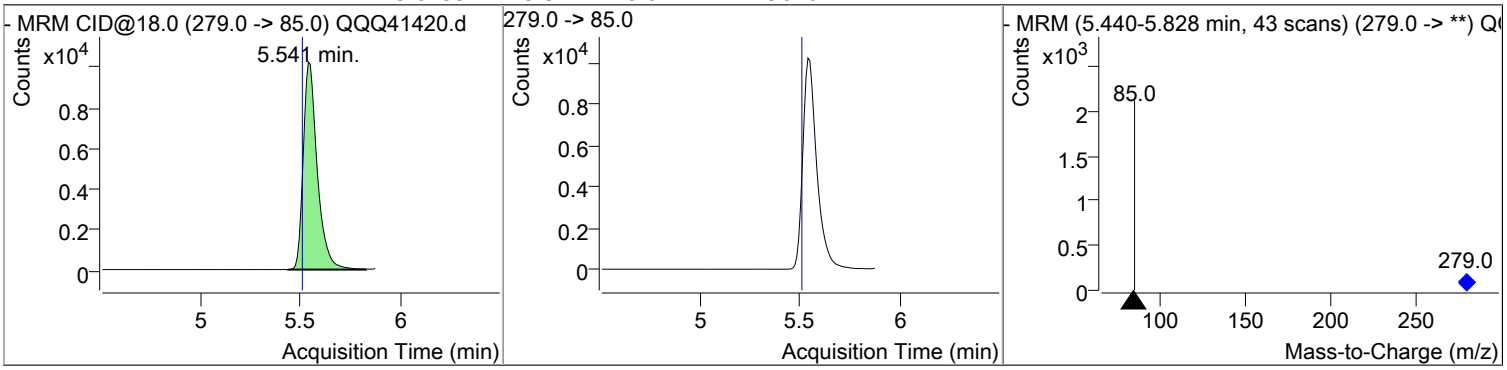
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.9520	4.77	0.05	118435				



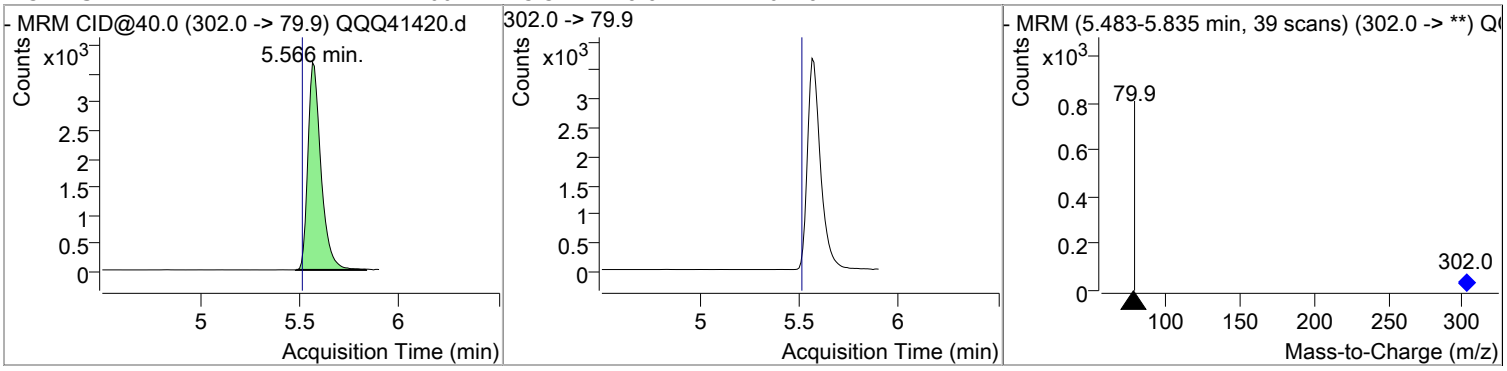
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	5.0168	4.77	0.04	113925				



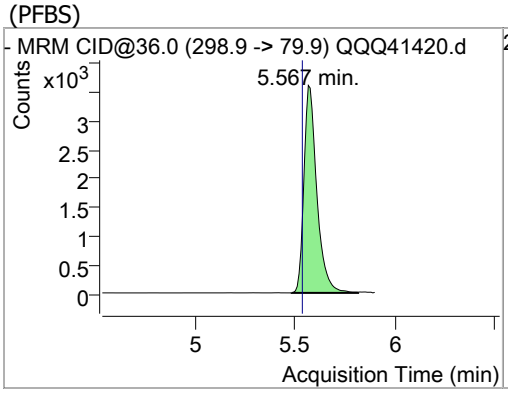
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	5.0155	5.54	0.04	49618				

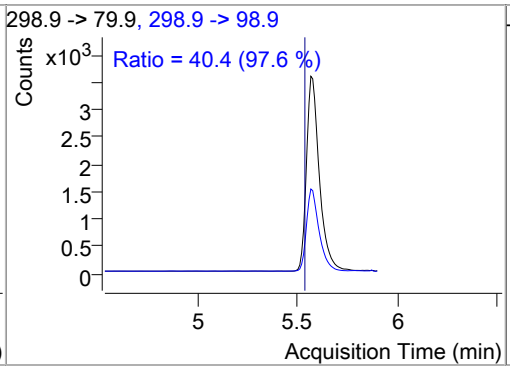


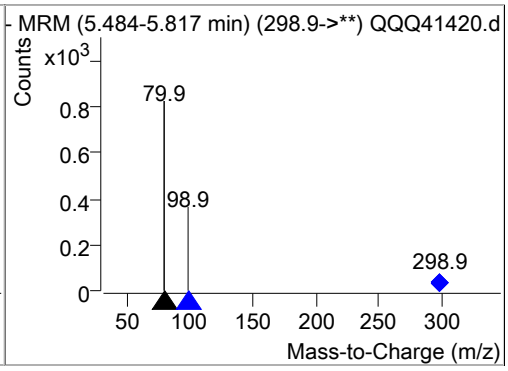
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.4662	5.57	0.04	16720				



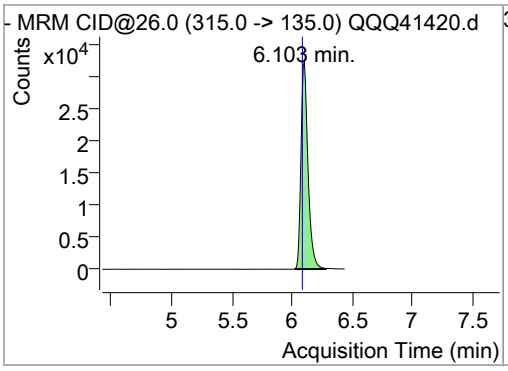
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.1968	5.57	0.04	16098	298.9 -> 98.9	40.4	33.1	49.7

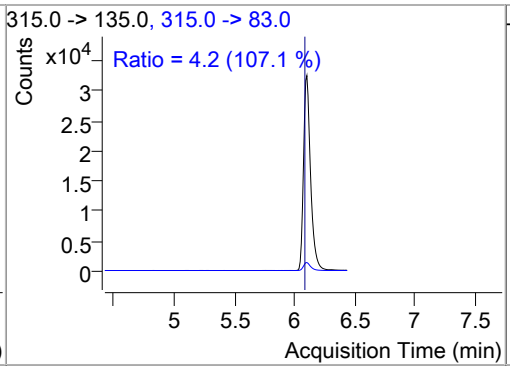


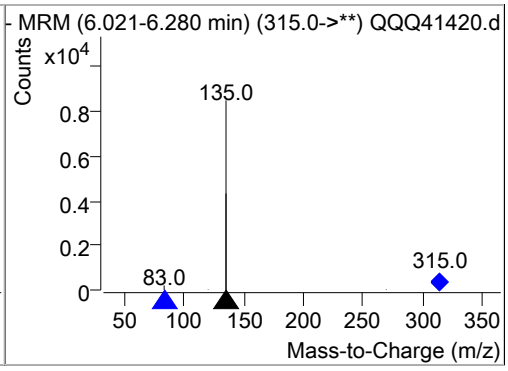




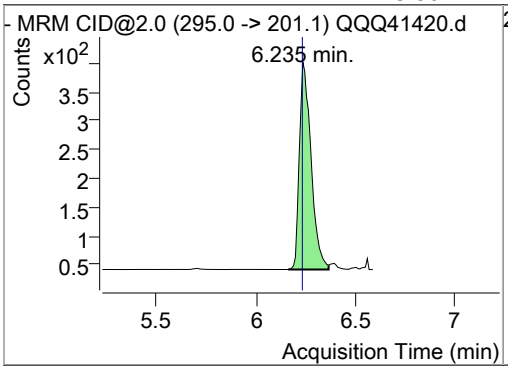
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	4.1799	6.10	0.03	130883	315.0 -> 83.0	4.2	3.1	4.7

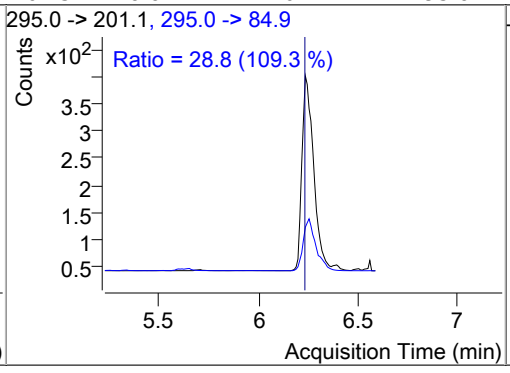


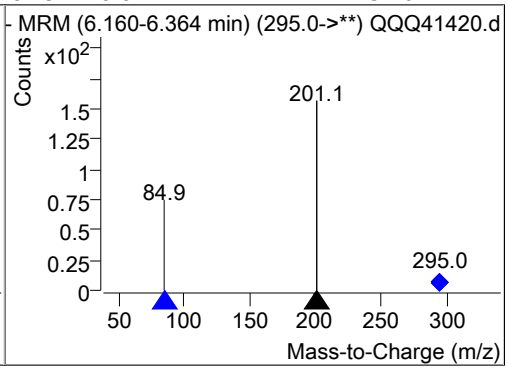




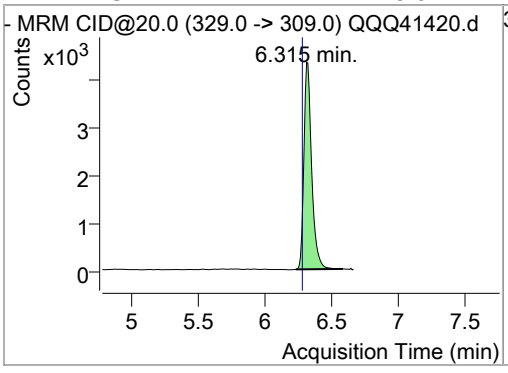
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	3.5012	6.23	0.01	1467	295.0 -> 84.9	28.8	21.1	31.6

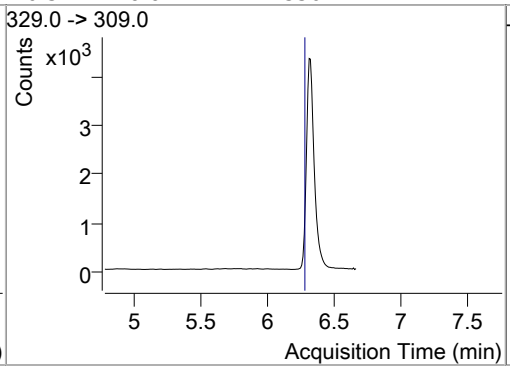


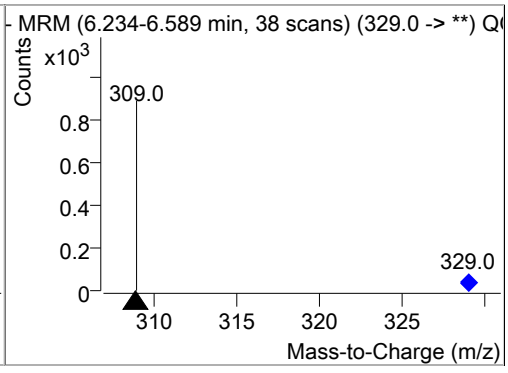




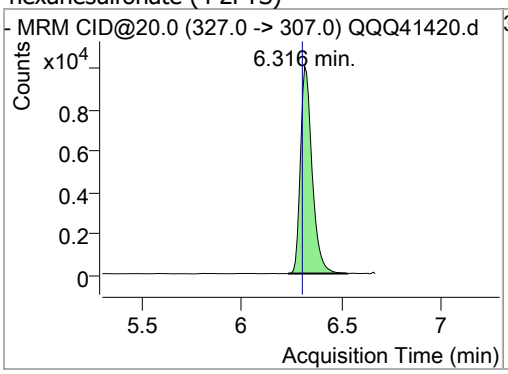
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	3.8744	6.32	0.02	17536				

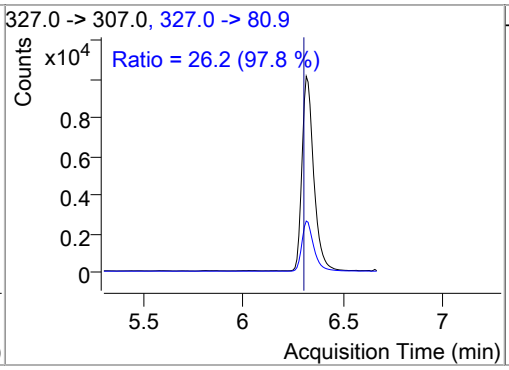


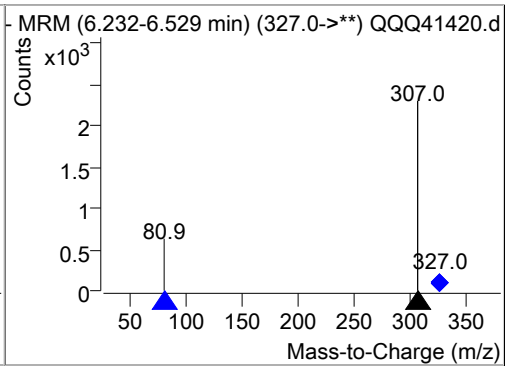




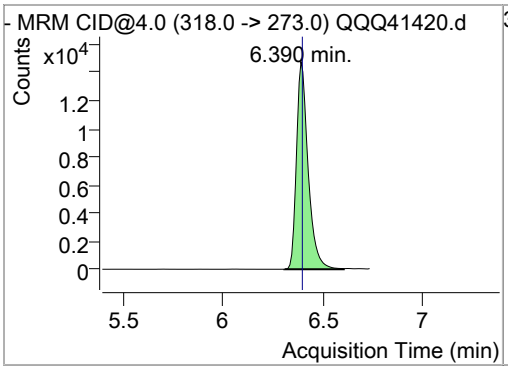
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	9.2971	6.32	0.02	40943	327.0 -> 80.9	26.2	21.5	32.2

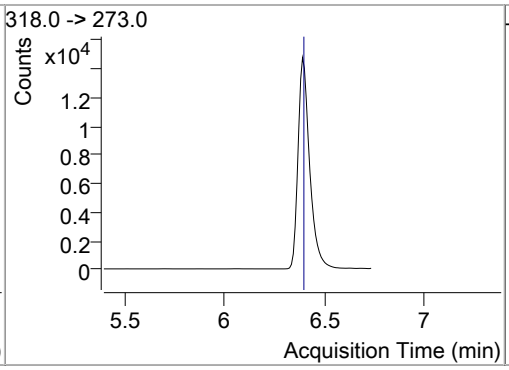


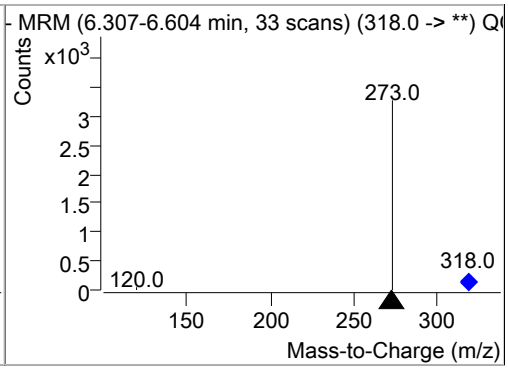




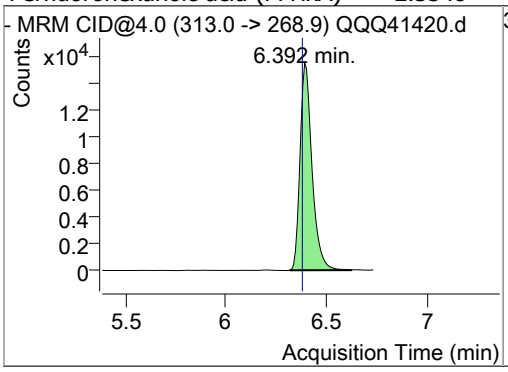
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.4860	6.39	0.02	59479				

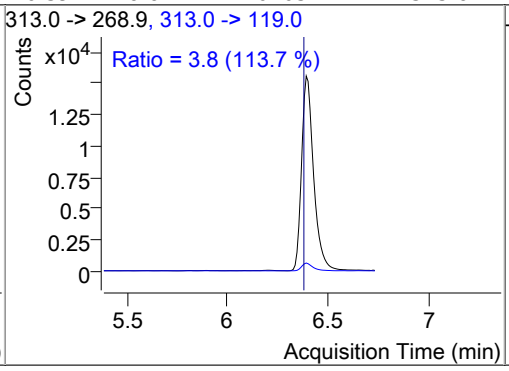


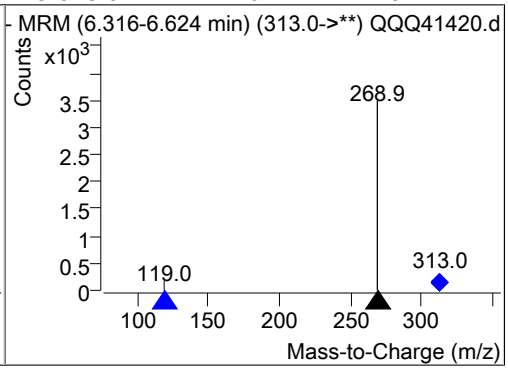




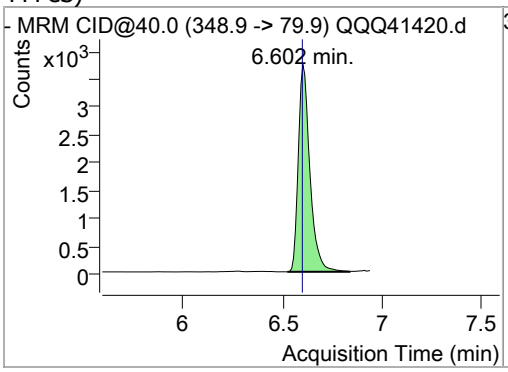
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	2.3548	6.39	0.02	64657	313.0 -> 119.0	3.8	2.6	4.0

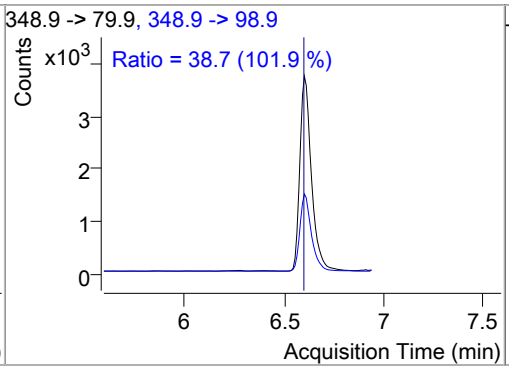


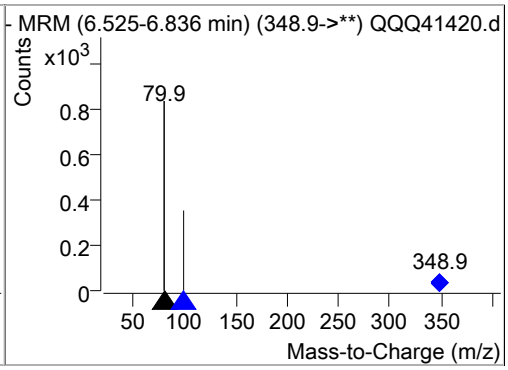




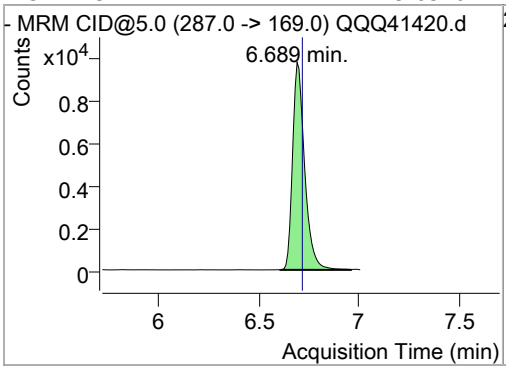
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	2.4148	6.60	0.01	15030	348.9 -> 98.9	38.7	30.4	45.6

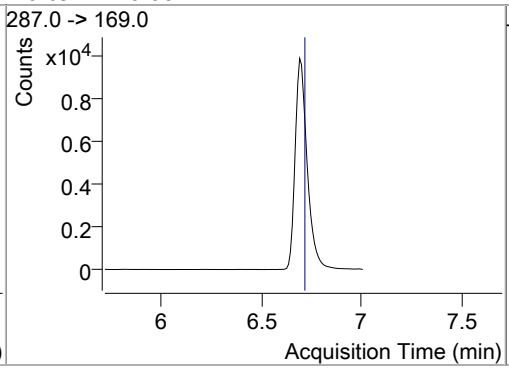


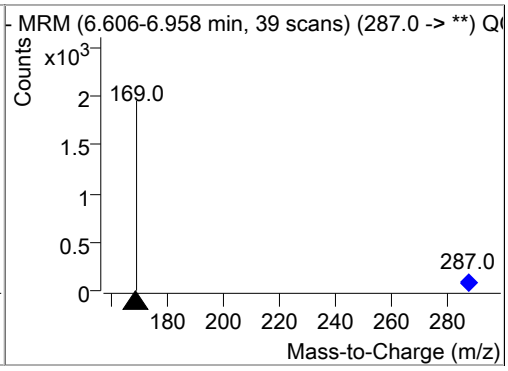




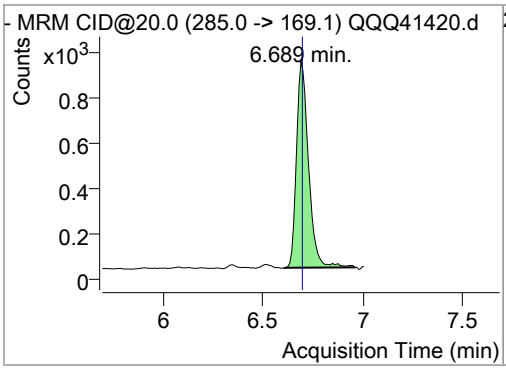
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	9.8546	6.69	0.00	41214				

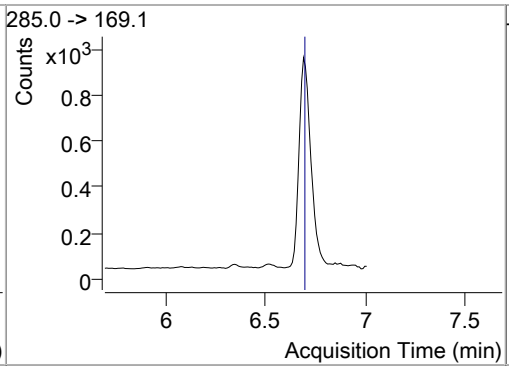


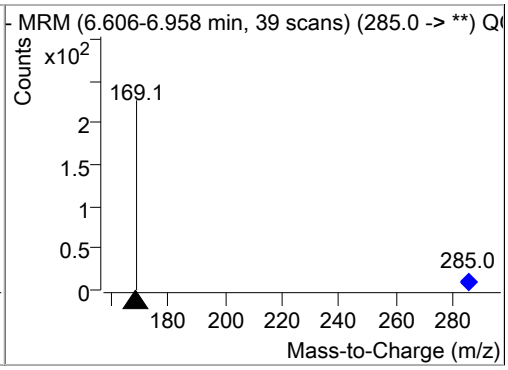




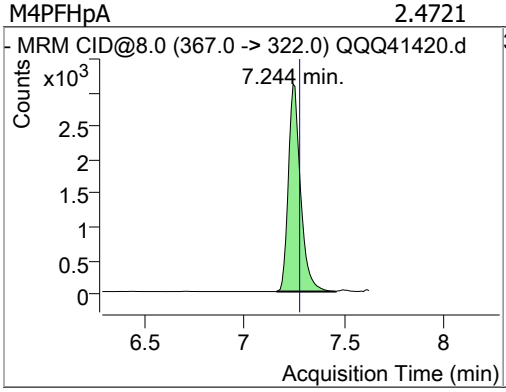
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	10.5813	6.69	0.00	3839				

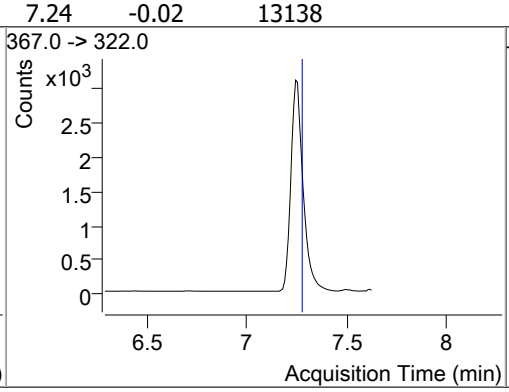


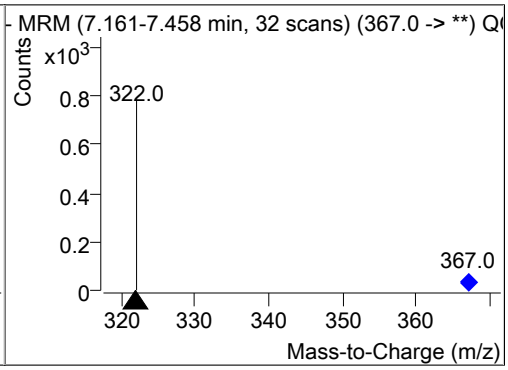




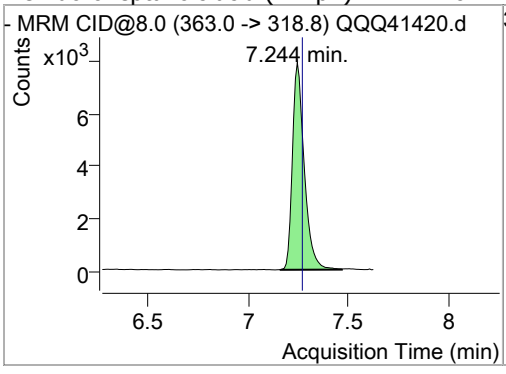
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.4721	7.24	-0.02	13138				

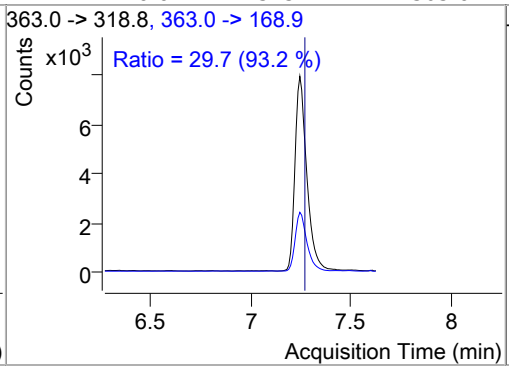


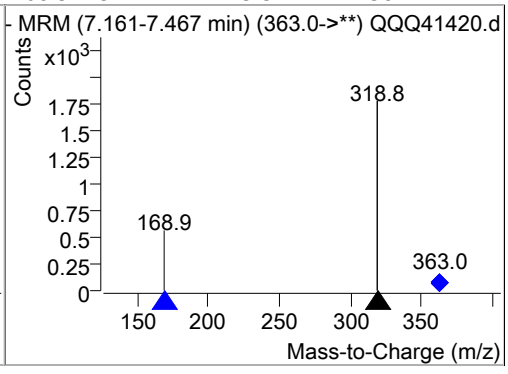




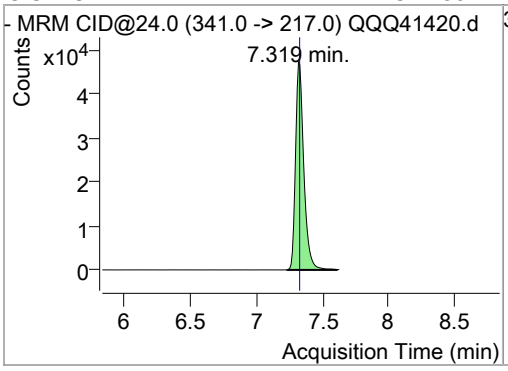
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	2.7748	7.24	-0.02	32514	363.0 -> 168.9	29.7	25.5	38.2

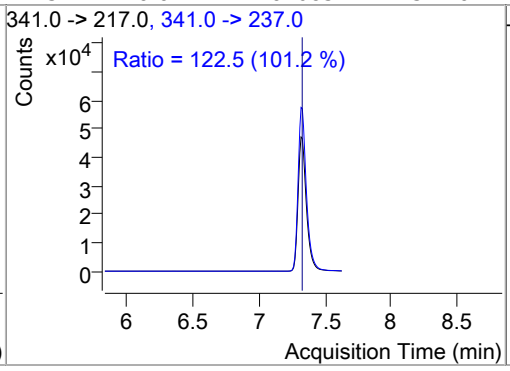


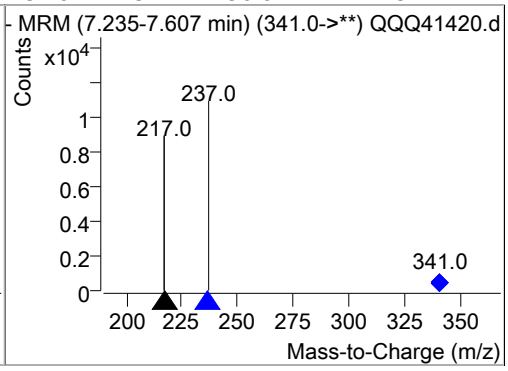




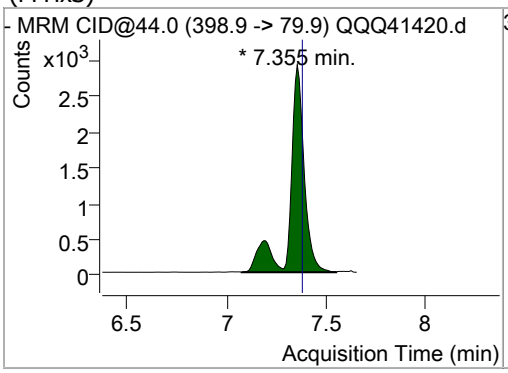
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	54.2804	7.32	-0.02	204683	341.0 -> 237.0	122.5	96.8	145.2

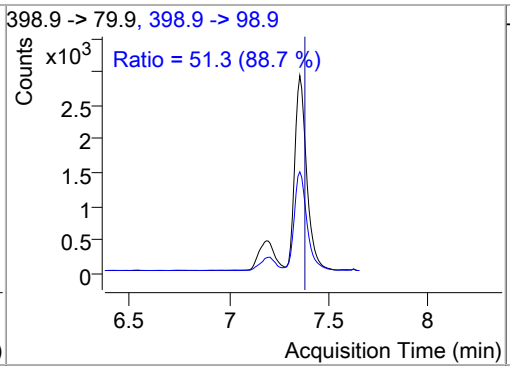


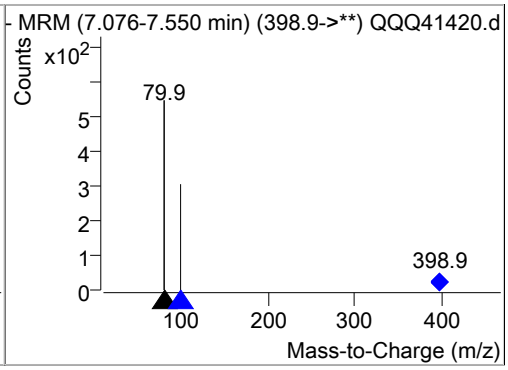




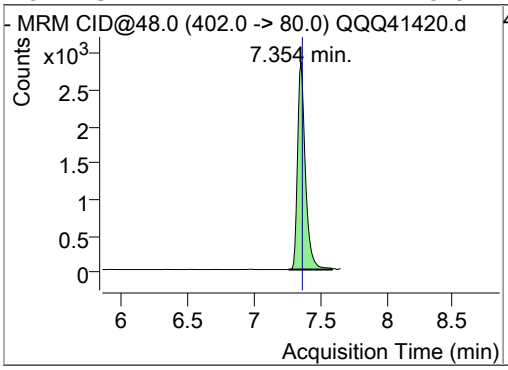
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	2.5590	7.35	-0.02	14591 (m)	398.9 -> 98.9	51.3	46.2	69.3

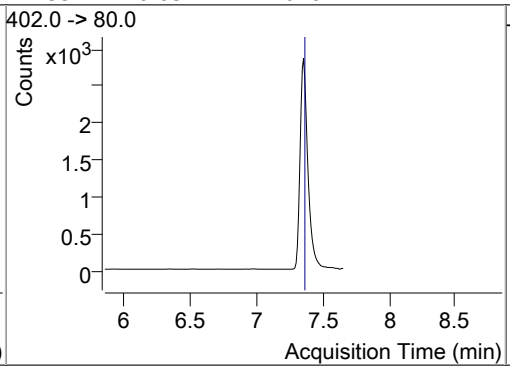


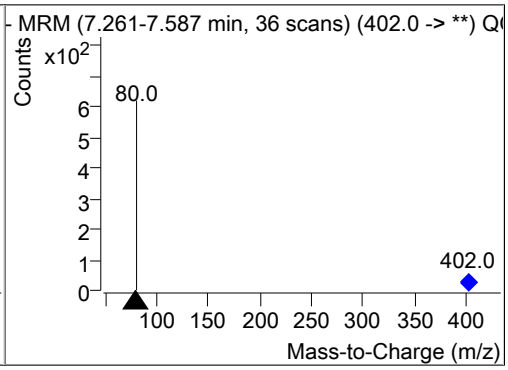




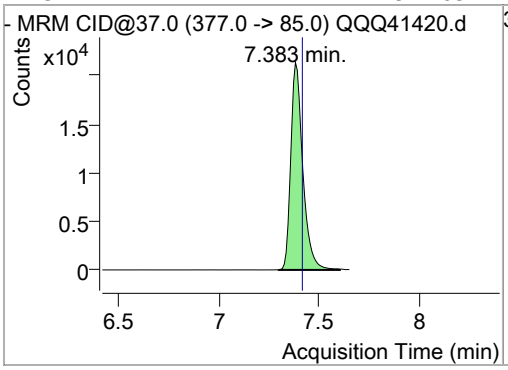
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.4545	7.35	-0.03	11610				

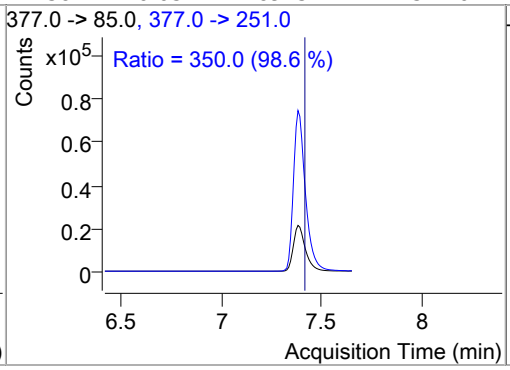


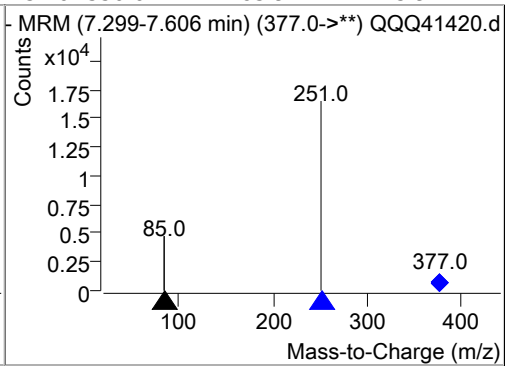




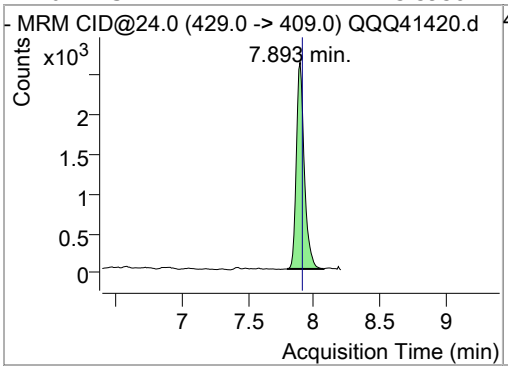
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	9.7703	7.38	-0.03	89132	377.0 -> 251.0	350.0	283.9	425.9

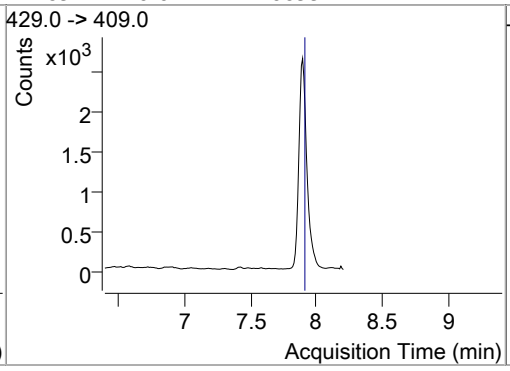


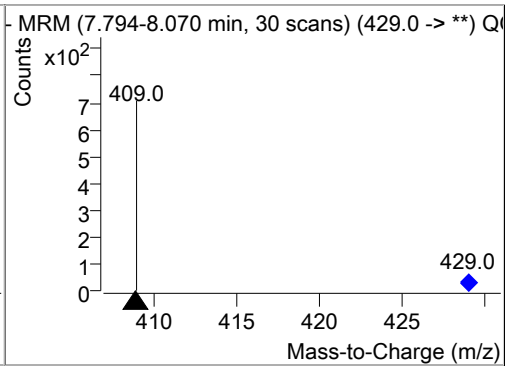




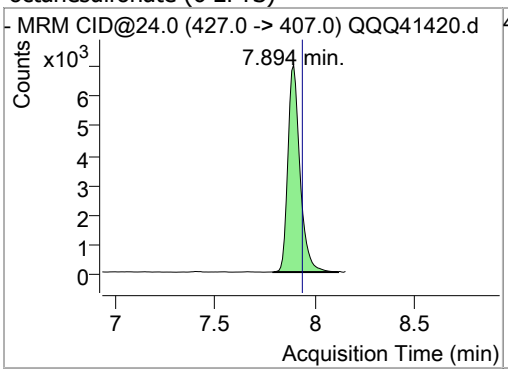
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	3.5958	7.89	-0.04	10899				

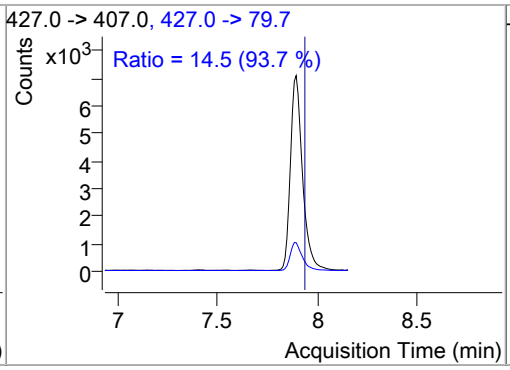


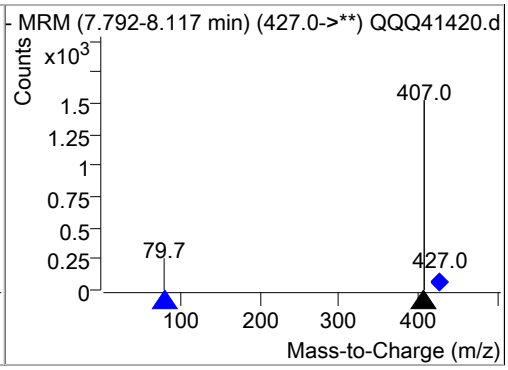




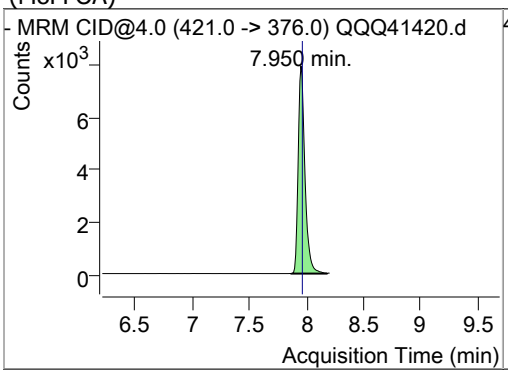
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	8.1995	7.89	-0.04	29654	427.0 -> 79.7	14.5	12.3	18.5

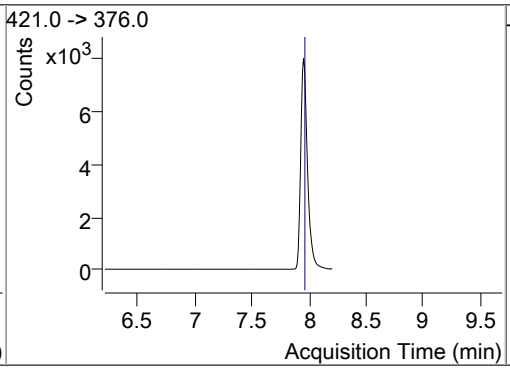


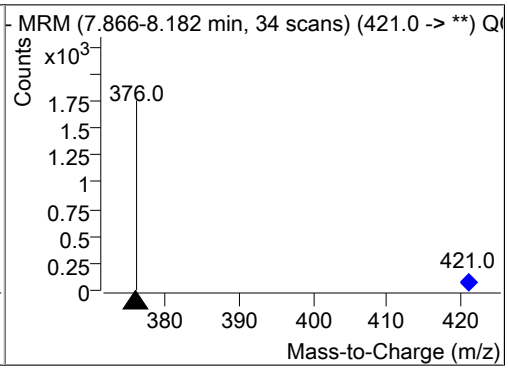




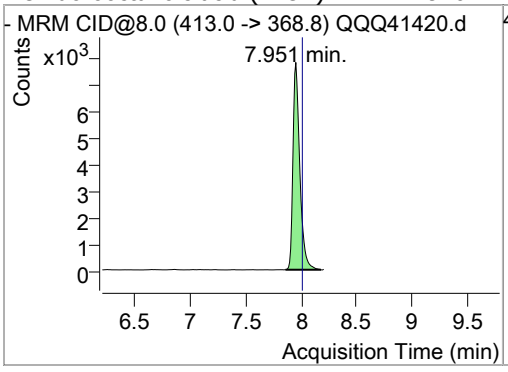
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4859	7.95	-0.05	32562				

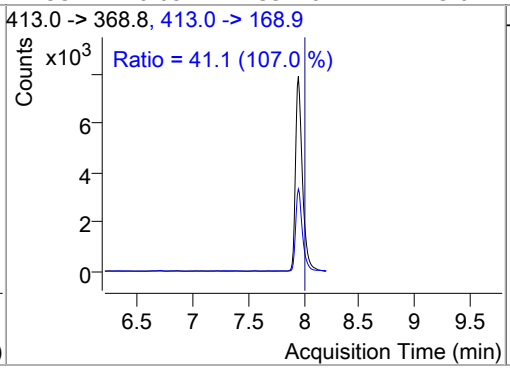


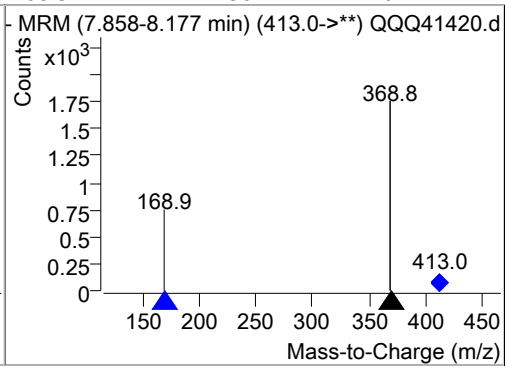




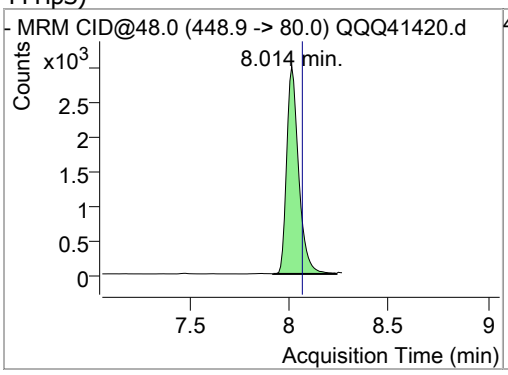
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	2.4940	7.95	-0.05	33428	413.0 -> 168.9	41.1	30.7	46.1

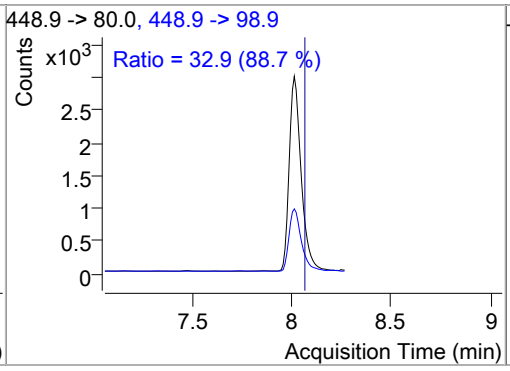


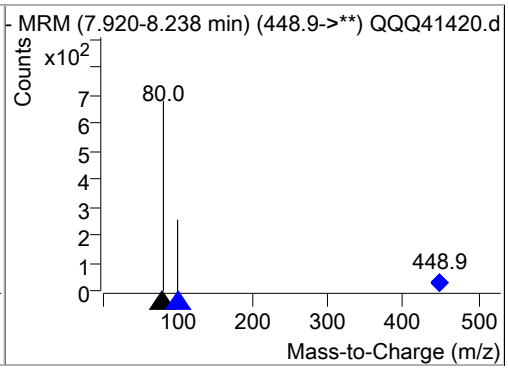




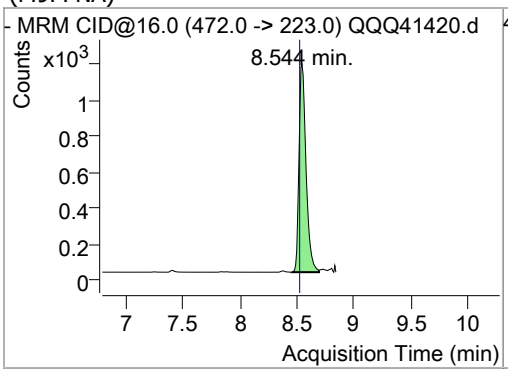
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	2.1361	8.01	-0.05	12467	448.9 -> 98.9	32.9	29.6	44.4

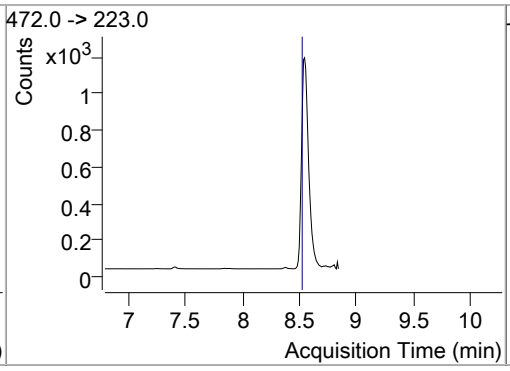


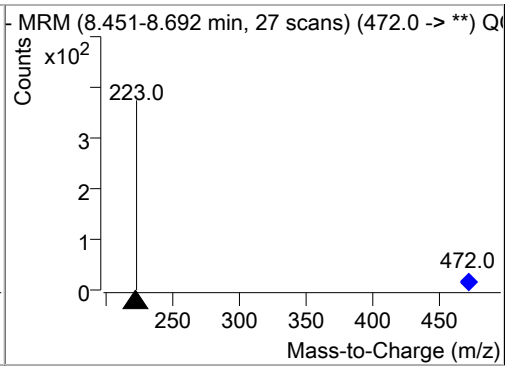




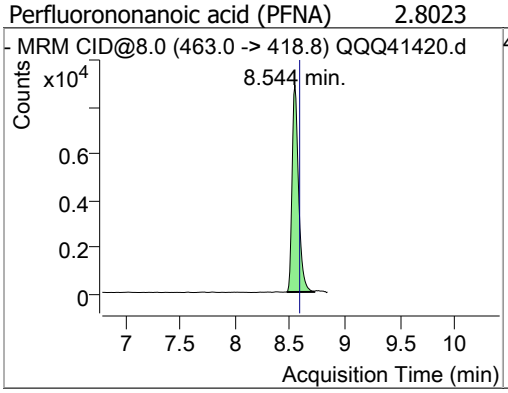
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.1059	8.54	-0.05	5000				

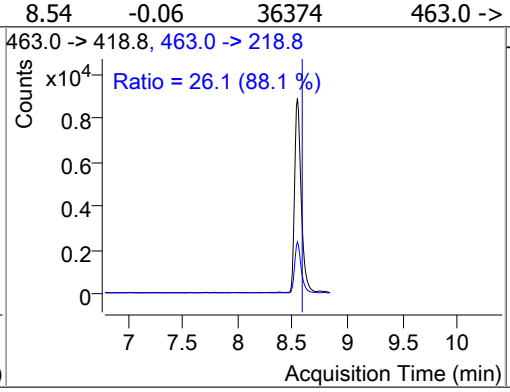


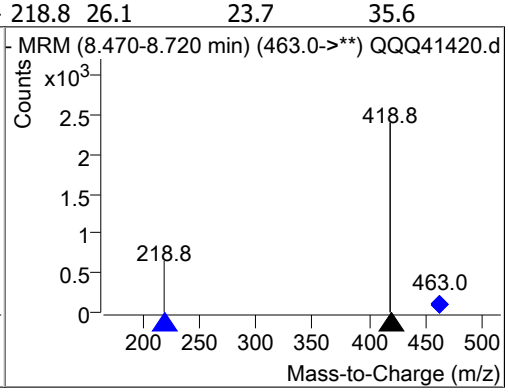




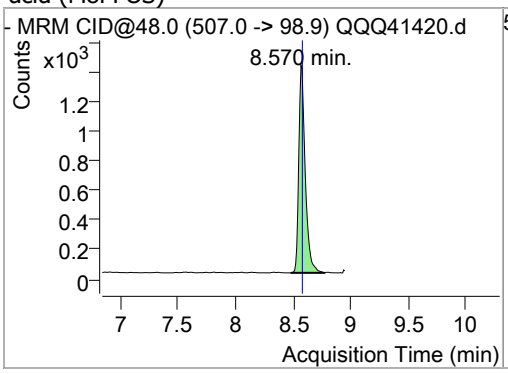
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	2.8023	8.54	-0.06	36374	463.0 -> 218.8	26.1	23.7	35.6

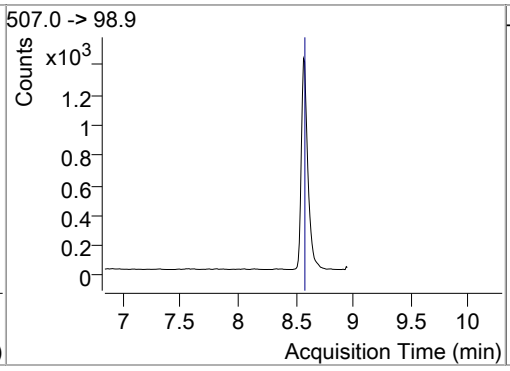


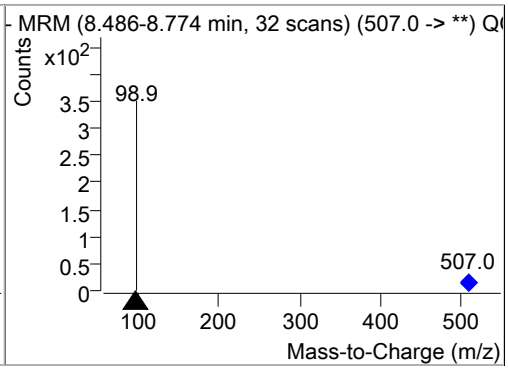




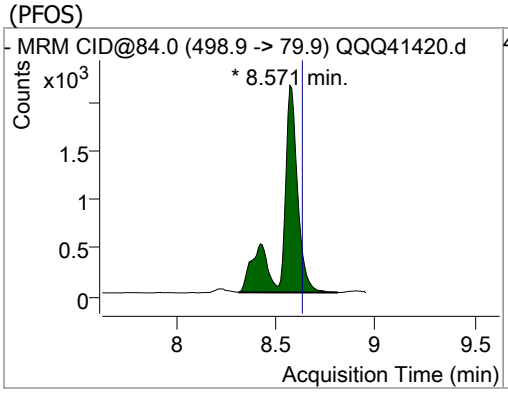
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.6428	8.57	-0.06	5497				

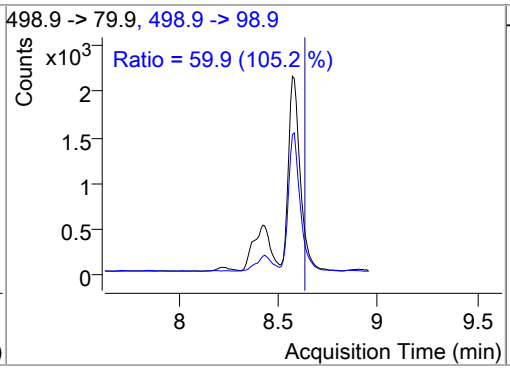


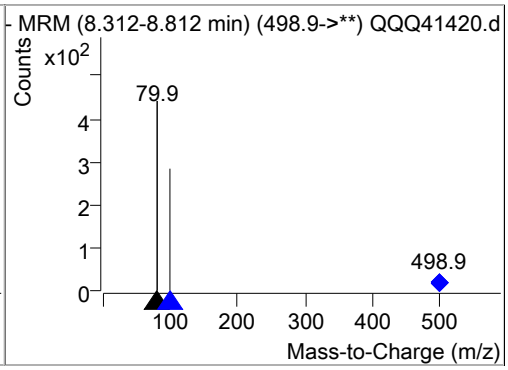




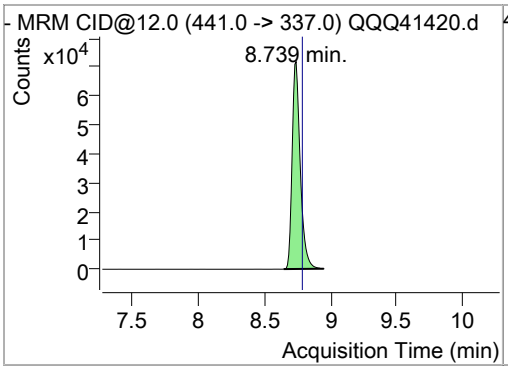
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.2263	8.57	-0.06	11632 (m)	498.9 -> 98.9	59.9	45.5	68.3

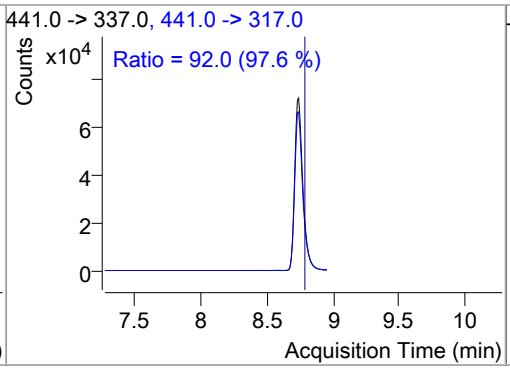


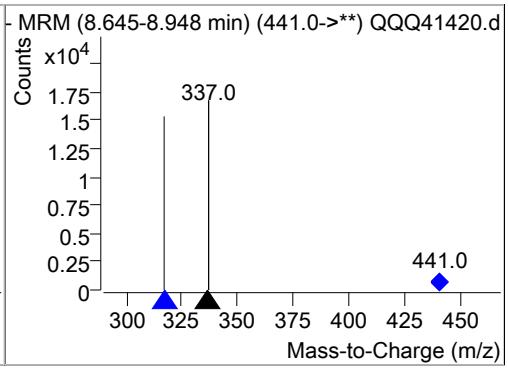




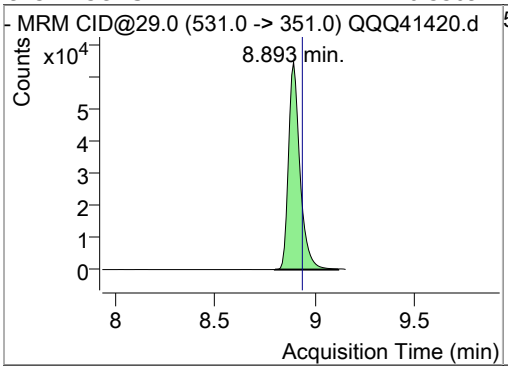
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	60.4931	8.74	-0.04	304878	441.0 -> 317.0	92.0	75.4	113.1

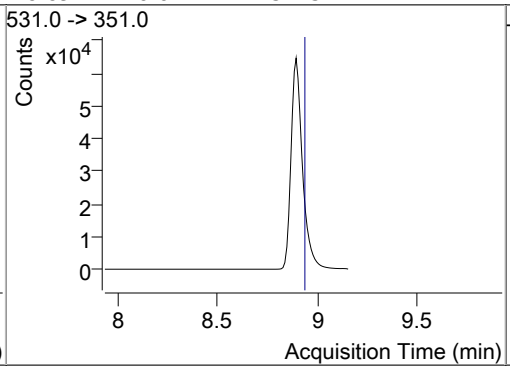


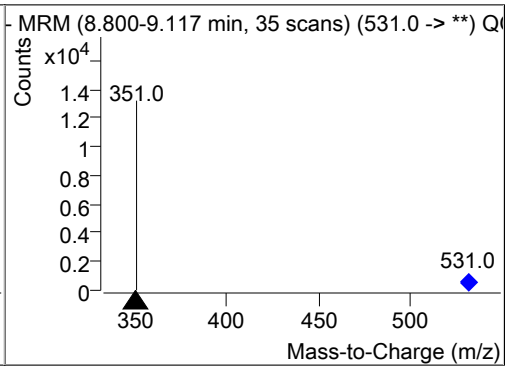




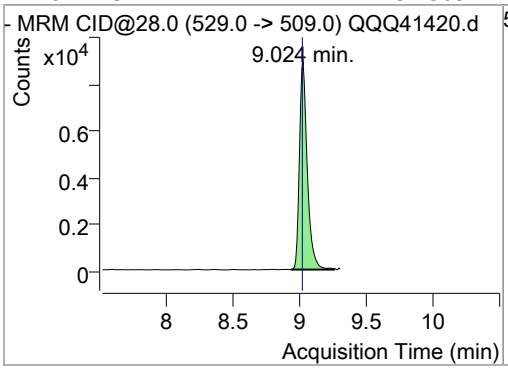
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	10.3309	8.89	-0.04	257132				

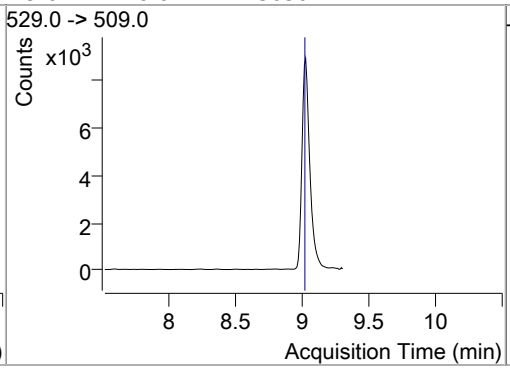


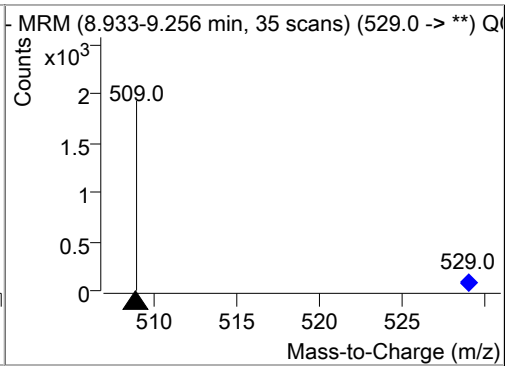




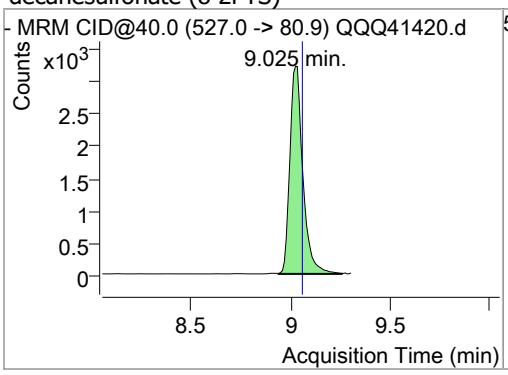
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	5.1363	9.02	-0.02	36562				

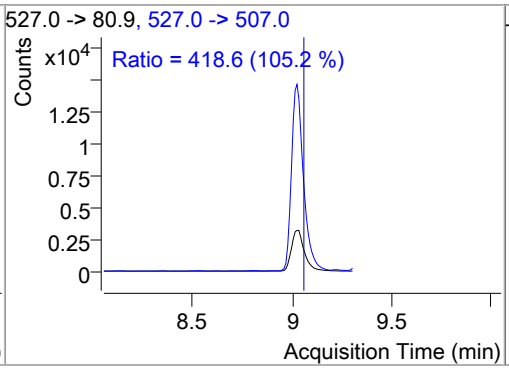


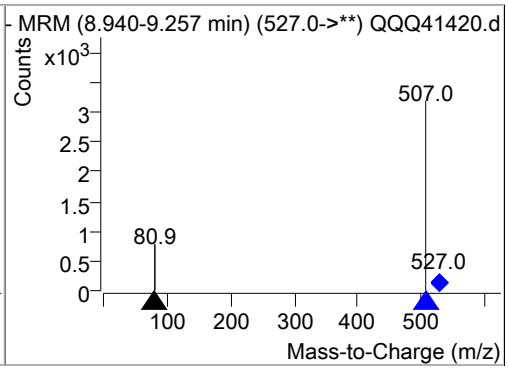




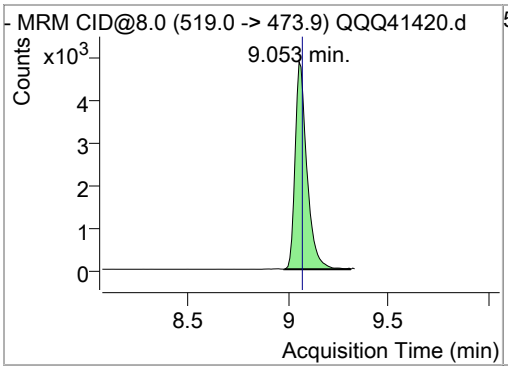
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.0643	9.02	-0.03	14456	527.0 -> 507.0	418.6	318.3	477.4

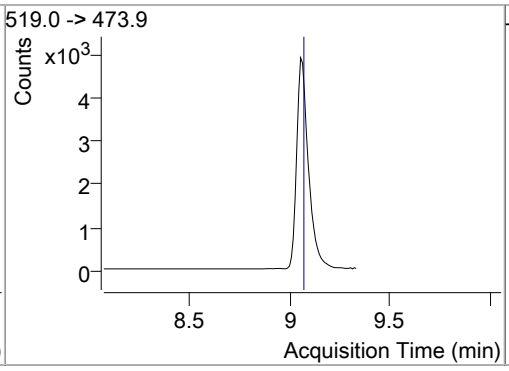


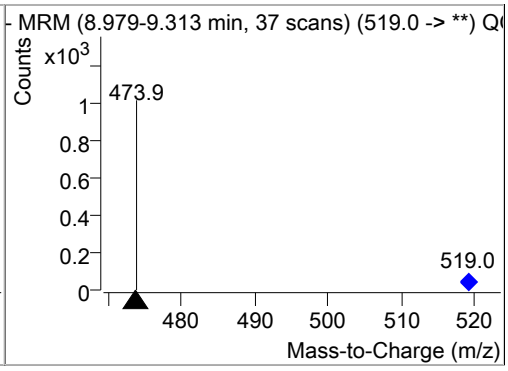




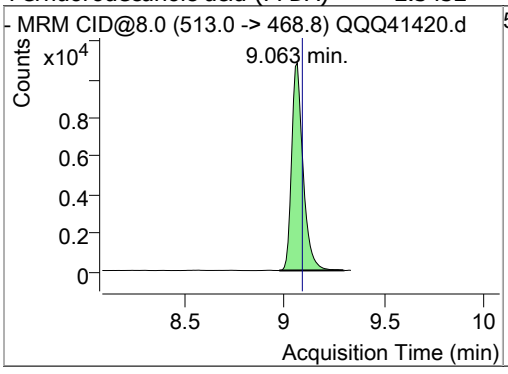
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2773	9.05	-0.03	20065				

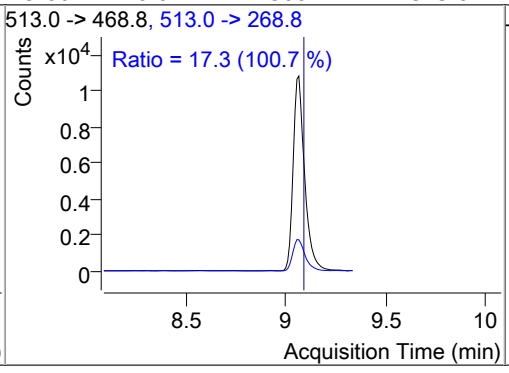


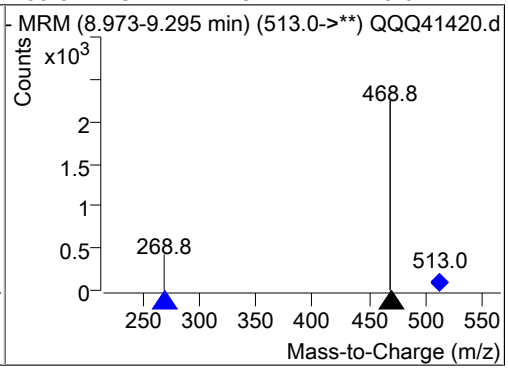




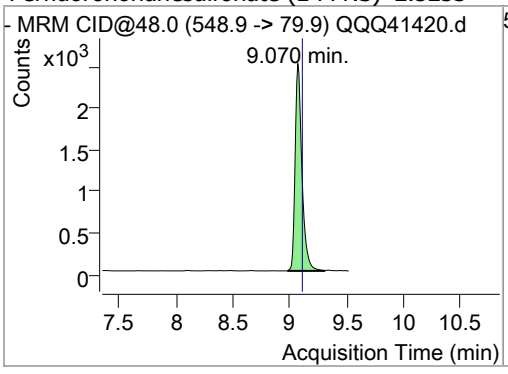
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	2.3452	9.06	-0.02	43081	513.0 -> 268.8	17.3	13.7	20.6

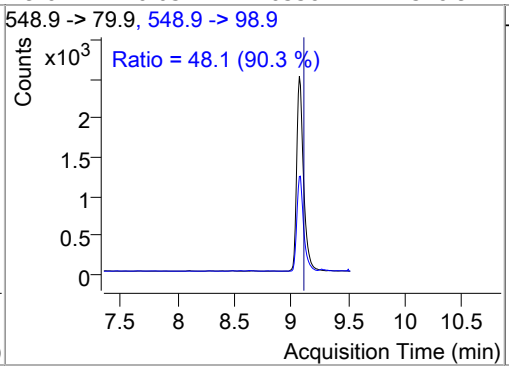


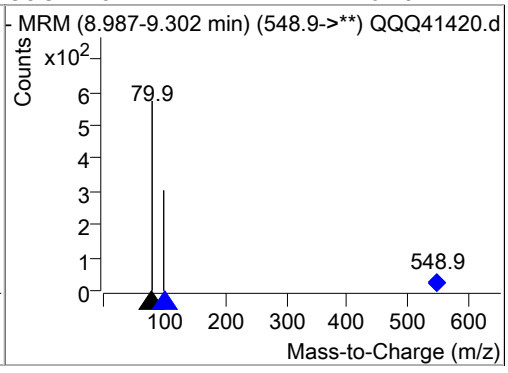




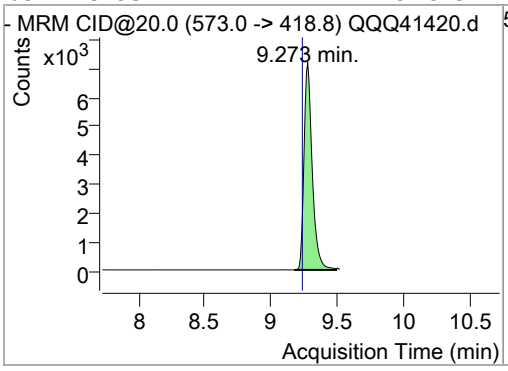
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	2.5233	9.07	-0.03	10338	548.9 -> 98.9	48.1	42.7	64.0

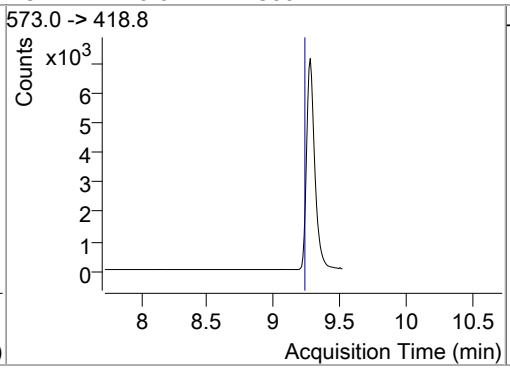


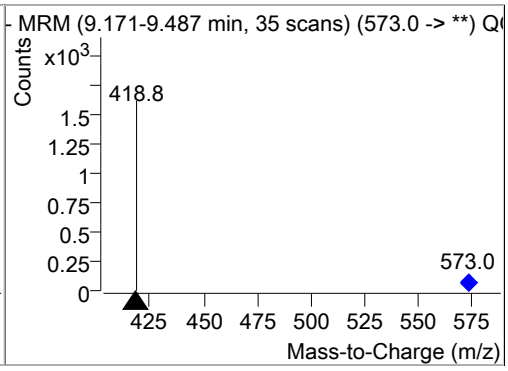




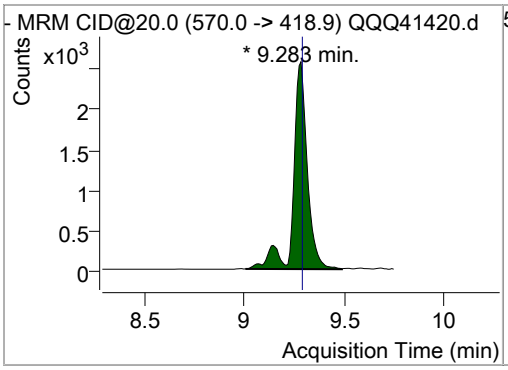
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.7545	9.27	-0.01	30842				

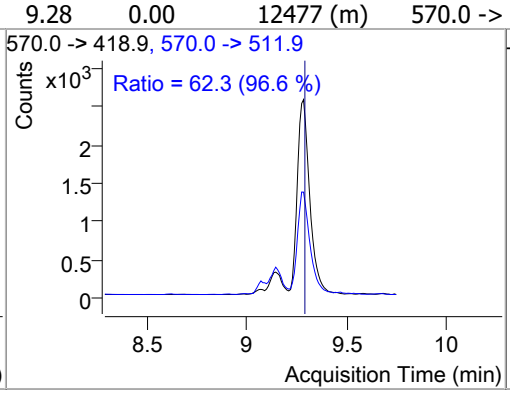


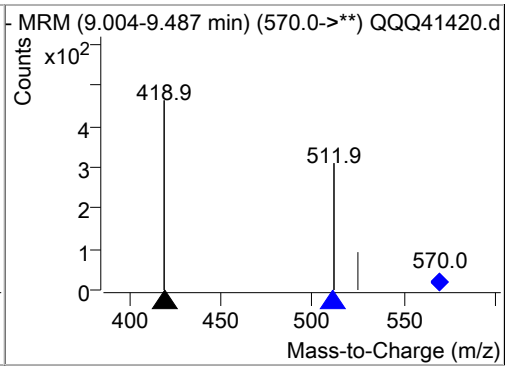




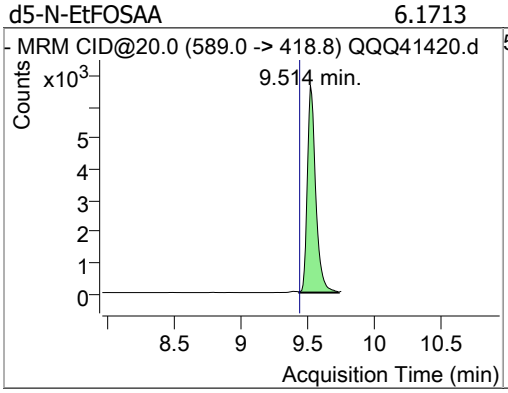
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	2.3221	9.28	0.00	12477 (m)	570.0 -> 511.9	62.3	51.6	77.4

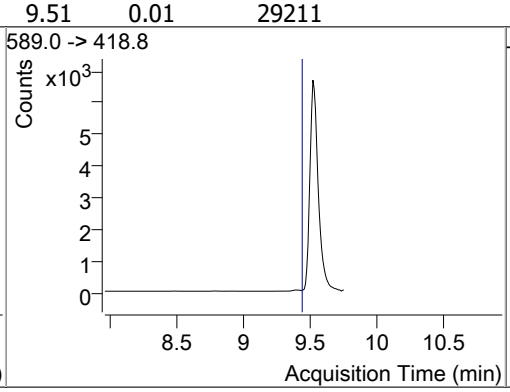


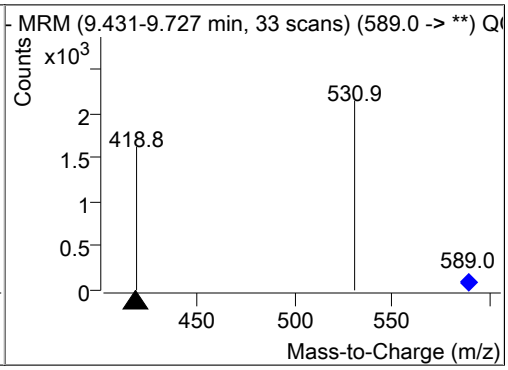




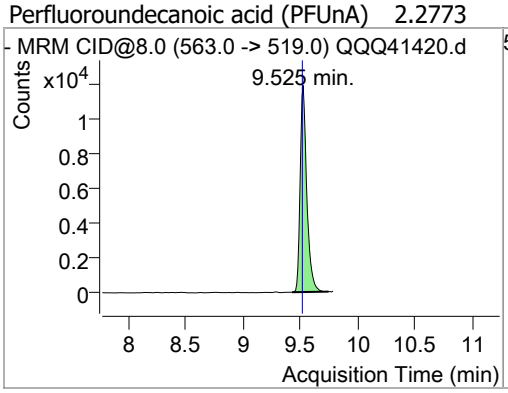
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.1713	9.51	0.01	29211				

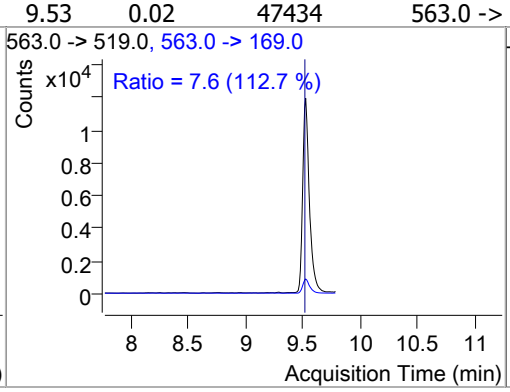


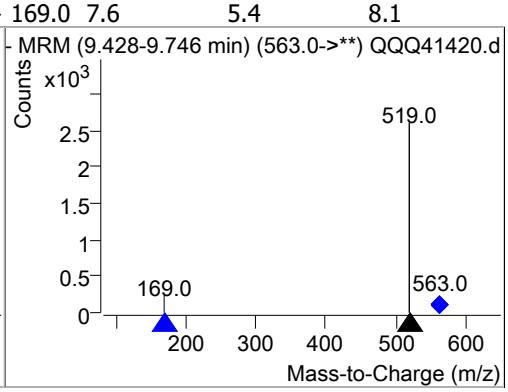




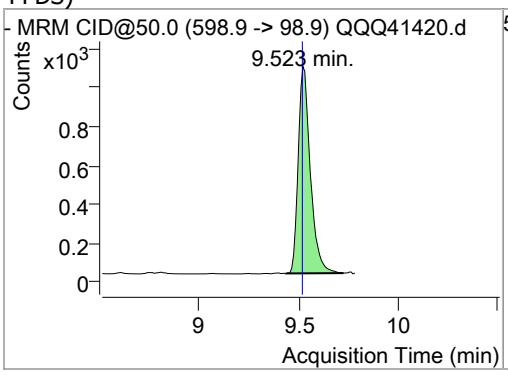
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.2773	9.53	0.02	47434	563.0 -> 169.0	7.6	5.4	8.1

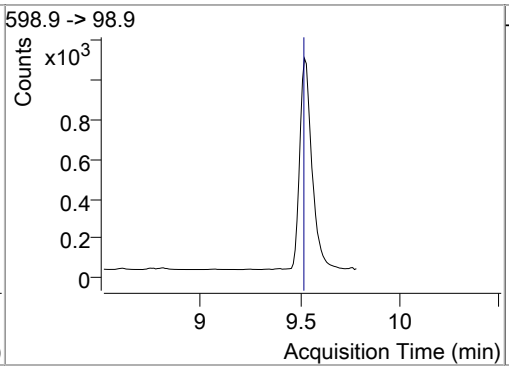


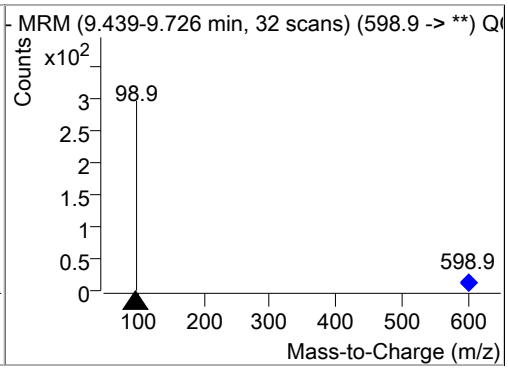




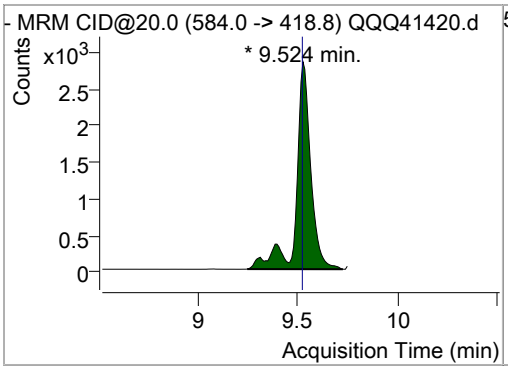
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.2711	9.52	0.01	4495				

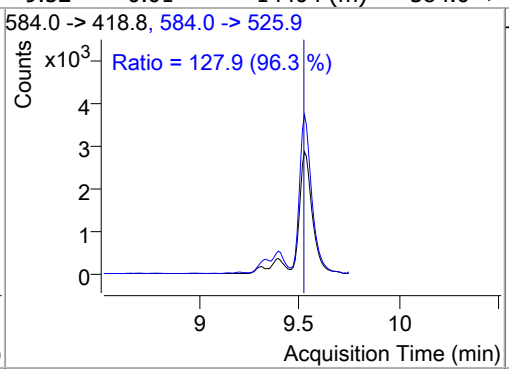


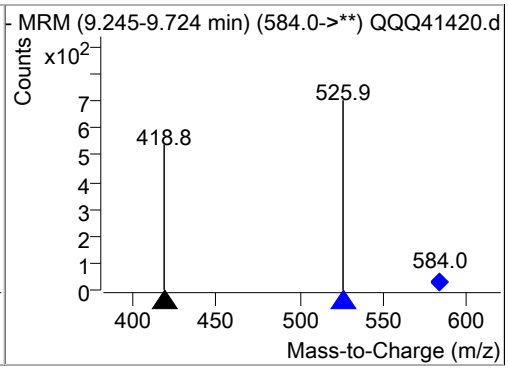




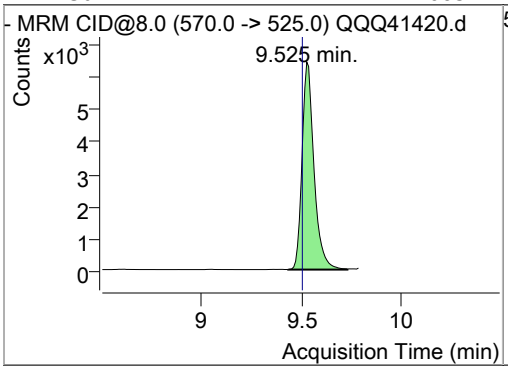
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	2.8573	9.52	0.01	14404 (m)	584.0 -> 525.9	127.9	106.2	159.3

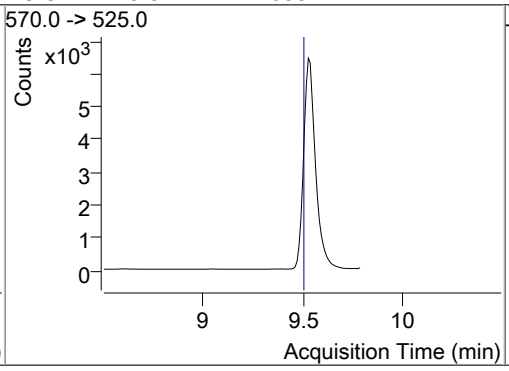


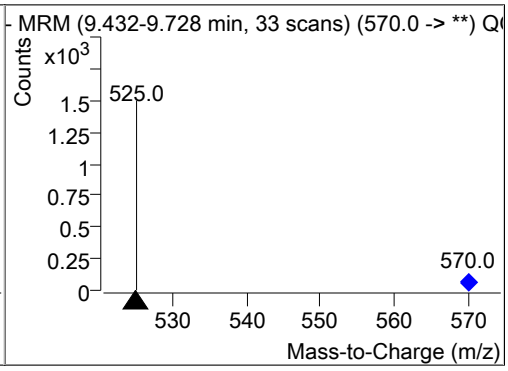




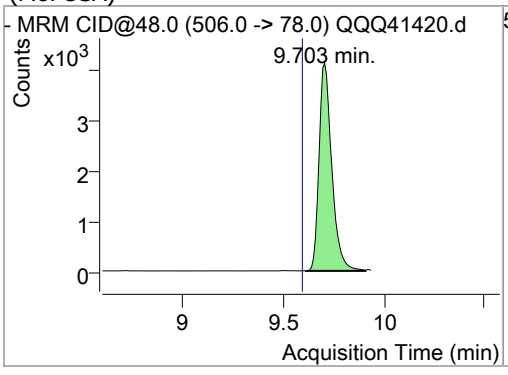
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2605	9.52	0.01	26802				

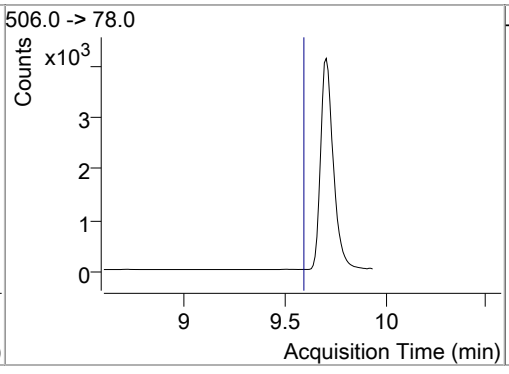


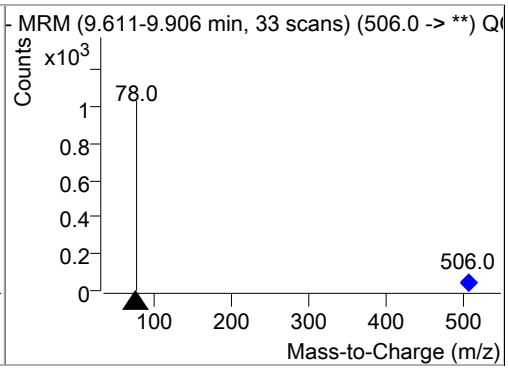




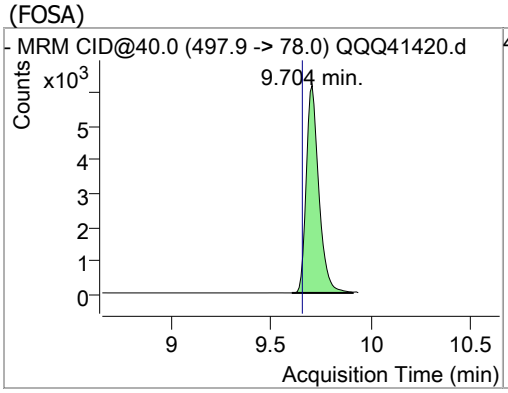
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.6547	9.70	0.06	18093				

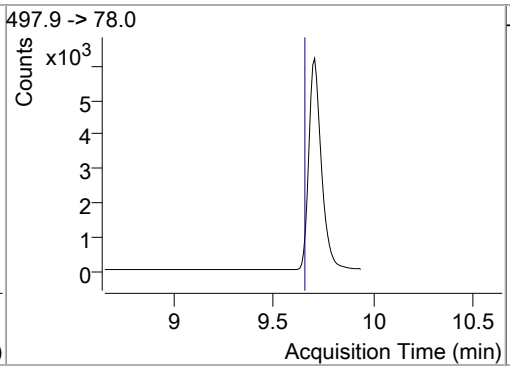


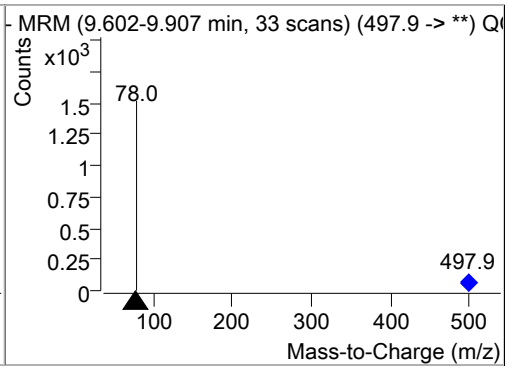




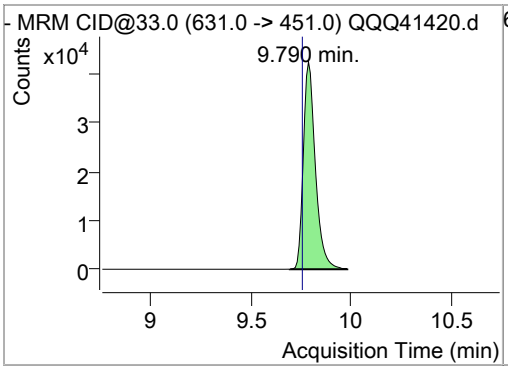
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	2.6154	9.70	0.06	27035				

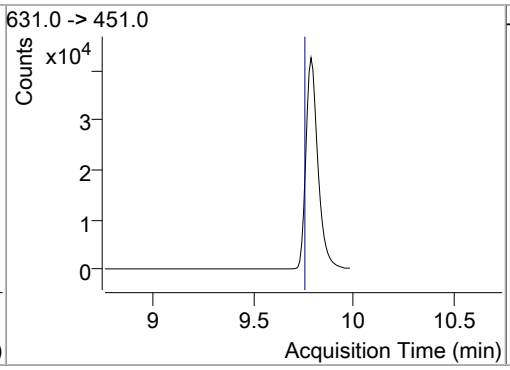


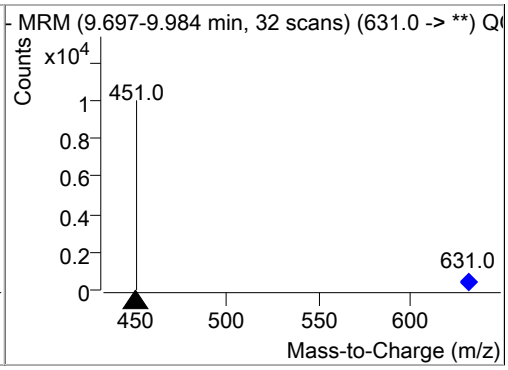




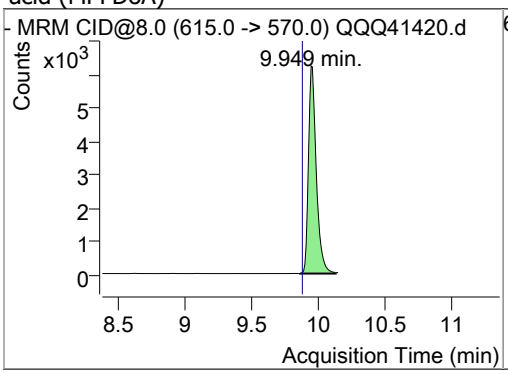
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	10.3166	9.79	0.04	177725				

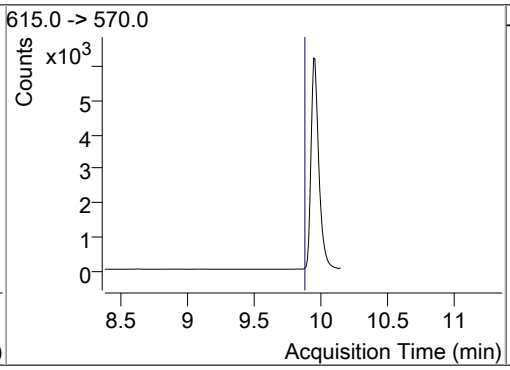


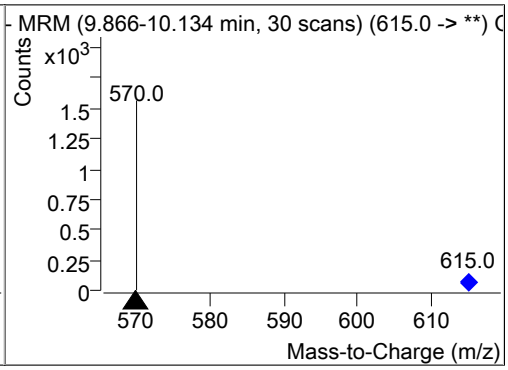




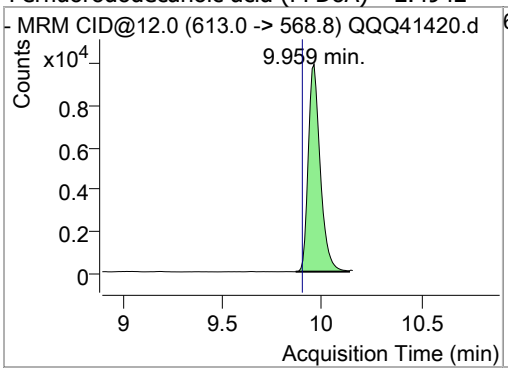
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.3605	9.95	0.06	25431				

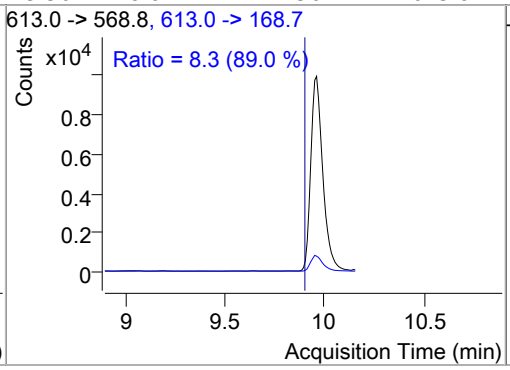


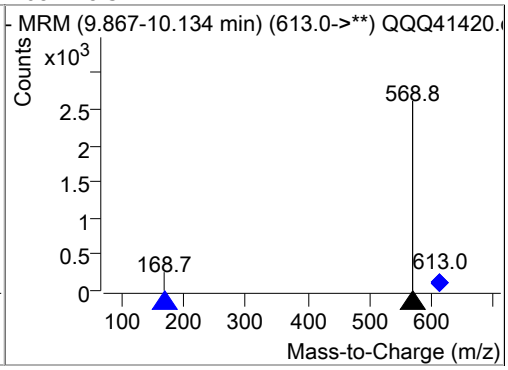




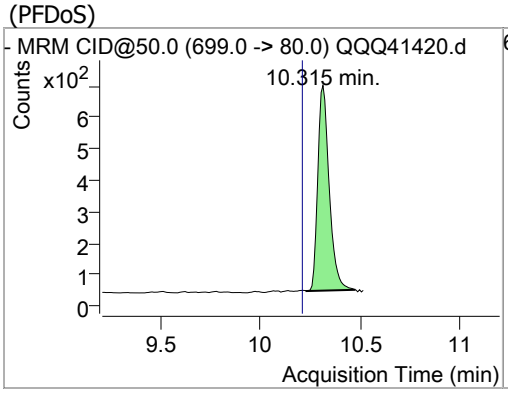
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	2.4942	9.96	0.07	41296	613.0 -> 168.7	8.3	7.4	11.2

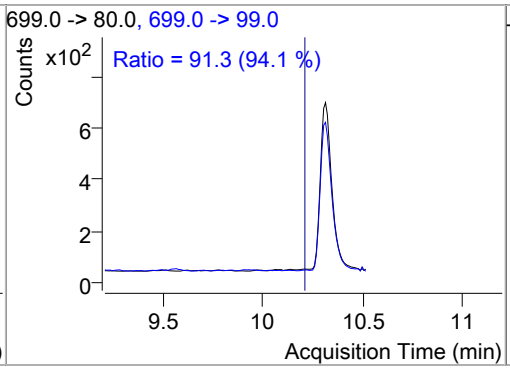


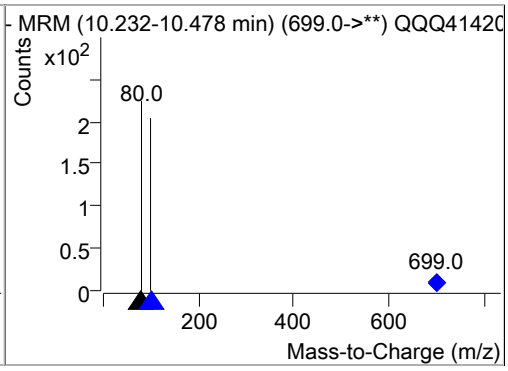




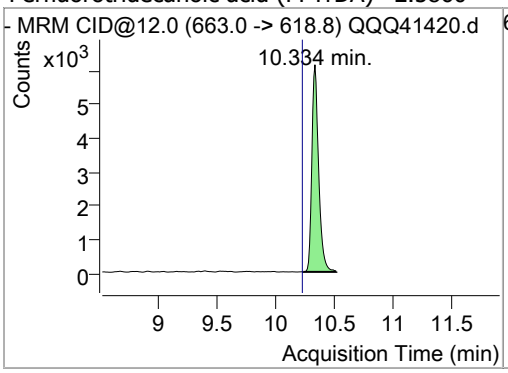
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.5915	10.31	0.11	2608	699.0 -> 99.0	91.3	77.6	116.4

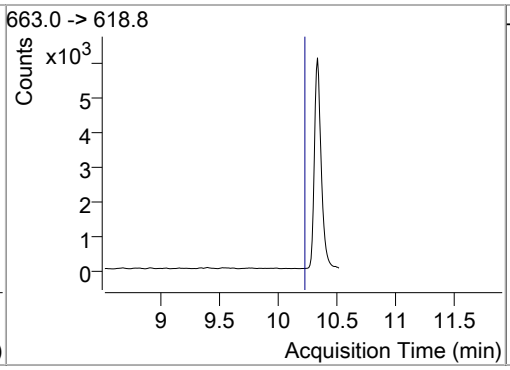


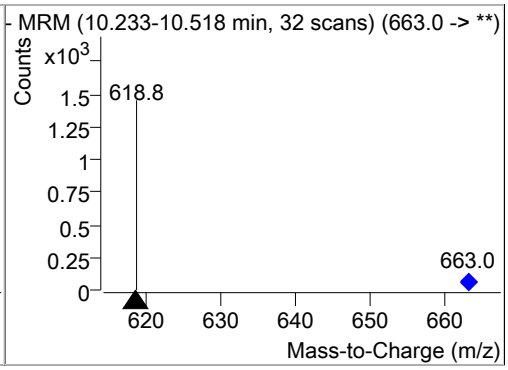




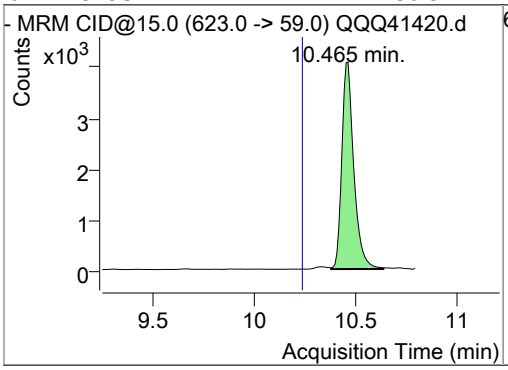
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	2.5860	10.33	0.12	24703				

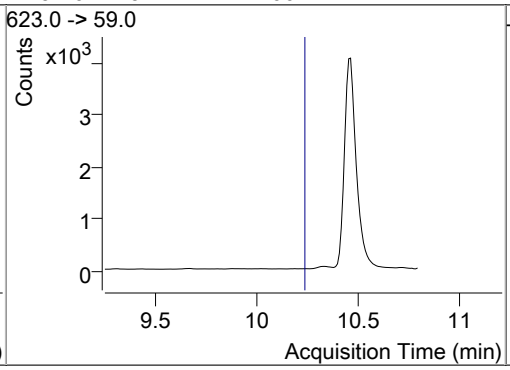


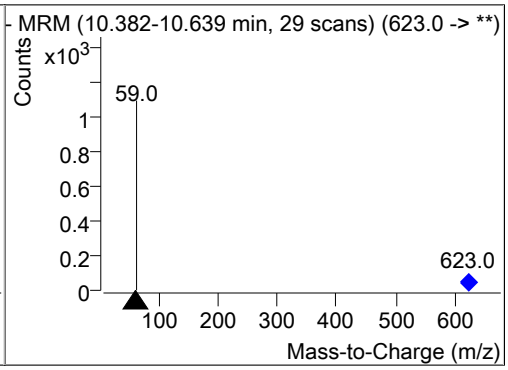




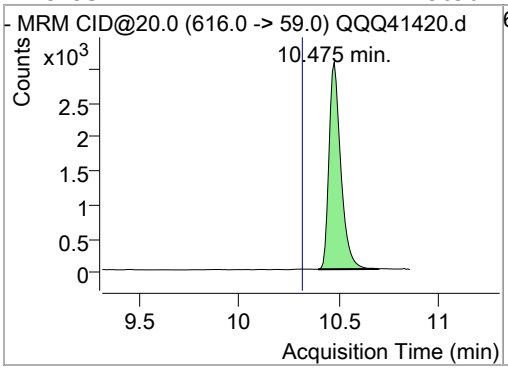
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	30.3712	10.46	0.17	16611				

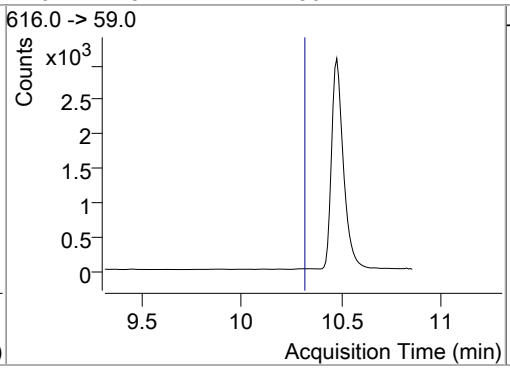


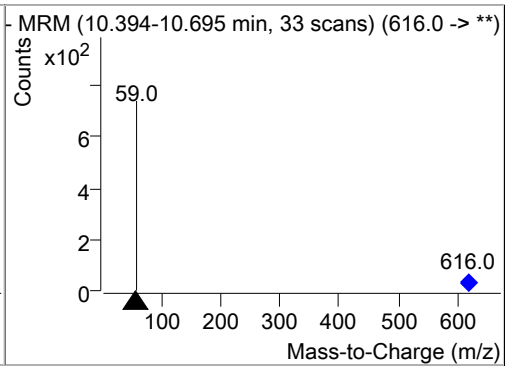




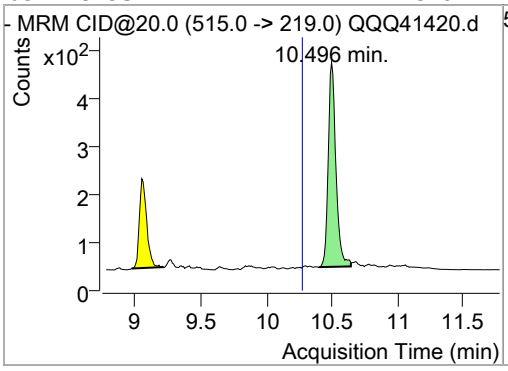
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	22.9696	10.47	0.17	12486				

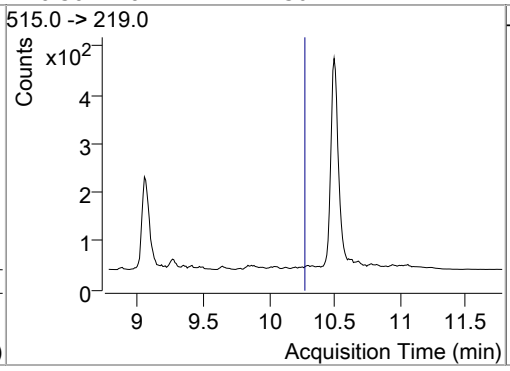


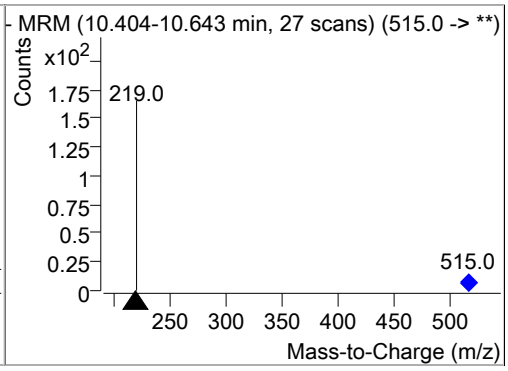




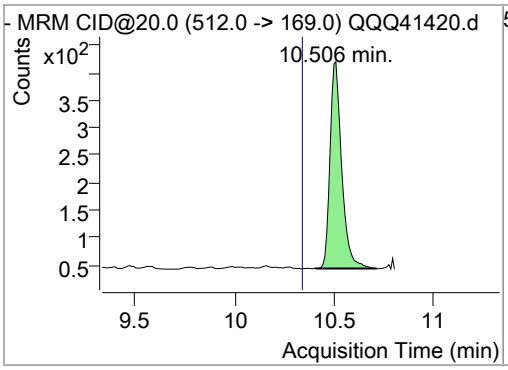
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.5204	10.50	0.17	1736				

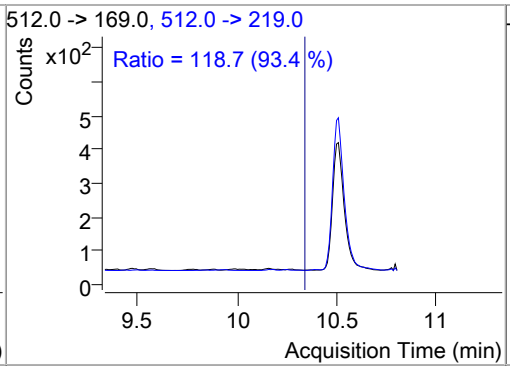


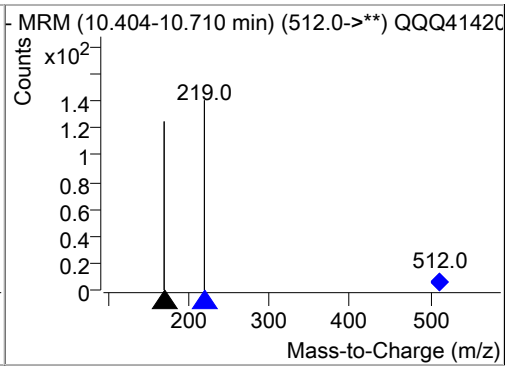




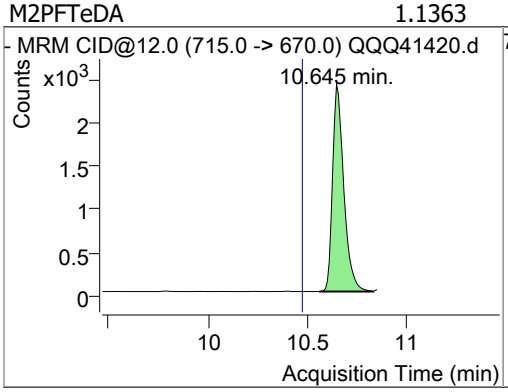
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	2.6055	10.51	0.17	1540	512.0 -> 219.0	118.7	101.6	152.5

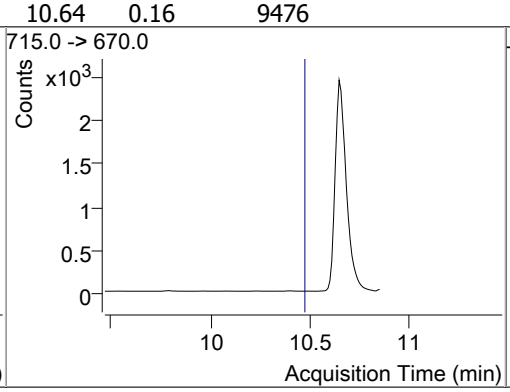


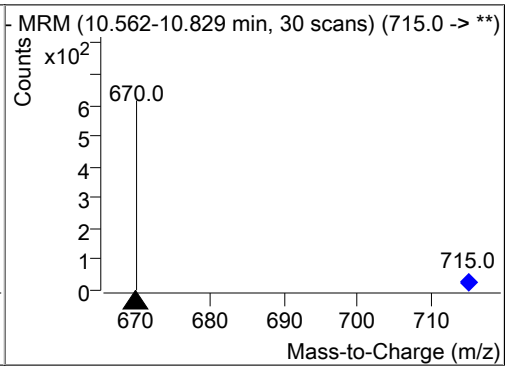




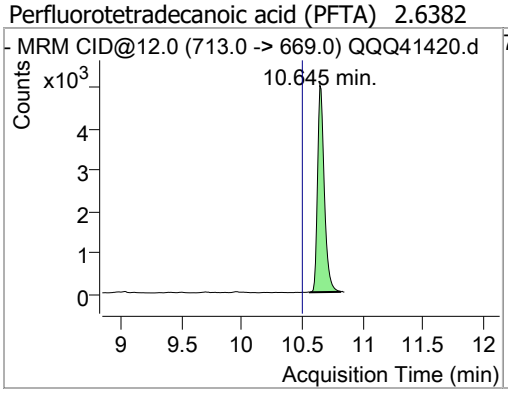
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.1363	10.64	0.16	9476				

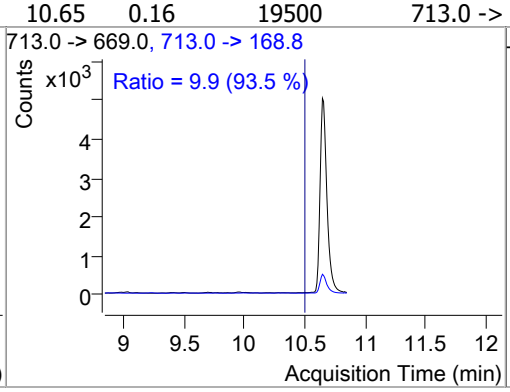


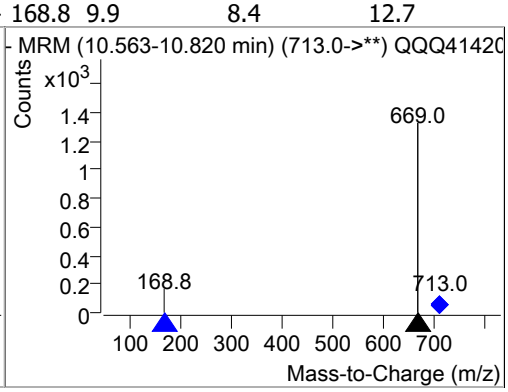




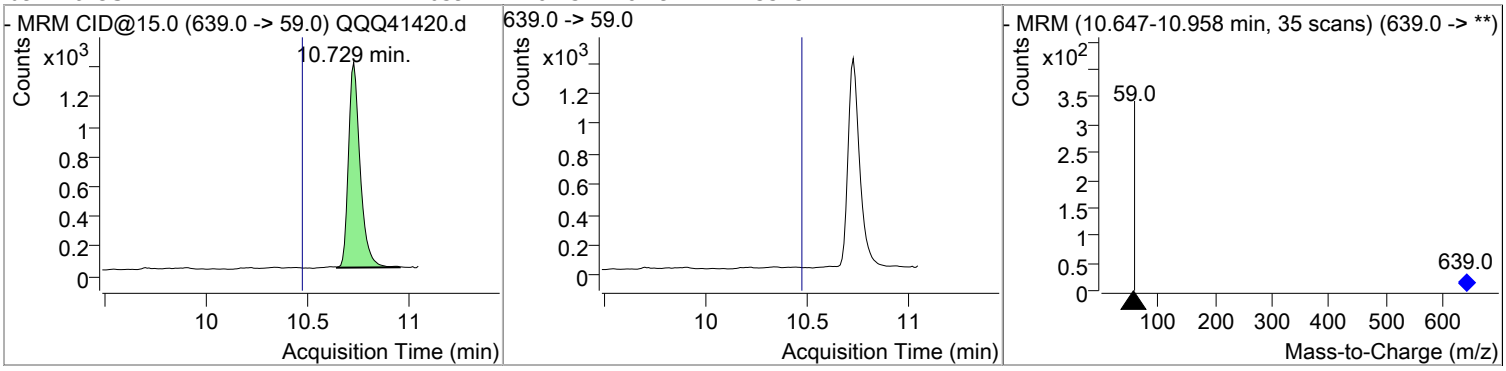
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	2.6382	10.65	0.16	19500	713.0 -> 168.8	9.9	8.4	12.7



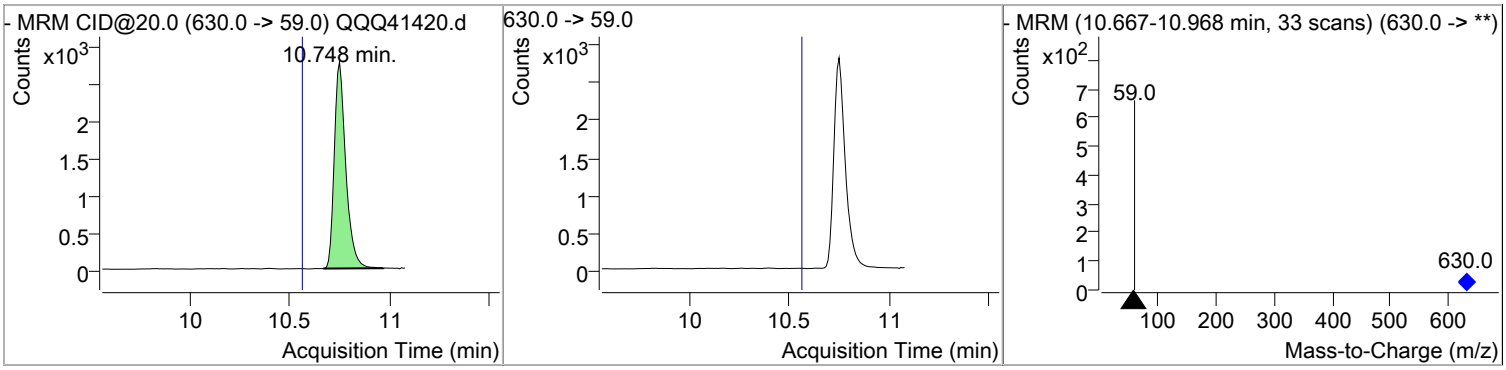




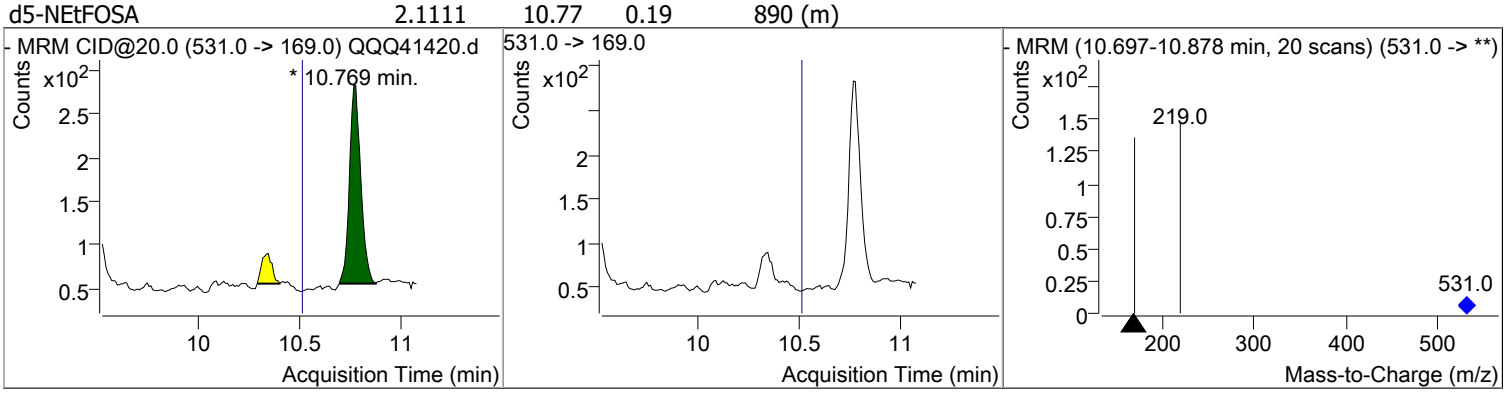
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	22.6394	10.73	0.19	5513				



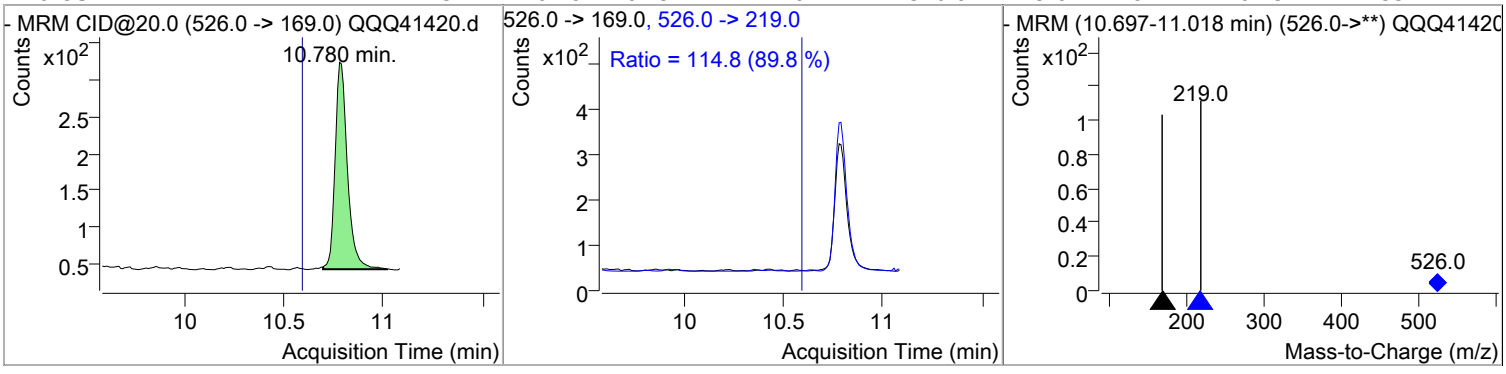
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	23.1790	10.75	0.19	11089				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.1111	10.77	0.19	890 (m)				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.7232	10.78	0.19	1210	526.0 -> 219.0	114.8	102.3	153.4



Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 10:44:04 PM	**Data File**	QQQ41420.d
Sample Type	Sample	**Sampe Name**	SEQ-CCV5
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	147191	21472	0.487			1.65			771335.68
Perfluoro-n-butanoic acid (PFBA)	1.301	128550	18646	0.522			1.84			1188.82
PFMPA	2.235	34552	4035	0.573			1.65			340482.55
3:3FTCA	4.461	3863	488	0.461			1.80			286.05
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	118435	17311	0.436			1.72			13711.60
Perfluoro-n-pentanoic acid (PFPeA)	4.774	113925	16735	0.454			1.83			7051.31
PFMBA	5.541	49618	10228	0.388			1.87			75517.89
M3PFBS	5.566	16720	3664	0.353			1.94			∞
Perfluorobutanesulfonic acid (PFBS)	5.567	16098	3564	0.334			1.98			∞
PFEESA	6.103	130883	32429	0.259			1.43			∞
NFDHA	6.235	1467	360	0.204			2.38			9530.44
M2-4-2FTS	6.315	17536	4308	0.356			1.86			825.88
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.316	40943	10074	0.297			1.81			552.44
M5PFHxA	6.390	59479	14724	0.297			1.77			86842.64
Perfluorohexanoic acid (PFHxA)	6.392	64657	15525	0.308			1.73			∞
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.602	15030	3724	0.311			1.76			∞
M3-HFPO-DA	6.689	41214	9832	0.352			1.78			203.50
HFPO-DA	6.689	3839	916	0.352			1.71			158.73
M4PFHpA	7.244	13138	3089	0.297			1.61			33134.23
Perfluoroheptanoic acid (PFHpA)	7.244	32514	7905	0.306			1.70			170.97
5-3FTCA	7.319	204683	47042	0.371			1.81			21680.88
Perfluorohexanesulfonic acid (PFHxS)	7.355	14591	2909	0.474			1.56			1115.44
M3PFHxS	7.354	11610	2837	0.326			1.58			16874.28

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.383	89132	21334	0.307			1.76			∞
M2-6-2FTS	7.893	10899	2614	0.276			1.45			286.18
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.894	29654	7041	0.325			1.42			104.83
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	32562	7931	0.316			1.67			156476.41
Perfluorooctanoic acid (PFOA)	7.951	33428	7842	0.320			1.75			115.74
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.014	12467	2980	0.318			1.61			∞
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.544	5000	1156	0.241			1.67			∞
Perfluorononanoic acid (PFNA)	8.544	36374	8867	0.250			1.63			627.33
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	5497	1400	0.288			1.99			411.22
Perfluorooctanesulfonic acid (PFOS)	8.571	11632	2122	0.500			1.90			137.10
7-3FTCA	8.739	304878	71690	0.303			1.40			∞
9-Cl-PF3ONS	8.893	257132	64640	0.317			1.57			138354.49
M2-8-2FTS	9.024	36562	8887	0.324			1.48			56.17
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.025	14456	3190	0.317			1.52			85.49
M6PFDA	9.053	20065	4881	0.334			2.02			∞
Perfluorodecanoic acid (PFDA)	9.063	43081	10822	0.323			1.38			294.03
Perfluorononanesulfonate (L-PFNS)	9.070	10338	2494	0.315			1.78			17805.41
d3-N-MeFOSAA	9.273	30842	7179	0.316			1.52			286491.16
N-MeFOSAA	9.283	12477	2548	0.483			1.39			∞
d5-N-EtFOSAA	9.514	29211	6677	0.296			1.84			74.74
Perfluoroundecanoic acid (PFUnA)	9.525	47434	11850	0.318			1.58			108.63
Perfluoro-1-decanesulfonate (L-PFDS)	9.523	4495	1066	0.287			1.76			430.51
N-EtFOSAA	9.524	14404	2834	0.479			1.73			24.23
M7PFUdA	9.525	26802	6448	0.296			1.64			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.703	18093	4099	0.295			1.54			2188.38
Perfluoro-1-octanesulfonamide (FOSA)	9.704	27035	6188	0.305			1.45			113.72
11-Cl-PF3OUdS	9.790	177725	42496	0.288			1.57			458109.31
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.949	25431	6221	0.268			1.98			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.959	41296	9918	0.267			1.40			1190.73
Perfluorododecanesulfonic acid (PFDoS)	10.315	2608	653	0.246			1.54			98.38
Perfluorotridecanoic acid (PFTrDA)	10.334	24703	6121	0.286			1.46			572.59
d7-NMeFOSE	10.465	16611	4053	0.257			1.31			∞
NMeFOSE	10.475	12486	3050	0.301			1.62			200.75
d3-NMeFOSA	10.496	1736	427	0.239			1.45			143.72
NMeFOSA	10.506	1540	378	0.306			1.34			231.32
M2PFTeDA	10.645	9476	2425	0.267			1.93			8032.08
Perfluorotetradecanoic acid (PFTA)	10.645	19500	4994	0.258			1.88			956.84
d9-NEtFOSE	10.729	5513	1373	0.311			1.54			76.58
NEtFOSE	10.748	11089	2768	0.301			1.52			144.13
d5-NEtFOSA	10.769	890	228	0.181			1.53			20.71
NEtFOSA	10.780	1210	282	0.321			1.76			83.30

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41432.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/11/24
Lab Sample ID:	S4G1047-CCV6	Injection Time:	01:57

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A	9.45	9.49	0.8591385	1.048982		0.4	30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A	9.60	8.97	0.2419004	0.2291039		-6.5	30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A	9.38	9.45	1.185549	1.263131		0.7	30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A	9.50	7.85	1.255886	1.369458		-17.4	30
3-Perfluoroheptyl propanoic acid (FHpPA)	A	62.6	67.0	0.2201101	0.2263326		7.0	30
3-Perfluoropentyl propanoic acid (FPePA)	A	62.6	55.3	0.1241024	0.1398872		-11.7	30
3-Perfluoropropyl propanoic acid (FPrPA)	A	12.5	10.8	1.286716E-02	1.394118E-02		-14.0	30
9CL-PF3ONS	A	9.35	10.7	1.369128	1.726143		14.3	30
ADONA	A	9.45	9.21	0.556015	0.5390709		-2.6	30
HFPO-DA (Gen-X)	A	10.0	10.1	2.239571E-02	2.232627E-02		1.4	30
N-EtFOSA	A	2.50	2.36	1.287944	1.177242		-5.7	30
N-EtFOSAA	A	2.50	2.65	0.94945	0.9142568		6.0	30
N-EtFOSE	A	25.0	24.9	1.993152	2.164662		-0.2	30
N-MeFOSA	A	2.50	2.46	0.7524916	0.8284953		-1.8	30
N-MeFOSAA	A	2.50	2.22	0.8763811	0.7736225		-11.2	30
N-MeFOSE	A	25.0	26.3	0.824401	0.8630491		5.4	30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A	4.45	4.20	1.241156	1.241098		-5.7	30
Perfluoro-1-decanesulfonic acid (PFDS)	A	2.41	2.36	0.7352727	0.8816488		-2.2	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A	2.38	2.16	2.525683	2.410688		-9.3	30
Perfluoro-1-nonanesulfonic acid (PFNS)	A	2.40	2.53	0.1655348	0.1889794		5.3	30
Perfluoro-1-octanesulfonamide (FOSA)	A	2.50	2.68	1.385288	1.530878		7.2	30
Perfluoro-1-pentanesulfonate (PFPeS)	A	2.35	2.60	1.400558	1.485089		10.6	30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A	5.00	4.65	1.573594E-02	1.631376E-02		-7.0	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41432.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/11/24
Lab Sample ID:	S4G1047-CCV6	Injection Time:	01:57

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A	5.00	4.87	0.2604373	0.291298		-2.6	30
Perfluoro-5-oxahexanoic acid (PFMBA)	A	5.00	5.04	0.4108024	0.4212585		0.9	30
Perfluorobutanesulfonic acid (PFBS)	A	2.22	2.29	1.128938	1.130212		3.1	30
Perfluorodecanoic acid (PFDA)	A	2.50	2.51	1.09146	1.146694		0.2	30
Perfluorododecanesulfonic acid (PFDoS)	A	2.42	2.67	0.4284993	0.5066035		10.5	30
Perfluorododecanoic acid (PFDoA)	A	2.50	2.67	0.8702134	0.8691856		6.8	30
Perfluoroheptanoic acid (PFHpA)	A	2.50	2.90	2.370614	2.591909		16.2	30
Perfluorohexanesulfonic acid (PFHxS)	A	2.28	2.50	1.39602	1.345967		9.5	30
Perfluorohexanoic acid (PFHxA)	A	2.50	2.51	1.166423	1.160294		0.5	30
Perfluoro-n-butanoic acid (PFBA)	A	10.0	9.85	0.9037138	0.8641103		-1.5	30
Perfluorononanoic acid (PFNA)	A	2.50	2.63	3.453721	3.41294		5.2	30
Perfluorooctanesulfonic acid (PFOS)	A	2.32	2.15	2.631087	2.208593		-7.2	30
Perfluorooctanoic acid (PFOA)	A	2.50	2.85	1.254067	1.16696		13.9	30
Perfluoropentanoic acid (PFPeA)	A	5.00	5.14	1.003786	0.9851147		2.8	30
Perfluorotetradecanoic acid (PFTA)	A	2.50	2.45	1.041146	0.9543824		-2.1	30
Perfluorotridecanoic acid (PFTrDA)	A	2.50	2.49	1.484165	1.256175		-0.3	30
Perfluoroundecanoic acid (PFUnA)	A	2.50	2.24	0.9068038	0.8708955		-10.4	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41432.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/11/2024 1:57:35 AM
Sample Name	SEQ-CCV6	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	2.5 - 62.5 ng/mL
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

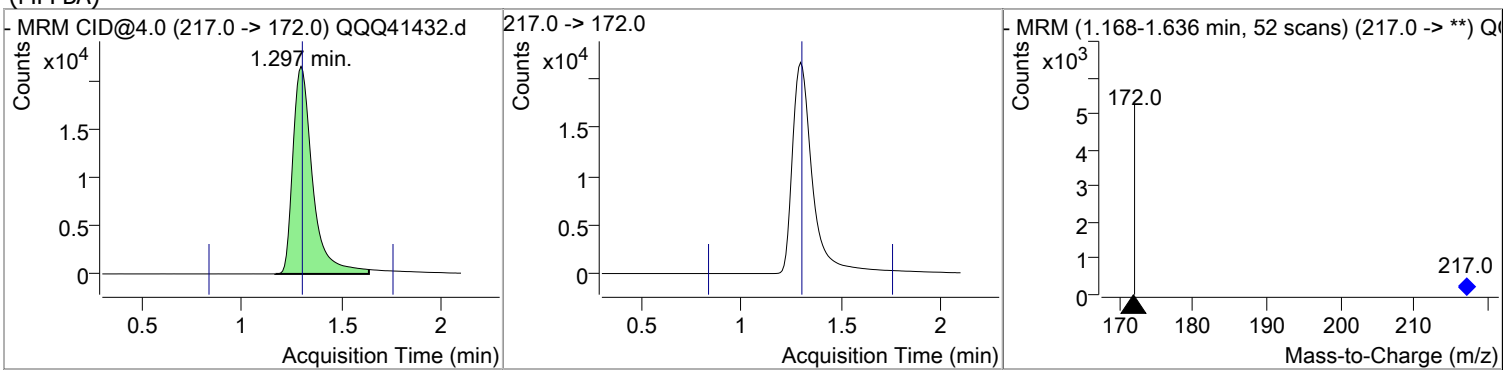
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.299	216.0 -> 172.0	26665	5.0000	ng/ml	0.046
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.297	217.0 -> 172.0	148811	10.0000	ng/ml	0.046
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.783	268.0 -> 223.0	121153	5.0000	ng/ml	0.055
MPFHxA	6.401	315.0 -> 269.8	40942	2.5000	ng/ml	0.028
MPFHxS	7.345	403.0 -> 103.0	4169	2.3700	ng/ml	-0.037
M3PFBS-EIS	5.575	302.0 -> 79.9	18683	2.3300	ng/ml	0.046
M5PFHxA-EIS	6.400	318.0 -> 273.0	65025	2.5000	ng/ml	0.028
M2-4-2FTS-EIS	6.325	329.0 -> 309.0	22632	4.6900	ng/ml	0.028
M3PFHxS-EIS	7.345	402.0 -> 80.0	12634	2.3700	ng/ml	-0.037
M3-HFPO-DA-EIS	6.698	287.0 -> 169.0	45335	10.0000	ng/ml	0.009
M4PFHpA-EIS	7.235	367.0 -> 322.0	14840	2.5000	ng/ml	-0.028
M2-6-2FTS-EIS	7.875	429.0 -> 409.0	14662	4.7550	ng/ml	-0.056
MPFOA	7.941	417.0 -> 372.0	47248	2.5000	ng/ml	-0.056
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.941	421.0 -> 376.0	34993	2.5000	ng/ml	-0.056
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.570	507.0 -> 98.9	5826	2.3950	ng/ml	-0.056
MPFNA	8.535	468.0 -> 423.0	22579	1.2500	ng/ml	-0.065
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.534	472.0 -> 223.0	5966	1.2500	ng/ml	-0.056
MPFOS	8.570	503.0 -> 80.0	12637	2.3950	ng/ml	-0.056
M2-8-2FTS-EIS	9.024	529.0 -> 509.0	38380	4.8000	ng/ml	-0.019
MPFDA	9.063	515.0 -> 469.8	15699	1.2500	ng/ml	-0.019
M6PFDA-EIS	9.063	519.0 -> 473.9	20508	1.2500	ng/ml	-0.019
d3-N-MeFOSAA-EIS	9.282	573.0 -> 418.8	32966	5.0000	ng/ml	0.000
M7PFUdA-EIS	9.534	570.0 -> 525.0	31304	1.2500	ng/ml	0.019
d5-N-EtFOSAA-EIS	9.524	589.0 -> 418.8	31486	5.0000	ng/ml	0.019
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.713	506.0 -> 78.0	19987	2.5000	ng/ml	0.065
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.977	615.0 -> 570.0	25336	1.2500	ng/ml	0.084
M2PFTeDA-EIS	10.672	715.0 -> 670.0	11254	1.2500	ng/ml	0.184
d7-NMeFOSE-EIS	10.483	623.0 -> 59.0	14416	25.0000	ng/ml	0.184
d3-NMeFOSA-EIS	10.514	515.0 -> 219.0	2003	2.5000	ng/ml	0.184
d9-NEtFOSE-EIS	10.748	639.0 -> 59.0	5822	25.0000	ng/ml	0.212
d5-NEtFOSA-EIS	10.788	531.0 -> 169.0	1031	2.5000	ng/ml	0.212
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	217.0 -> 172.0	148811	11.1446	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	268.0 -> 223.0	121155	4.6387	ng/ml	0.055
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.575	302.0 -> 79.9	18683	2.5119	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.325	329.0 -> 309.0	22632	4.5577	ng/ml	0.028

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.400	318.0 -> 273.0	65025	2.4887	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.698	287.0 -> 169.0	45335	9.9261	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.235	367.0 -> 322.0	14840	2.5569	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.345	402.0 -> 80.0	12634	2.4346	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.875	429.0 -> 409.0	14662	4.4089	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.941	421.0 -> 376.0	34993	2.3257	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.534	472.0 -> 223.0	6035	1.2542	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	507.0 -> 98.9	5827	2.5145	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.024	529.0 -> 509.0	38383	4.9147	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.063	519.0 -> 473.9	20508	1.1923	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.282	573.0 -> 418.8	32966	5.5209	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.524	589.0 -> 418.8	31486	5.9708	ng/ml		0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.534	570.0 -> 525.0	31304	1.3447	ng/ml		0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.713	506.0 -> 78.0	19987	2.6324	ng/ml		0.065
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	615.0 -> 570.0	25336	1.2380	ng/ml		0.084
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.483	623.0 -> 59.0	14306	23.4789	ng/ml		0.184
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.514	515.0 -> 219.0	2003	2.6098	ng/ml		0.184
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.672	715.0 -> 670.0	11254	1.2325	ng/ml		0.184
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.748	639.0 -> 59.0	5822	21.4622	ng/ml		0.212
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.788	531.0 -> 169.0	1029	2.1902	ng/ml	m	0.212
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.301	213.0 -> 168.9	128589	9.8467	ng/ml		100
PFMPA	2.217	229.0 -> 85.0	35292	4.8722	ng/ml		100
3:3FTCA	4.470	241.0 -> 177.0	4533	10.7551	ng/ml		96
Perfluoro-n-pentanoic acid (PFPeA)	4.784	263.0 -> 219.0	119350	5.1375	ng/ml		100
PFMBA	5.551	279.0 -> 85.0	51037	5.0434	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.576	298.9 -> 79.9	18751	2.2894	ng/ml		99
PFEESA	6.103	315.0 -> 135.0	143651	4.1965	ng/ml		99
NFDHA	6.253	295.0 -> 201.1	2122	4.6485	ng/ml		96
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.325	327.0 -> 307.0	53629	9.4463	ng/ml		98

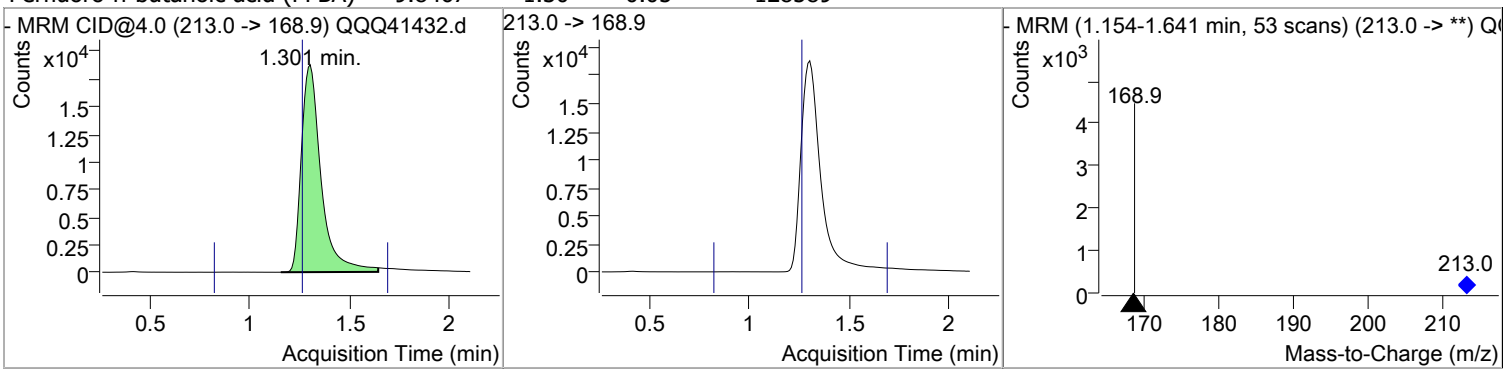
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.401	313.0 -> 268.9	75448	2.5137	ng/ml		99
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	348.9 -> 79.9	17636	2.5986	ng/ml		98
HFPO-DA	6.699	285.0 -> 169.1	4049	10.1441	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.235	363.0 -> 318.8	38463	2.9045	ng/ml		97
5-3FTCA	7.310	341.0 -> 217.0	227768	55.2606	ng/ml		97
Perfluorohexanesulfonic acid (PFHxS)	7.346	398.9 -> 79.9	15508	2.4968	ng/ml	m	92
ADONA	7.374	377.0 -> 85.0	92380	9.2062	ng/ml		98
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.875	427.0 -> 407.0	38150	7.8478	ng/ml		98
Perfluorooctanoic acid (PFOA)	7.941	413.0 -> 368.8	40836	2.8467	ng/ml		98
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.004	448.9 -> 80.0	13371	2.1588	ng/ml		92
Perfluorononanoic acid (PFNA)	8.544	463.0 -> 418.8	40725	2.6305	ng/ml		96
Perfluorooctanesulfonic acid (PFOS)	8.571	498.9 -> 79.9	11942	2.1527	ng/ml	m	90
7-3FTCA	8.730	441.0 -> 337.0	368521	66.9731	ng/ml		98
9-Cl-PF3ONS	8.893	531.0 -> 351.0	292676	10.6913	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.025	527.0 -> 80.9	16883	8.9744	ng/ml		96
Perfluorodecanoic acid (PFDA)	9.063	513.0 -> 468.8	47033	2.5051	ng/ml		100
Perfluorononanesulfonate (L-PFNS)	9.079	548.9 -> 79.9	10990	2.5276	ng/ml		93
N-MeFOSAA	9.283	570.0 -> 418.9	12752	2.2204	ng/ml	m	88
Perfluoroundecanoic acid (PFUnA)	9.535	563.0 -> 519.0	54525	2.2408	ng/ml		99
Perfluoro-1-decanesulfonate (L-PFDS)	9.532	598.9 -> 98.9	4952	2.3577	ng/ml		100
N-EtFOSAA	9.533	584.0 -> 418.8	14393	2.6500	ng/ml	m	98
Perfluoro-1-octanesulfonamide (FOSA)	9.704	497.9 -> 78.0	30598	2.6796	ng/ml		100
11-Cl-PF3OUdS	9.809	631.0 -> 451.0	179762	9.4878	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.978	613.0 -> 568.8	44043	2.6698	ng/ml		96
Perfluorododecanesulfonic acid (PFDoS)	10.333	699.0 -> 80.0	2857	2.6748	ng/ml		94
Perfluorotridecanoic acid (PFTrDA)	10.353	663.0 -> 618.8	28275	2.4918	ng/ml		100
NMeFOSE	10.493	616.0 -> 59.0	12442	26.3424	ng/ml		100
NMeFOSA	10.524	512.0 -> 169.0	1659	2.4562	ng/ml		99
Perfluorotetradecanoic acid (PFTA)	10.673	713.0 -> 669.0	21482	2.4474	ng/ml		100
NEtFOSE	10.758	630.0 -> 59.0	12603	24.9497	ng/ml		100
NEtFOSA	10.798	526.0 -> 169.0	1214	2.3568	ng/ml		87

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

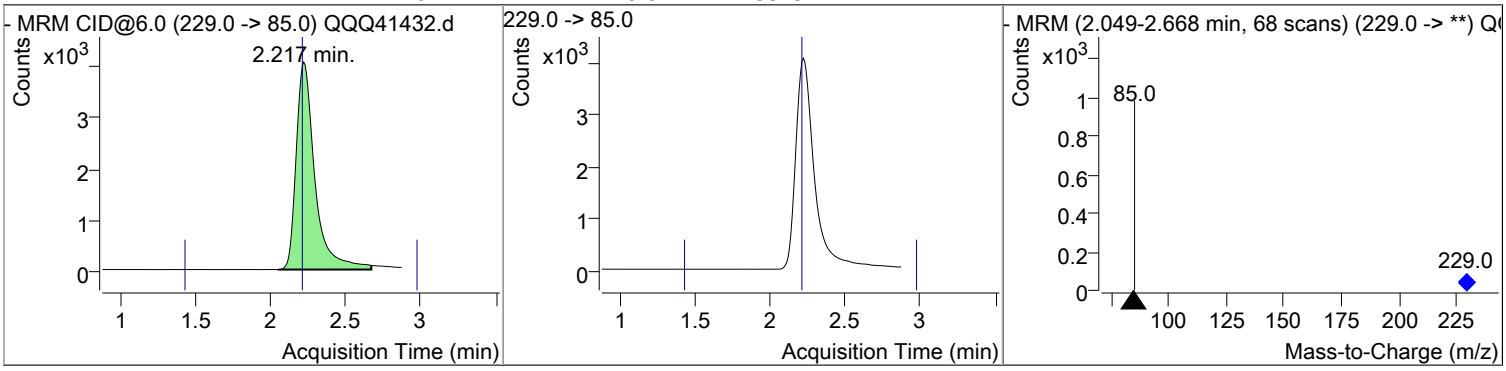
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	11.1446	1.30	0.05	148811				



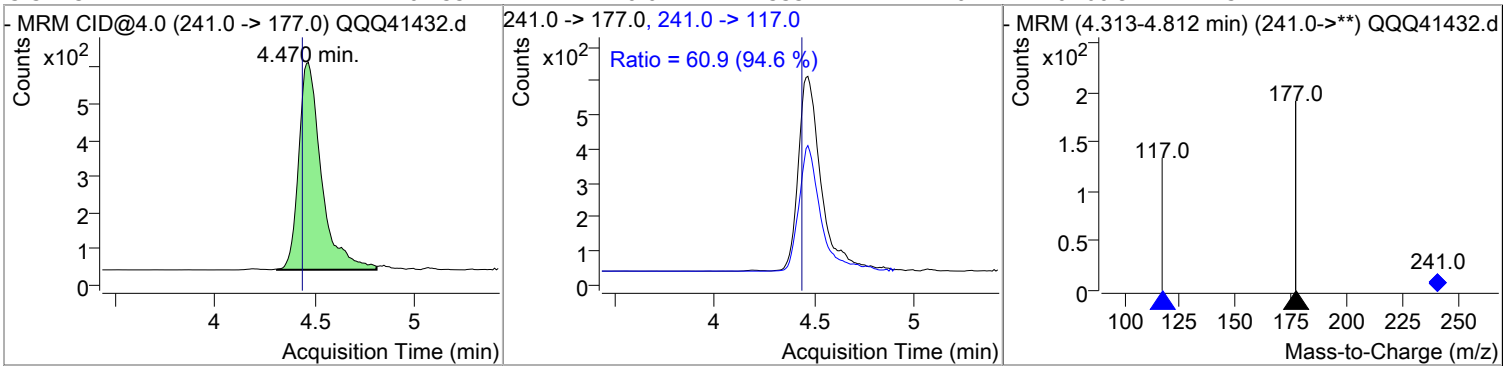
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	9.8467	1.30	0.05	128589				



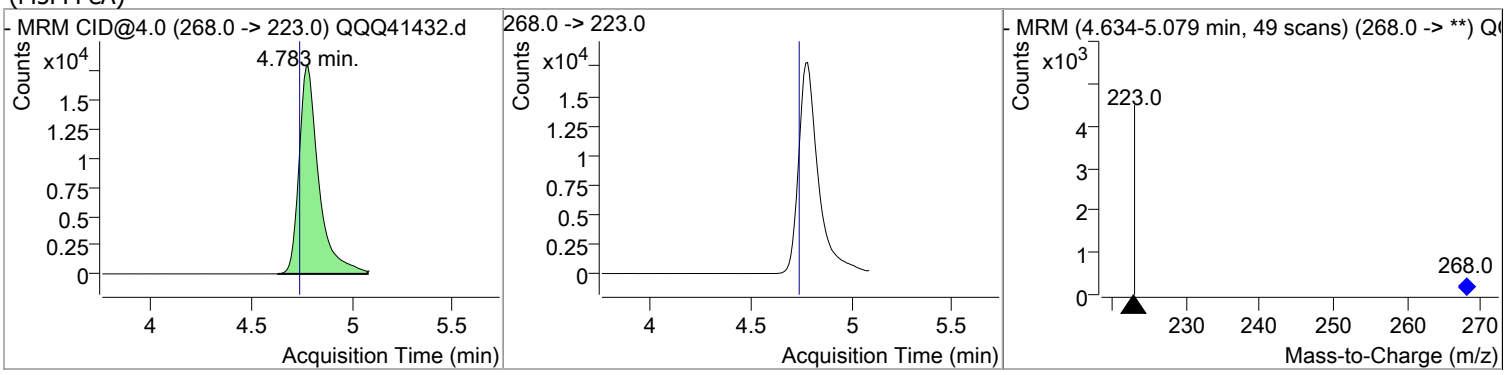
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	4.8722	2.22	0.02	35292				



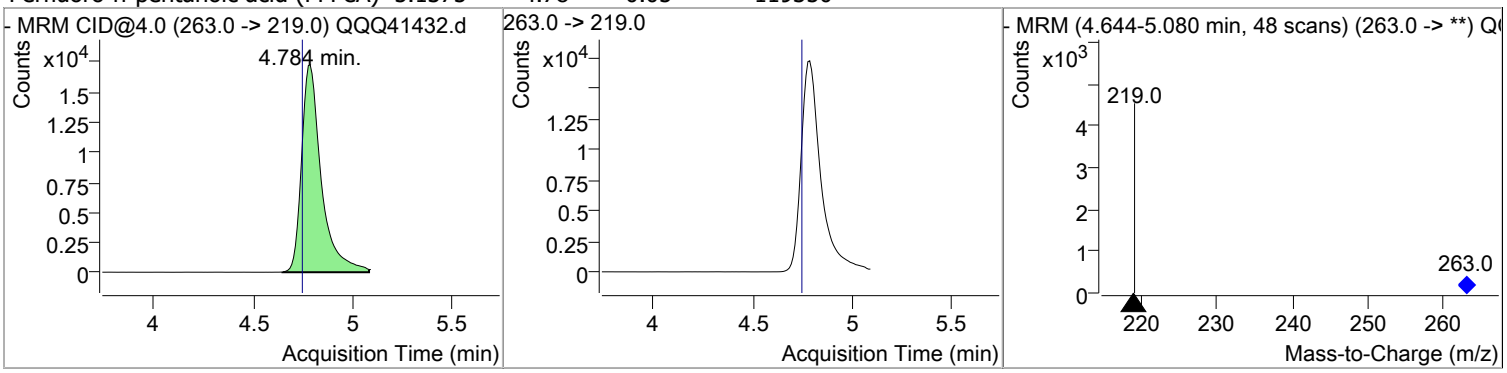
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	10.7551	4.47	0.04	4533	241.0 -> 117.0	60.9	51.4	77.2



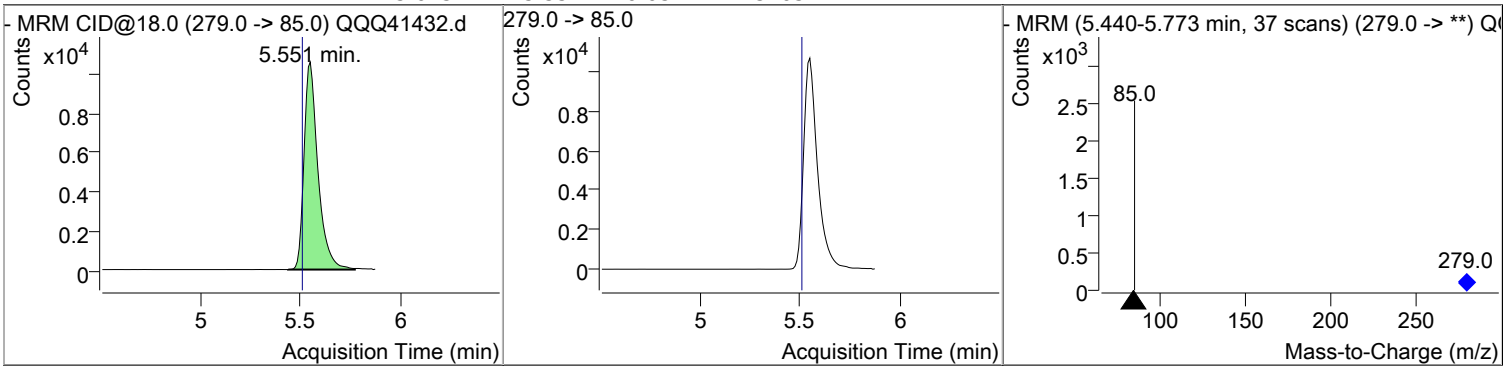
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.6387	4.78	0.06	121155				



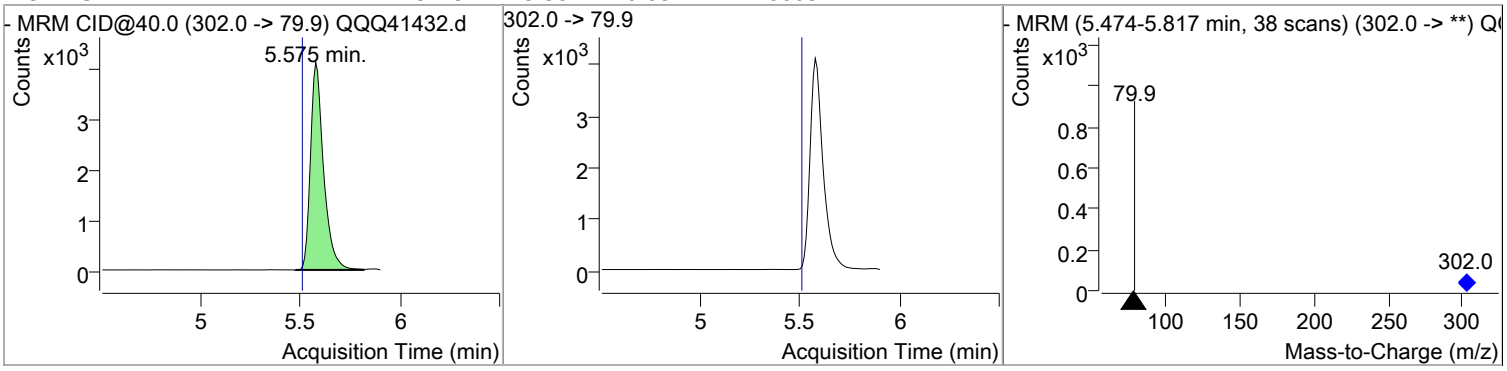
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	5.1375	4.78	0.05	119350				



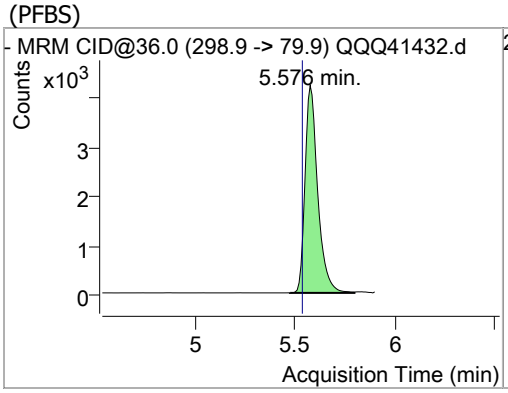
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	5.0434	5.55	0.05	51037				

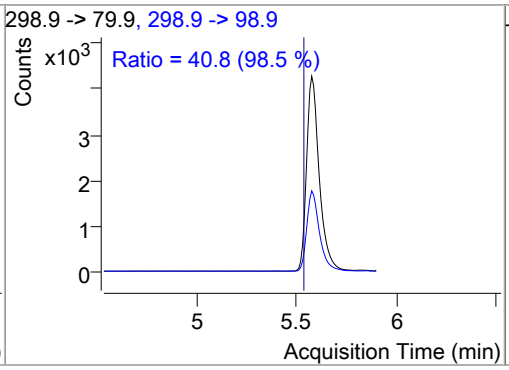


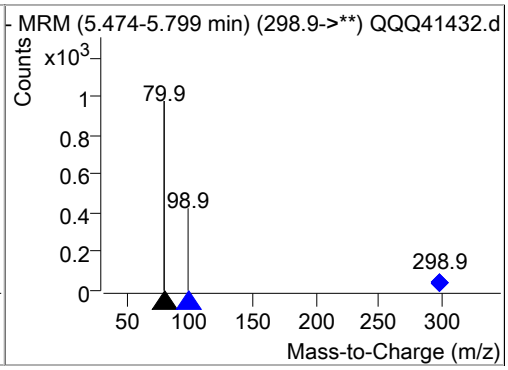
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.5119	5.58	0.05	18683				



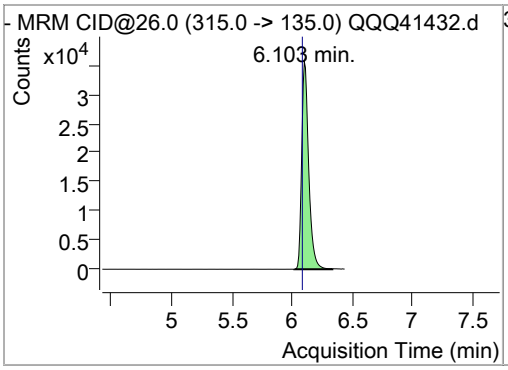
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.2894	5.58	0.05	18751	298.9 -> 98.9	40.8	33.1	49.7

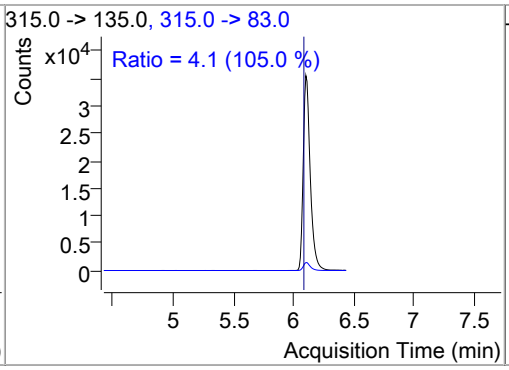


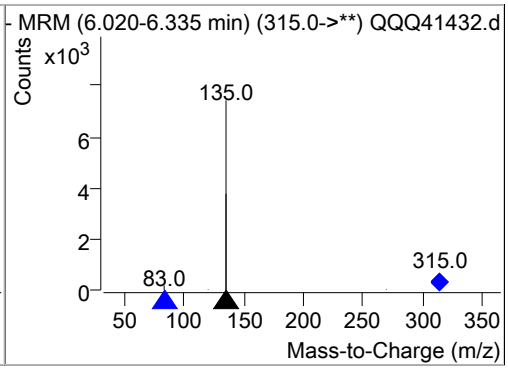




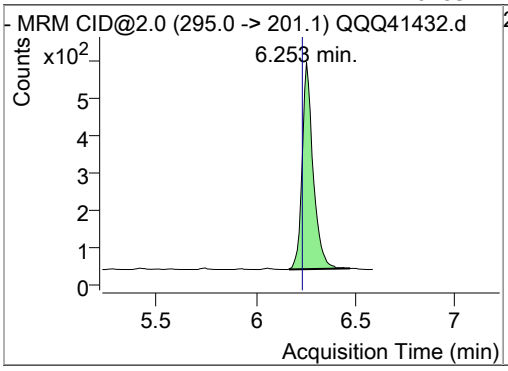
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	4.1965	6.10	0.03	143651	315.0 -> 83.0	4.1	3.1	4.7

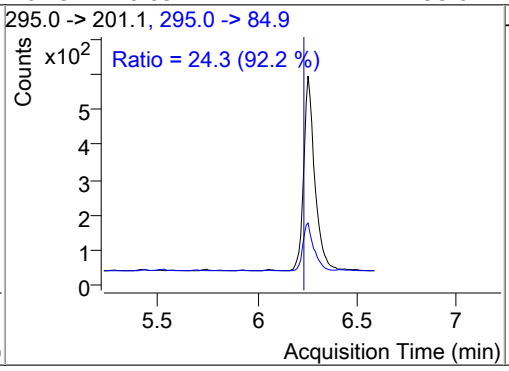


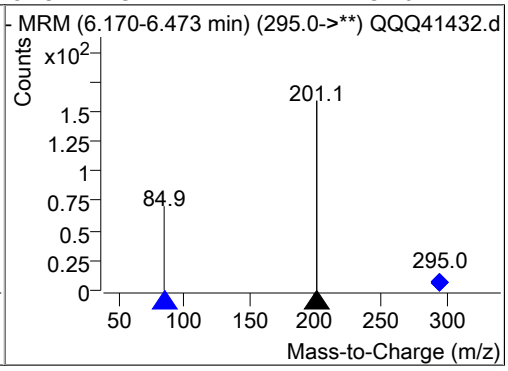




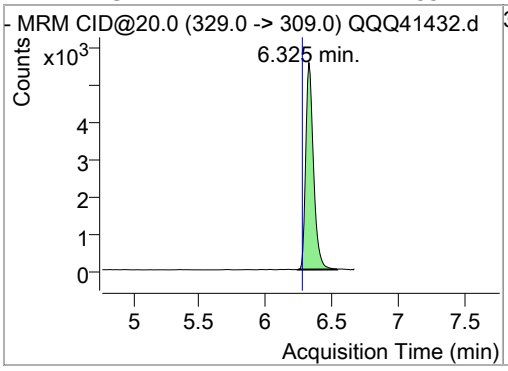
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	4.6485	6.25	0.03	2122	295.0 -> 84.9	24.3	21.1	31.6

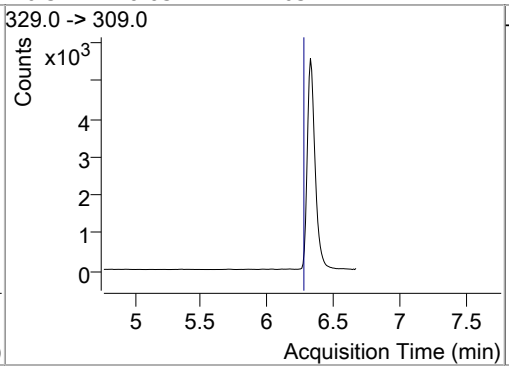


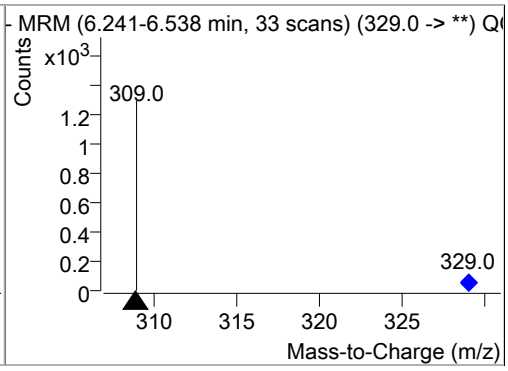




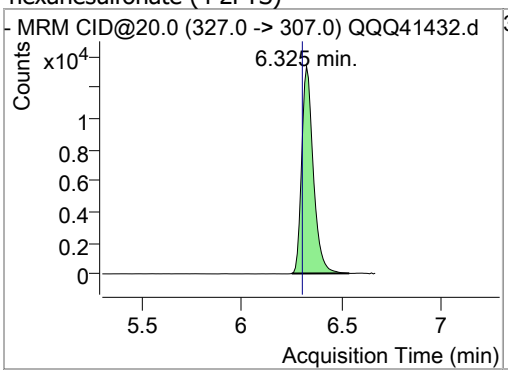
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.5577	6.32	0.03	22632				

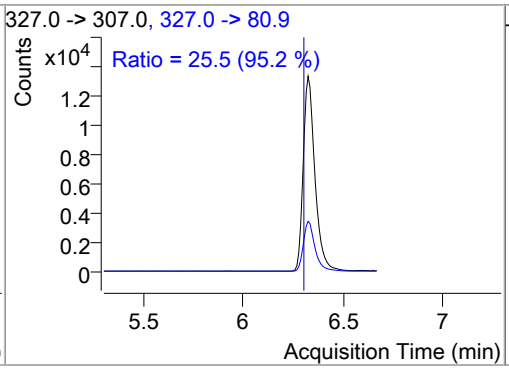


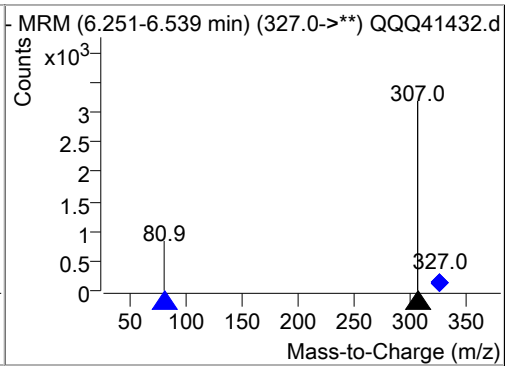




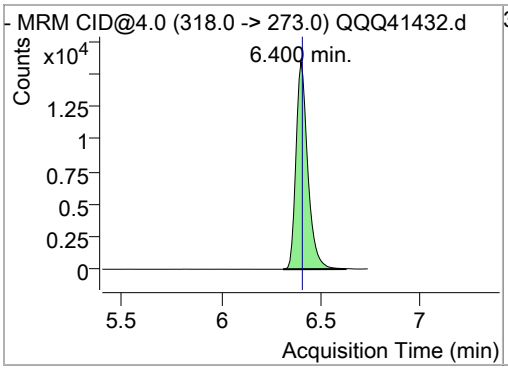
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	9.4463	6.33	0.03	53629	327.0 -> 80.9	25.5	21.5	32.2

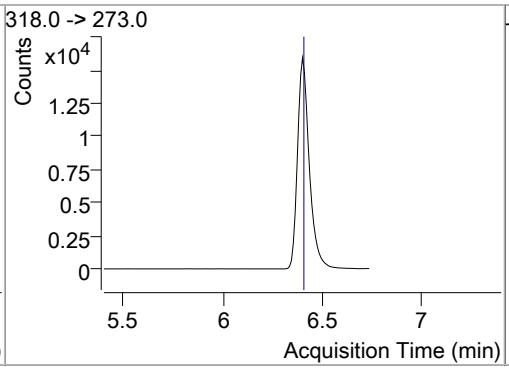


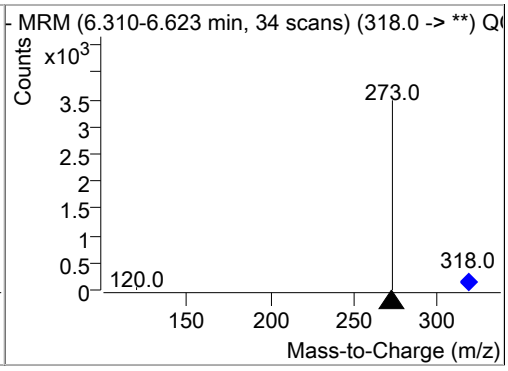




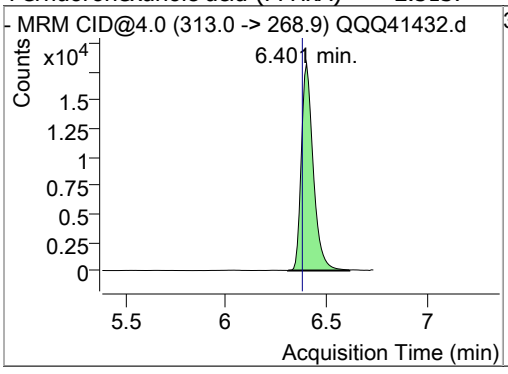
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.4887	6.40	0.03	65025				

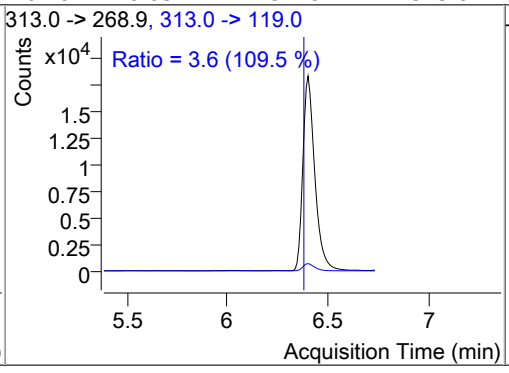


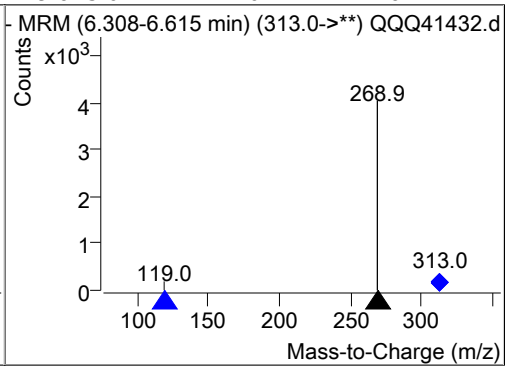




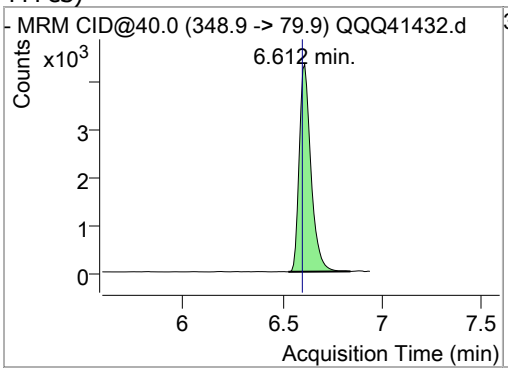
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	2.5137	6.40	0.03	75448	313.0 -> 119.0	3.6	2.6	4.0

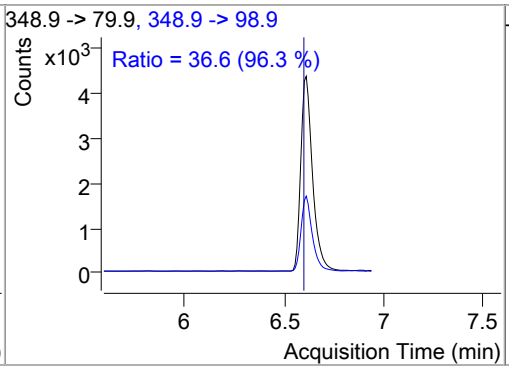


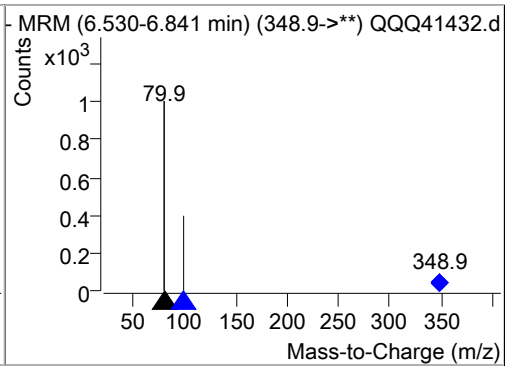




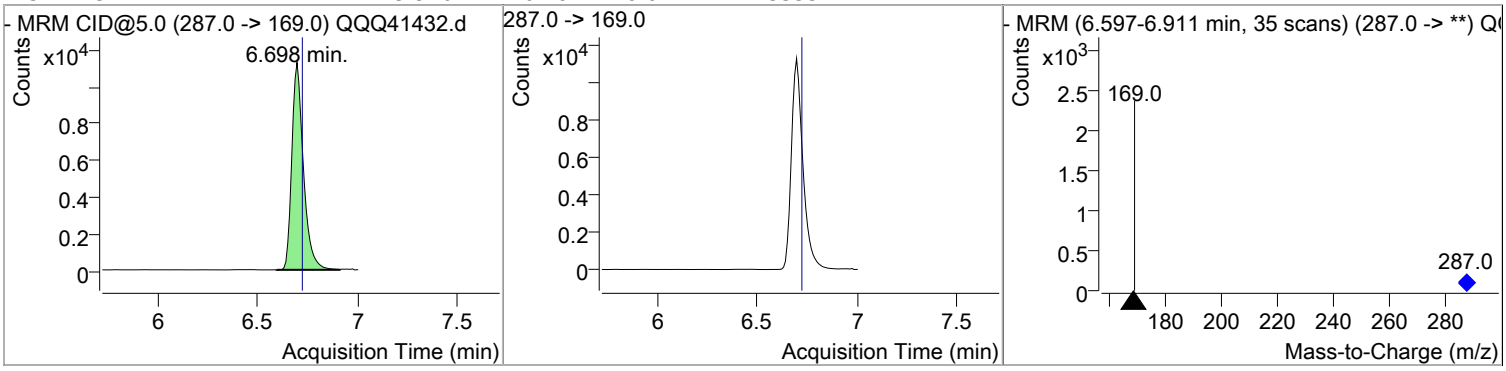
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	2.5986	6.61	0.02	17636	348.9 -> 98.9	36.6	30.4	45.6



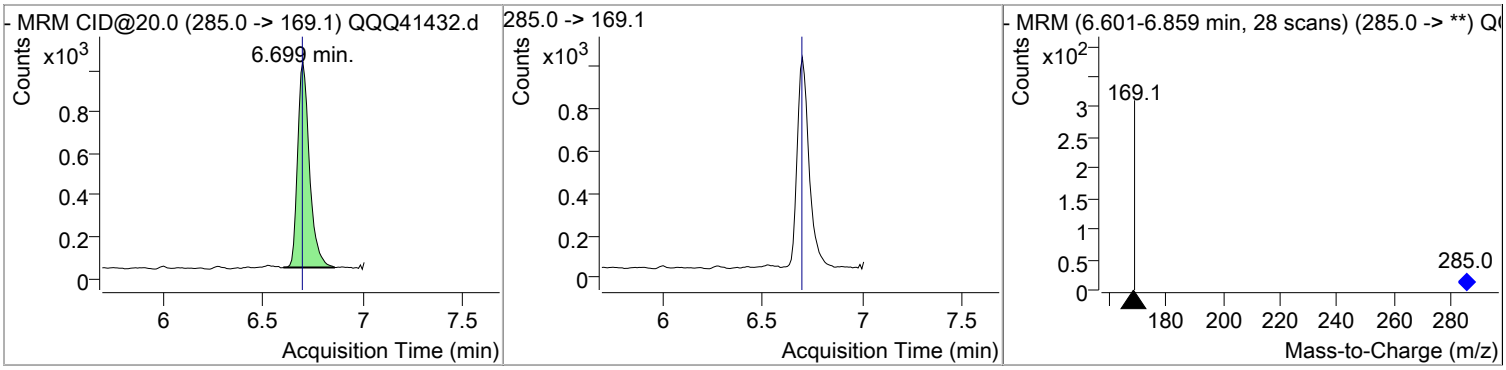




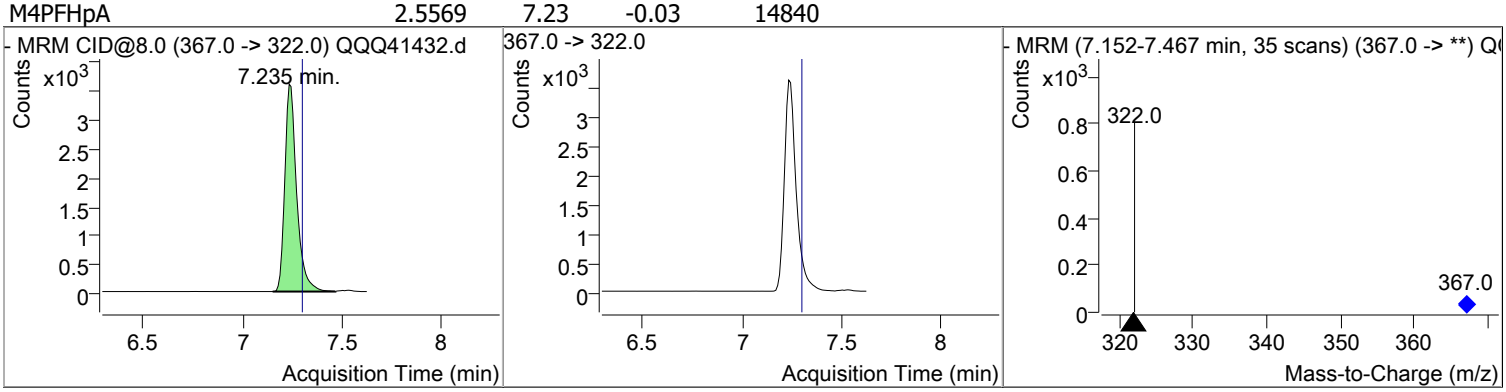
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	9.9261	6.70	0.01	45335				



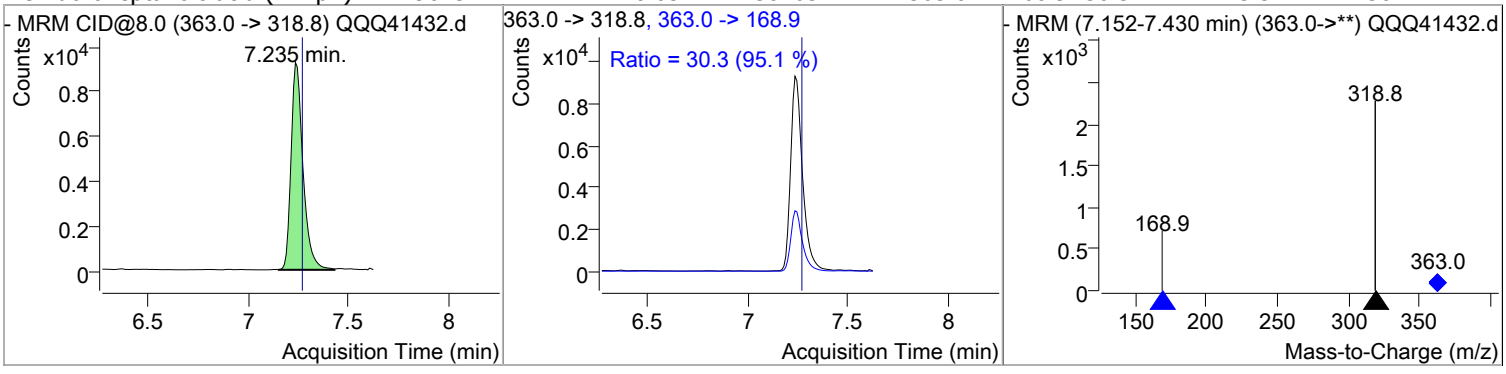
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	10.1441	6.70	0.01	4049				



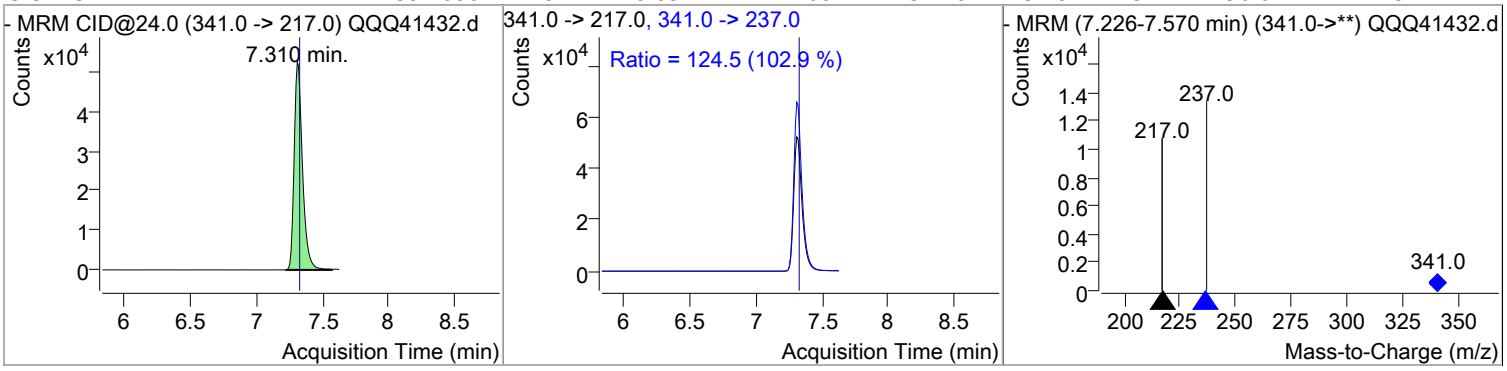
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.5569	7.23	-0.03	14840				



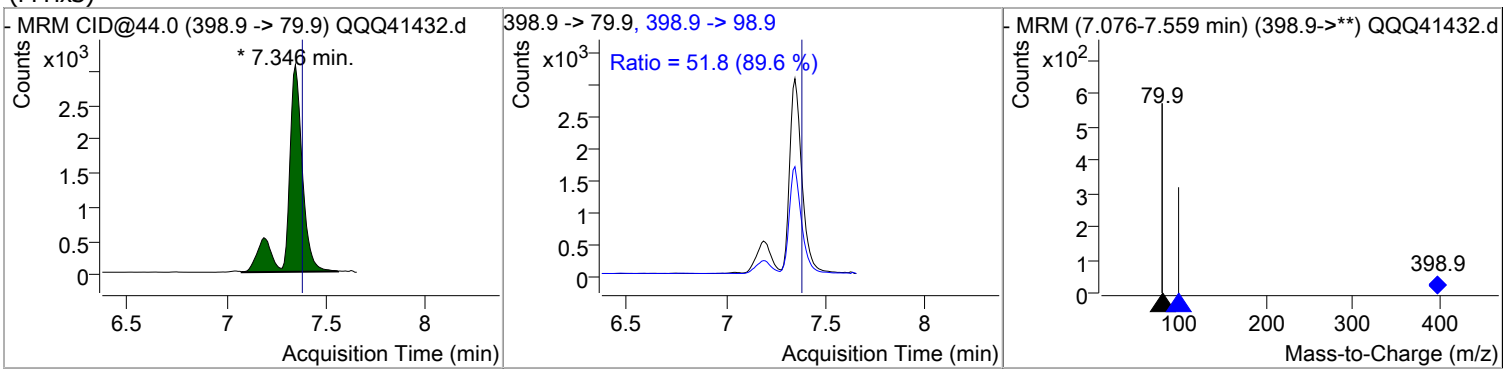
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	2.9045	7.24	-0.03	38463	363.0 -> 168.9	30.3	25.5	38.2



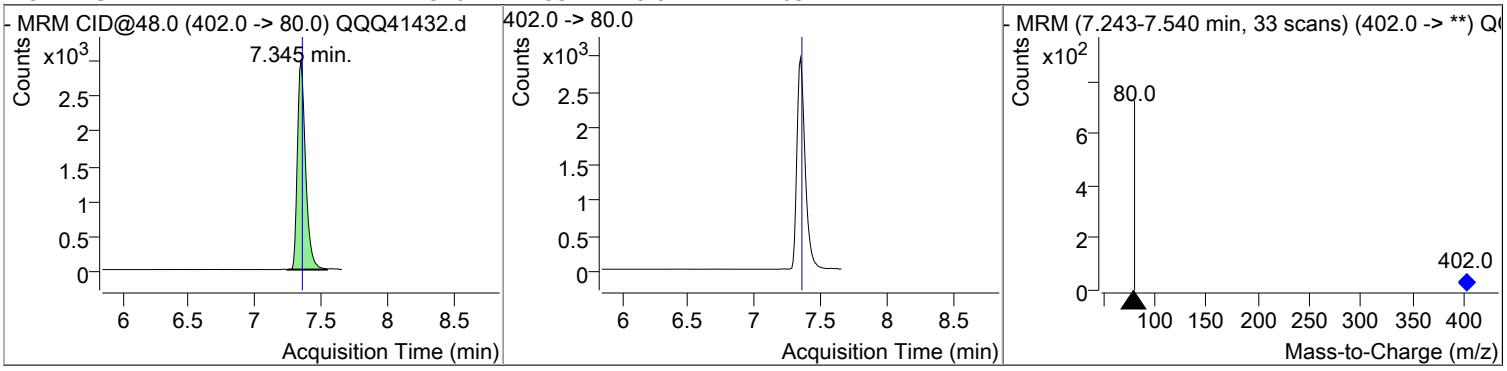
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	55.2606	7.31	-0.03	227768	341.0 -> 237.0	124.5	96.8	145.2



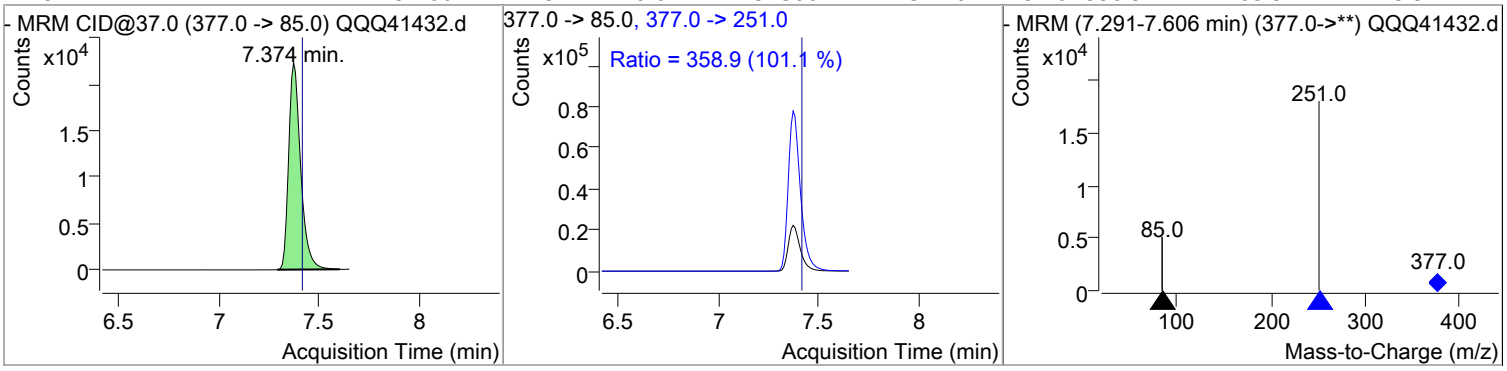
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	2.4968	7.35	-0.03	15508 (m)	398.9 -> 98.9	51.8	46.2	69.3



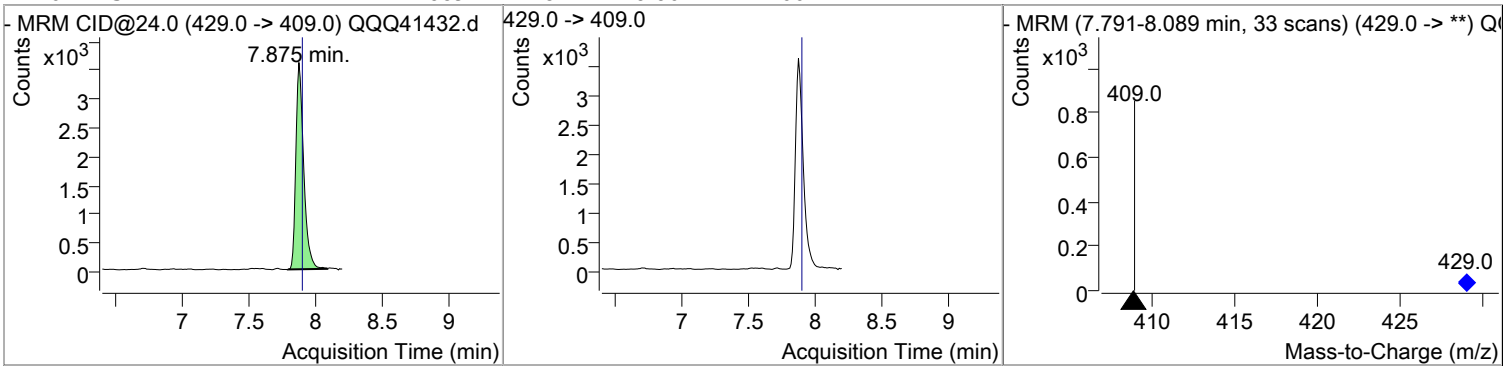
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.4346	7.35	-0.04	12634				



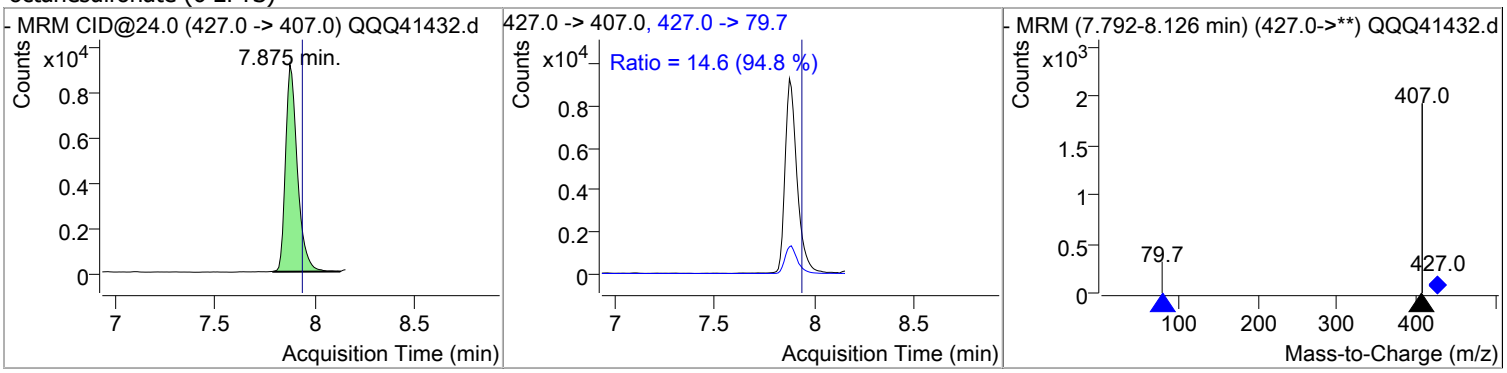
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	9.2062	7.37	-0.04	92380	377.0 -> 251.0	358.9	283.9	425.9



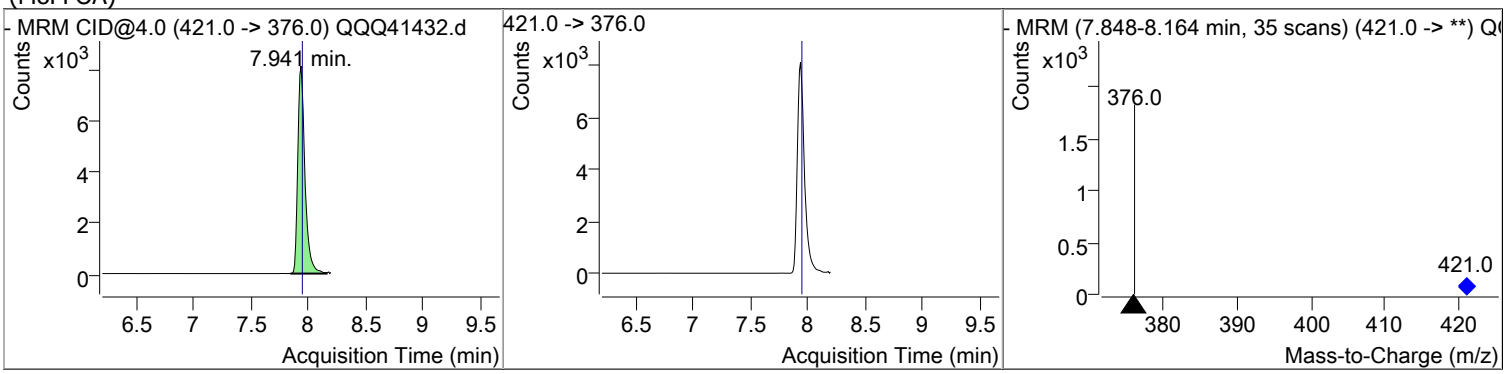
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.4089	7.87	-0.06	14662				



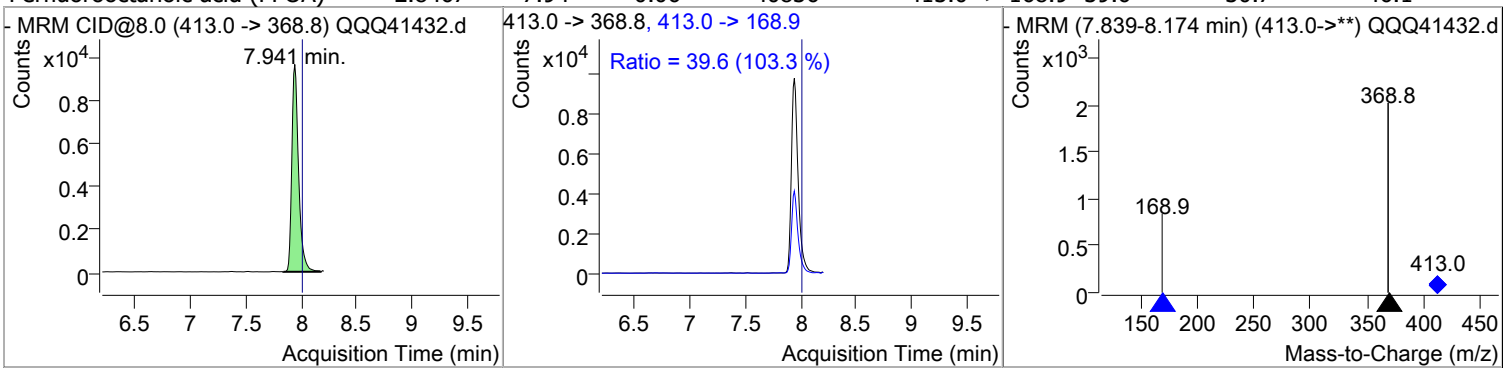
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.8478	7.88	-0.06	38150	427.0 -> 79.7	14.6	12.3	18.5



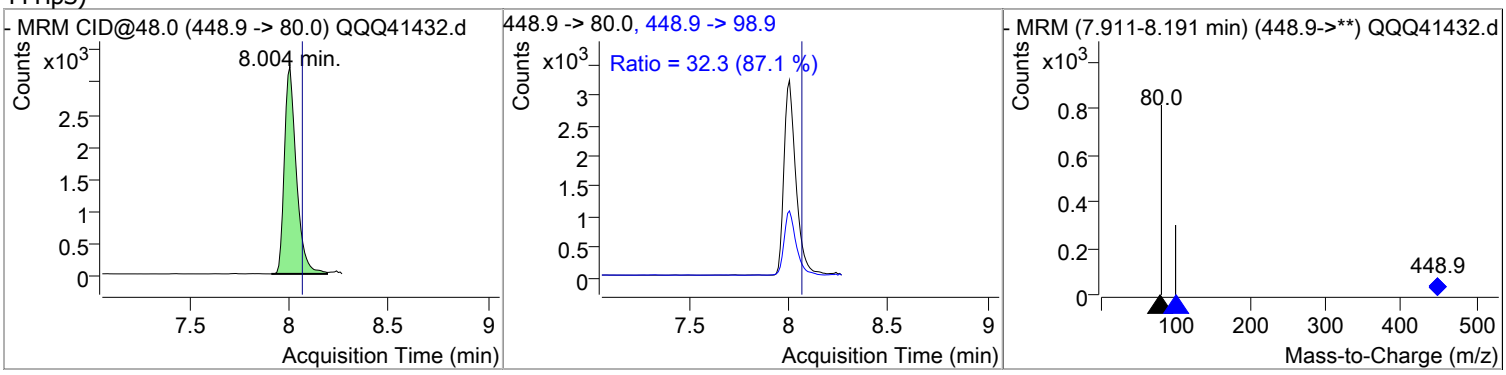
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.3257	7.94	-0.06	34993				



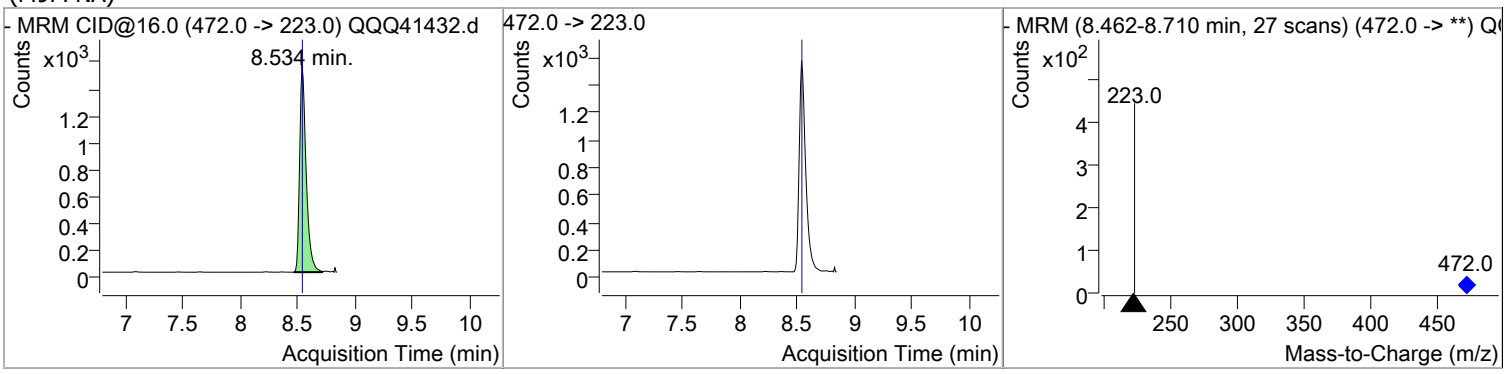
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	2.8467	7.94	-0.06	40836	413.0 -> 168.9	39.6	30.7	46.1



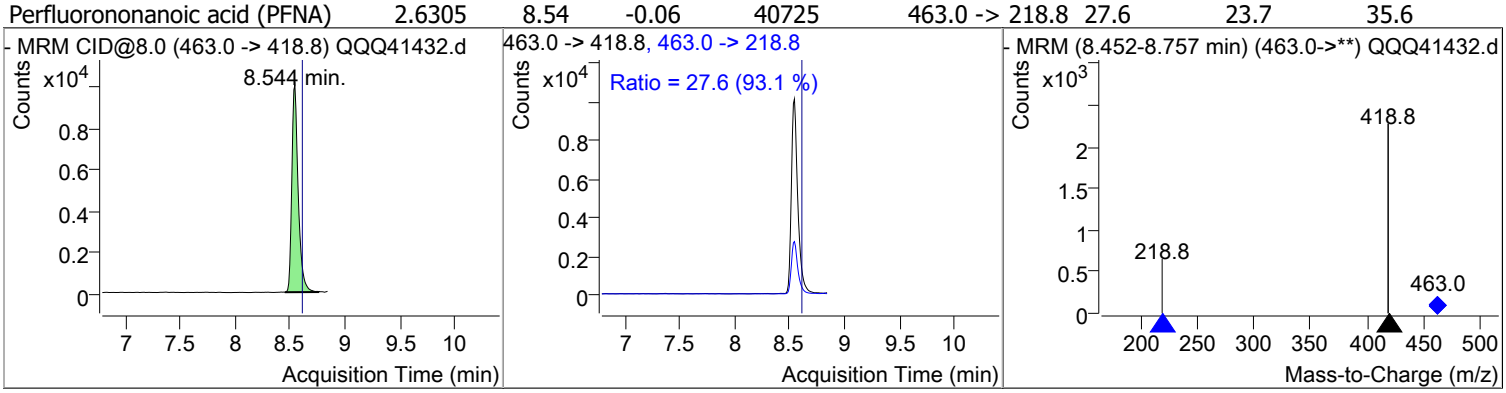
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	2.1588	8.00	-0.06	13371	448.9 -> 98.9	32.3	29.6	44.4



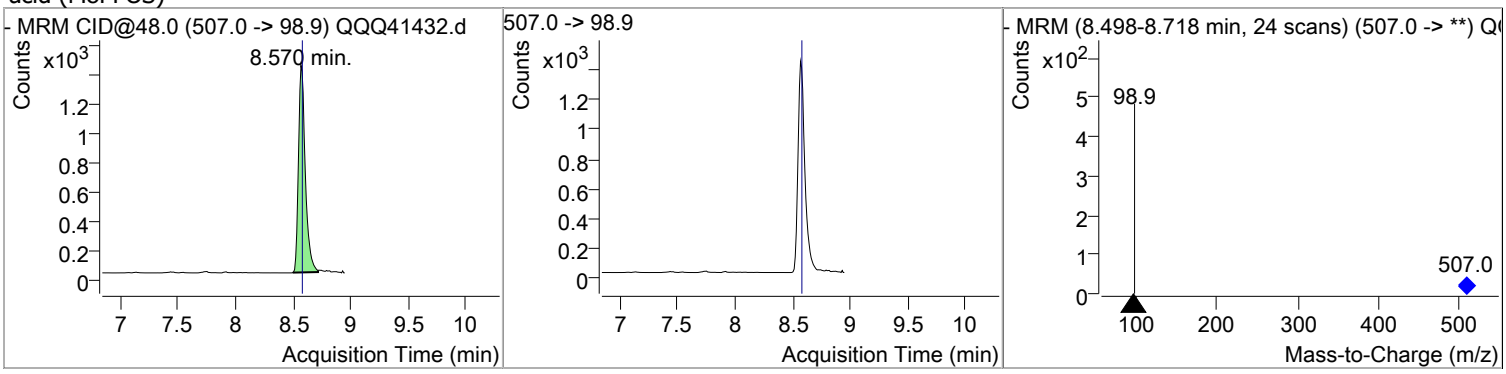
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2542	8.53	-0.06	6035				



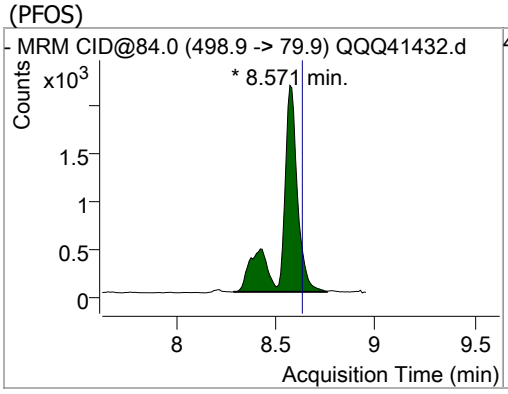
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	2.6305	8.54	-0.06	40725	463.0 -> 218.8	27.6	23.7	35.6

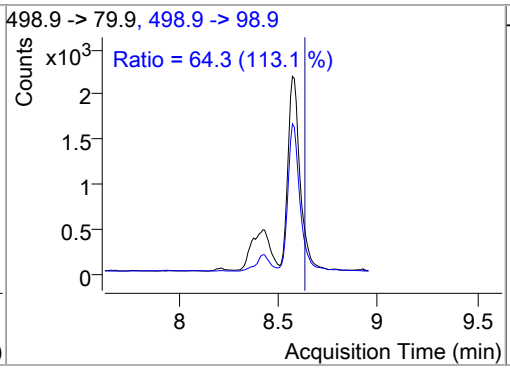


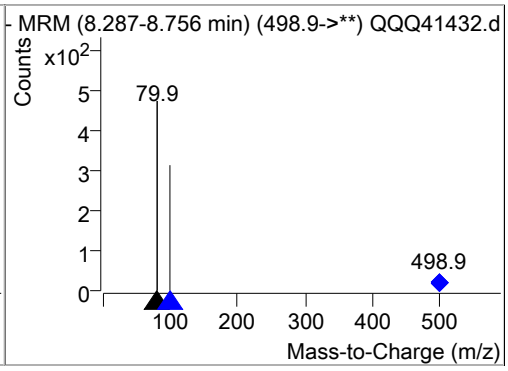
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.5145	8.57	-0.06	5827				



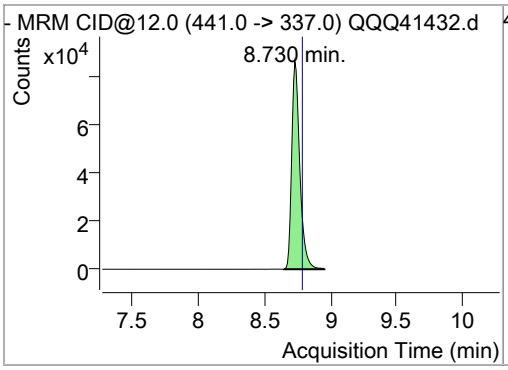
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.1527	8.57	-0.06	11942 (m)	498.9 -> 98.9	64.3	45.5	68.3

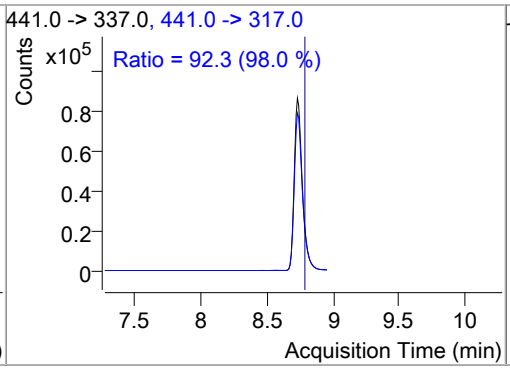


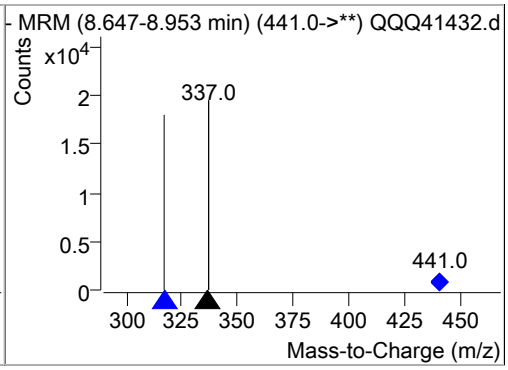




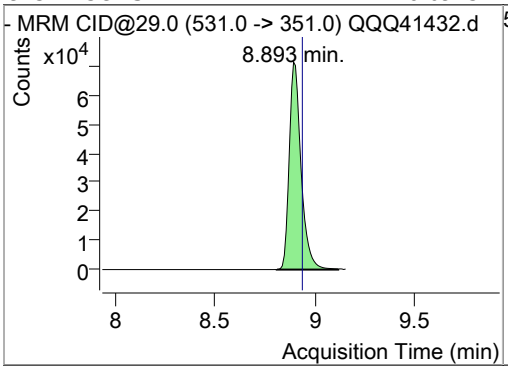
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	66.9731	8.73	-0.05	368521	441.0 -> 317.0	92.3	75.4	113.1

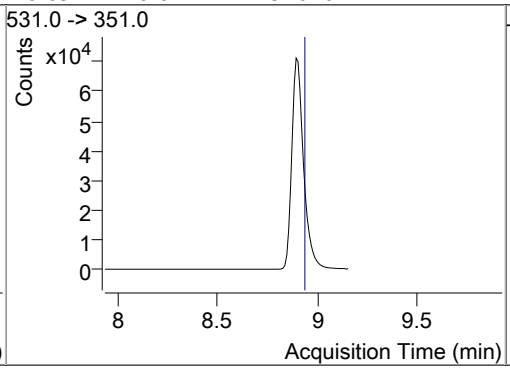


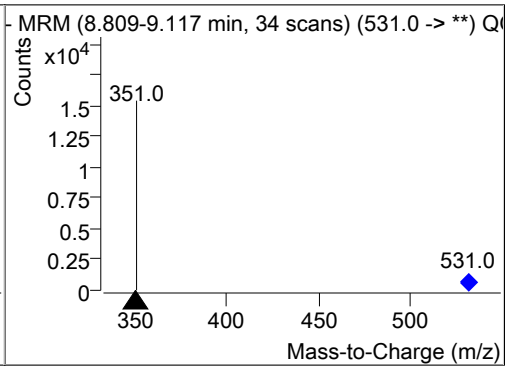




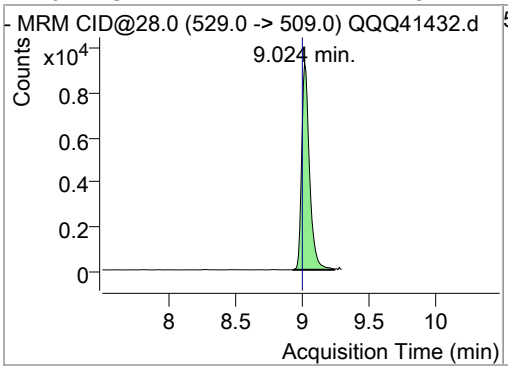
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	10.6913	8.89	-0.04	292676				

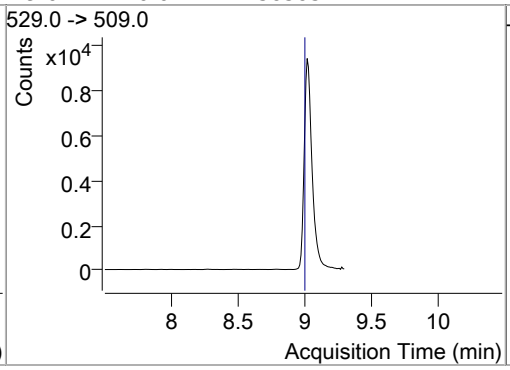


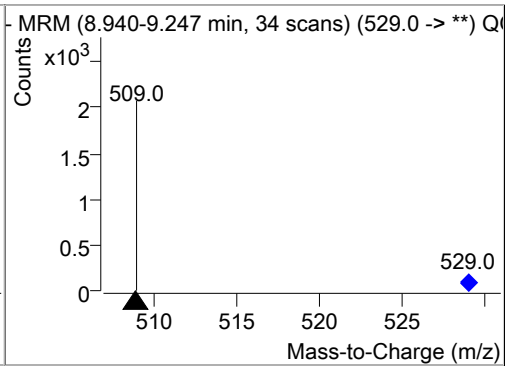




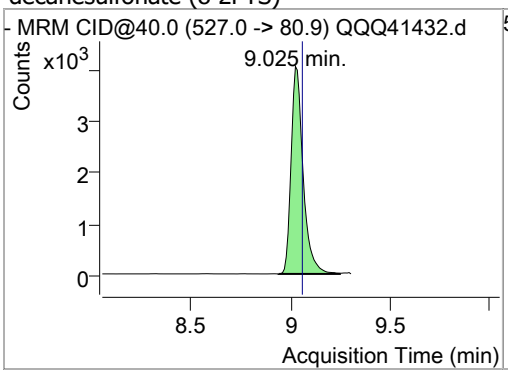
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.9147	9.02	-0.02	38383				

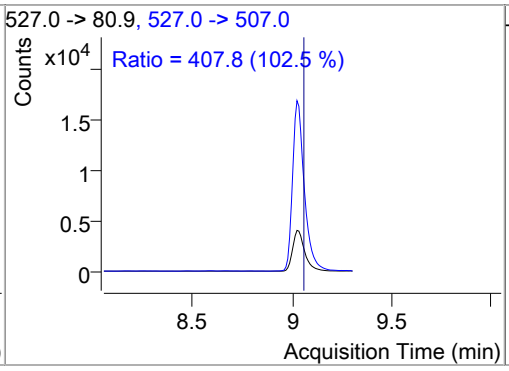


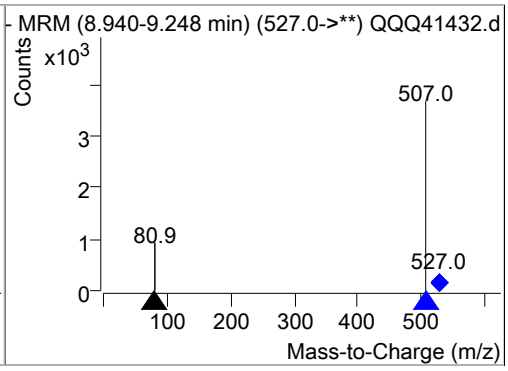




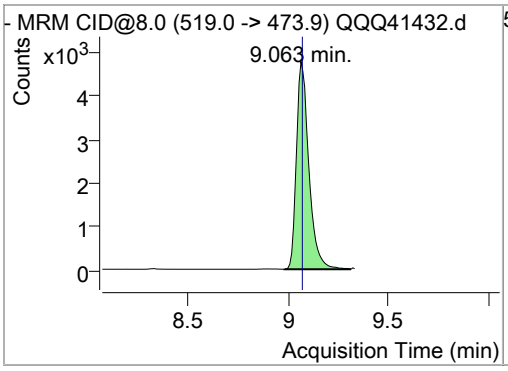
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.9744	9.02	-0.03	16883	527.0 -> 507.0	407.8	318.3	477.4

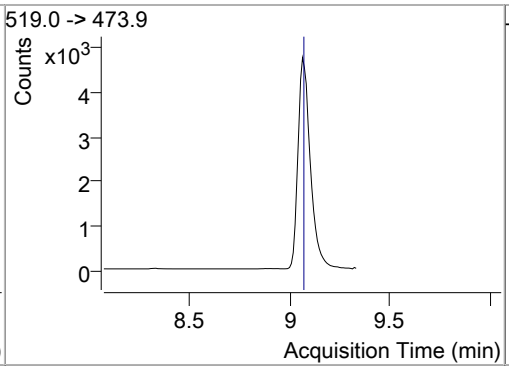


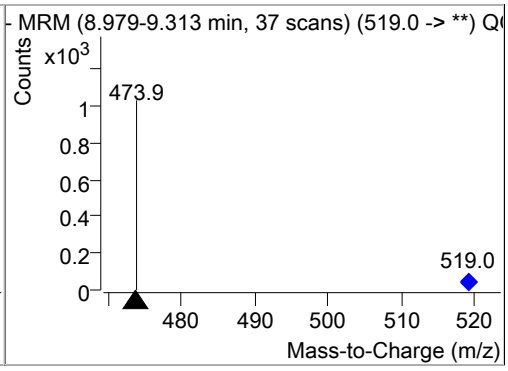




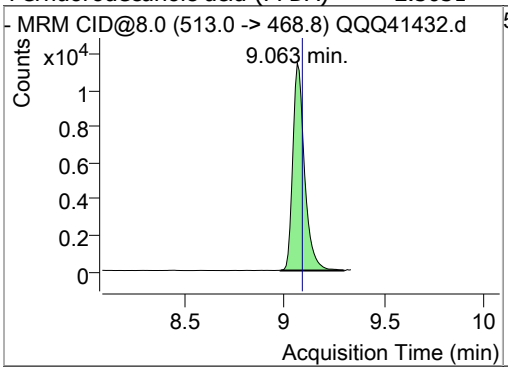
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.1923	9.06	-0.02	20508				

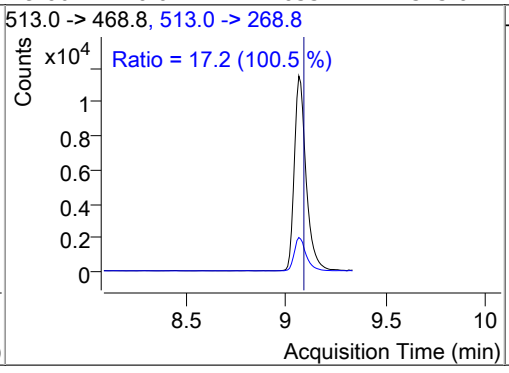


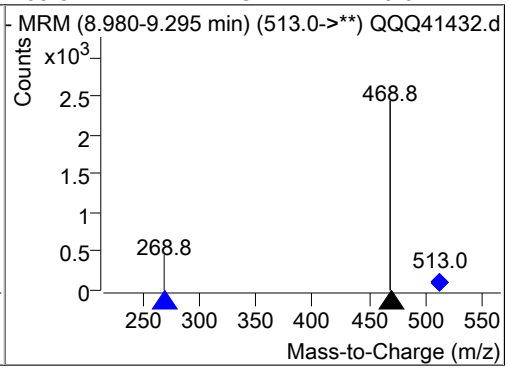




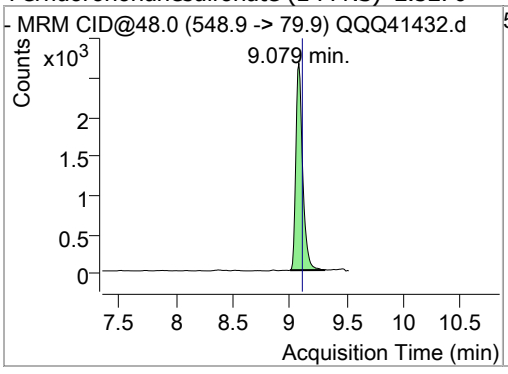
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	2.5051	9.06	-0.02	47033	513.0 -> 268.8	17.2	13.7	20.6

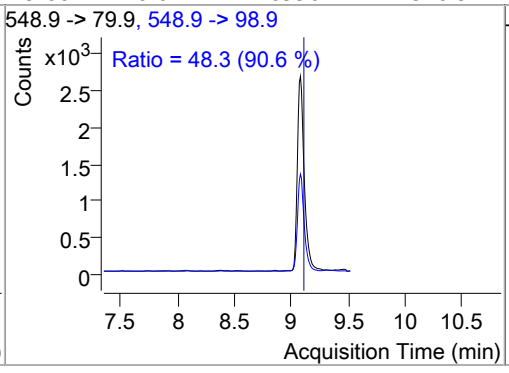


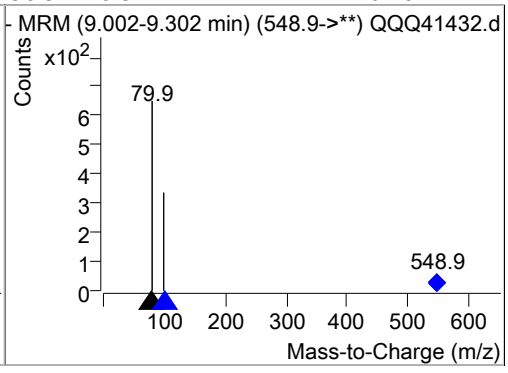




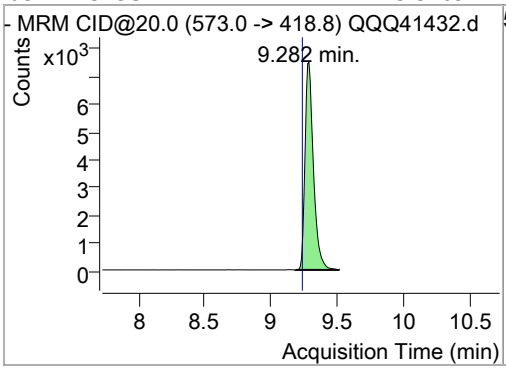
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	2.5276	9.08	-0.02	10990	548.9 -> 98.9	48.3	42.7	64.0

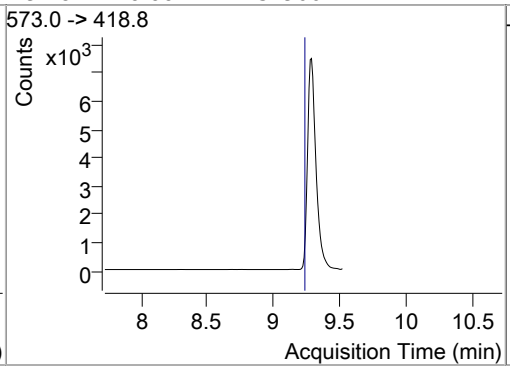


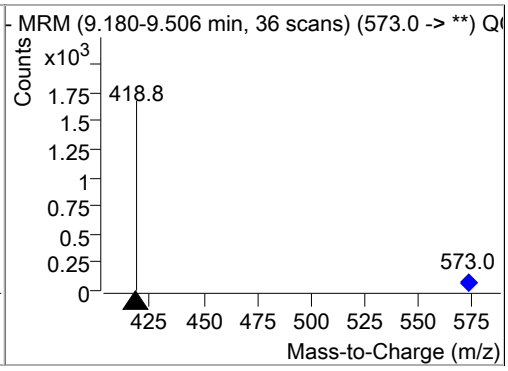




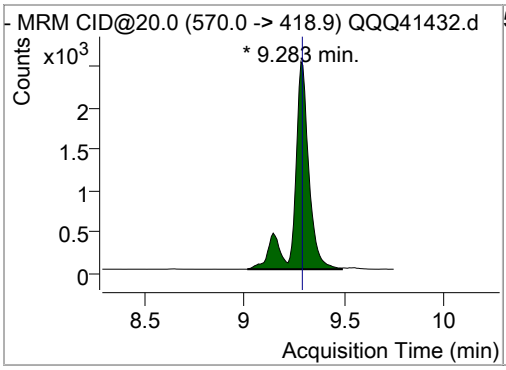
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.5209	9.28	0.00	32966				

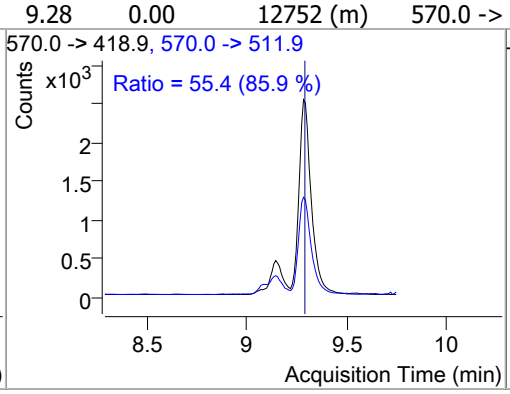


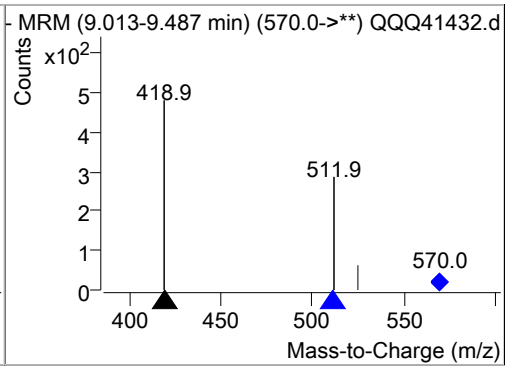




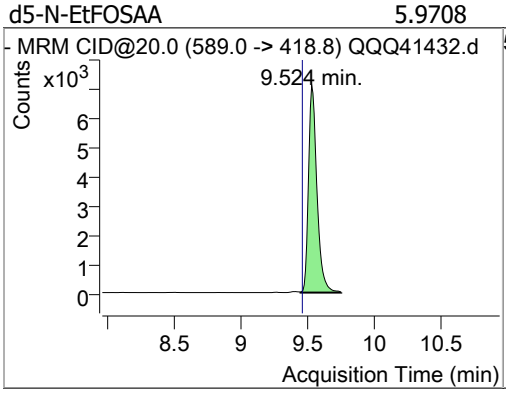
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	2.2204	9.28	0.00	12752 (m)	570.0 -> 511.9	55.4	51.6	77.4

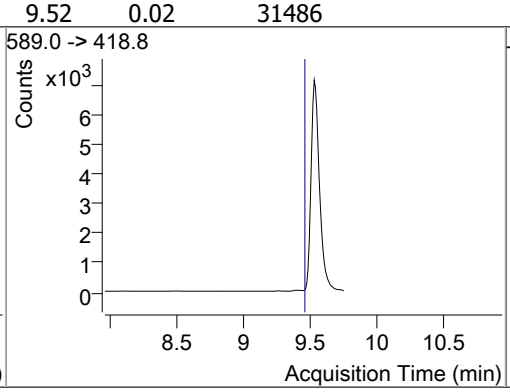


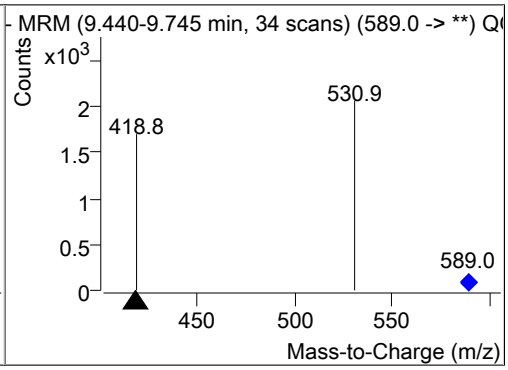




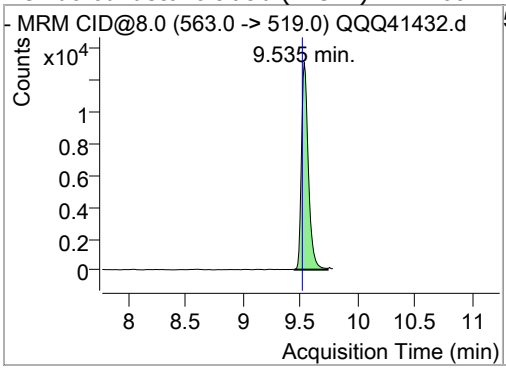
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.9708	9.52	0.02	31486				

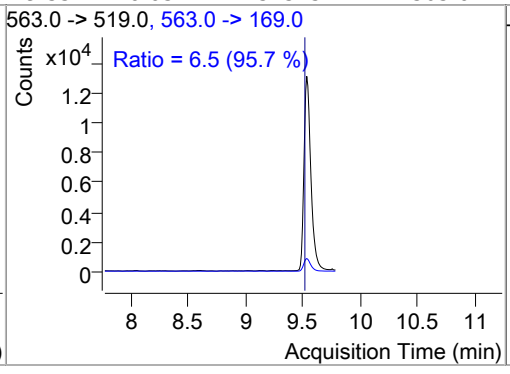


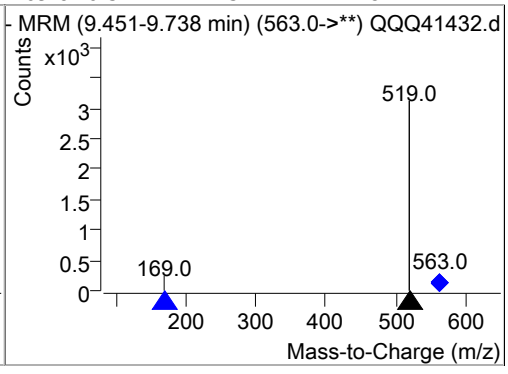




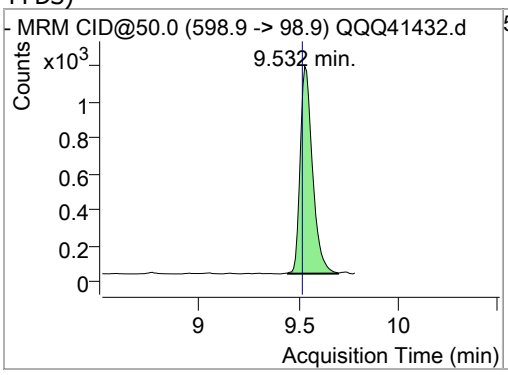
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.2408	9.53	0.03	54525	563.0 -> 169.0	6.5	5.4	8.1

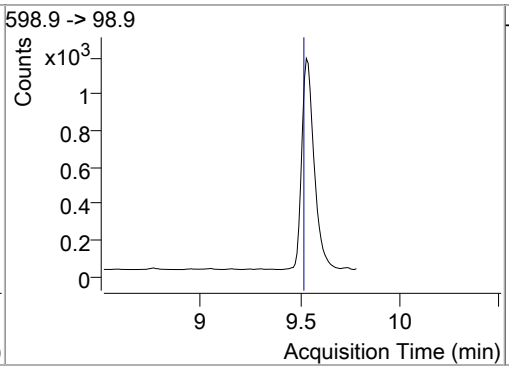


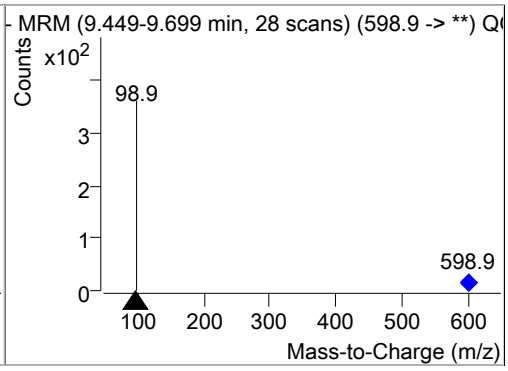




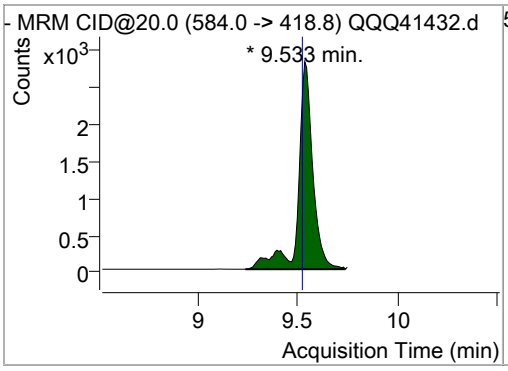
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.3577	9.53	0.02	4952				

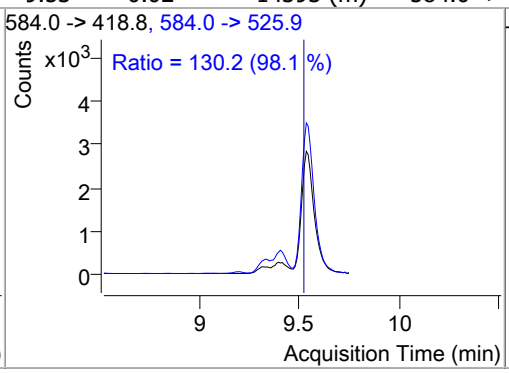


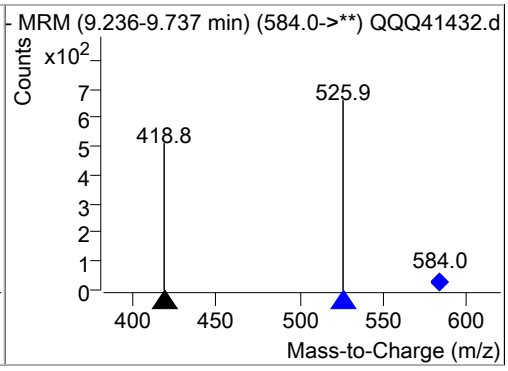




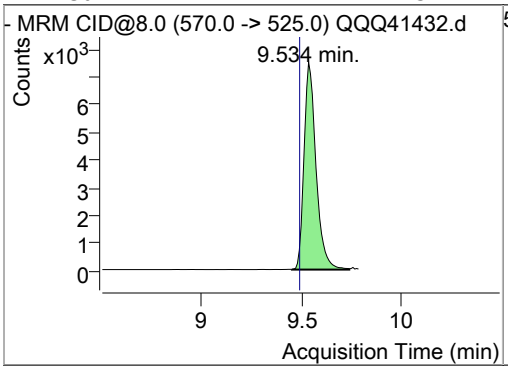
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	2.6500	9.53	0.02	14393 (m)	584.0 -> 525.9	130.2	106.2	159.3

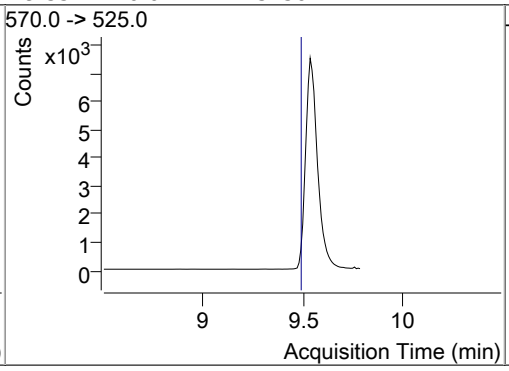


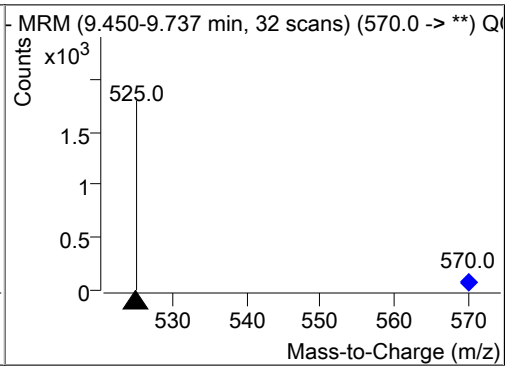




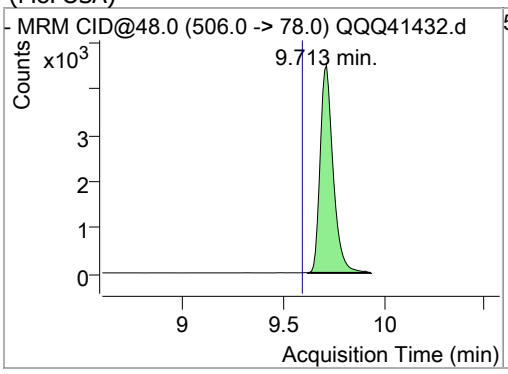
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.3447	9.53	0.02	31304				

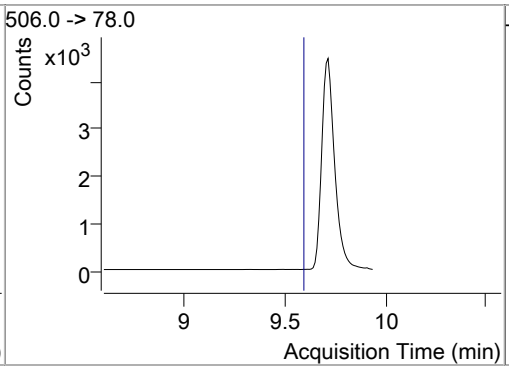


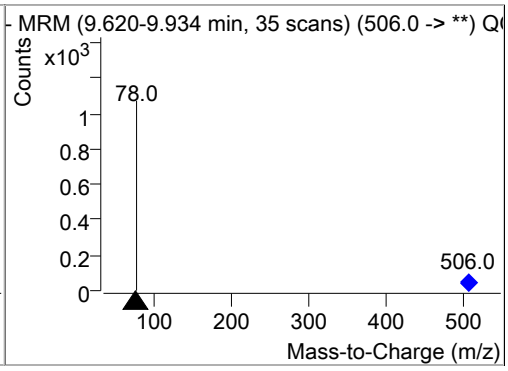




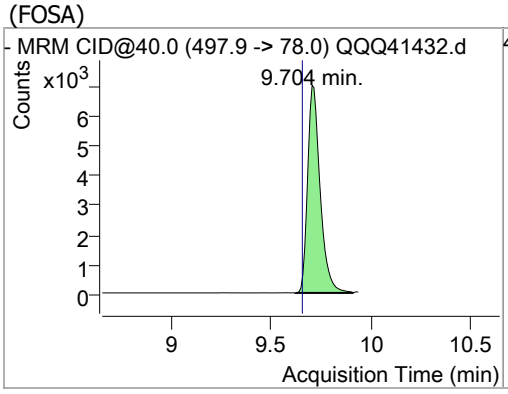
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.6324	9.71	0.06	19987				

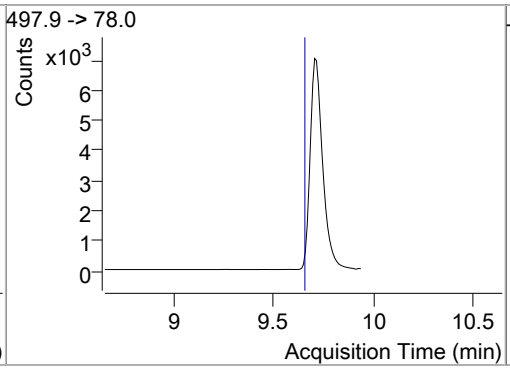


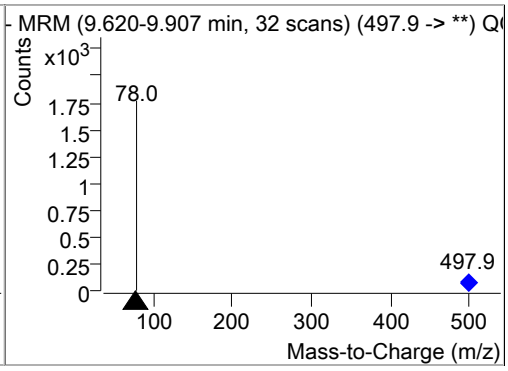




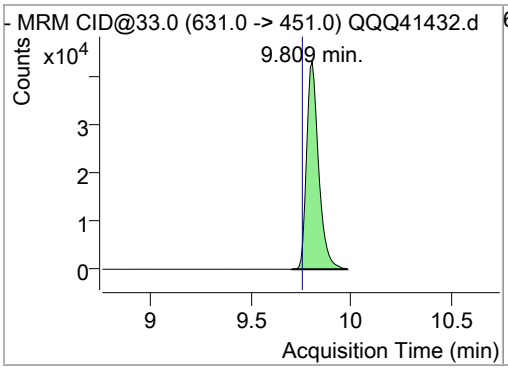
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	2.6796	9.70	0.06	30598				

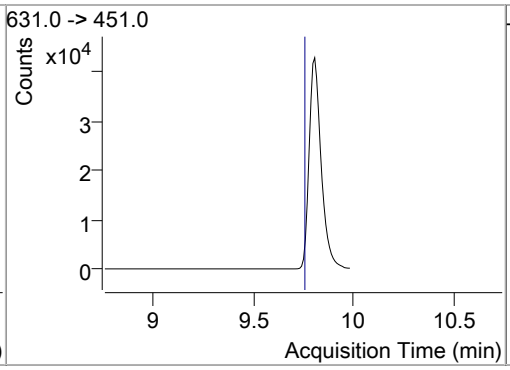


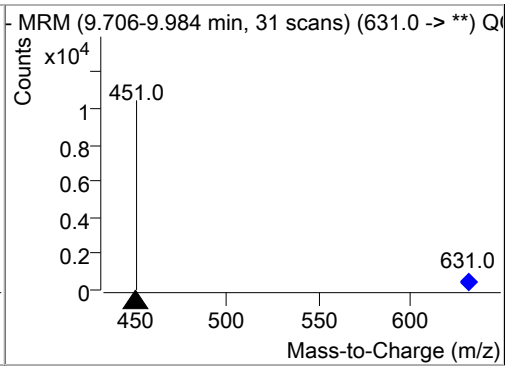




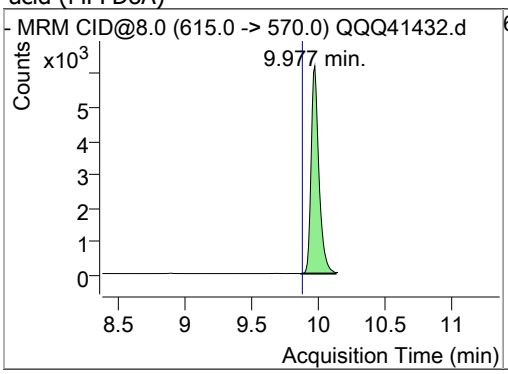
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	9.4878	9.81	0.06	179762				

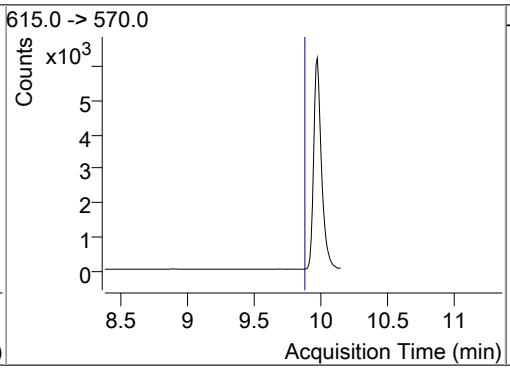


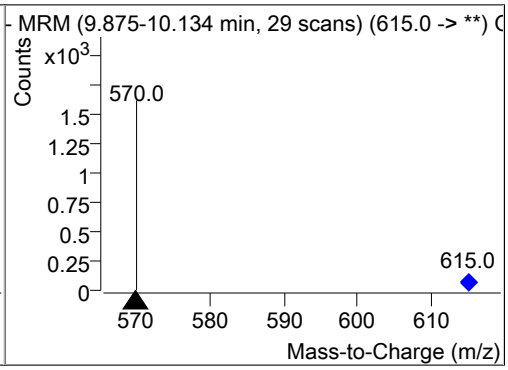




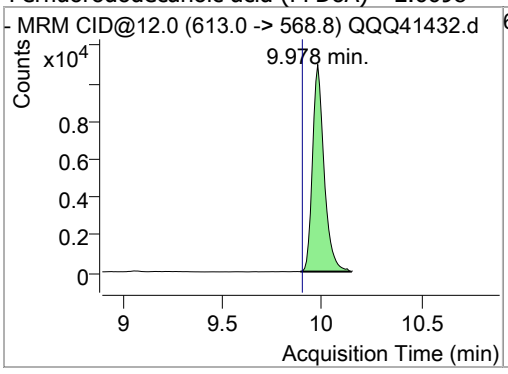
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.2380	9.98	0.08	25336				

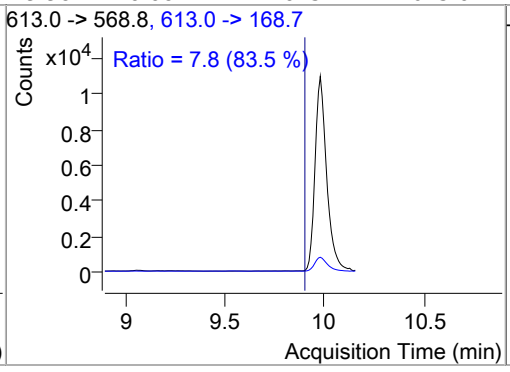


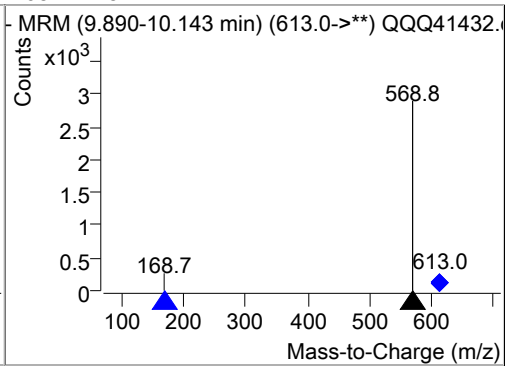




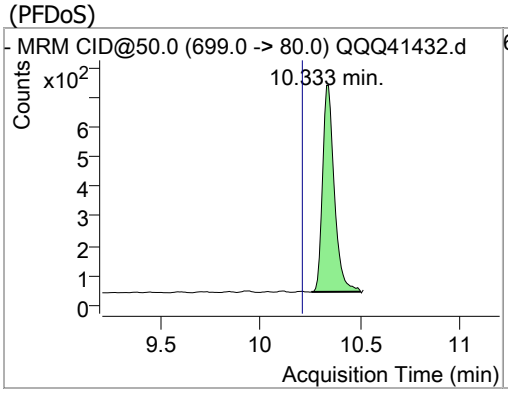
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	2.6698	9.98	0.08	44043	613.0 -> 168.7	7.8	7.4	11.2

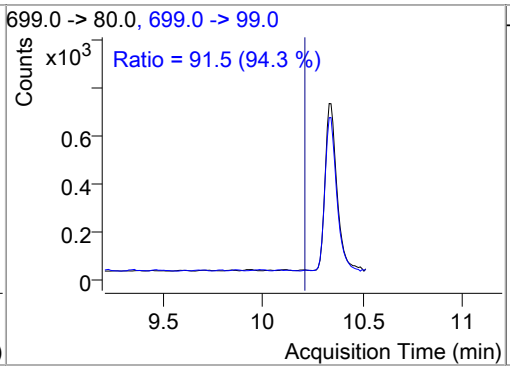


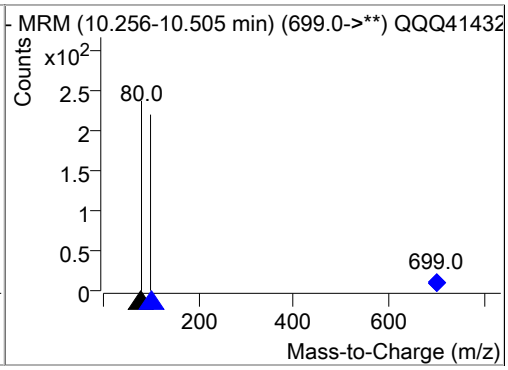




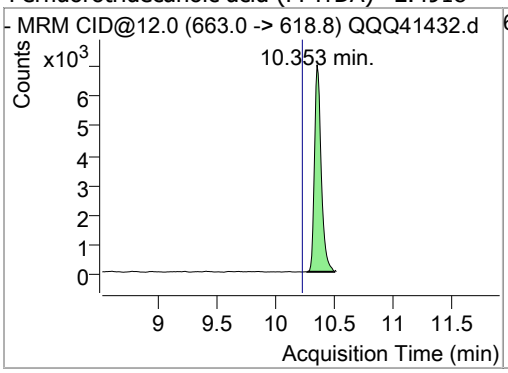
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.6748	10.33	0.13	2857	699.0 -> 99.0	91.5	77.6	116.4

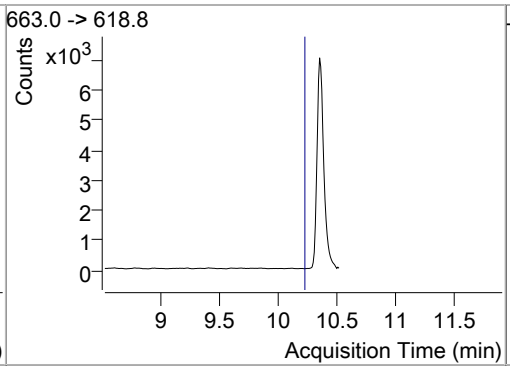


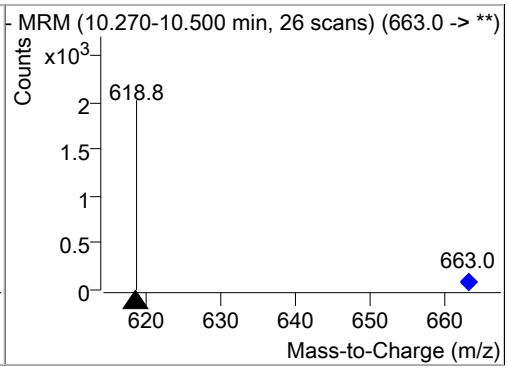




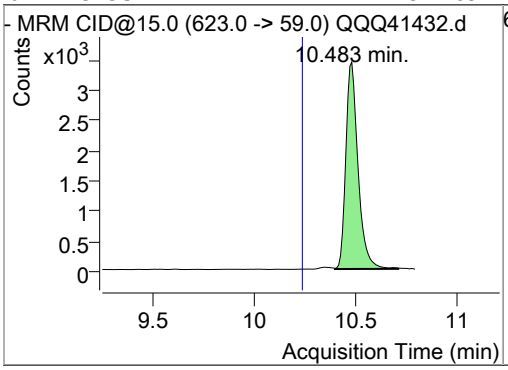
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	2.4918	10.35	0.14	28275				

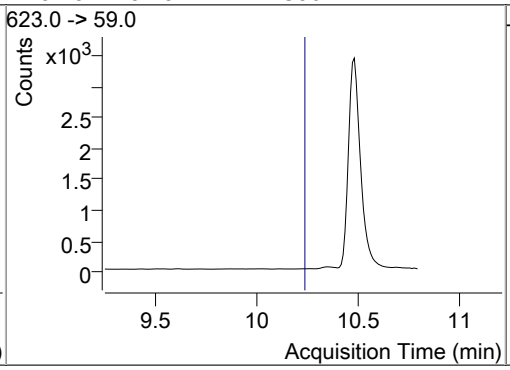


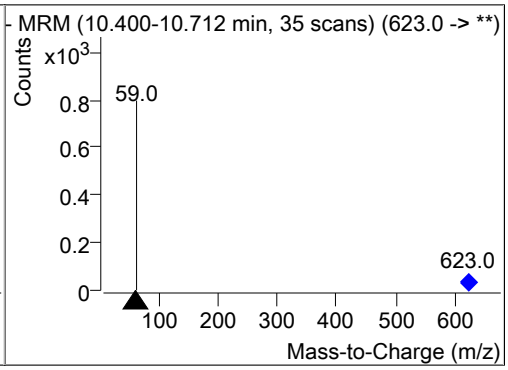




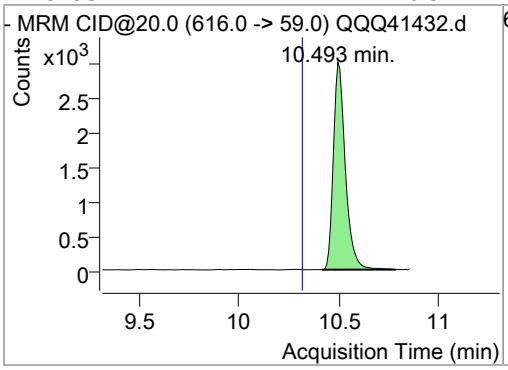
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	23.4789	10.48	0.18	14306				

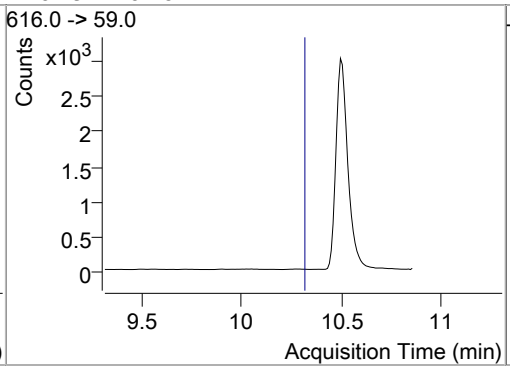


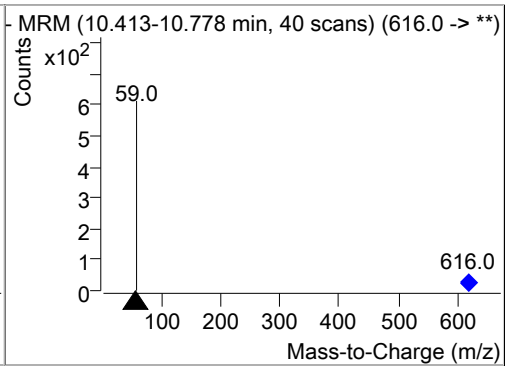




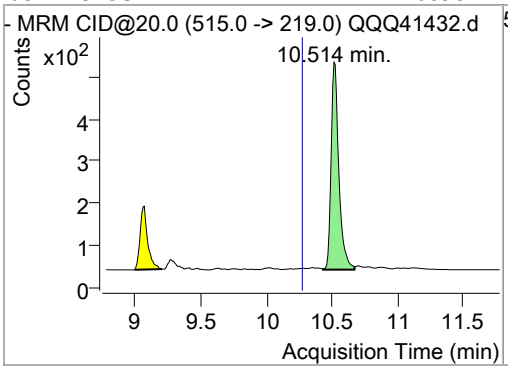
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	26.3424	10.49	0.18	12442				

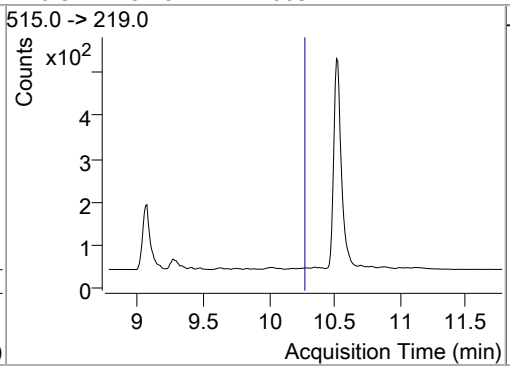


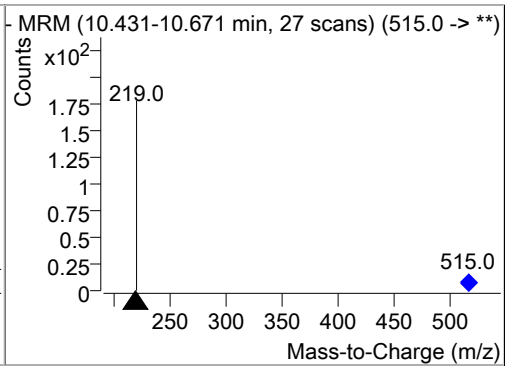




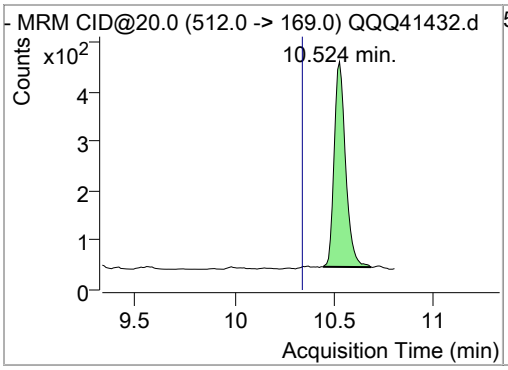
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.6098	10.51	0.18	2003				

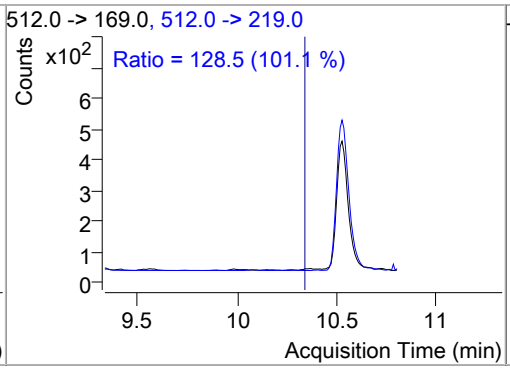


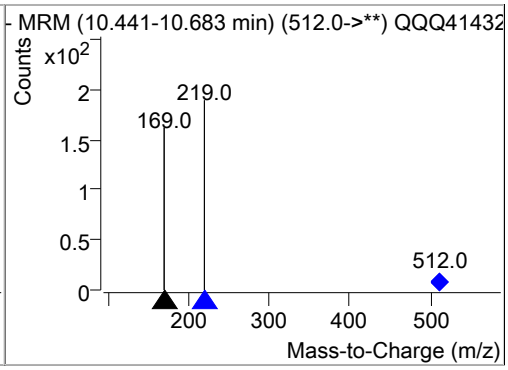




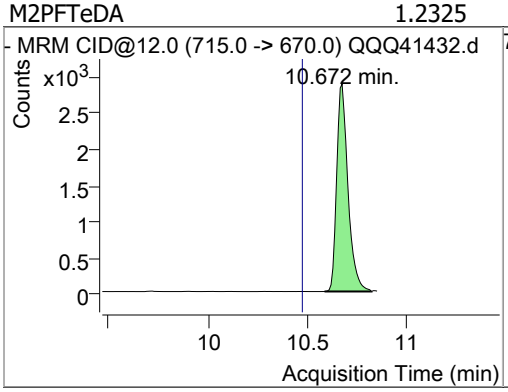
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	2.4562	10.52	0.19	1659	512.0 -> 219.0	128.5	101.6	152.5

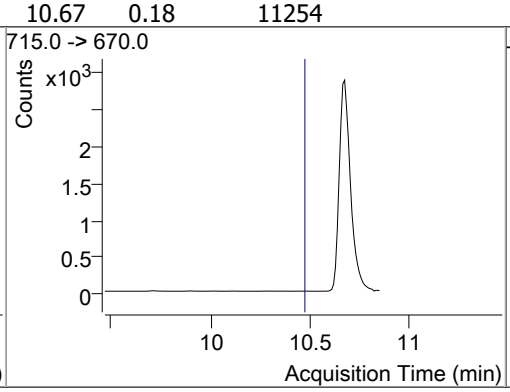


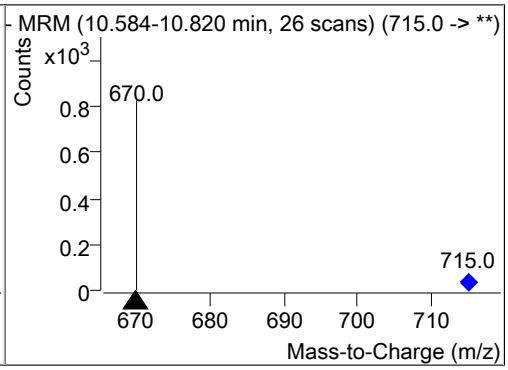




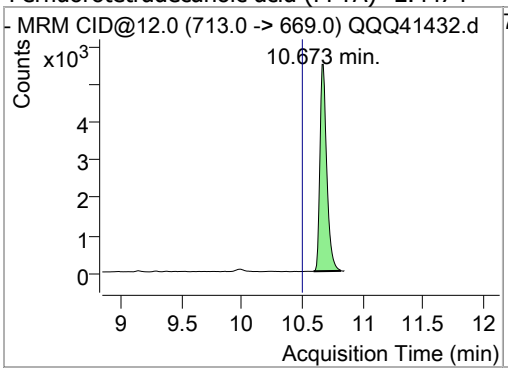
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.2325	10.67	0.18	11254				

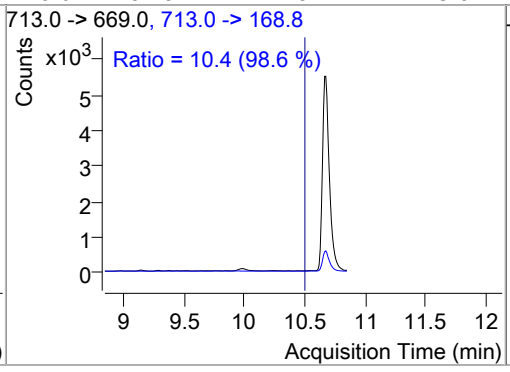


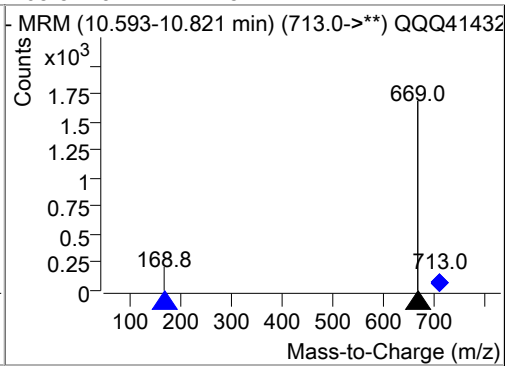




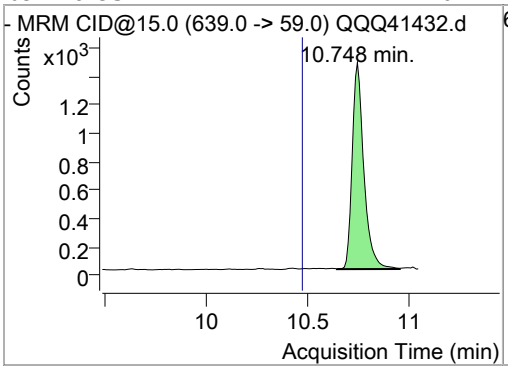
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	2.4474	10.67	0.18	21482	713.0 -> 168.8	10.4	8.4	12.7

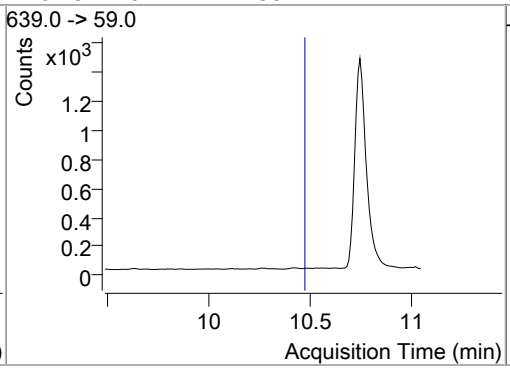


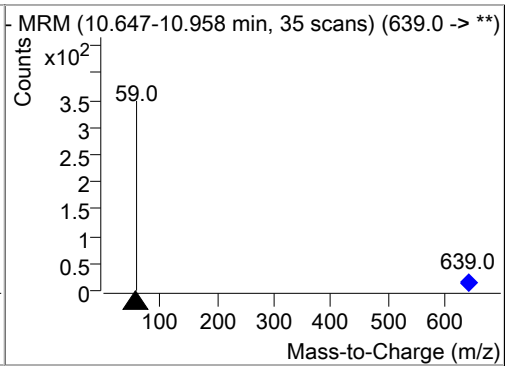




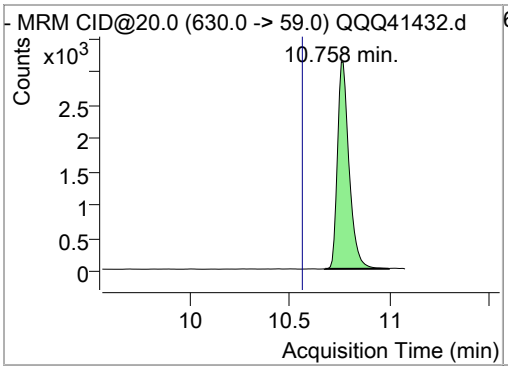
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	21.4622	10.75	0.21	5822				

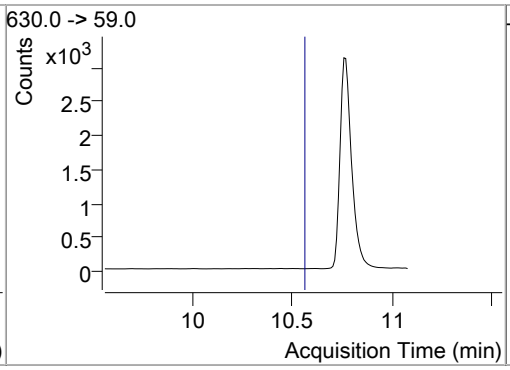


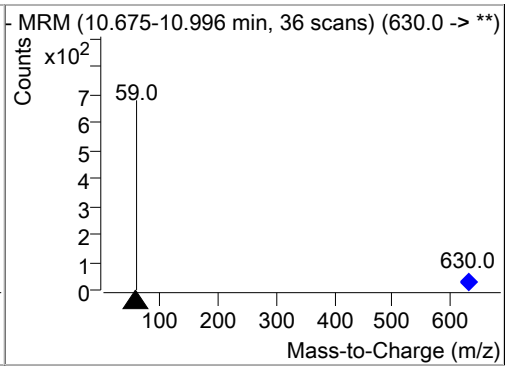




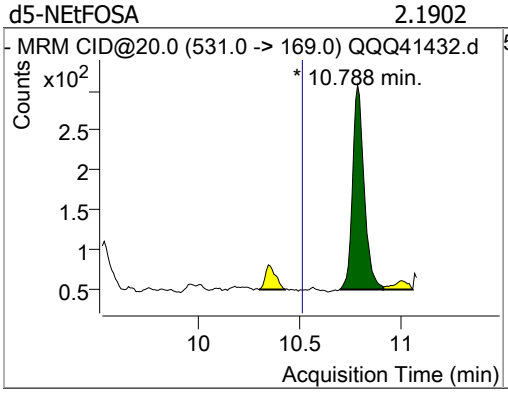
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	24.9497	10.76	0.20	12603				

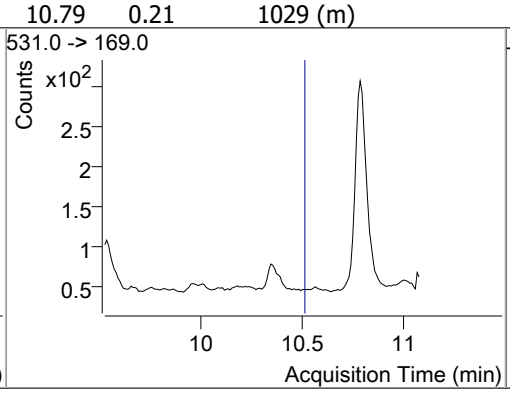


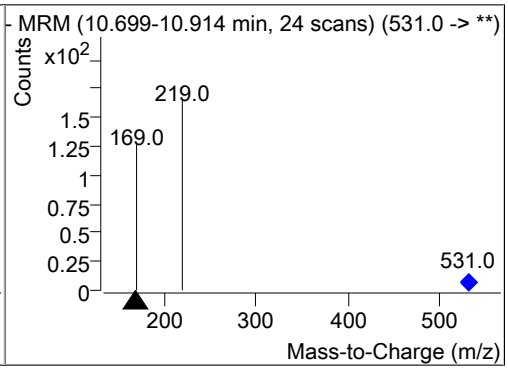




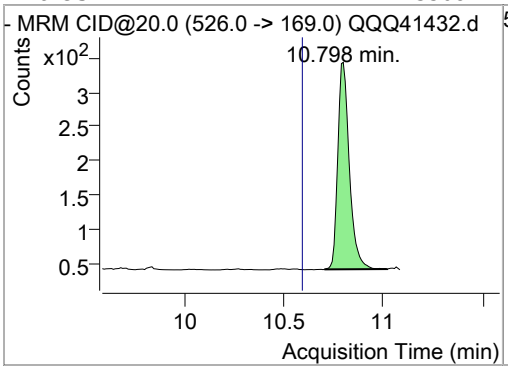
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.1902	10.79	0.21	1029 (m)				

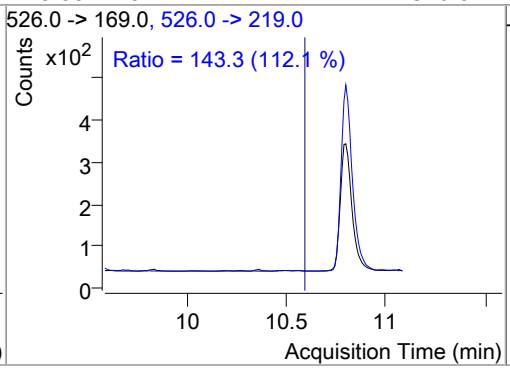


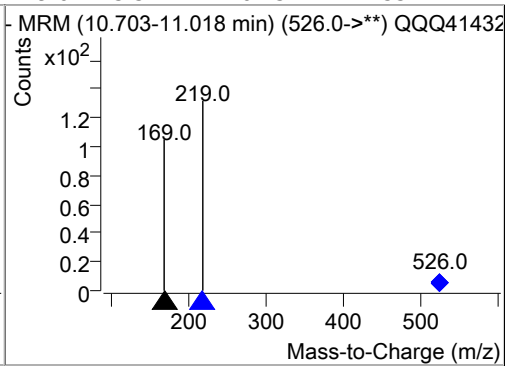




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.3568	10.80	0.21	1214	526.0 -> 219.0	143.3	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/11/2024 1:57:35 AM	**Data File**	QQQ41432.d
Sample Type	Sample	**Sampe Name**	SEQ-CCV6
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	148811	21636	0.468			1.75			2271.22
Perfluoro-n-butanoic acid (PFBA)	1.301	128589	18755	0.487			1.60			5148.94
PFMPA	2.217	35292	4058	0.619			1.77			∞
3:3FTCA	4.470	4533	572	0.498			1.93			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.783	121155	17793	0.445			1.60			23643.31
Perfluoro-n-pentanoic acid (PFPeA)	4.784	119350	17250	0.435			1.72			14936.83
PFMBA	5.551	51037	10591	0.333			1.64			∞
M3PFBS	5.575	18683	4077	0.343			1.73			∞
Perfluorobutanesulfonic acid (PFBS)	5.576	18751	4223	0.325			1.70			31722.63
PFEESA	6.103	143651	35508	0.316			1.78			347.30
NFDHA	6.253	2122	554	0.303			1.70			7691.32
M2-4-2FTS	6.325	22632	5548	0.297			1.68			722.03
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.325	53629	13304	0.288			1.61			1423.51
M5PFHxA	6.400	65025	15883	0.313			1.56			76324.80
Perfluorohexanoic acid (PFHxA)	6.401	75448	18245	0.306			1.55			424.83
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	17636	4330	0.311			1.52			∞
M3-HFPO-DA	6.698	45335	11286	0.315			1.49			∞
HFPO-DA	6.699	4049	991	0.258			1.58			∞
M4PFHpA	7.235	14840	3590	0.316			1.78			24429.24
Perfluoroheptanoic acid (PFHpA)	7.235	38463	9265	0.278			1.79			1888.51
5-3FTCA	7.310	227768	52216	0.344			1.78			∞
Perfluorohexanesulfonic acid (PFHxS)	7.346	15508	3050	0.483			1.56			∞
M3PFHxS	7.345	12634	2936	0.298			1.57			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.374	92380	22268	0.315			1.67			19996.88
M2-6-2FTS	7.875	14662	3583	0.297			1.77			632.37
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.875	38150	9227	0.334			1.84			2838.74
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.941	34993	8085	0.316			1.57			∞
Perfluorooctanoic acid (PFOA)	7.941	40836	9683	0.335			1.58			116.74
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.004	13371	3209	0.279			1.50			∞
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.534	6035	1538	0.249			1.92			2330.39
Perfluorononanoic acid (PFNA)	8.544	40725	10073	0.305			1.46			230.98
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	5827	1412	0.220			1.86			9167.77
Perfluorooctanesulfonic acid (PFOS)	8.571	11942	2149	0.469			1.79			420.03
7-3FTCA	8.730	368521	86734	0.306			1.76			∞
9-Cl-PF3ONS	8.893	292676	71188	0.308			1.80			933769.24
M2-8-2FTS	9.024	38383	9355	0.307			1.83			306.01
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.025	16883	4029	0.307			1.83			∞
M6PFDA	9.063	20508	4738	0.334			1.84			∞
Perfluorodecanoic acid (PFDA)	9.063	47033	11491	0.316			1.75			101.80
Perfluorononanesulfonate (L-PFNS)	9.079	10990	2643	0.300			1.57			575.88
d3-N-MeFOSAA	9.282	32966	7477	0.325			1.52			∞
N-MeFOSAA	9.283	12752	2514	0.474			1.71			15172.91
d5-N-EtFOSAA	9.524	31486	7117	0.306			1.77			∞
Perfluoroundecanoic acid (PFUnA)	9.535	54525	13038	0.287			1.72			577.93
Perfluoro-1-decanesulfonate (L-PFDS)	9.532	4952	1152	0.250			1.84			1004.98
N-EtFOSAA	9.533	14393	2807	0.501			1.74			7205.99
M7PFUdA	9.534	31304	7507	0.287			1.73			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.713	19987	4452	0.314			1.38			4363.26
Perfluoro-1-octanesulfonamide (FOSA)	9.704	30598	7019	0.286			1.87			∞
11-Cl-PF3OUdS	9.809	179762	42948	0.278			1.48			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	25336	6203	0.259			1.47			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.978	44043	10946	0.253			1.45			1133.66
Perfluorododecanesulfonic acid (PFDoS)	10.333	2857	695	0.248			1.84			283.58
Perfluorotridecanoic acid (PFTrDA)	10.353	28275	7022	0.230			1.73			538.62
d7-NMeFOSE	10.483	14306	3420	0.312			1.37			105.29
NMeFOSE	10.493	12442	2992	0.365			1.75			475.96
d3-NMeFOSA	10.514	2003	491	0.239			1.85			3342.54
NMeFOSA	10.524	1659	416	0.242			1.39			180.48
M2PFTeDA	10.672	11254	2864	0.235			1.49			188.13
Perfluorotetradecanoic acid (PFTA)	10.673	21482	5460	0.228			1.48			132.24
d9-NEtFOSE	10.748	5822	1452	0.311			1.51			287.49
NEtFOSE	10.758	12603	3103	0.321			1.98			3145.31
d5-NEtFOSA	10.788	1029	259	0.215			1.44			58.66
NEtFOSA	10.798	1214	301	0.315			1.46			839.74

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41364.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB1	Injection Time:	09:55

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A		0.0119	0.8591385				30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A		0.0117	0.2419004				30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A		0.00729	1.185549				30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A		0.0138	1.255886				30
3-Perfluoroheptyl propanoic acid (FHpPA)	A		0.393	0.2201101				30
3-Perfluoropentyl propanoic acid (FPePA)	A		0.329	0.1241024				30
3-Perfluoropropyl propanoic acid (FPrPA)	A		0.00570	1.286716E-02				30
9CL-PF3ONS	A		0.00226	1.369128				30
ADONA	A		0.00288	0.556015				30
HFPO-DA (Gen-X)	A		0.00	2.239571E-02				30
N-EtFOSA	A		0.0429	1.287944				30
N-EtFOSAA	A		0.0127	0.94945				30
N-EtFOSE	A		0.0362	1.993152				30
N-MeFOSA	A		0.00	0.7524916				30
N-MeFOSAA	A		0.00762	0.8763811				30
N-MeFOSE	A		0.0346	0.824401				30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A		0.000590	1.241156				30
Perfluoro-1-decanesulfonic acid (PFDS)	A		0.0178	0.7352727				30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A		0.00303	2.525683				30
Perfluoro-1-nonanesulfonic acid (PFNS)	A		0.0150	0.1655348				30
Perfluoro-1-octanesulfonamide (FOSA)	A		0.0121	1.385288				30
Perfluoro-1-pentanesulfonate (PFPeS)	A		0.00179	1.400558				30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A		0.0255	1.573594E-02				30

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41364.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB1	Injection Time:	09:55

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A		0.000718	0.2604373				30
Perfluoro-5-oxahexanoic acid (PFMBA)	A		0.00166	0.4108024				30
Perfluorobutanesulfonic acid (PFBS)	A		0.00242	1.128938				30
Perfluorodecanoic acid (PFDA)	A		0.0142	1.09146				30
Perfluorododecanesulfonic acid (PFDoS)	A		0.00527	0.4284993				30
Perfluorododecanoic acid (PFDoA)	A		0.00550	0.8702134				30
Perfluoroheptanoic acid (PFHpA)	A		0.00674	2.370614				30
Perfluorohexanesulfonic acid (PFHxS)	A		0.00589	1.39602				30
Perfluorohexanoic acid (PFHxA)	A		0.00611	1.166423				30
Perfluoro-n-butanoic acid (PFBA)	A		0.00559	0.9037138				30
Perfluorononanoic acid (PFNA)	A		0.0104	3.453721				30
Perfluorooctanesulfonic acid (PFOS)	A		0.00	2.631087				30
Perfluorooctanoic acid (PFOA)	A		0.00	1.254067				30
Perfluoropentanoic acid (PFPeA)	A		0.00691	1.003786				30
Perfluorotetradecanoic acid (PFTA)	A		0.00967	1.041146				30
Perfluorotridecanoic acid (PFTrDA)	A		0.00899	1.484165				30
Perfluoroundecanoic acid (PFUnA)	A		0.00	0.9068038				30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41364.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 9:55:56 AM
Sample Name	SEQ-CCB1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

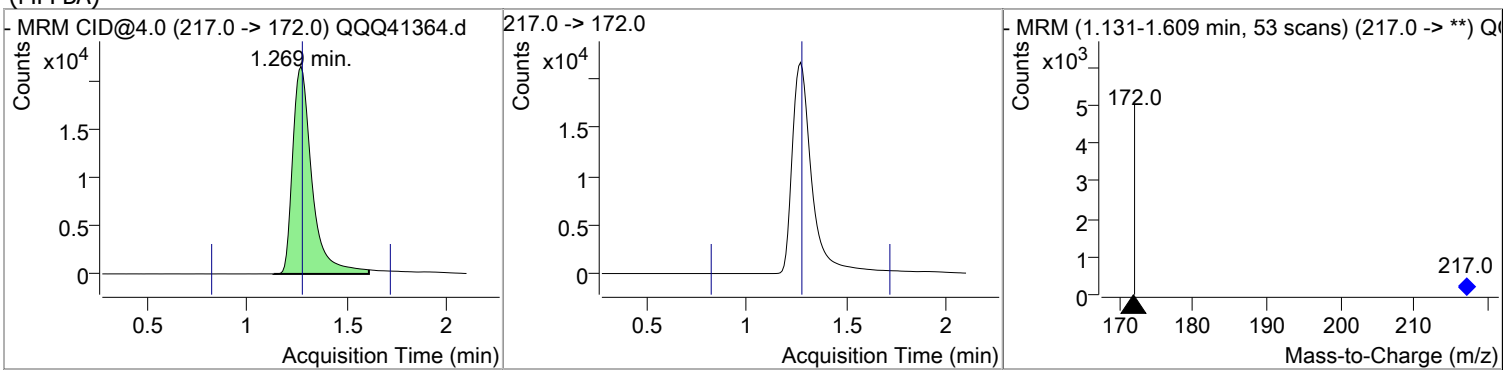
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.271	216.0 -> 172.0	26738	5.0000	ng/ml	0.018
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.269	217.0 -> 172.0	145190	10.0000	ng/ml	0.018
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.653	268.0 -> 223.0	117616	5.0000	ng/ml	-0.075
MPFHxA	6.317	315.0 -> 269.8	35356	2.5000	ng/ml	-0.056
MPFHxS	7.298	403.0 -> 103.0	3900	2.3700	ng/ml	-0.084
M3PFBS-EIS	5.474	302.0 -> 79.9	18646	2.3300	ng/ml	-0.056
M5PFHxA-EIS	6.316	318.0 -> 273.0	58729	2.5000	ng/ml	-0.056
M2-4-2FTS-EIS	6.241	329.0 -> 309.0	23089	4.6900	ng/ml	-0.056
M3PFHxS-EIS	7.299	402.0 -> 80.0	13015	2.3700	ng/ml	-0.084
M3-HFPO-DA-EIS	6.624	287.0 -> 169.0	44556	10.0000	ng/ml	-0.065
M4PFHpA-EIS	7.189	367.0 -> 322.0	14581	2.5000	ng/ml	-0.074
M2-6-2FTS-EIS	7.838	429.0 -> 409.0	13989	4.7550	ng/ml	-0.093
MPFOA	7.904	417.0 -> 372.0	40198	2.5000	ng/ml	-0.093
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.903	421.0 -> 376.0	33628	2.5000	ng/ml	-0.093
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.560	507.0 -> 98.9	4469	2.3950	ng/ml	-0.065
MPFNA	8.525	468.0 -> 423.0	19328	1.2500	ng/ml	-0.074
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.525	472.0 -> 223.0	5705	1.2500	ng/ml	-0.065
MPFOS	8.552	503.0 -> 80.0	11024	2.3950	ng/ml	-0.074
M2-8-2FTS-EIS	8.997	529.0 -> 509.0	33747	4.8000	ng/ml	-0.046
MPFDA	9.035	515.0 -> 469.8	13002	1.2500	ng/ml	-0.047
M6PFDA-EIS	9.035	519.0 -> 473.9	18339	1.2500	ng/ml	-0.047
d3-N-MeFOSAA-EIS	9.236	573.0 -> 418.8	29772	5.0000	ng/ml	-0.046
M7PFUdA-EIS	9.487	570.0 -> 525.0	31472	1.2500	ng/ml	-0.028
d5-N-EtFOSAA-EIS	9.477	589.0 -> 418.8	28832	5.0000	ng/ml	-0.028
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.611	506.0 -> 78.0	16406	2.5000	ng/ml	-0.037
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.893	615.0 -> 570.0	23802	1.2500	ng/ml	0.000
M2PFTeDA-EIS	10.553	715.0 -> 670.0	11829	1.2500	ng/ml	0.065
d7-NMeFOSE-EIS	10.336	623.0 -> 59.0	14143	25.0000	ng/ml	0.037
d3-NMeFOSA-EIS	10.367	515.0 -> 219.0	1986	2.5000	ng/ml	0.037
d9-NEtFOSE-EIS	10.591	639.0 -> 59.0	6446	25.0000	ng/ml	0.055
d5-NEtFOSA-EIS	10.631	531.0 -> 169.0	1381	2.5000	ng/ml	0.055
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.269	217.0 -> 172.0	145190	10.8439	ng/ml	0.018
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.653	268.0 -> 223.0	117615	5.2146	ng/ml	-0.075
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.474	302.0 -> 79.9	18651	2.6806	ng/ml	-0.056
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.241	329.0 -> 309.0	23089	4.9704	ng/ml	-0.056

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.316	318.0 -> 273.0	58729	2.6029	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.624	287.0 -> 169.0	44550	11.2952	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.189	367.0 -> 322.0	14579	2.9089	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.299	402.0 -> 80.0	13019	2.6819	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.838	429.0 -> 409.0	14061	4.5197	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.903	421.0 -> 376.0	33628	2.6269	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.525	472.0 -> 223.0	5705	1.3850	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.560	507.0 -> 98.9	4465	2.2087	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.997	529.0 -> 509.0	33510	4.5868	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.035	519.0 -> 473.9	18339	1.2874	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.236	573.0 -> 418.8	29772	5.7156	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.477	589.0 -> 418.8	28828	6.2667	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.487	570.0 -> 525.0	31472	1.6323	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.611	506.0 -> 78.0	16409	2.4772	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.893	615.0 -> 570.0	23802	1.4043	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.336	623.0 -> 59.0	14142	26.6057	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.367	515.0 -> 219.0	1986	2.9665	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.553	715.0 -> 670.0	11829	1.5642	ng/ml		0.065
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.591	639.0 -> 59.0	6448	27.2464	ng/ml		0.055
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.631	531.0 -> 169.0	1273	3.1060	ng/ml	m	0.055
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.274	213.0 -> 168.9	71	0.0056	ng/ml		100
PFMPA	2.263	229.0 -> 85.0	5	0.0007	ng/ml		100
3:3FTCA	4.479	241.0 -> 177.0	2	0.0057	ng/ml	#	1
Perfluoro-n-pentanoic acid (PFPeA)	4.663	263.0 -> 219.0	156	0.0069	ng/ml		100
PFMBA	5.495	279.0 -> 85.0	16	0.0017	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.474	298.9 -> 79.9	20	0.0024	ng/ml		90
PFEESA	6.038	315.0 -> 135.0	18	0.0006	ng/ml	#	12
NFDHA	6.355	295.0 -> 201.1	11	0.0255	ng/ml		49
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.223	327.0 -> 307.0	45	0.0073	ng/ml	#	43

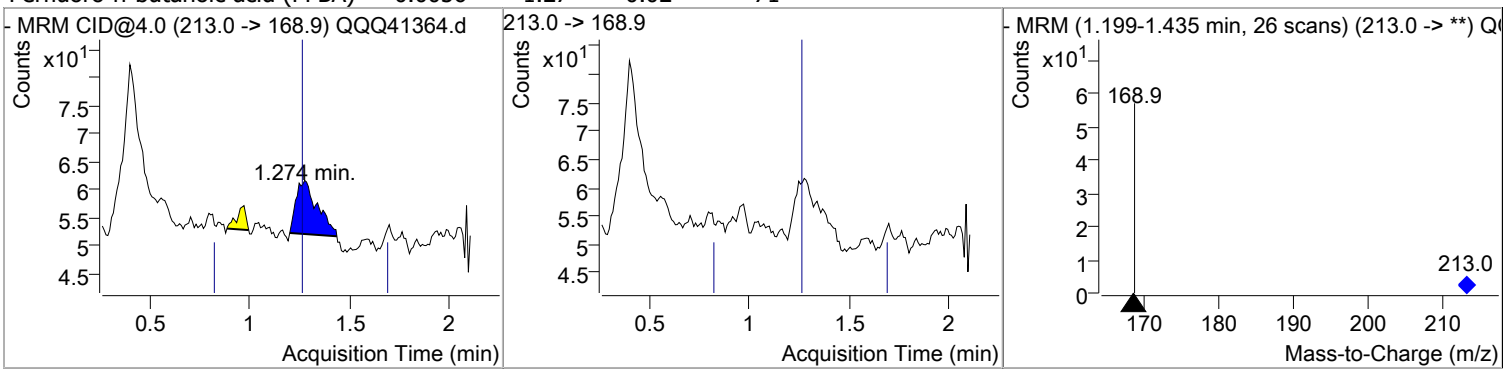
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.318	313.0 -> 268.9	166	0.0061	ng/ml	#	39
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.630	348.9 -> 79.9	12	0.0018	ng/ml	#	11
HFPO-DA	6.736	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.207	363.0 -> 318.8	87	0.0067	ng/ml	#	60
5-3FTCA	7.254	341.0 -> 217.0	1237	0.3291	ng/ml		84
Perfluorohexanesulfonic acid (PFHxS)	7.308	398.9 -> 79.9	37	0.0059	ng/ml	#	14
ADONA	7.327	377.0 -> 85.0	28	0.0029	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.884	427.0 -> 407.0	64	0.0138	ng/ml	#	80
Perfluorooctanoic acid (PFOA)	8.034	413.0 -> 368.8	49	0.0000	ng/ml		37
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.967	448.9 -> 80.0	14	0.0030	ng/ml		38
Perfluorononanoic acid (PFNA)	8.526	463.0 -> 418.8	153	0.0104	ng/ml	#	77
Perfluorooctanesulfonic acid (PFOS)	8.934	498.9 -> 79.9	15	0.0000	ng/ml	#	18
7-3FTCA	8.702	441.0 -> 337.0	1978	0.3927	ng/ml		86
9-Cl-PF3ONS	8.940	531.0 -> 351.0	61	0.0023	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.006	527.0 -> 80.9	19	0.0117	ng/ml	#	15
Perfluorodecanoic acid (PFDA)	9.063	513.0 -> 468.8	239	0.0142	ng/ml	#	76
Perfluorononanesulfonate (L-PFNS)	9.061	548.9 -> 79.9	50	0.0150	ng/ml	#	30
N-MeFOSAA	9.264	570.0 -> 418.9	40	0.0076	ng/ml	#	1
Perfluoroundecanoic acid (PFUnA)	9.488	563.0 -> 519.0	42	0.0000	ng/ml	#	1
Perfluoro-1-decanesulfonate (L-PFDS)	9.402	598.9 -> 98.9	29	0.0178	ng/ml		100
N-EtFOSAA	9.496	584.0 -> 418.8	63	0.0127	ng/ml		1
Perfluoro-1-octanesulfonamide (FOSA)	9.611	497.9 -> 78.0	113	0.0121	ng/ml		100
11-Cl-PF3OUdS	9.743	631.0 -> 451.0	221	0.0119	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.894	613.0 -> 568.8	85	0.0055	ng/ml		74
Perfluorododecanesulfonic acid (PFDoS)	10.213	699.0 -> 80.0	5	0.0053	ng/ml		1
Perfluorotridecanoic acid (PFTrDA)	10.270	663.0 -> 618.8	108	0.0090	ng/ml		100
NMeFOSE	10.364	616.0 -> 59.0	16	0.0346	ng/ml		100
NMeFOSA	10.331	512.0 -> 169.0	9	0.0000	ng/ml	#	21
Perfluorotetradecanoic acid (PFTA)	10.544	713.0 -> 669.0	89	0.0097	ng/ml		98
NEtFOSE	10.592	630.0 -> 59.0	20	0.0362	ng/ml		100
NEtFOSA	10.540	526.0 -> 169.0	29	0.0429	ng/ml		1

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

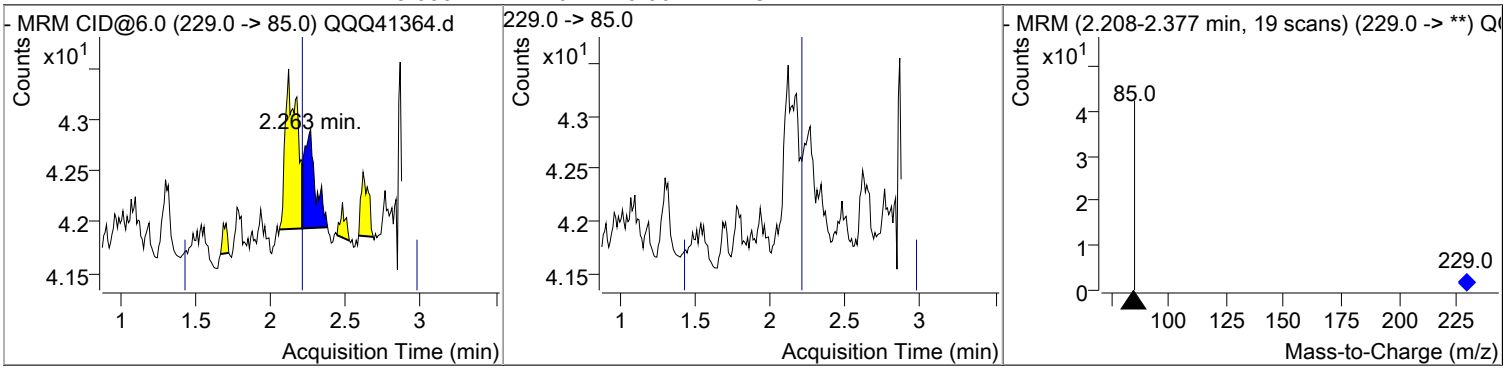
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.8439	1.27	0.02	145190				



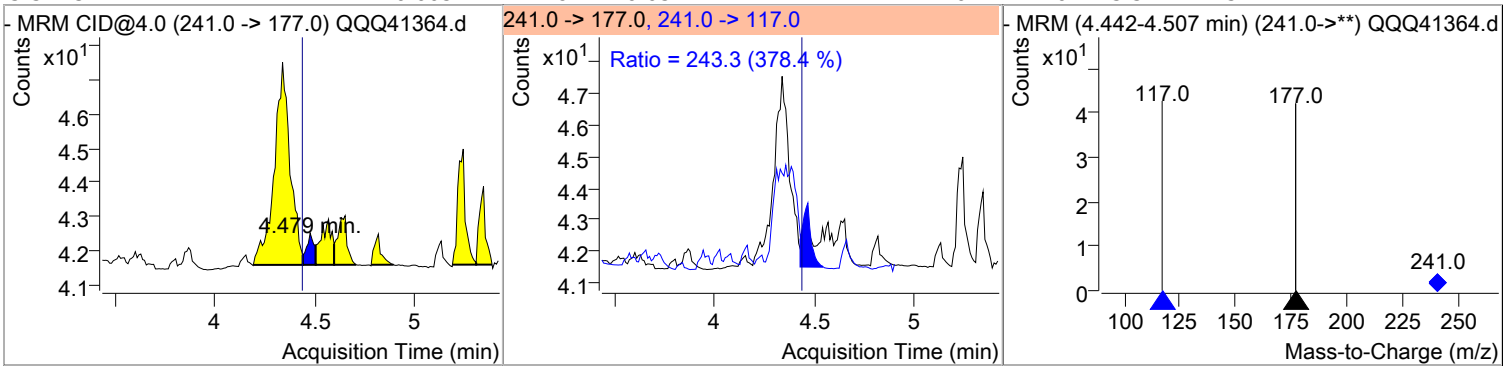
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0056	1.27	0.02	71				



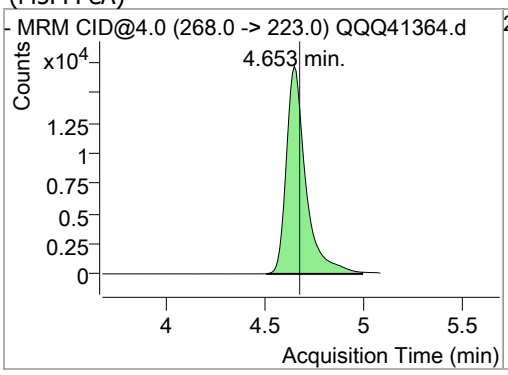
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0007	2.26	0.06	5				

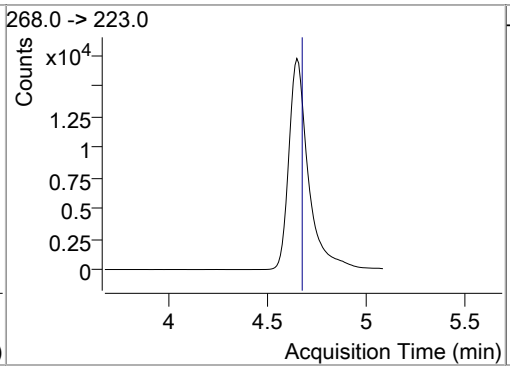


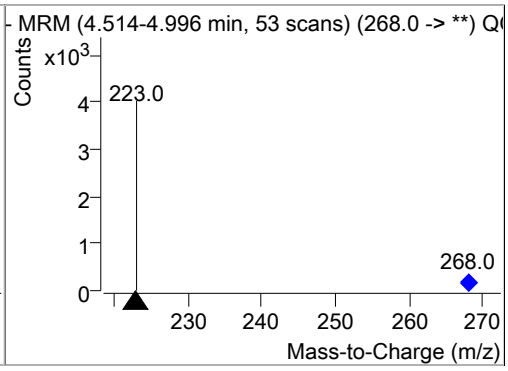
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0057	4.48	0.05	2	241.0 -> 117.0	243.3	51.4	77.2



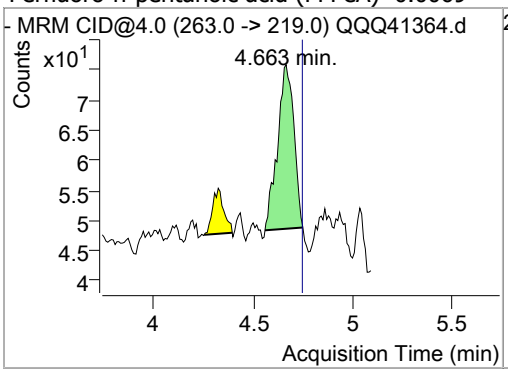
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.2146	4.65	-0.08	117615				

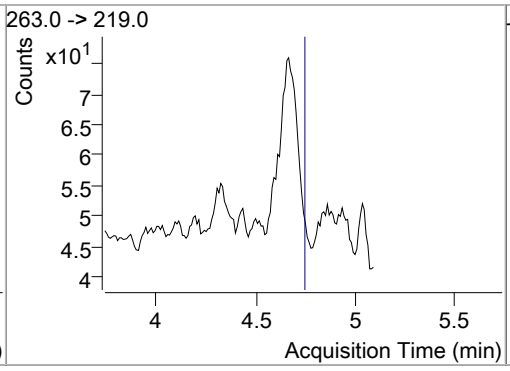


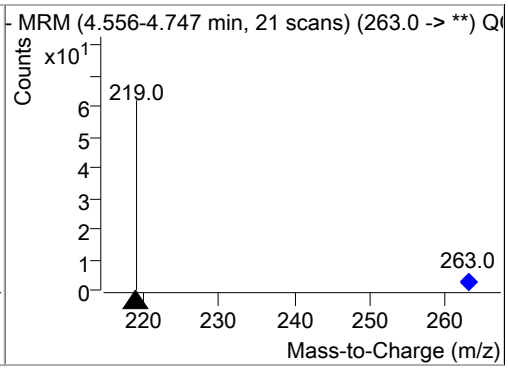




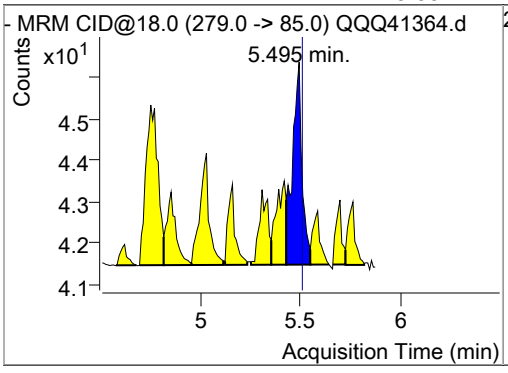
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0069	4.66	-0.07	156				

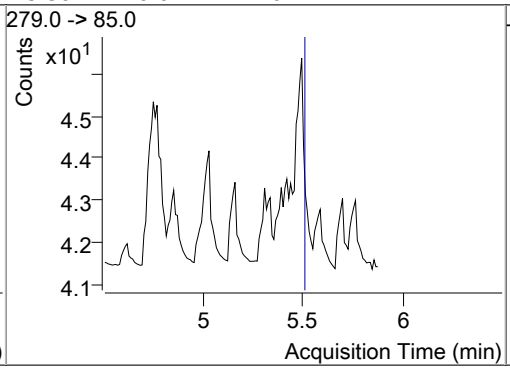


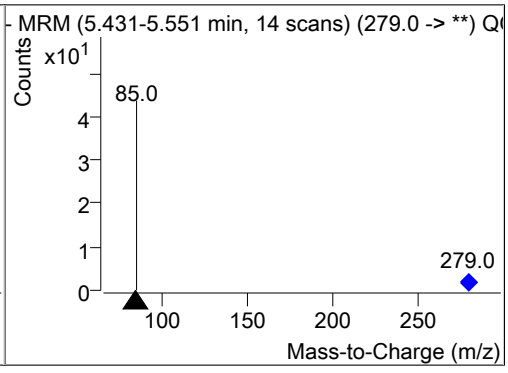




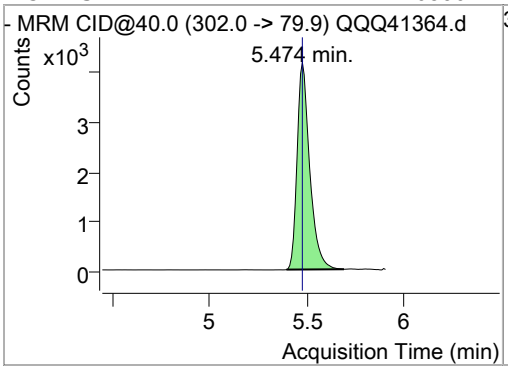
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0017	5.50	-0.01	16				

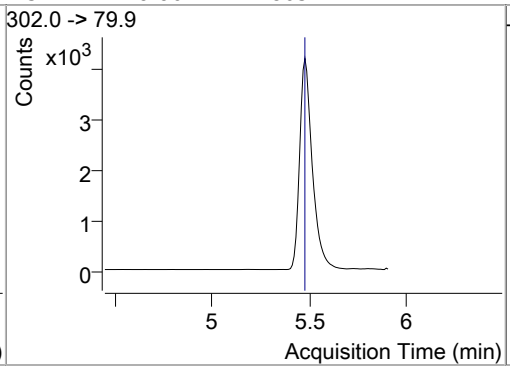


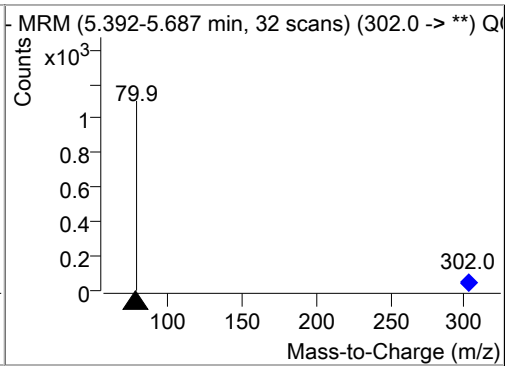




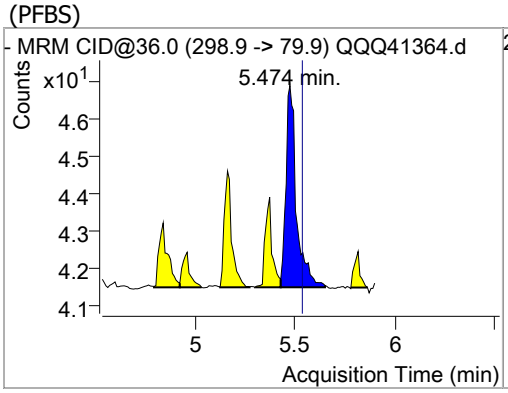
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.6806	5.47	-0.06	18651				

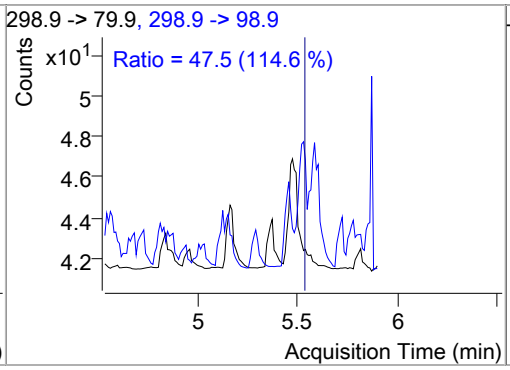


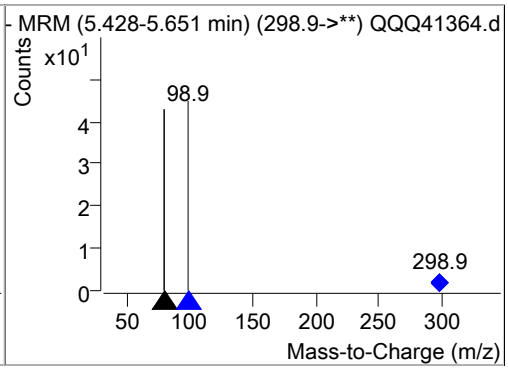




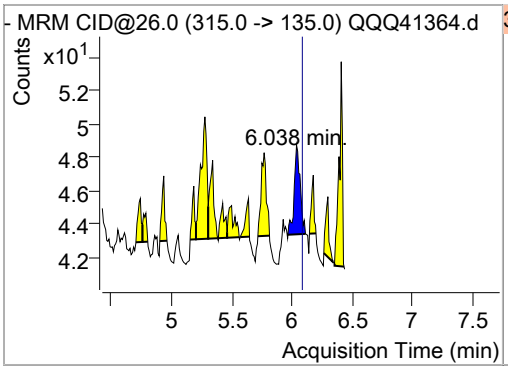
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0024	5.47	-0.06	20	298.9 -> 98.9	47.5	33.1	49.7

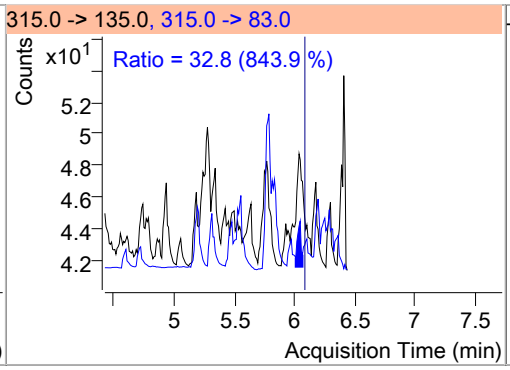


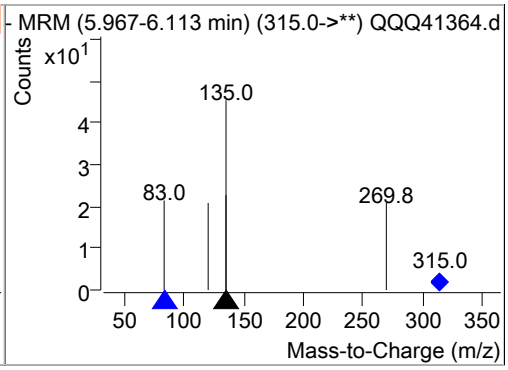




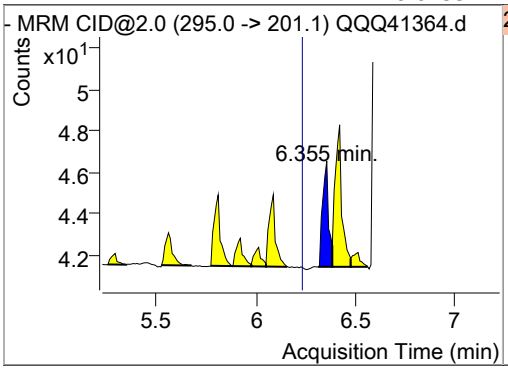
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0006	6.04	-0.04	18	315.0 -> 83.0	32.8	3.1	4.7

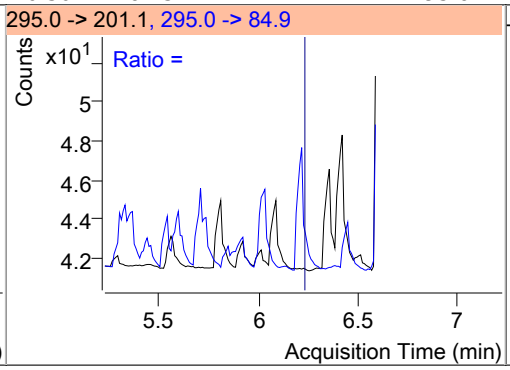


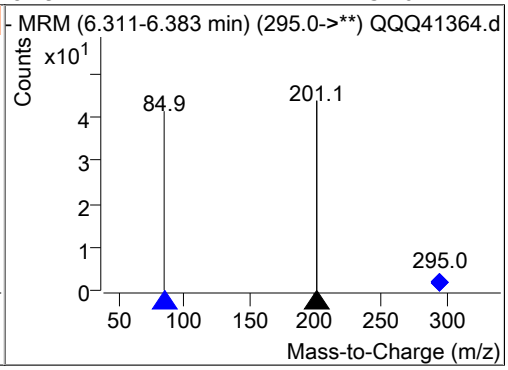




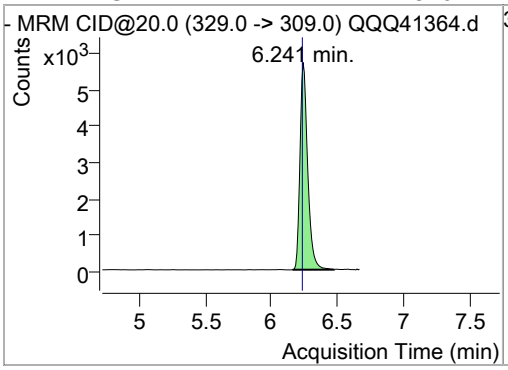
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0255	6.36	0.13	11	295.0 -> 84.9		21.1	31.6

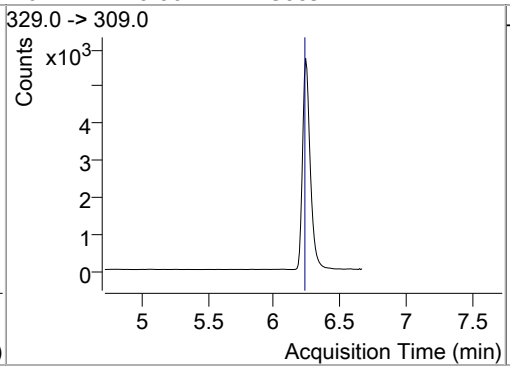


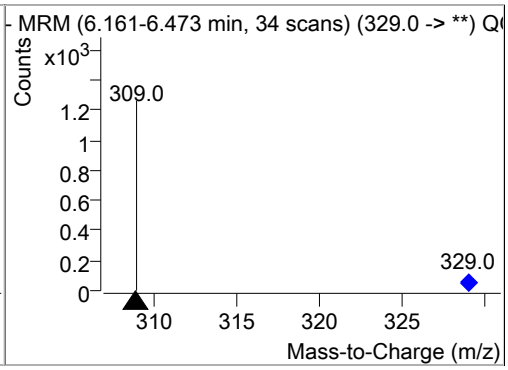




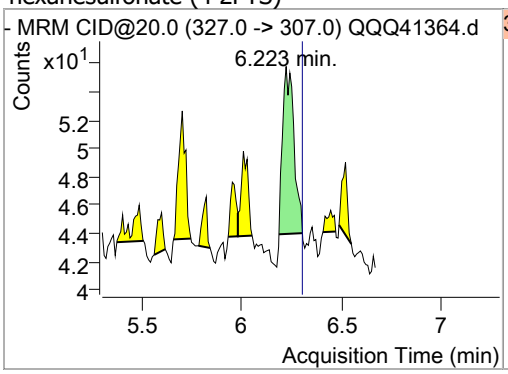
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.9704	6.24	-0.06	23089				

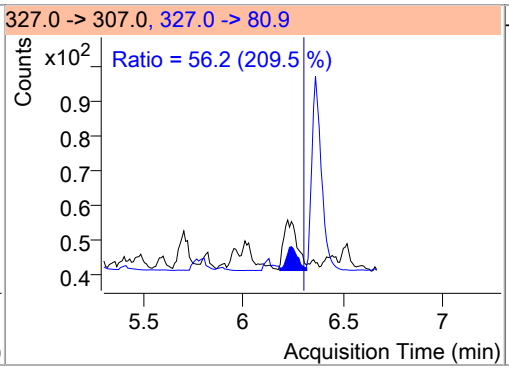


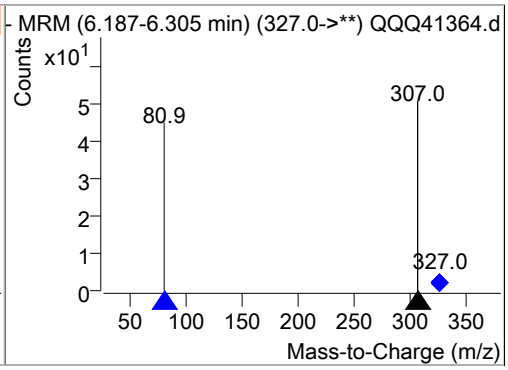




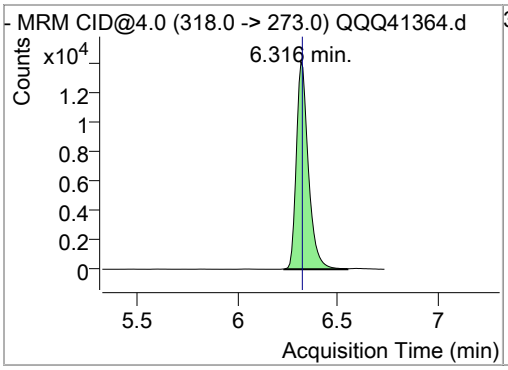
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0073	6.22	-0.07	45	327.0 -> 80.9	56.2	21.5	32.2

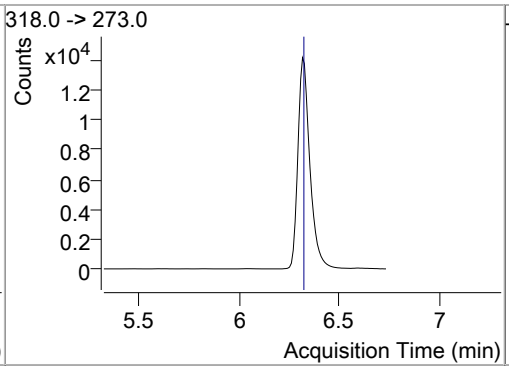


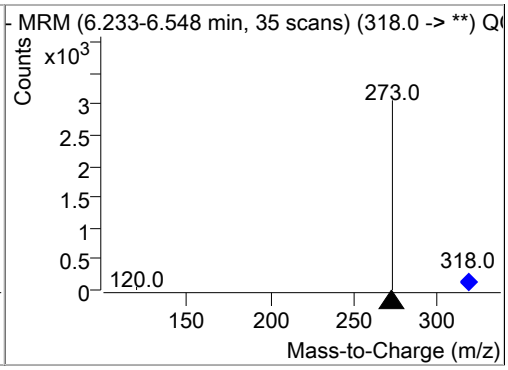




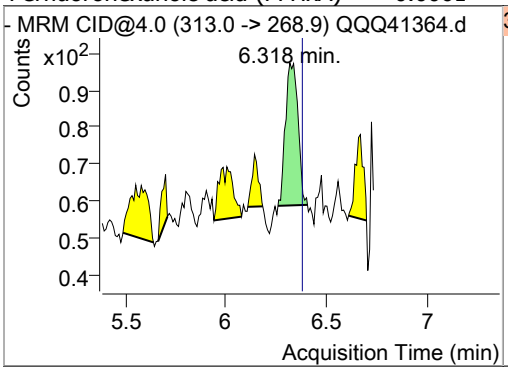
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.6029	6.32	-0.06	58729				

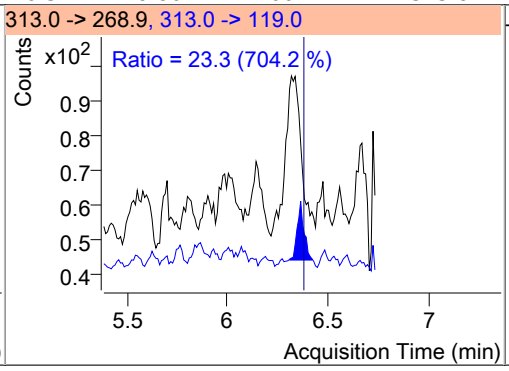


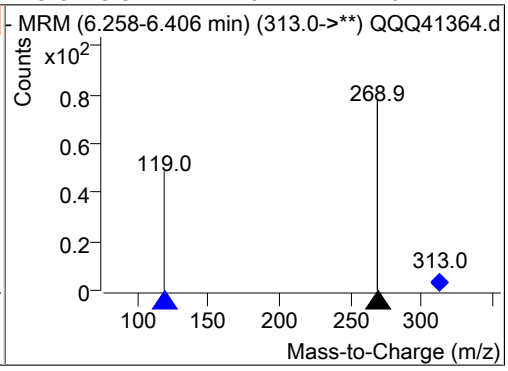




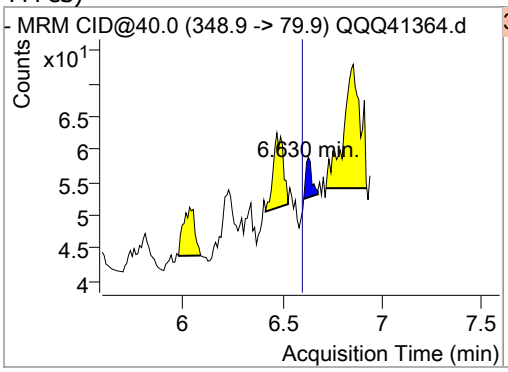
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0061	6.32	-0.06	166	313.0 -> 119.0	23.3	2.6	4.0

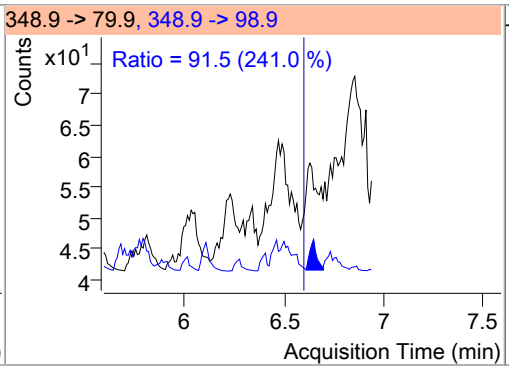


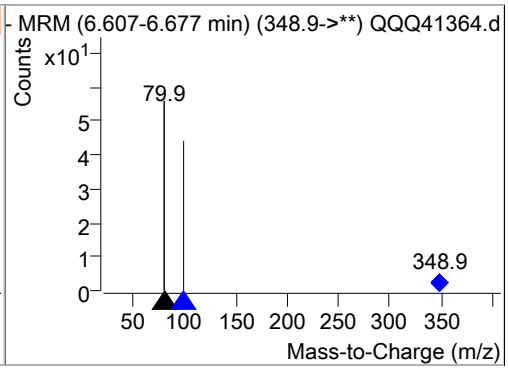




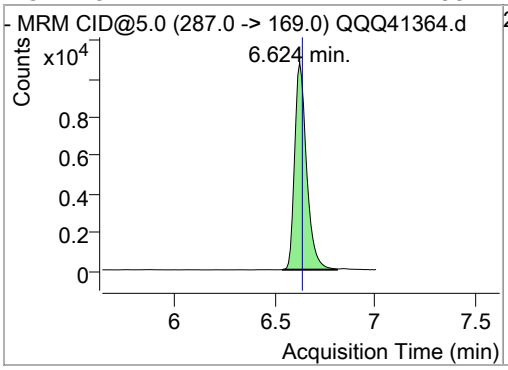
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0018	6.63	0.04	12	348.9 -> 98.9	91.5	30.4	45.6

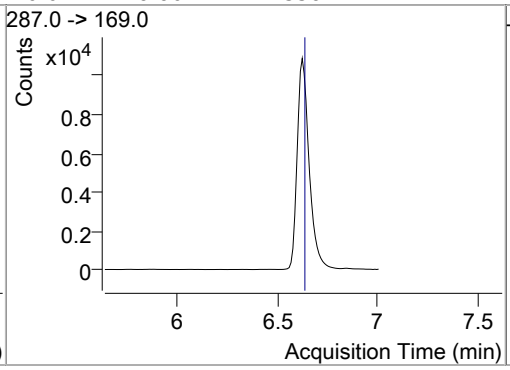


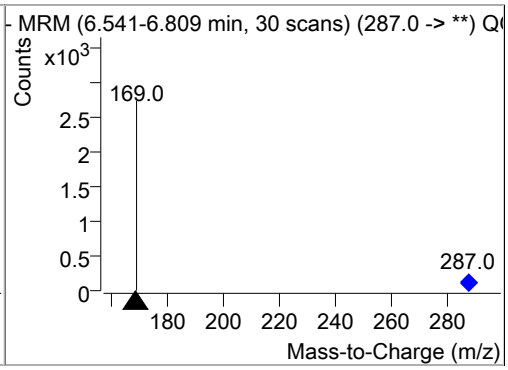




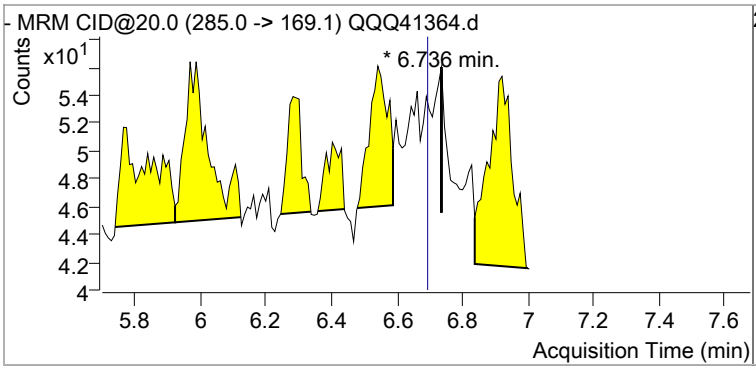
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	11.2952	6.62	-0.06	44550				

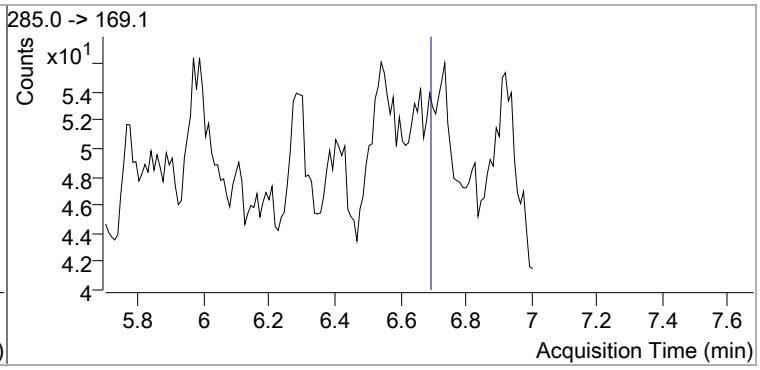




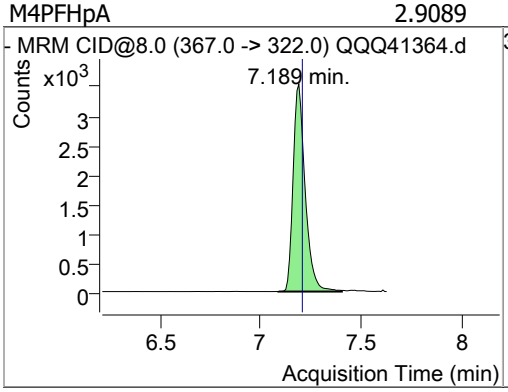


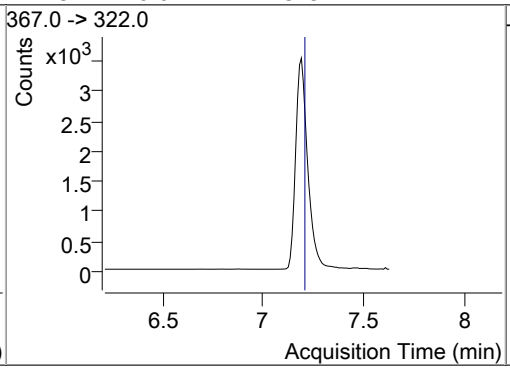
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

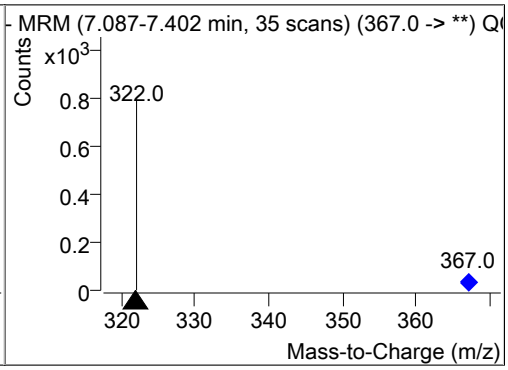




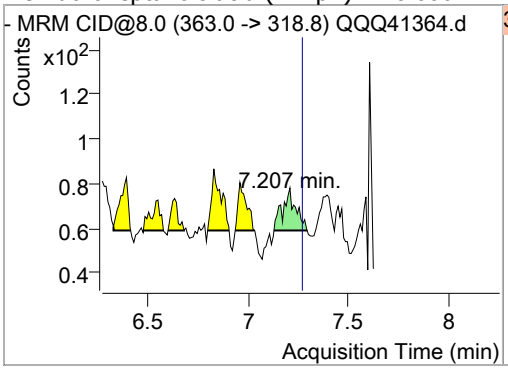
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.9089	7.19	-0.07	14579				

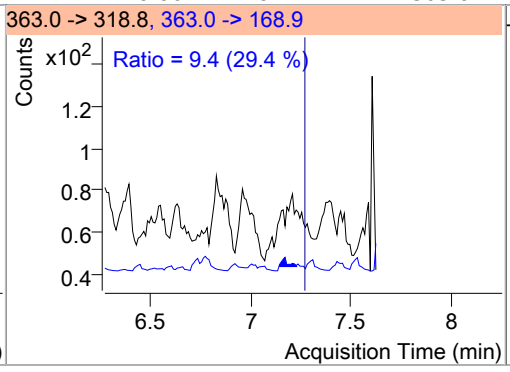


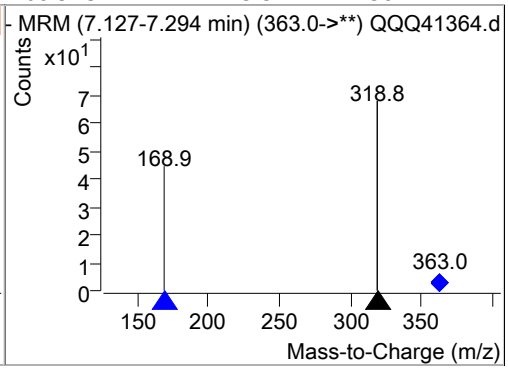




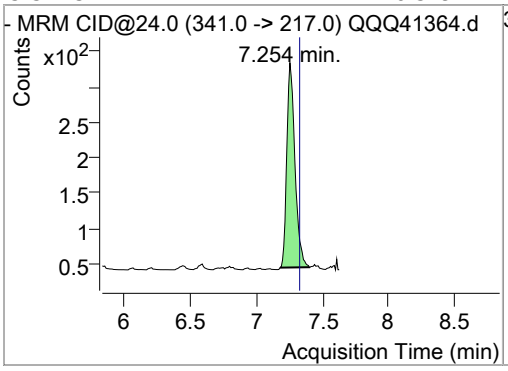
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0067	7.21	-0.06	87	363.0 -> 168.9	9.4	25.5	38.2

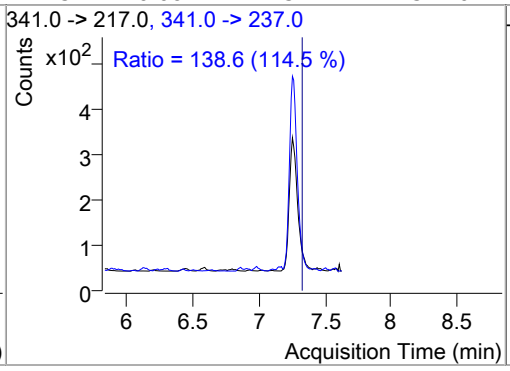


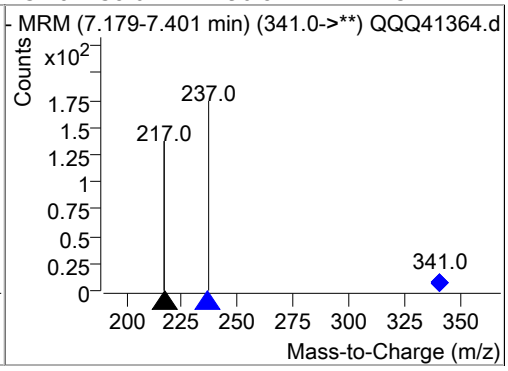




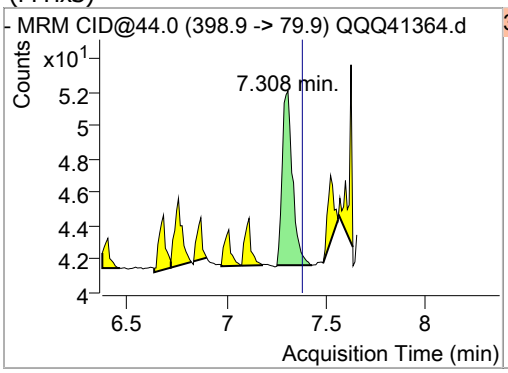
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.3291	7.25	-0.08	1237	341.0 -> 237.0	138.6	96.8	145.2

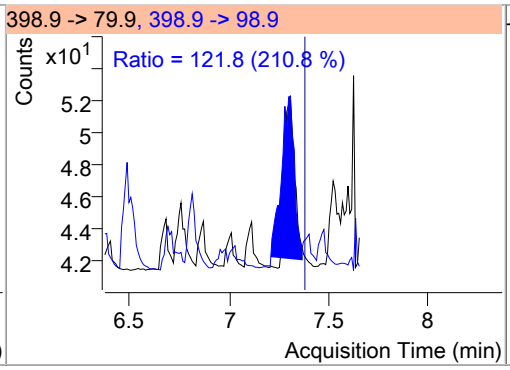


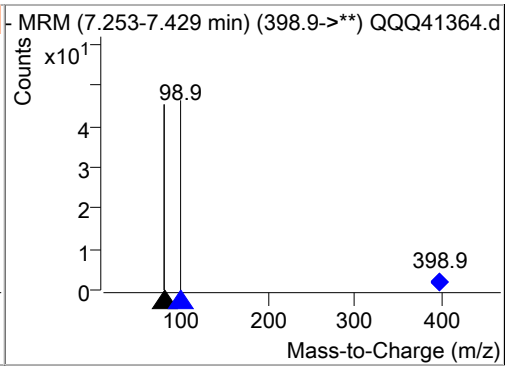




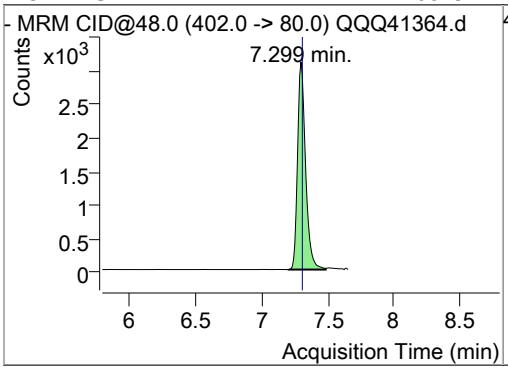
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0059	7.31	-0.07	37	398.9 -> 98.9	121.8	46.2	69.3

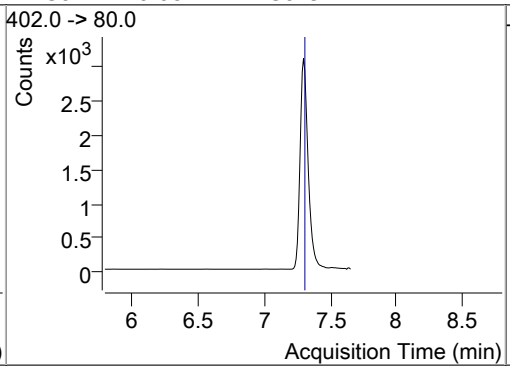


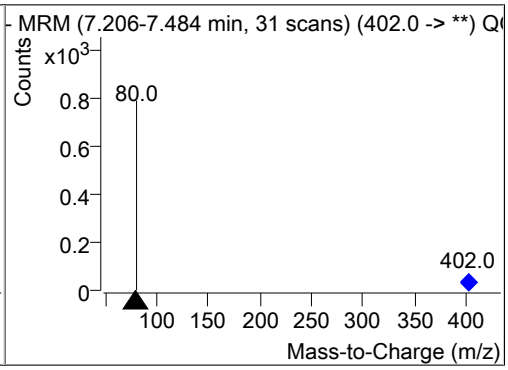




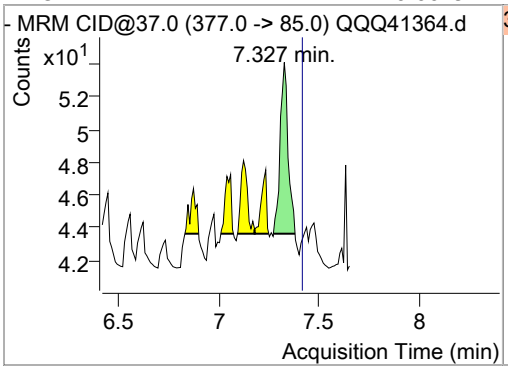
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.6819	7.30	-0.08	13019				

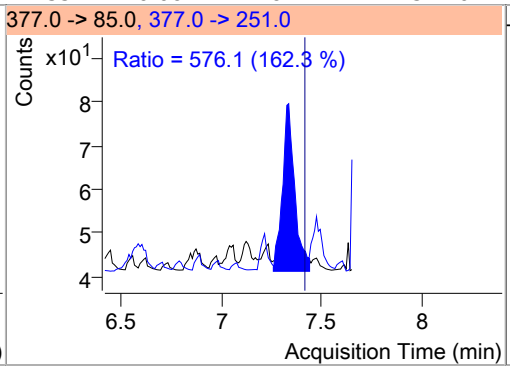


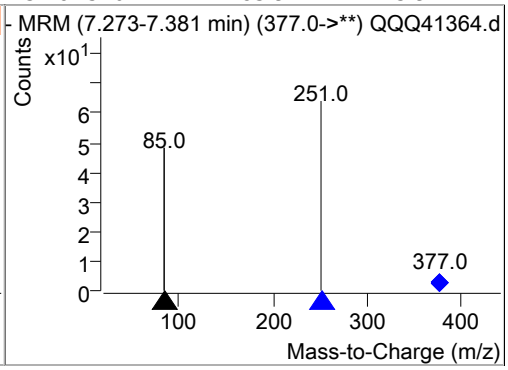




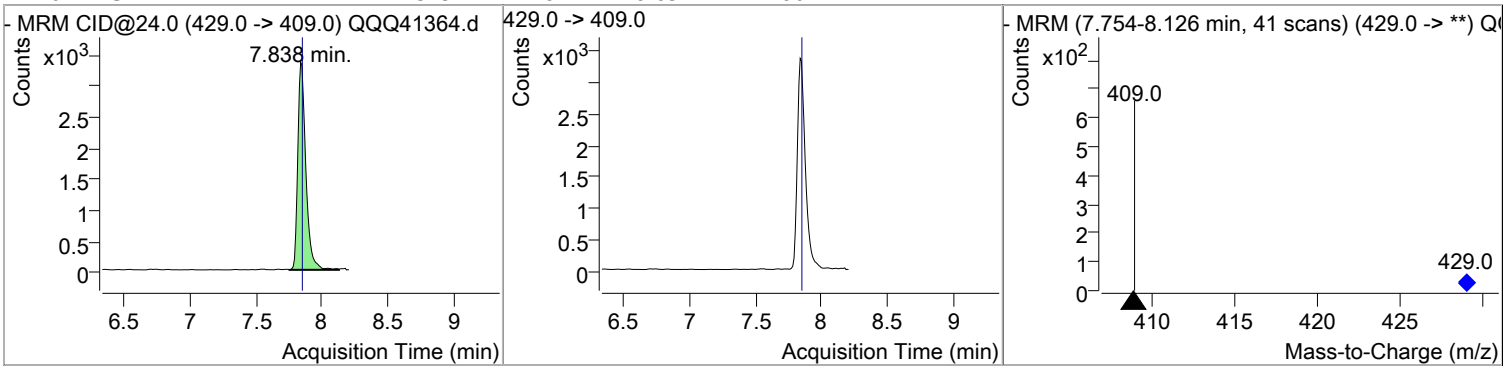
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0029	7.33	-0.08	28	377.0 -> 251.0	576.1	283.9	425.9



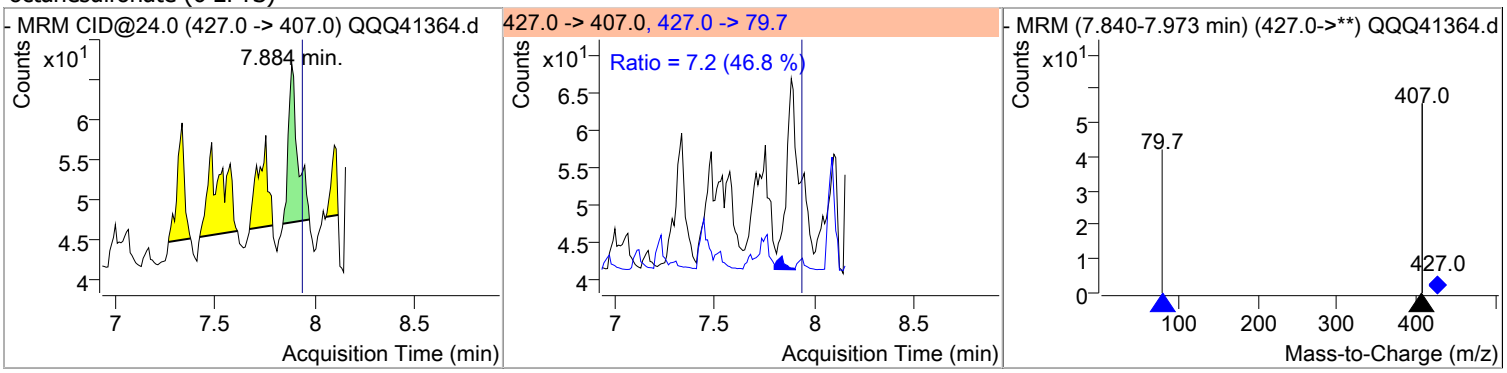




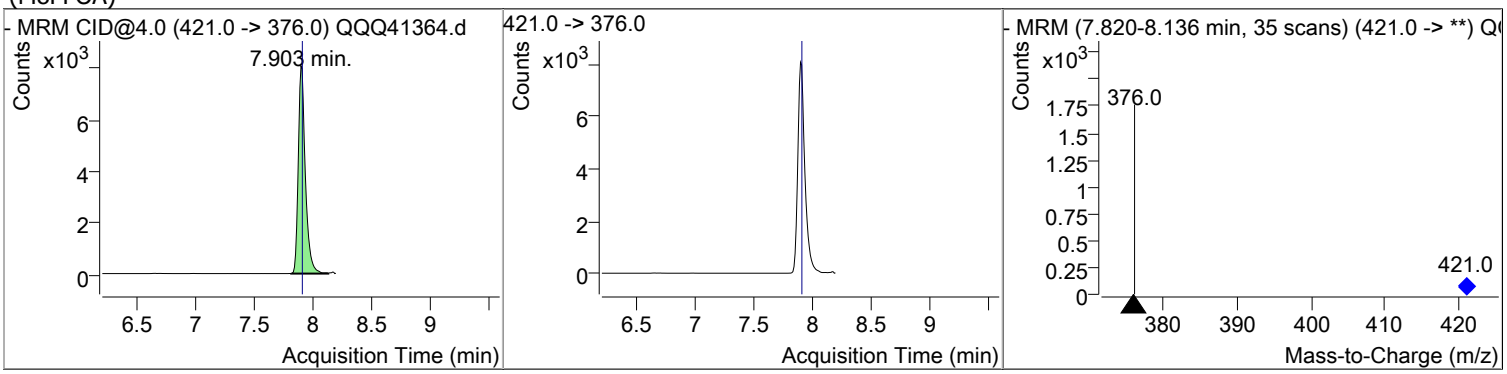
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.5197	7.84	-0.09	14061				



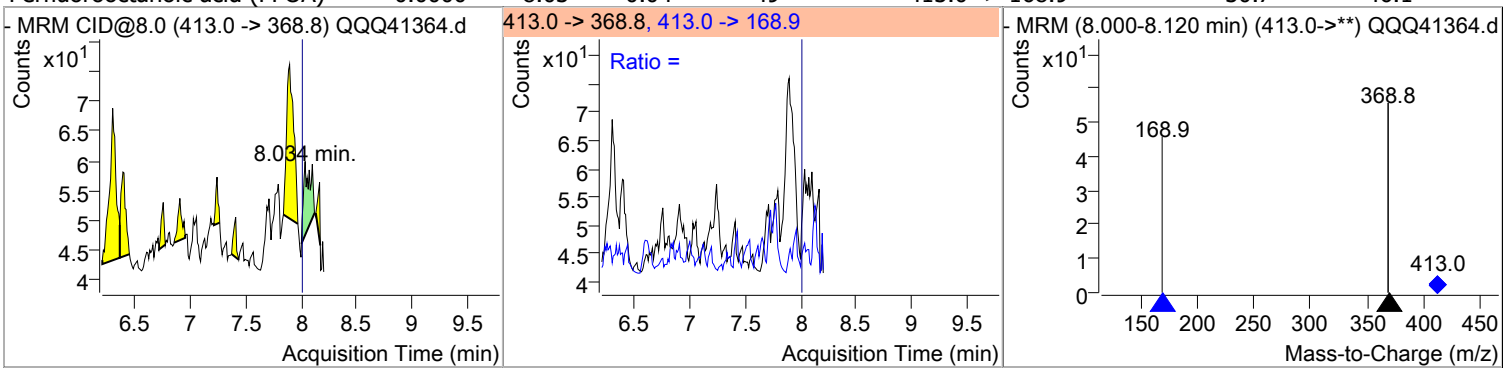
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0138	7.88	-0.05	64	427.0 -> 79.7	7.2	12.3	18.5



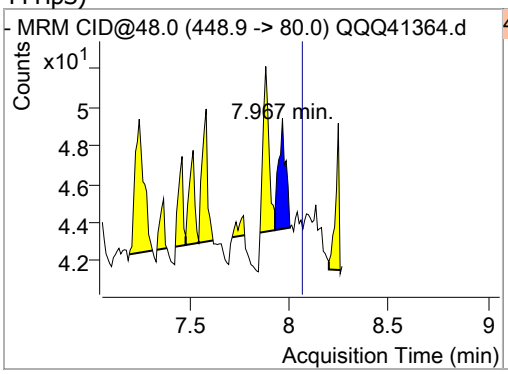
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.6269	7.90	-0.09	33628				

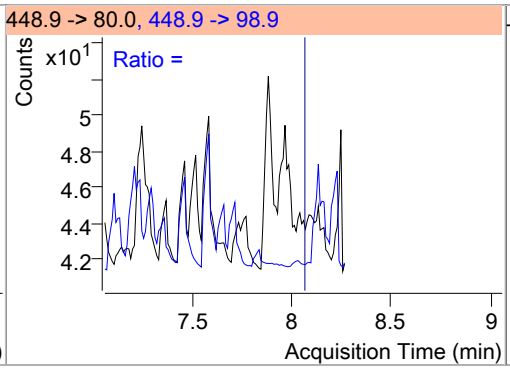


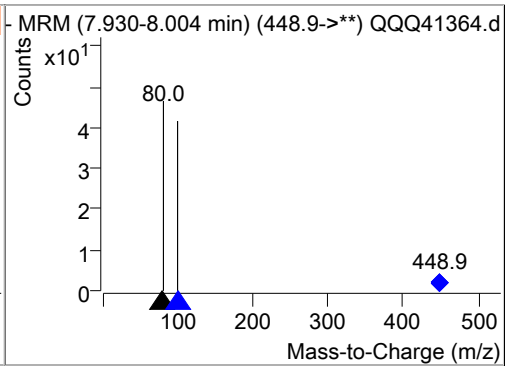
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	8.03	0.04	49	413.0 -> 168.9		30.7	46.1



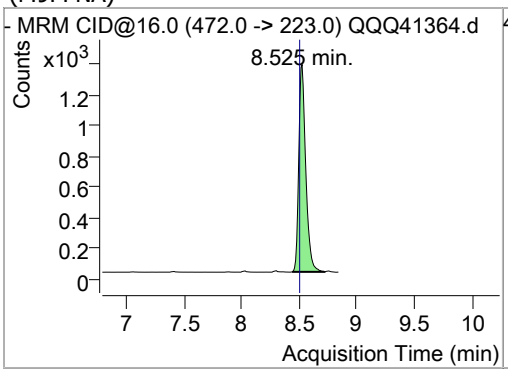
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0030	7.97	-0.09	14	448.9 -> 98.9		29.6	44.4

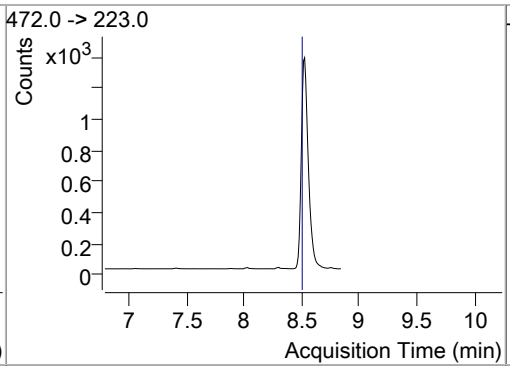


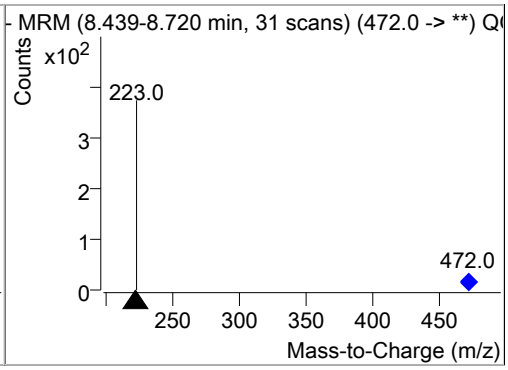




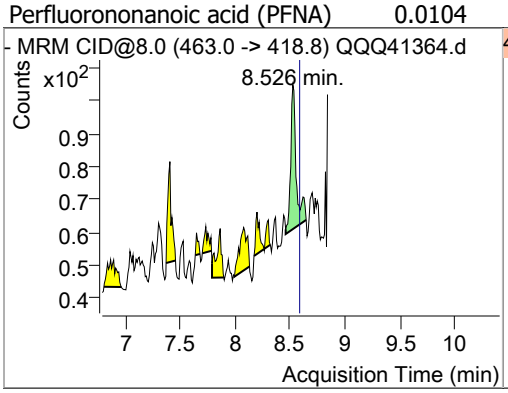
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.3850	8.53	-0.06	5705				

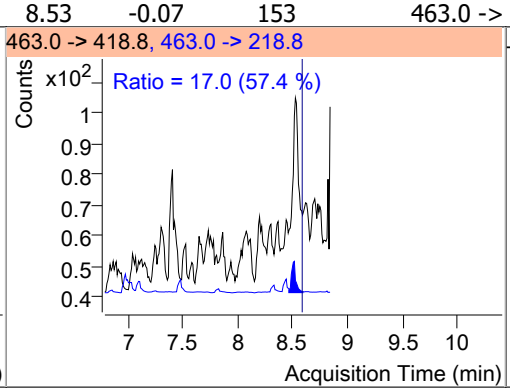


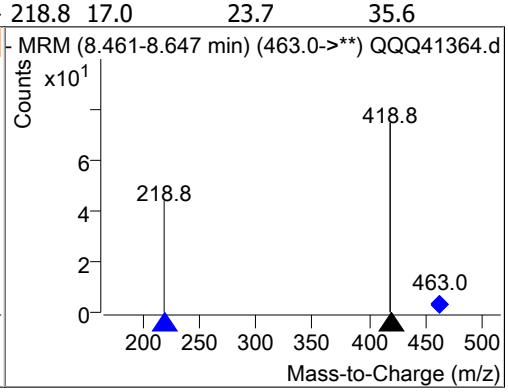




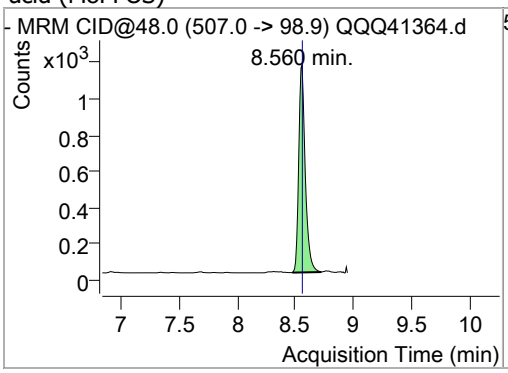
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0104	8.53	-0.07	153	463.0 -> 218.8	17.0	23.7	35.6

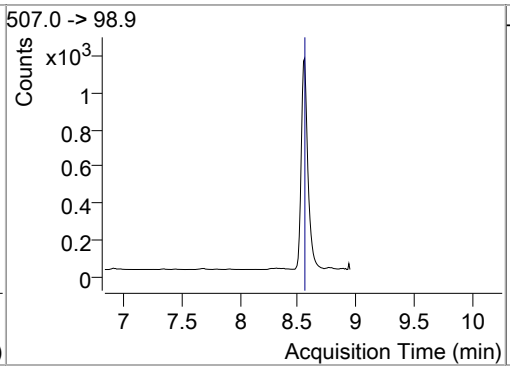


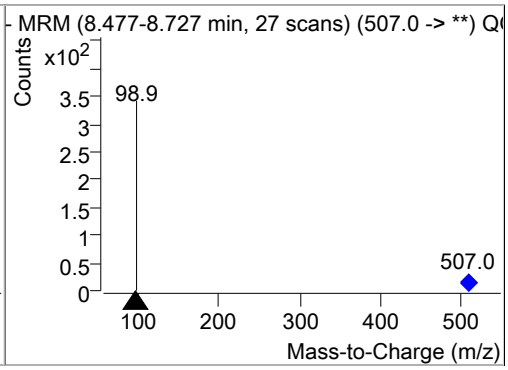




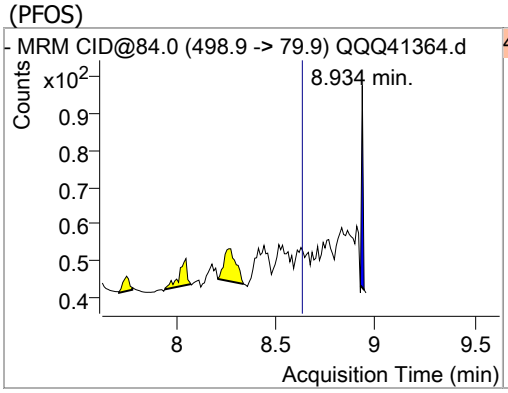
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.2087	8.56	-0.06	4465				

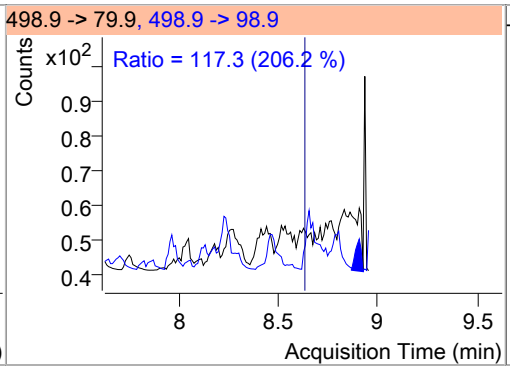


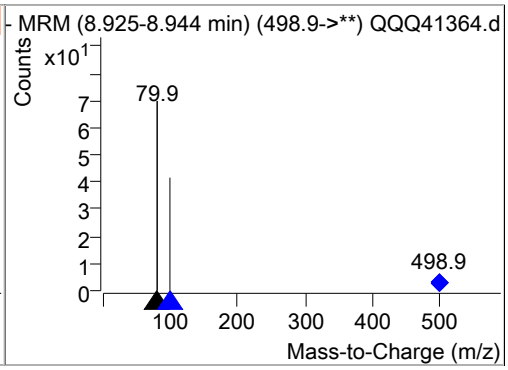




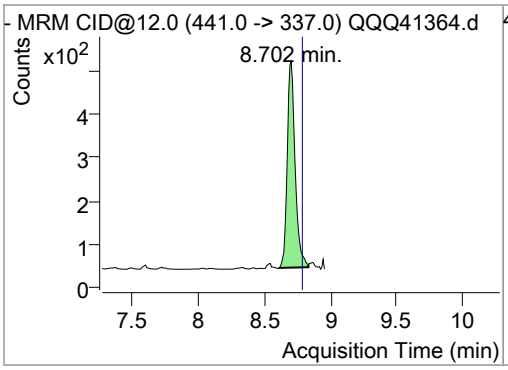
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.93	0.31	15	498.9 -> 98.9	117.3	45.5	68.3

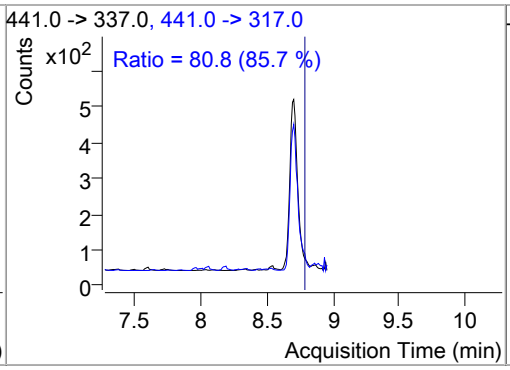


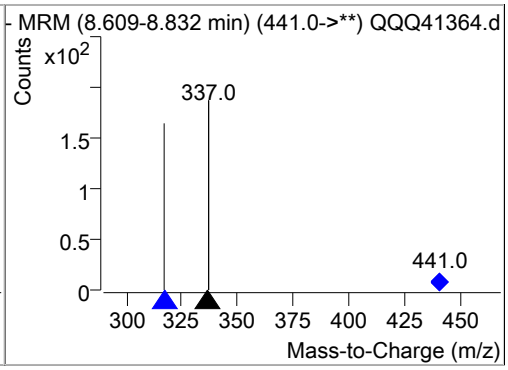




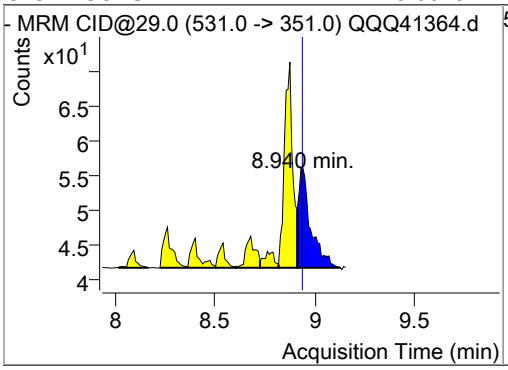
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.3927	8.70	-0.07	1978	441.0 -> 317.0	80.8	75.4	113.1

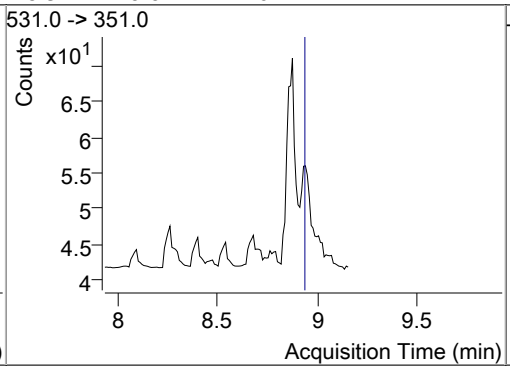


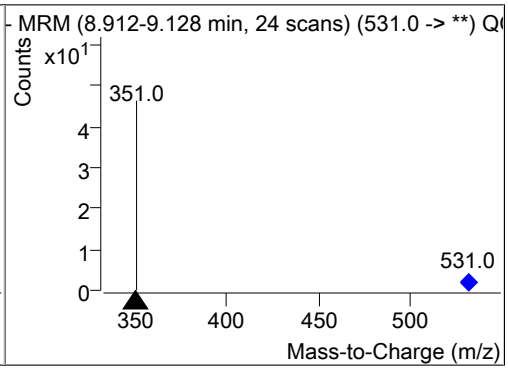




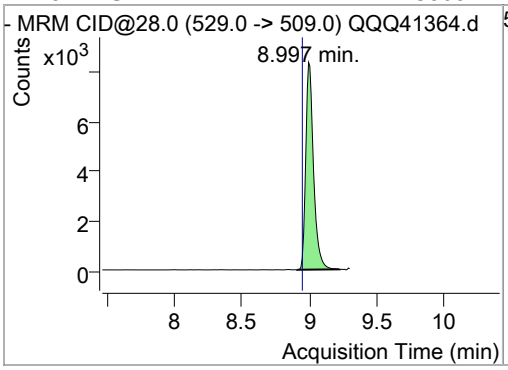
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0023	8.94	0.01	61				

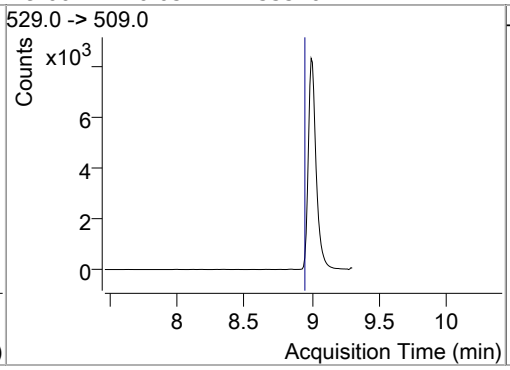


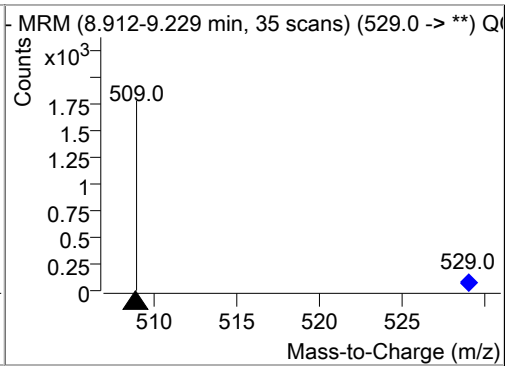




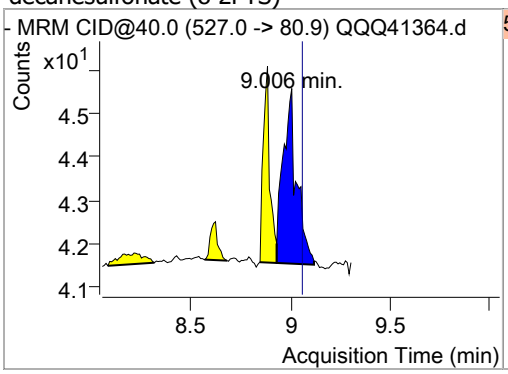
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.5868	9.00	-0.05	33510				

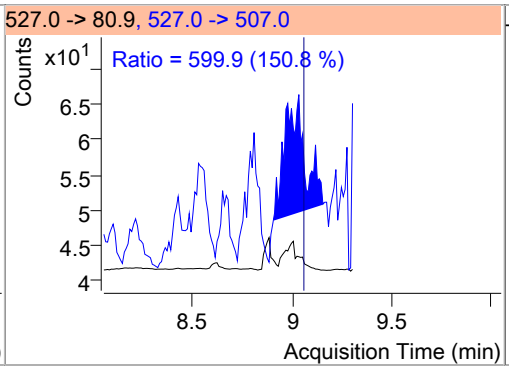


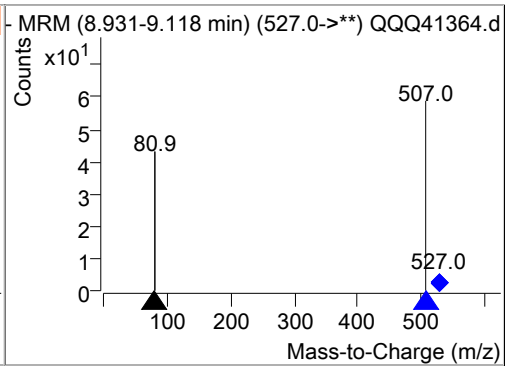




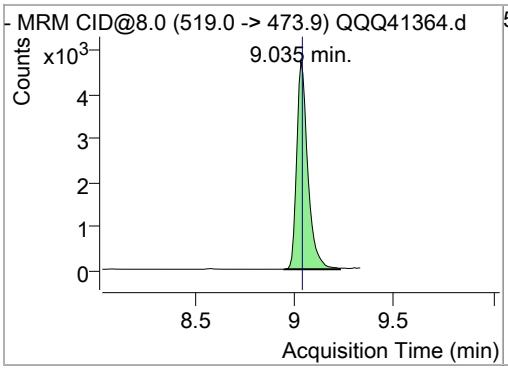
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0117	9.01	-0.05	19	527.0 -> 507.0	599.9	318.3	477.4

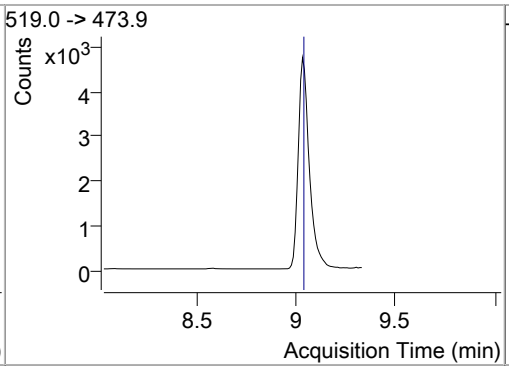


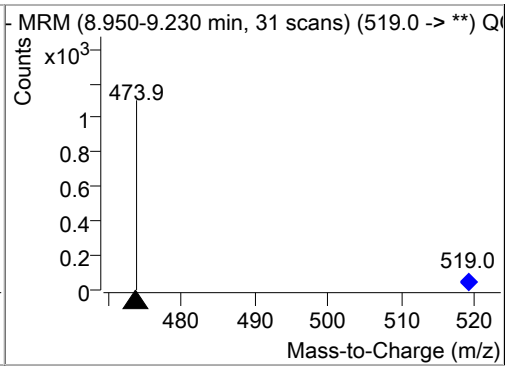




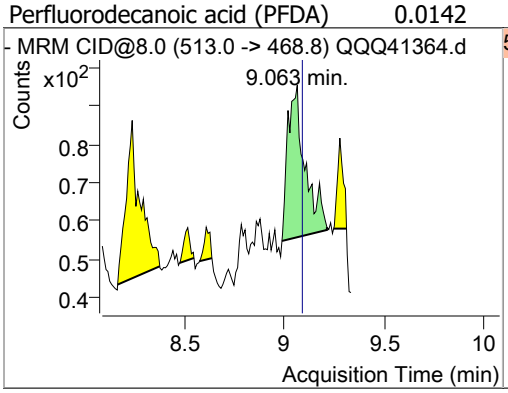
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2874	9.03	-0.05	18339				

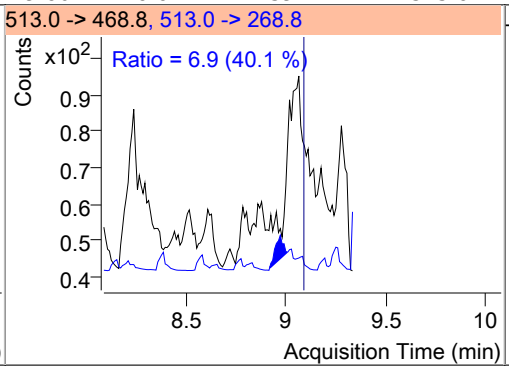


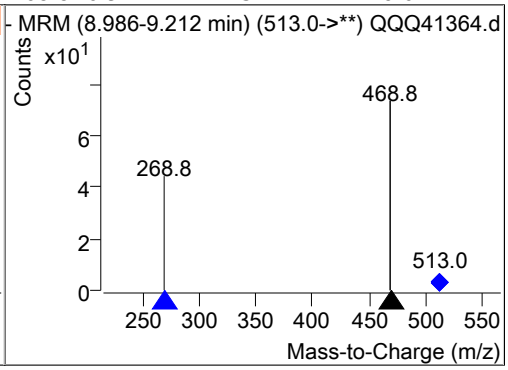




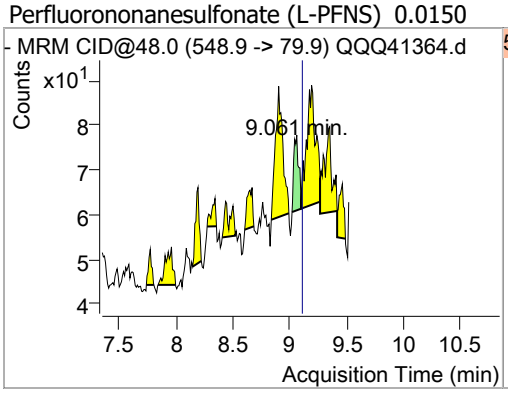
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0142	9.06	-0.02	239	513.0 -> 268.8	6.9	13.7	20.6

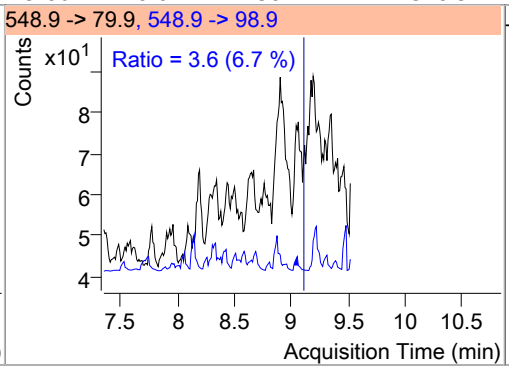


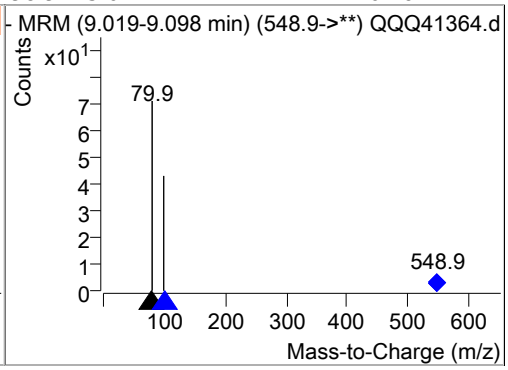




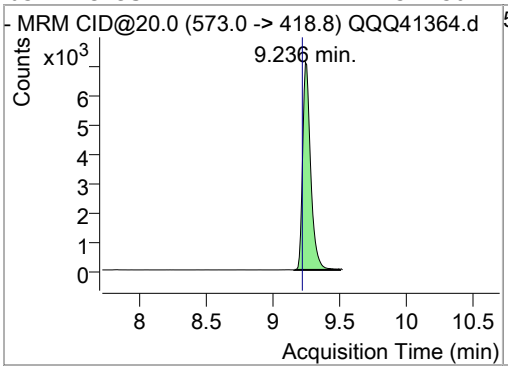
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0150	9.06	-0.04	50	548.9 -> 98.9	3.6	42.7	64.0

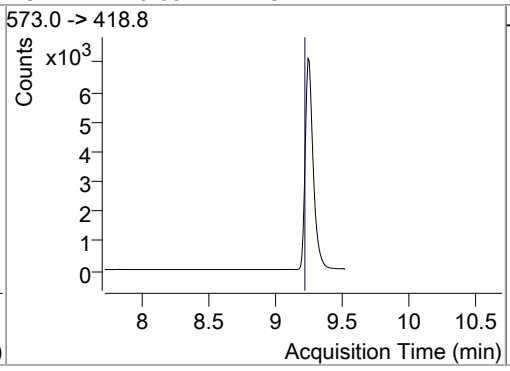


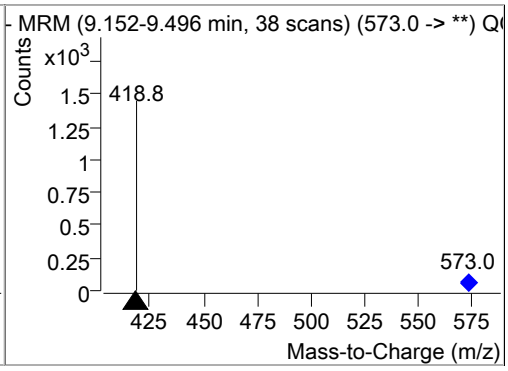




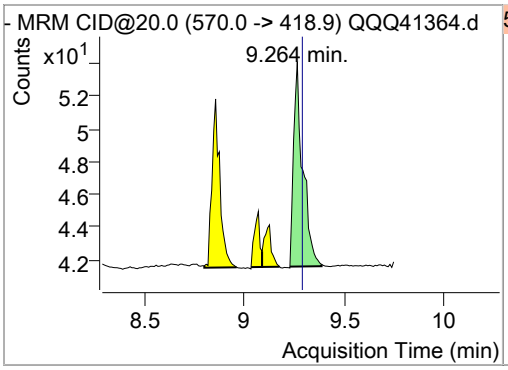
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.7156	9.24	-0.05	29772				

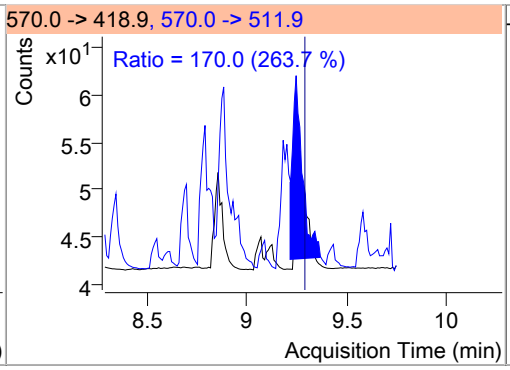


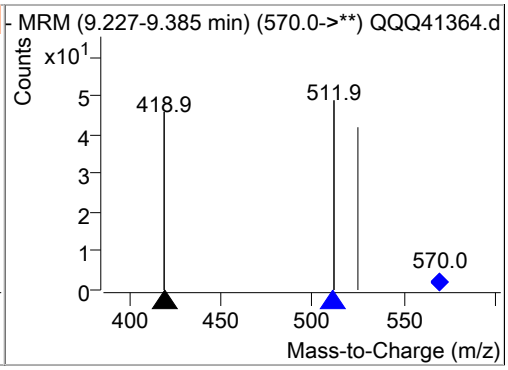




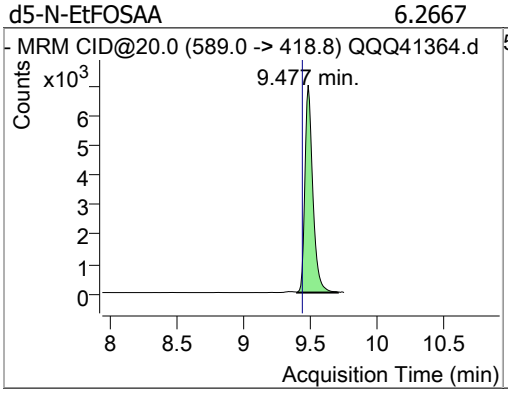
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0076	9.26	-0.02	40	570.0 -> 511.9	170.0	51.6	77.4

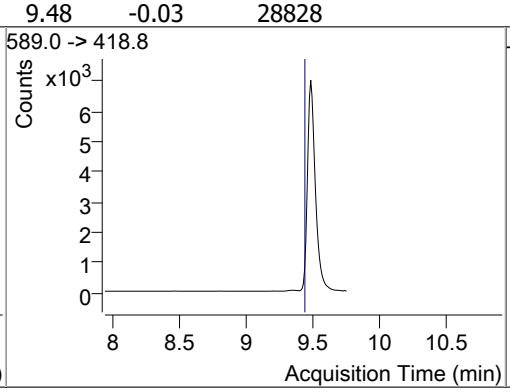


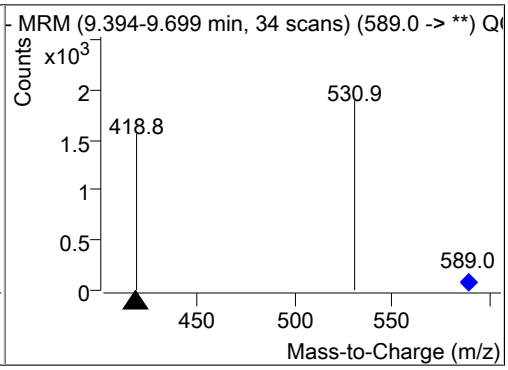




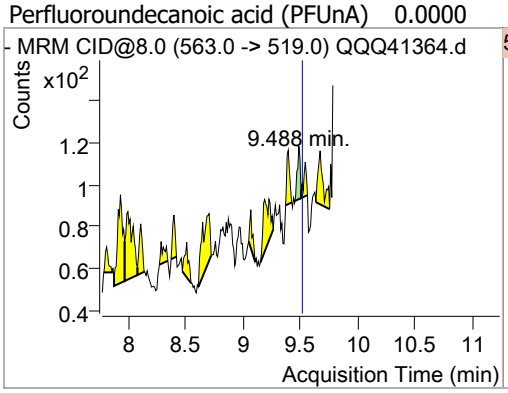
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.2667	9.48	-0.03	28828				

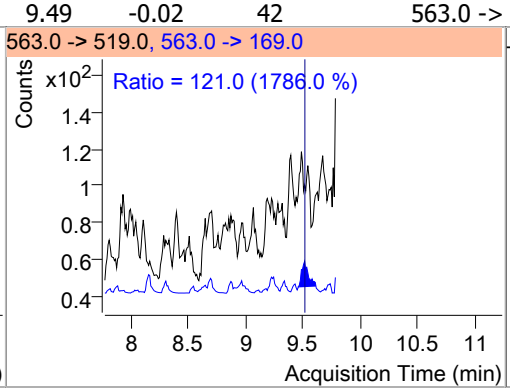


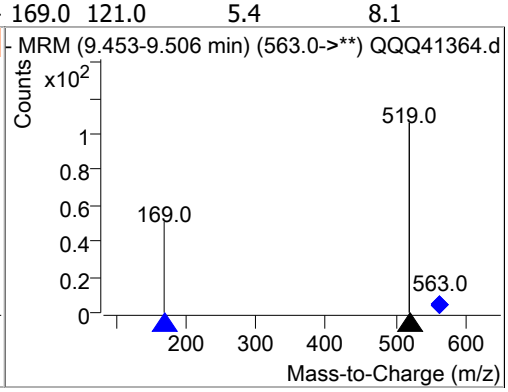




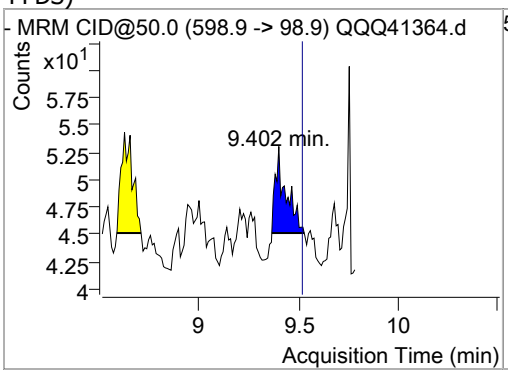
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.49	-0.02	42	563.0 -> 169.0	121.0	5.4	8.1

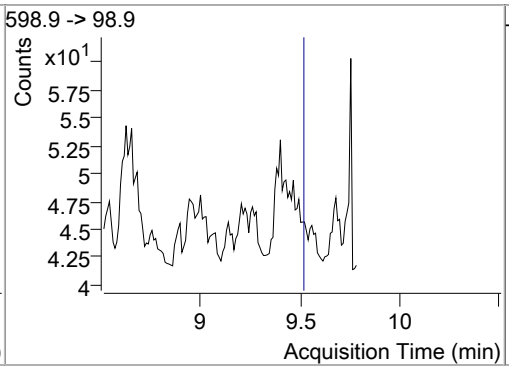


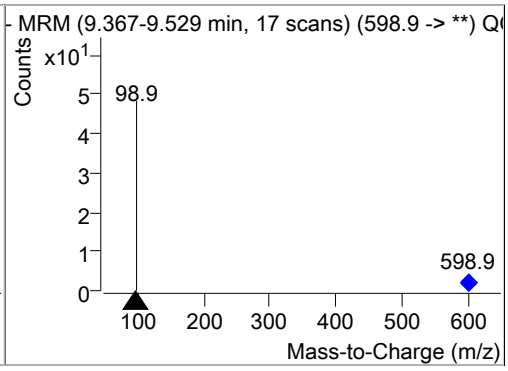




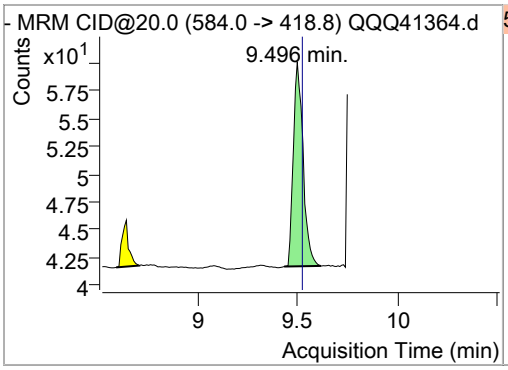
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0178	9.40	-0.11	29				

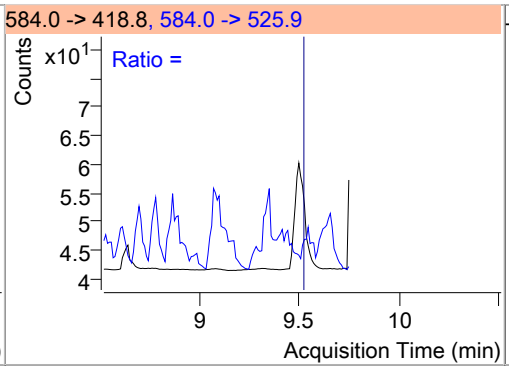


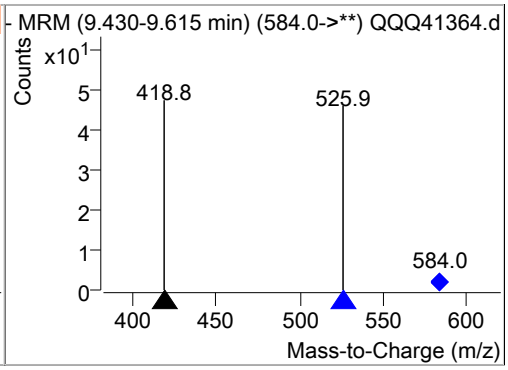




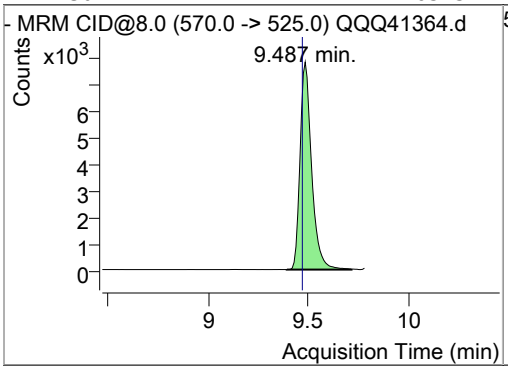
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0127	9.50	-0.02	63	584.0 -> 525.9		106.2	159.3

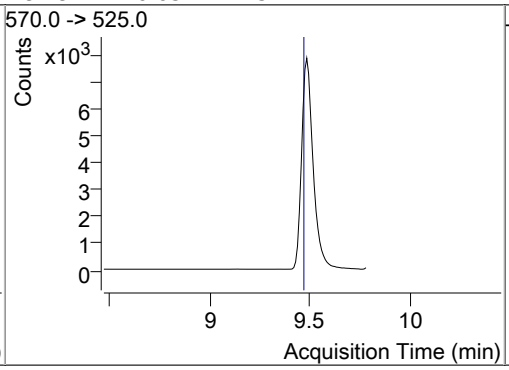


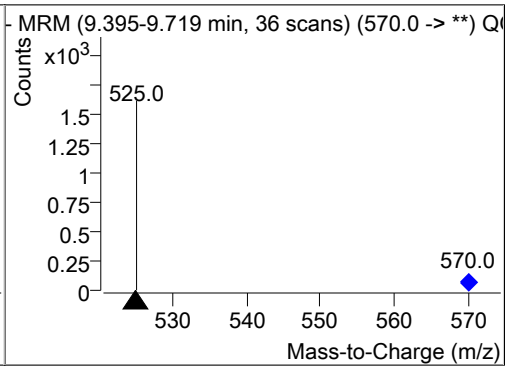




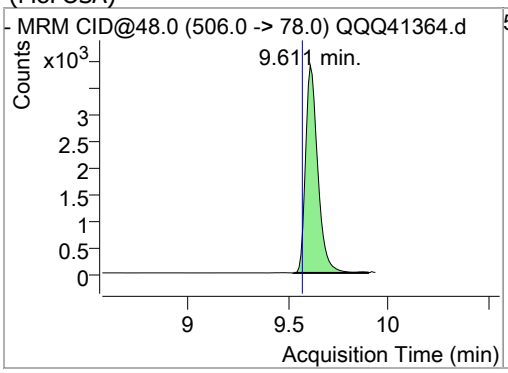
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.6323	9.49	-0.03	31472				

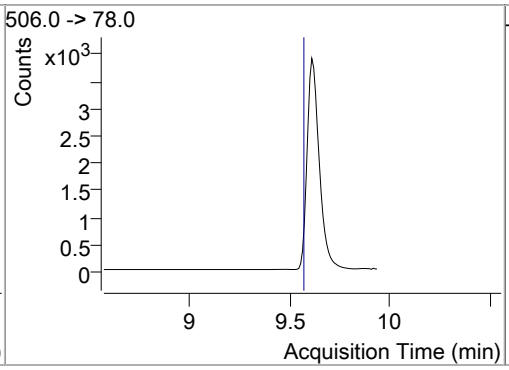


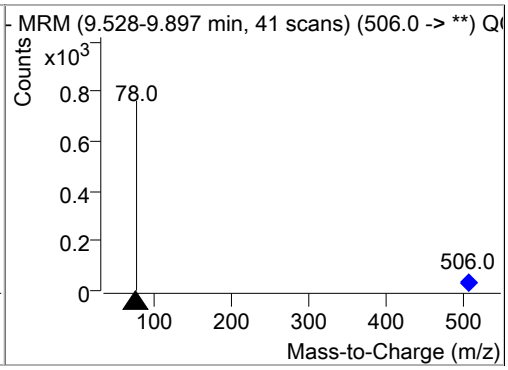




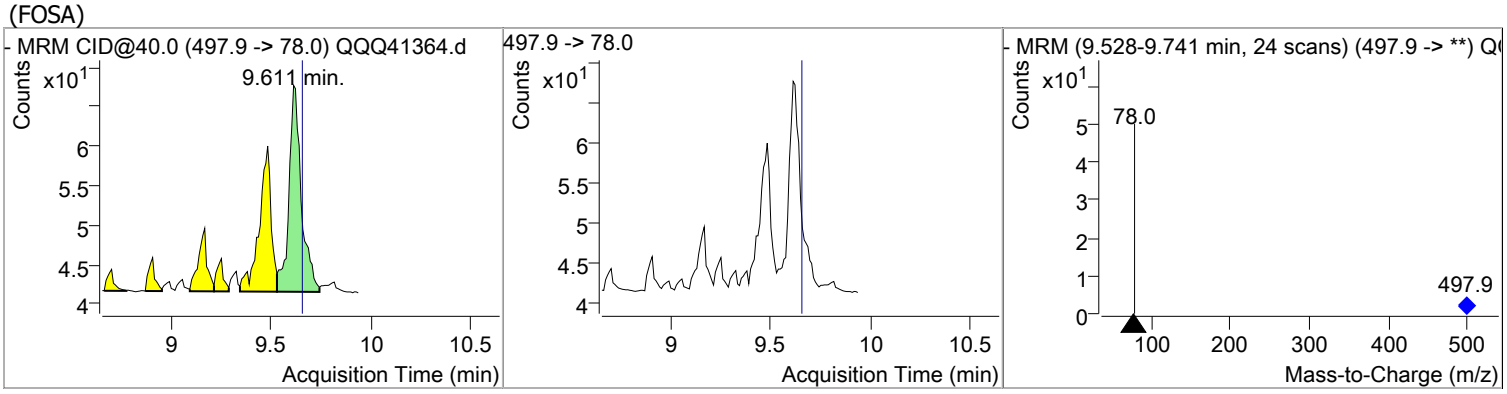
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.4772	9.61	-0.04	16409				



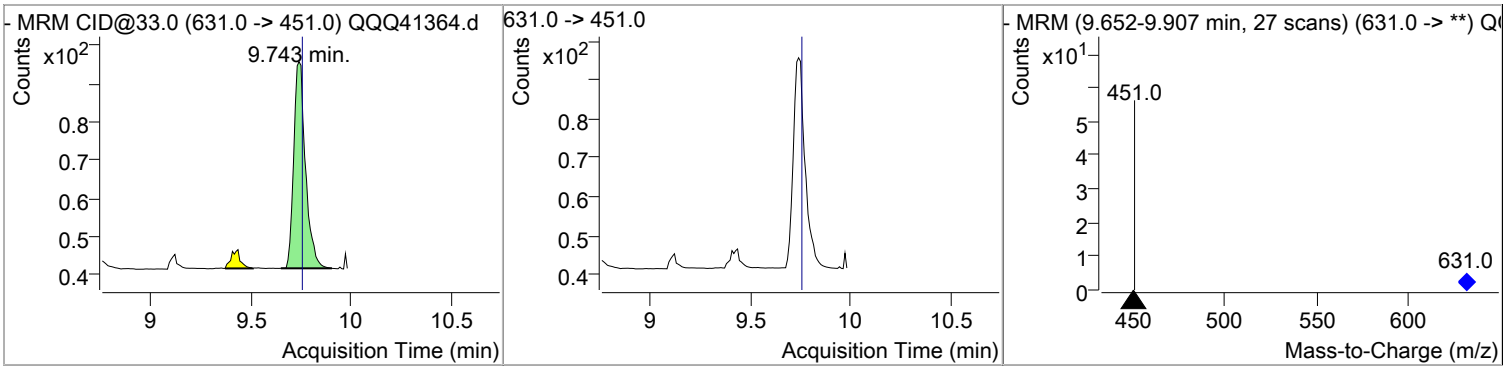




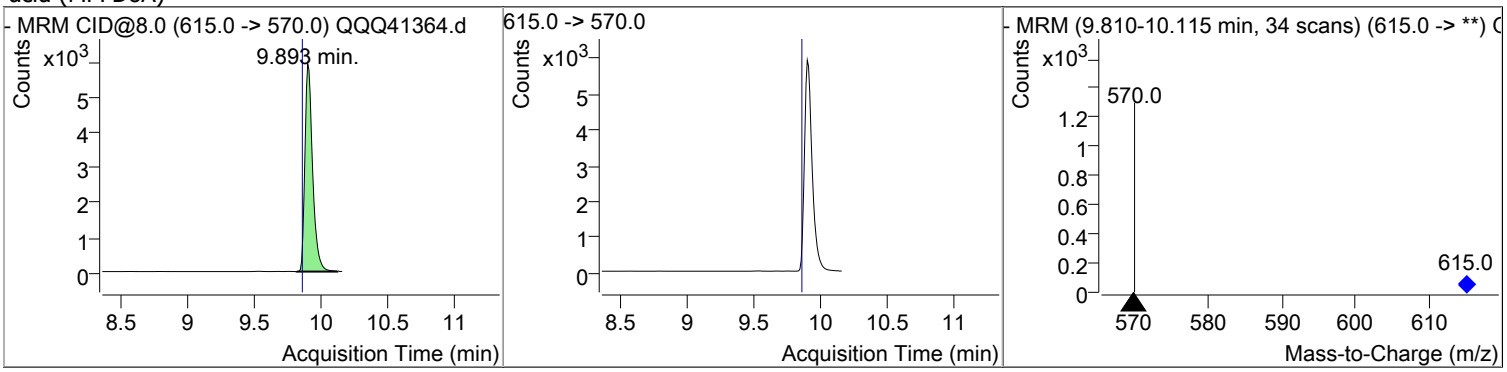
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0121	9.61	-0.04	113				



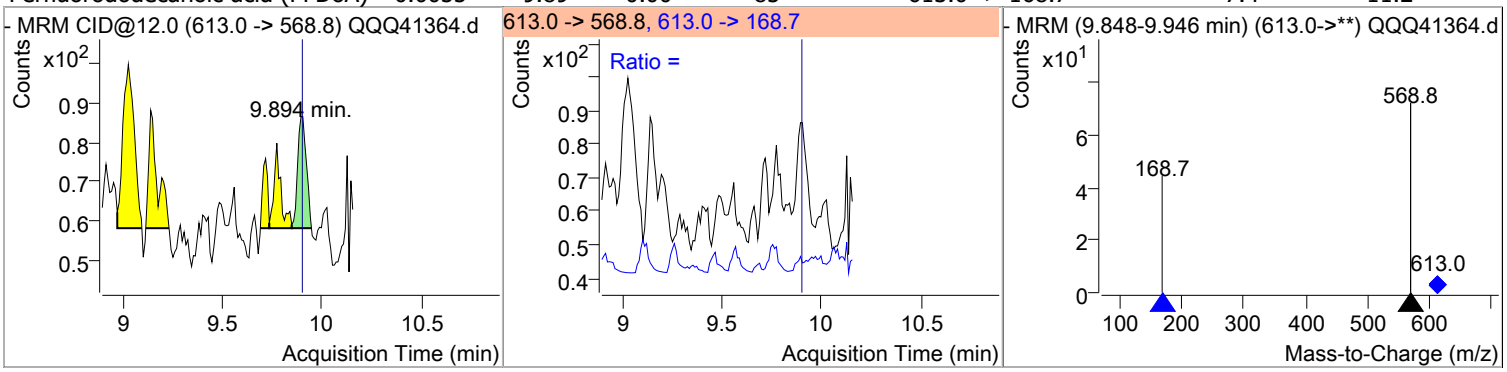
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0119	9.74	-0.01	221				



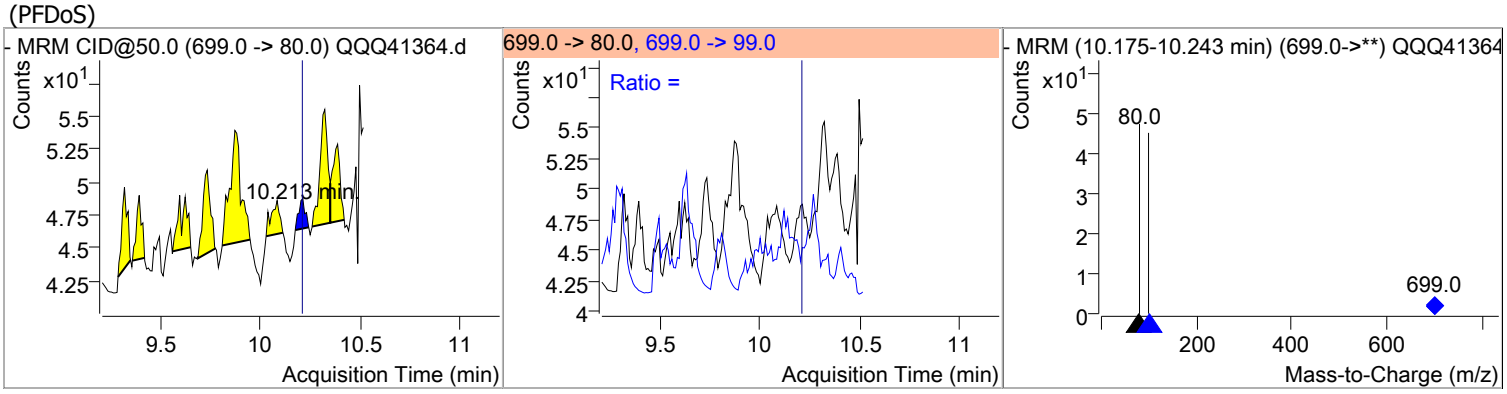
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.4043	9.89	0.00	23802				



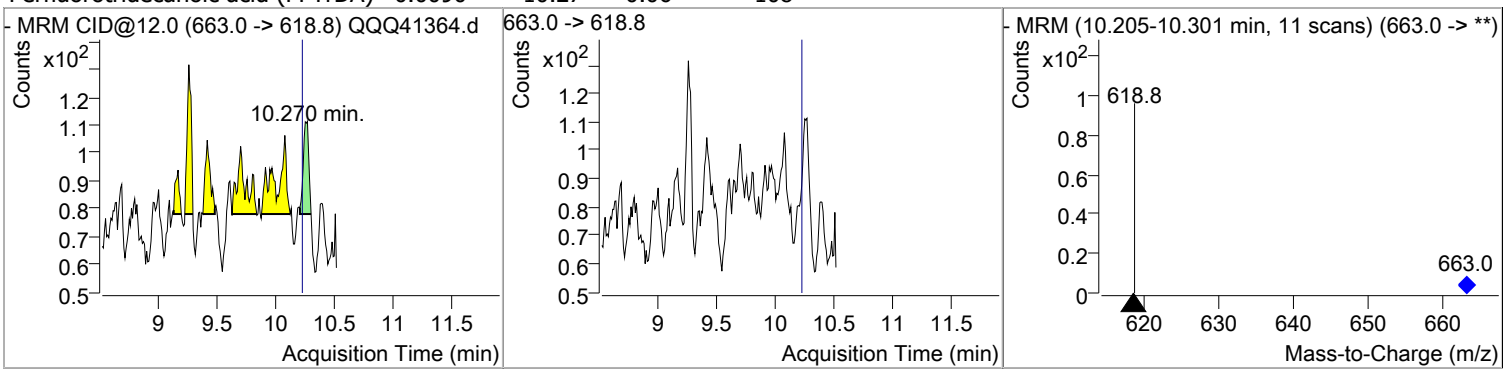
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0055	9.89	0.00	85	613.0 -> 168.7		7.4	11.2



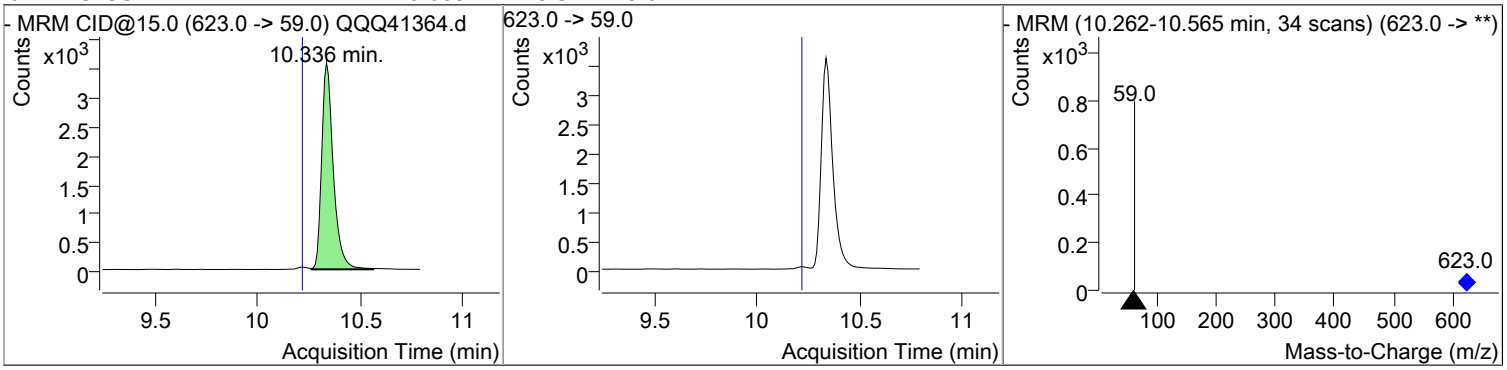
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0053	10.21	0.01	5	699.0 -> 99.0		77.6	116.4



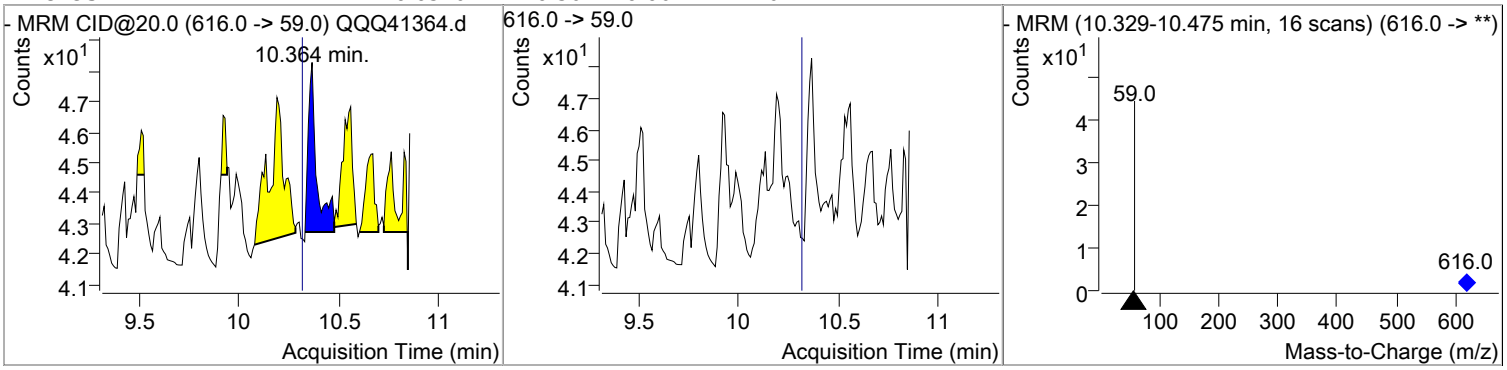
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0090	10.27	0.06	108				



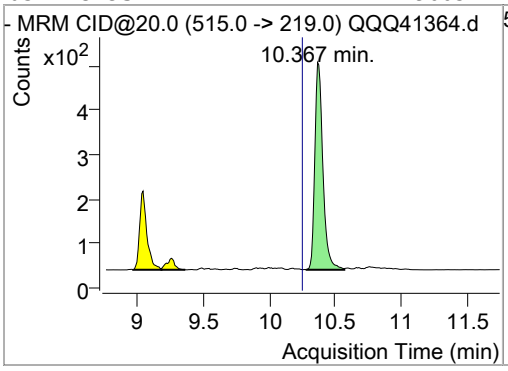
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	26.6057	10.34	0.04	14142				

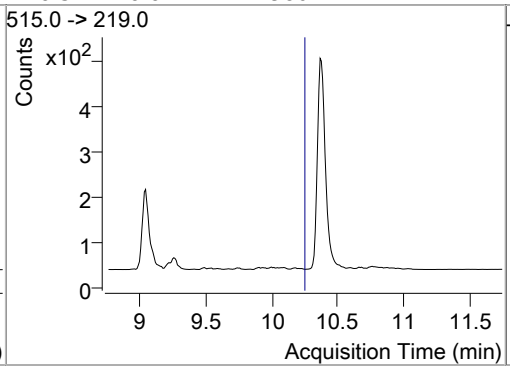


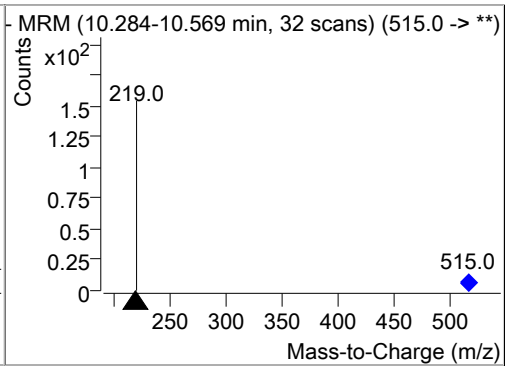
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0346	10.36	0.06	16				



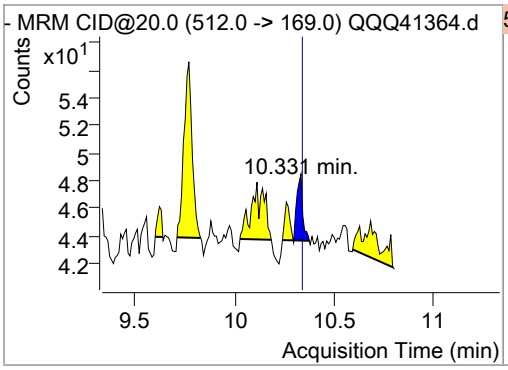
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.9665	10.37	0.04	1986				

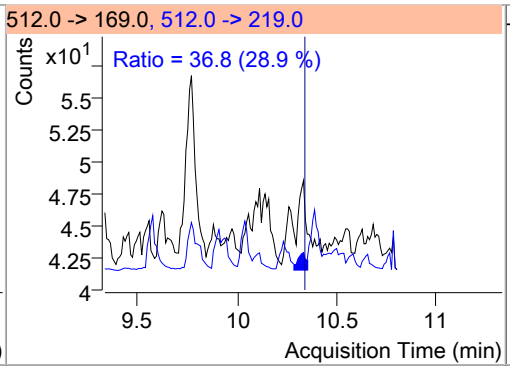


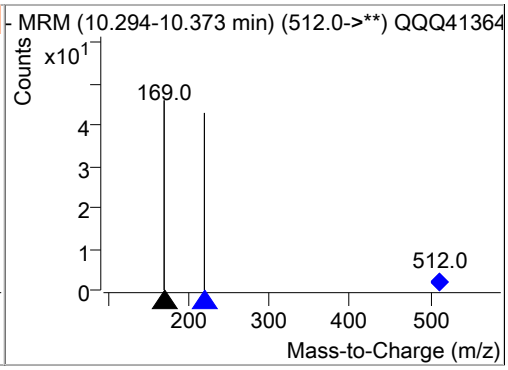




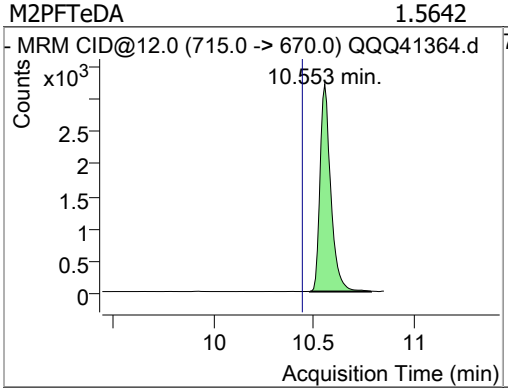
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.33	0.00	9	512.0 -> 219.0	36.8	101.6	152.5

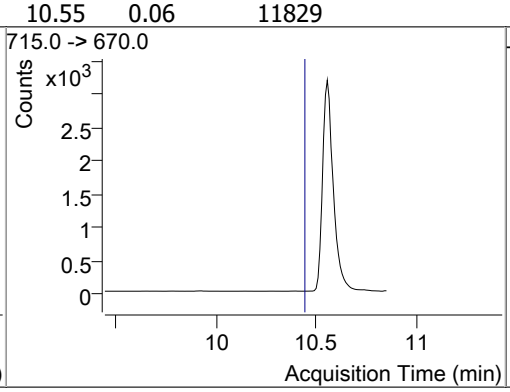


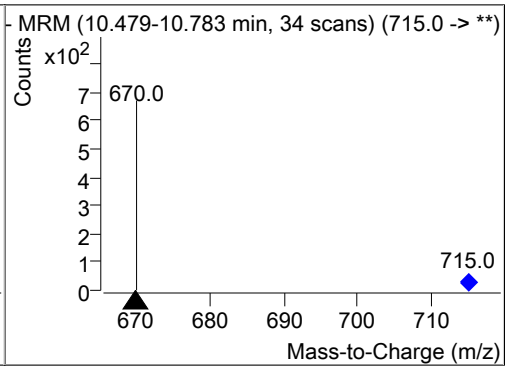




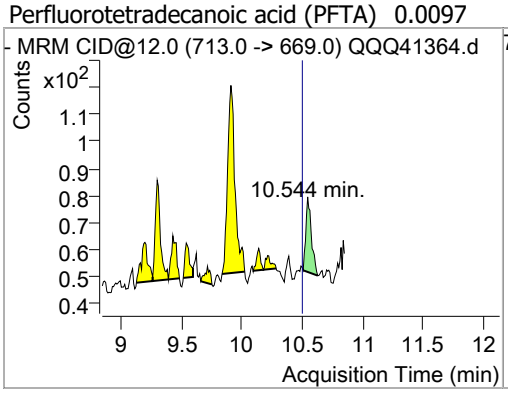
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.5642	10.55	0.06	11829				

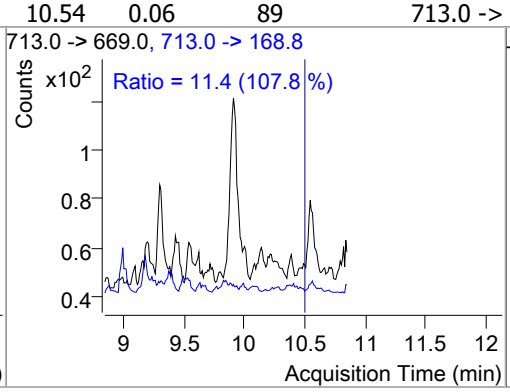


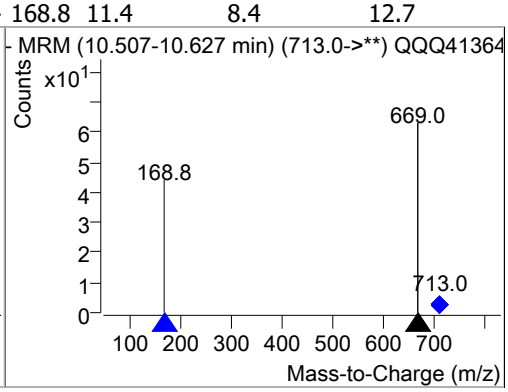




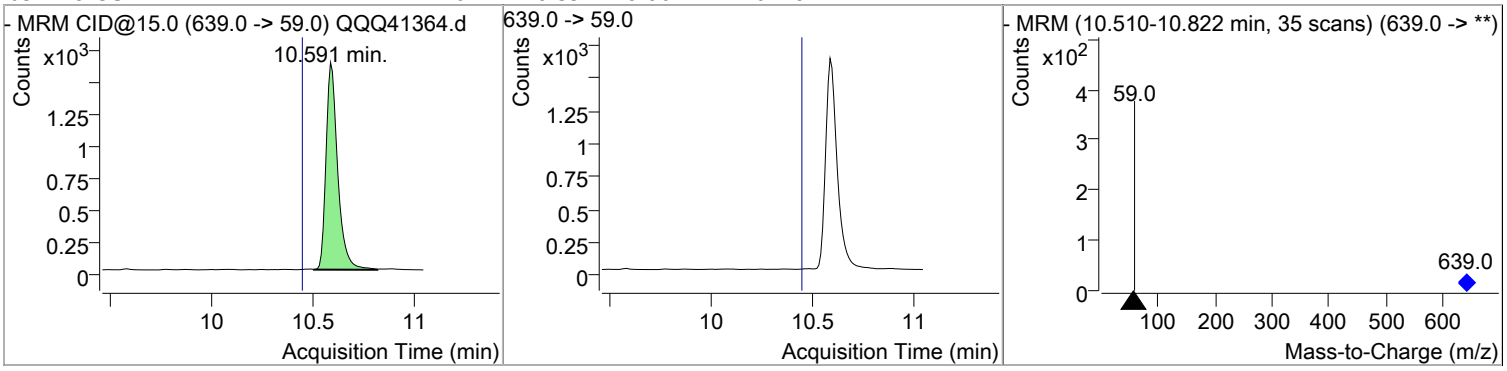
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0097	10.54	0.06	89	713.0 -> 168.8	11.4	8.4	12.7



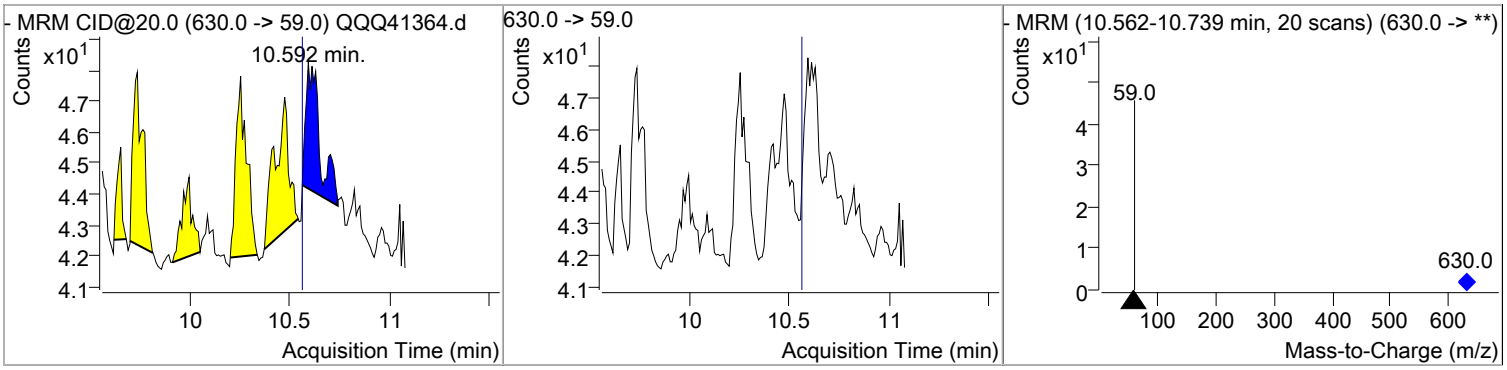




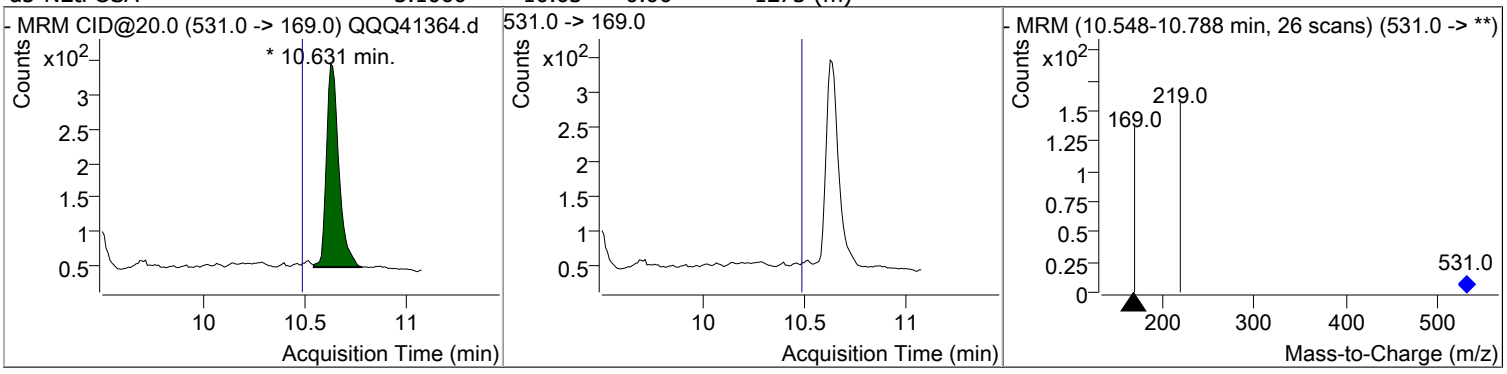
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	27.2464	10.59	0.06	6448				



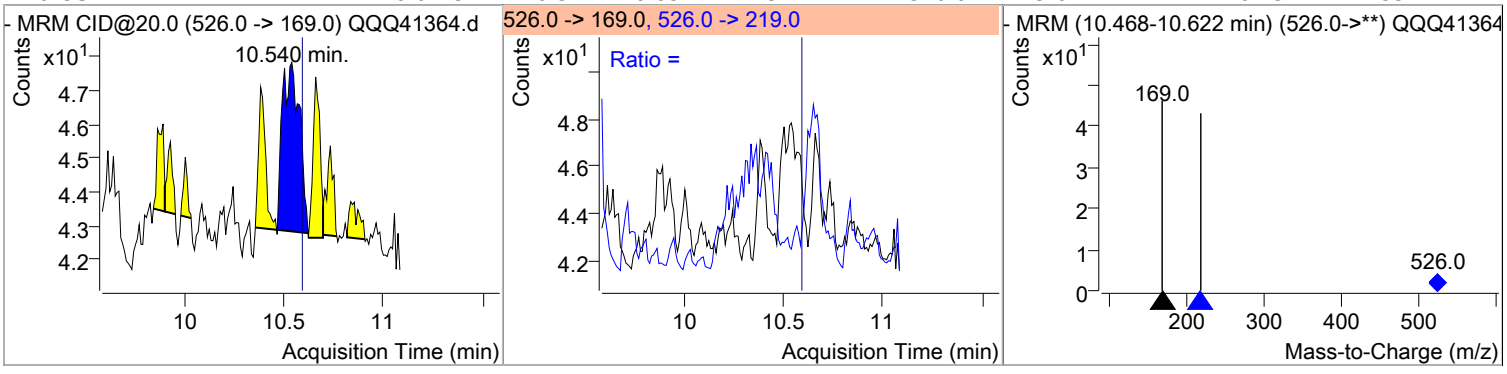
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0362	10.59	0.04	20				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	3.1060	10.63	0.06	1273 (m)				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0429	10.54	-0.05	29	526.0 -> 219.0		102.3	153.4



Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 9:55:56 AM	**Data File**	QQQ41364.d
Sample Type	Sample	**Sampe Name**	SEQ-CCB1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.269	145190	21568	0.477			1.68			∞
Perfluoro-n-butanoic acid (PFBA)	1.274	71	10	0.235			2.05			2.40
PFMPA	2.263	5	1	0.169			1.44			2.33
3:3FTCA	4.479	2	1	0.064			1.00			16.24
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.653	117615	17165	0.482			1.73			14887.06
Perfluoro-n-pentanoic acid (PFPeA)	4.663	156	27	0.191			0.80			7.07
PFMBA	5.495	16	5	0.120			0.90			10.59
M3PFBS	5.474	18651	4151	0.296			1.68			∞
Perfluorobutanesulfonic acid (PFBS)	5.474	20	5	0.223			2.37			10.10
PFEESA	6.038	18	5	0.146			0.86			1.67
NFDHA	6.355	11	5	0.072			0.79			48.41
M2-4-2FTS	6.241	23089	5709	0.312			1.63			1526.00
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.223	45	12	0.118			2.29			2.88
M5PFHxA	6.316	58729	14072	0.316			1.73			16754.79
Perfluorohexanoic acid (PFHxA)	6.318	166	38	0.147			1.47			2.56
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.630	12	6	0.070			3.03			0.57
M3-HFPO-DA	6.624	44550	10822	0.269			1.64			12896.27
HFPO-DA	6.736	0	56	0.000			1.00			7.96
M4PFHpA	7.189	14579	3506	0.316			1.41			16636.31
Perfluoroheptanoic acid (PFHpA)	7.207	87	19	0.166			1.04			0.89
5-3FTCA	7.254	1237	290	0.221			1.80			∞
Perfluorohexanesulfonic acid (PFHxS)	7.308	37	10	0.176			1.29			2.06
M3PFHxS	7.299	13019	3093	0.279			1.52			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.327	28	10	0.109			1.07			3.88
M2-6-2FTS	7.838	14061	3336	0.372			1.87			319.62
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.884	64	20	0.133			2.52			0.62
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.903	33628	8041	0.316			1.75			∞
Perfluorooctanoic acid (PFOA)	8.034	49	12	0.119			3.73			1.02
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.967	14	6	0.075			0.63			3.66
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.525	5705	1352	0.281			1.45			∞
Perfluorononanoic acid (PFNA)	8.526	153	44	0.186			3.00			2.34
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.560	4465	1141	0.250			1.32			∞
Perfluorooctanesulfonic acid (PFOS)	8.934	15	55	0.019			1.01			2.54
7-3FTCA	8.702	1978	477	0.224			1.30			∞
9-Cl-PF3ONS	8.940	61	14	0.216			3.58			12.75
M2-8-2FTS	8.997	33510	8312	0.317			1.82			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.006	19	4	0.187			0.97			16.29
M6PFDA	9.035	18339	4722	0.280			1.74			28394.14
Perfluorodecanoic acid (PFDA)	9.063	239	40	0.226			2.01			3.57
Perfluorononanesulfonate (L-PFNS)	9.061	50	17	0.078			1.47			0.60
d3-N-MeFOSAA	9.236	29772	7086	0.344			1.94			∞
N-MeFOSAA	9.264	40	13	0.158			2.24			89.66
d5-N-EtFOSAA	9.477	28828	6992	0.306			1.69			∞
Perfluoroundecanoic acid (PFUnA)	9.488	42	25	0.053			1.37			1.39
Perfluoro-1-decanesulfonate (L-PFDS)	9.402	29	8	0.162			3.00			2.44
N-EtFOSAA	9.496	63	19	0.185			1.61			92.56
M7PFUdA	9.487	31472	7845	0.324			1.52			15707.13
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.611	16409	3881	0.369			1.75			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.611	113	26	0.213			1.26			52.56
11-Cl-PF3OUdS	9.743	221	54	0.256			1.56			54.81
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.893	23802	5919	0.305			1.85			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.894	85	28	0.099			1.38			1.54
Perfluorododecanesulfonic acid (PFDoS)	10.213	5	2	0.068			0.79			0.35
Perfluorotridecanoic acid (PFTrDA)	10.270	108	33	0.096			0.46			1.58
d7-NMeFOSE	10.336	14142	3578	0.303			1.66			954.53
NMeFOSE	10.364	16	6	0.146			3.32			1.58
d3-NMeFOSA	10.367	1986	466	0.285			1.86			308.63
NMeFOSA	10.331	9	5	0.078			0.95			1.73
M2PFTeDA	10.553	11829	3181	0.304			1.58			∞
Perfluorotetradecanoic acid (PFTA)	10.544	89	28	0.120			1.91			3.22
d9-NEtFOSE	10.591	6448	1611	0.313			1.75			545.81
NEtFOSE	10.592	20	4	0.178			2.21			1.64
d5-NEtFOSA	10.631	1273	297	0.239			1.94			∞
NEtFOSA	10.540	29	5	0.154			1.08			2.39

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41377.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB2	Injection Time:	13:25

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A		0.0138	0.8591385				30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A		0.00769	0.2419004				30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A		0.00556	1.185549				30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A		0.0107	1.255886				30
3-Perfluoroheptyl propanoic acid (FHpPA)	A		0.379	0.2201101				30
3-Perfluoropentyl propanoic acid (FPePA)	A		0.305	0.1241024				30
3-Perfluoropropyl propanoic acid (FPrPA)	A		0.0572	1.286716E-02				30
9CL-PF3ONS	A		0.00357	1.369128				30
ADONA	A		0.00251	0.556015				30
HFPO-DA (Gen-X)	A		0.00	2.239571E-02				30
N-EtFOSA	A		0.00260	1.287944				30
N-EtFOSAA	A		0.00103	0.94945				30
N-EtFOSE	A		0.00560	1.993152				30
N-MeFOSA	A		0.00	0.7524916				30
N-MeFOSAA	A		0.00293	0.8763811				30
N-MeFOSE	A		0.0145	0.824401				30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A		0.00222	1.241156				30
Perfluoro-1-decanesulfonic acid (PFDS)	A		0.0134	0.7352727				30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A		0.00202	2.525683				30
Perfluoro-1-nonanesulfonic acid (PFNS)	A		0.00313	0.1655348				30
Perfluoro-1-octanesulfonamide (FOSA)	A		0.00352	1.385288				30
Perfluoro-1-pentanesulfonate (PFPeS)	A		0.000669	1.400558				30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A		0.0151	1.573594E-02				30

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41377.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB2	Injection Time:	13:25

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A		0.00216	0.2604373				30
Perfluoro-5-oxahexanoic acid (PFMBA)	A		0.00105	0.4108024				30
Perfluorobutanesulfonic acid (PFBS)	A		0.00178	1.128938				30
Perfluorodecanoic acid (PFDA)	A		0.00697	1.09146				30
Perfluorododecanesulfonic acid (PFDoS)	A		0.0118	0.4284993				30
Perfluorododecanoic acid (PFDoA)	A		0.00581	0.8702134				30
Perfluoroheptanoic acid (PFHpA)	A		0.00469	2.370614				30
Perfluorohexanesulfonic acid (PFHxS)	A		0.00233	1.39602				30
Perfluorohexanoic acid (PFHxA)	A		0.00510	1.166423				30
Perfluoro-n-butanoic acid (PFBA)	A		0.00480	0.9037138				30
Perfluorononanoic acid (PFNA)	A		0.00399	3.453721				30
Perfluorooctanesulfonic acid (PFOS)	A		0.00	2.631087				30
Perfluorooctanoic acid (PFOA)	A		0.00	1.254067				30
Perfluoropentanoic acid (PFPeA)	A		0.00456	1.003786				30
Perfluorotetradecanoic acid (PFTA)	A		0.00210	1.041146				30
Perfluorotridecanoic acid (PFTrDA)	A		0.00363	1.484165				30
Perfluoroundecanoic acid (PFUnA)	A		0.00	0.9068038				30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41377.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 1:25:27 PM
Sample Name	SEQ-CCB2	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

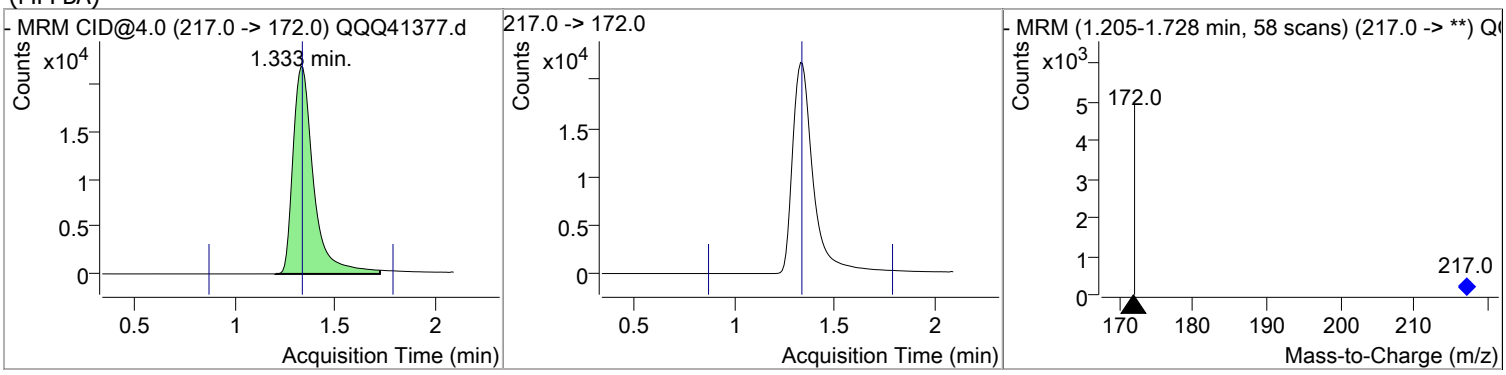
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.336	216.0 -> 172.0	28080	5.0000	ng/ml	0.083
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.333	217.0 -> 172.0	155920	10.0000	ng/ml	0.083
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.774	268.0 -> 223.0	123296	5.0000	ng/ml	0.046
MPFHxA	6.345	315.0 -> 269.8	35627	2.5000	ng/ml	-0.028
MPFHxS	7.307	403.0 -> 103.0	3493	2.3700	ng/ml	-0.075
M3PFBS-EIS	5.529	302.0 -> 79.9	15360	2.3300	ng/ml	0.000
M5PFHxA-EIS	6.344	318.0 -> 273.0	61633	2.5000	ng/ml	-0.028
M2-4-2FTS-EIS	6.269	329.0 -> 309.0	13755	4.6900	ng/ml	-0.028
M3PFHxS-EIS	7.298	402.0 -> 80.0	11728	2.3700	ng/ml	-0.084
M3-HFPO-DA-EIS	6.643	287.0 -> 169.0	45778	10.0000	ng/ml	-0.046
M4PFHpA-EIS	7.188	367.0 -> 322.0	14607	2.5000	ng/ml	-0.074
M2-6-2FTS-EIS	7.838	429.0 -> 409.0	8625	4.7550	ng/ml	-0.093
MPFOA	7.904	417.0 -> 372.0	43122	2.5000	ng/ml	-0.093
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.903	421.0 -> 376.0	32967	2.5000	ng/ml	-0.093
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.542	507.0 -> 98.9	4702	2.3950	ng/ml	-0.083
MPFNA	8.507	468.0 -> 423.0	20473	1.2500	ng/ml	-0.093
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.506	472.0 -> 223.0	5596	1.2500	ng/ml	-0.084
MPFOS	8.542	503.0 -> 80.0	11312	2.3950	ng/ml	-0.083
M2-8-2FTS-EIS	8.997	529.0 -> 509.0	24271	4.8000	ng/ml	-0.046
MPFDA	9.044	515.0 -> 469.8	12918	1.2500	ng/ml	-0.037
M6PFDA-EIS	9.035	519.0 -> 473.9	20873	1.2500	ng/ml	-0.047
d3-N-MeFOSAA-EIS	9.245	573.0 -> 418.8	28342	5.0000	ng/ml	-0.037
M7PFUdA-EIS	9.506	570.0 -> 525.0	32208	1.2500	ng/ml	-0.009
d5-N-EtFOSAA-EIS	9.495	589.0 -> 418.8	28641	5.0000	ng/ml	-0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.648	506.0 -> 78.0	18207	2.5000	ng/ml	0.000
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.940	615.0 -> 570.0	29599	1.2500	ng/ml	0.047
M2PFTeDA-EIS	10.645	715.0 -> 670.0	14930	1.2500	ng/ml	0.157
d7-NMeFOSE-EIS	10.419	623.0 -> 59.0	21798	25.0000	ng/ml	0.120
d3-NMeFOSA-EIS	10.459	515.0 -> 219.0	2170	2.5000	ng/ml	0.129
d9-NEtFOSE-EIS	10.693	639.0 -> 59.0	9450	25.0000	ng/ml	0.156
d5-NEtFOSA-EIS	10.742	531.0 -> 169.0	1529	2.5000	ng/ml	0.166
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.333	217.0 -> 172.0	155919	11.0886	ng/ml	0.083
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	268.0 -> 223.0	123296	5.4250	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.529	302.0 -> 79.9	15360	2.4649	ng/ml	0.000
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.269	329.0 -> 309.0	13757	3.3067	ng/ml	-0.028

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.344	318.0 -> 273.0	61633	2.7108	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.643	287.0 -> 169.0	45785	11.5203	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.188	367.0 -> 322.0	14607	2.8923	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.298	402.0 -> 80.0	11729	2.6977	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.838	429.0 -> 409.0	8625	3.0958	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.903	421.0 -> 376.0	32967	2.4007	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.506	472.0 -> 223.0	5596	1.2827	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.542	507.0 -> 98.9	4664	2.2480	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.997	529.0 -> 509.0	24283	3.7112	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.035	519.0 -> 473.9	20871	1.4746	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.245	573.0 -> 418.8	28342	5.3022	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.495	589.0 -> 418.8	28639	6.0668	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.506	570.0 -> 525.0	32208	1.6813	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	506.0 -> 78.0	18207	2.6785	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	615.0 -> 570.0	29599	1.7575	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.419	623.0 -> 59.0	21778	39.9267	ng/ml		0.120
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.459	515.0 -> 219.0	2170	3.1598	ng/ml		0.129
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.645	715.0 -> 670.0	14930	1.9870	ng/ml		0.157
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.693	639.0 -> 59.0	9450	38.9152	ng/ml		0.156
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.742	531.0 -> 169.0	1529	3.6363	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.338	213.0 -> 168.9	65	0.0048	ng/ml		100
PFMPA	2.290	229.0 -> 85.0	16	0.0022	ng/ml		100
3:3FTCA	4.470	241.0 -> 177.0	24	0.0572	ng/ml		85
Perfluoro-n-pentanoic acid (PFPeA)	4.793	263.0 -> 219.0	107	0.0046	ng/ml		100
PFMBA	5.504	279.0 -> 85.0	11	0.0010	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.567	298.9 -> 79.9	12	0.0018	ng/ml	#	63
PFEESA	6.048	315.0 -> 135.0	72	0.0022	ng/ml	#	54
NFDHA	6.160	295.0 -> 201.1	7	0.0151	ng/ml	#	58
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.576	327.0 -> 307.0	21	0.0056	ng/ml	#	69

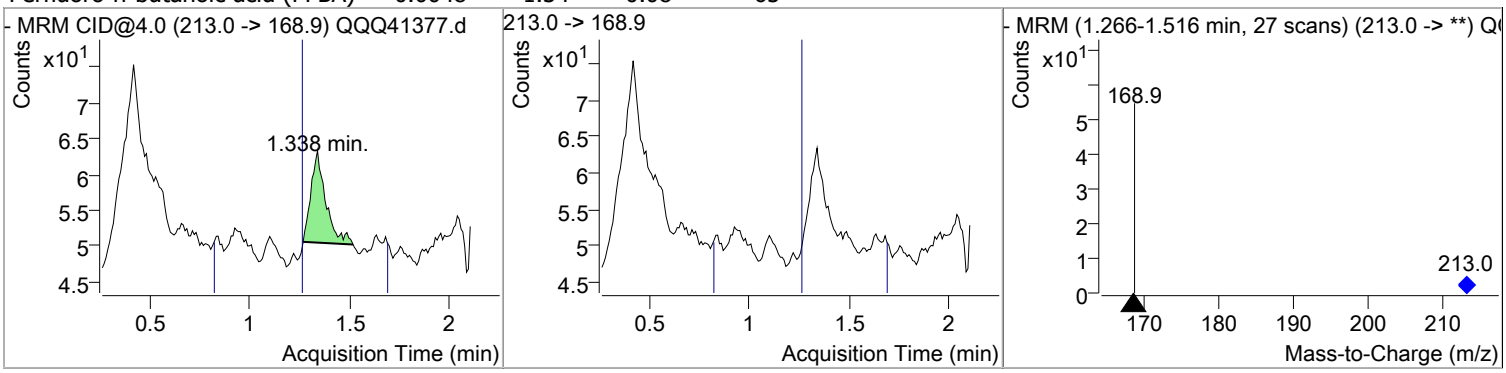
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.355	313.0 -> 268.9	145	0.0051	ng/ml	#	34
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.621	348.9 -> 79.9	4	0.0007	ng/ml	#	1
HFPO-DA	6.634	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.412	363.0 -> 318.8	60	0.0047	ng/ml	#	52
5-3FTCA	7.272	341.0 -> 217.0	1203	0.3049	ng/ml		99
Perfluorohexanesulfonic acid (PFHxS)	7.401	398.9 -> 79.9	13	0.0023	ng/ml		86
ADONA	7.392	377.0 -> 85.0	25	0.0025	ng/ml		1
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.810	427.0 -> 407.0	31	0.0107	ng/ml	#	1
Perfluorooctanoic acid (PFOA)	8.099	413.0 -> 368.8	10	0.0000	ng/ml	#	1
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	448.9 -> 80.0	10	0.0020	ng/ml	#	54
Perfluorononanoic acid (PFNA)	8.637	463.0 -> 418.8	58	0.0040	ng/ml		45
Perfluorooctanesulfonic acid (PFOS)	8.719	498.9 -> 79.9	23	0.0000	ng/ml		23
7-3FTCA	8.684	441.0 -> 337.0	2005	0.3792	ng/ml		95
9-Cl-PF3ONS	8.865	531.0 -> 351.0	99	0.0036	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	527.0 -> 80.9	9	0.0077	ng/ml	#	1
Perfluorodecanoic acid (PFDA)	9.110	513.0 -> 468.8	133	0.0070	ng/ml	#	90
Perfluorononanesulfonate (L-PFNS)	9.079	548.9 -> 79.9	11	0.0031	ng/ml		25
N-MeFOSAA	9.255	570.0 -> 418.9	14	0.0029	ng/ml	#	25
Perfluoroundecanoic acid (PFUnA)	9.506	563.0 -> 519.0	36	0.0000	ng/ml	#	1
Perfluoro-1-decanesulfonate (L-PFDS)	9.541	598.9 -> 98.9	23	0.0134	ng/ml		100
N-EtFOSAA	9.413	584.0 -> 418.8	5	0.0010	ng/ml		1
Perfluoro-1-octanesulfonamide (FOSA)	9.648	497.9 -> 78.0	37	0.0035	ng/ml		100
11-Cl-PF3OUdS	9.780	631.0 -> 451.0	264	0.0138	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.968	613.0 -> 568.8	112	0.0058	ng/ml	#	24
Perfluorododecanesulfonic acid (PFDoS)	10.158	699.0 -> 80.0	11	0.0118	ng/ml	#	46
Perfluorotridecanoic acid (PFTrDA)	10.159	663.0 -> 618.8	55	0.0036	ng/ml		100
NMeFOSE	10.254	616.0 -> 59.0	10	0.0145	ng/ml		100
NMeFOSA	10.303	512.0 -> 169.0	9	0.0000	ng/ml		1
Perfluorotetradecanoic acid (PFTA)	10.479	713.0 -> 669.0	24	0.0021	ng/ml	#	33
NEtFOSE	10.610	630.0 -> 59.0	5	0.0056	ng/ml		100
NEtFOSA	10.614	526.0 -> 169.0	2	0.0026	ng/ml		96

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

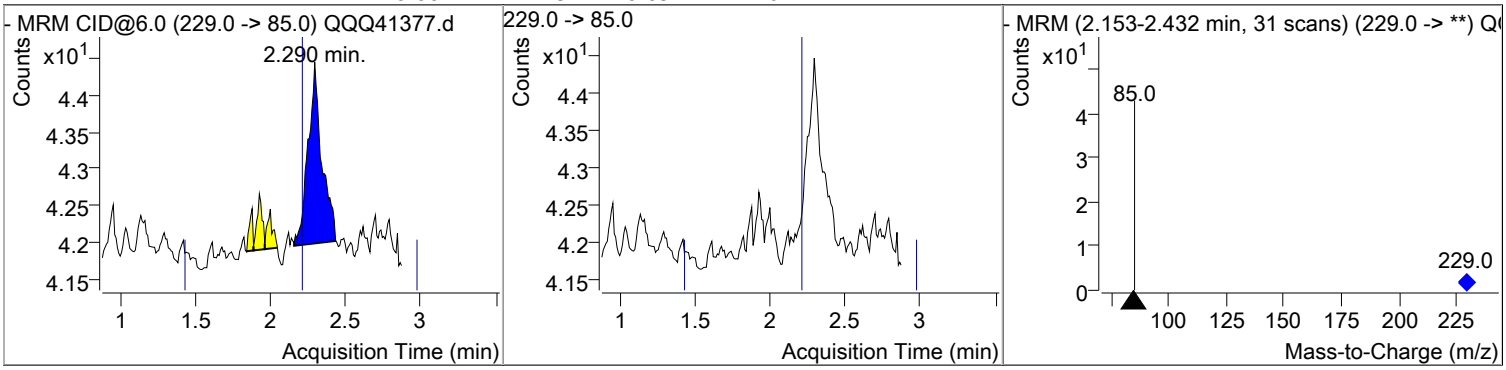
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	11.0886	1.33	0.08	155919				



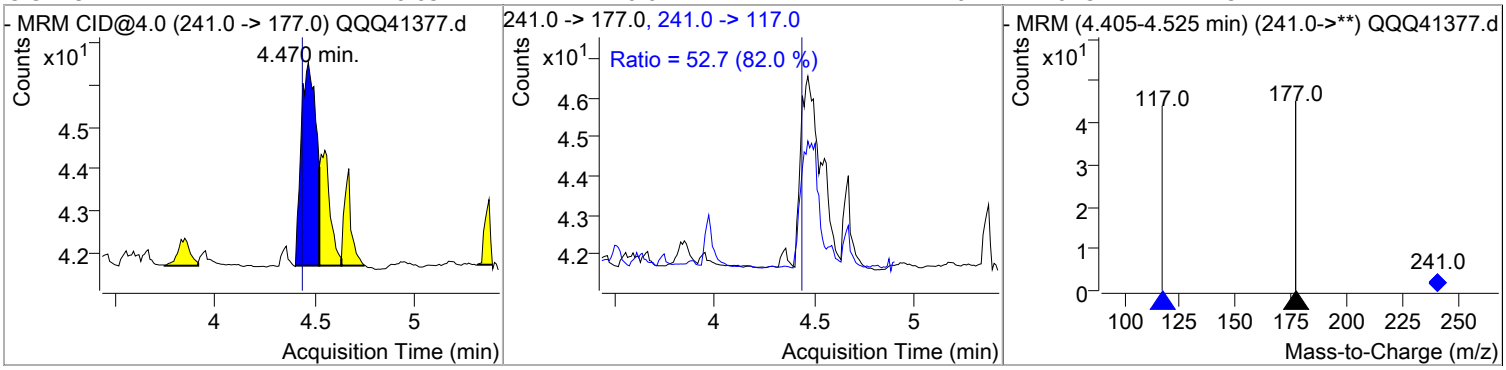
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0048	1.34	0.08	65				



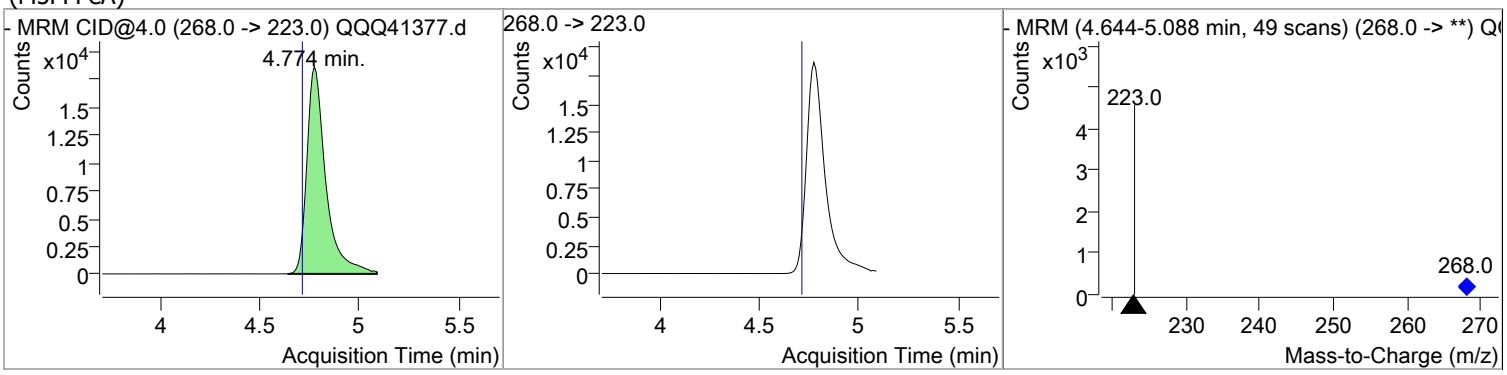
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0022	2.29	0.09	16				



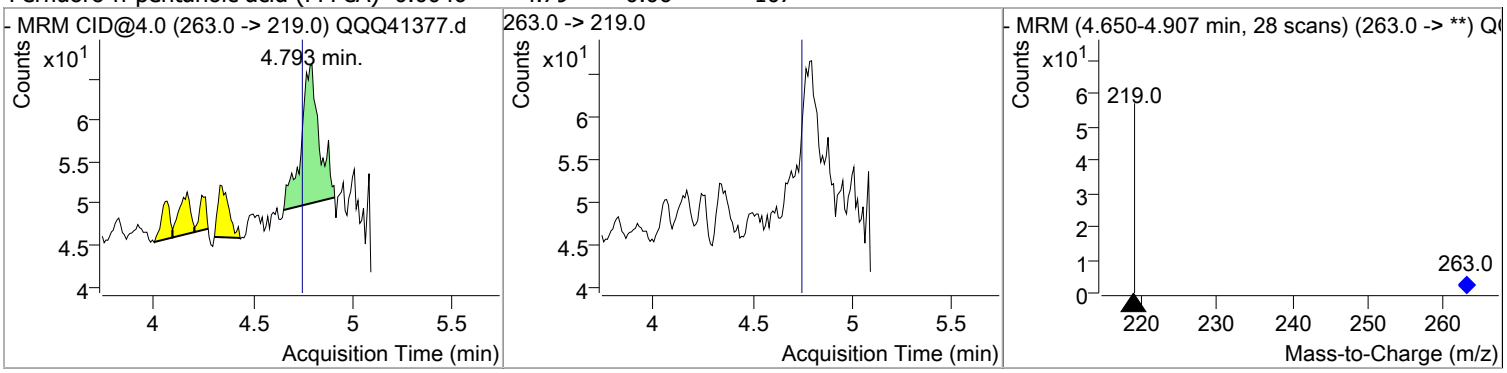
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0572	4.47	0.04	24	241.0 -> 117.0	52.7	51.4	77.2



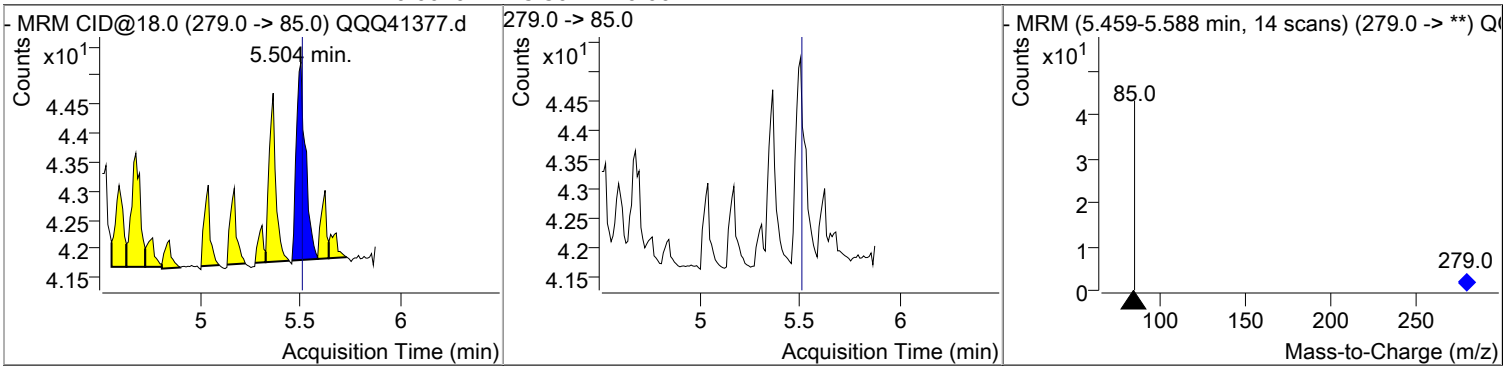
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.4250	4.77	0.05	123296				



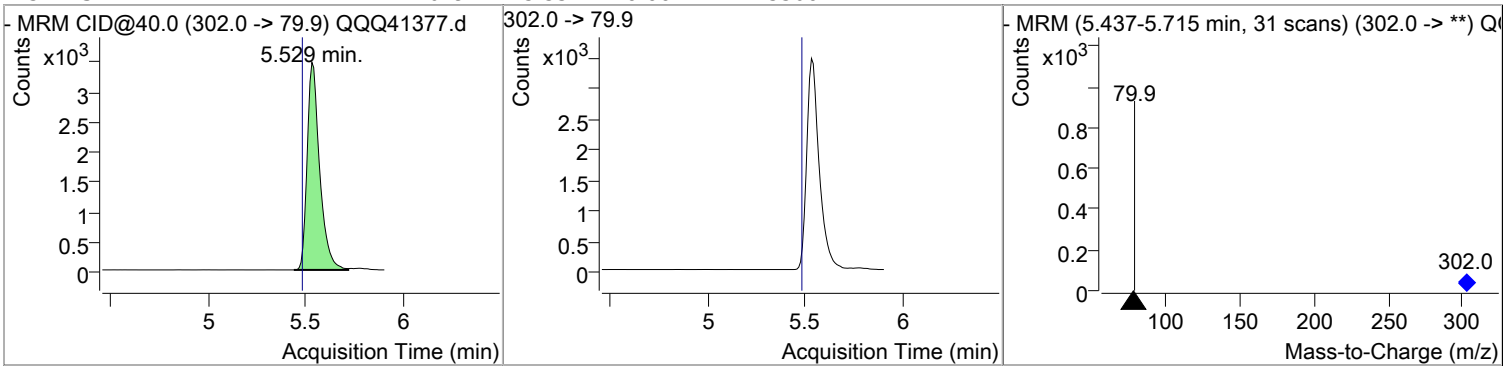
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0046	4.79	0.06	107				



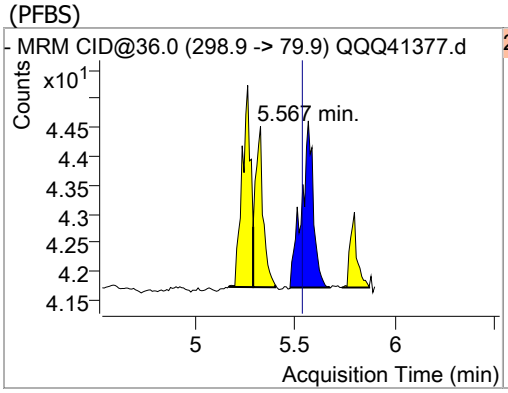
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0010	5.50	0.00	11				

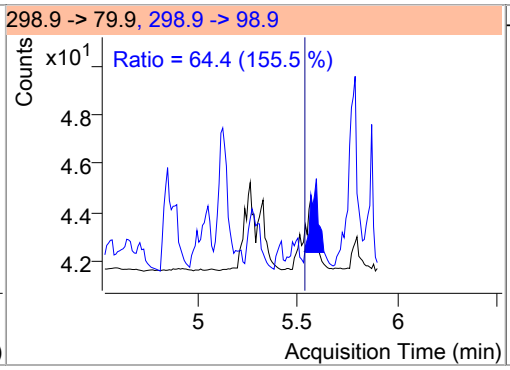


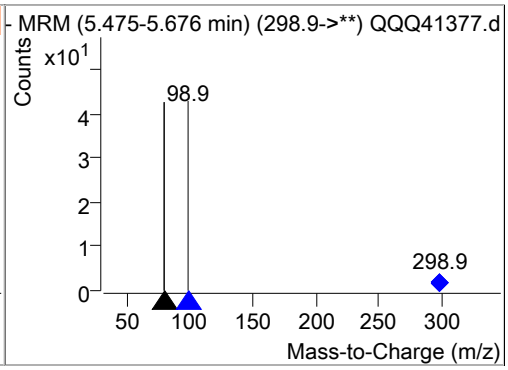
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.4649	5.53	0.00	15360				



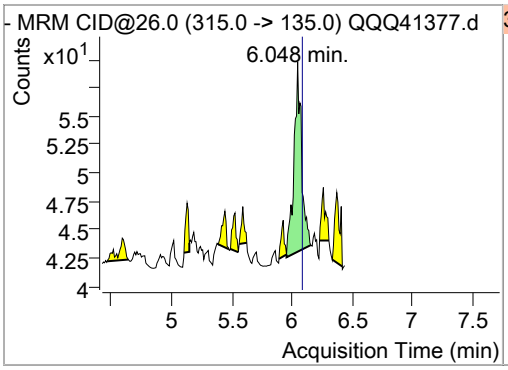
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0018	5.57	0.04	12	298.9 -> 98.9	64.4	33.1	49.7

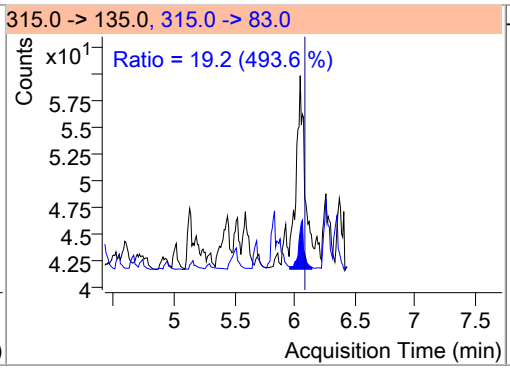


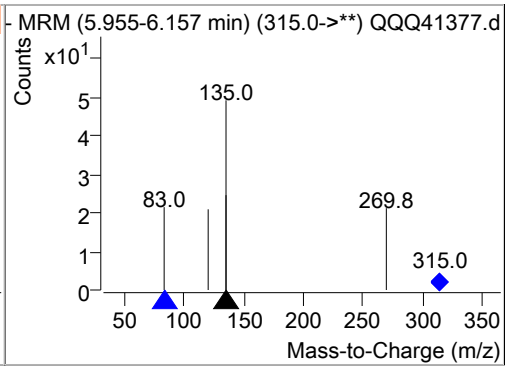




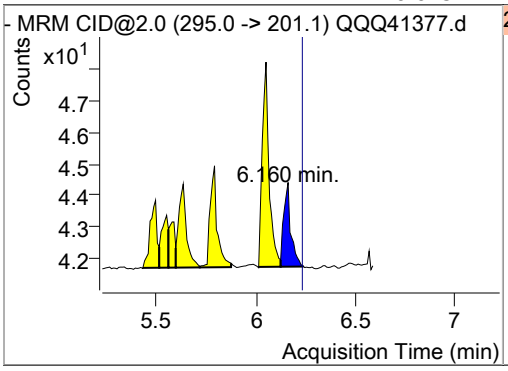
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0022	6.05	-0.03	72	315.0 -> 83.0	19.2	3.1	4.7

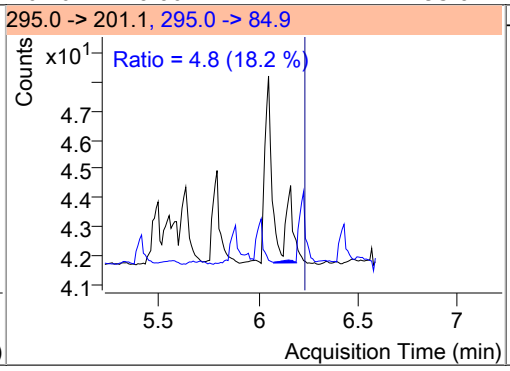


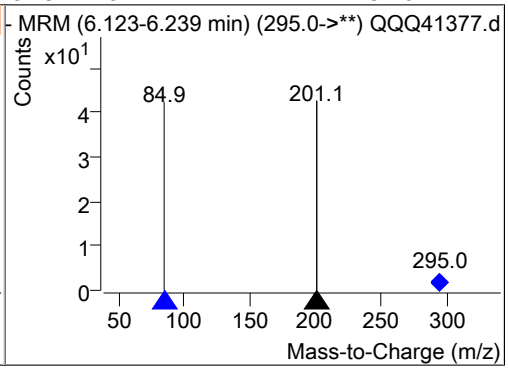




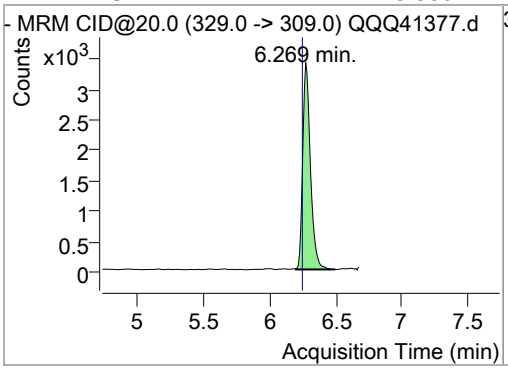
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0151	6.16	-0.06	7	295.0 -> 84.9	4.8	21.1	31.6

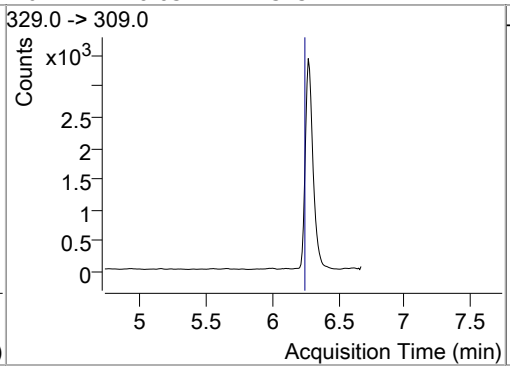


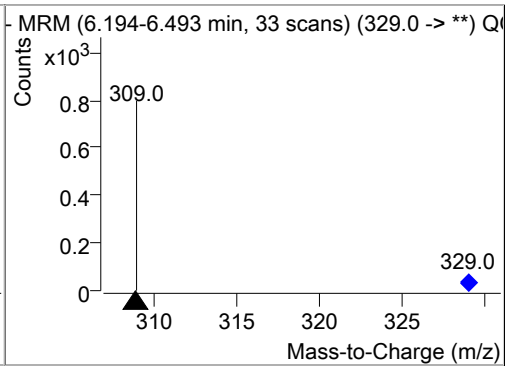




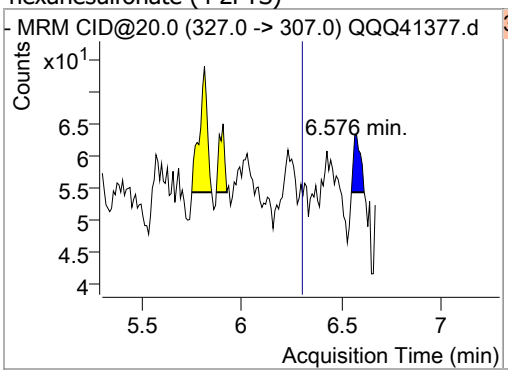
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	3.3067	6.27	-0.03	13757				

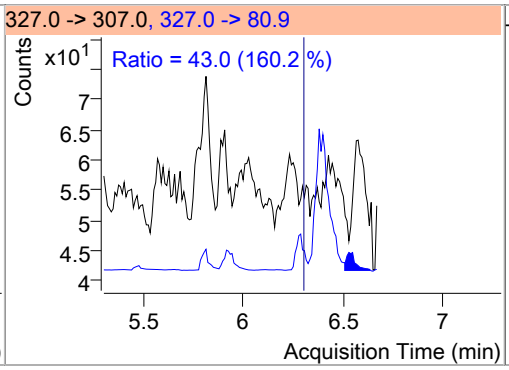


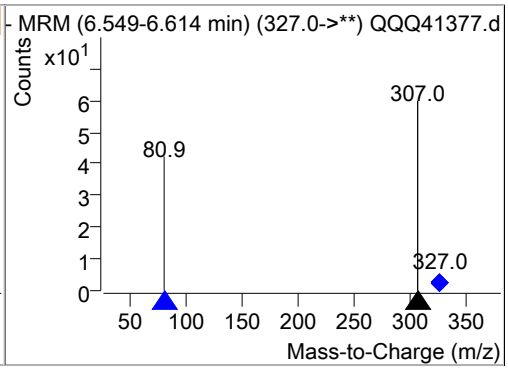




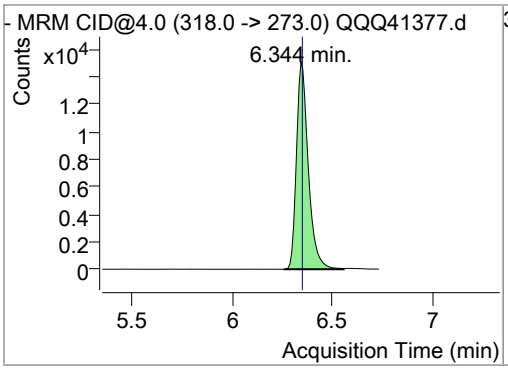
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0056	6.58	0.28	21	327.0 -> 80.9	43.0	21.5	32.2

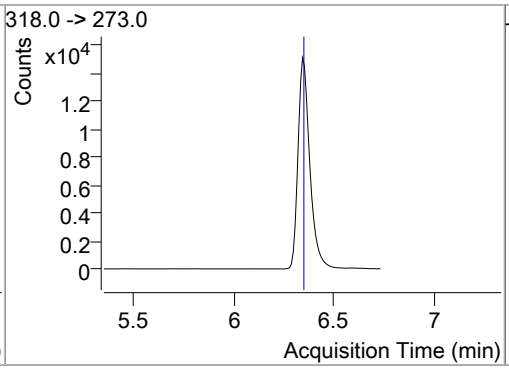


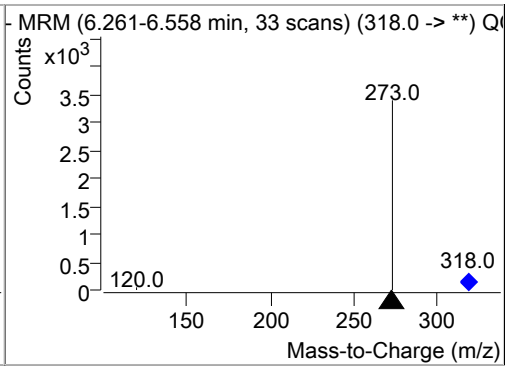




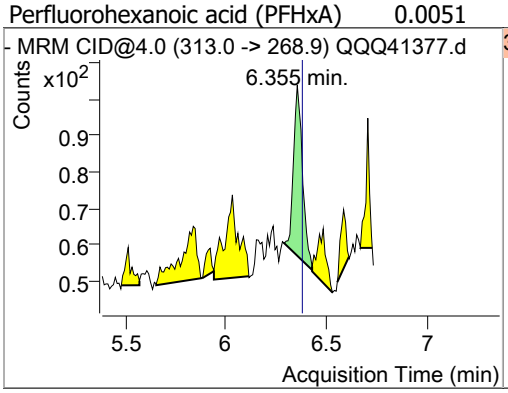
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.7108	6.34	-0.03	61633				

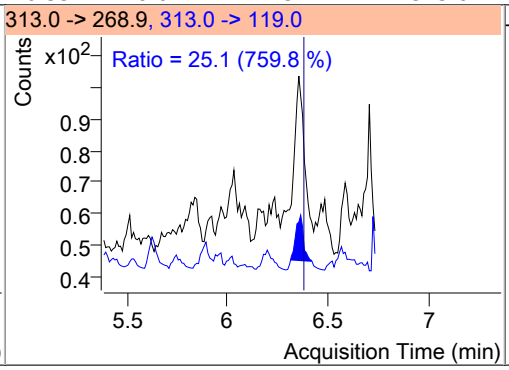


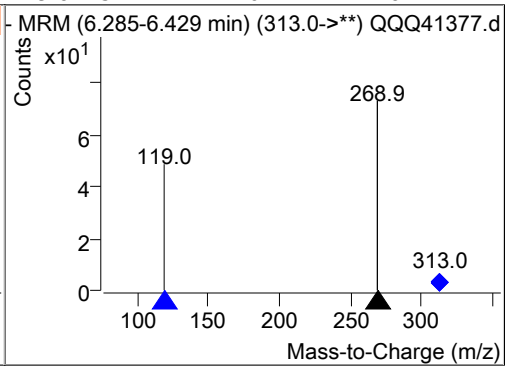




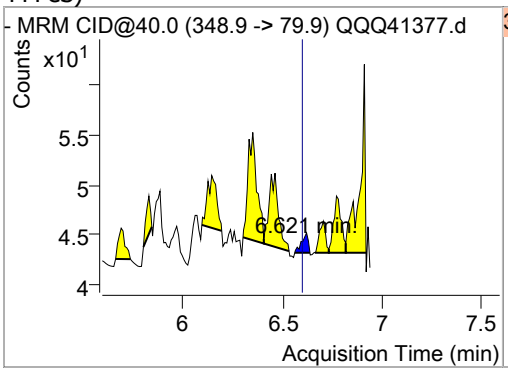
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0051	6.35	-0.02	145	313.0 -> 119.0	25.1	2.6	4.0

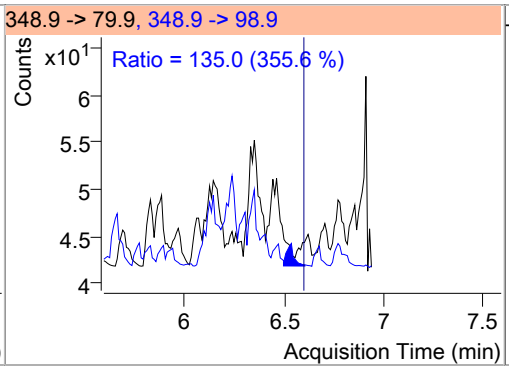


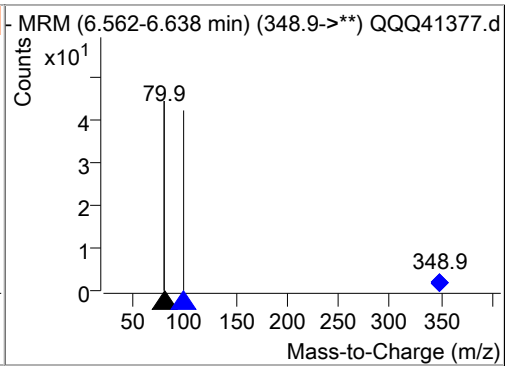




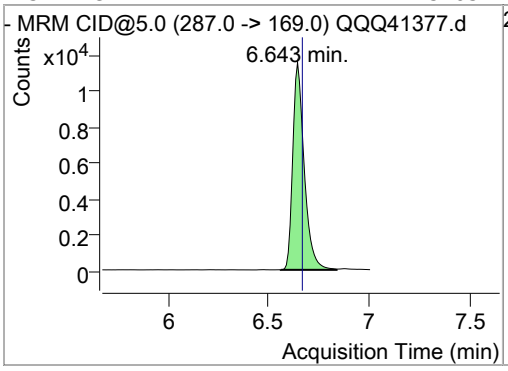
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0007	6.62	0.03	4	348.9 -> 98.9	135.0	30.4	45.6

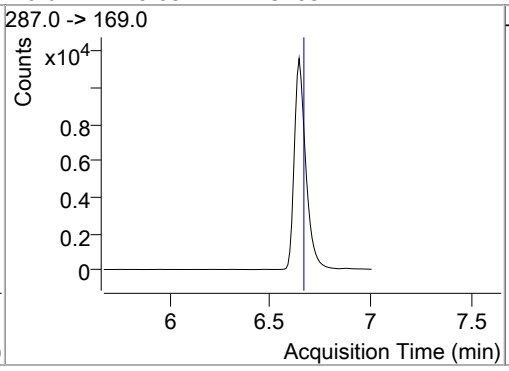


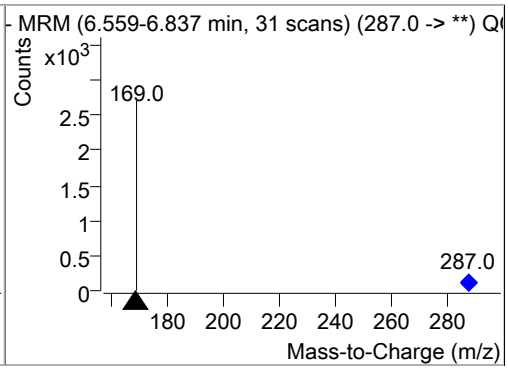




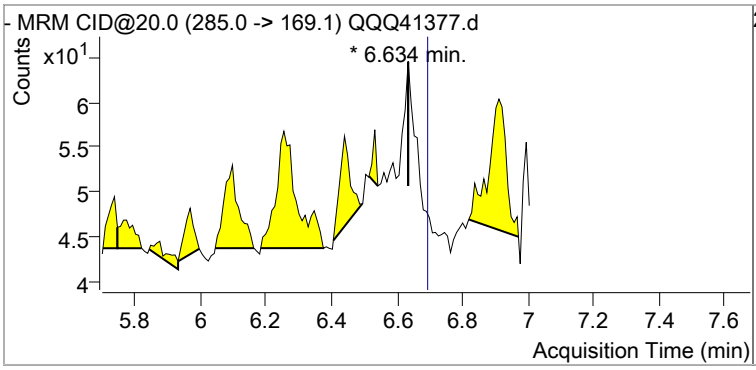
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	11.5203	6.64	-0.05	45785				

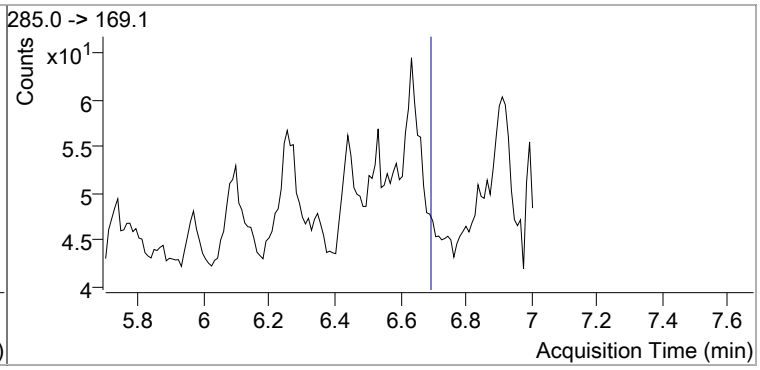




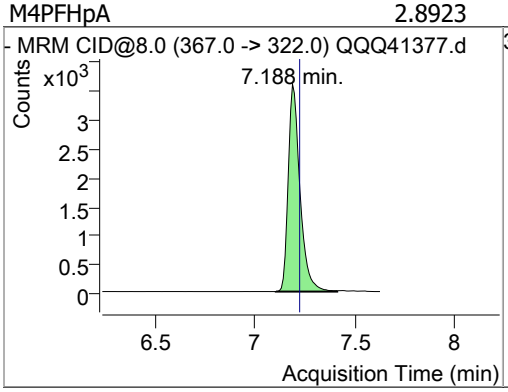


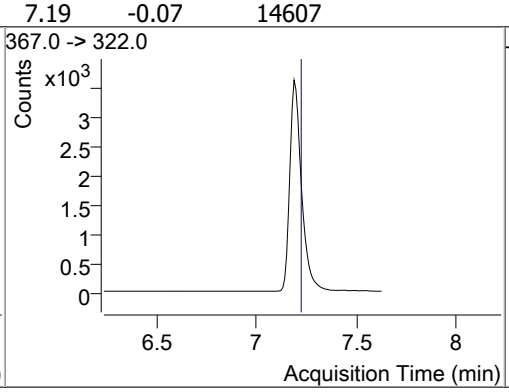
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

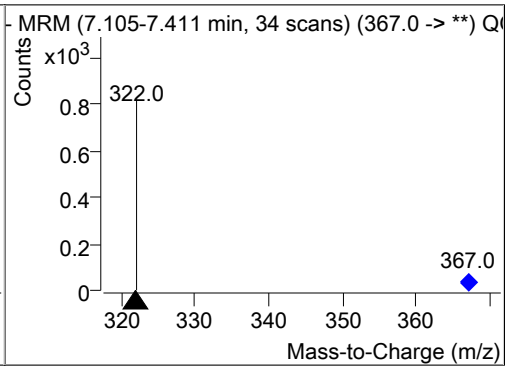




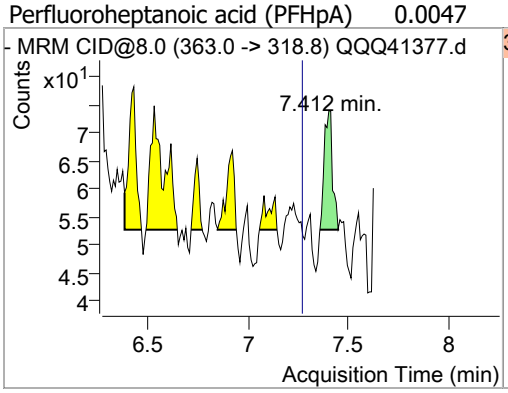
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.8923	7.19	-0.07	14607				

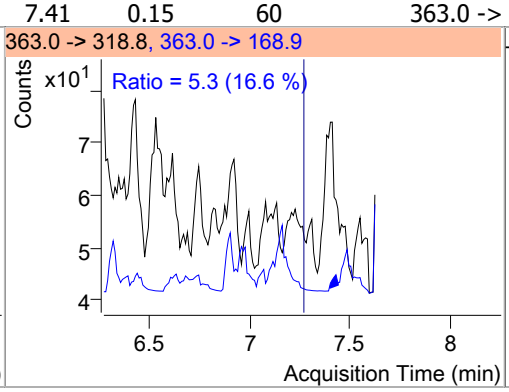


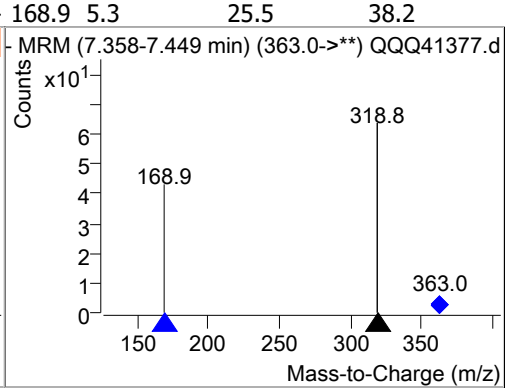




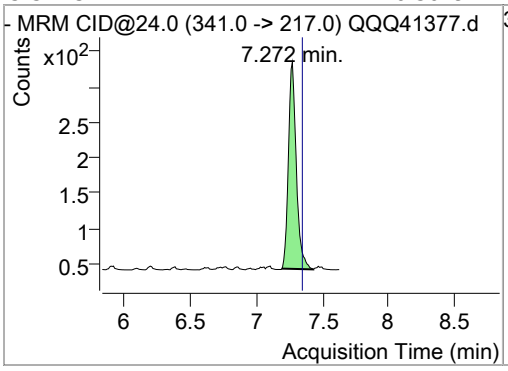
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0047	7.41	0.15	60	363.0 -> 168.9	5.3	25.5	38.2

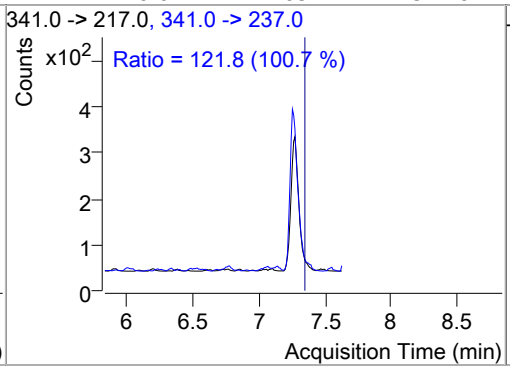


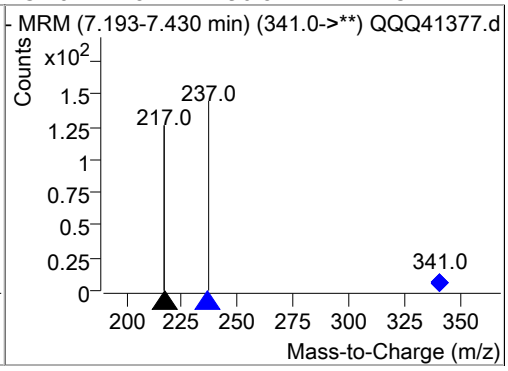




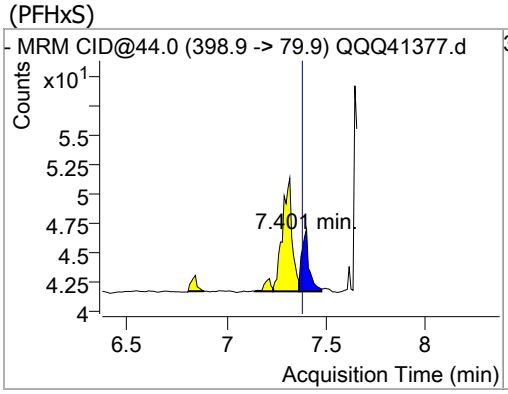
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.3049	7.27	-0.07	1203	341.0 -> 237.0	121.8	96.8	145.2

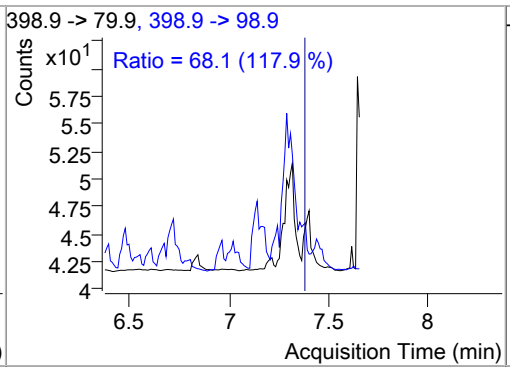


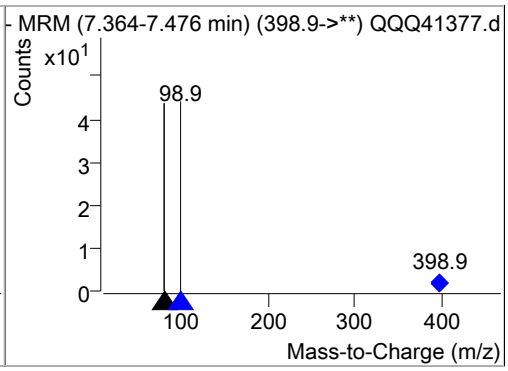




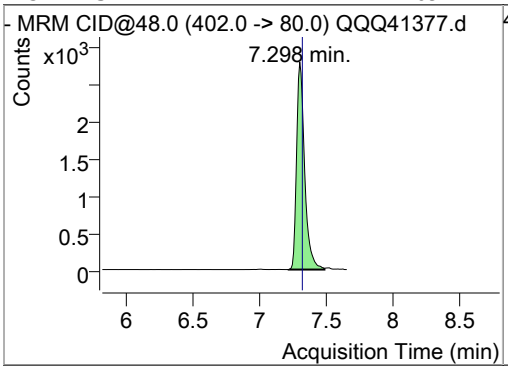
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0023	7.40	0.03	13	398.9 -> 98.9	68.1	46.2	69.3

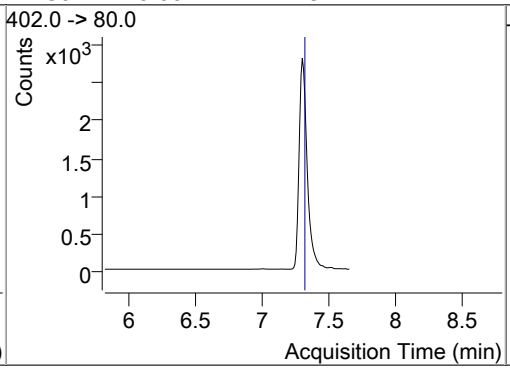


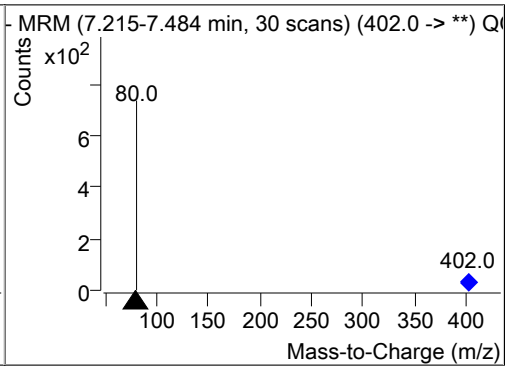




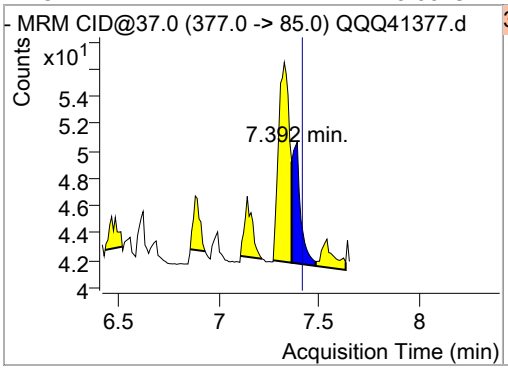
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.6977	7.30	-0.08	11729				

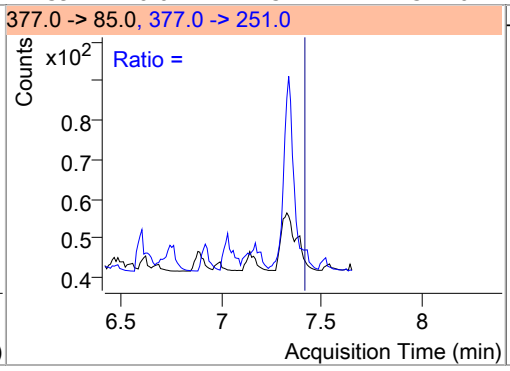


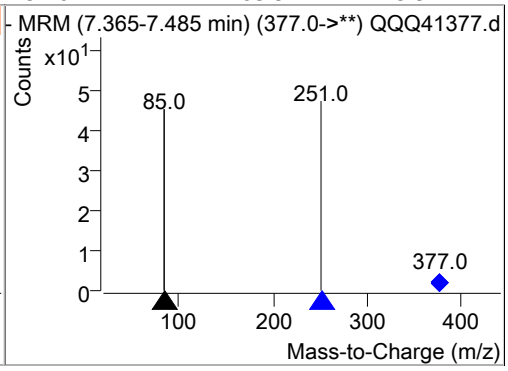




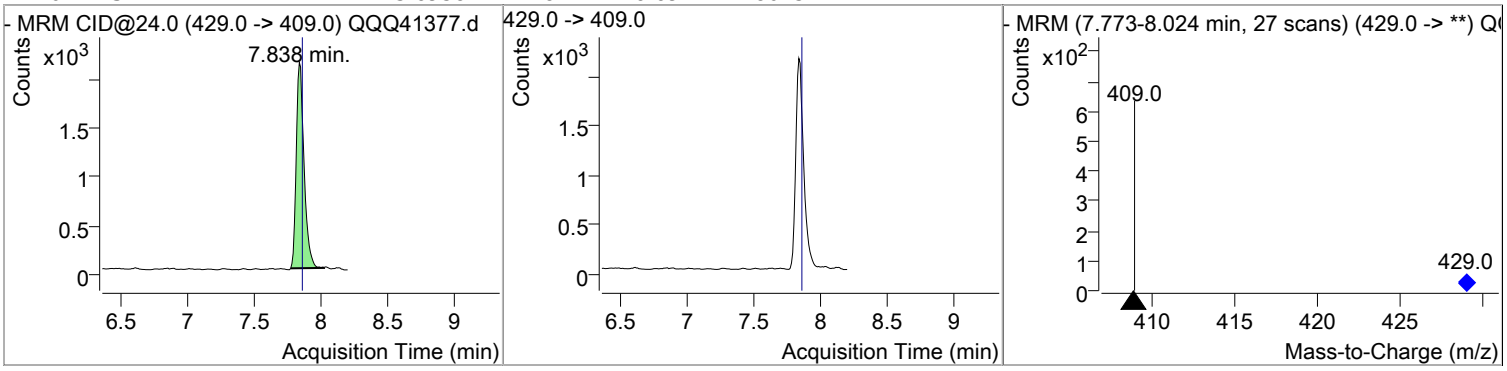
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0025	7.39	-0.02	25	377.0 -> 251.0		283.9	425.9



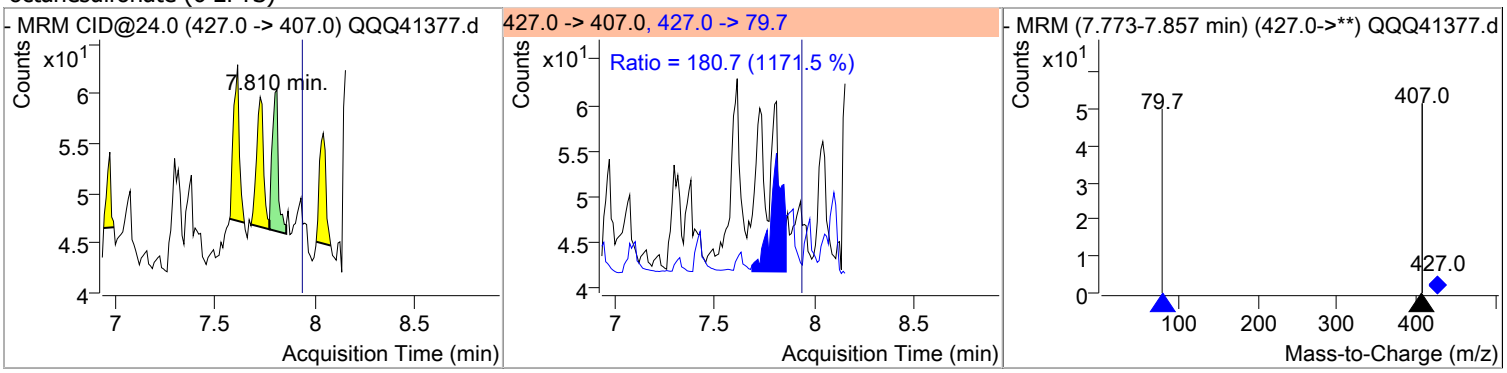




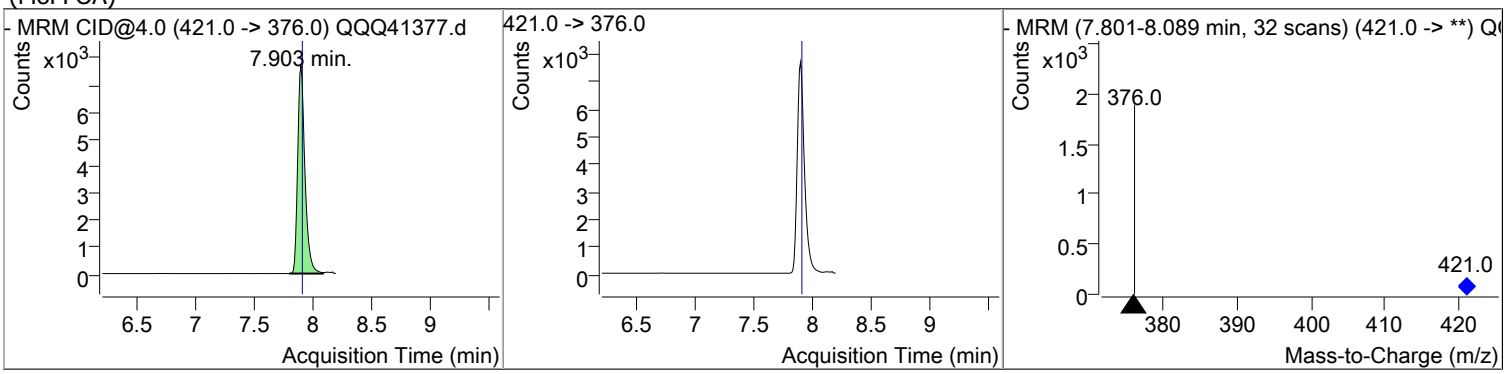
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	3.0958	7.84	-0.09	8625				



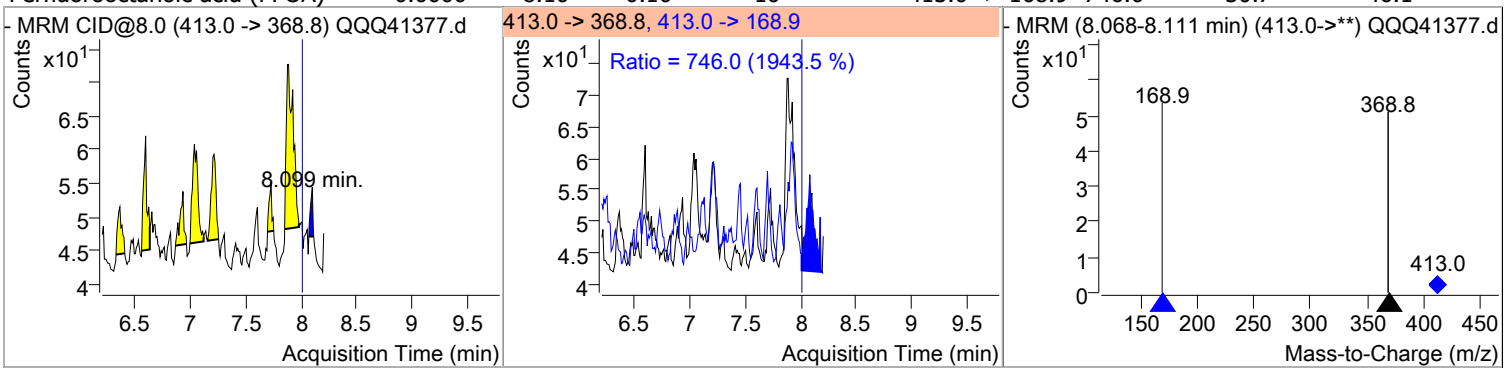
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0107	7.81	-0.12	31	427.0 -> 79.7	180.7	12.3	18.5



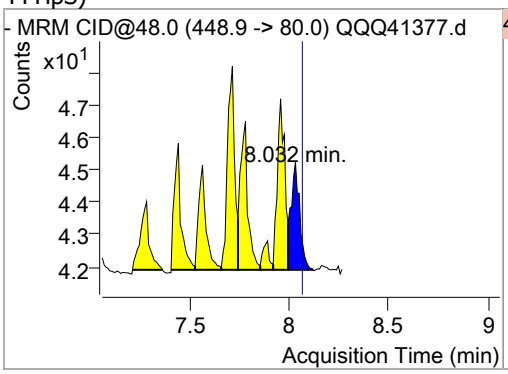
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.4007	7.90	-0.09	32967				

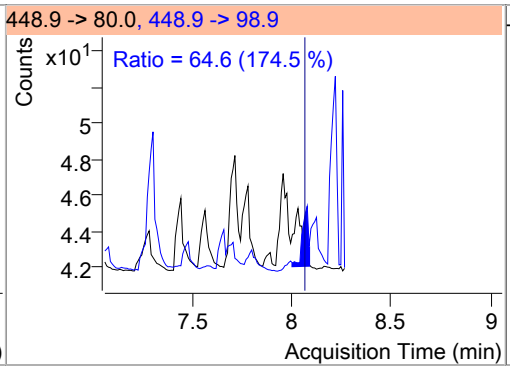


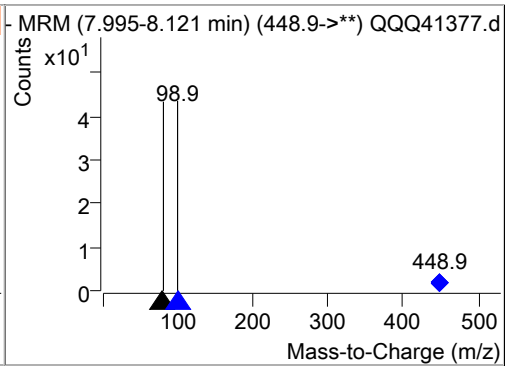
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	8.10	0.10	10	413.0 -> 168.9	746.0	30.7	46.1



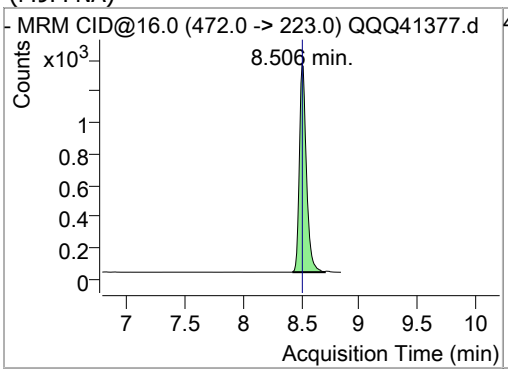
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0020	8.03	-0.03	10	448.9 -> 98.9	64.6	29.6	44.4

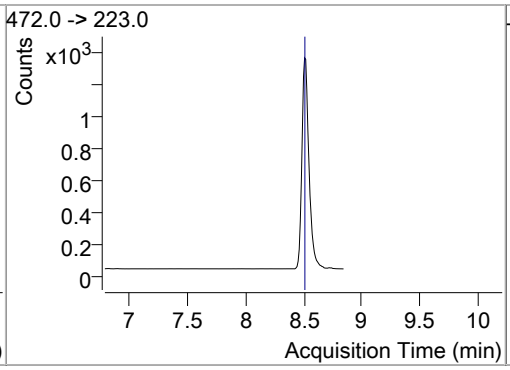


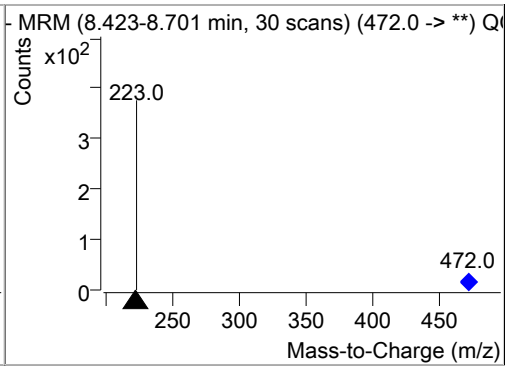




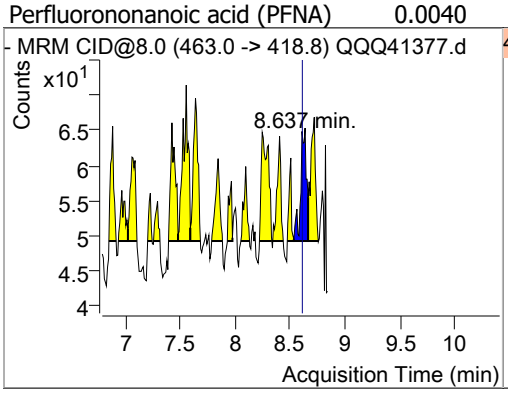
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2827	8.51	-0.08	5596				

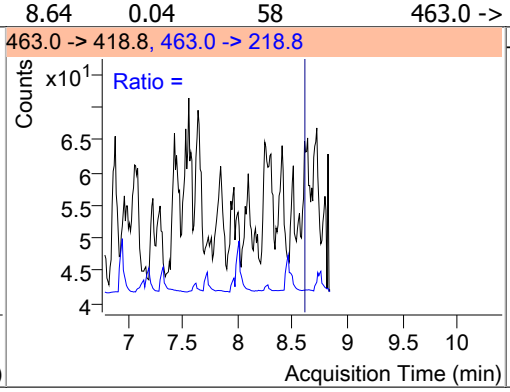


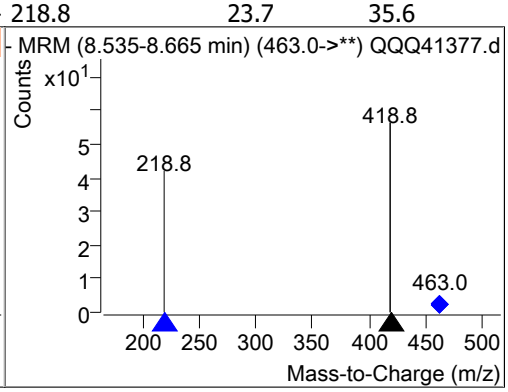




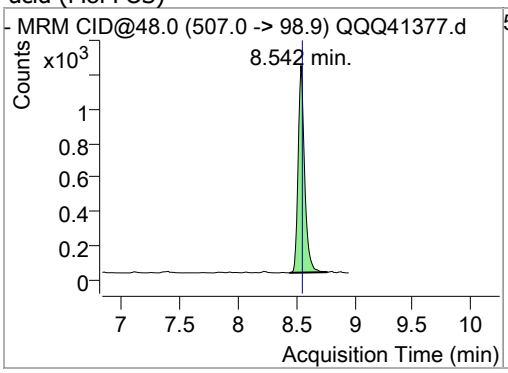
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0040	8.64	0.04	58	463.0 -> 218.8		23.7	35.6

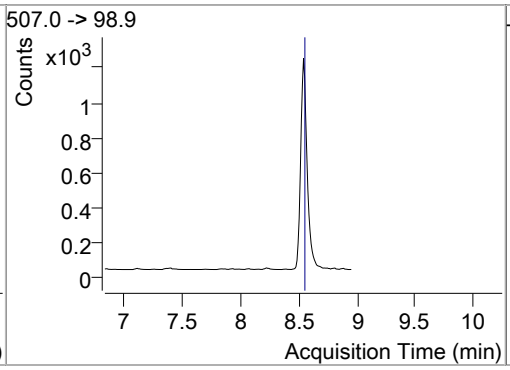


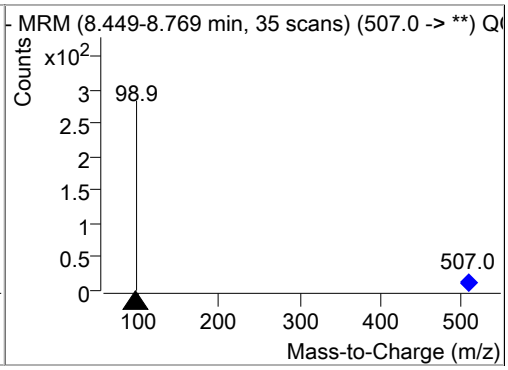




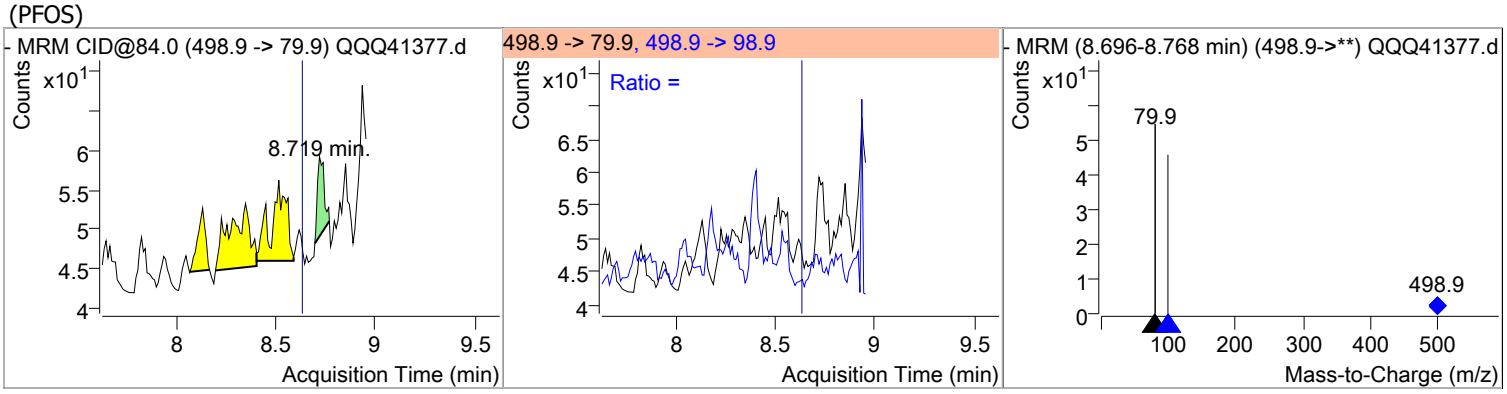
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.2480	8.54	-0.08	4664				



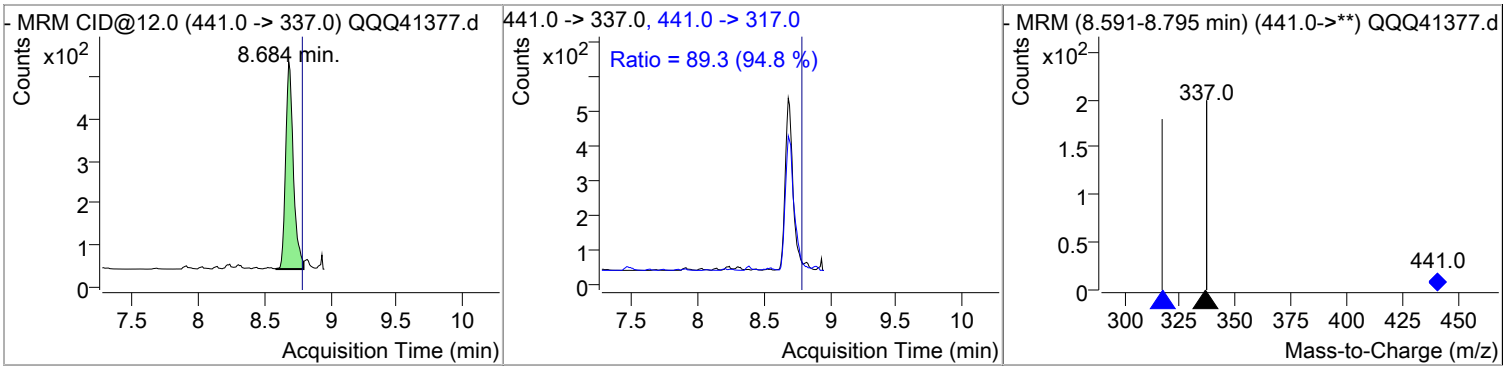




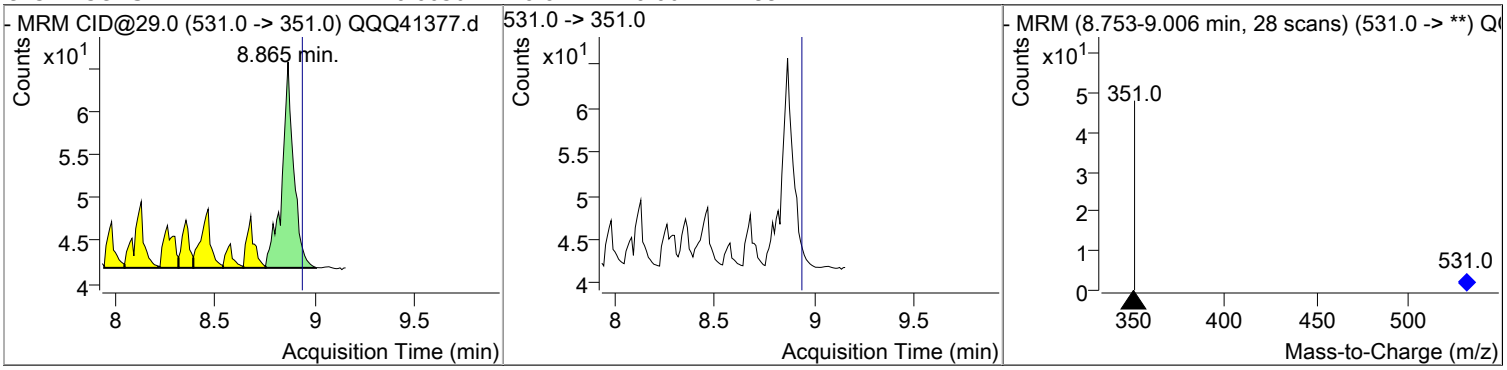
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.72	0.09	23	498.9 -> 98.9		45.5	68.3



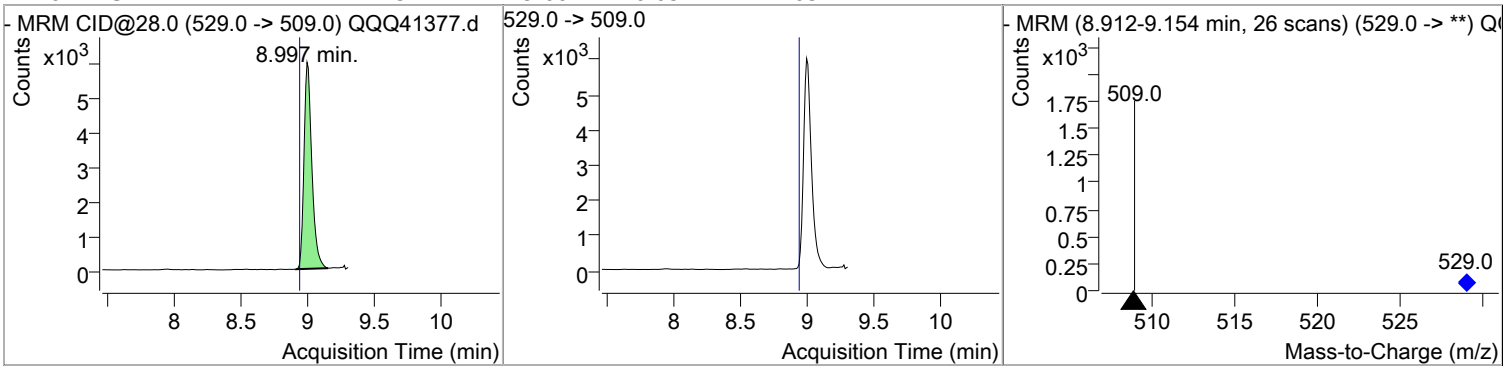
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.3792	8.68	-0.09	2005	441.0 -> 317.0	89.3	75.4	113.1



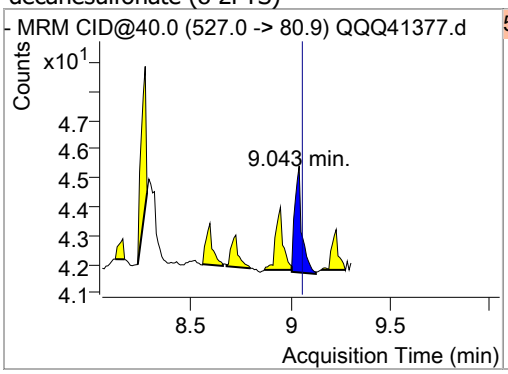
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0036	8.87	-0.06	99				

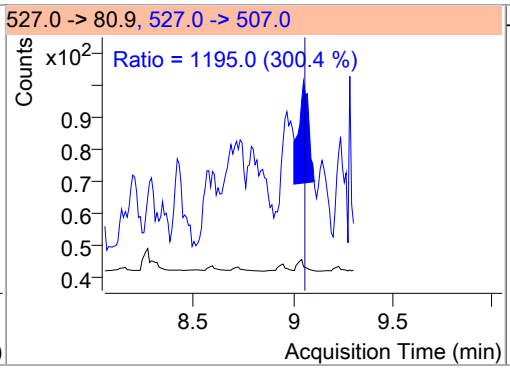


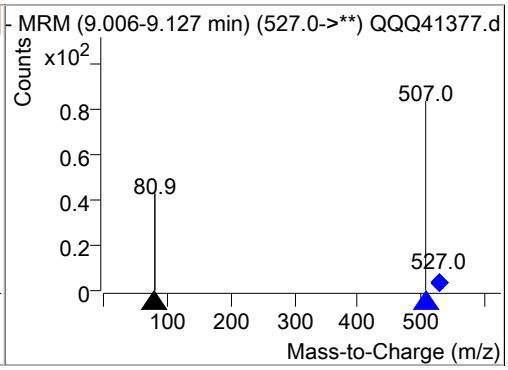
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	3.7112	9.00	-0.05	24283				



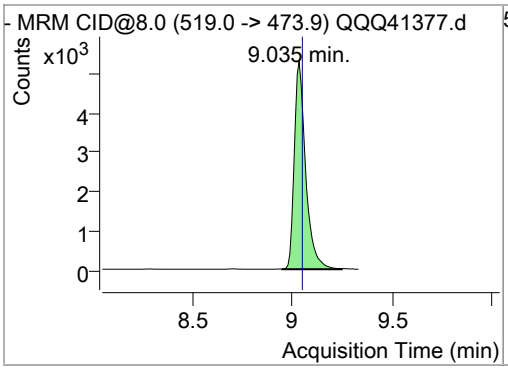
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0077	9.04	-0.01	9	527.0 -> 507.0	1195.0	318.3	477.4

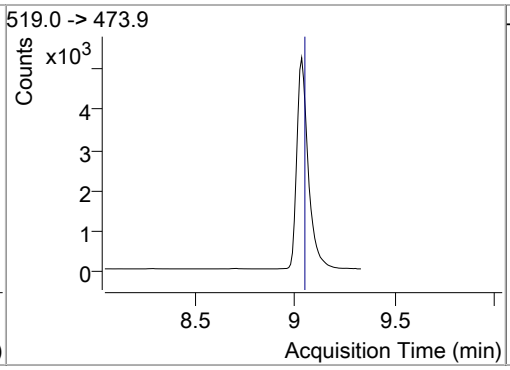


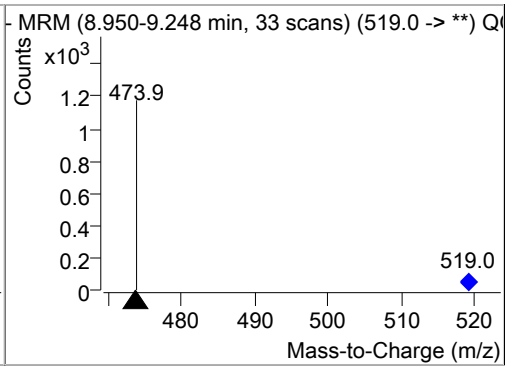




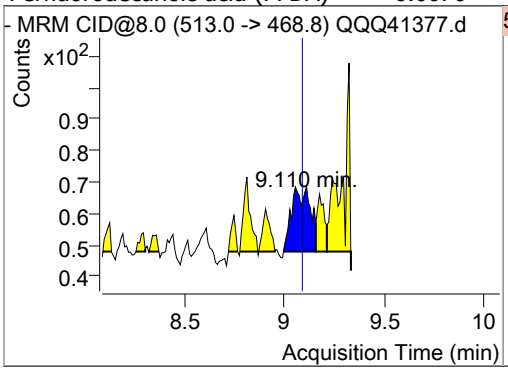
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.4746	9.03	-0.05	20871				

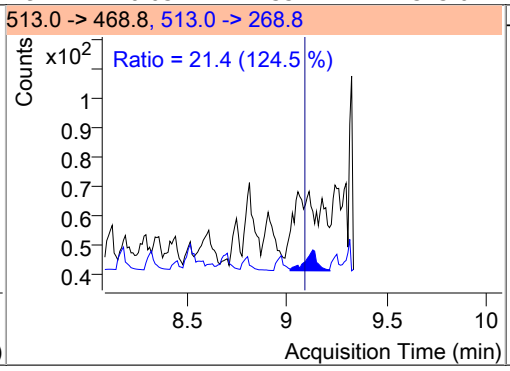


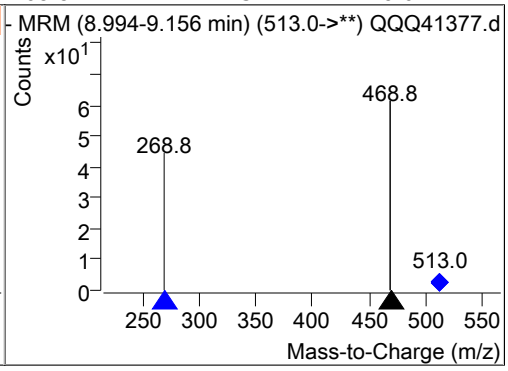




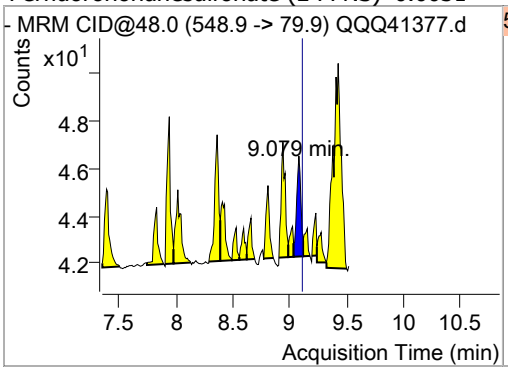
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0070	9.11	0.03	133	513.0 -> 268.8	21.4	13.7	20.6

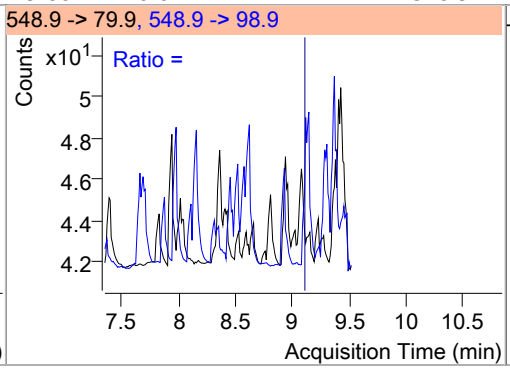


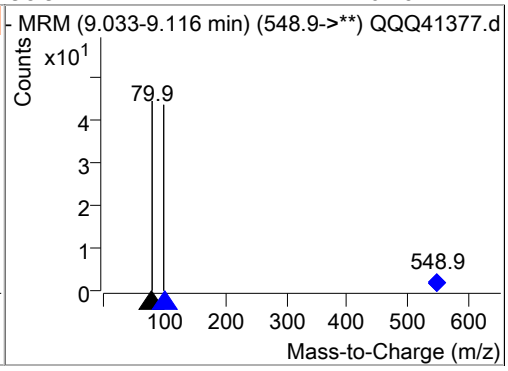




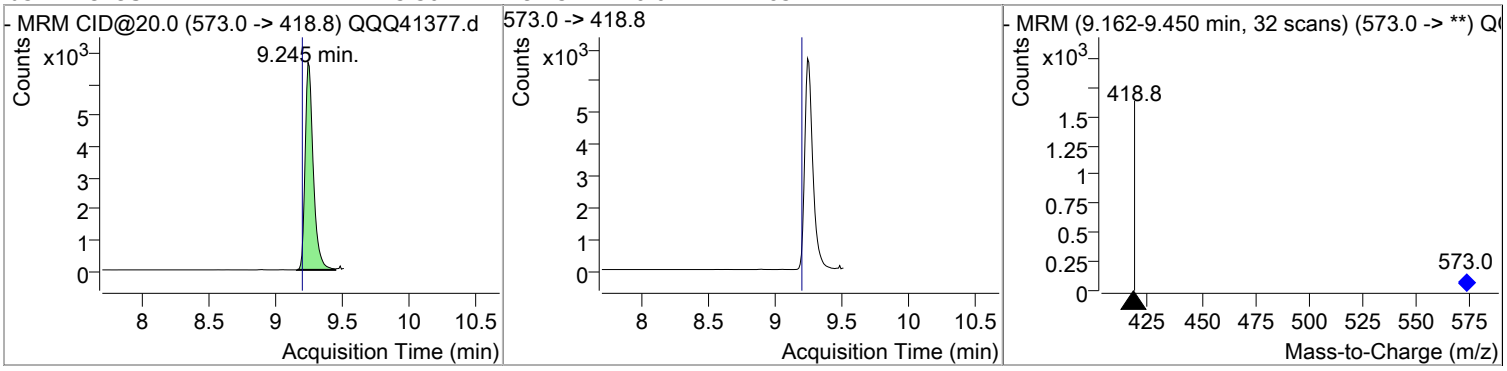
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0031	9.08	-0.02	11	548.9 -> 98.9		42.7	64.0



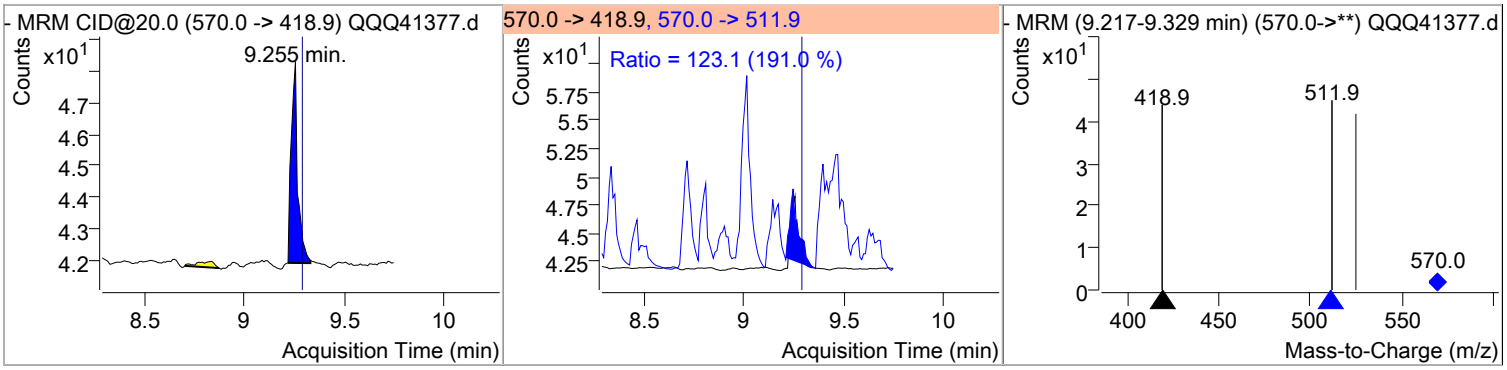




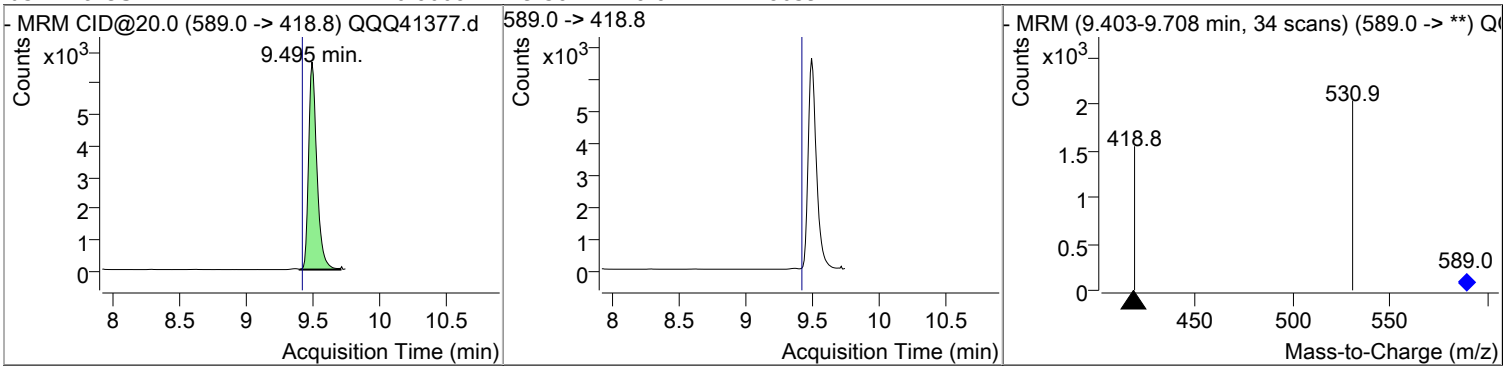
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.3022	9.25	-0.04	28342				



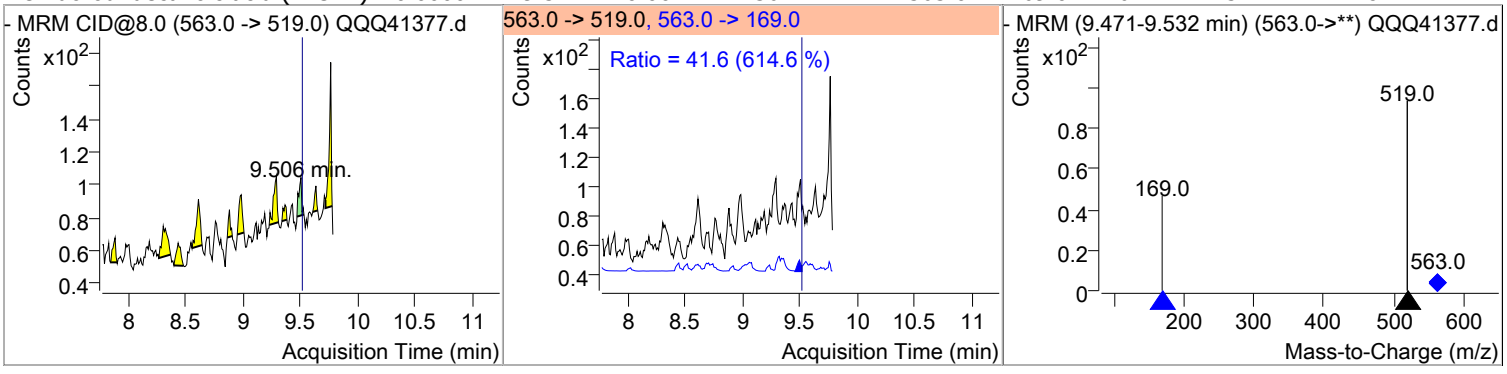
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0029	9.25	-0.03	14	570.0 -> 511.9	123.1	51.6	77.4



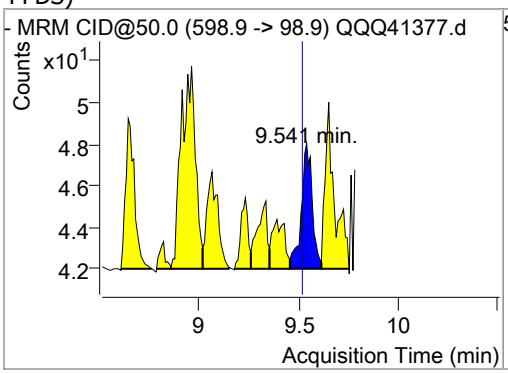
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.0668	9.50	-0.01	28639				

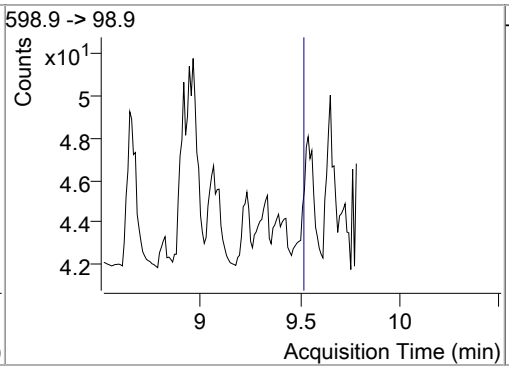


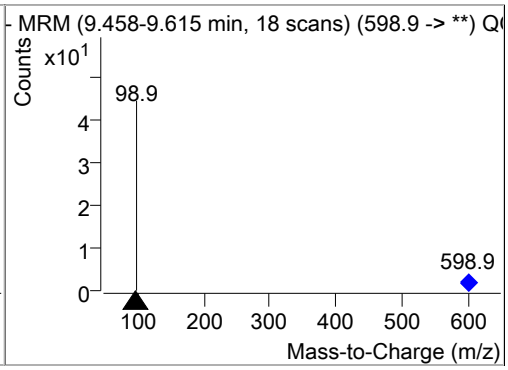
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.51	0.00	36	563.0 -> 169.0	41.6	5.4	8.1



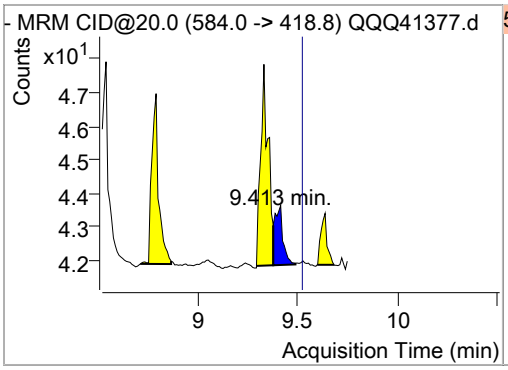
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0134	9.54	0.03	23				

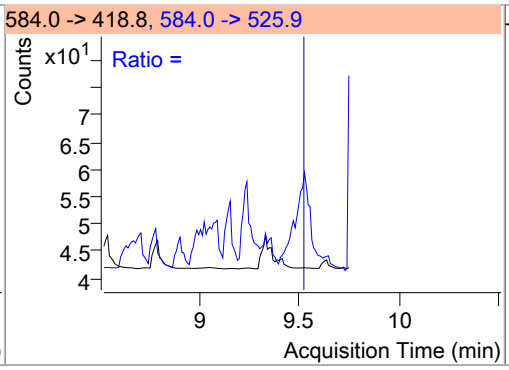


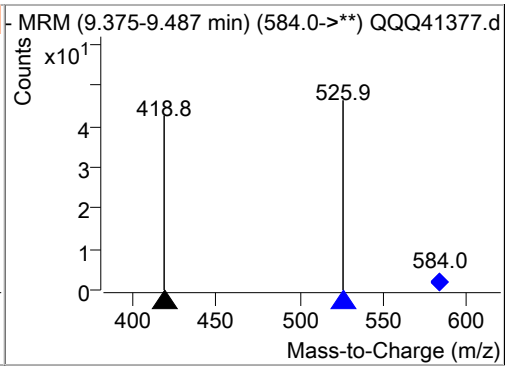




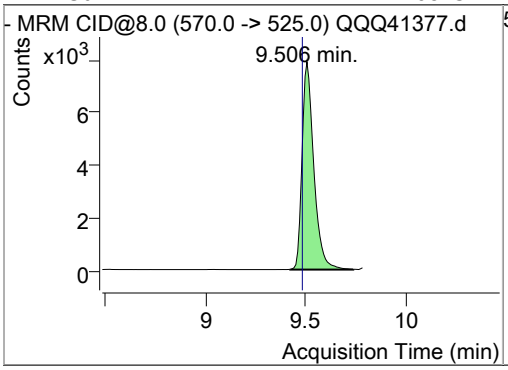
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0010	9.41	-0.10	5	584.0 -> 525.9		106.2	159.3

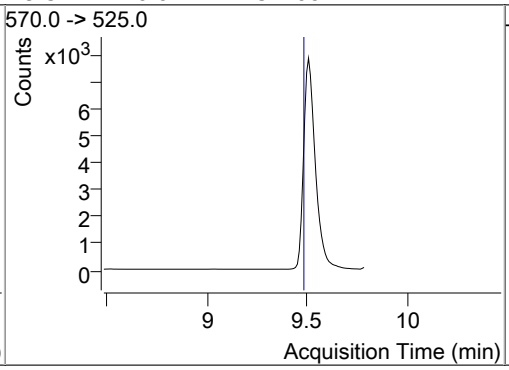


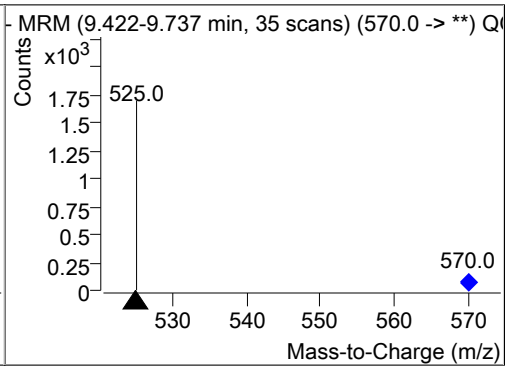




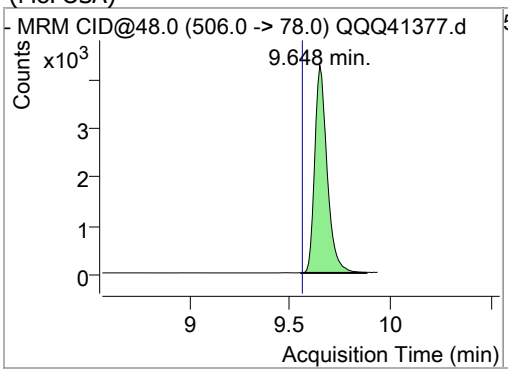
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.6813	9.51	-0.01	32208				

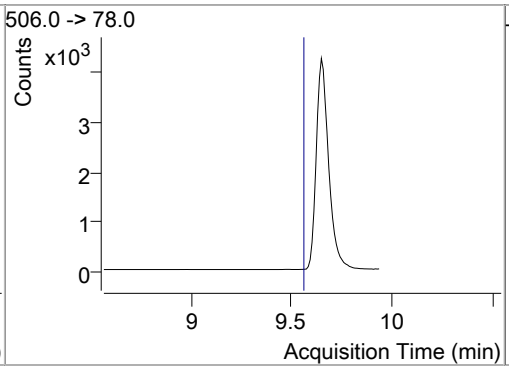


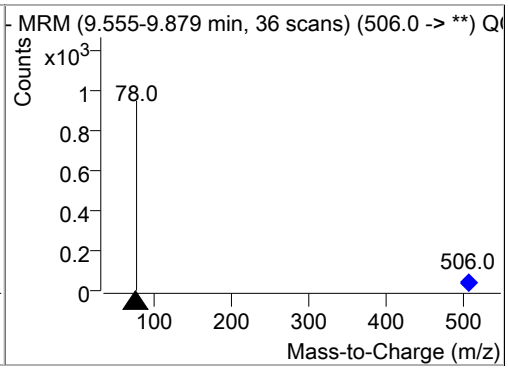




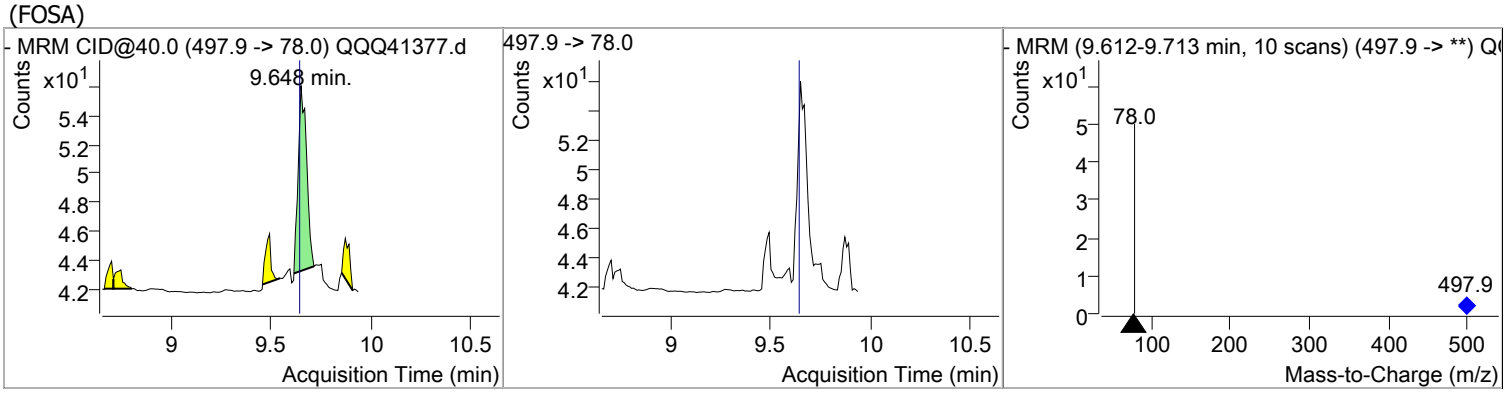
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.6785	9.65	0.00	18207				



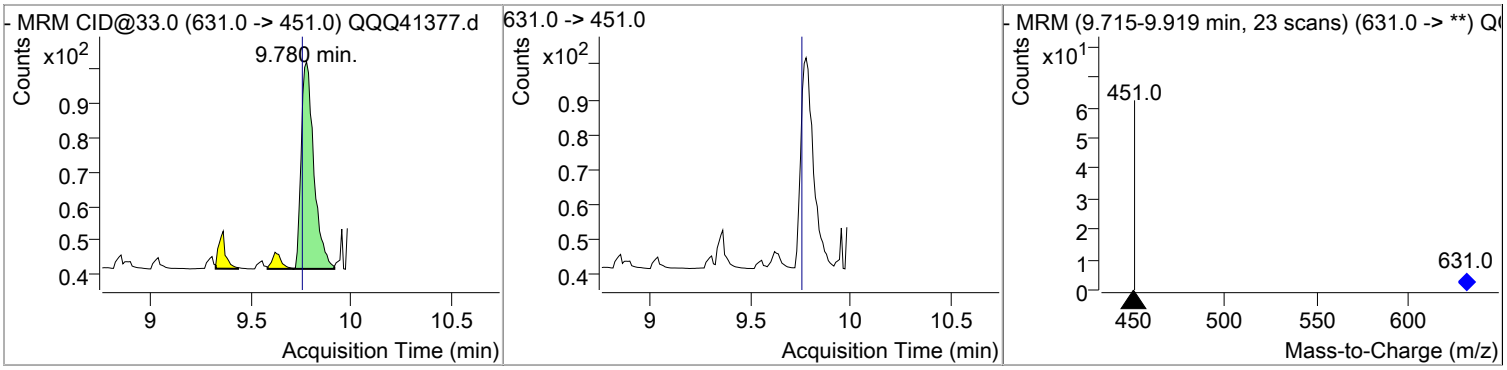




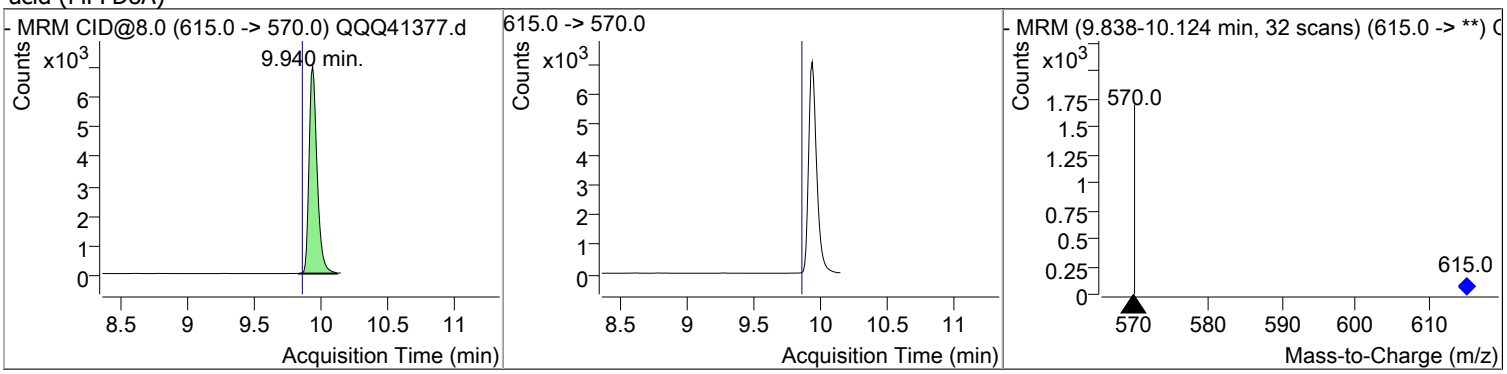
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0035	9.65	0.00	37				



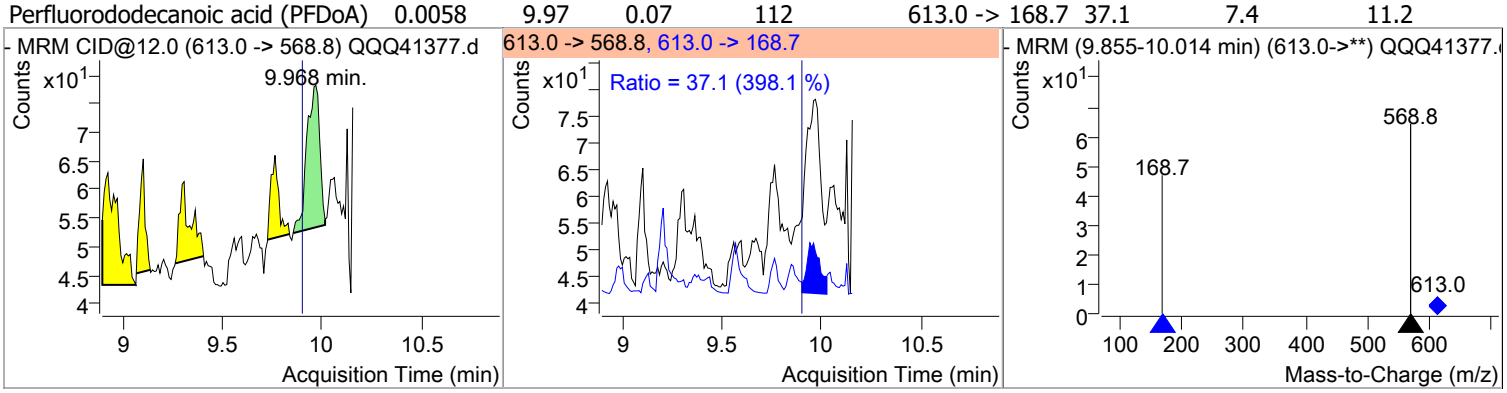
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0138	9.78	0.03	264				



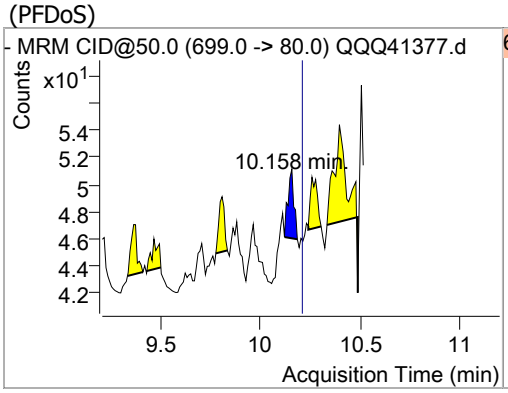
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.7575	9.94	0.05	29599				

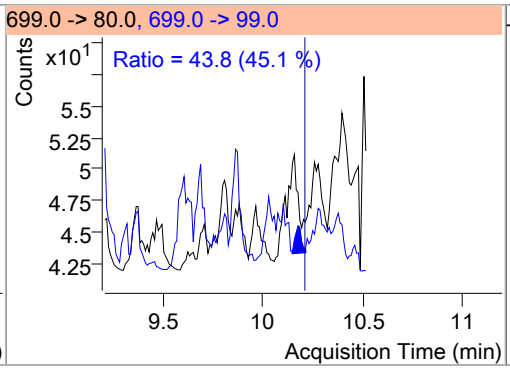


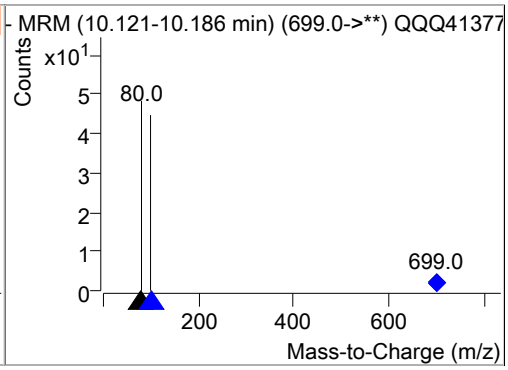
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0058	9.97	0.07	112	613.0 -> 168.7	37.1	7.4	11.2



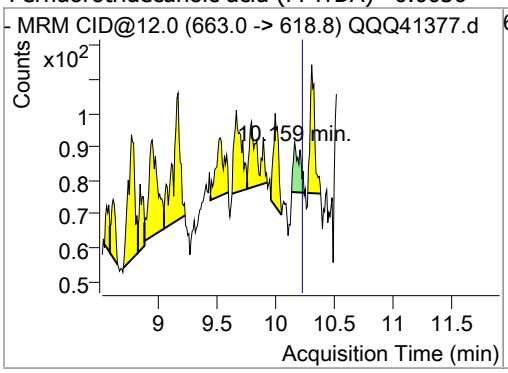
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0118	10.16	-0.05	11	699.0 -> 99.0	43.8	77.6	116.4

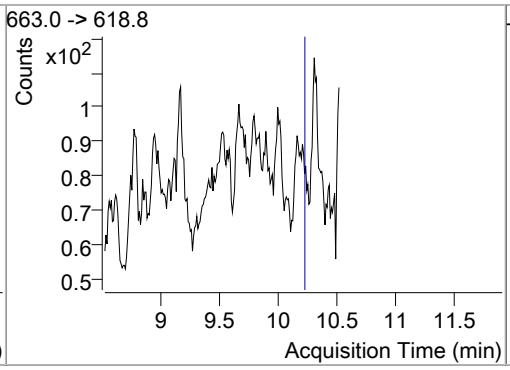


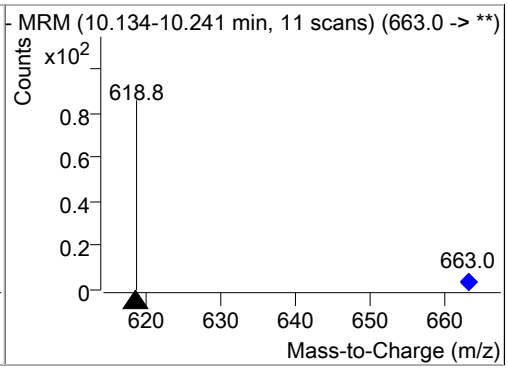




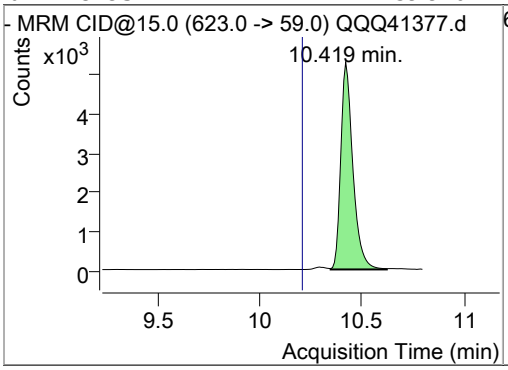
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0036	10.16	-0.06	55				

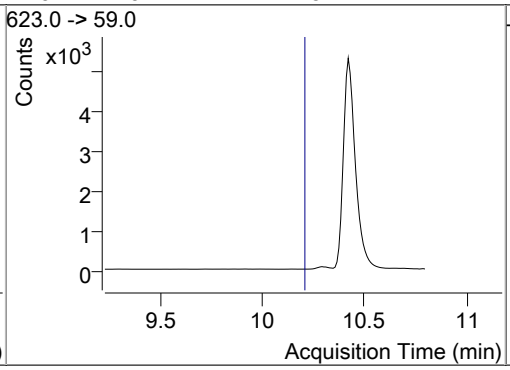


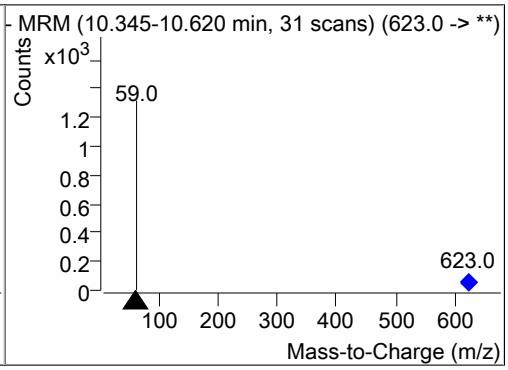




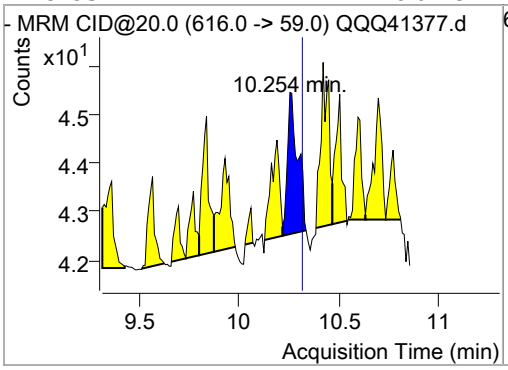
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	39.9267	10.42	0.12	21778				

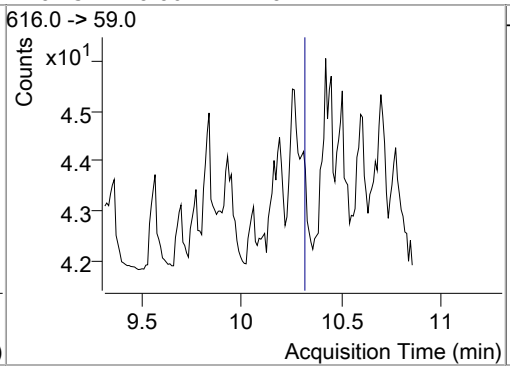


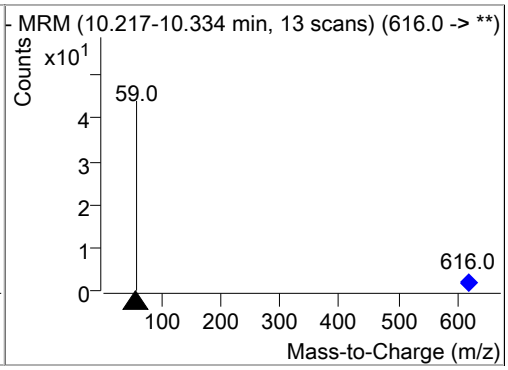




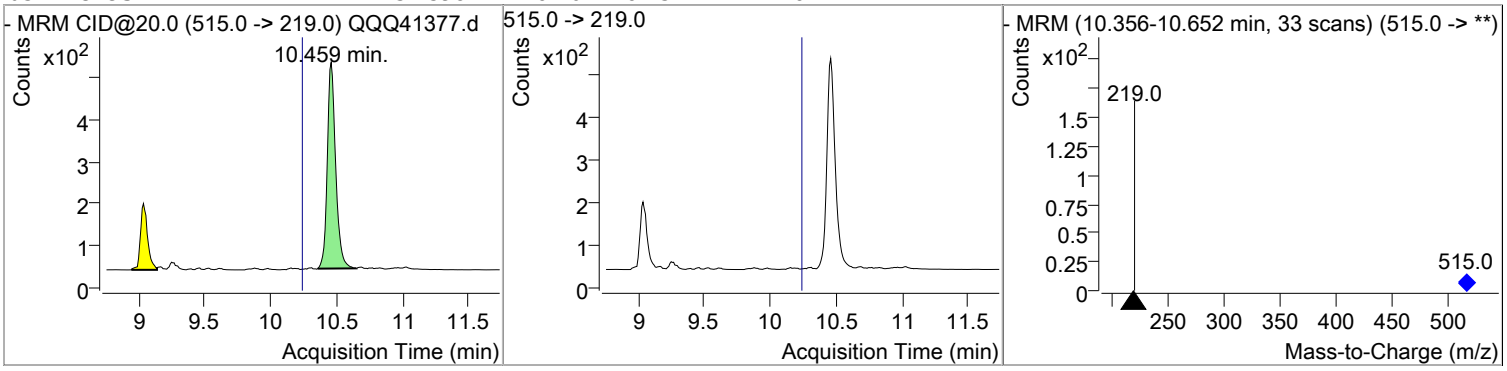
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0145	10.25	-0.06	10				



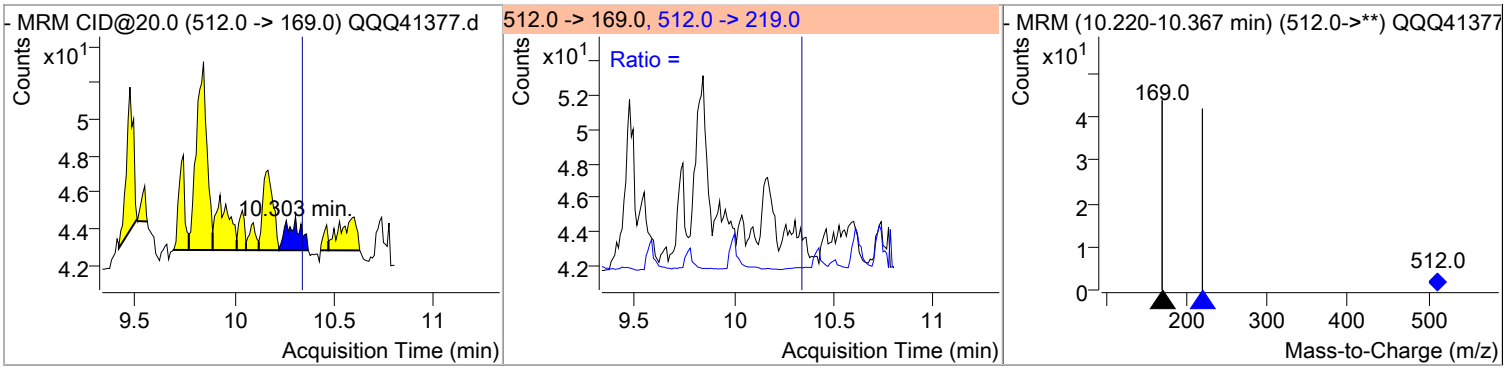




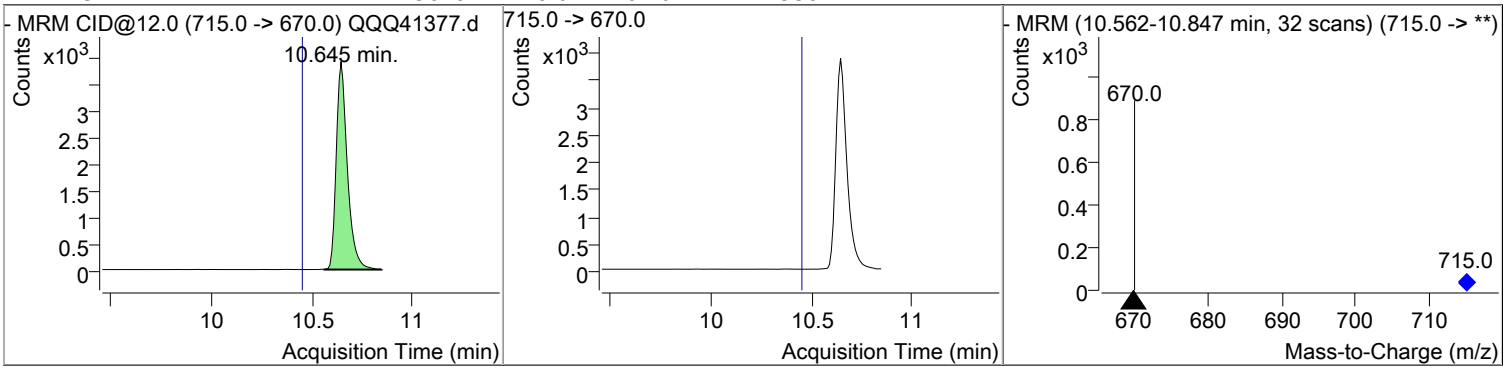
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	3.1598	10.46	0.13	2170				



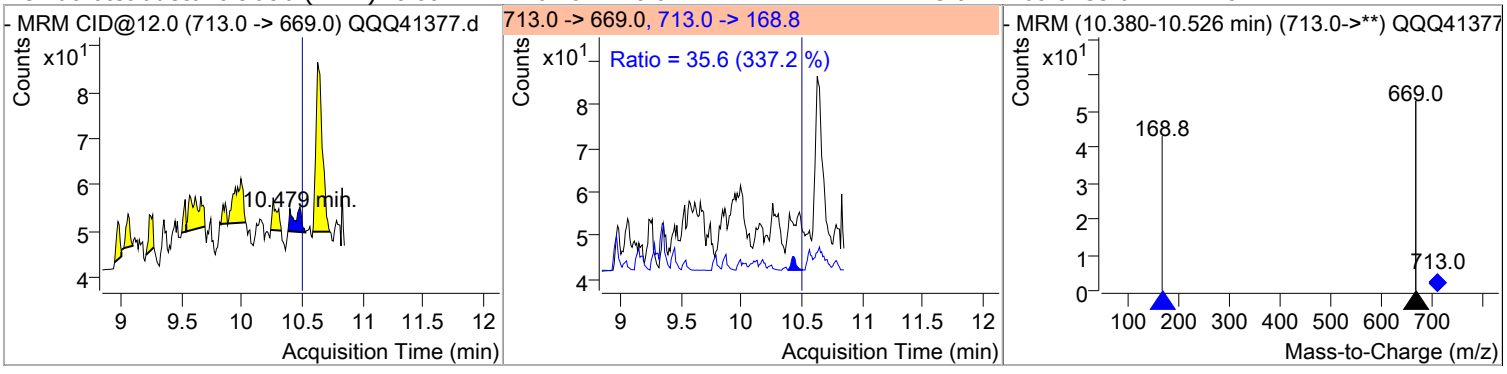
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.30	-0.03	9	512.0 -> 219.0		101.6	152.5



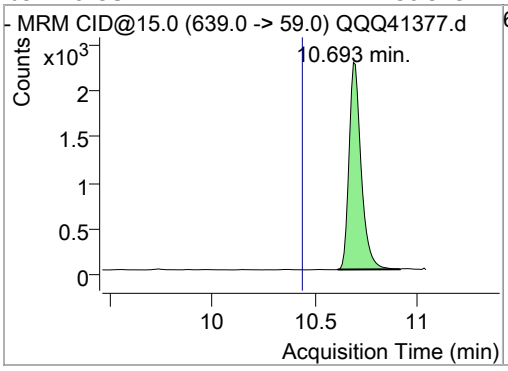
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.9870	10.64	0.16	14930				

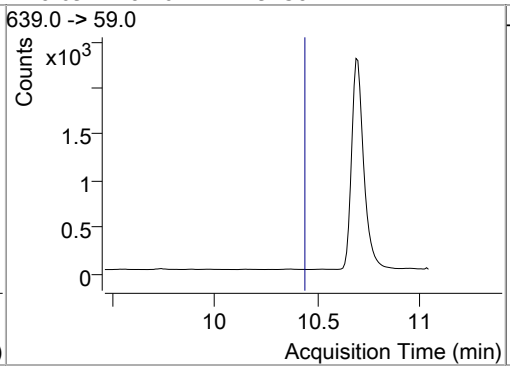


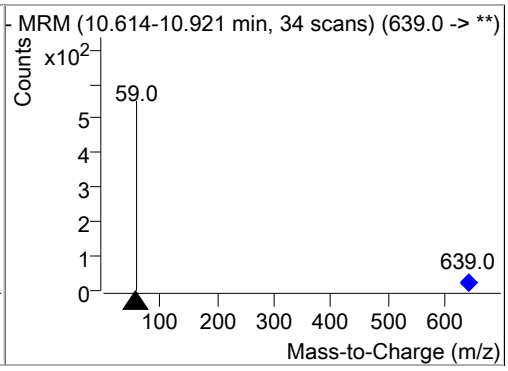
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0021	10.48	-0.01	24	713.0 -> 168.8	35.6	8.4	12.7



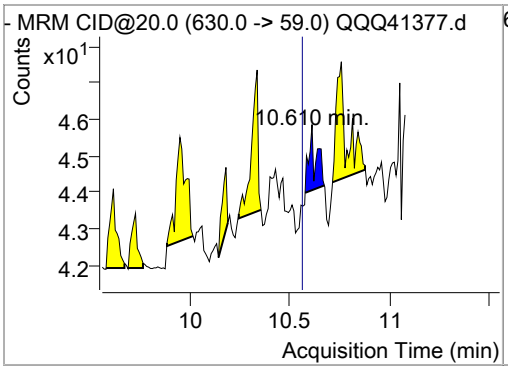
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	38.9152	10.69	0.16	9450				

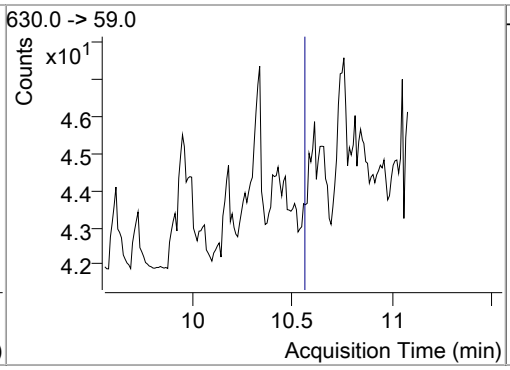


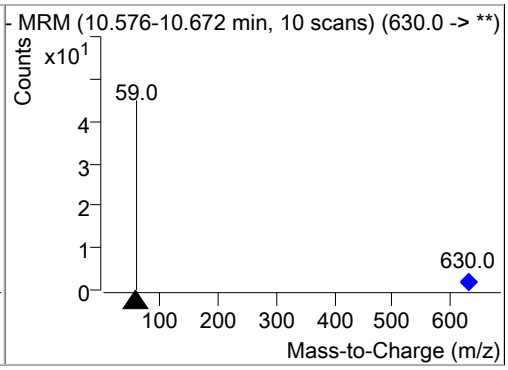




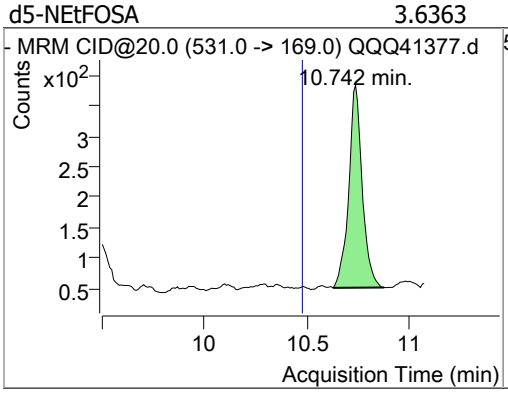
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0056	10.61	0.06	5				

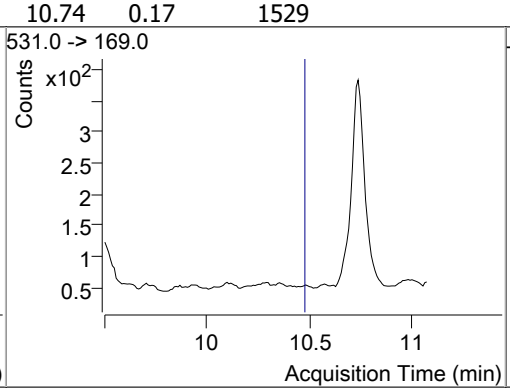


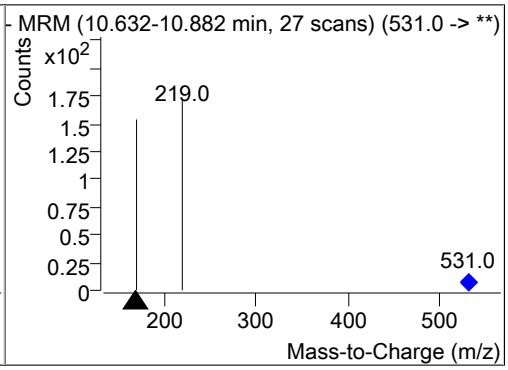




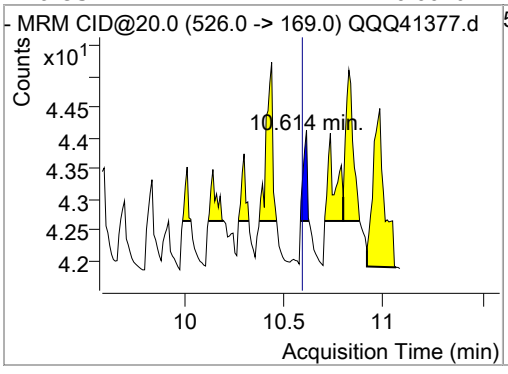
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	3.6363	10.74	0.17	1529				

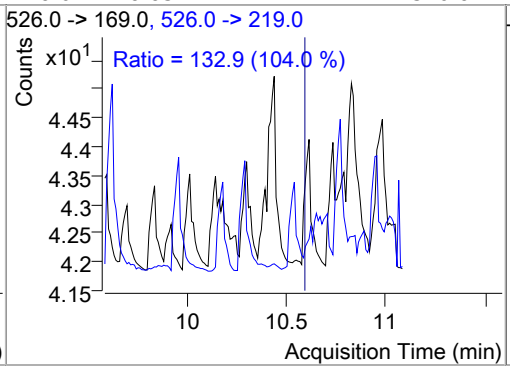


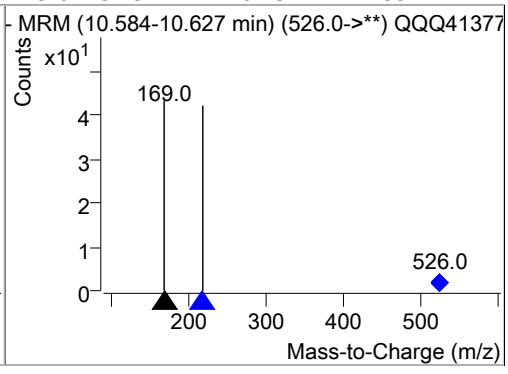




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0026	10.61	0.03	2	526.0 -> 219.0	132.9	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 1:25:27 PM	**Data File**	QQQ41377.d
Sample Type	Sample	**Sampe Name**	SEQ-CCB2
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.333	155919	21696	0.523			1.81			21257.65
Perfluoro-n-butanoic acid (PFBA)	1.338	65	13	0.250			1.42			0.72
PFMPA	2.290	16	2	0.279			1.42			19.04
3:3FTCA	4.470	24	5	0.120			1.06			10.30
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	123296	18622	0.445			1.84			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.793	107	17	0.257			0.85			3.12
PFMBA	5.504	11	3	0.128			1.54			26.16
M3PFBS	5.529	15360	3455	0.279			1.85			68889.36
Perfluorobutanesulfonic acid (PFBS)	5.567	12	3	0.202			0.66			4.08
PFEESA	6.048	72	17	0.202			1.16			4.44
NFDHA	6.160	7	3	0.116			1.32			12.72
M2-4-2FTS	6.269	13757	3396	0.299			1.73			304.21
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.576	21	9	0.064			1.46			0.29
M5PFHxA	6.344	61633	15032	0.297			1.74			25933.11
Perfluorohexanoic acid (PFHxA)	6.355	145	47	0.144			1.15			4.88
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.621	4	2	0.076			0.28			0.45
M3-HFPO-DA	6.643	45785	11543	0.278			1.67			4070.82
HFPO-DA	6.634	0	65	0.000			1.00			16.03
M4PFHpA	7.188	14607	3584	0.306			1.85			26853.03
Perfluoroheptanoic acid (PFHpA)	7.412	60	21	0.091			0.69			1.59
5-3FTCA	7.272	1203	292	0.238			1.24			6709.87
Perfluorohexanesulfonic acid (PFHxS)	7.401	13	5	0.111			0.97			26.65
M3PFHxS	7.298	11729	2780	0.270			1.78			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.392	25	9	0.121			1.85			8.23
M2-6-2FTS	7.838	8625	2126	0.251			1.73			482.55
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.810	31	14	0.084			0.82			2.18
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.903	32967	7664	0.288			1.48			∞
Perfluorooctanoic acid (PFOA)	8.099	10	7	0.044			0.30			0.82
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.032	10	3	0.126			1.08			25.52
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.506	5596	1330	0.278			1.71			8164.35
Perfluorononanoic acid (PFNA)	8.637	58	16	0.130			0.86			2.04
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.542	4664	1211	0.321			1.43			∞
Perfluorooctanesulfonic acid (PFOS)	8.719	23	10	0.073			2.81			1.03
7-3FTCA	8.684	2005	497	0.204			1.72			∞
9-Cl-PF3ONS	8.865	99	24	0.253			0.78			59.45
M2-8-2FTS	8.997	24283	5971	0.242			1.69			776.67
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	9	4	0.121			1.32			30.97
M6PFDA	9.035	20871	5257	0.298			1.71			4336.18
Perfluorodecanoic acid (PFDA)	9.110	133	21	0.162			0.50			1.96
Perfluorononanesulfonate (L-PFNS)	9.079	11	4	0.083			1.20			19.14
d3-N-MeFOSAA	9.245	28342	6675	0.288			1.90			∞
N-MeFOSAA	9.255	14	6	0.112			1.12			17.27
d5-N-EtFOSAA	9.495	28639	6649	0.306			1.65			∞
Perfluoroundecanoic acid (PFUnA)	9.506	36	23	0.061			0.27			0.96
Perfluoro-1-decanesulfonate (L-PFDS)	9.541	23	6	0.158			0.77			16.27
N-EtFOSAA	9.413	5	2	0.111			1.49			18.25
M7PFUdA	9.506	32208	7886	0.315			1.69			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	18207	4253	0.323			1.60			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.648	37	13	0.100			1.73			25.57
11-Cl-PF3OUdS	9.780	264	60	0.204			1.94			817.88
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	29599	7045	0.286			1.51			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.968	112	25	0.160			0.61			2.30
Perfluorododecanesulfonic acid (PFDoS)	10.158	11	5	0.065			0.71			0.56
Perfluorotridecanoic acid (PFTrDA)	10.159	55	15	0.107			3.35			1.07
d7-NMeFOSE	10.419	21778	5289	0.275			1.72			∞
NMeFOSE	10.254	10	3	0.118			2.48			5.37
d3-NMeFOSA	10.459	2170	492	0.296			1.38			4643.09
NMeFOSA	10.303	9	2	0.147			0.79			1.50
M2PFTeDA	10.645	14930	3876	0.285			1.60			18940.55
Perfluorotetradecanoic acid (PFTA)	10.479	24	5	0.145			0.41			0.38
d9-NEtFOSE	10.693	9450	2277	0.307			1.80			1371.36
NEtFOSE	10.610	5	2	0.097			1.81			1.18
d5-NEtFOSA	10.742	1529	333	0.251			0.99			81.65
NEtFOSA	10.614	2	1	0.043			0.29			2.02

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41401.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB3	Injection Time:	17:31

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A		0.116	0.8591385				30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A		0.00419	0.2419004				30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A		0.00828	1.185549				30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A		0.0173	1.255886				30
3-Perfluoroheptyl propanoic acid (FHpPA)	A		0.212	0.2201101				30
3-Perfluoropentyl propanoic acid (FPePA)	A		0.0929	0.1241024				30
3-Perfluoropropyl propanoic acid (FPrPA)	A		0.0144	1.286716E-02				30
9CL-PF3ONS	A		0.0504	1.369128				30
ADONA	A		0.0467	0.556015				30
HFPO-DA (Gen-X)	A		0.00	2.239571E-02				30
N-EtFOSA	A		0.0331	1.287944				30
N-EtFOSAA	A		0.00321	0.94945				30
N-EtFOSE	A		0.00389	1.993152				30
N-MeFOSA	A		0.00	0.7524916				30
N-MeFOSAA	A		0.00357	0.8763811				30
N-MeFOSE	A		0.0172	0.824401				30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A		0.00204	1.241156				30
Perfluoro-1-decanesulfonic acid (PFDS)	A		0.0104	0.7352727				30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A		0.00197	2.525683				30
Perfluoro-1-nonanesulfonic acid (PFNS)	A		0.00154	0.1655348				30
Perfluoro-1-octanesulfonamide (FOSA)	A		0.00541	1.385288				30
Perfluoro-1-pentanesulfonate (PFPeS)	A		0.000799	1.400558				30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A		0.00281	1.573594E-02				30

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41401.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB3	Injection Time:	17:31

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A		0.000294	0.2604373				30
Perfluoro-5-oxahexanoic acid (PFMBA)	A		0.00317	0.4108024				30
Perfluorobutanesulfonic acid (PFBS)	A		0.00144	1.128938				30
Perfluorodecanoic acid (PFDA)	A		0.000788	1.09146				30
Perfluorododecanesulfonic acid (PFDoS)	A		0.0119	0.4284993				30
Perfluorododecanoic acid (PFDoA)	A		0.00778	0.8702134				30
Perfluoroheptanoic acid (PFHpA)	A		0.00328	2.370614				30
Perfluorohexanesulfonic acid (PFHxS)	A		0.0124	1.39602				30
Perfluorohexanoic acid (PFHxA)	A		0.00356	1.166423				30
Perfluoro-n-butanoic acid (PFBA)	A		0.000504	0.9037138				30
Perfluorononanoic acid (PFNA)	A		0.00249	3.453721				30
Perfluorooctanesulfonic acid (PFOS)	A		0.00	2.631087				30
Perfluorooctanoic acid (PFOA)	A		0.00	1.254067				30
Perfluoropentanoic acid (PFPeA)	A		0.00228	1.003786				30
Perfluorotetradecanoic acid (PFTA)	A		0.00120	1.041146				30
Perfluorotridecanoic acid (PFTrDA)	A		0.0247	1.484165				30
Perfluoroundecanoic acid (PFUnA)	A		0.00	0.9068038				30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41401.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 5:31:59 PM
Sample Name	SEQ-CCB3	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

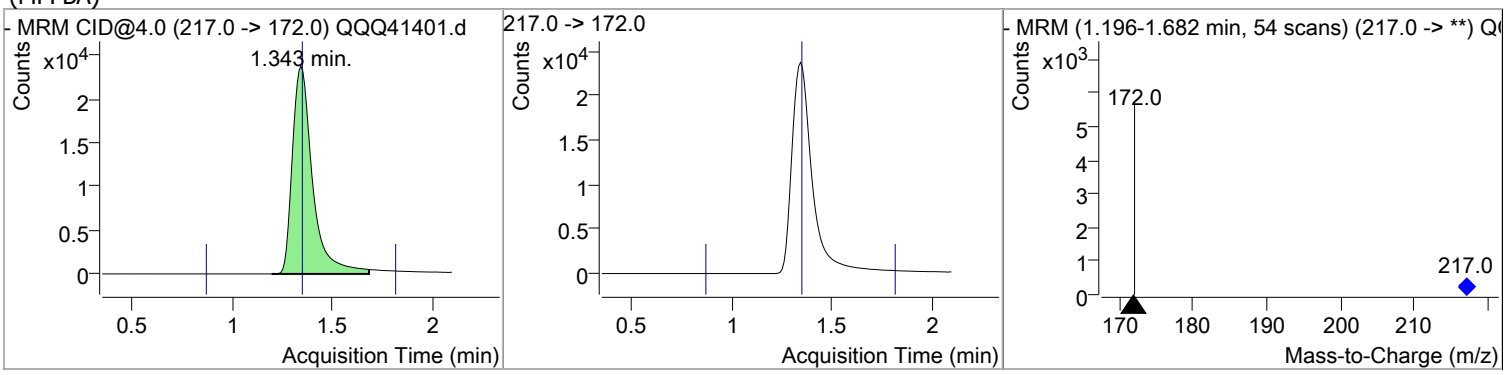
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.345	216.0 -> 172.0	31436	5.0000	ng/ml	0.092
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.343	217.0 -> 172.0	166320	10.0000	ng/ml	0.092
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.792	268.0 -> 223.0	116957	5.0000	ng/ml	0.065
MPFHxA	6.364	315.0 -> 269.8	33320	2.5000	ng/ml	-0.009
MPFHxS	7.307	403.0 -> 103.0	2965	2.3700	ng/ml	-0.075
M3PFBS-EIS	5.557	302.0 -> 79.9	13806	2.3300	ng/ml	0.028
M5PFHxA-EIS	6.372	318.0 -> 273.0	59178	2.5000	ng/ml	0.000
M2-4-2FTS-EIS	6.297	329.0 -> 309.0	8114	4.6900	ng/ml	0.000
M3PFHxS-EIS	7.308	402.0 -> 80.0	10703	2.3700	ng/ml	-0.075
M3-HFPO-DA-EIS	6.661	287.0 -> 169.0	5635	10.0000	ng/ml	-0.028
M4PFHpA-EIS	7.198	367.0 -> 322.0	12740	2.5000	ng/ml	-0.065
M2-6-2FTS-EIS	7.838	429.0 -> 409.0	6358	4.7550	ng/ml	-0.093
MPFOA	7.895	417.0 -> 372.0	39206	2.5000	ng/ml	-0.102
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.903	421.0 -> 376.0	31598	2.5000	ng/ml	-0.093
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.533	507.0 -> 98.9	5896	2.3950	ng/ml	-0.093
MPFNA	8.498	468.0 -> 423.0	16788	1.2500	ng/ml	-0.102
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.497	472.0 -> 223.0	4977	1.2500	ng/ml	-0.093
MPFOS	8.533	503.0 -> 80.0	10434	2.3950	ng/ml	-0.093
M2-8-2FTS-EIS	8.987	529.0 -> 509.0	18402	4.8000	ng/ml	-0.056
MPFDA	9.026	515.0 -> 469.8	12857	1.2500	ng/ml	-0.056
M6PFDA-EIS	9.016	519.0 -> 473.9	18116	1.2500	ng/ml	-0.065
d3-N-MeFOSAA-EIS	9.236	573.0 -> 418.8	23296	5.0000	ng/ml	-0.046
M7PFUdA-EIS	9.497	570.0 -> 525.0	30201	1.2500	ng/ml	-0.019
d5-N-EtFOSAA-EIS	9.486	589.0 -> 418.8	25072	5.0000	ng/ml	-0.019
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.648	506.0 -> 78.0	13835	2.5000	ng/ml	0.000
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.949	615.0 -> 570.0	28004	1.2500	ng/ml	0.056
M2PFTeDA-EIS	10.654	715.0 -> 670.0	15224	1.2500	ng/ml	0.166
d7-NMeFOSE-EIS	10.437	623.0 -> 59.0	7061	25.0000	ng/ml	0.138
d3-NMeFOSA-EIS	10.468	515.0 -> 219.0	624	2.5000	ng/ml	0.138
d9-NEtFOSE-EIS	10.711	639.0 -> 59.0	3465	25.0000	ng/ml	0.175
d5-NEtFOSA-EIS	10.631	531.0 -> 169.0	34	2.5000	ng/ml	0.055
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.343	217.0 -> 172.0	166322	10.5658	ng/ml	0.092
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.792	268.0 -> 223.0	116957	5.5023	ng/ml	0.065
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.557	302.0 -> 79.9	13807	2.6102	ng/ml	0.028
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.297	329.0 -> 309.0	8039	2.2764	ng/ml	0.000

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.372	318.0 -> 273.0	59180	2.7831	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.661	287.0 -> 169.0	5635	1.5160	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.198	367.0 -> 322.0	12740	2.6973	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.308	402.0 -> 80.0	10704	2.9007	ng/ml		-0.075
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.838	429.0 -> 409.0	6358	2.6887	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.903	421.0 -> 376.0	31599	2.5308	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.497	472.0 -> 223.0	4980	1.3920	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.533	507.0 -> 98.9	5885	3.0756	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.987	529.0 -> 509.0	18076	3.2547	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.016	519.0 -> 473.9	18116	1.2860	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.236	573.0 -> 418.8	23298	4.7258	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.486	589.0 -> 418.8	25071	5.7582	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.497	570.0 -> 525.0	30201	1.5840	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	506.0 -> 78.0	13835	2.2068	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.949	615.0 -> 570.0	27998	1.6703	ng/ml		0.056
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.437	623.0 -> 59.0	7058	14.0299	ng/ml		0.138
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.468	515.0 -> 219.0	624	0.9857	ng/ml		0.138
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.654	715.0 -> 670.0	15106	2.0199	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.711	639.0 -> 59.0	3468	15.4819	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.751	531.0 -> 169.0	540	1.3929	ng/ml	m	0.175
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.173	213.0 -> 168.9	7	0.0005	ng/ml		100
PFMPA	2.171	229.0 -> 85.0	2	0.0003	ng/ml		100
3:3FTCA	4.507	241.0 -> 177.0	6	0.0144	ng/ml	#	52
Perfluoro-n-pentanoic acid (PFPeA)	4.756	263.0 -> 219.0	51	0.0023	ng/ml		100
PFMBA	5.551	279.0 -> 85.0	31	0.0032	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.567	298.9 -> 79.9	9	0.0014	ng/ml	#	49
PFEESA	6.075	315.0 -> 135.0	64	0.0020	ng/ml	#	79
NFDHA	5.994	295.0 -> 201.1	1	0.0028	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.316	327.0 -> 307.0	18	0.0083	ng/ml	#	82

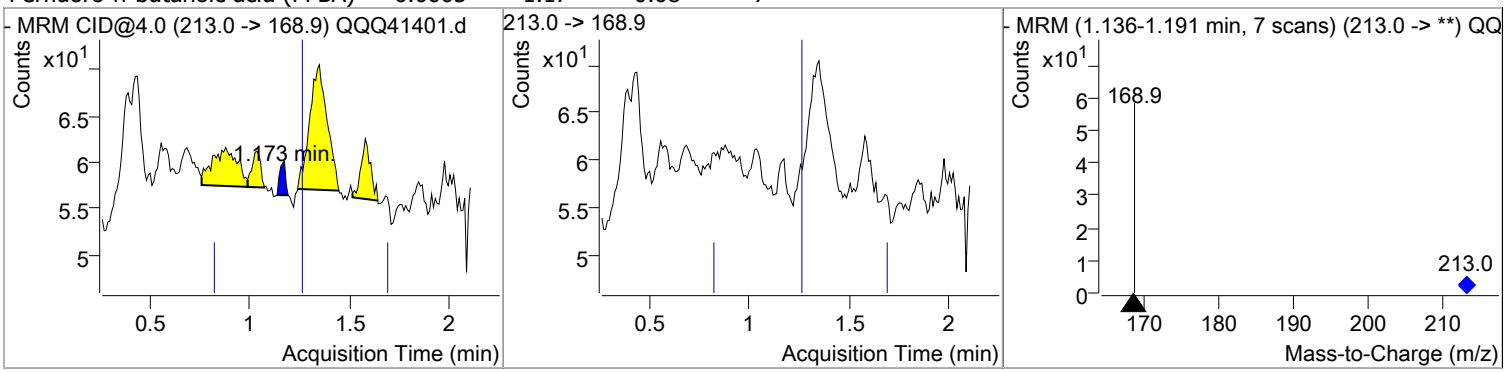
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.373	313.0 -> 268.9	97	0.0036	ng/ml	#	1
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.630	348.9 -> 79.9	5	0.0008	ng/ml		37
HFPO-DA	6.124	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.421	363.0 -> 318.8	37	0.0033	ng/ml		43
5-3FTCA	7.291	341.0 -> 217.0	352	0.0929	ng/ml	#	54
Perfluorohexanesulfonic acid (PFHxS)	7.317	398.9 -> 79.9	65	0.0124	ng/ml	#	29
ADONA	7.327	377.0 -> 85.0	58	0.0467	ng/ml	#	15
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.829	427.0 -> 407.0	36	0.0173	ng/ml		63
Perfluorooctanoic acid (PFOA)	8.044	413.0 -> 368.8	30	0.0000	ng/ml		37
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.060	448.9 -> 80.0	12	0.0020	ng/ml	#	1
Perfluorononanoic acid (PFNA)	8.618	463.0 -> 418.8	32	0.0025	ng/ml		45
Perfluorooctanesulfonic acid (PFOS)	8.543	498.9 -> 79.9	10	0.0000	ng/ml	#	64
7-3FTCA	8.684	441.0 -> 337.0	1076	0.2119	ng/ml	#	75
9-Cl-PF3ONS	8.856	531.0 -> 351.0	172	0.0504	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.006	527.0 -> 80.9	4	0.0042	ng/ml		1
Perfluorodecanoic acid (PFDA)	9.017	513.0 -> 468.8	13	0.0008	ng/ml	#	1
Perfluorononanesulfonate (L-PFNS)	9.061	548.9 -> 79.9	7	0.0015	ng/ml	#	21
N-MeFOSAA	9.283	570.0 -> 418.9	14	0.0036	ng/ml	#	44
Perfluoroundecanoic acid (PFUnA)	9.479	563.0 -> 519.0	149	0.0000	ng/ml	#	88
Perfluoro-1-decanesulfonate (L-PFDS)	9.551	598.9 -> 98.9	22	0.0104	ng/ml		100
N-EtFOSAA	9.487	584.0 -> 418.8	14	0.0032	ng/ml	#	1
Perfluoro-1-octanesulfonamide (FOSA)	9.667	497.9 -> 78.0	43	0.0054	ng/ml		100
11-Cl-PF3OUdS	9.780	631.0 -> 451.0	274	0.1164	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.941	613.0 -> 568.8	142	0.0078	ng/ml	#	80
Perfluorododecanesulfonic acid (PFDoS)	10.195	699.0 -> 80.0	14	0.0119	ng/ml		1
Perfluorotridecanoic acid (PFTrDA)	10.325	663.0 -> 618.8	380	0.0247	ng/ml		100
NMeFOSE	10.235	616.0 -> 59.0	4	0.0172	ng/ml		100
NMeFOSA	10.285	512.0 -> 169.0	3	0.0000	ng/ml		1
Perfluorotetradecanoic acid (PFTA)	10.516	713.0 -> 669.0	14	0.0012	ng/ml		72
NEtFOSE	10.564	630.0 -> 59.0	1	0.0039	ng/ml		100
NEtFOSA	10.605	526.0 -> 169.0	1	0.0331	ng/ml		1

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

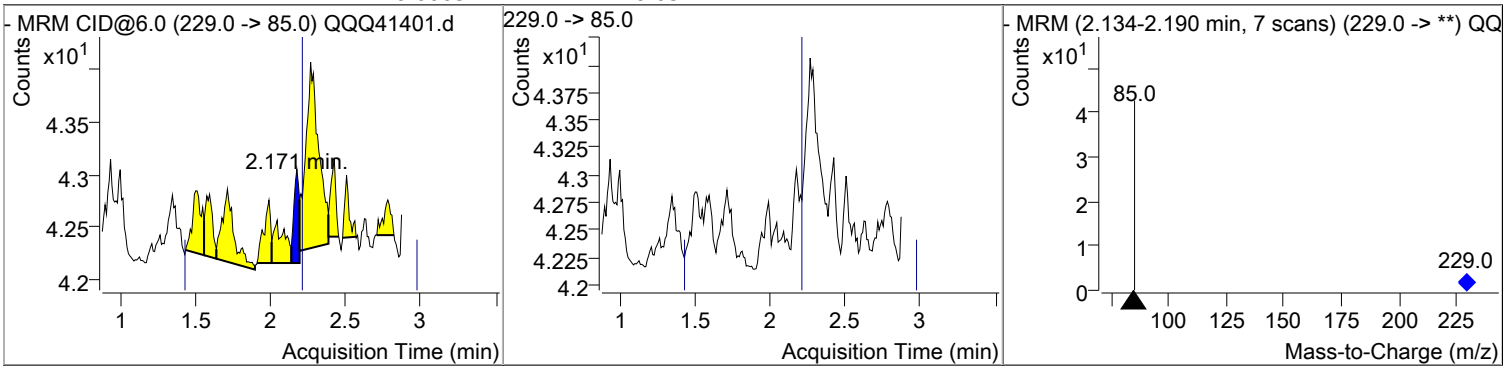
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	10.5658	1.34	0.09	166322				



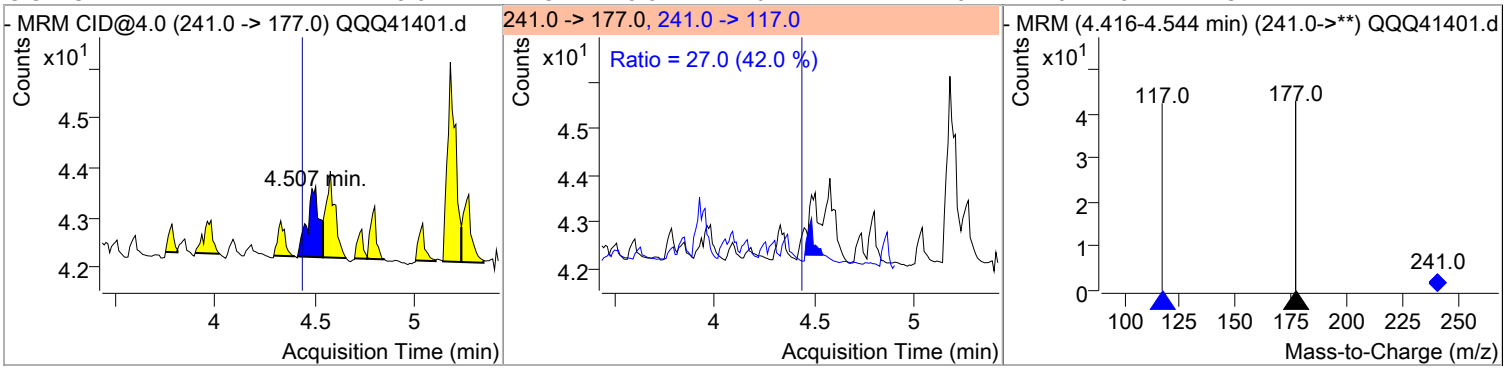
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0005	1.17	-0.08	7				



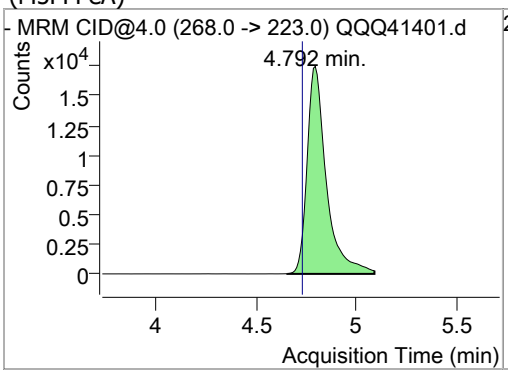
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0003	2.17	-0.03	2				

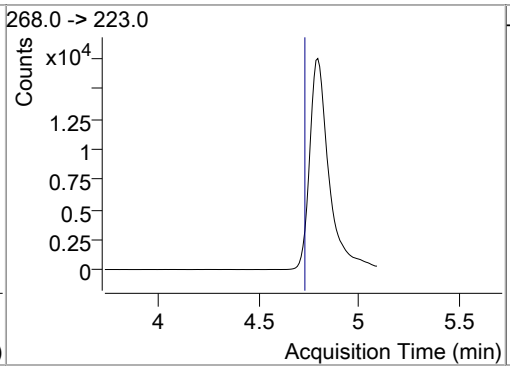


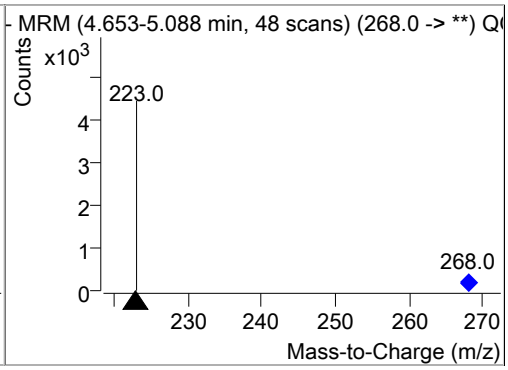
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0144	4.51	0.07	6	241.0 -> 117.0	27.0	51.4	77.2



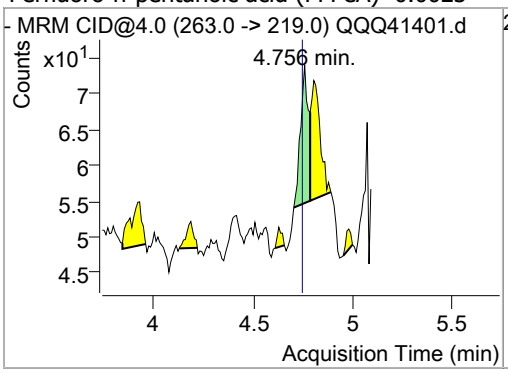
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.5023	4.79	0.06	116957				

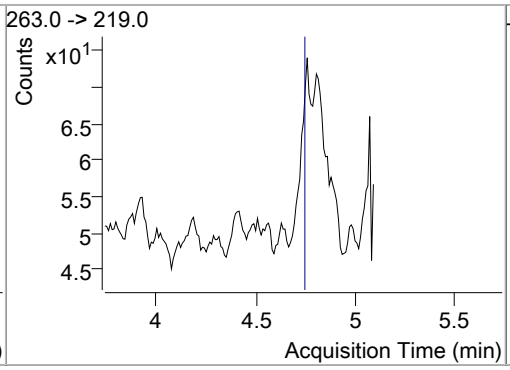


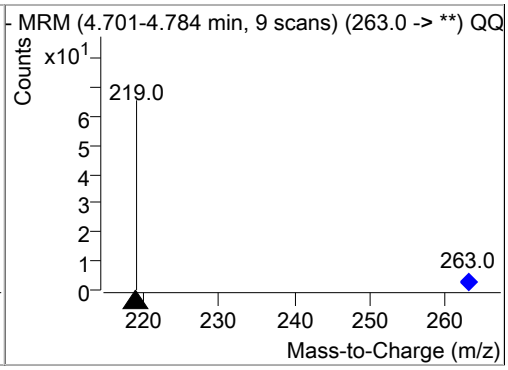




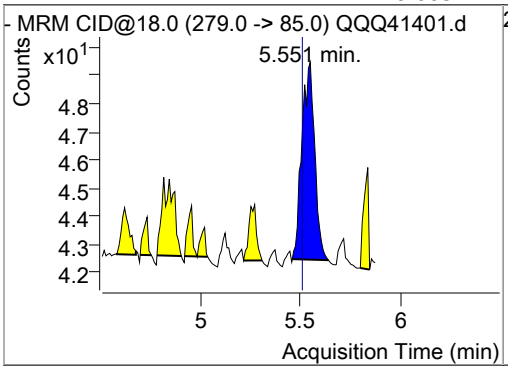
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0023	4.76	0.02	51				

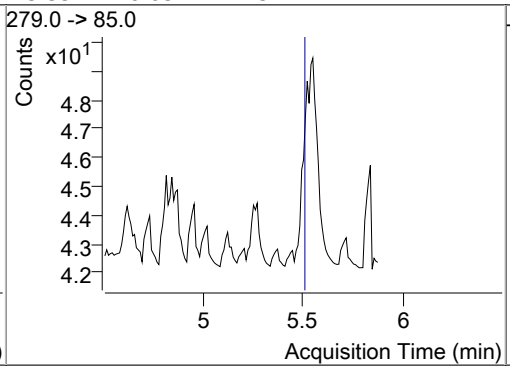


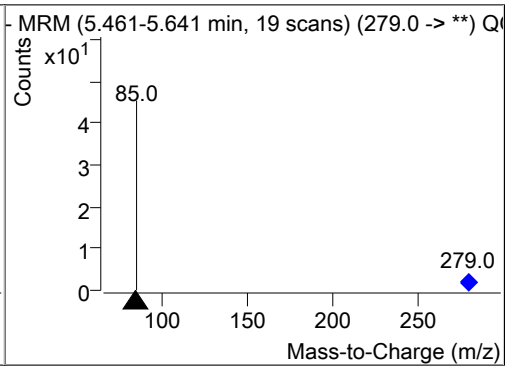




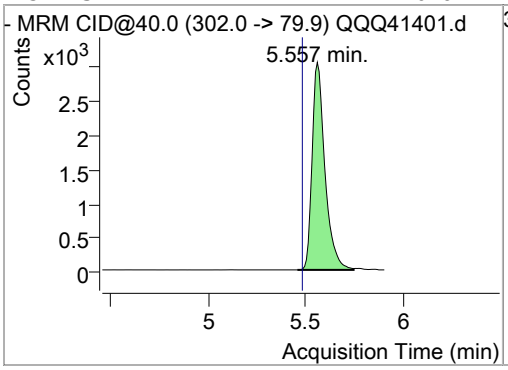
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0032	5.55	0.05	31				

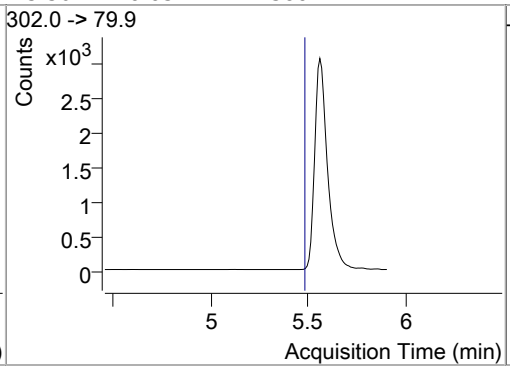


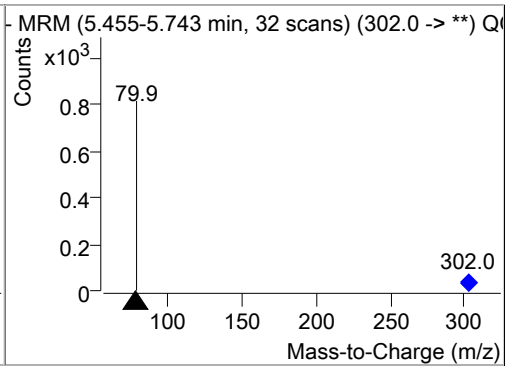




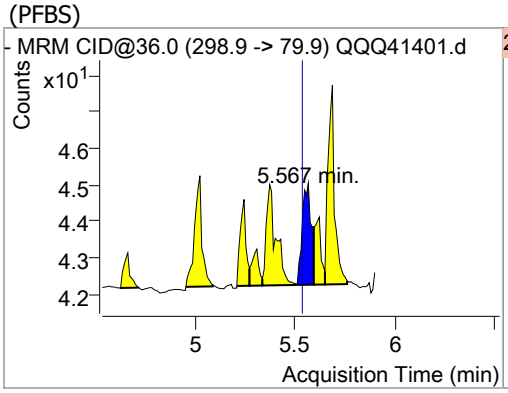
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.6102	5.56	0.03	13807				

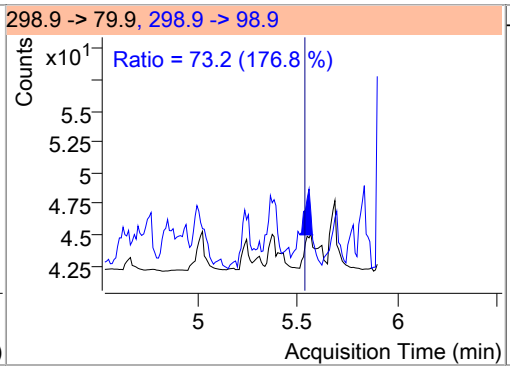


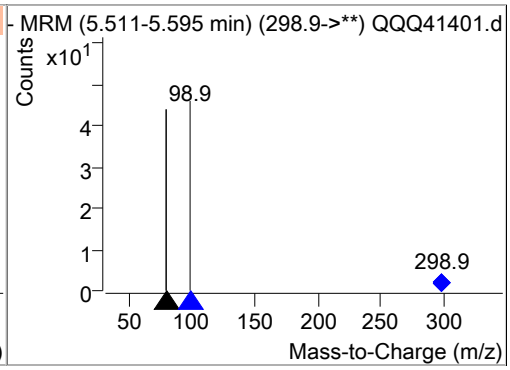




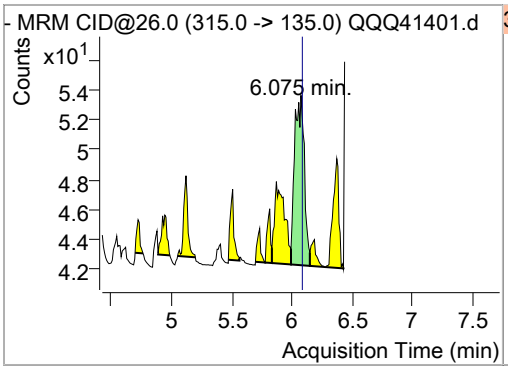
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0014	5.57	0.04	9	298.9 -> 98.9	73.2	33.1	49.7

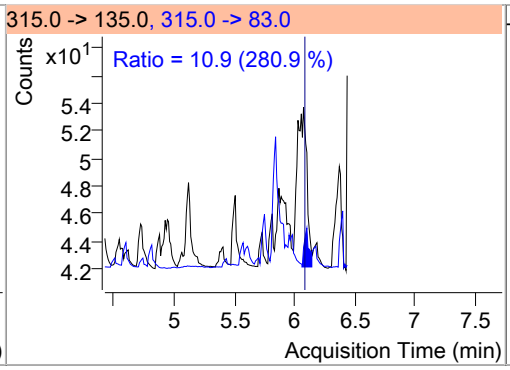


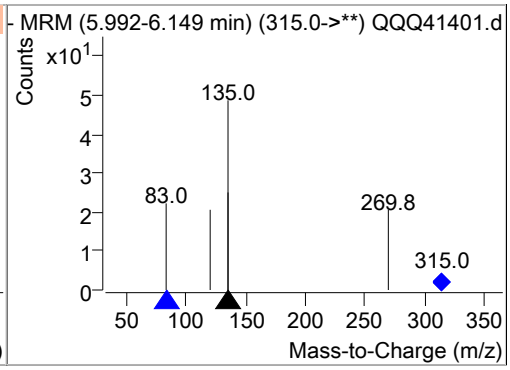




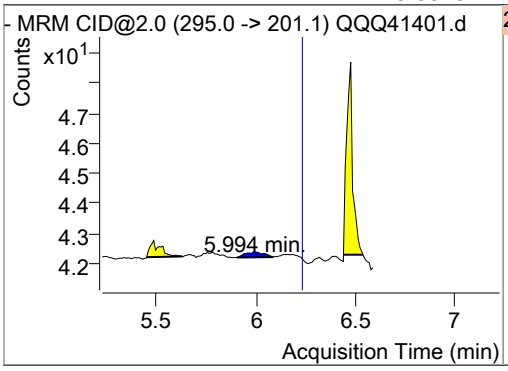
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0020	6.08	0.00	64	315.0 -> 83.0	10.9	3.1	4.7

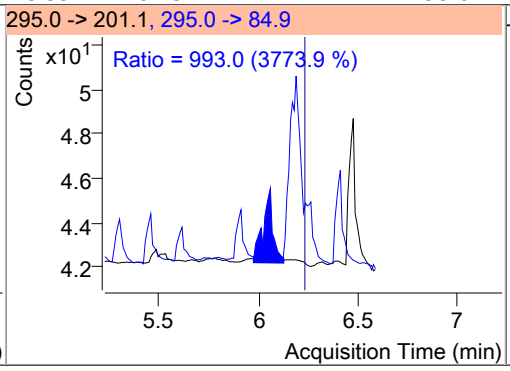


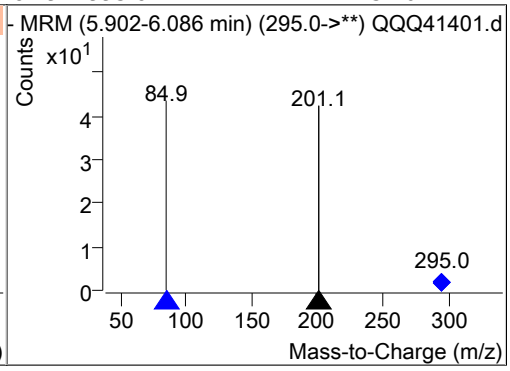




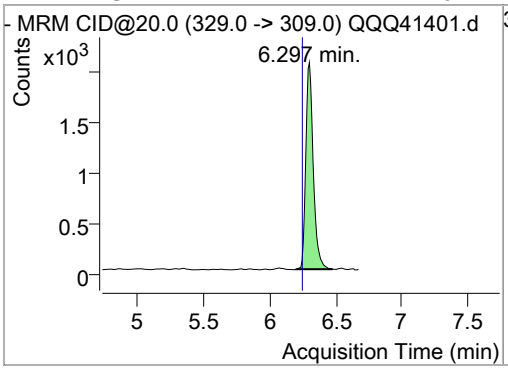
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0028	5.99	-0.23	1	295.0 -> 84.9	993.0	21.1	31.6

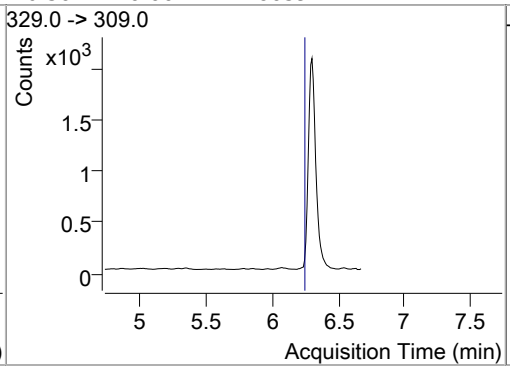


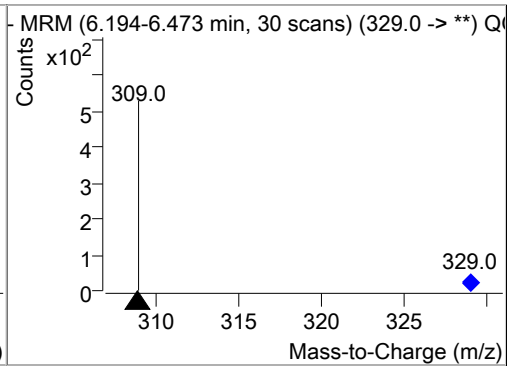




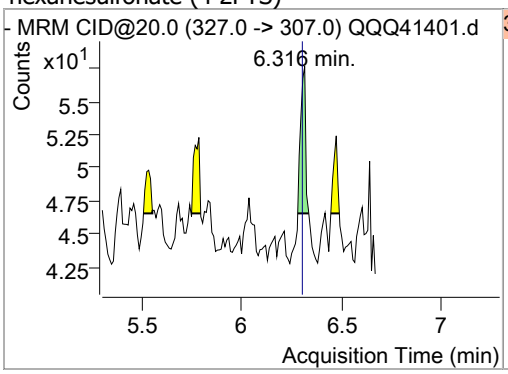
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	2.2764	6.30	0.00	8039				

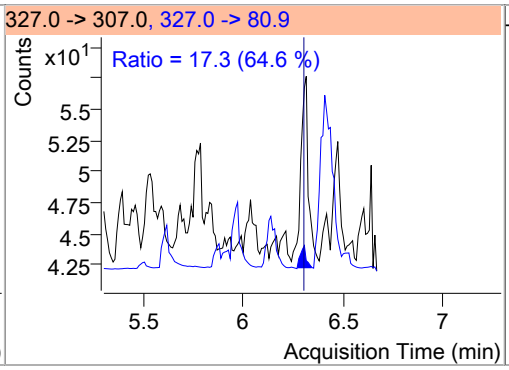


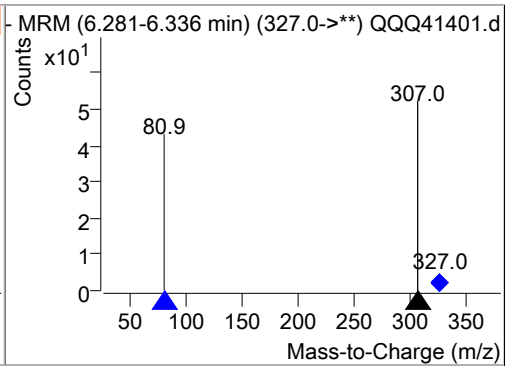




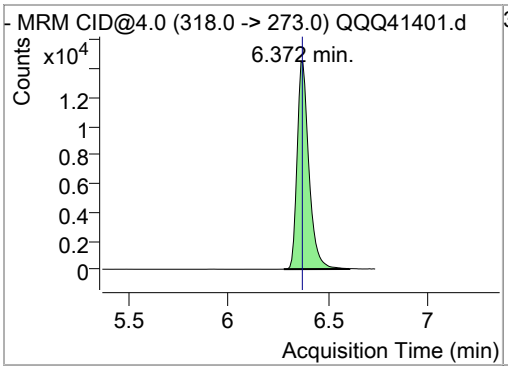
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0083	6.32	0.02	18	327.0 -> 80.9	17.3	21.5	32.2

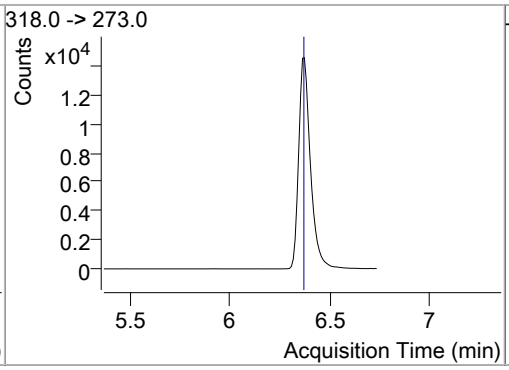


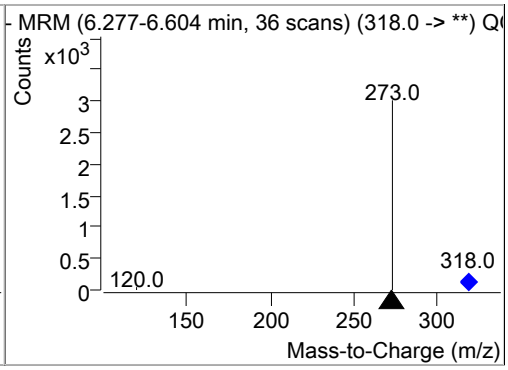




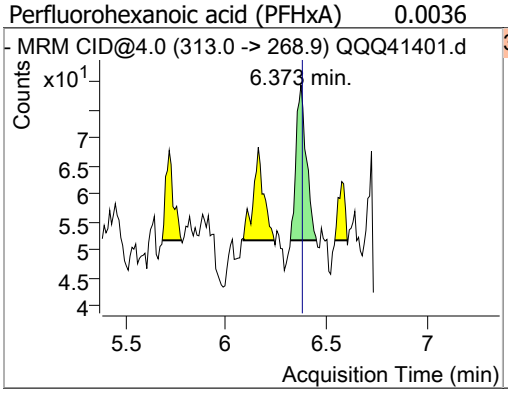
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.7831	6.37	0.00	59180				

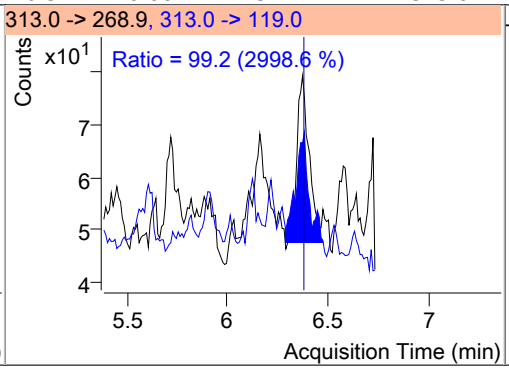


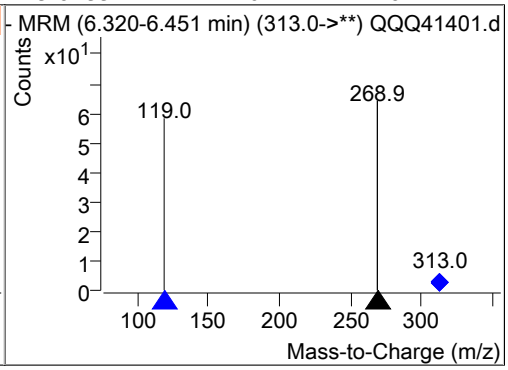




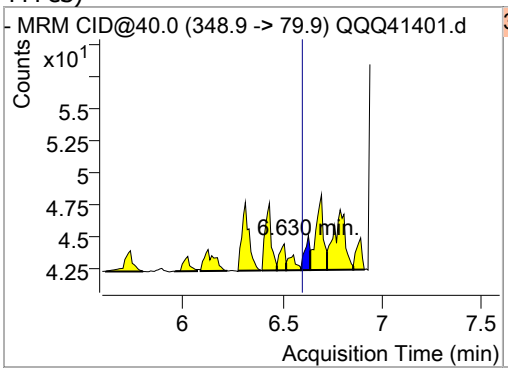
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0036	6.37	0.00	97	313.0 -> 119.0	99.2	2.6	4.0

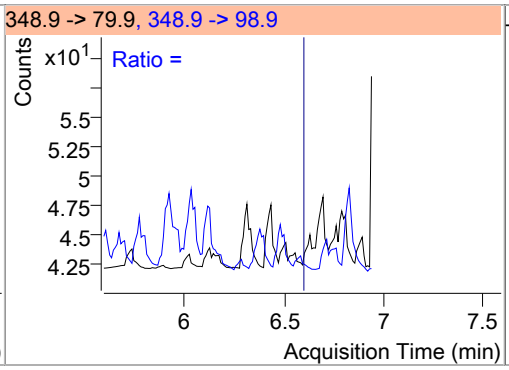


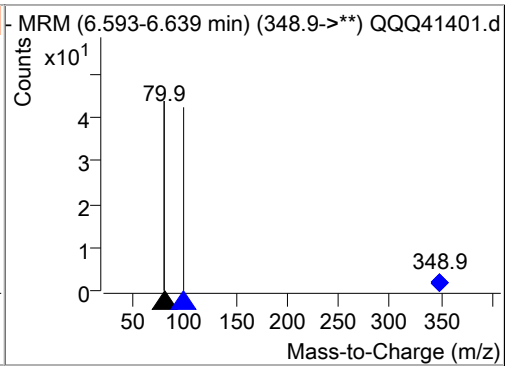




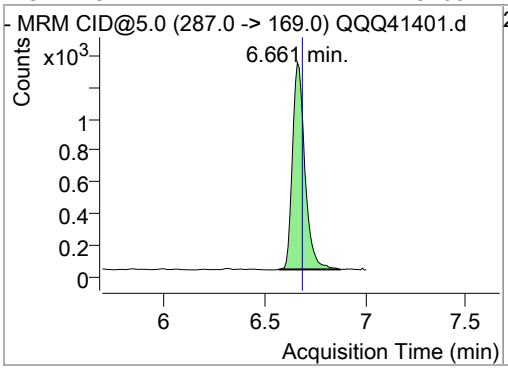
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0008	6.63	0.04	5	348.9 -> 98.9		30.4	45.6

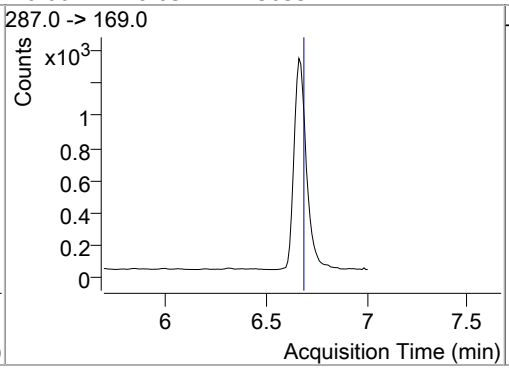


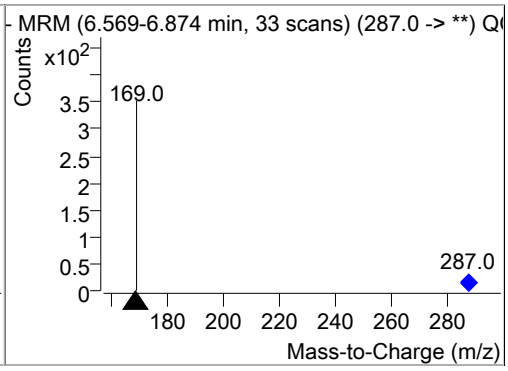




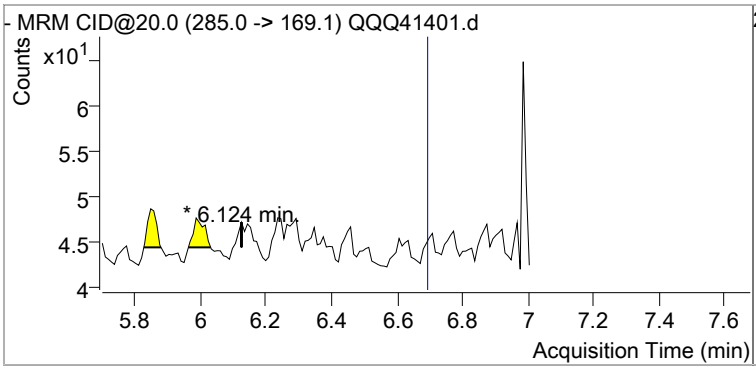
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	1.5160	6.66	-0.03	5635				

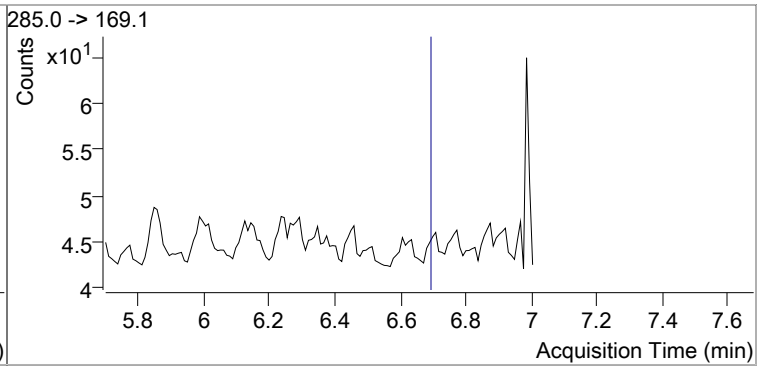




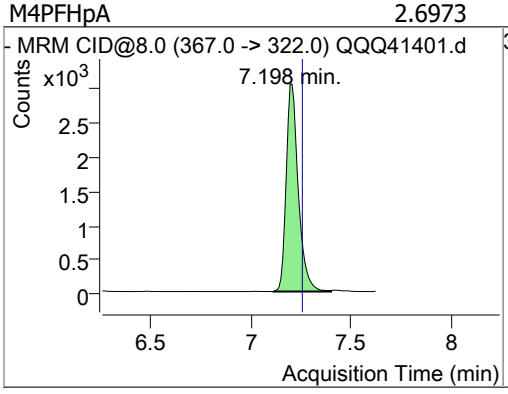


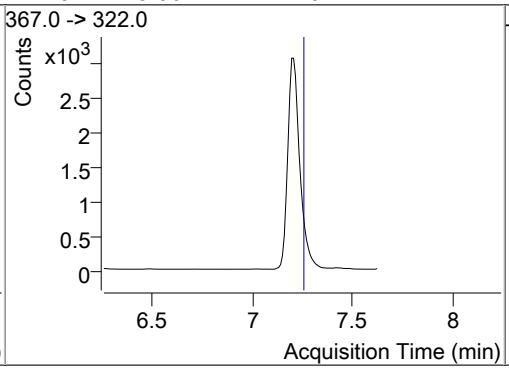
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

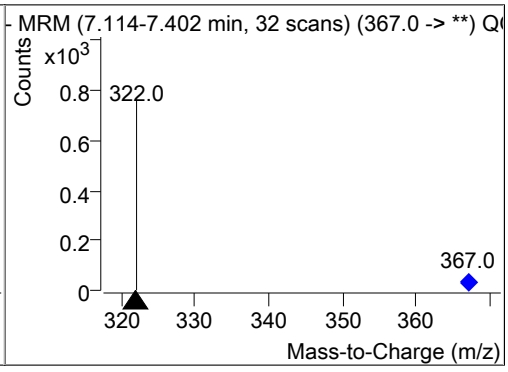




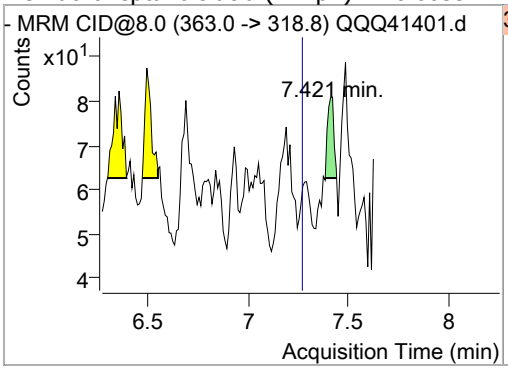
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.6973	7.20	-0.06	12740				

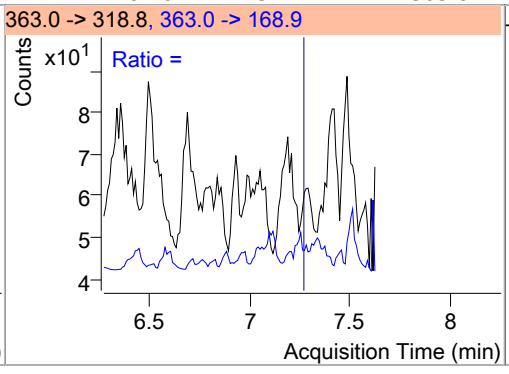


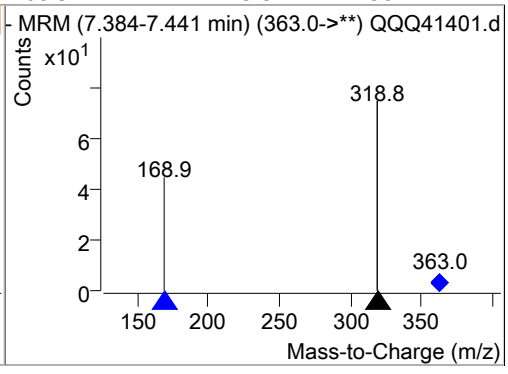




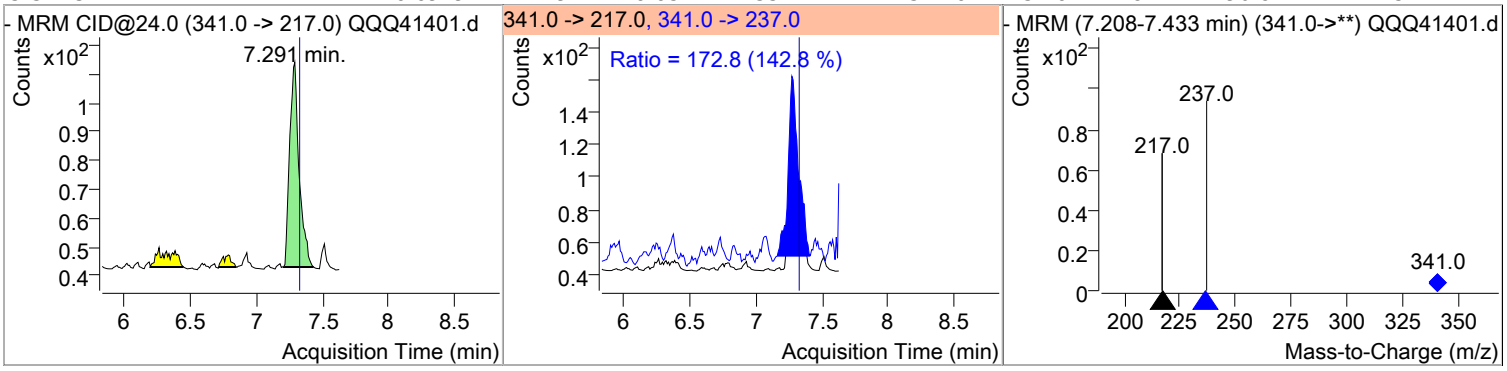
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0033	7.42	0.16	37	363.0 -> 168.9		25.5	38.2



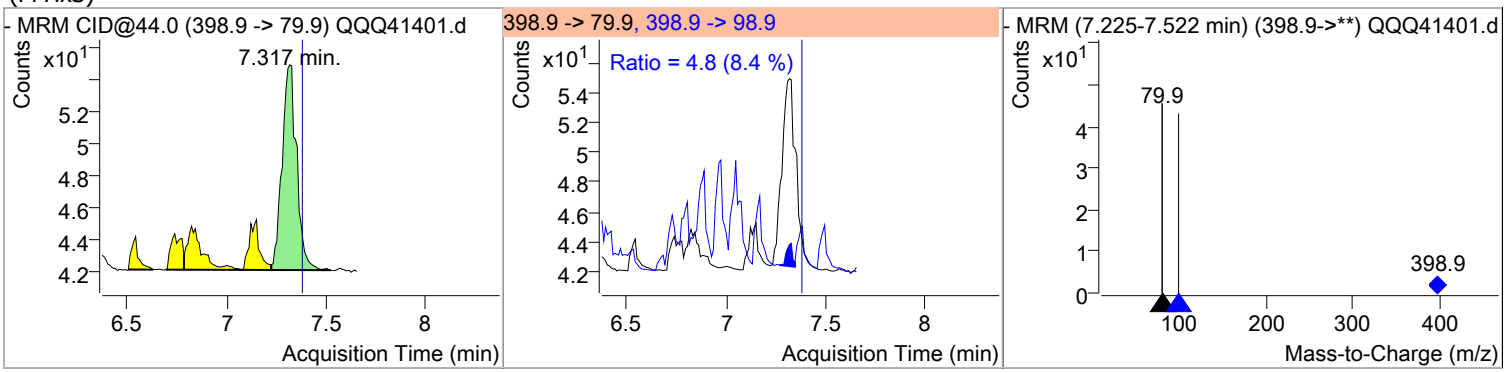




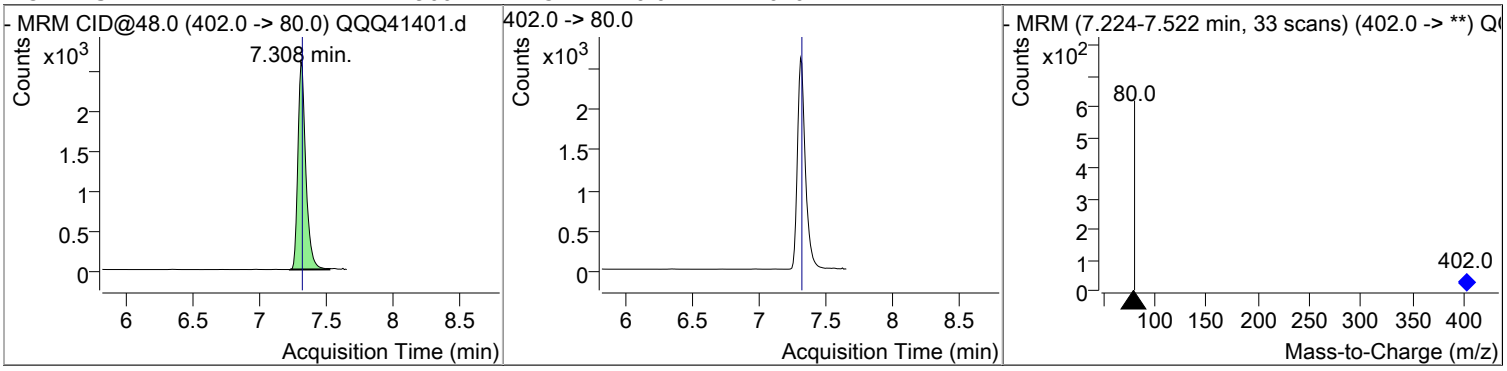
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.0929	7.29	-0.05	352	341.0 -> 237.0	172.8	96.8	145.2



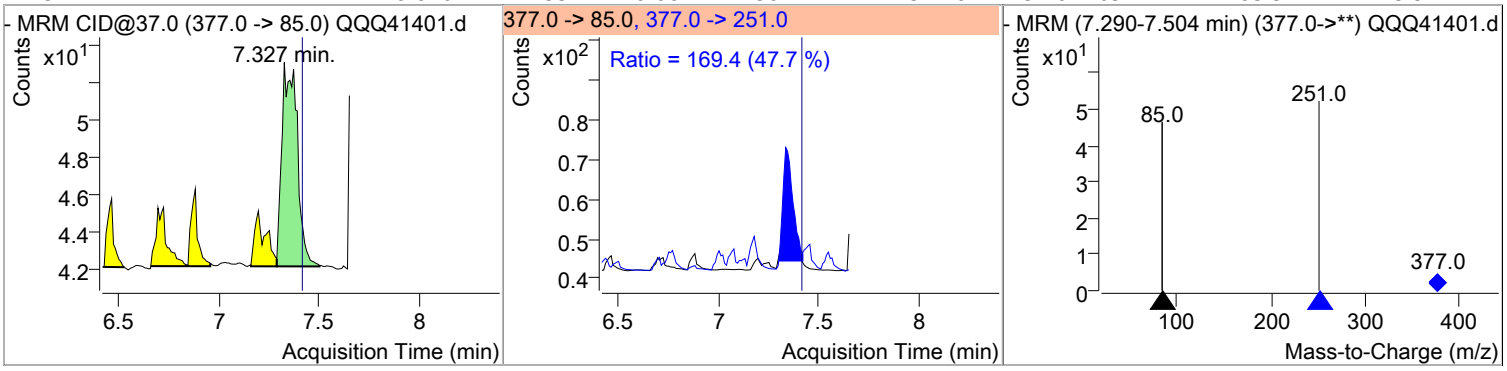
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0124	7.32	-0.06	65	398.9 -> 98.9	4.8	46.2	69.3



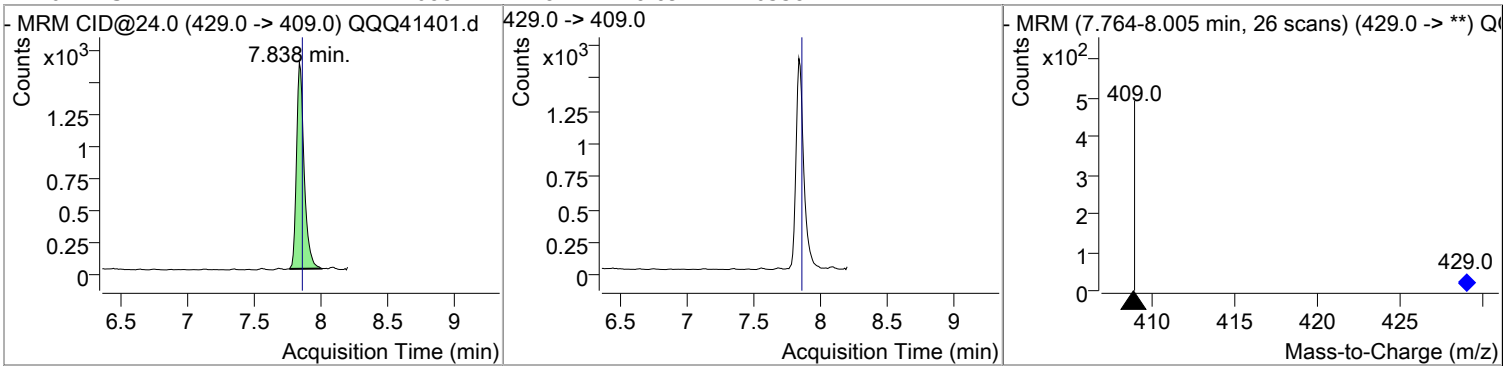
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.9007	7.31	-0.07	10704				



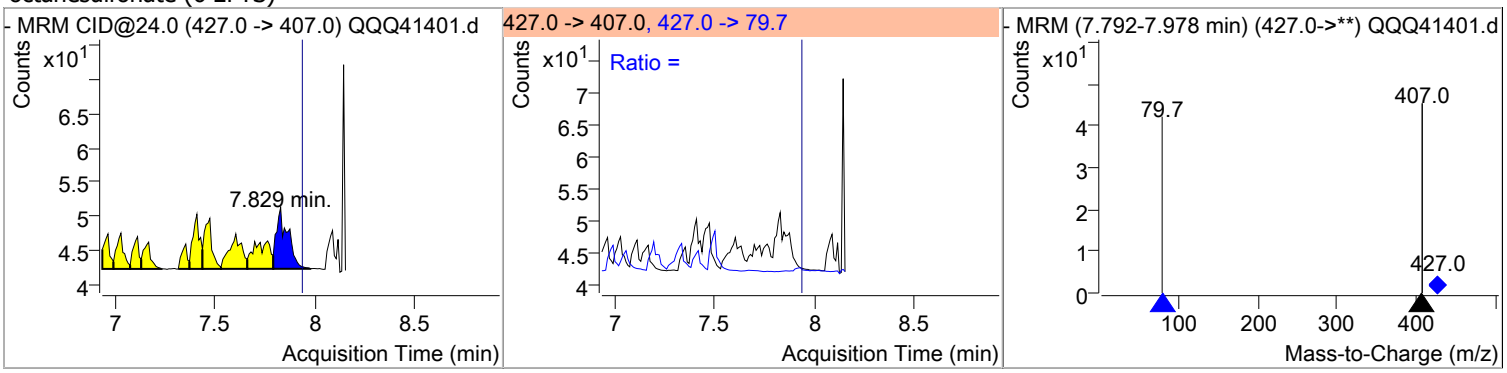
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0467	7.33	-0.08	58	377.0 -> 251.0	169.4	283.9	425.9



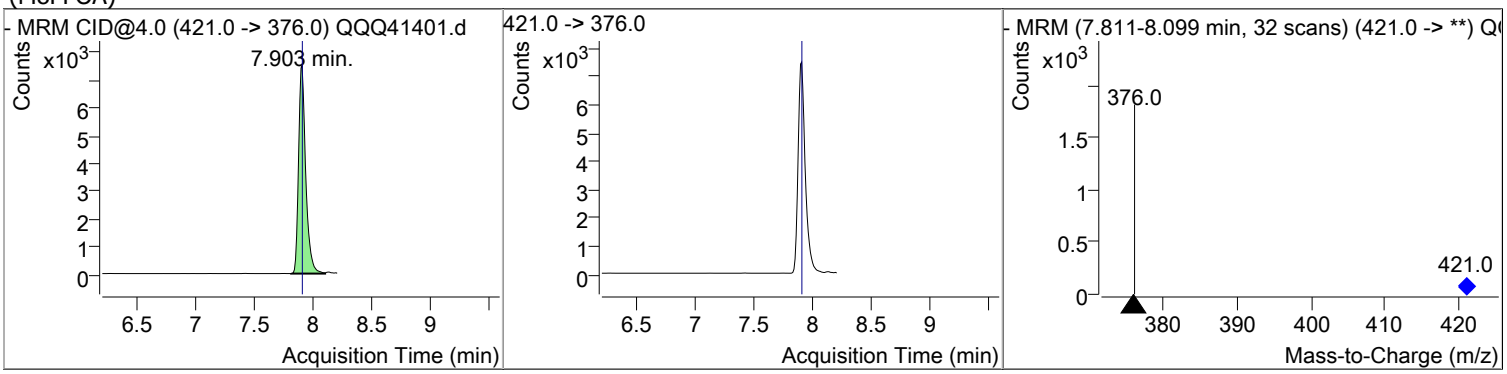
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	2.6887	7.84	-0.09	6358				



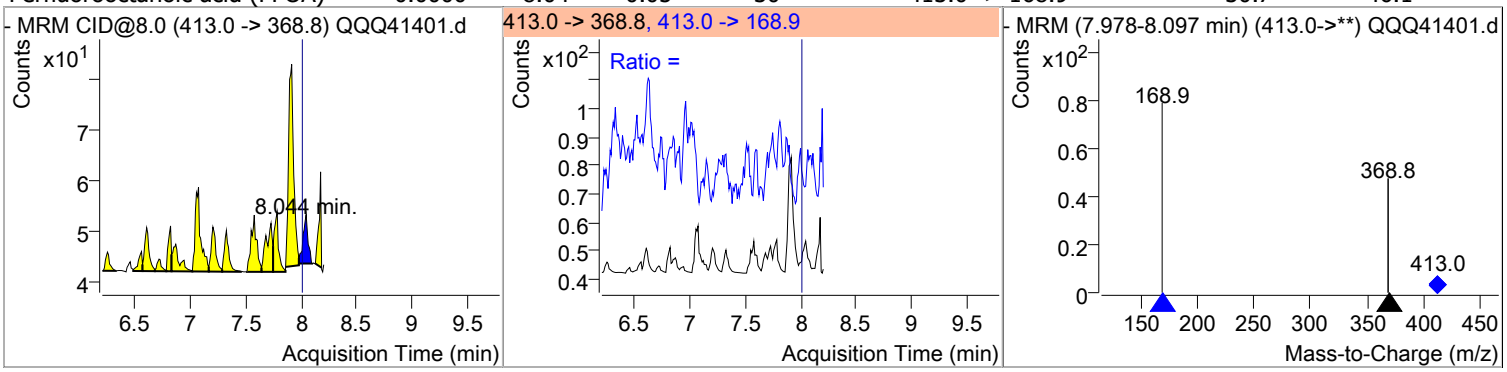
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0173	7.83	-0.10	36	427.0 -> 79.7		12.3	18.5



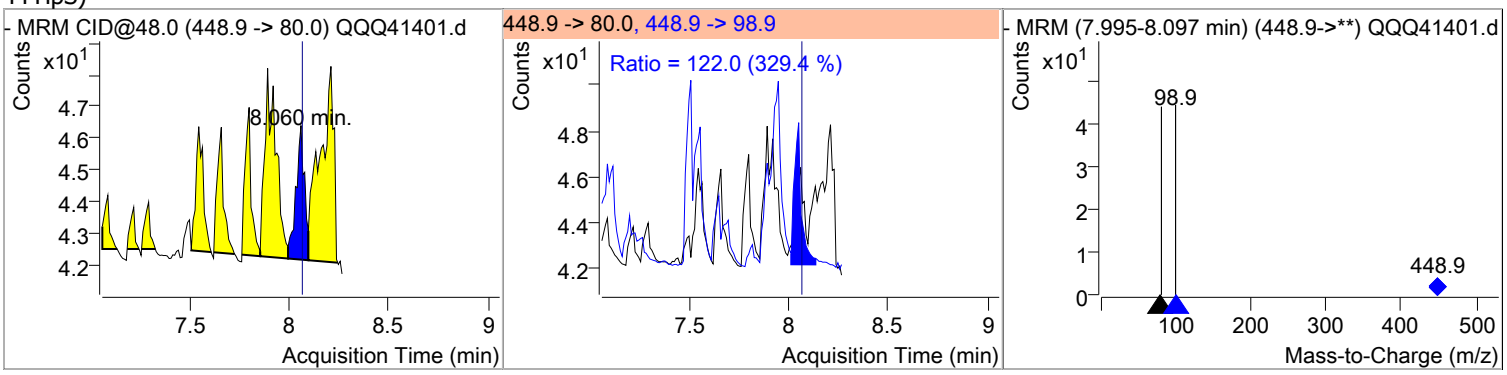
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.5308	7.90	-0.09	31599				



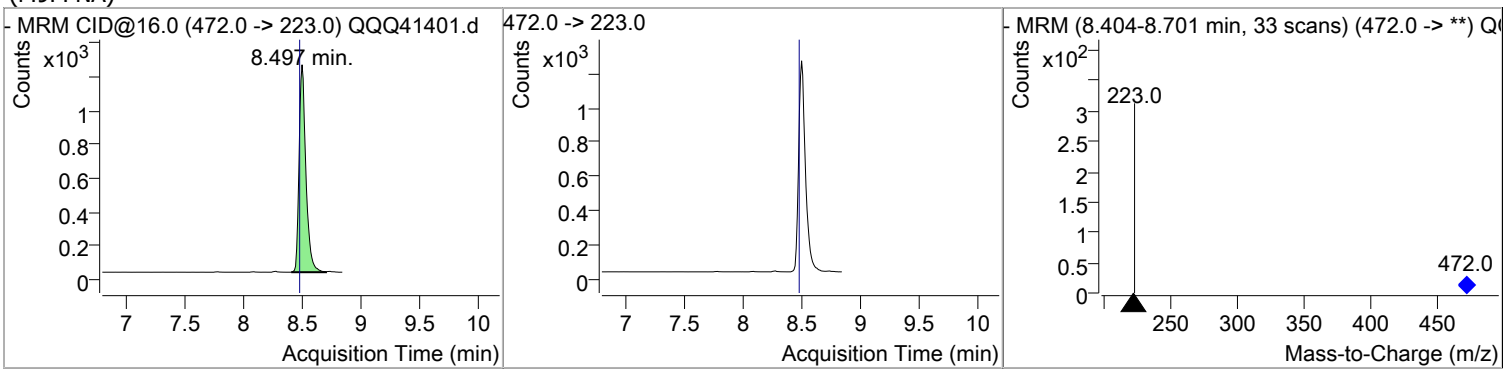
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	8.04	0.05	30	413.0 -> 168.9		30.7	46.1



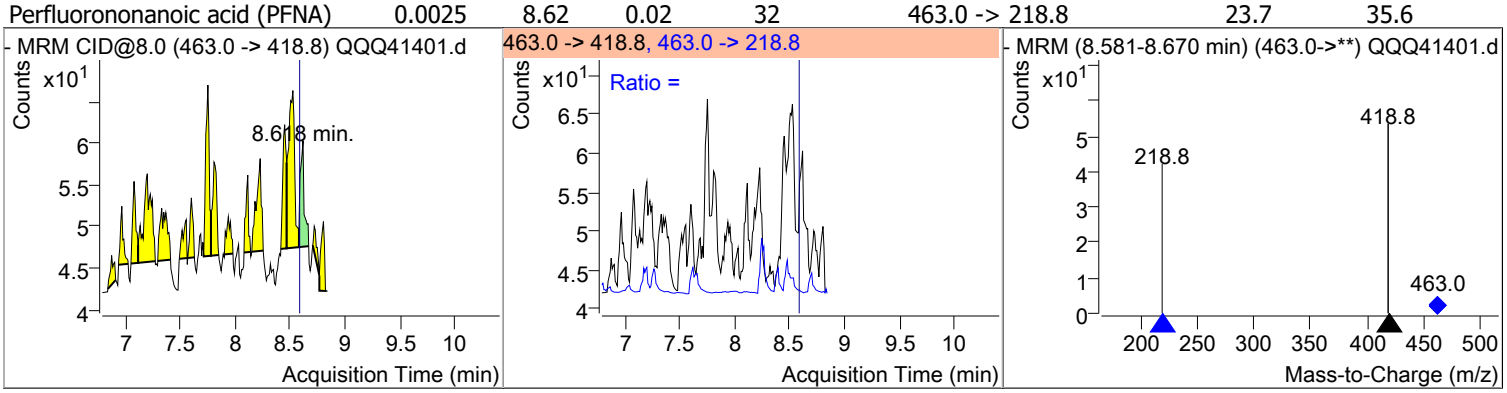
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0020	8.06	0.00	12	448.9 -> 98.9	122.0	29.6	44.4



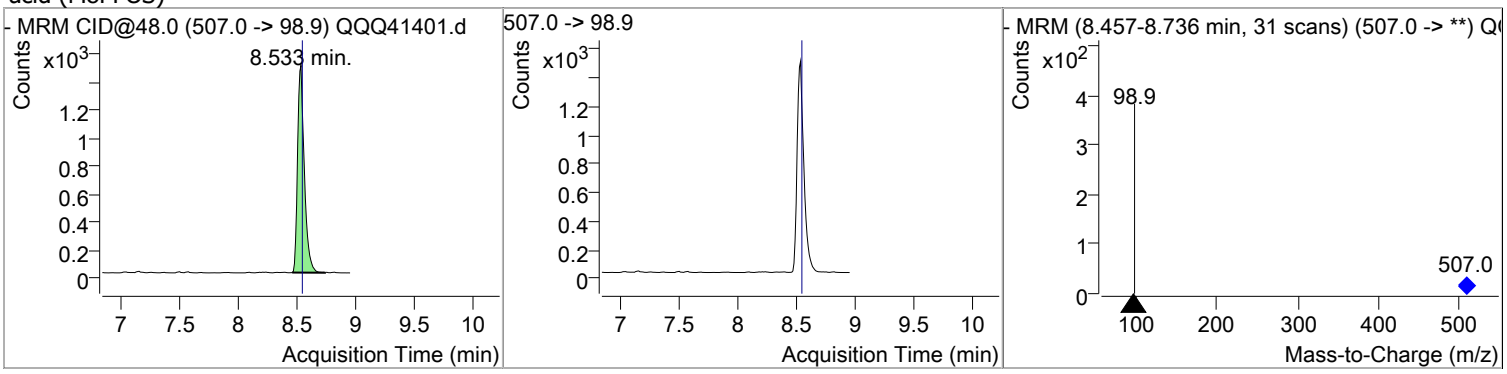
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.3920	8.50	-0.09	4980				



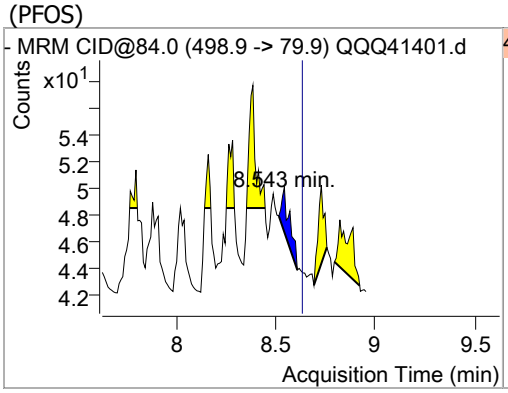
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0025	8.62	0.02	32	463.0 -> 218.8		23.7	35.6

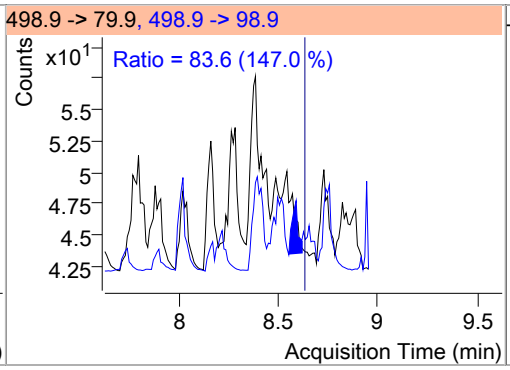


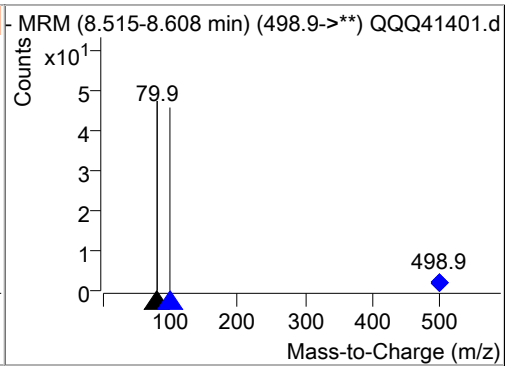
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	3.0756	8.53	-0.09	5885				



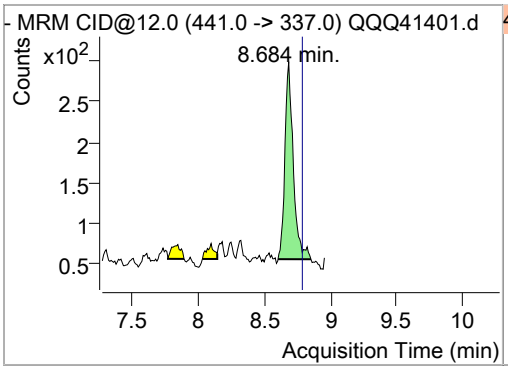
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.54	-0.08	10	498.9 -> 98.9	83.6	45.5	68.3

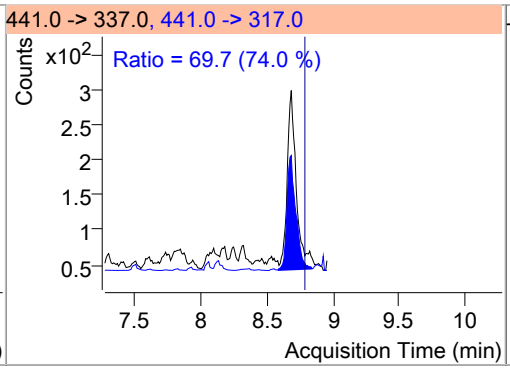


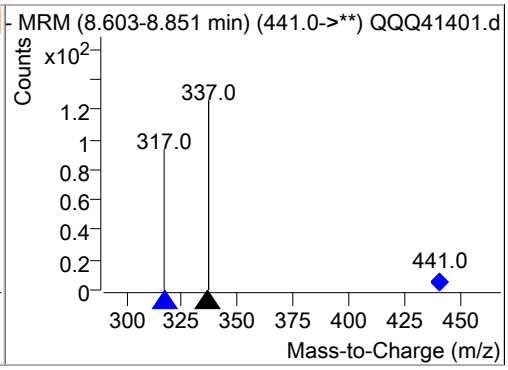




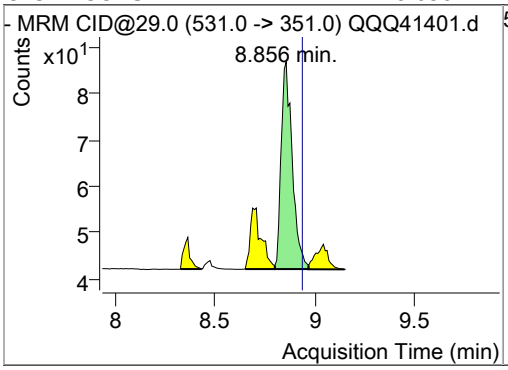
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.2119	8.68	-0.09	1076	441.0 -> 317.0	69.7	75.4	113.1

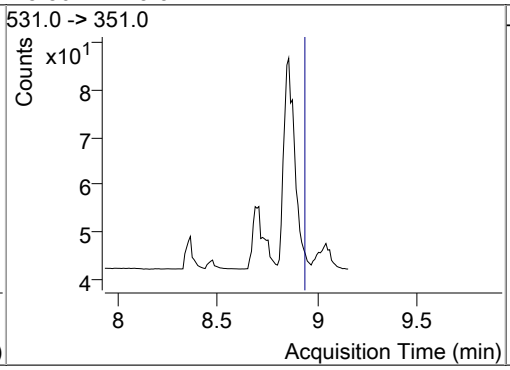


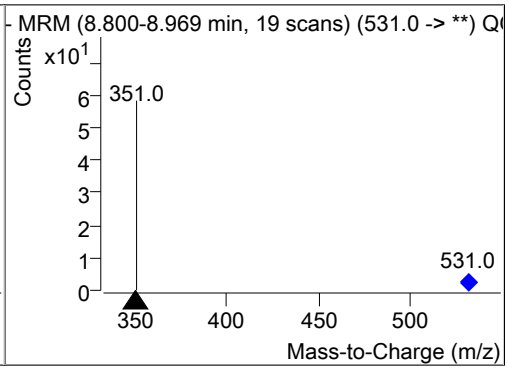




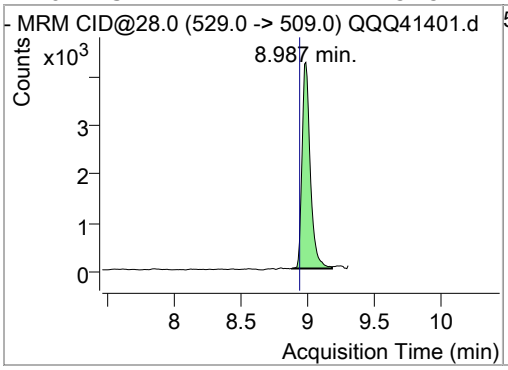
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0504	8.86	-0.07	172				

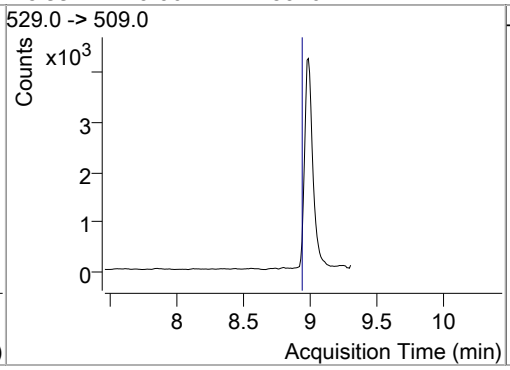


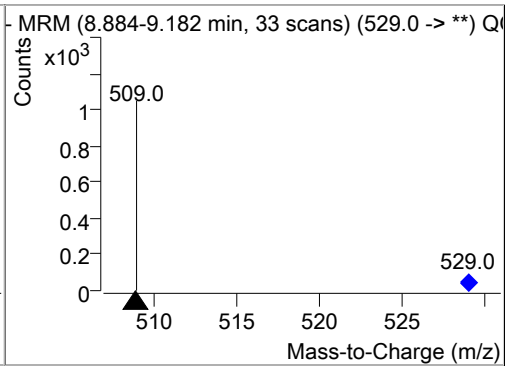




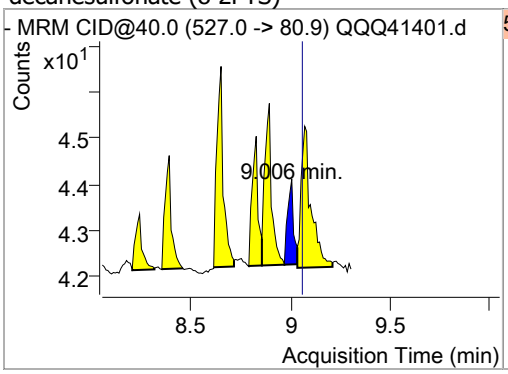
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	3.2547	8.99	-0.06	18076				

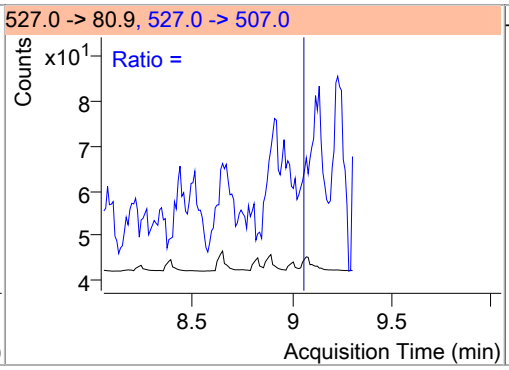


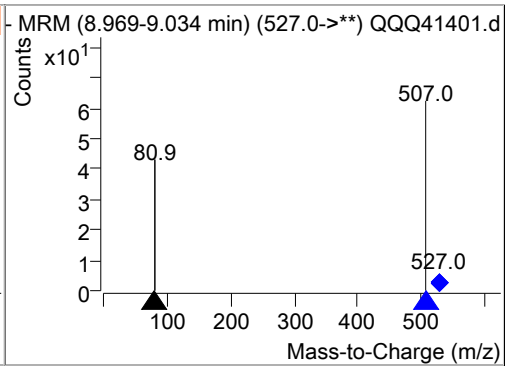




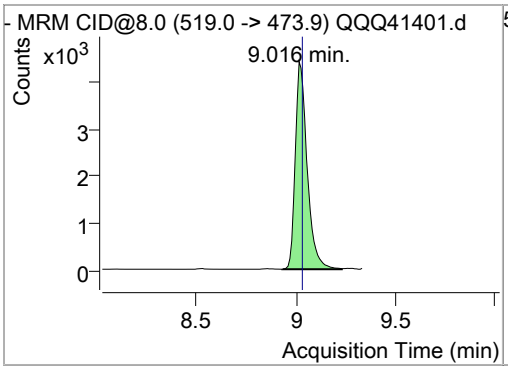
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0042	9.01	-0.05	4	527.0 -> 507.0		318.3	477.4

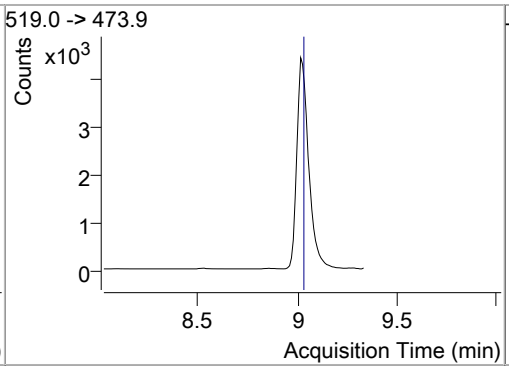


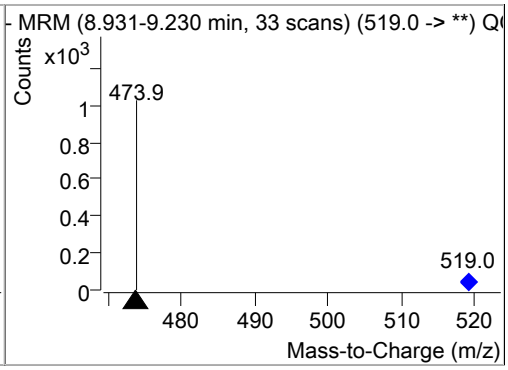




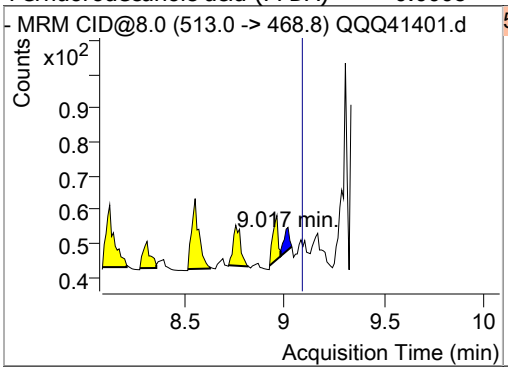
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2860	9.02	-0.07	18116				

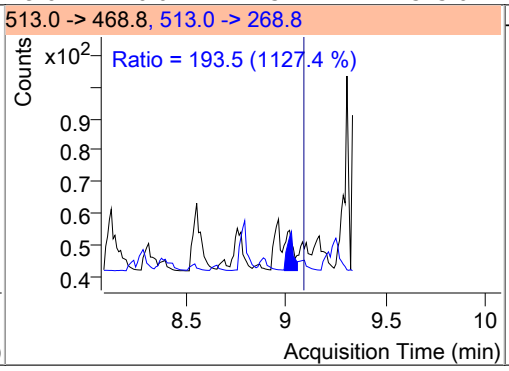


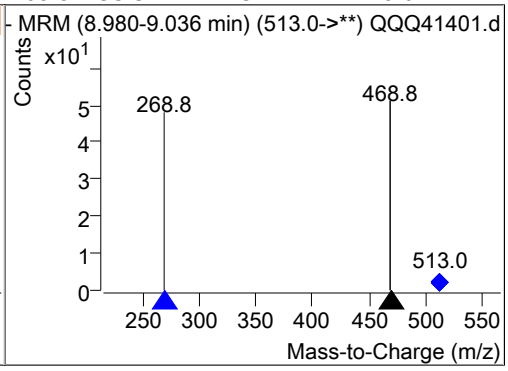




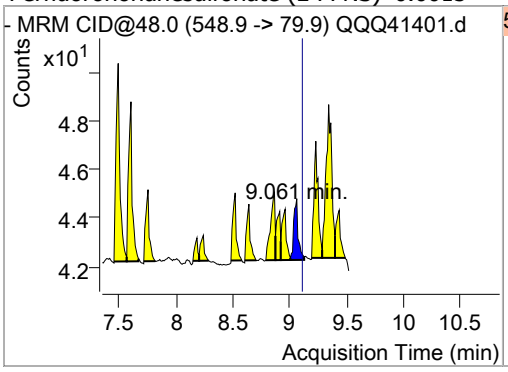
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0008	9.02	-0.07	13	513.0 -> 268.8	193.5	13.7	20.6

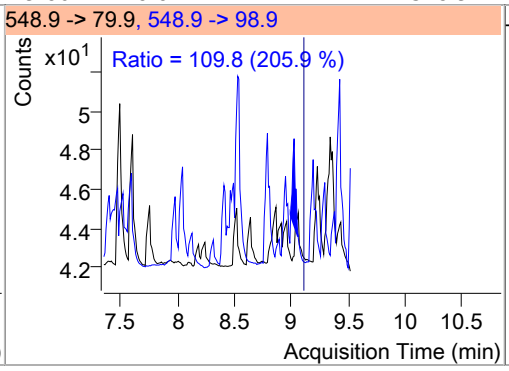


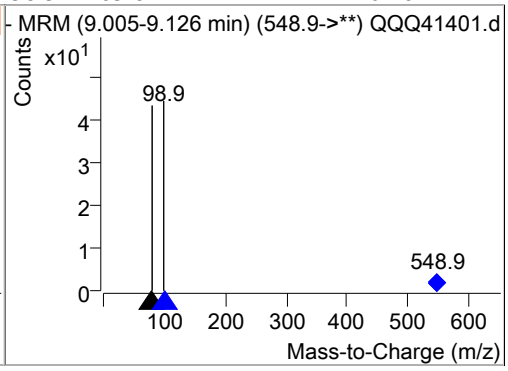




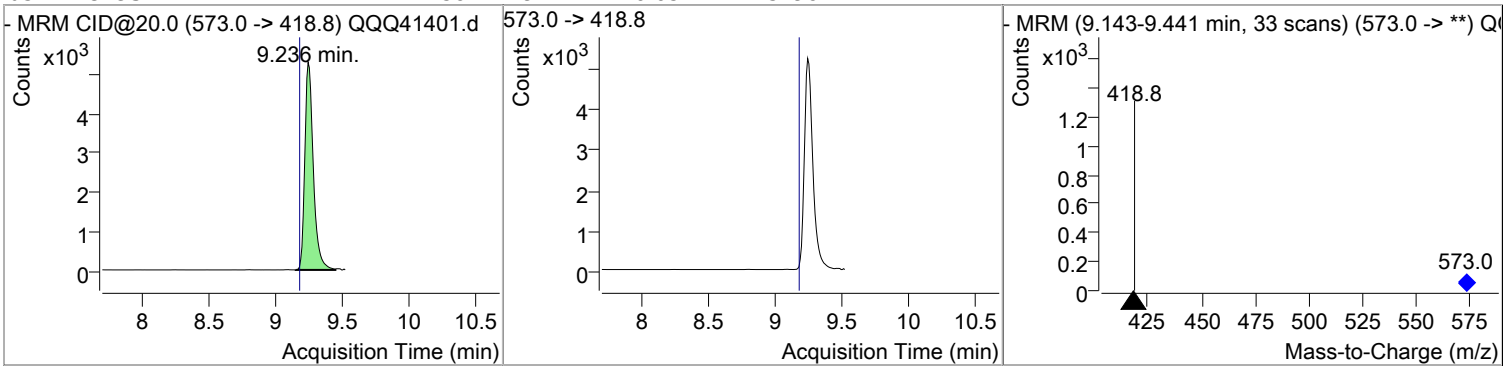
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0015	9.06	-0.04	7	548.9 -> 98.9	109.8	42.7	64.0



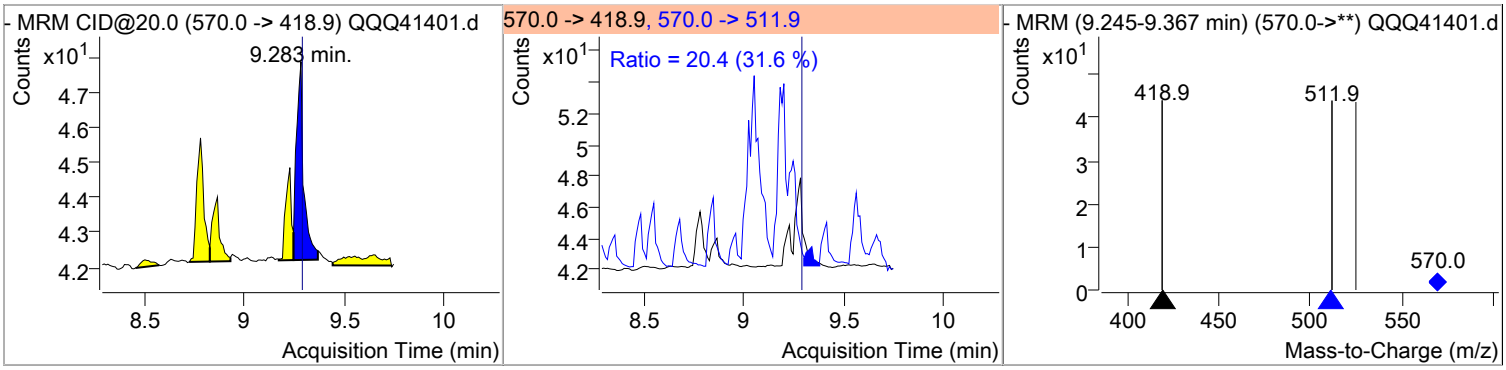




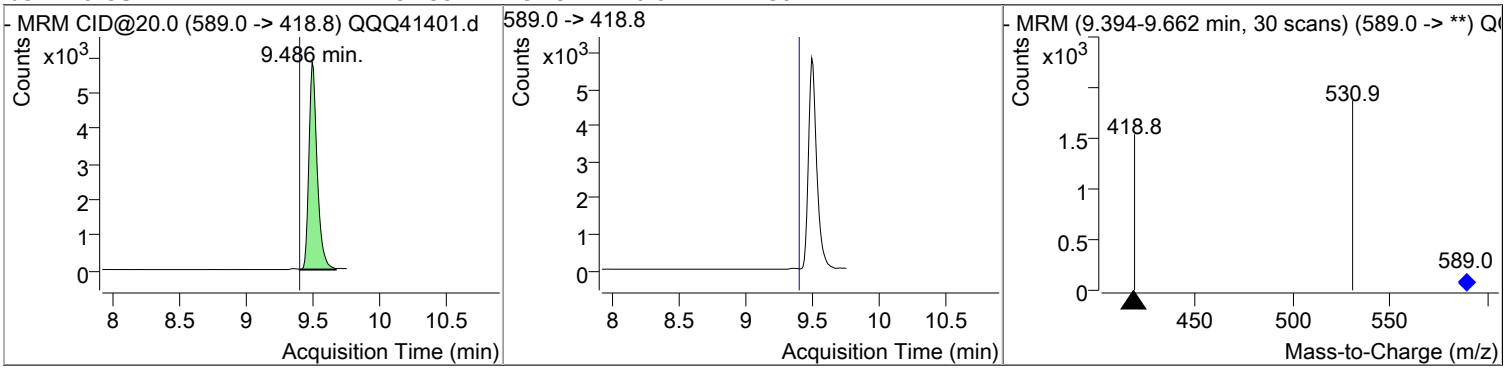
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	4.7258	9.24	-0.05	23298				



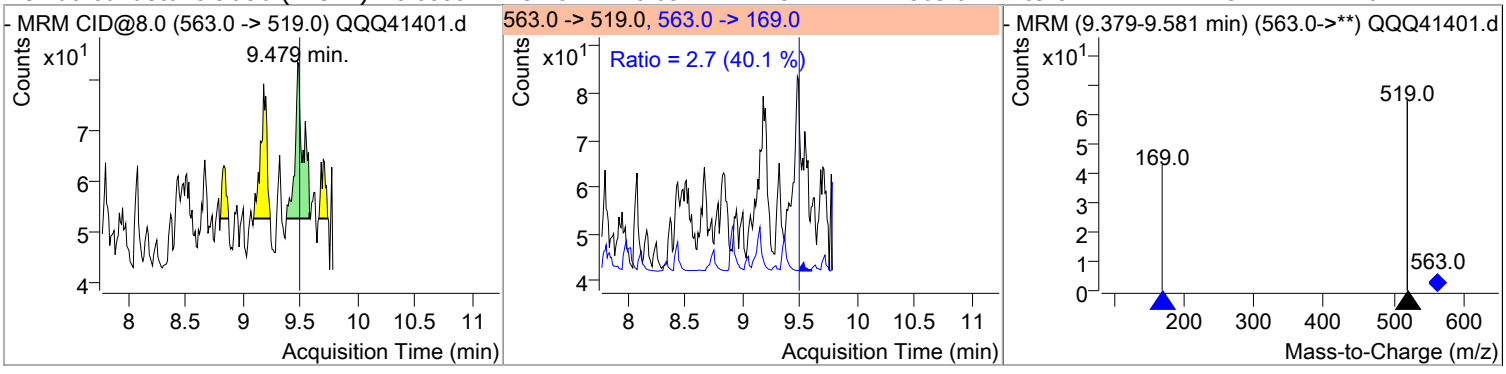
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0036	9.28	0.00	14	570.0 -> 511.9	20.4	51.6	77.4



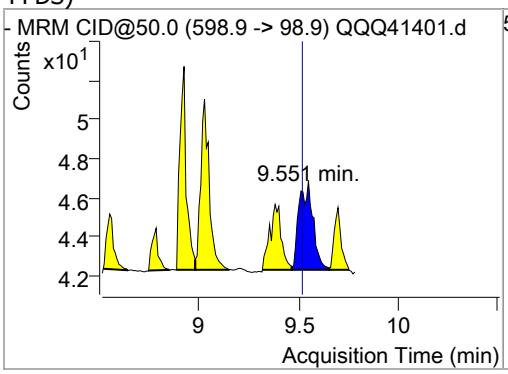
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.7582	9.49	-0.02	25071				

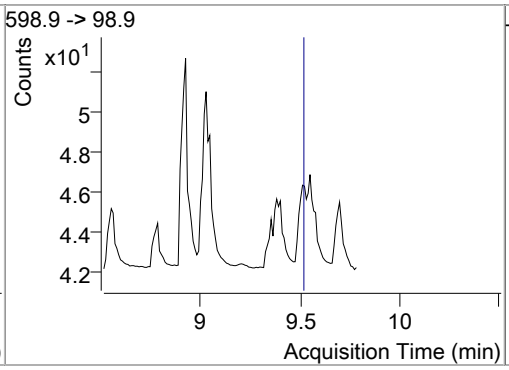


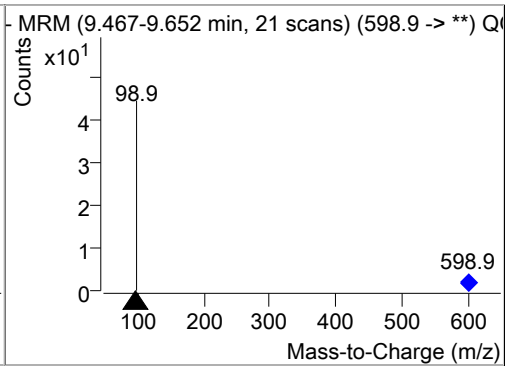
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.48	-0.03	149	563.0 -> 169.0	2.7	5.4	8.1



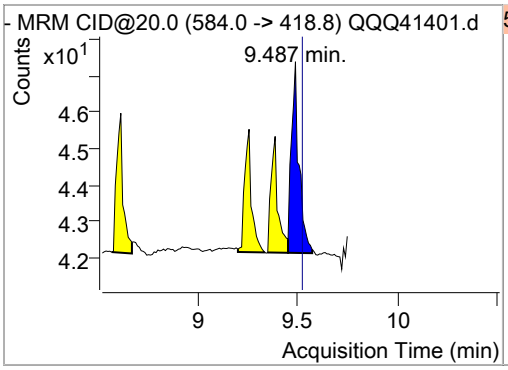
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0104	9.55	0.04	22				

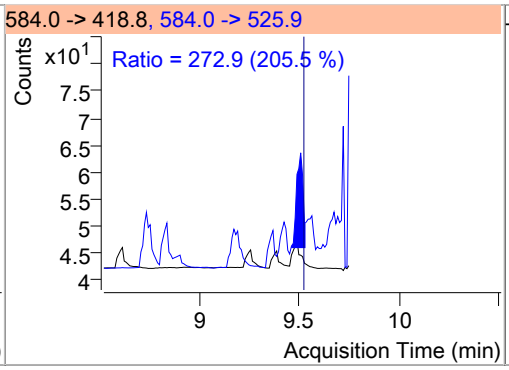


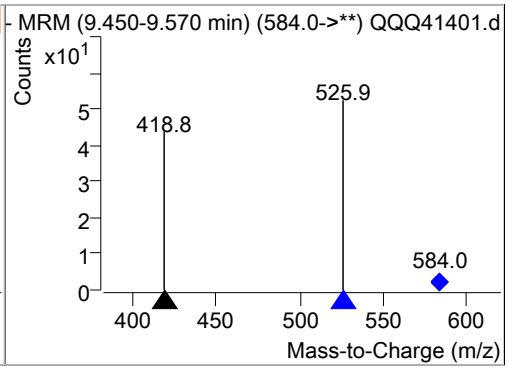




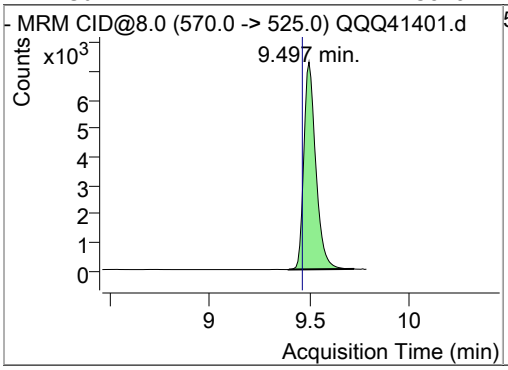
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0032	9.49	-0.03	14	584.0 -> 525.9	272.9	106.2	159.3

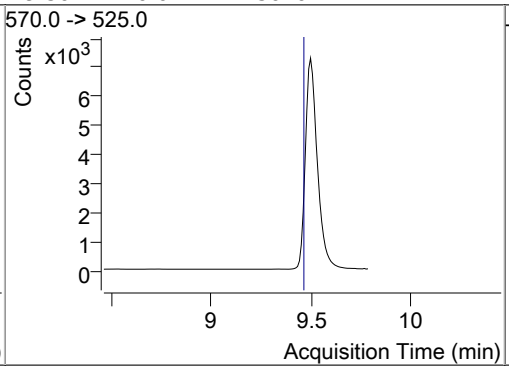


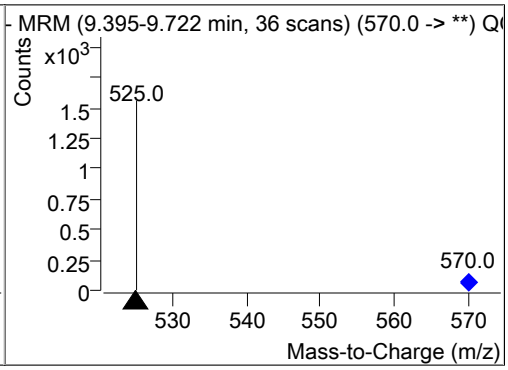




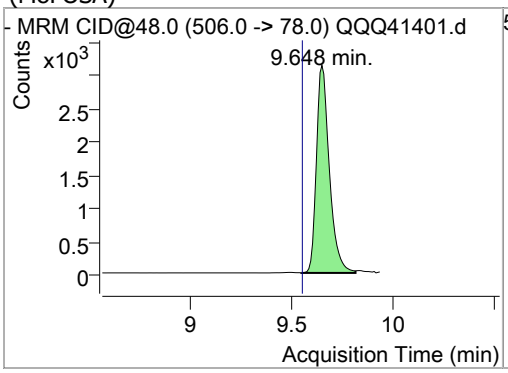
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.5840	9.50	-0.02	30201				

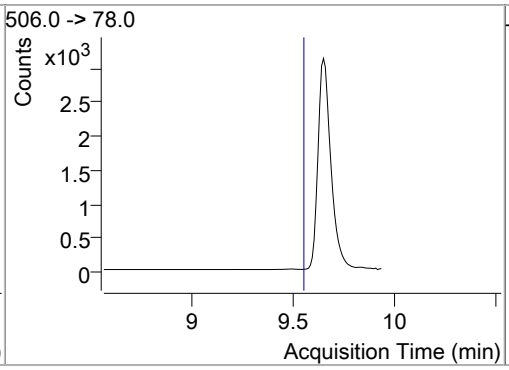


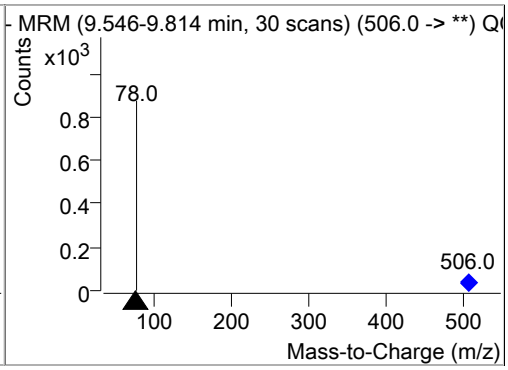




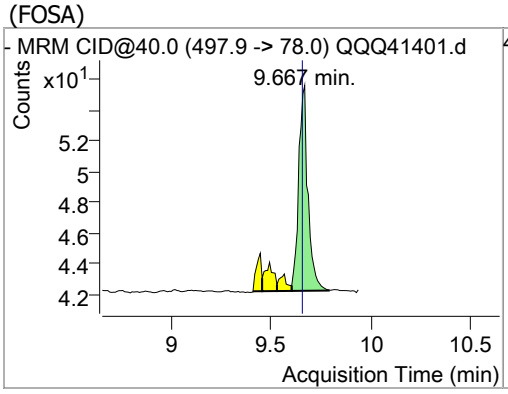
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.2068	9.65	0.00	13835				

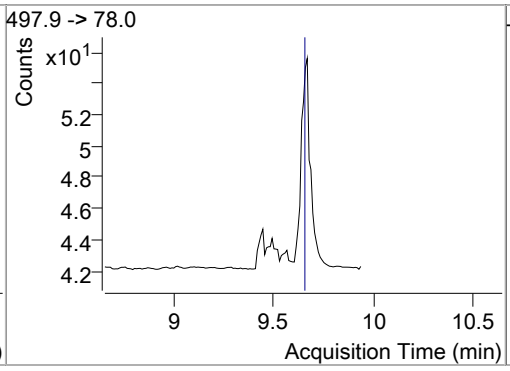


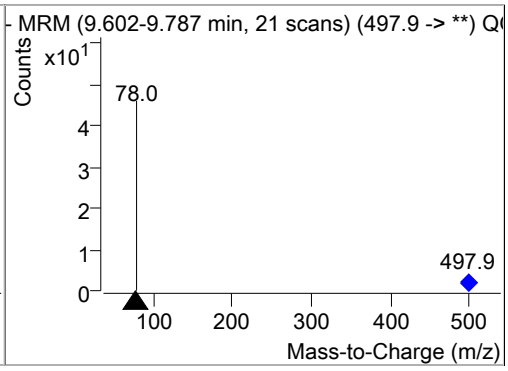




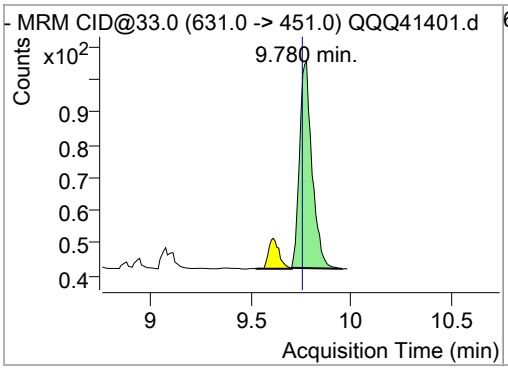
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0054	9.67	0.02	43				

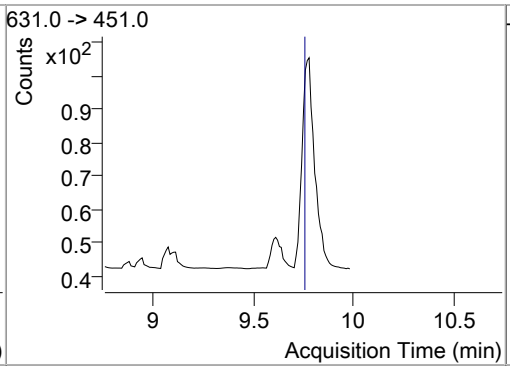


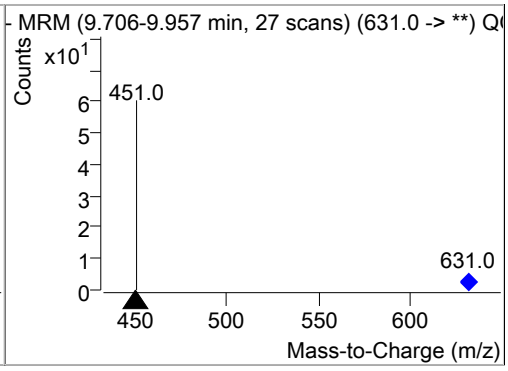




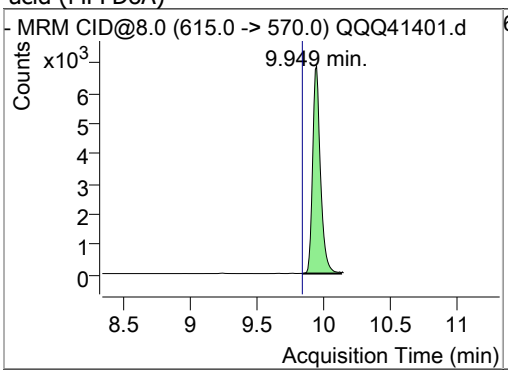
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.1164	9.78	0.03	274				

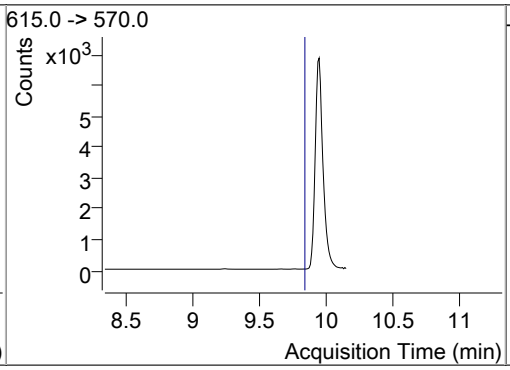


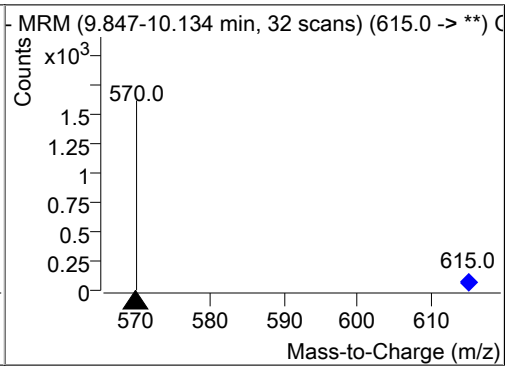




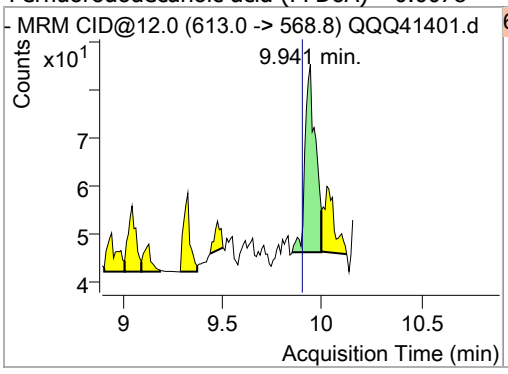
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.6703	9.95	0.06	27998				

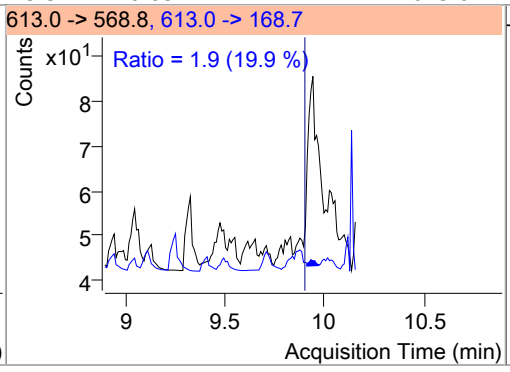


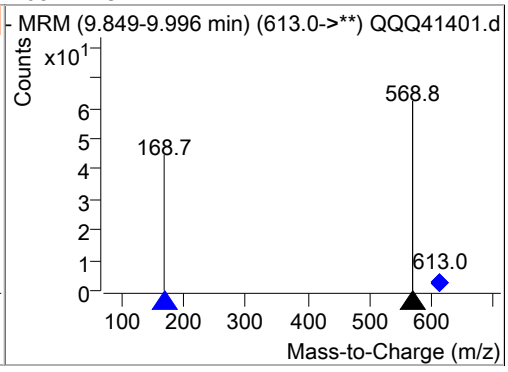




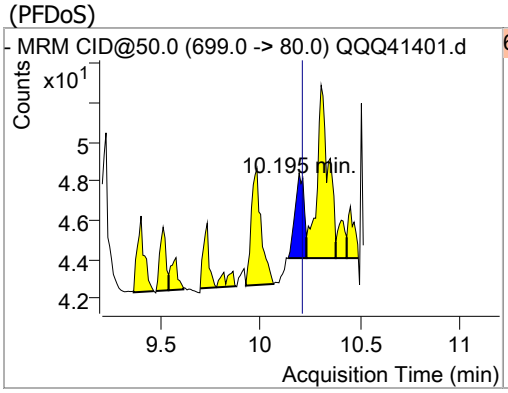
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0078	9.94	0.05	142	613.0 -> 168.7	1.9	7.4	11.2

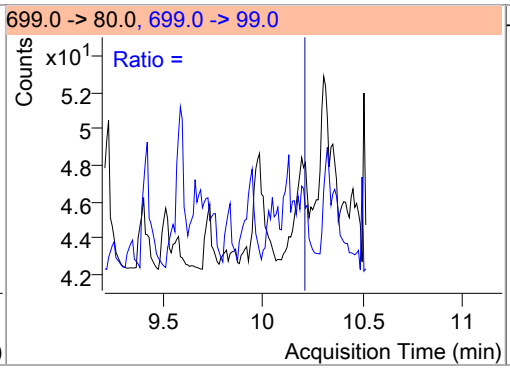


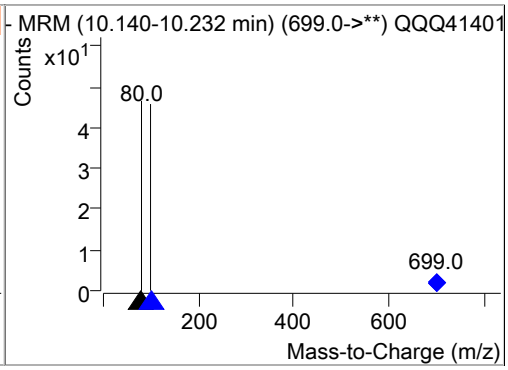




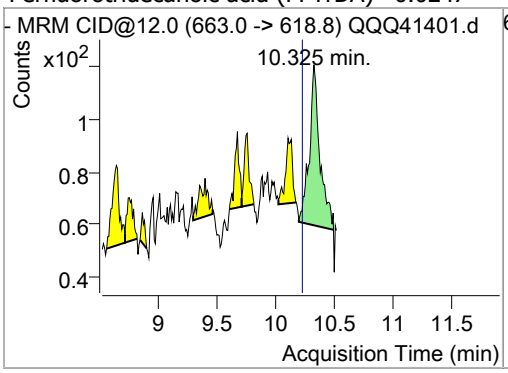
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0119	10.19	-0.01	14	699.0 -> 99.0		77.6	116.4

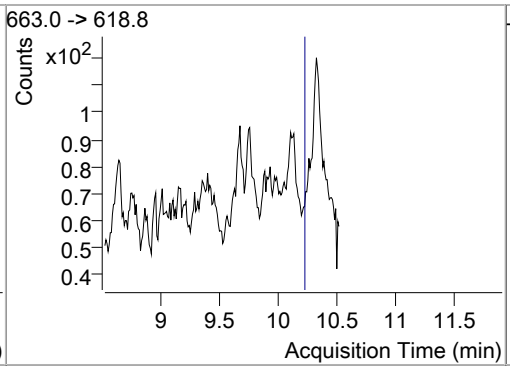


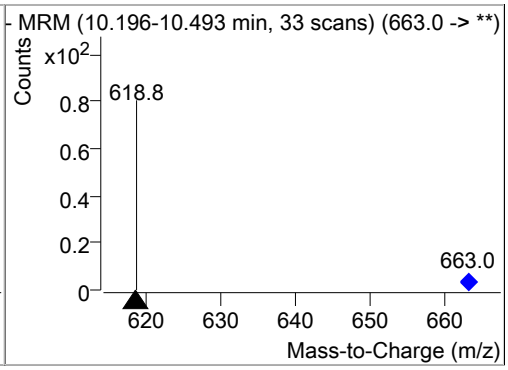




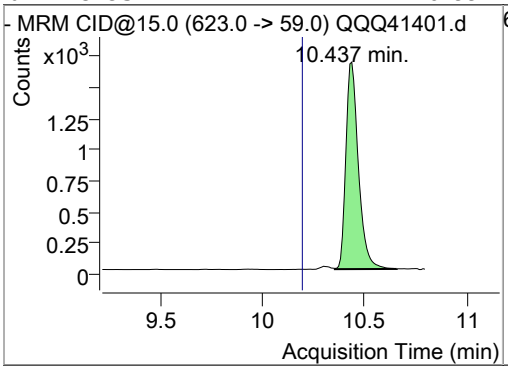
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0247	10.32	0.11	380				

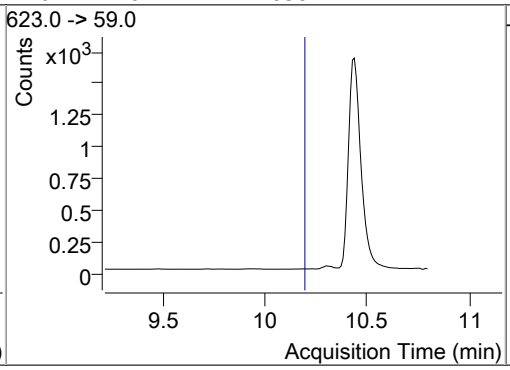


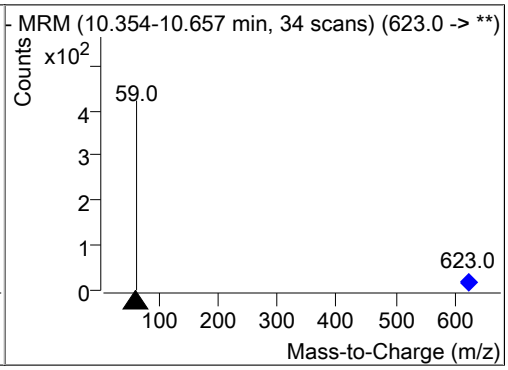




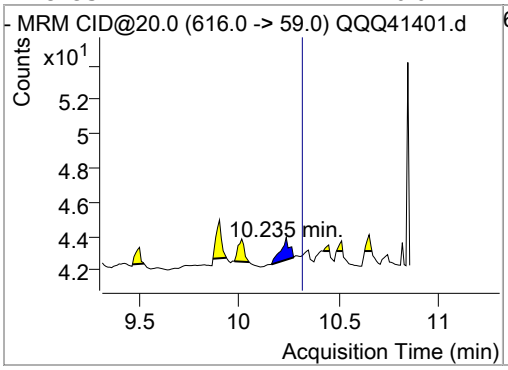
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	14.0299	10.44	0.14	7058				

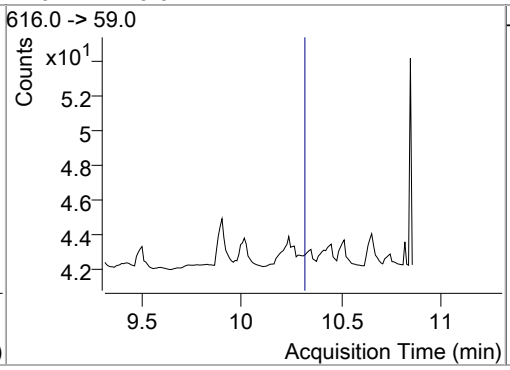


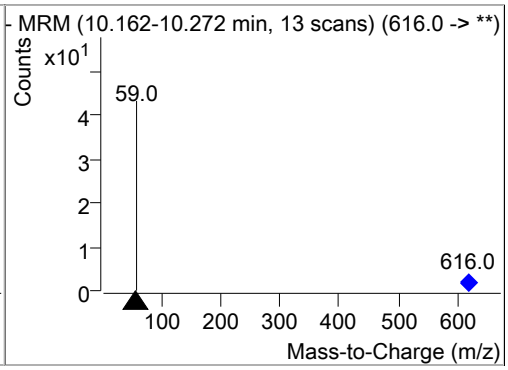




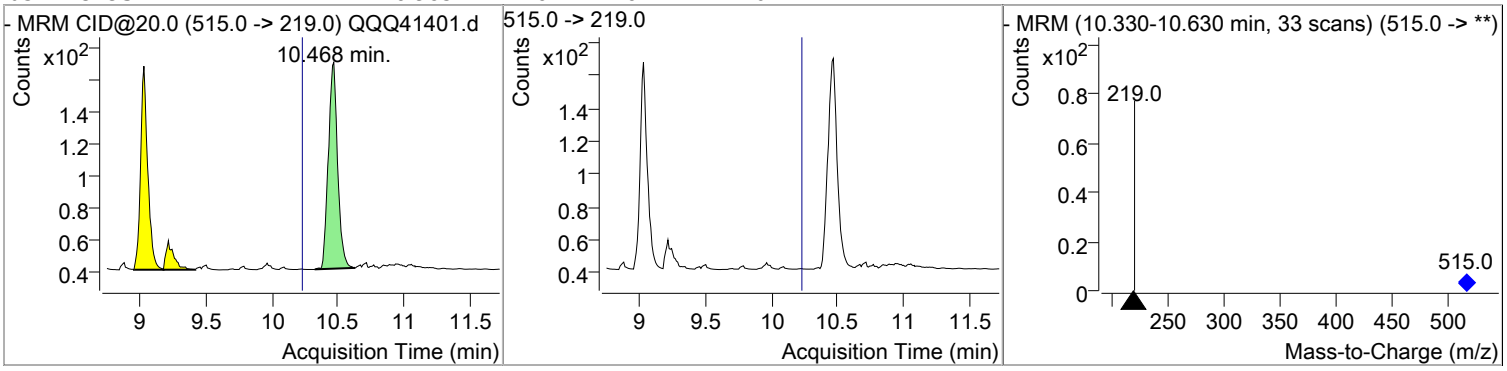
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0172	10.24	-0.07	4				



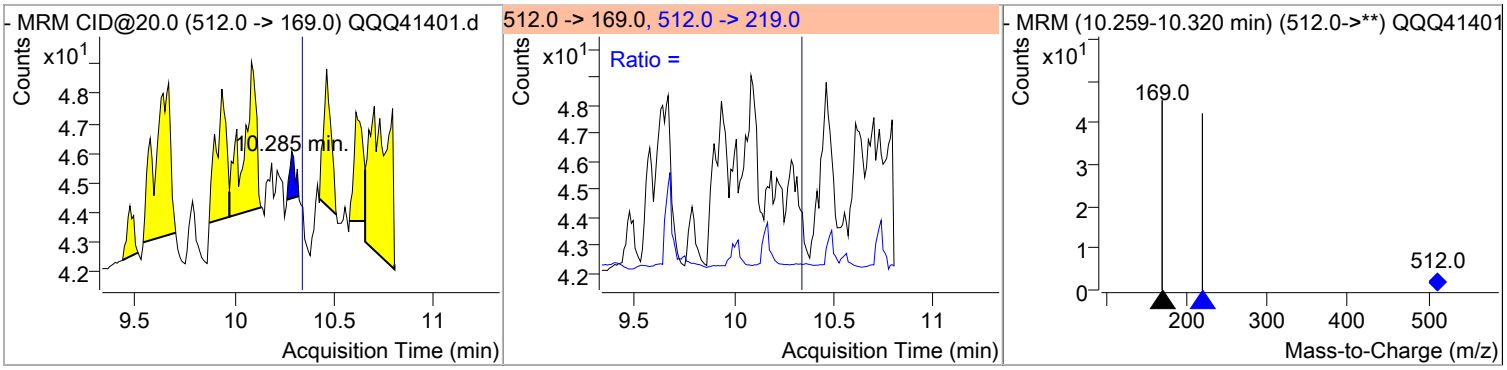




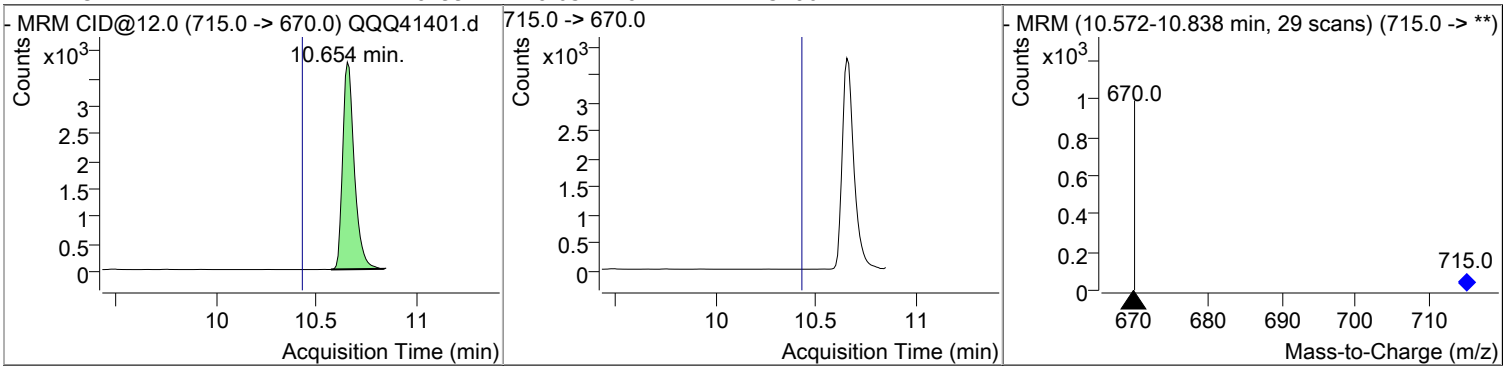
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	0.9857	10.47	0.14	624				



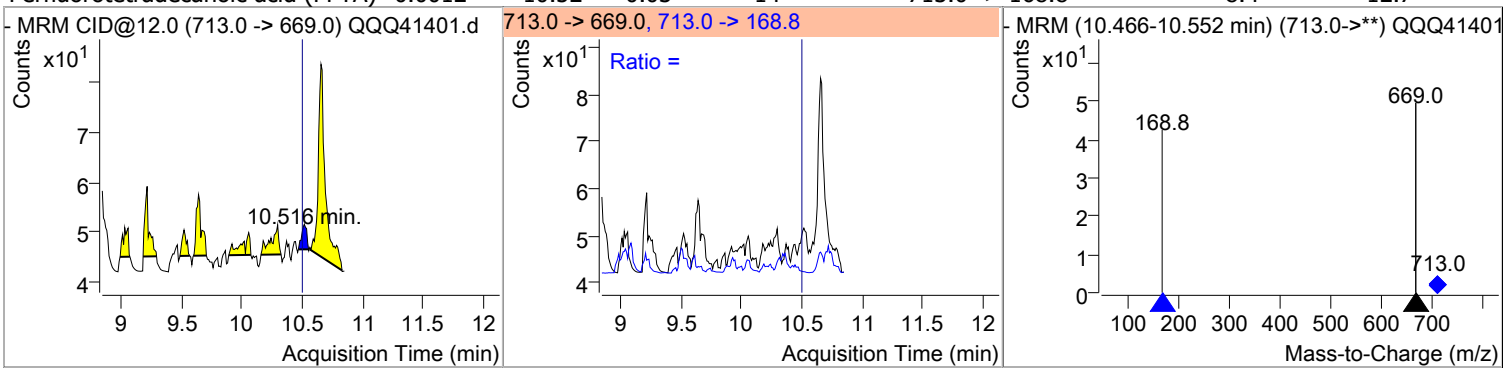
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.28	-0.05	3	512.0 -> 219.0		101.6	152.5



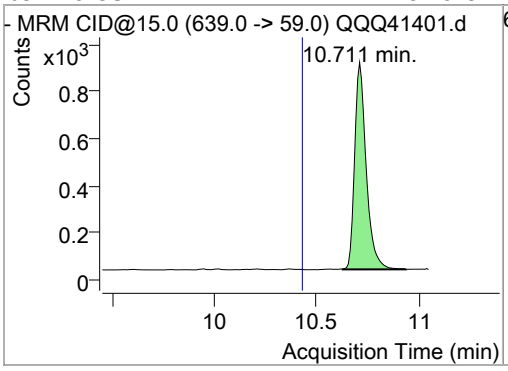
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	2.0199	10.65	0.17	15106				

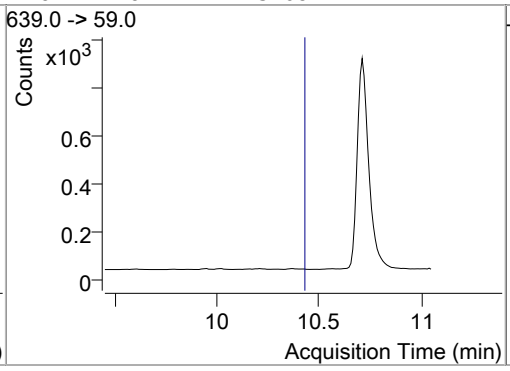


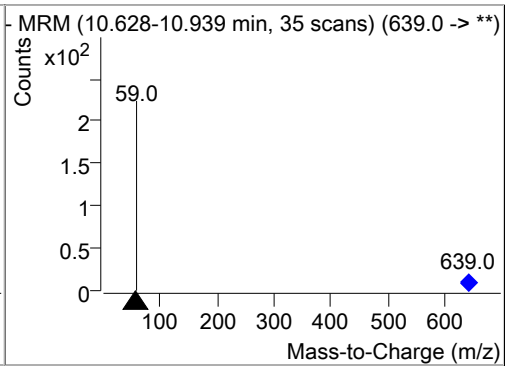
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0012	10.52	0.03	14	713.0 -> 168.8		8.4	12.7



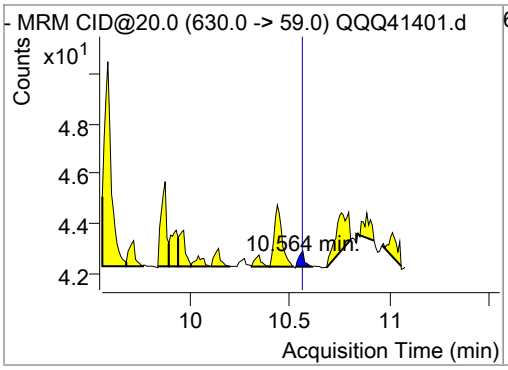
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	15.4819	10.71	0.17	3468				

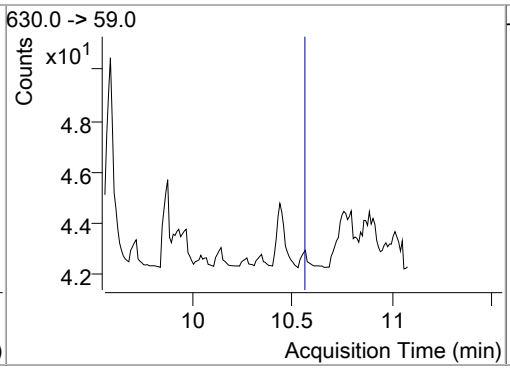


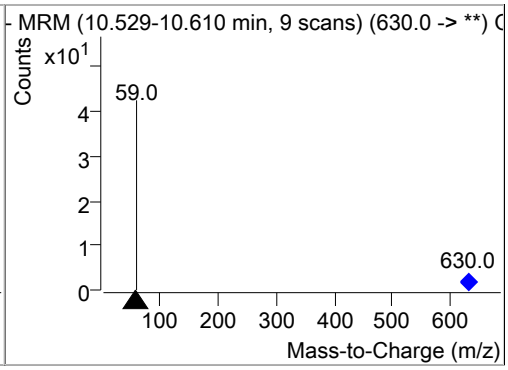




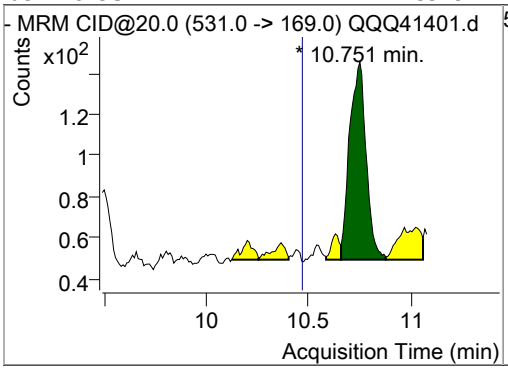
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0039	10.56	0.01	1				

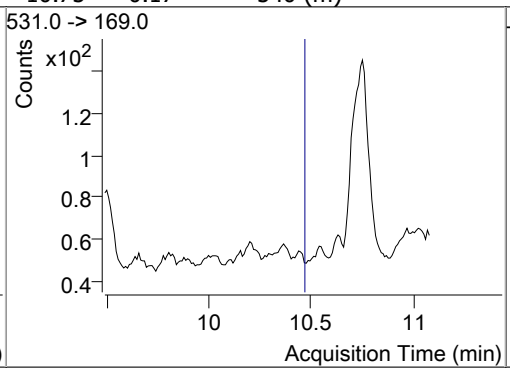


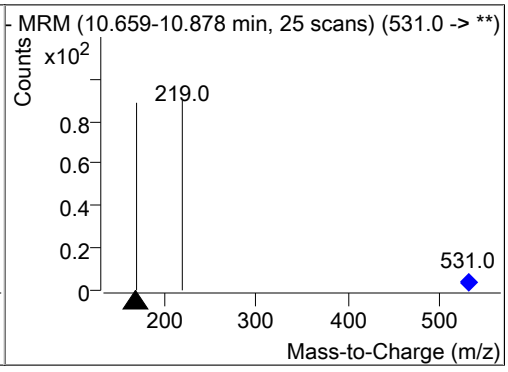




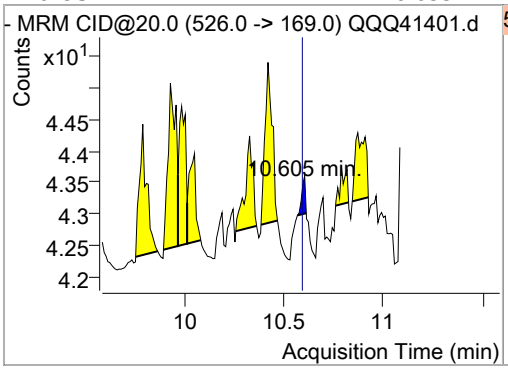
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	1.3929	10.75	0.17	540 (m)				

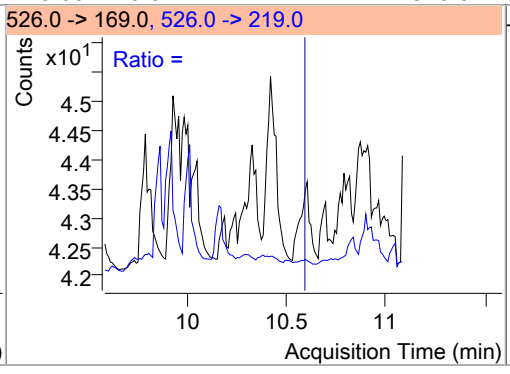


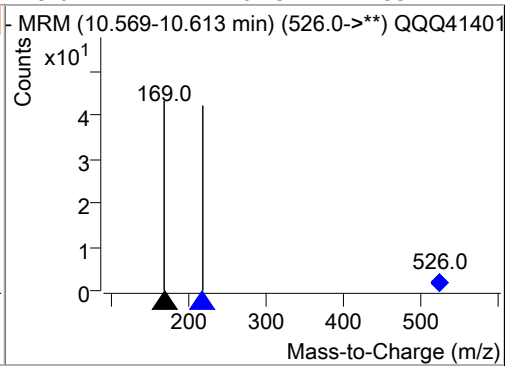




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0331	10.60	0.02	1	526.0 -> 219.0	102.3	153.4	







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 5:31:59 PM	**Data File**	QQQ41401.d
Sample Type	Sample	**Sampe Name**	SEQ-CCB3
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.343	166322	23647	0.487			1.67			105753.35
Perfluoro-n-butanoic acid (PFBA)	1.173	7	4	0.055			0.44			0.27
PFMPA	2.171	2	1	0.055			0.80			0.94
3:3FTCA	4.507	6	1	0.128			0.43			2.80
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.792	116957	17441	0.436			1.76			5040.58
Perfluoro-n-pentanoic acid (PFPeA)	4.756	51	19	0.082			0.89			3.79
PFMBA	5.551	31	7	0.180			0.77			6.37
M3PFBS	5.557	13807	3029	0.288			1.81			36717.64
Perfluorobutanesulfonic acid (PFBS)	5.567	9	3	0.083			0.71			1.87
PFEESA	6.075	64	12	0.157			0.80			59.28
NFDHA	5.994	1	0	0.185			1.09			1.20
M2-4-2FTS	6.297	8039	2048	0.279			1.36			398.03
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.316	18	11	0.055			0.36			2.24
M5PFHxA	6.372	59180	14456	0.328			1.42			∞
Perfluorohexanoic acid (PFHxA)	6.373	97	28	0.131			1.28			2.16
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.630	5	3	0.046			0.77			18.42
M3-HFPO-DA	6.661	5635	1313	0.305			1.65			757.03
HFPO-DA	6.124	0	47	0.000			1.00			9.74
M4PFHpA	7.198	12740	3020	0.288			1.94			∞
Perfluoroheptanoic acid (PFHpA)	7.421	37	18	0.057			0.54			0.34
5-3FTCA	7.291	352	71	0.225			1.44			25.51
Perfluorohexanesulfonic acid (PFHxS)	7.317	65	13	0.298			0.96			39.28
M3PFHxS	7.308	10704	2582	0.297			1.70			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.327	58	11	0.214			3.04			0.98
M2-6-2FTS	7.838	6358	1602	0.241			1.80			250.30
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.829	36	9	0.186			1.83			37.02
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.903	31599	7484	0.288			1.40			29996.50
Perfluorooctanoic acid (PFOA)	8.044	30	10	0.119			0.59			2.67
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.060	12	4	0.102			0.57			4.07
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.497	4980	1232	0.297			1.55			16599.09
Perfluorononanoic acid (PFNA)	8.618	32	13	0.089			0.76			2.82
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.533	5885	1473	0.279			1.38			1016.95
Perfluorooctanesulfonic acid (PFOS)	8.543	10	3	0.093			0.46			0.34
7-3FTCA	8.684	1076	245	0.249			1.44			7.04
9-Cl-PF3ONS	8.856	172	45	0.169			1.65			257.31
M2-8-2FTS	8.987	18076	4217	0.298			1.52			249.07
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.006	4	2	0.065			0.79			13.23
M6PFDA	9.016	18116	4378	0.298			2.03			∞
Perfluorodecanoic acid (PFDA)	9.017	13	7	0.056			0.60			0.60
Perfluorononanesulfonate (L-PFNS)	9.061	7	3	0.120			0.98			15.55
d3-N-MeFOSAA	9.236	23298	5247	0.298			1.74			∞
N-MeFOSAA	9.283	14	6	0.122			1.07			37.19
d5-N-EtFOSAA	9.486	25071	5830	0.269			1.68			∞
Perfluoroundecanoic acid (PFUnA)	9.479	149	31	0.202			1.26			0.73
Perfluoro-1-decanesulfonate (L-PFDS)	9.551	22	5	0.185			0.87			12.70
N-EtFOSAA	9.487	14	5	0.121			1.47			33.72
M7PFUdA	9.497	30201	7279	0.328			1.56			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.648	13835	3107	0.268			1.62			1216.76
Perfluoro-1-octanesulfonamide (FOSA)	9.667	43	13	0.185			0.91			60.80
11-Cl-PF3OUdS	9.780	274	63	0.250			1.23			671.76
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.949	27998	6852	0.286			1.30			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.941	142	39	0.147			1.79			1.71
Perfluorododecanesulfonic acid (PFDoS)	10.195	14	4	0.092			1.43			0.18
Perfluorotridecanoic acid (PFTrDA)	10.325	380	60	0.297			1.44			1.25
d7-NMeFOSE	10.437	7058	1654	0.303			1.44			1058.18
NMeFOSE	10.235	4	1	0.111			1.27			1.00
d3-NMeFOSA	10.468	624	127	0.300			0.95			201.59
NMeFOSA	10.285	3	2	0.061			0.26			0.55
M2PFTeDA	10.654	15106	3757	0.266			1.73			∞
Perfluorotetradecanoic acid (PFTA)	10.516	14	5	0.085			0.71			1.11
d9-NEtFOSE	10.711	3468	878	0.311			1.59			∞
NEtFOSE	10.564	1	1	0.081			0.97			1.43
d5-NEtFOSA	10.751	540	96	0.219			0.81			4.59
NEtFOSA	10.605	1	1	0.044			0.29			0.13

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41409.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB4	Injection Time:	19:46

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A		0.0197	0.8591385				30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A		0.0653	0.2419004				30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A		0.0129	1.185549				30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A		0.0249	1.255886				30
3-Perfluoroheptyl propanoic acid (FHpPA)	A		0.379	0.2201101				30
3-Perfluoropentyl propanoic acid (FPePA)	A		0.193	0.1241024				30
3-Perfluoropropyl propanoic acid (FPrPA)	A		0.0264	1.286716E-02				30
9CL-PF3ONS	A		0.00126	1.369128				30
ADONA	A		0.000791	0.556015				30
HFPO-DA (Gen-X)	A		0.00	2.239571E-02				30
N-EtFOSA	A		0.00	1.287944				30
N-EtFOSAA	A		0.00934	0.94945				30
N-EtFOSE	A		0.00	1.993152				30
N-MeFOSA	A		0.00	0.7524916				30
N-MeFOSAA	A		0.00465	0.8763811				30
N-MeFOSE	A		0.00	0.824401				30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A		0.00173	1.241156				30
Perfluoro-1-decanesulfonic acid (PFDS)	A		0.0167	0.7352727				30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A		0.00384	2.525683				30
Perfluoro-1-nonanesulfonic acid (PFNS)	A		0.00114	0.1655348				30
Perfluoro-1-octanesulfonamide (FOSA)	A		0.00174	1.385288				30
Perfluoro-1-pentanesulfonate (PFPeS)	A		0.00556	1.400558				30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A		0.00741	1.573594E-02				30

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41409.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB4	Injection Time:	19:46

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A		0.00181	0.2604373				30
Perfluoro-5-oxahexanoic acid (PFMBA)	A		0.000499	0.4108024				30
Perfluorobutanesulfonic acid (PFBS)	A		0.00131	1.128938				30
Perfluorodecanoic acid (PFDA)	A		0.00245	1.09146				30
Perfluorododecanesulfonic acid (PFDoS)	A		0.0315	0.4284993				30
Perfluorododecanoic acid (PFDoA)	A		0.0130	0.8702134				30
Perfluoroheptanoic acid (PFHpA)	A		0.000982	2.370614				30
Perfluorohexanesulfonic acid (PFHxS)	A		0.00224	1.39602				30
Perfluorohexanoic acid (PFHxA)	A		0.00704	1.166423				30
Perfluoro-n-butanoic acid (PFBA)	A		0.00657	0.9037138				30
Perfluorononanoic acid (PFNA)	A		0.00148	3.453721				30
Perfluorooctanesulfonic acid (PFOS)	A		0.00	2.631087				30
Perfluorooctanoic acid (PFOA)	A		0.00	1.254067				30
Perfluoropentanoic acid (PFPeA)	A		0.00501	1.003786				30
Perfluorotetradecanoic acid (PFTA)	A		0.0317	1.041146				30
Perfluorotridecanoic acid (PFTrDA)	A		0.00334	1.484165				30
Perfluoroundecanoic acid (PFUnA)	A		0.00	0.9068038				30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41409.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 7:46:09 PM
Sample Name	SEQ-CCB4	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

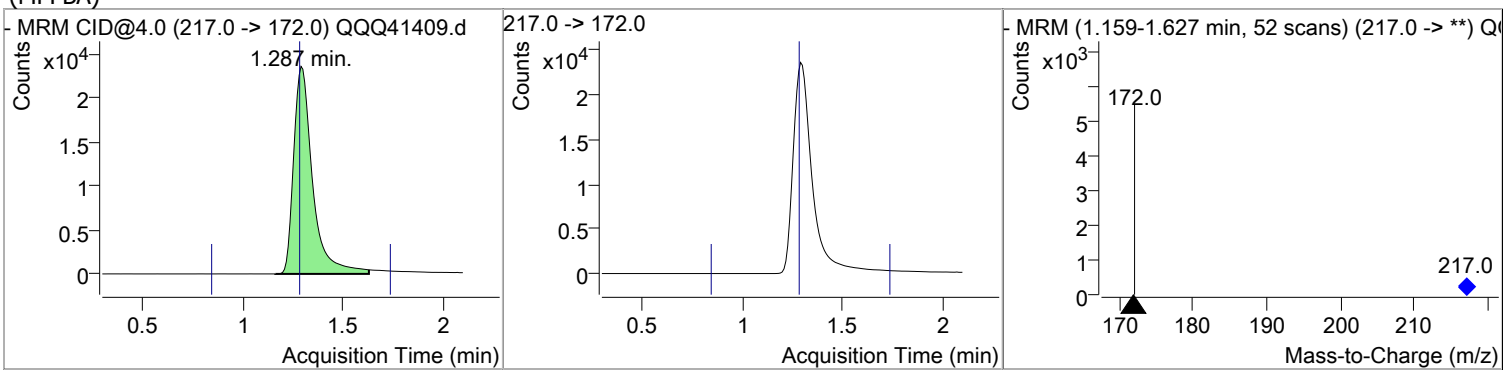
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
M3PFBA	1.290	216.0 -> 172.0	26982	5.0000	ng/ml		0.037
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.287	217.0 -> 172.0	155713	10.0000	ng/ml		0.037
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.718	268.0 -> 223.0	118267	5.0000	ng/ml		-0.010
MPFHxA	6.354	315.0 -> 269.8	35138	2.5000	ng/ml		-0.019
MPFHxS	7.298	403.0 -> 103.0	3693	2.3700	ng/ml		-0.084
M3PFBS-EIS	5.529	302.0 -> 79.9	14437	2.3300	ng/ml		0.000
M5PFHxA-EIS	6.353	318.0 -> 273.0	58787	2.5000	ng/ml		-0.019
M2-4-2FTS-EIS	6.278	329.0 -> 309.0	9795	4.6900	ng/ml		-0.019
M3PFHxS-EIS	7.299	402.0 -> 80.0	11800	2.3700	ng/ml		-0.084
M3-HFPO-DA-EIS	6.652	287.0 -> 169.0	26366	10.0000	ng/ml		-0.037
M4PFHpA-EIS	7.189	367.0 -> 322.0	14452	2.5000	ng/ml		-0.074
M2-6-2FTS-EIS	7.828	429.0 -> 409.0	12115	4.7550	ng/ml		-0.102
MPFOA	7.895	417.0 -> 372.0	43754	2.5000	ng/ml		-0.102
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.885	421.0 -> 376.0	35298	2.5000	ng/ml		-0.112
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.523	507.0 -> 98.9	5750	2.3950	ng/ml		-0.102
MPFNA	8.488	468.0 -> 423.0	22798	1.2500	ng/ml		-0.111
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.488	472.0 -> 223.0	6684	1.2500	ng/ml		-0.102
MPFOS	8.515	503.0 -> 80.0	11925	2.3950	ng/ml		-0.111
M2-8-2FTS-EIS	8.978	529.0 -> 509.0	62993	4.8000	ng/ml		-0.065
MPFDA	9.007	515.0 -> 469.8	14593	1.2500	ng/ml		-0.074
M6PFDA-EIS	9.007	519.0 -> 473.9	19239	1.2500	ng/ml		-0.074
d3-N-MeFOSAA-EIS	9.227	573.0 -> 418.8	37150	5.0000	ng/ml		-0.056
M7PFUdA-EIS	9.497	570.0 -> 525.0	26396	1.2500	ng/ml		-0.018
d5-N-EtFOSAA-EIS	9.486	589.0 -> 418.8	35762	5.0000	ng/ml		-0.018
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.685	506.0 -> 78.0	12466	2.5000	ng/ml		0.037
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.940	615.0 -> 570.0	18583	1.2500	ng/ml		0.047
M2PFTeDA-EIS	10.654	715.0 -> 670.0	5932	1.2500	ng/ml		0.166
d7-NMeFOSE-EIS	10.474	623.0 -> 59.0	6305	25.0000	ng/ml		0.175
d3-NMeFOSA-EIS	10.505	515.0 -> 219.0	771	2.5000	ng/ml		0.175
d9-NEtFOSE-EIS	10.473	639.0 -> 59.0	0	25.0000	ng/ml	md	-0.063
d5-NEtFOSA-EIS	10.797	531.0 -> 169.0	229	2.5000	ng/ml	m	0.221
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.287	217.0 -> 172.0	155719	11.5253	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.718	268.0 -> 223.0	118262	5.2758	ng/ml		-0.010
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.529	302.0 -> 79.9	14437	2.1910	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.278	329.0 -> 309.0	9721	2.2097	ng/ml		-0.019

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.353	318.0 -> 273.0	58787	2.6216	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.652	287.0 -> 169.0	26366	6.7264	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.189	367.0 -> 322.0	14411	2.8931	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.299	402.0 -> 80.0	11793	2.5653	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.828	429.0 -> 409.0	12272	4.1653	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.885	421.0 -> 376.0	35298	2.5333	ng/ml		-0.112
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.488	472.0 -> 223.0	6684	1.3757	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.523	507.0 -> 98.9	5748	2.6287	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.978	529.0 -> 509.0	62993	9.1046	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.007	519.0 -> 473.9	19240	1.2033	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.227	573.0 -> 418.8	37147	6.5927	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.486	589.0 -> 418.8	36368	7.3086	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.497	570.0 -> 525.0	26396	1.2197	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.685	506.0 -> 78.0	12465	1.7398	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	615.0 -> 570.0	18584	0.9768	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.474	623.0 -> 59.0	6318	10.9886	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.505	515.0 -> 219.0	785	1.0841	ng/ml	m	0.175
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.654	715.0 -> 670.0	5938	0.6996	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.748	639.0 -> 59.0	1790	6.9917	ng/ml	m	0.212
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.797	531.0 -> 169.0	229	0.5170	ng/ml	m	0.221
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.274	213.0 -> 168.9	90	0.0066	ng/ml		100
PFMPA	2.162	229.0 -> 85.0	13	0.0018	ng/ml		100
3:3FTCA	4.396	241.0 -> 177.0	11	0.0264	ng/ml	#	1
Perfluoro-n-pentanoic acid (PFPeA)	4.747	263.0 -> 219.0	113	0.0050	ng/ml		100
PFMBA	5.495	279.0 -> 85.0	5	0.0005	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.530	298.9 -> 79.9	8	0.0013	ng/ml	#	44
PFEESA	6.038	315.0 -> 135.0	54	0.0017	ng/ml	#	92
NFDHA	6.170	295.0 -> 201.1	3	0.0074	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.446	327.0 -> 307.0	34	0.0129	ng/ml	#	1

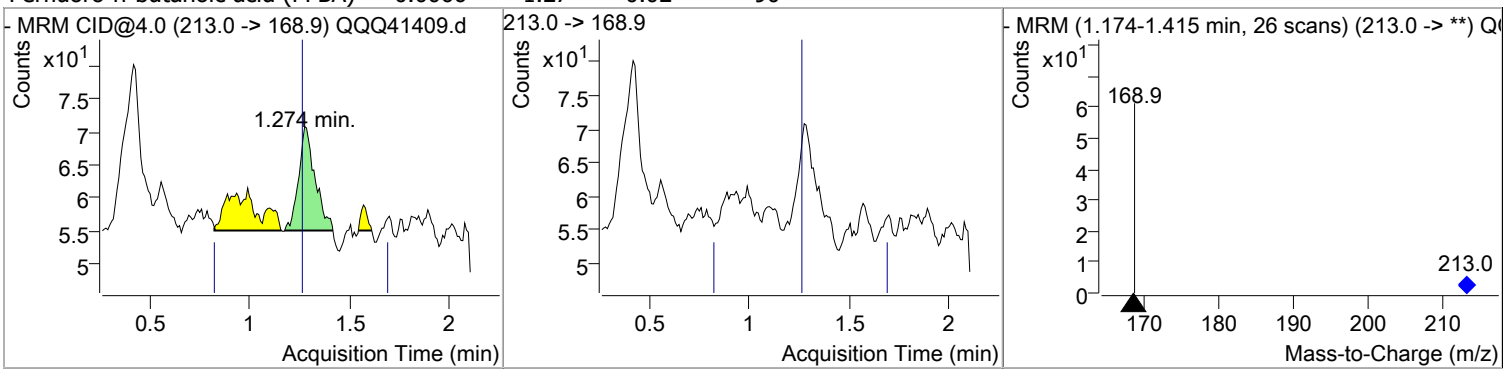
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.373	313.0 -> 268.9	191	0.0070	ng/ml	#	77
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.519	348.9 -> 79.9	35	0.0056	ng/ml	#	66
HFPO-DA	6.523	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.217	363.0 -> 318.8	13	0.0010	ng/ml	#	1
5-3FTCA	7.254	341.0 -> 217.0	728	0.1933	ng/ml	#	67
Perfluorohexanesulfonic acid (PFHxS)	7.411	398.9 -> 79.9	13	0.0022	ng/ml		97
ADONA	7.448	377.0 -> 85.0	5	0.0008	ng/ml		1
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.931	427.0 -> 407.0	100	0.0249	ng/ml		93
Perfluorooctanoic acid (PFOA)	7.876	413.0 -> 368.8	34	0.0000	ng/ml	#	1
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.930	448.9 -> 80.0	24	0.0038	ng/ml	#	26
Perfluorononanoic acid (PFNA)	8.711	463.0 -> 418.8	26	0.0015	ng/ml	#	65
Perfluorooctanesulfonic acid (PFOS)	8.645	498.9 -> 79.9	18	0.0000	ng/ml		23
7-3FTCA	8.674	441.0 -> 337.0	1911	0.3789	ng/ml		100
9-Cl-PF3ONS	8.969	531.0 -> 351.0	20	0.0013	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.979	527.0 -> 80.9	202	0.0653	ng/ml	#	1
Perfluorodecanoic acid (PFDA)	9.101	513.0 -> 468.8	43	0.0024	ng/ml		60
Perfluorononanesulfonate (L-PFNS)	9.079	548.9 -> 79.9	5	0.0011	ng/ml		25
N-MeFOSAA	9.208	570.0 -> 418.9	30	0.0046	ng/ml	#	29
Perfluoroundecanoic acid (PFUnA)	9.479	563.0 -> 519.0	84	0.0000	ng/ml	#	1
Perfluoro-1-decanesulfonate (L-PFDS)	9.495	598.9 -> 98.9	35	0.0167	ng/ml		100
N-EtFOSAA	9.487	584.0 -> 418.8	57	0.0093	ng/ml		92
Perfluoro-1-octanesulfonamide (FOSA)	9.685	497.9 -> 78.0	12	0.0017	ng/ml		100
11-Cl-PF3OUdS	9.780	631.0 -> 451.0	216	0.0197	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.931	613.0 -> 568.8	157	0.0130	ng/ml	#	68
Perfluorododecanesulfonic acid (PFDoS)	10.186	699.0 -> 80.0	34	0.0315	ng/ml		1
Perfluorotridecanoic acid (PFTrDA)	10.196	663.0 -> 618.8	20	0.0033	ng/ml		100
NMeFOSE	10.245	616.0 -> 59.0	0		ng/ml	md	1
NMeFOSA	10.321	512.0 -> 169.0	0		ng/ml	md	1
Perfluorotetradecanoic acid (PFTA)	10.461	713.0 -> 669.0	147	0.0317	ng/ml	#	83
NEtFOSE	10.601	630.0 -> 59.0	0		ng/ml	md	1
NEtFOSA	10.706	526.0 -> 169.0	0		ng/ml	md	1

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

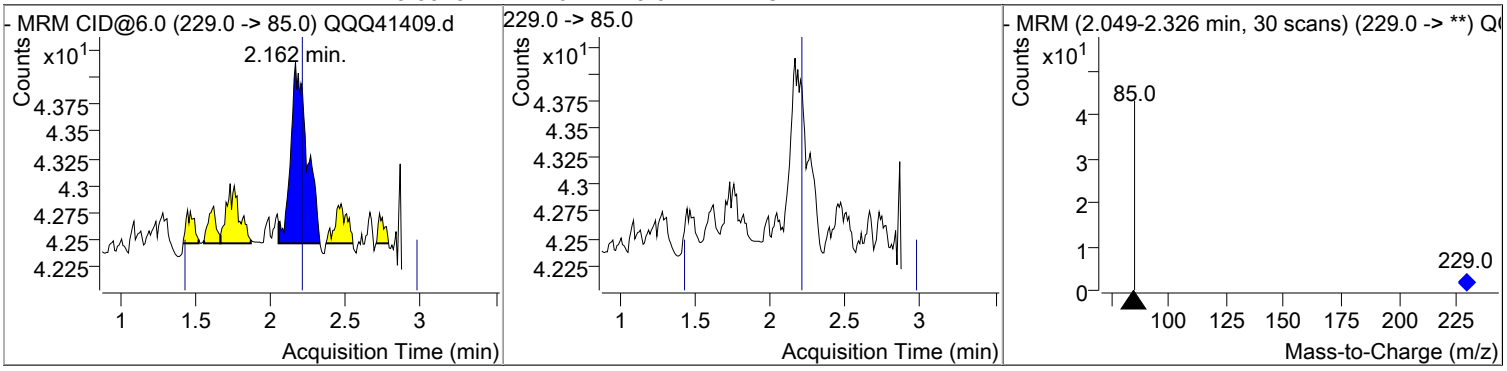
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	11.5253	1.29	0.04	155719				



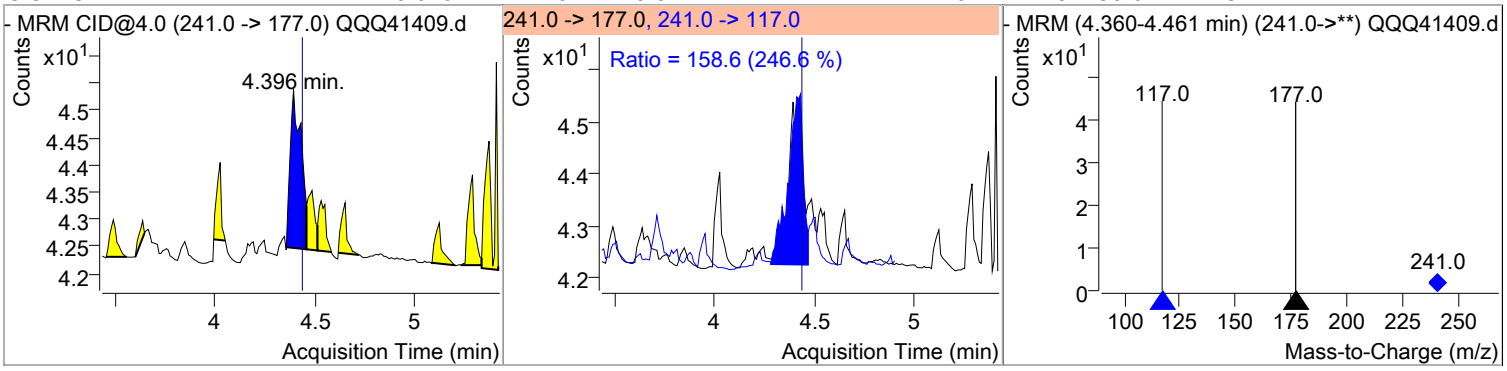
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0066	1.27	0.02	90				



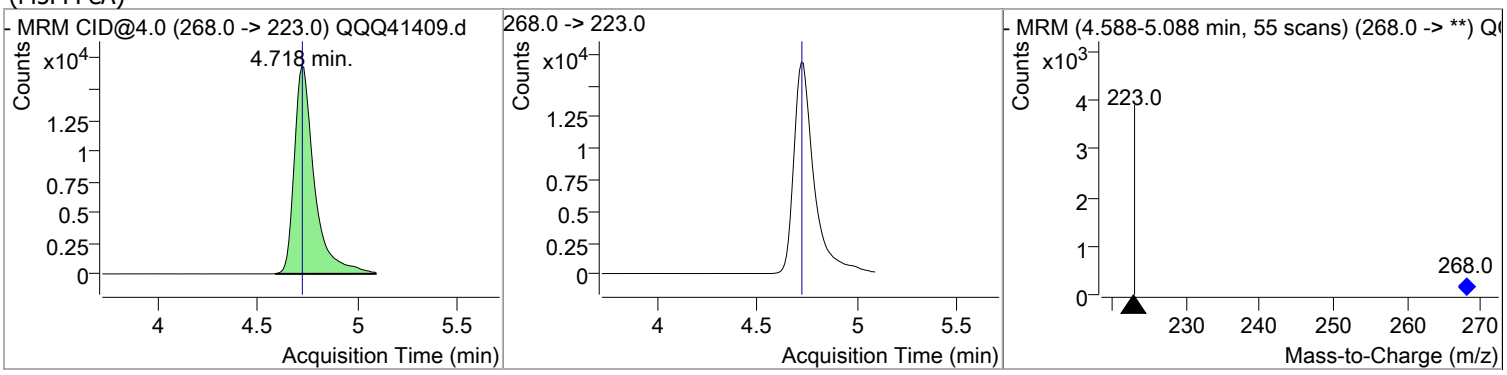
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0018	2.16	-0.04	13				



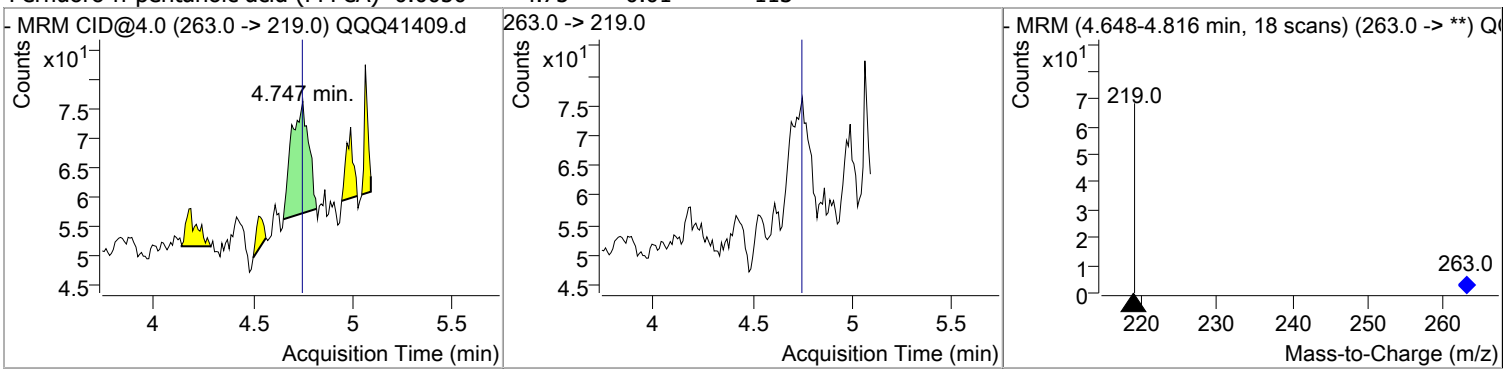
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0264	4.40	-0.04	11	241.0 -> 117.0	158.6	51.4	77.2



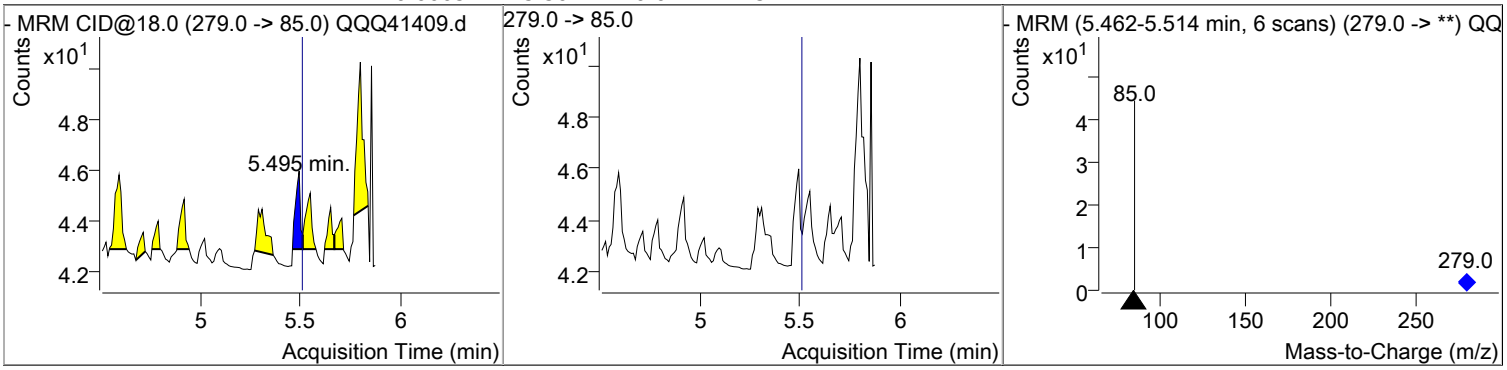
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.2758	4.72	-0.01	118262				



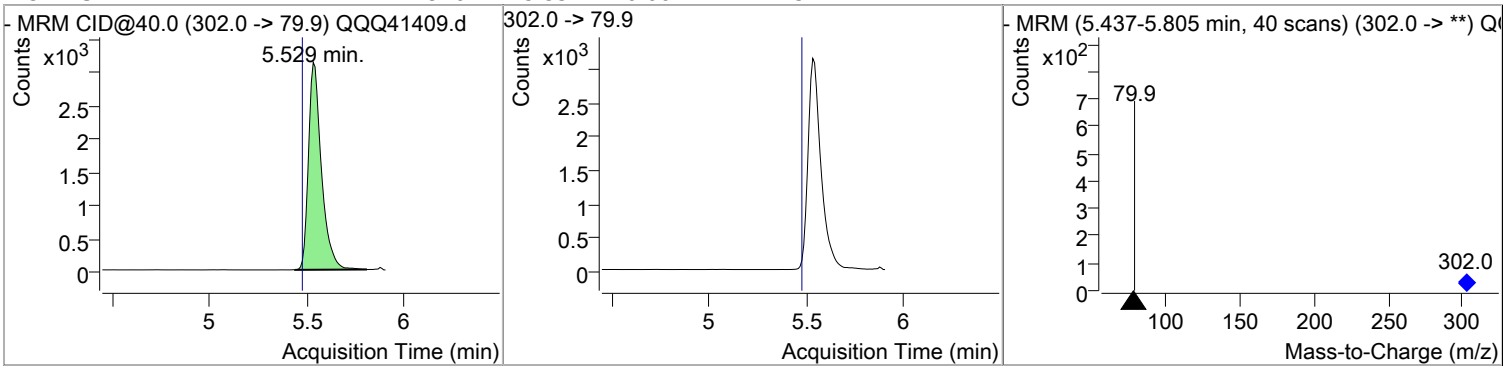
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0050	4.75	0.01	113				



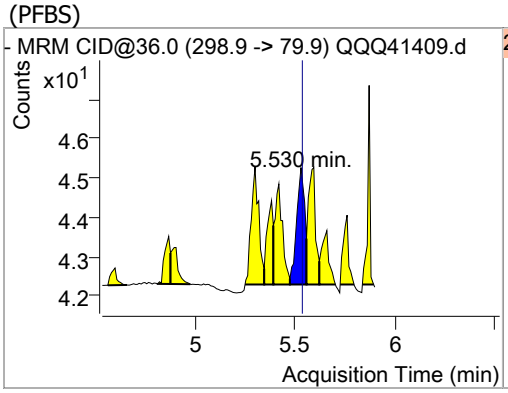
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0005	5.50	-0.01	5				

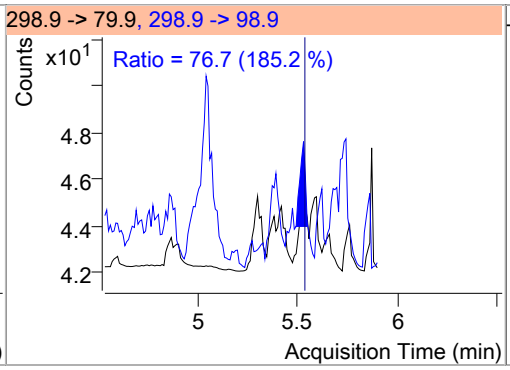


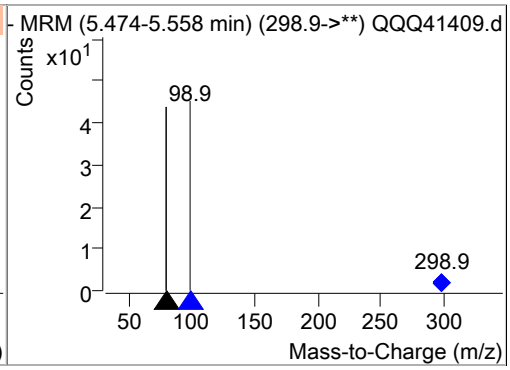
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.1910	5.53	0.00	14437				



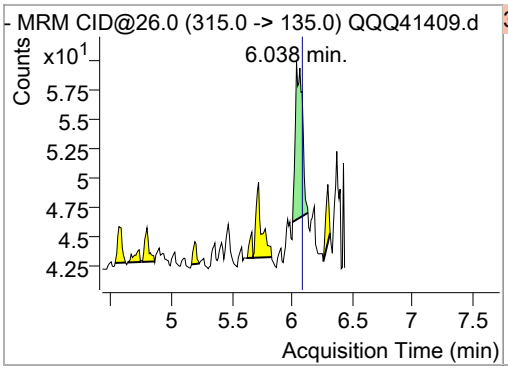
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0013	5.53	0.00	8	298.9 -> 98.9	76.7	33.1	49.7

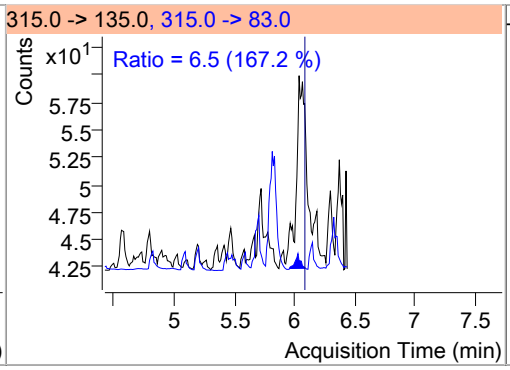


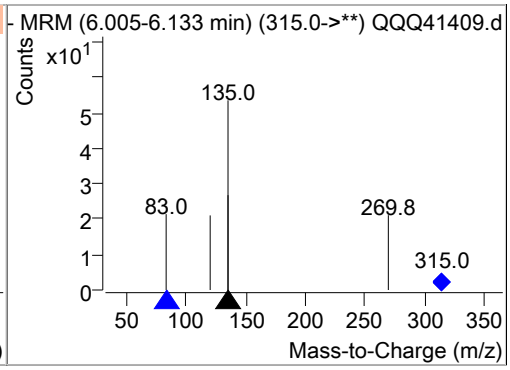




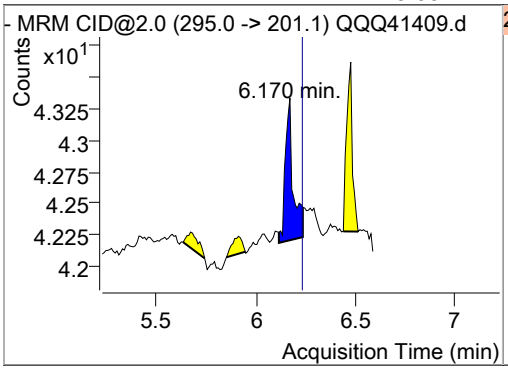
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0017	6.04	-0.04	54	315.0 -> 83.0	6.5	3.1	4.7

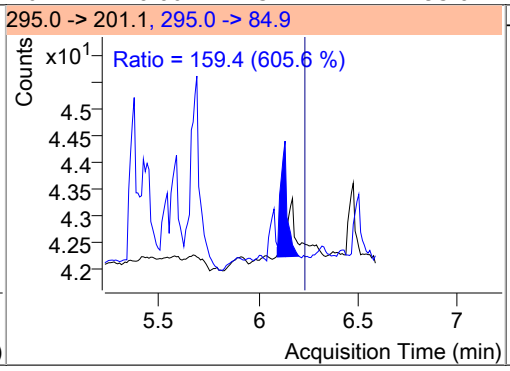


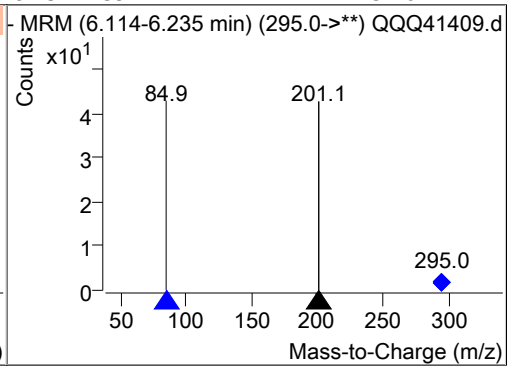




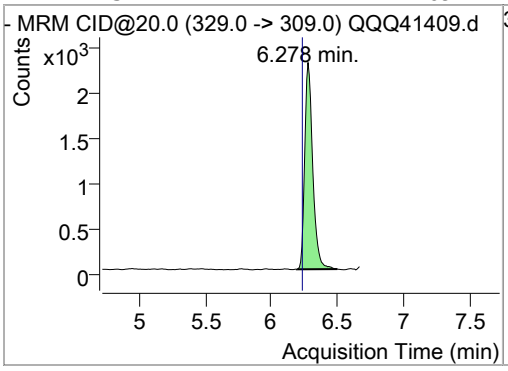
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0074	6.17	-0.06	3	295.0 -> 84.9	159.4	21.1	31.6

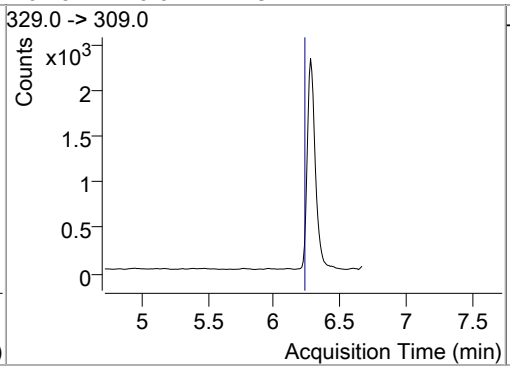


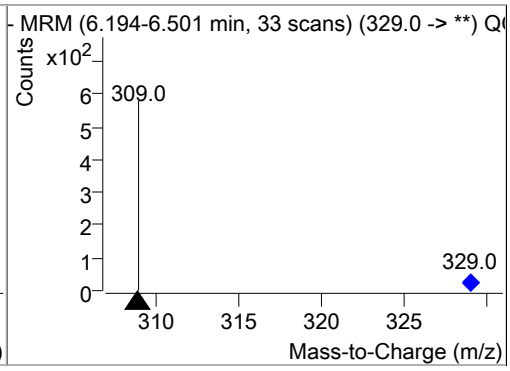




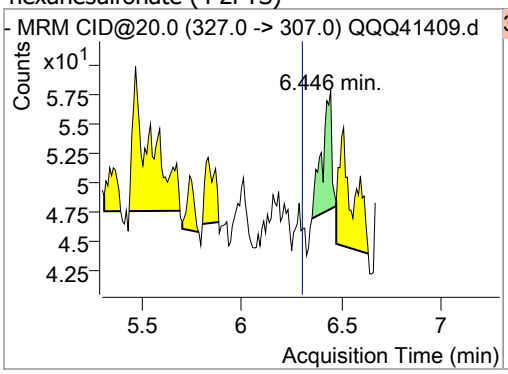
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	2.2097	6.28	-0.02	9721				

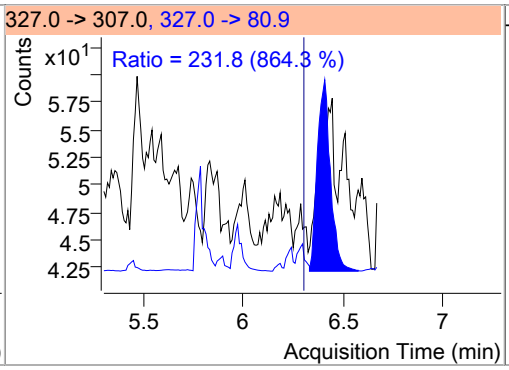


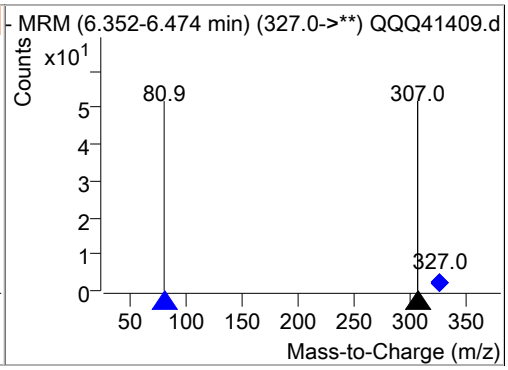




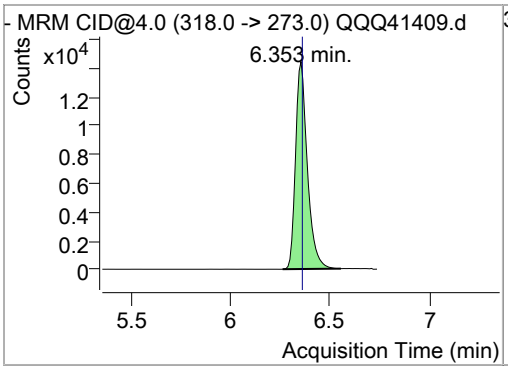
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0129	6.45	0.15	34	327.0 -> 80.9	231.8	21.5	32.2

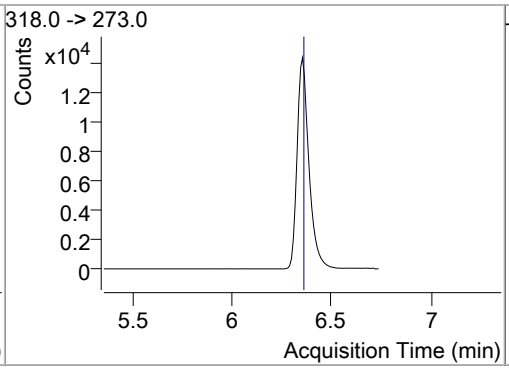


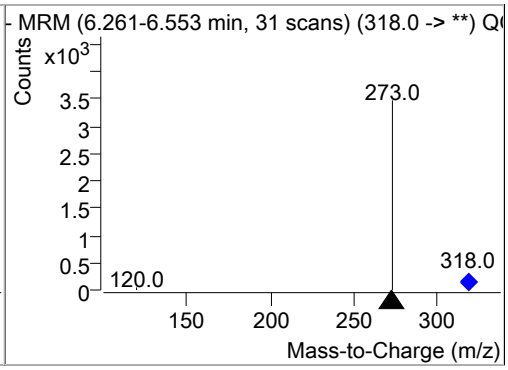




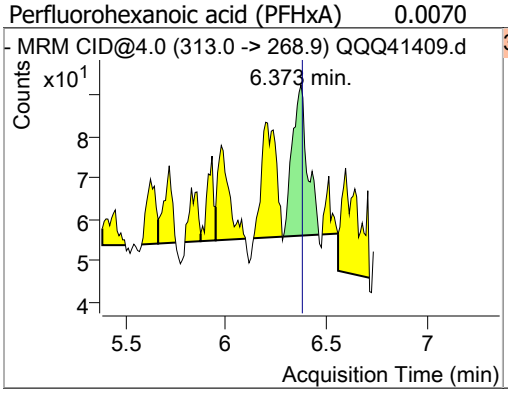
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.6216	6.35	-0.02	58787				

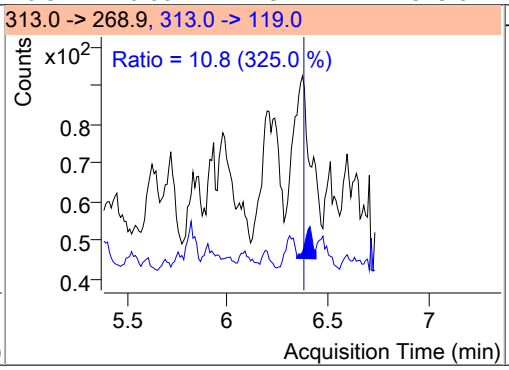


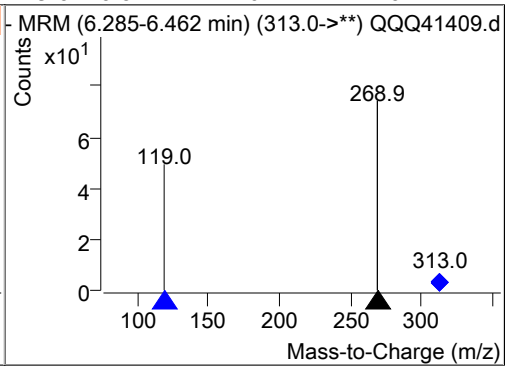




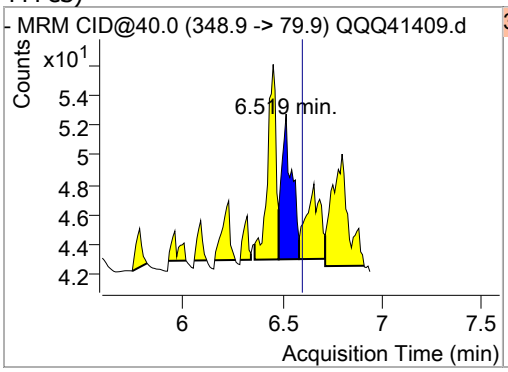
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0070	6.37	0.00	191	313.0 -> 119.0	10.8	2.6	4.0

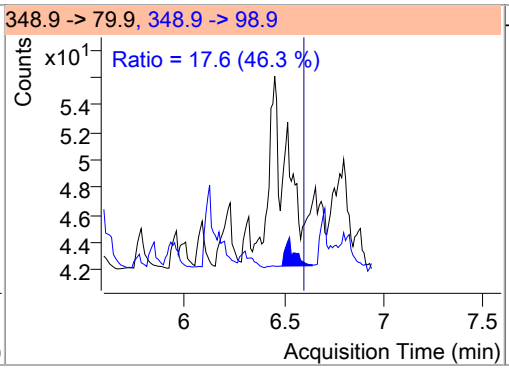


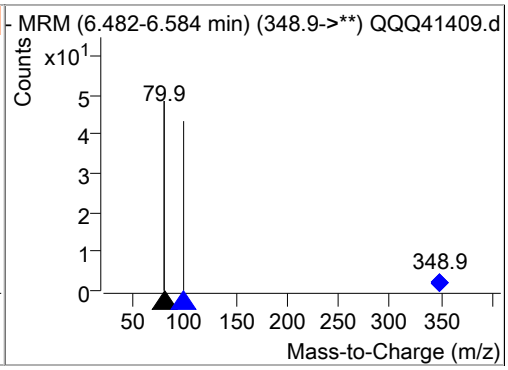




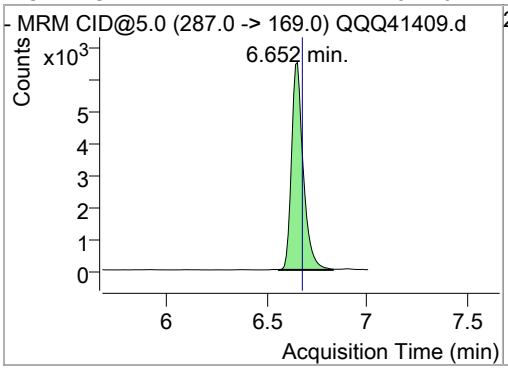
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0056	6.52	-0.07	35	348.9 -> 98.9	17.6	30.4	45.6

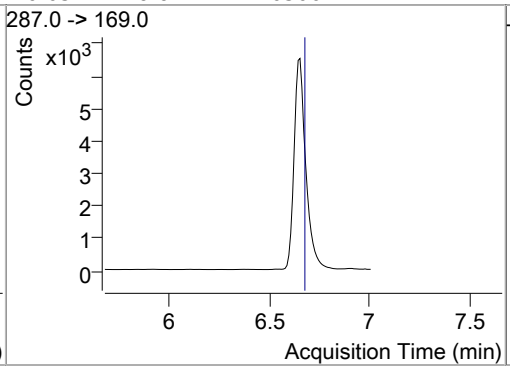


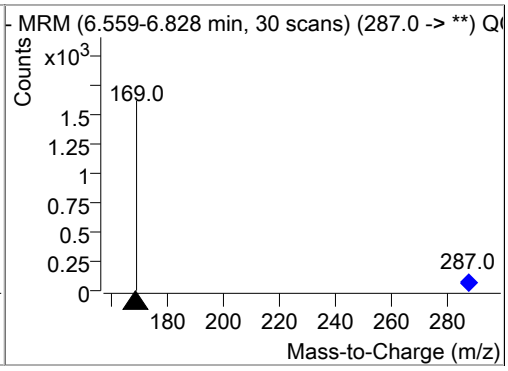




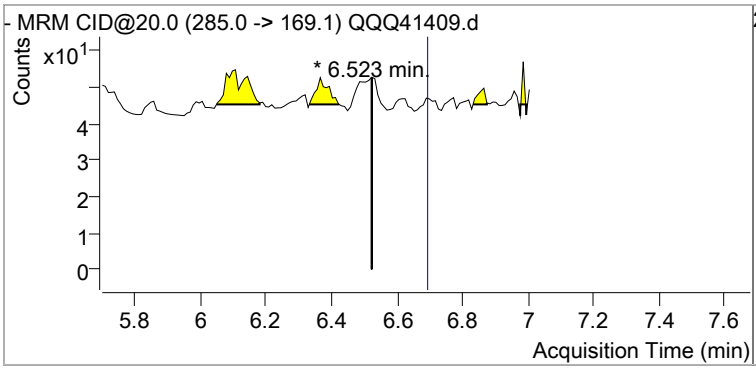
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	6.7264	6.65	-0.04	26366				

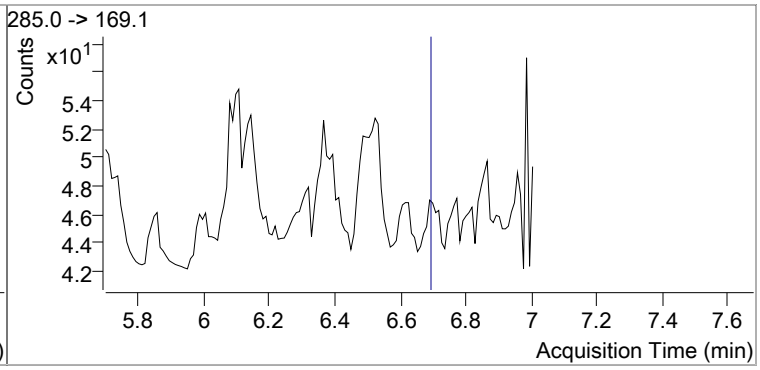




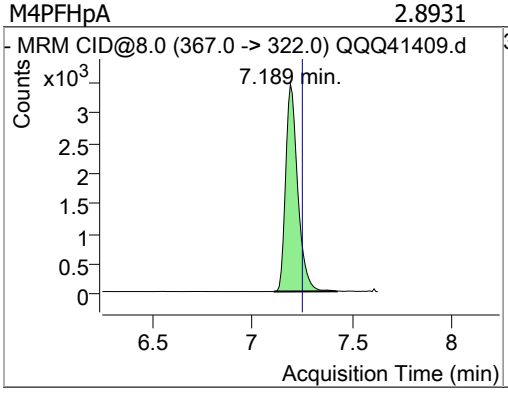


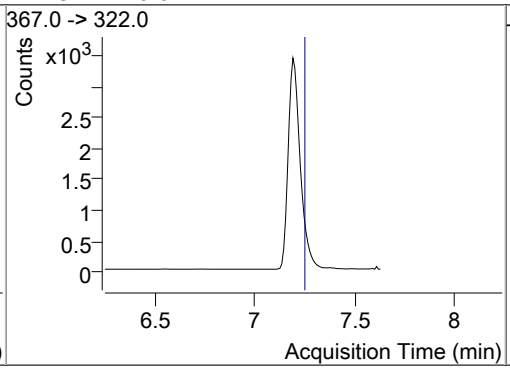
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

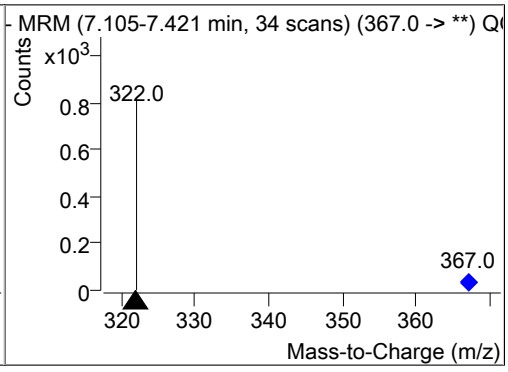




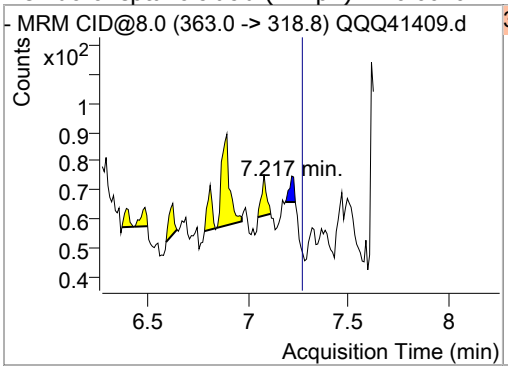
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.8931	7.19	-0.07	14411				

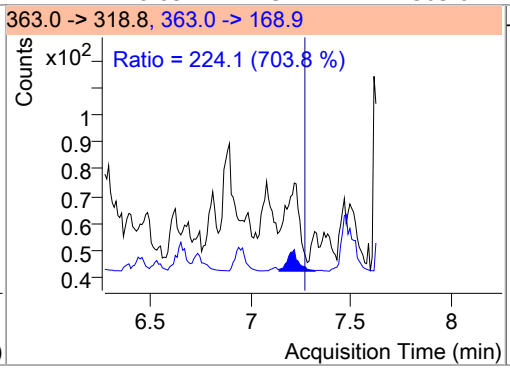


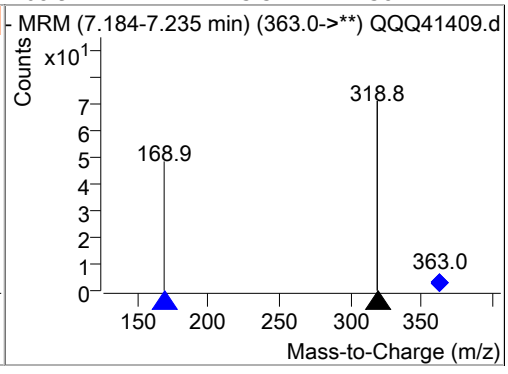




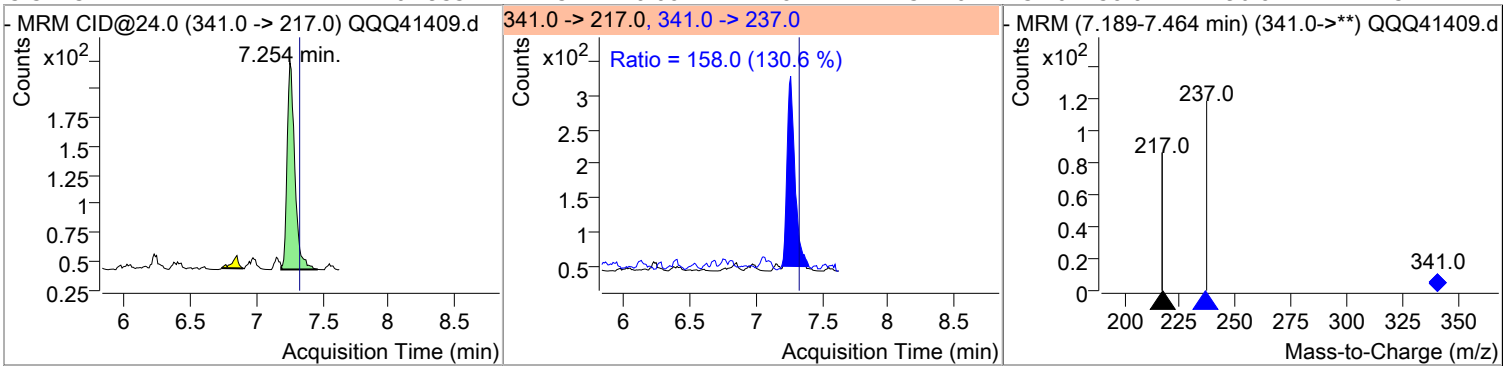
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0010	7.22	-0.05	13	363.0 -> 168.9	224.1	25.5	38.2



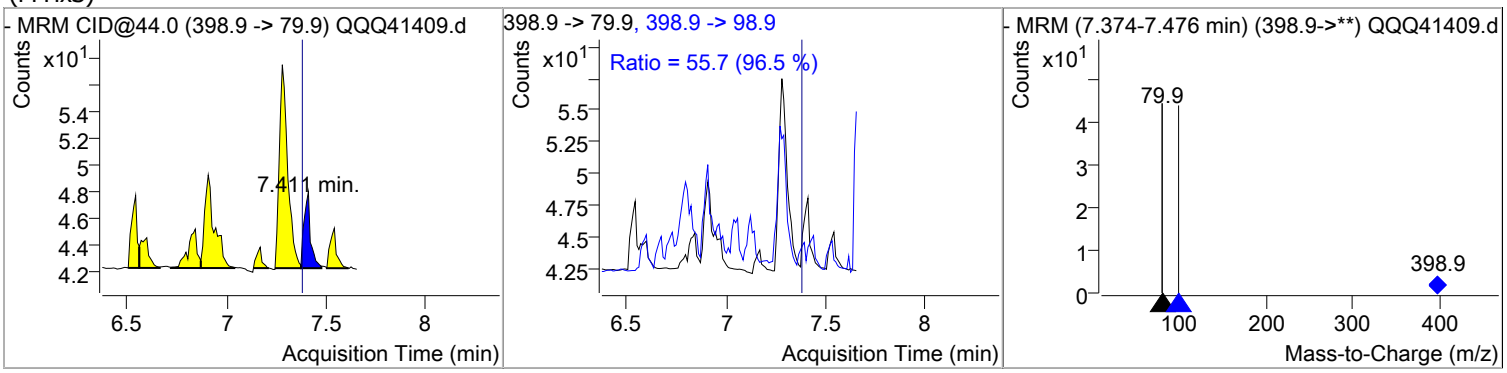




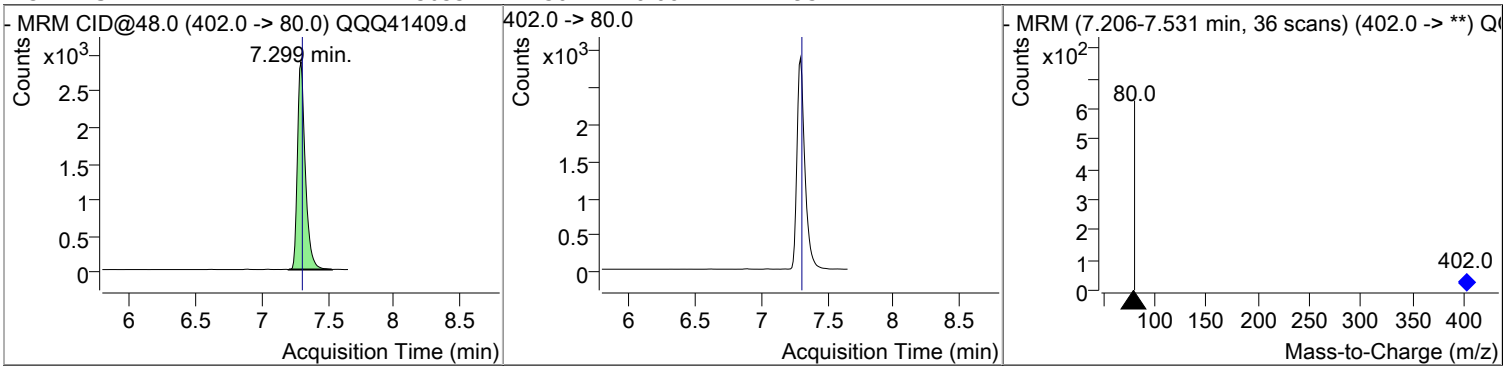
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.1933	7.25	-0.08	728	341.0 -> 237.0	158.0	96.8	145.2



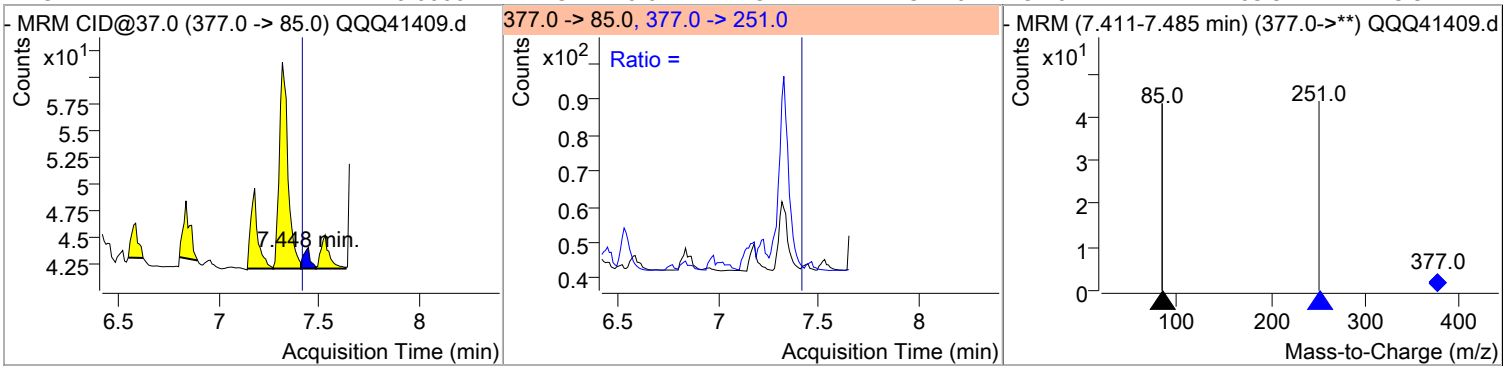
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0022	7.41	0.04	13	398.9 -> 98.9	55.7	46.2	69.3



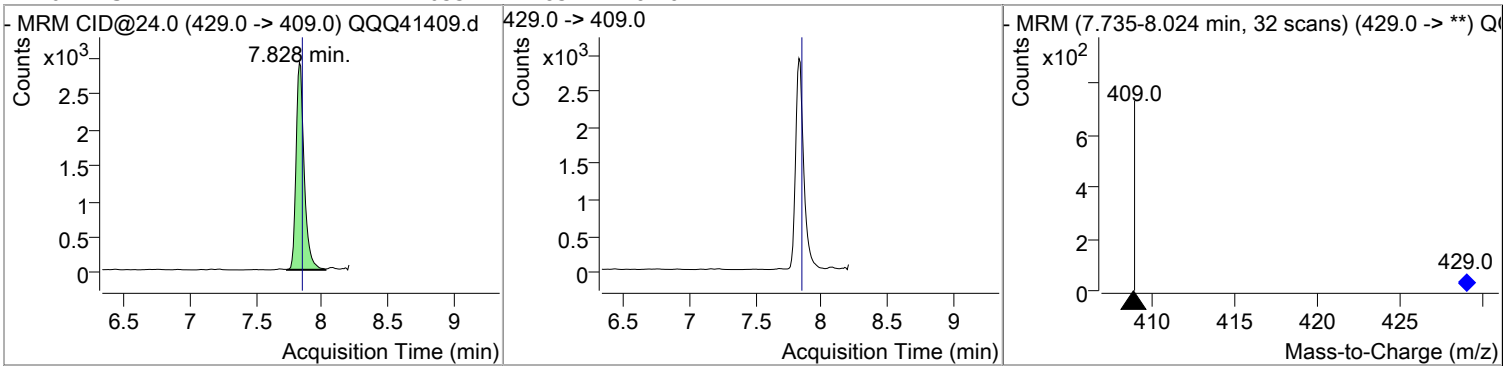
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.5653	7.30	-0.08	11793				



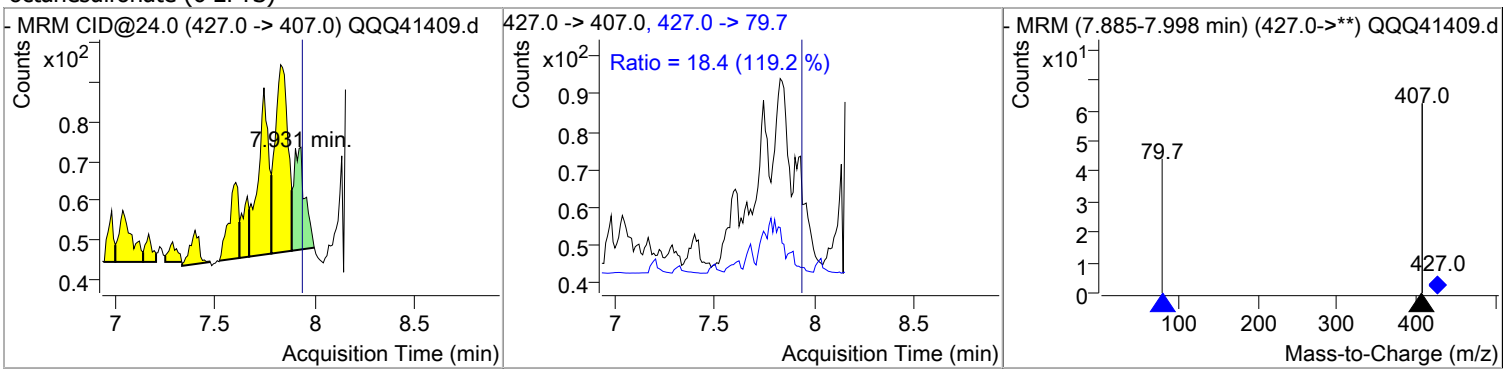
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0008	7.45	0.04	5	377.0 -> 251.0		283.9	425.9



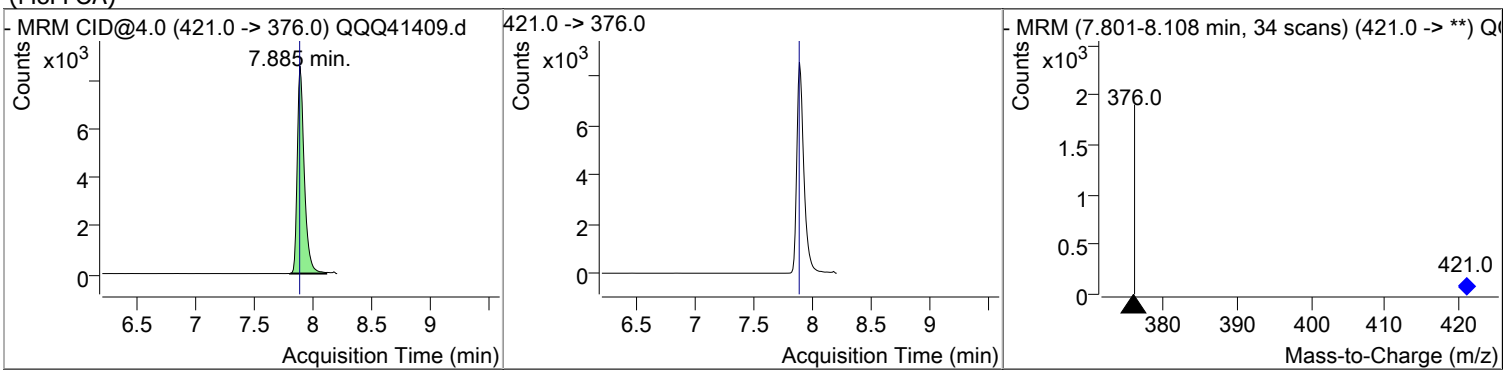
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.1653	7.83	-0.10	12272				



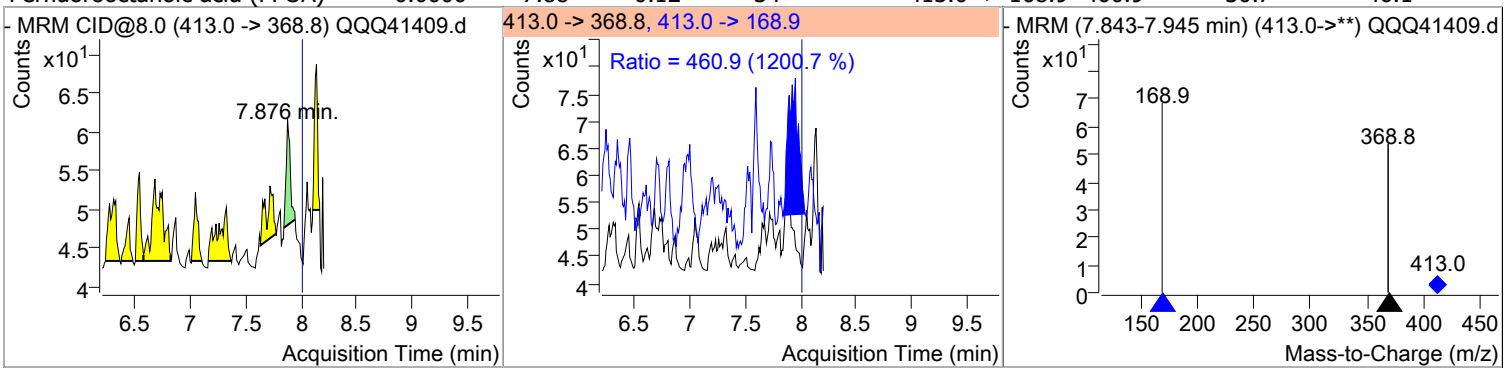
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0249	7.93	0.00	100	427.0 -> 79.7	18.4	12.3	18.5



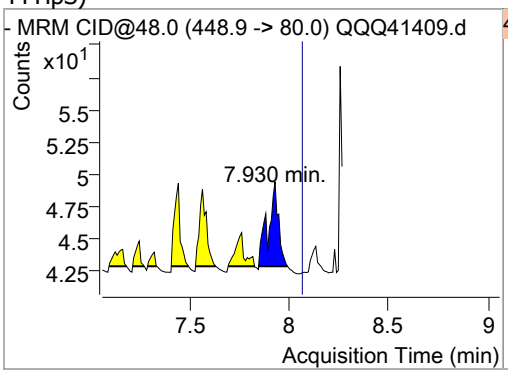
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.5333	7.88	-0.11	35298				

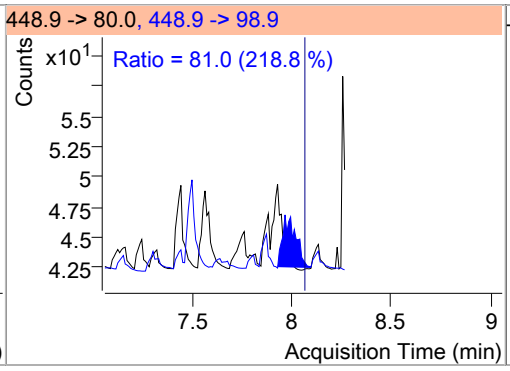


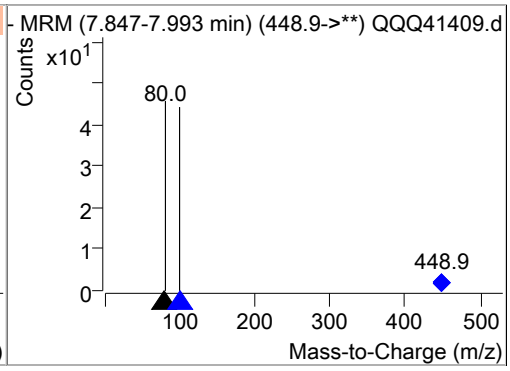
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	7.88	-0.12	34	413.0 -> 168.9	460.9	30.7	46.1



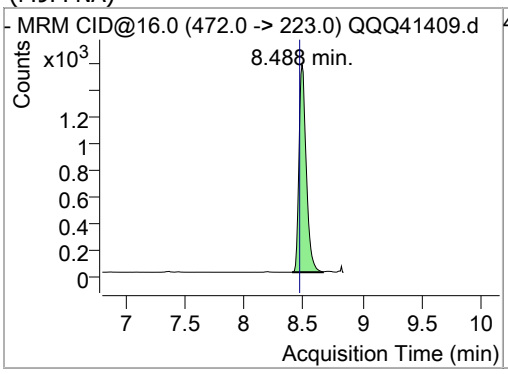
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0038	7.93	-0.13	24	448.9 -> 98.9	81.0	29.6	44.4

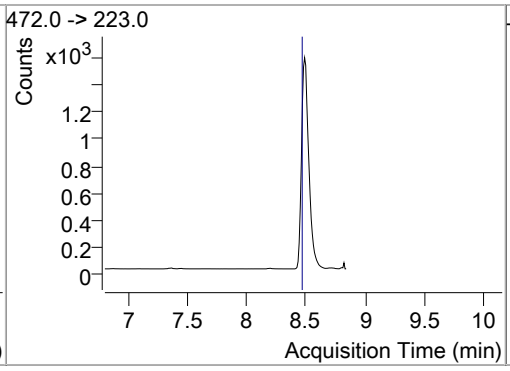


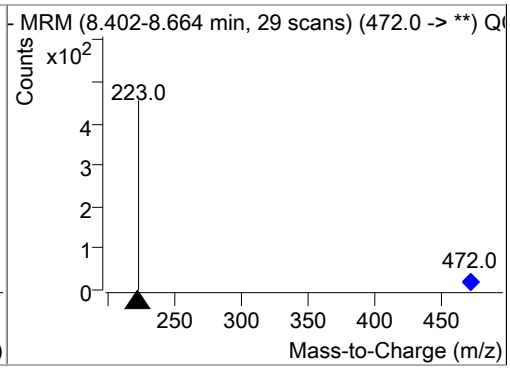




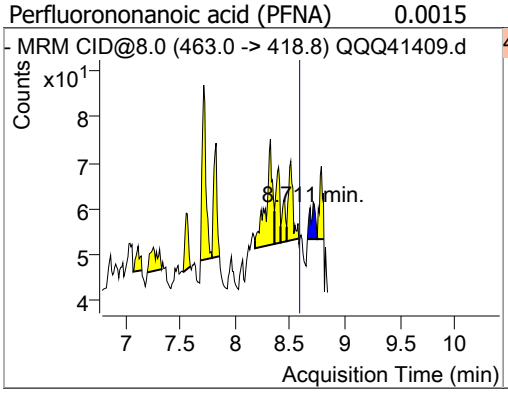
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.3757	8.49	-0.10	6684				

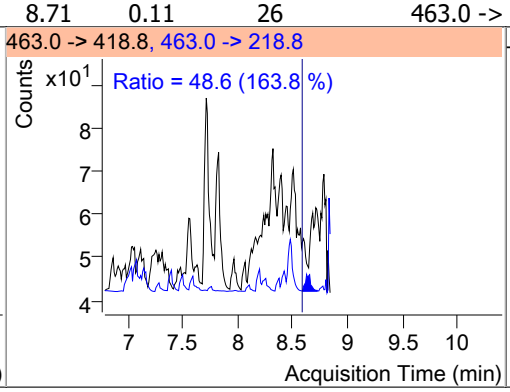


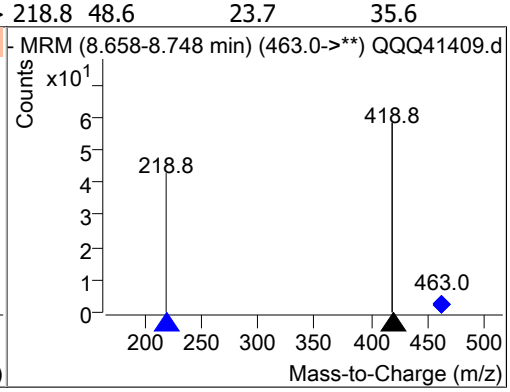




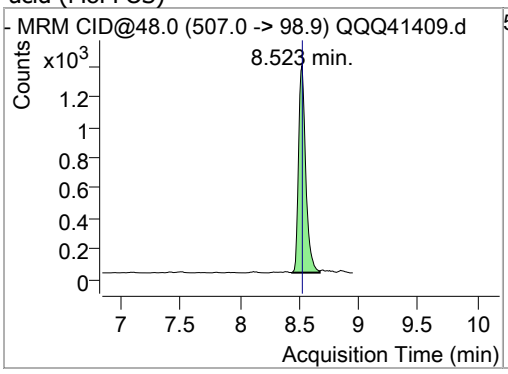
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0015	8.71	0.11	26	463.0 -> 218.8	48.6	23.7	35.6

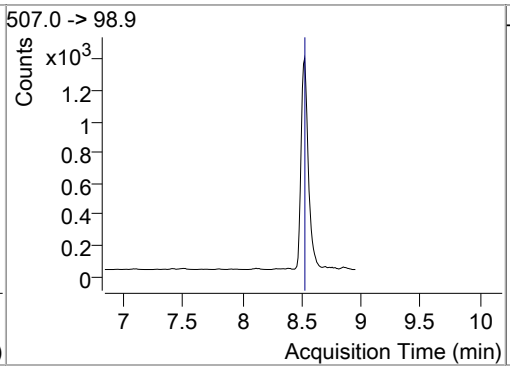


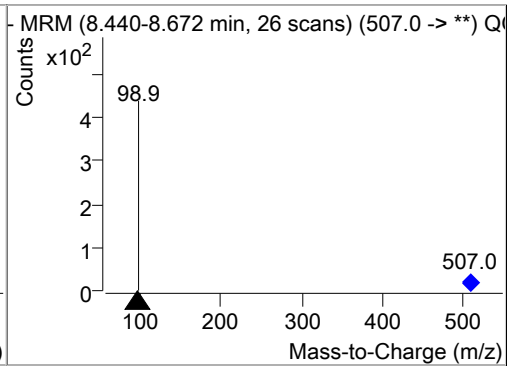




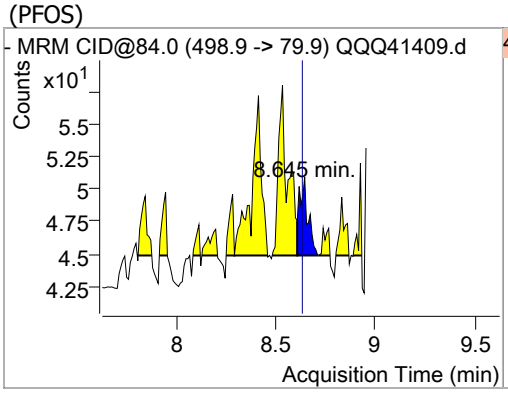
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.6287	8.52	-0.10	5748				

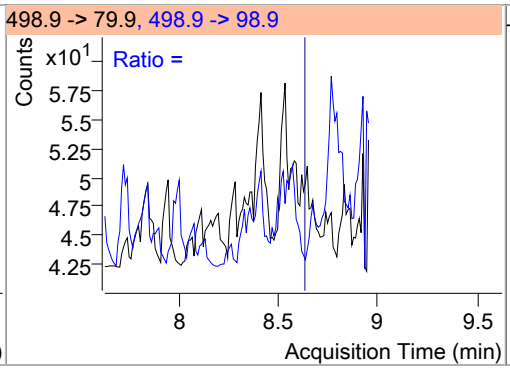


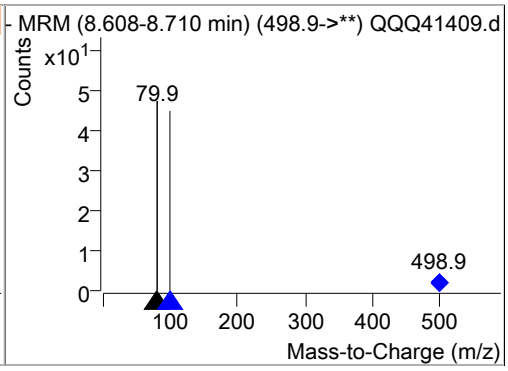




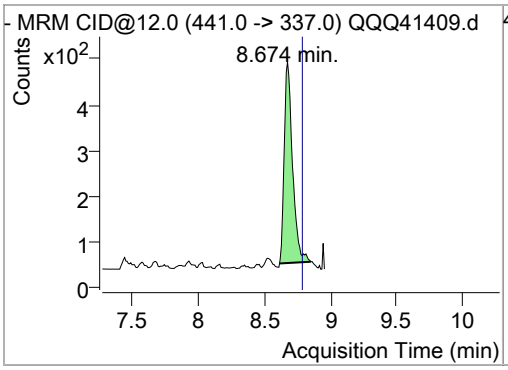
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.64	0.02	18	498.9 -> 98.9		45.5	68.3

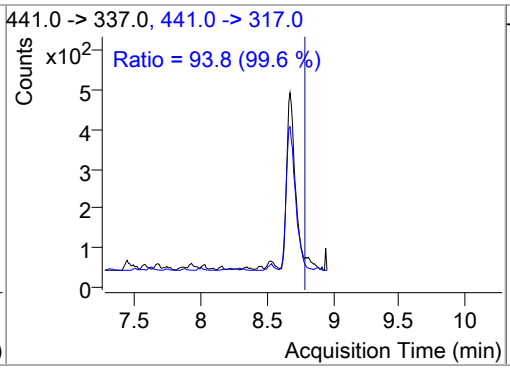


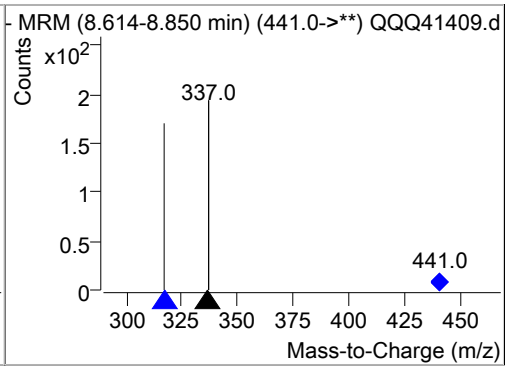




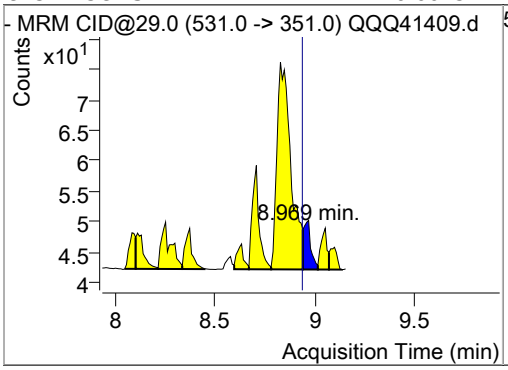
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.3789	8.67	-0.10	1911	441.0 -> 317.0	93.8	75.4	113.1

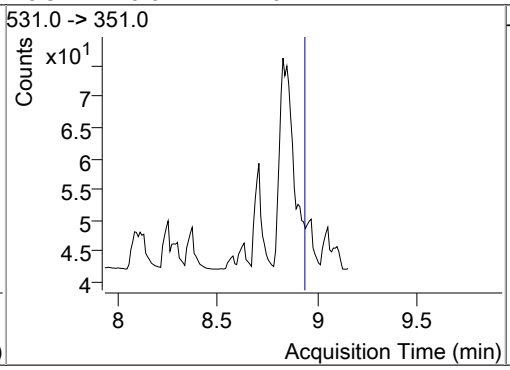


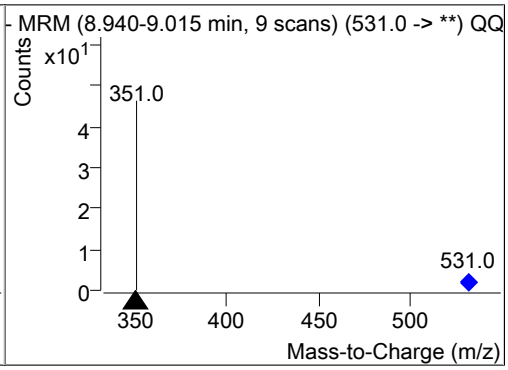




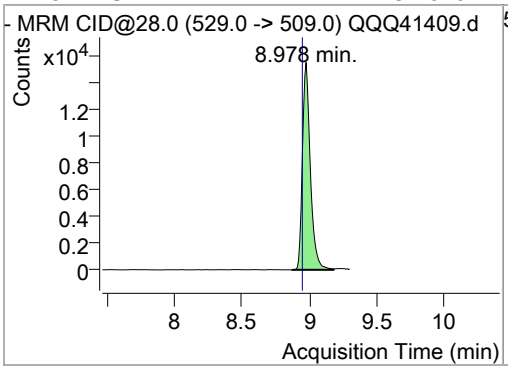
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0013	8.97	0.04	20				

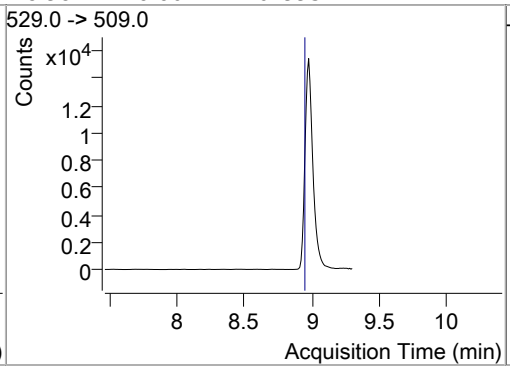


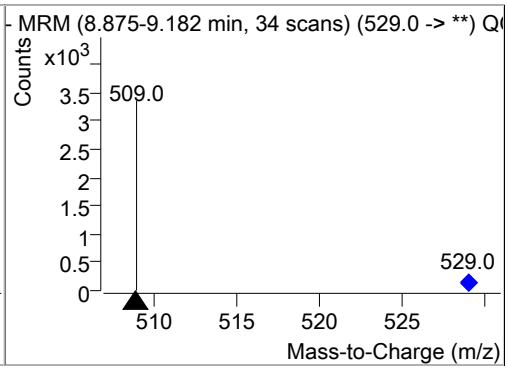




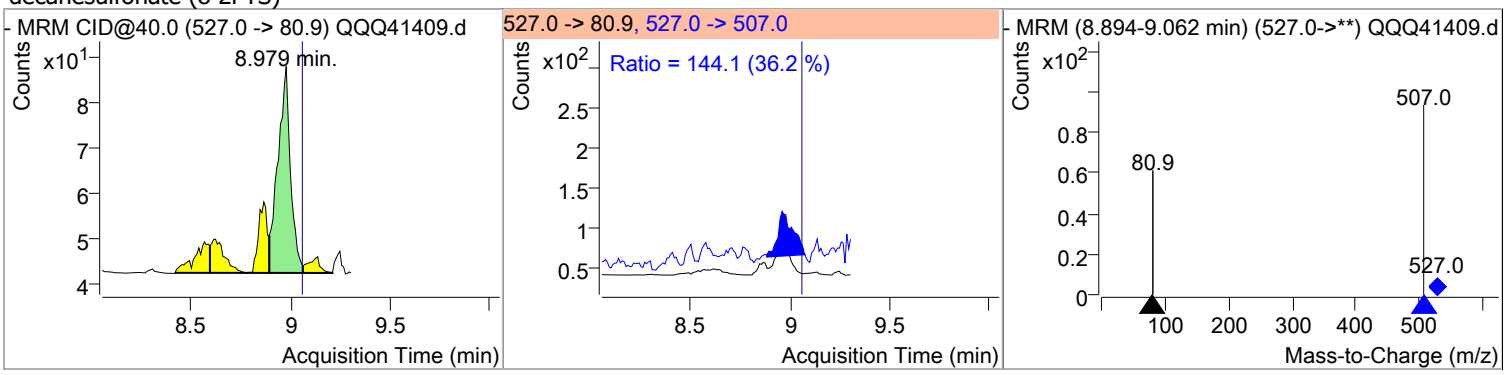
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	9.1046	8.98	-0.06	62993				



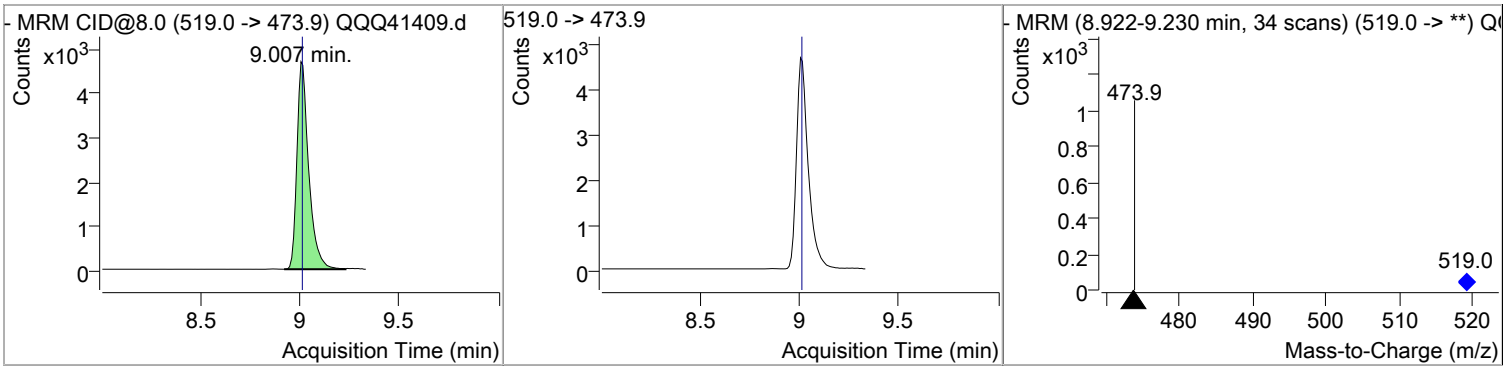




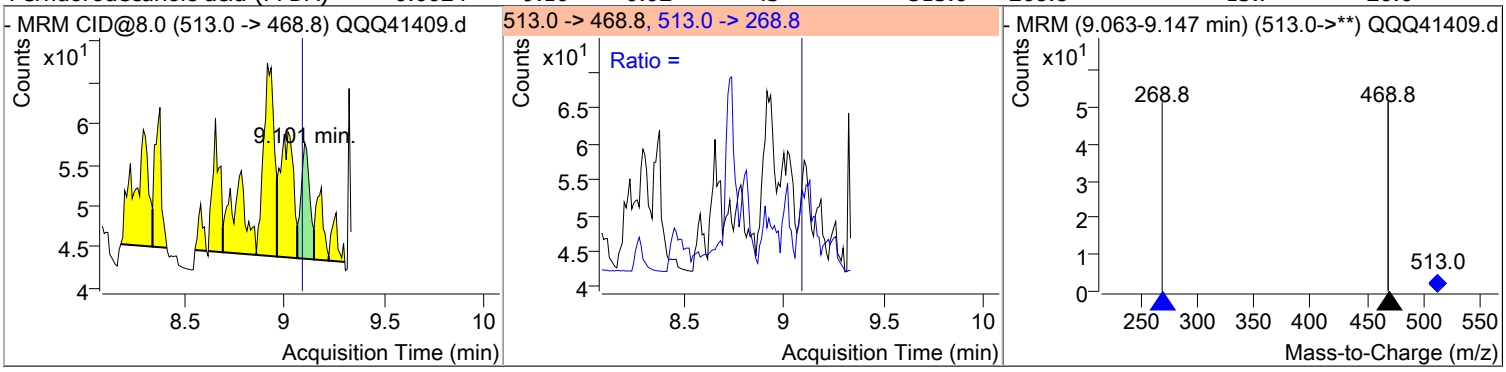
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0653	8.98	-0.07	202	527.0 -> 507.0	144.1	318.3	477.4



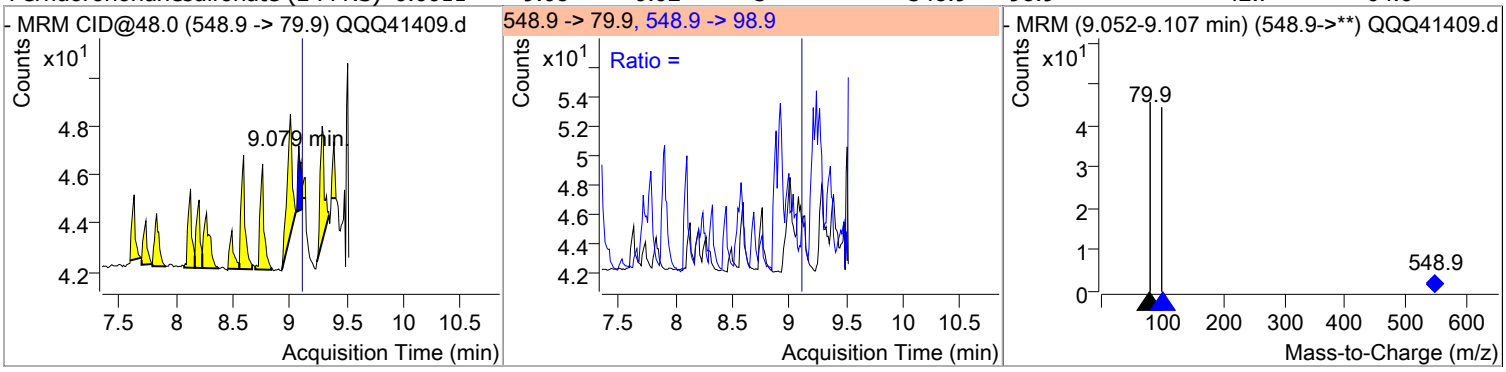
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2033	9.01	-0.07	19240				



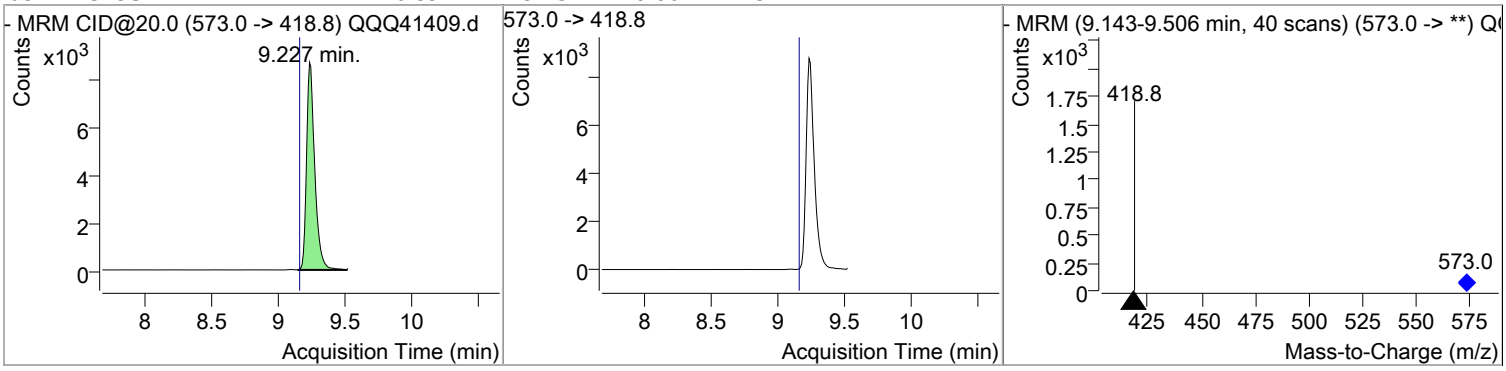
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0024	9.10	0.02	43	513.0 -> 268.8		13.7	20.6



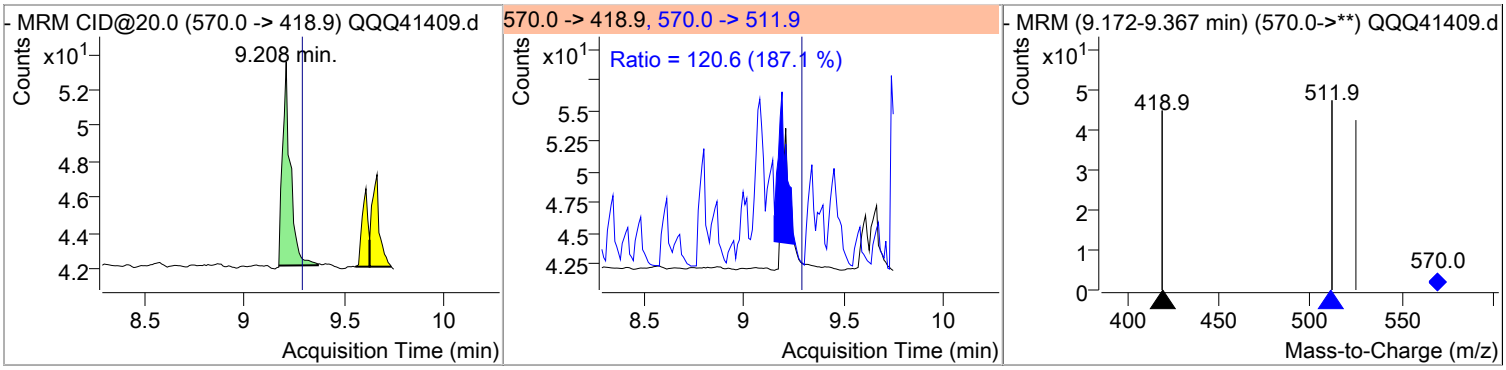
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0011	9.08	-0.02	5	548.9 -> 98.9		42.7	64.0



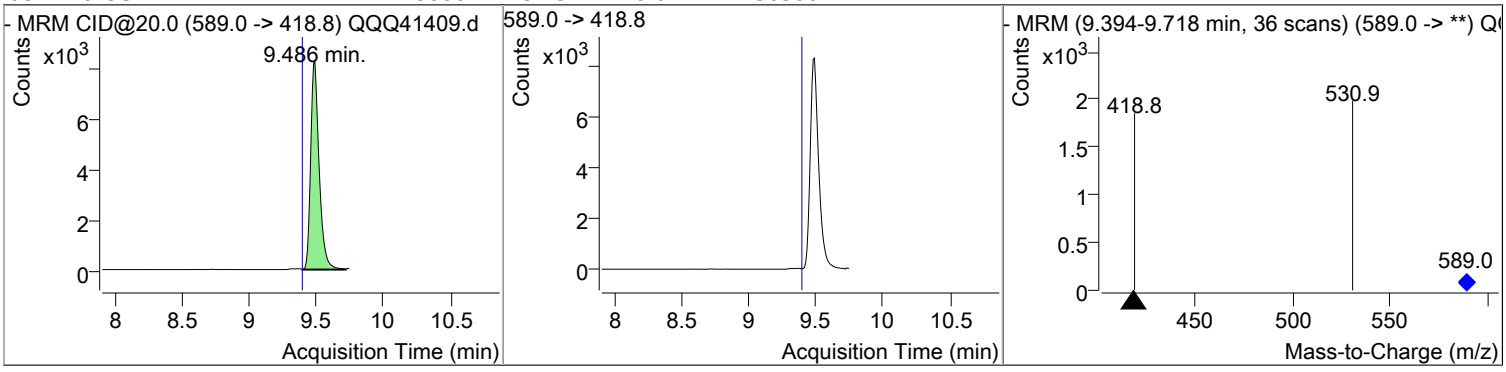
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	6.5927	9.23	-0.06	37147				



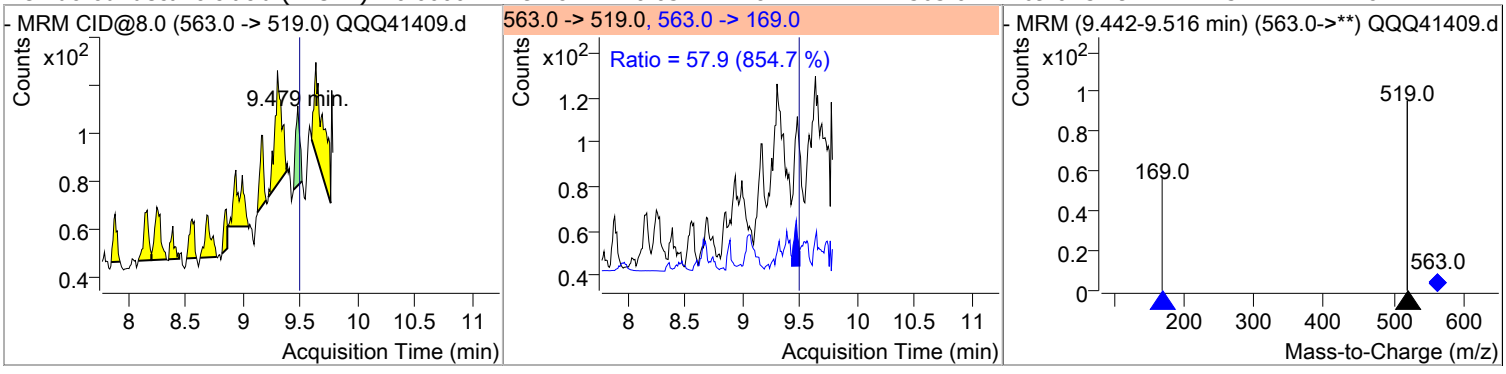
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0046	9.21	-0.07	30	570.0 -> 511.9	120.6	51.6	77.4



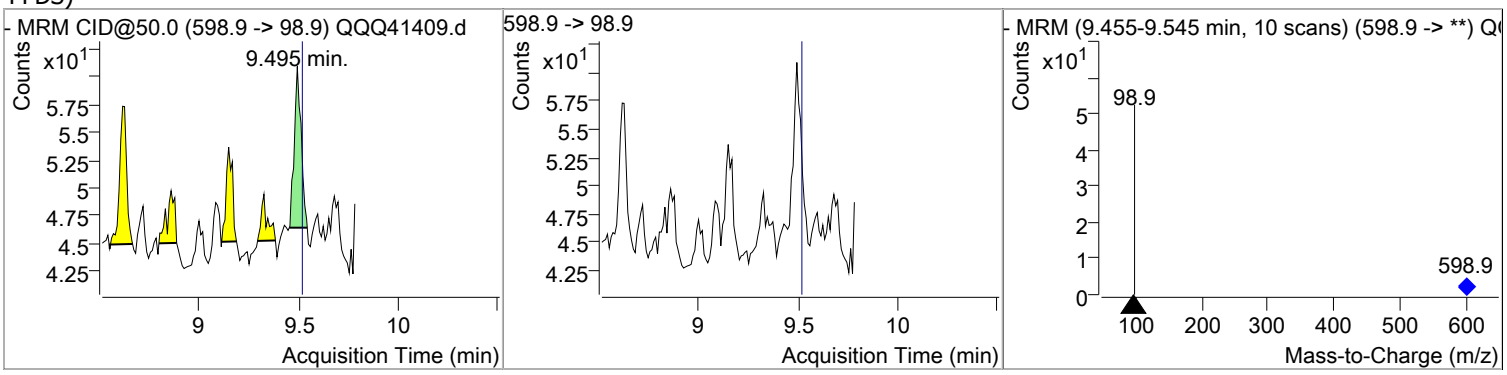
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	7.3086	9.49	-0.02	36368				



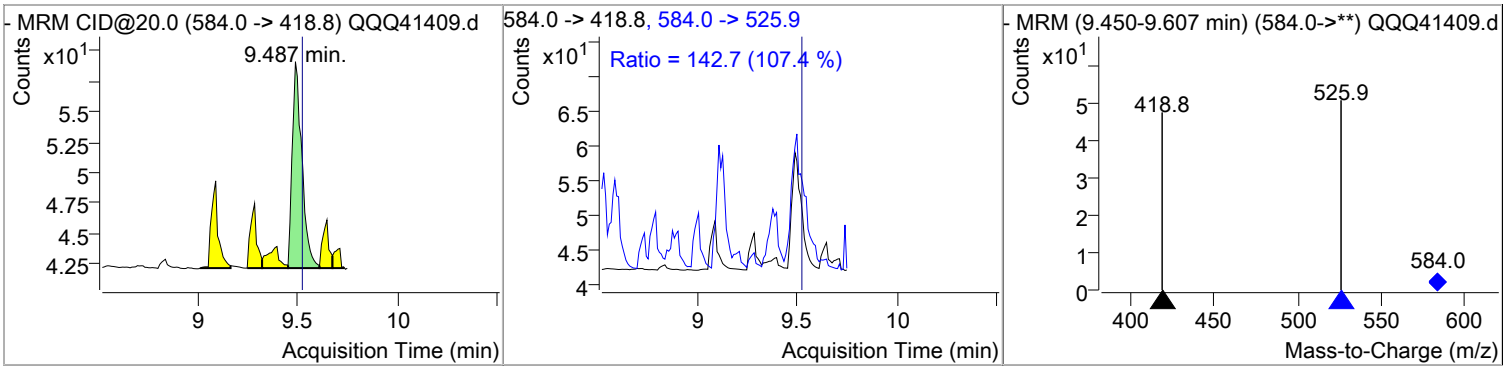
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.48	-0.03	84	563.0 -> 169.0	57.9	5.4	8.1



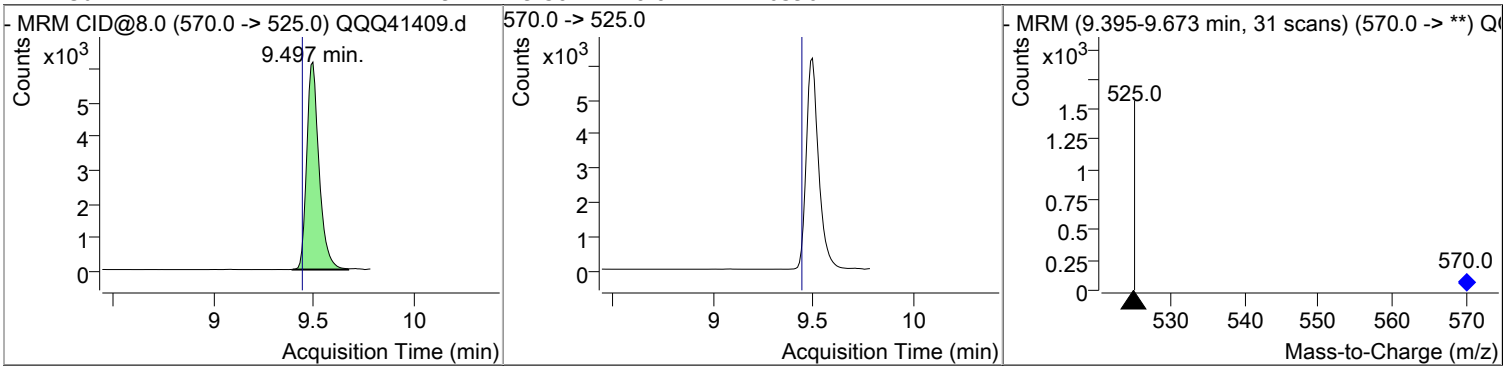
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0167	9.49	-0.02	35				



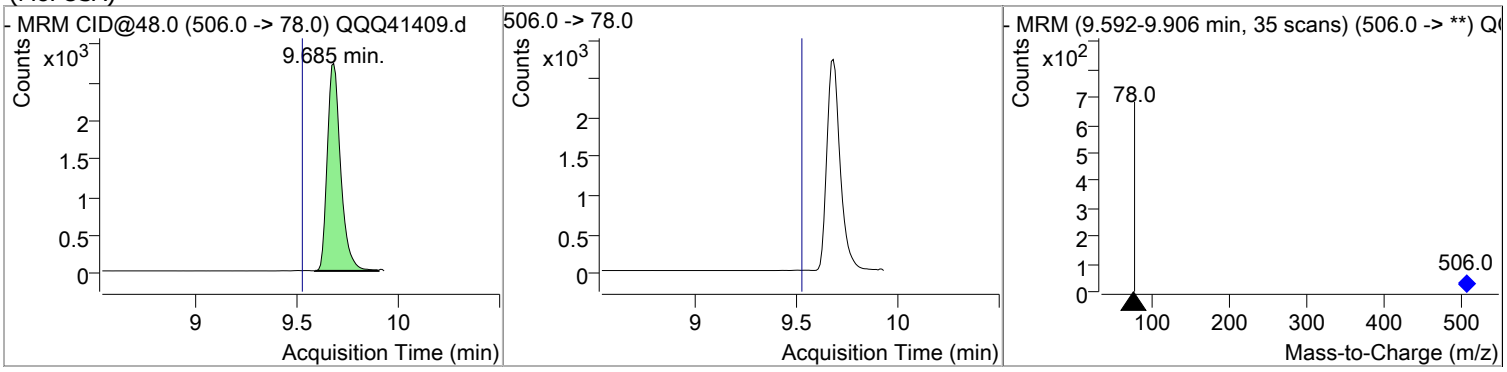
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0093	9.49	-0.03	57	584.0 -> 525.9	142.7	106.2	159.3



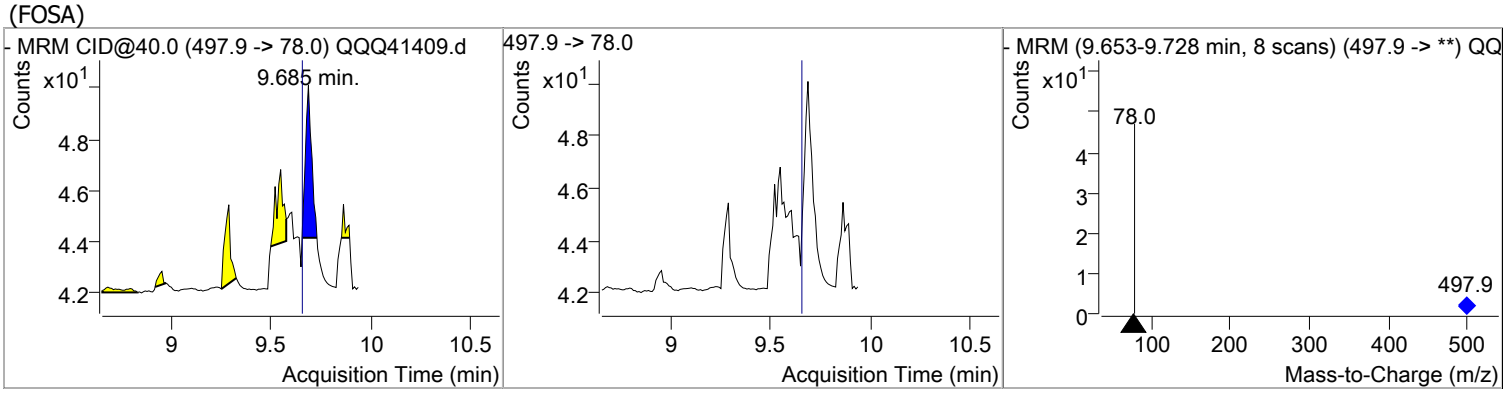
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.2197	9.50	-0.02	26396				



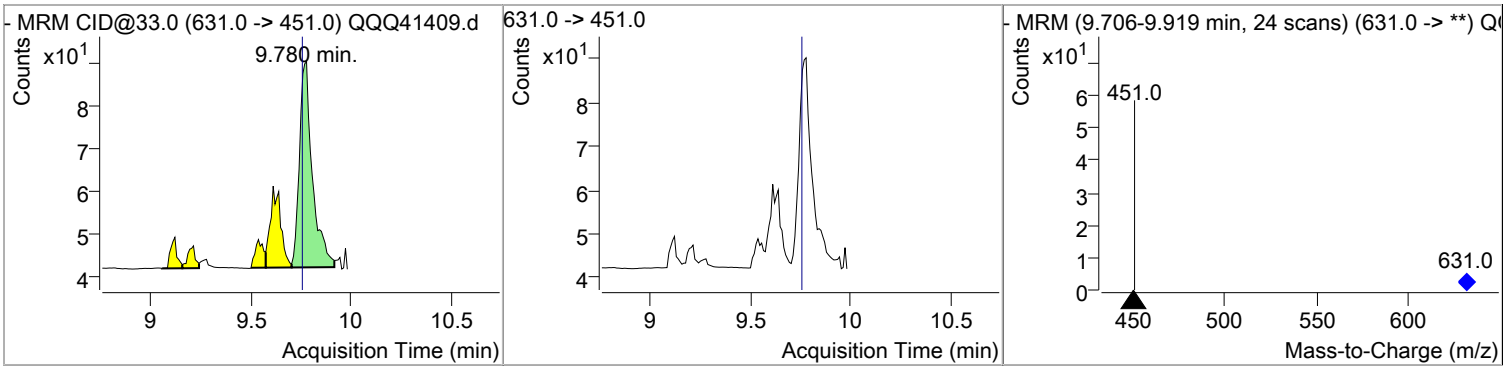
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	1.7398	9.68	0.04	12465				



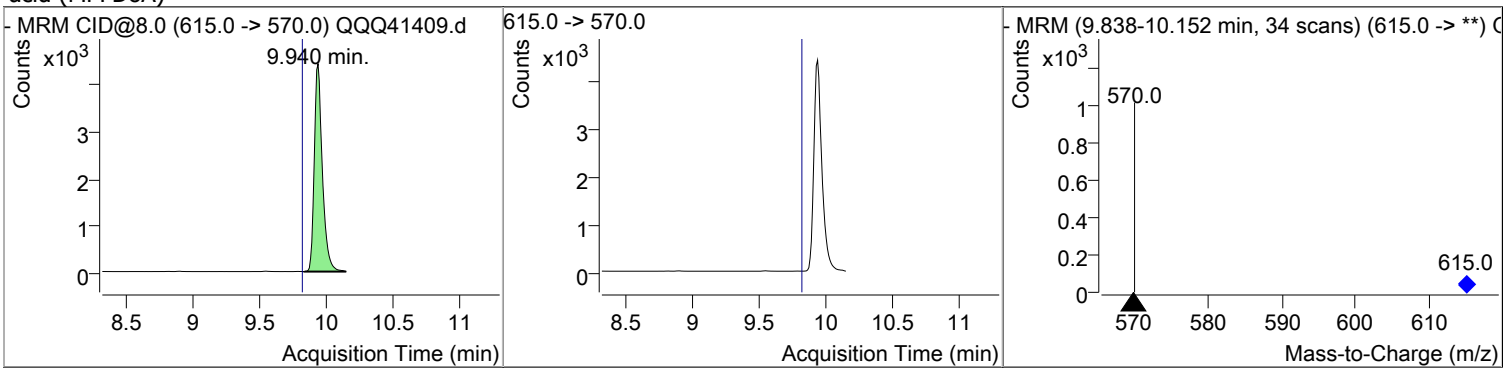
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0017	9.69	0.04	12				



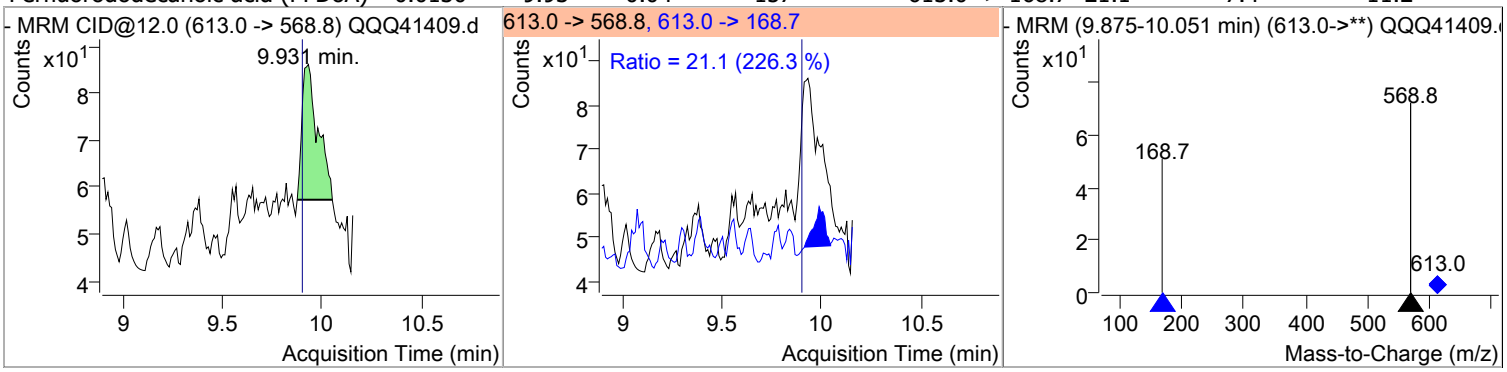
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0197	9.78	0.03	216				



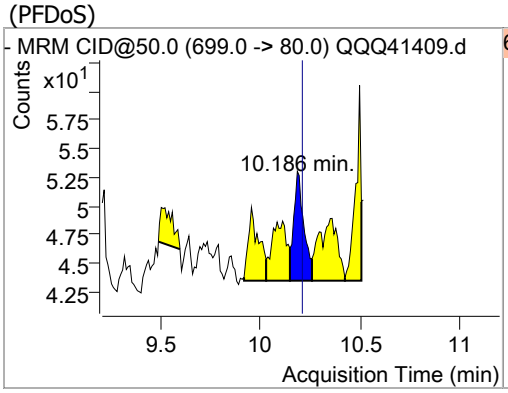
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	0.9768	9.94	0.05	18584				

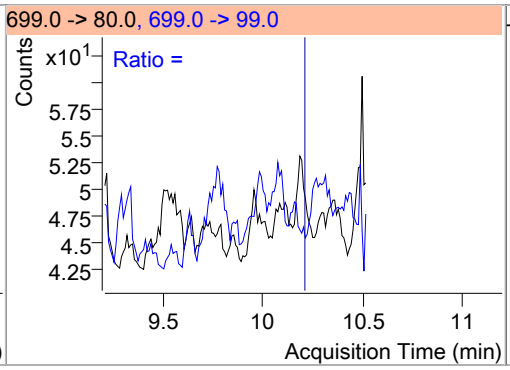


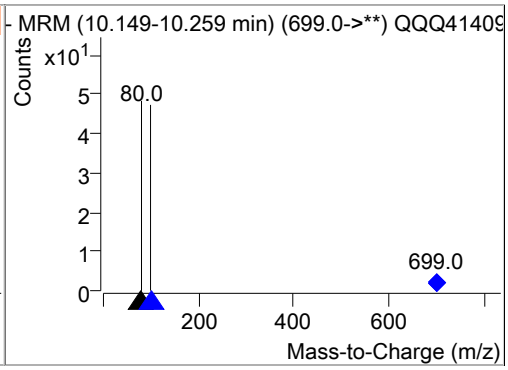
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0130	9.93	0.04	157	613.0 -> 168.7	21.1	7.4	11.2



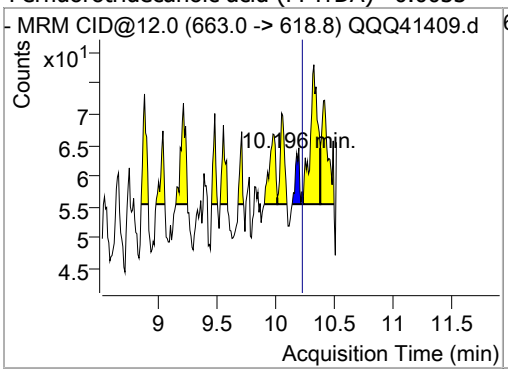
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0315	10.19	-0.02	34	699.0 -> 99.0		77.6	116.4

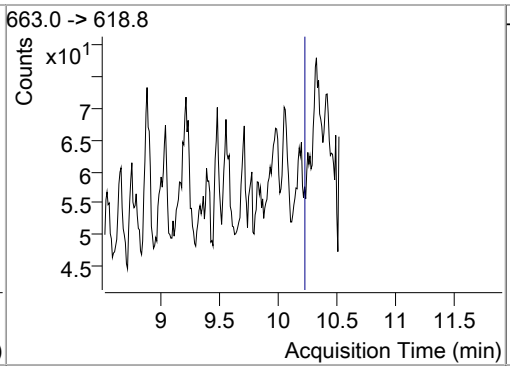


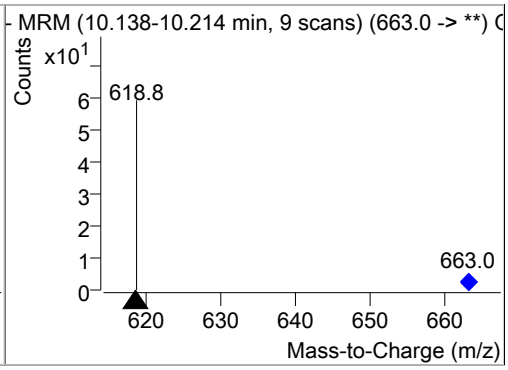




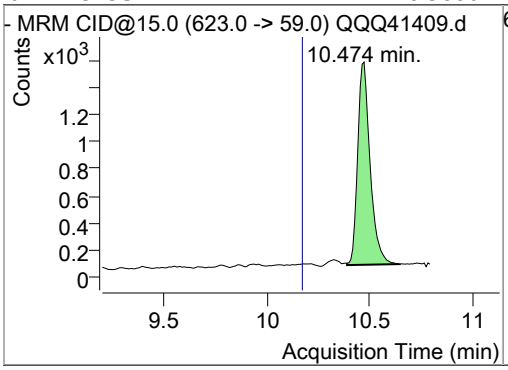
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0033	10.20	-0.02	20				

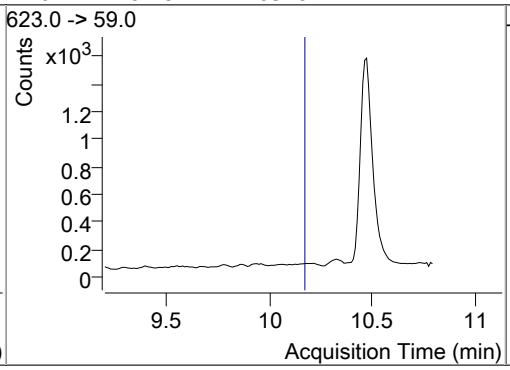


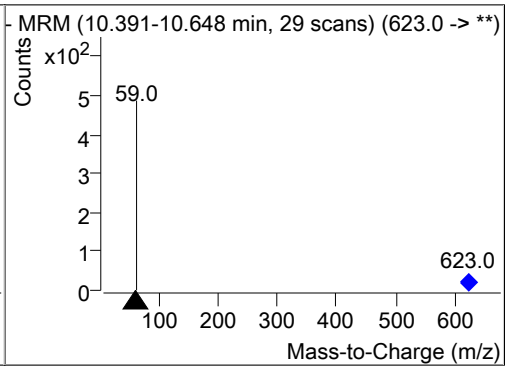




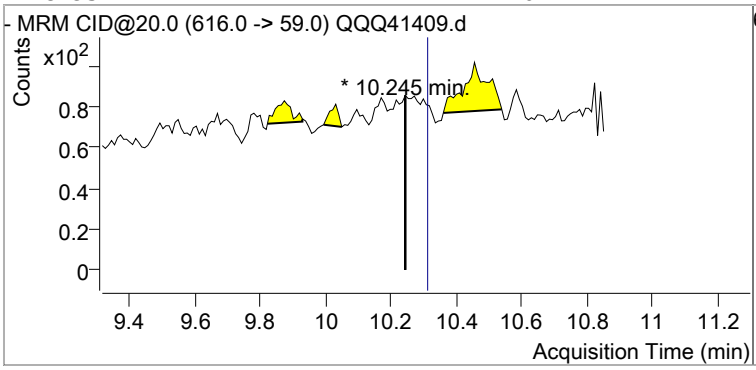
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	10.9886	10.47	0.18	6318				

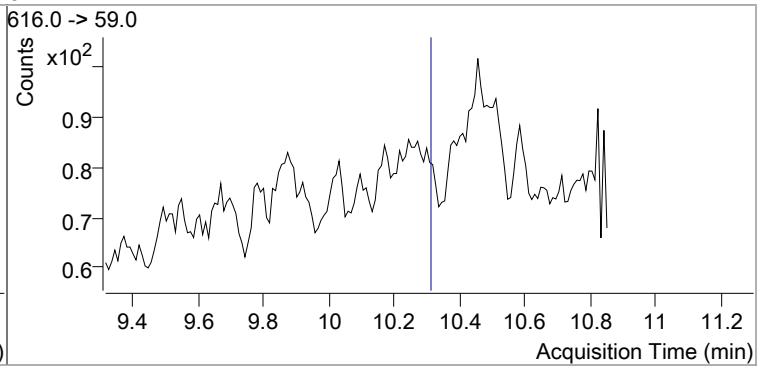




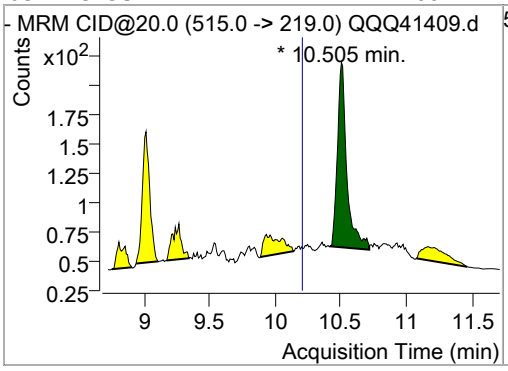


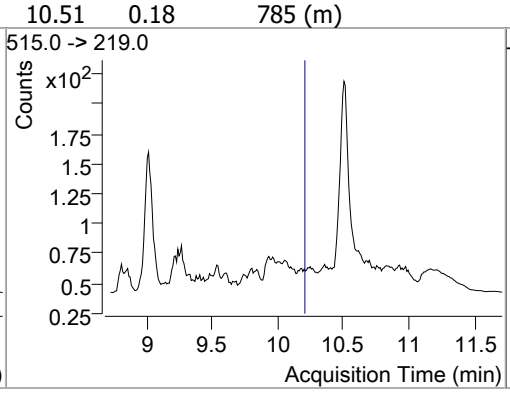
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE		0		0				

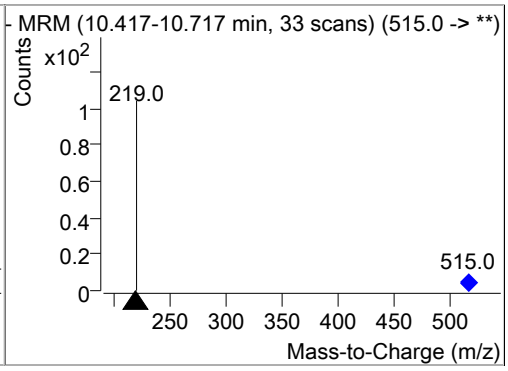




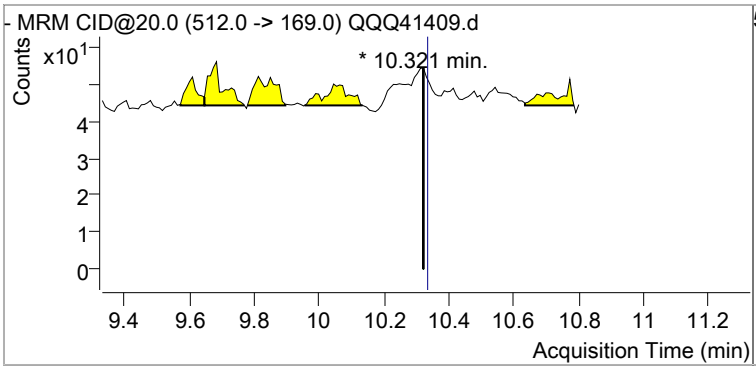
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	1.0841	10.51	0.18	785 (m)				

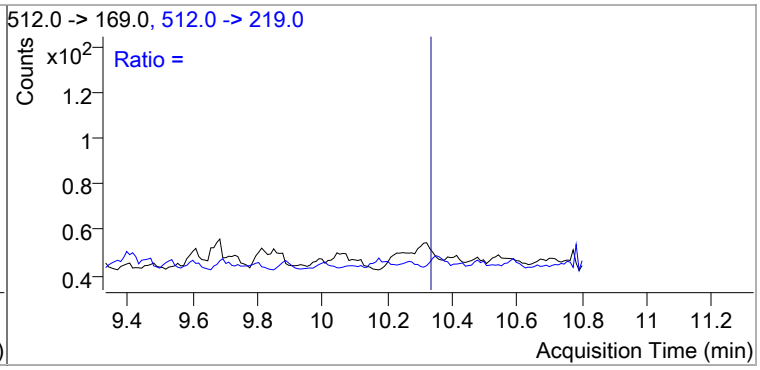




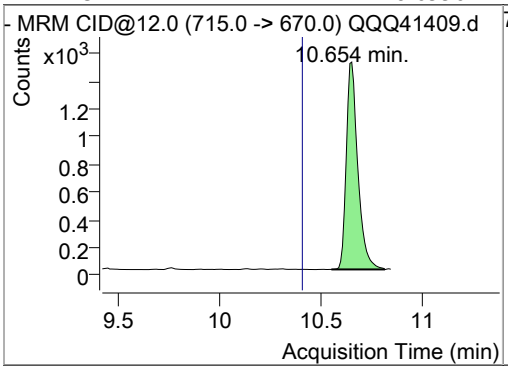


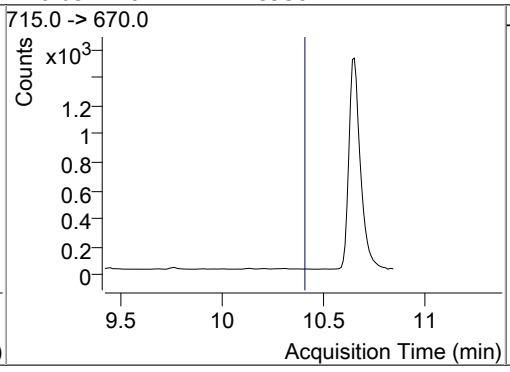
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA		0		0	512.0 -> 219.0		101.6	152.5

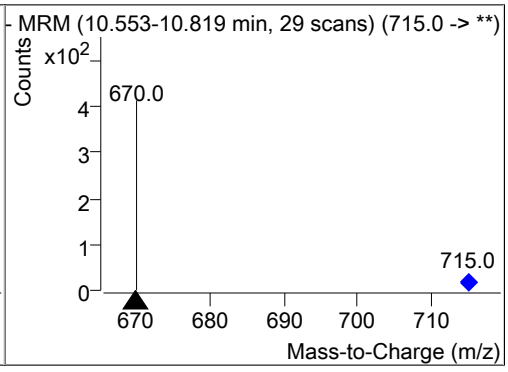




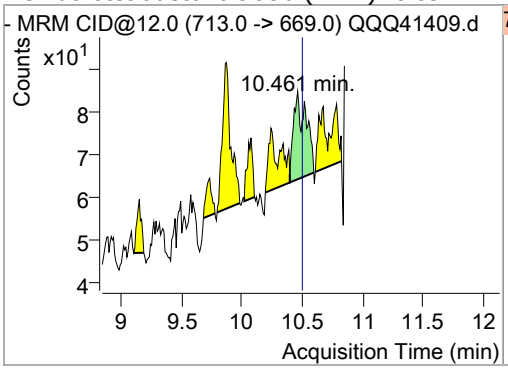
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	0.6996	10.65	0.17	5938				

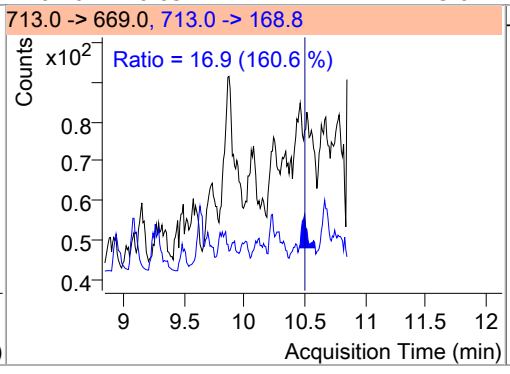


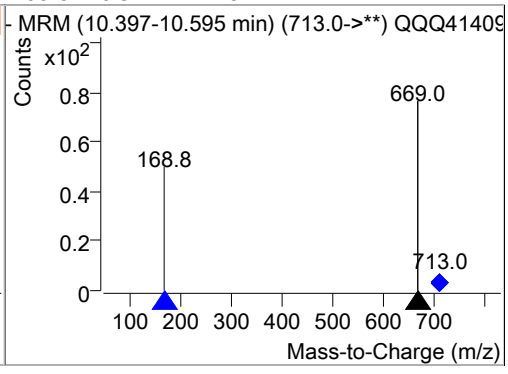




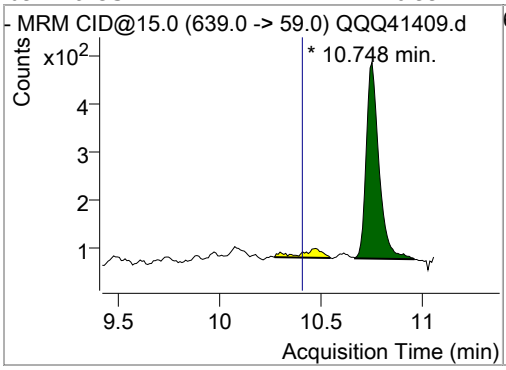
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0317	10.46	-0.03	147	713.0 -> 168.8	16.9	8.4	12.7

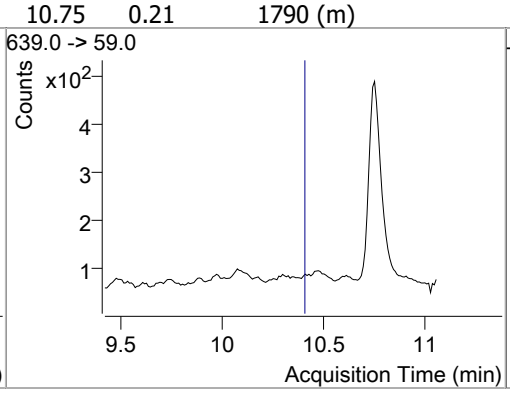


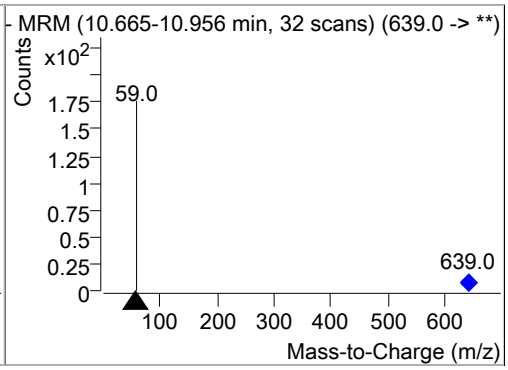




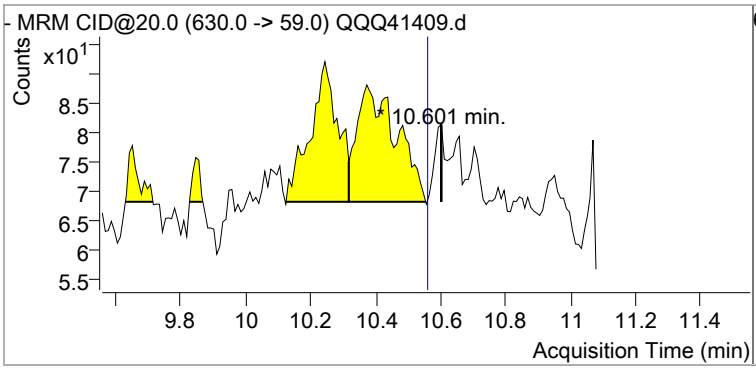
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	6.9917	10.75	0.21	1790 (m)				

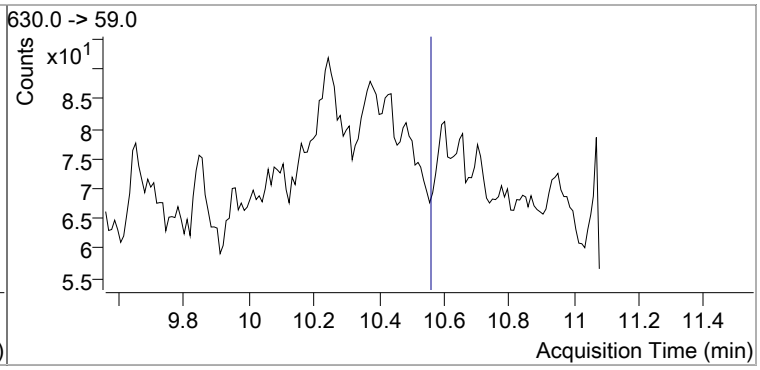




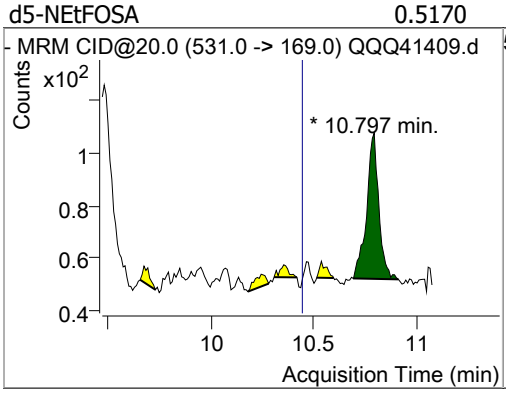


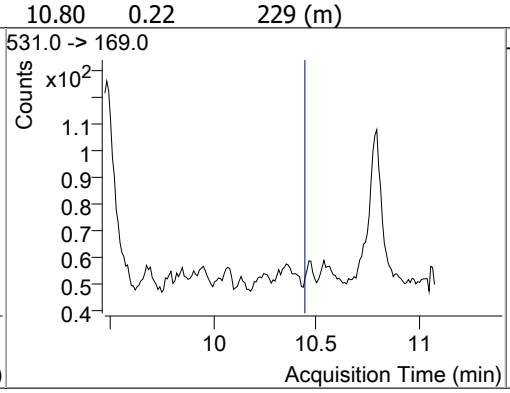
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE		0		0				

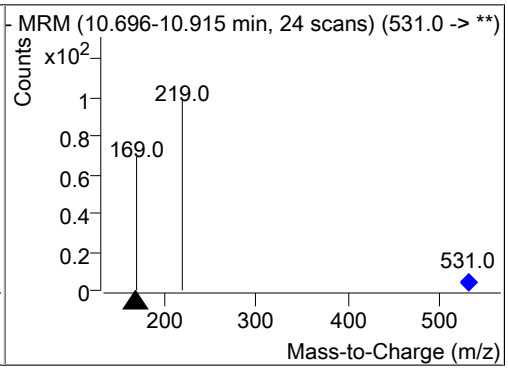




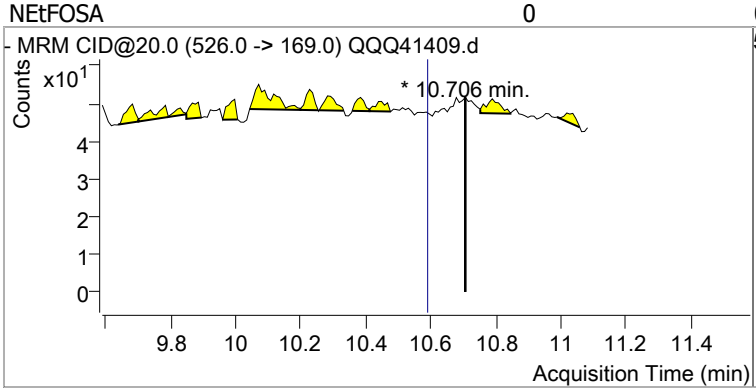
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	0.5170	10.80	0.22	229 (m)				

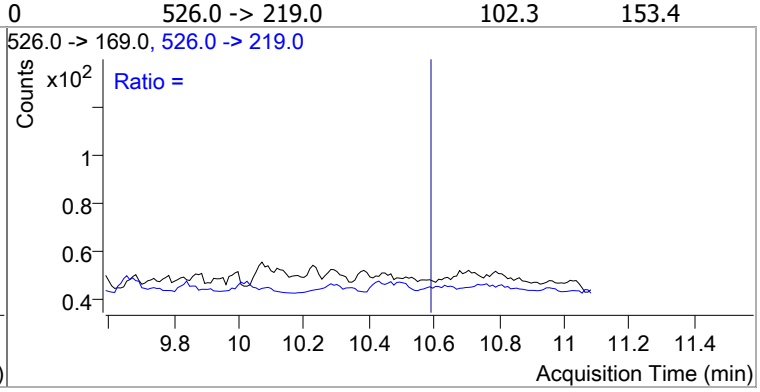






Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA		0		0	526.0 -> 219.0		102.3	153.4





Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 7:46:09 PM	**Data File**	QQQ41409.d
Sample Type	Sample	**Sampe Name**	SEQ-CCB4
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.287	155719	23617	0.468			1.83			5460.98
Perfluoro-n-butanoic acid (PFBA)	1.274	90	16	0.241			1.96			4.92
PFMPA	2.162	13	2	0.277			2.09			3.61
3:3FTCA	4.396	11	3	0.101			2.21			4.54
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.718	118262	16792	0.501			1.94			3956.51
Perfluoro-n-pentanoic acid (PFPeA)	4.747	113	19	0.167			0.74			2.36
PFMBA	5.495	5	3	0.052			0.87			0.14
M3PFBS	5.529	14437	3114	0.369			1.95			765.28
Perfluorobutanesulfonic acid (PFBS)	5.530	8	3	0.083			0.54			25.27
PFEESA	6.038	54	14	0.128			2.89			8.33
NFDHA	6.170	3	1	0.121			4.00			3.12
M2-4-2FTS	6.278	9721	2304	0.307			1.64			393.55
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.446	34	10	0.121			0.26			0.67
M5PFHxA	6.353	58787	14380	0.292			1.47			∞
Perfluorohexanoic acid (PFHxA)	6.373	191	36	0.177			1.10			1.29
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.519	35	10	0.102			2.41			5.60
M3-HFPO-DA	6.652	26366	6500	0.268			1.34			1591.70
HFPO-DA	6.523	0	53	0.000			1.00			8.88
M4PFHpA	7.189	14411	3433	0.315			1.75			∞
Perfluoroheptanoic acid (PFHpA)	7.217	13	9	0.051			0.63			0.81
5-3FTCA	7.254	728	181	0.275			1.78			133.77
Perfluorohexanesulfonic acid (PFHxS)	7.411	13	6	0.102			1.02			16.91
M3PFHxS	7.299	11793	2861	0.326			1.54			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.448	5	2	0.074			0.77			0.07
M2-6-2FTS	7.828	12272	2907	0.289			1.62			4319.66
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.931	100	26	0.113			1.29			10.07
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.885	35298	8524	0.307			1.86			57391.02
Perfluorooctanoic acid (PFOA)	7.876	34	14	0.102			2.32			0.46
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.930	24	7	0.145			0.57			9.03
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.488	6684	1556	0.262			1.60			17863.44
Perfluorononanoic acid (PFNA)	8.711	26	8	0.090			0.70			0.33
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.523	5748	1363	0.232			1.39			∞
Perfluorooctanesulfonic acid (PFOS)	8.645	18	6	0.102			1.08			0.19
7-3FTCA	8.674	1911	438	0.236			1.84			3.12
9-Cl-PF3ONS	8.969	20	8	0.075			1.49			24.79
M2-8-2FTS	8.978	62993	15413	0.307			1.44			4686.76
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.979	202	46	0.168			0.63			323.58
M6PFDA	9.007	19240	4686	0.308			1.99			∞
Perfluorodecanoic acid (PFDA)	9.101	43	14	0.084			0.99			3.78
Perfluorononanesulfonate (L-PFNS)	9.079	5	3	0.056			2.11			15.52
d3-N-MeFOSAA	9.227	37147	8718	0.362			1.86			∞
N-MeFOSAA	9.208	30	11	0.195			1.65			71.32
d5-N-EtFOSAA	9.486	36368	8257	0.324			1.38			∞
Perfluoroundecanoic acid (PFUnA)	9.479	84	33	0.074			1.07			4.40
Perfluoro-1-decanesulfonate (L-PFDS)	9.495	35	15	0.090			1.22			1.41
N-EtFOSAA	9.487	57	17	0.158			2.14			70.90
M7PFUdA	9.497	26396	6175	0.278			1.34			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.685	12465	2709	0.314			1.41			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.685	12	6	0.075			1.32			2.33
11-Cl-PF3OUdS	9.780	216	48	0.213			1.59			321.62
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	18584	4415	0.314			1.47			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.931	157	29	0.176			2.25			0.89
Perfluorododecanesulfonic acid (PFDoS)	10.186	34	10	0.111			1.49			2.05
Perfluorotridecanoic acid (PFTrDA)	10.196	20	9	0.076			0.30			0.54
d7-NMeFOSE	10.474	6318	1499	0.257			1.37			151.33
NMeFOSE	10.245	0	86	0.000			1.00			4.58
d3-NMeFOSA	10.505	785	157	0.300			1.52			15.33
NMeFOSA	10.321	0	54	0.000			1.00			12.39
M2PFTeDA	10.654	5938	1495	0.266			1.50			122.72
Perfluorotetradecanoic acid (PFTA)	10.461	147	21	0.198			2.10			1.82
d9-NEtFOSE	10.748	1790	412	0.291			1.50			11.35
NEtFOSE	10.601	0	81	0.000			1.00			6.59
d5-NEtFOSA	10.797	229	56	0.219			0.65			9.06
NEtFOSA	10.706	0	52	0.000			1.00			17.54

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41421.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB5	Injection Time:	23:00

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A		0.0177	0.8591385				30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A		0.0109	0.2419004				30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A		0.0120	1.185549				30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A		0.0152	1.255886				30
3-Perfluoroheptyl propanoic acid (FHpPA)	A		0.412	0.2201101				30
3-Perfluoropentyl propanoic acid (FPePA)	A		0.294	0.1241024				30
3-Perfluoropropyl propanoic acid (FPrPA)	A		0.0273	1.286716E-02				30
9CL-PF3ONS	A		0.00864	1.369128				30
ADONA	A		0.00440	0.556015				30
HFPO-DA (Gen-X)	A		0.00	2.239571E-02				30
N-EtFOSA	A		0.00335	1.287944				30
N-EtFOSAA	A		0.00509	0.94945				30
N-EtFOSE	A		0.0341	1.993152				30
N-MeFOSA	A		0.00	0.7524916				30
N-MeFOSAA	A		0.0108	0.8763811				30
N-MeFOSE	A		0.0217	0.824401				30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A		0.000729	1.241156				30
Perfluoro-1-decanesulfonic acid (PFDS)	A		0.0125	0.7352727				30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A		0.00433	2.525683				30
Perfluoro-1-nonanesulfonic acid (PFNS)	A		0.00745	0.1655348				30
Perfluoro-1-octanesulfonamide (FOSA)	A		0.00596	1.385288				30
Perfluoro-1-pentanesulfonate (PFPeS)	A		0.00155	1.400558				30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A		0.0108	1.573594E-02				30

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41421.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/10/24
Lab Sample ID:	S4G1047-CCB5	Injection Time:	23:00

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A		0.00170	0.2604373				30
Perfluoro-5-oxahexanoic acid (PFMBA)	A		0.000178	0.4108024				30
Perfluorobutanesulfonic acid (PFBS)	A		0.00304	1.128938				30
Perfluorodecanoic acid (PFDA)	A		0.00720	1.09146				30
Perfluorododecanesulfonic acid (PFDoS)	A		0.0188	0.4284993				30
Perfluorododecanoic acid (PFDoA)	A		0.0113	0.8702134				30
Perfluoroheptanoic acid (PFHpA)	A		0.0117	2.370614				30
Perfluorohexanesulfonic acid (PFHxS)	A		0.0148	1.39602				30
Perfluorohexanoic acid (PFHxA)	A		0.00891	1.166423				30
Perfluoro-n-butanoic acid (PFBA)	A		0.00582	0.9037138				30
Perfluorononanoic acid (PFNA)	A		0.00142	3.453721				30
Perfluorooctanesulfonic acid (PFOS)	A		0.00	2.631087				30
Perfluorooctanoic acid (PFOA)	A		0.00	1.254067				30
Perfluoropentanoic acid (PFPeA)	A		0.00333	1.003786				30
Perfluorotetradecanoic acid (PFTA)	A		0.00271	1.041146				30
Perfluorotridecanoic acid (PFTrDA)	A		0.0106	1.484165				30
Perfluoroundecanoic acid (PFUnA)	A		0.00	0.9068038				30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41421.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 11:00:27 PM
Sample Name	SEQ-CCB5	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

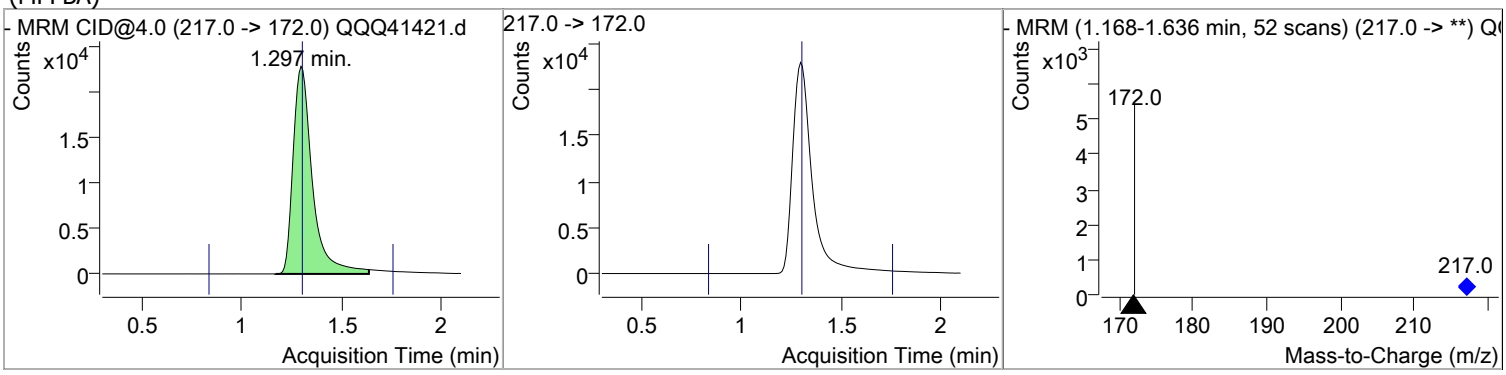
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.299	216.0 -> 172.0	26485	5.0000	ng/ml	0.046
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.297	217.0 -> 172.0	153387	10.0000	ng/ml	0.046
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.765	268.0 -> 223.0	120413	5.0000	ng/ml	0.037
MPFHxA	6.401	315.0 -> 269.8	37943	2.5000	ng/ml	0.028
MPFHxS	7.345	403.0 -> 103.0	3942	2.3700	ng/ml	-0.037
M3PFBS-EIS	5.576	302.0 -> 79.9	17283	2.3300	ng/ml	0.046
M5PFHxA-EIS	6.400	318.0 -> 273.0	62115	2.5000	ng/ml	0.028
M2-4-2FTS-EIS	6.325	329.0 -> 309.0	17543	4.6900	ng/ml	0.028
M3PFHxS-EIS	7.345	402.0 -> 80.0	12340	2.3700	ng/ml	-0.037
M3-HFPO-DA-EIS	6.698	287.0 -> 169.0	44008	10.0000	ng/ml	0.009
M4PFHpA-EIS	7.244	367.0 -> 322.0	14132	2.5000	ng/ml	-0.018
M2-6-2FTS-EIS	7.875	429.0 -> 409.0	10760	4.7550	ng/ml	-0.056
MPFOA	7.941	417.0 -> 372.0	40755	2.5000	ng/ml	-0.056
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.941	421.0 -> 376.0	32892	2.5000	ng/ml	-0.056
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.560	507.0 -> 98.9	5309	2.3950	ng/ml	-0.065
MPFNA	8.535	468.0 -> 423.0	22199	1.2500	ng/ml	-0.065
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.534	472.0 -> 223.0	5913	1.2500	ng/ml	-0.056
MPFOS	8.561	503.0 -> 80.0	11792	2.3950	ng/ml	-0.065
M2-8-2FTS-EIS	9.006	529.0 -> 509.0	32359	4.8000	ng/ml	-0.037
MPFDA	9.044	515.0 -> 469.8	15360	1.2500	ng/ml	-0.037
M6PFDA-EIS	9.044	519.0 -> 473.9	21231	1.2500	ng/ml	-0.037
d3-N-MeFOSAA-EIS	9.255	573.0 -> 418.8	31591	5.0000	ng/ml	-0.028
M7PFUdA-EIS	9.506	570.0 -> 525.0	32778	1.2500	ng/ml	-0.009
d5-N-EtFOSAA-EIS	9.495	589.0 -> 418.8	33012	5.0000	ng/ml	-0.009
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.676	506.0 -> 78.0	20264	2.5000	ng/ml	0.028
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.940	615.0 -> 570.0	24096	1.2500	ng/ml	0.047
M2PFTeDA-EIS	10.626	715.0 -> 670.0	9608	1.2500	ng/ml	0.138
d7-NMeFOSE-EIS	10.437	623.0 -> 59.0	16662	25.0000	ng/ml	0.138
d3-NMeFOSA-EIS	10.468	515.0 -> 219.0	1736	2.5000	ng/ml	0.138
d9-NEtFOSE-EIS	10.711	639.0 -> 59.0	5693	25.0000	ng/ml	0.175
d5-NEtFOSA-EIS	10.751	531.0 -> 169.0	1017	2.5000	ng/ml	0.175
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	217.0 -> 172.0	153387	11.5655	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	268.0 -> 223.0	120409	4.9745	ng/ml	0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.576	302.0 -> 79.9	17280	2.4570	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.325	329.0 -> 309.0	17508	3.7288	ng/ml	0.028

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.400	318.0 -> 273.0	62115	2.5652	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.698	287.0 -> 169.0	44008	10.3971	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.244	367.0 -> 322.0	14132	2.6274	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.345	402.0 -> 80.0	12340	2.5148	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.875	429.0 -> 409.0	10873	3.4579	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.941	421.0 -> 376.0	32739	2.5225	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.534	472.0 -> 223.0	5913	1.2498	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.560	507.0 -> 98.9	5258	2.4317	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.006	529.0 -> 509.0	32371	4.3836	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.044	519.0 -> 473.9	21231	1.2616	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.255	573.0 -> 418.8	31591	5.6699	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.495	589.0 -> 418.8	33013	6.7091	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.506	570.0 -> 525.0	32778	1.4390	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	506.0 -> 78.0	20264	2.8600	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	615.0 -> 570.0	24092	1.2031	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.437	623.0 -> 59.0	16559	29.1249	ng/ml		0.138
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.468	515.0 -> 219.0	1736	2.4247	ng/ml		0.138
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.626	715.0 -> 670.0	9609	1.0756	ng/ml		0.138
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.711	639.0 -> 59.0	5689	22.4728	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.751	531.0 -> 169.0	1017	2.3190	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.292	213.0 -> 168.9	78	0.0058	ng/ml		100
PFMPA	2.217	229.0 -> 85.0	12	0.0017	ng/ml		100
3:3FTCA	4.433	241.0 -> 177.0	11	0.0273	ng/ml	#	83
Perfluoro-n-pentanoic acid (PFPeA)	4.756	263.0 -> 219.0	77	0.0033	ng/ml		100
PFMBA	5.467	279.0 -> 85.0	2	0.0002	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.567	298.9 -> 79.9	23	0.0030	ng/ml	#	61
PFEESA	6.103	315.0 -> 135.0	24	0.0007	ng/ml	#	1
NFDHA	6.207	295.0 -> 201.1	5	0.0108	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.325	327.0 -> 307.0	57	0.0120	ng/ml	#	9

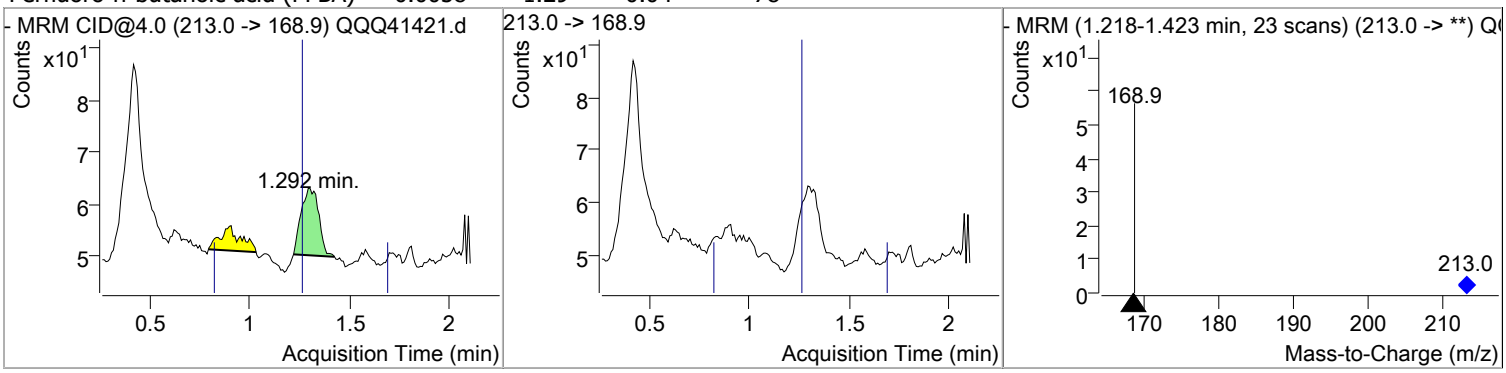
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.401	313.0 -> 268.9	256	0.0089	ng/ml		90
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.827	348.9 -> 79.9	10	0.0015	ng/ml		37
HFPO-DA	6.680	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.161	363.0 -> 318.8	146	0.0117	ng/ml	#	76
5-3FTCA	7.310	341.0 -> 217.0	1170	0.2943	ng/ml		82
Perfluorohexanesulfonic acid (PFHxS)	7.355	398.9 -> 79.9	89	0.0148	ng/ml	#	35
ADONA	7.374	377.0 -> 85.0	43	0.0044	ng/ml		86
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.903	427.0 -> 407.0	54	0.0152	ng/ml	#	25
Perfluorooctanoic acid (PFOA)	7.932	413.0 -> 368.8	179	0.0000	ng/ml	#	80
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	448.9 -> 80.0	25	0.0043	ng/ml	#	47
Perfluorononanoic acid (PFNA)	8.563	463.0 -> 418.8	22	0.0014	ng/ml	#	9
Perfluorooctanesulfonic acid (PFOS)	8.543	498.9 -> 79.9	84	0.0000	ng/ml	#	40
7-3FTCA	8.711	441.0 -> 337.0	2197	0.4124	ng/ml		91
9-Cl-PF3ONS	8.875	531.0 -> 351.0	230	0.0086	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.997	527.0 -> 80.9	17	0.0109	ng/ml	#	1
Perfluorodecanoic acid (PFDA)	9.054	513.0 -> 468.8	140	0.0072	ng/ml		60
Perfluorononanesulfonate (L-PFNS)	9.079	548.9 -> 79.9	30	0.0075	ng/ml		87
N-MeFOSAA	9.283	570.0 -> 418.9	60	0.0108	ng/ml	#	73
Perfluoroundecanoic acid (PFUnA)	9.497	563.0 -> 519.0	67	0.0000	ng/ml	#	92
Perfluoro-1-decanesulfonate (L-PFDS)	9.430	598.9 -> 98.9	24	0.0125	ng/ml		100
N-EtFOSAA	9.505	584.0 -> 418.8	29	0.0051	ng/ml	#	66
Perfluoro-1-octanesulfonamide (FOSA)	9.694	497.9 -> 78.0	69	0.0060	ng/ml		100
11-Cl-PF3OUdS	9.762	631.0 -> 451.0	325	0.0177	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.941	613.0 -> 568.8	177	0.0113	ng/ml		74
Perfluorododecanesulfonic acid (PFDoS)	10.186	699.0 -> 80.0	19	0.0188	ng/ml	#	25
Perfluorotridecanoic acid (PFTrDA)	10.307	663.0 -> 618.8	103	0.0106	ng/ml		100
NMeFOSE	10.291	616.0 -> 59.0	12	0.0217	ng/ml		100
NMeFOSA	10.377	512.0 -> 169.0	15	0.0000	ng/ml	#	24
Perfluorotetradecanoic acid (PFTA)	10.553	713.0 -> 669.0	20	0.0027	ng/ml	#	8
NEtFOSE	10.528	630.0 -> 59.0	17	0.0341	ng/ml		100
NEtFOSA	10.651	526.0 -> 169.0	2	0.0033	ng/ml	#	36

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

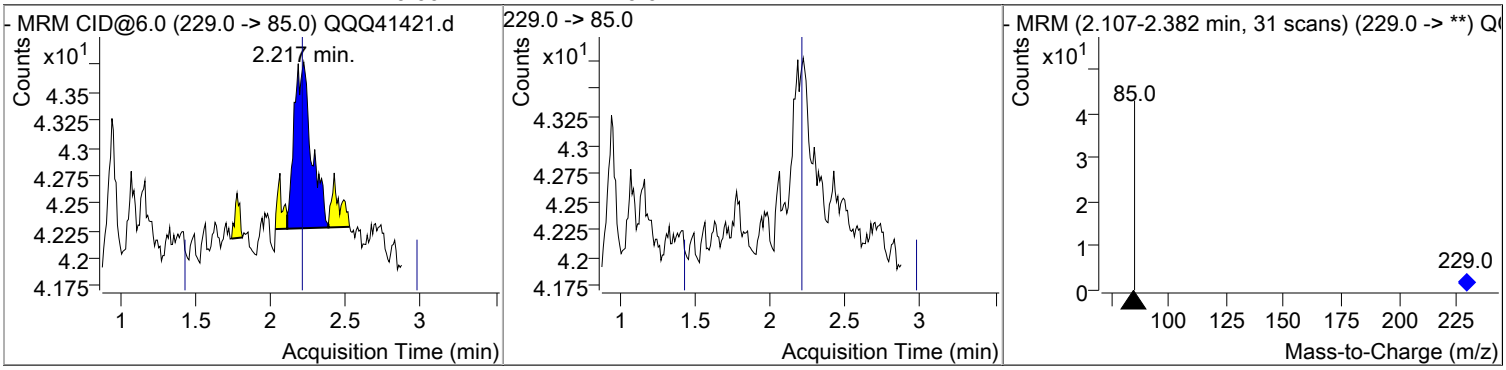
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	11.5655	1.30	0.05	153387				



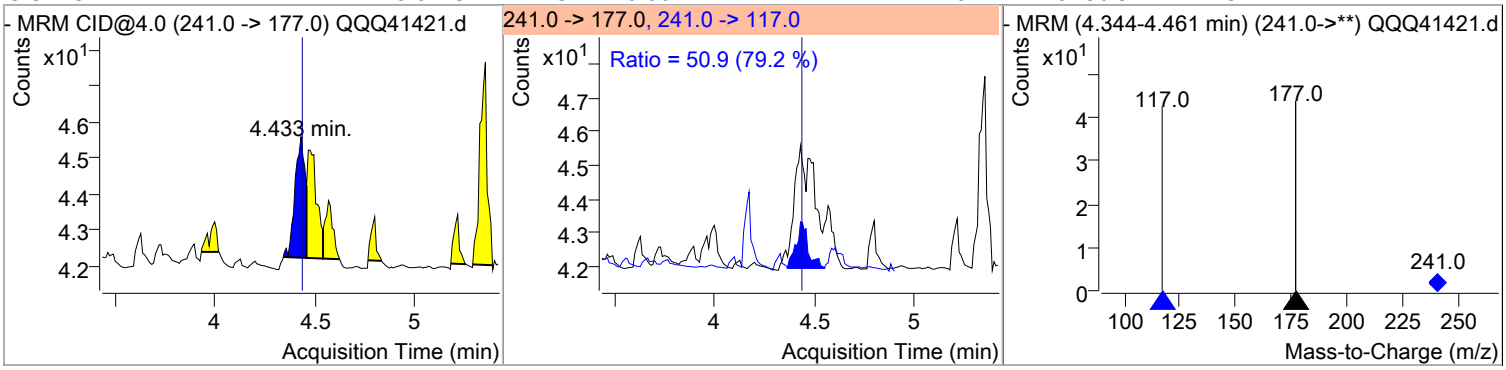
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0058	1.29	0.04	78				



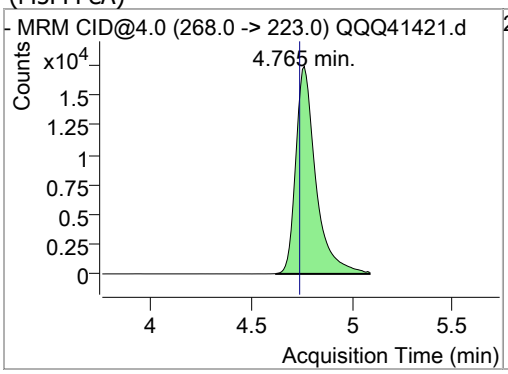
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0017	2.22	0.02	12				

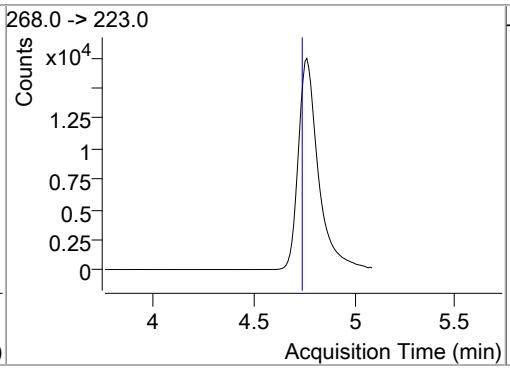


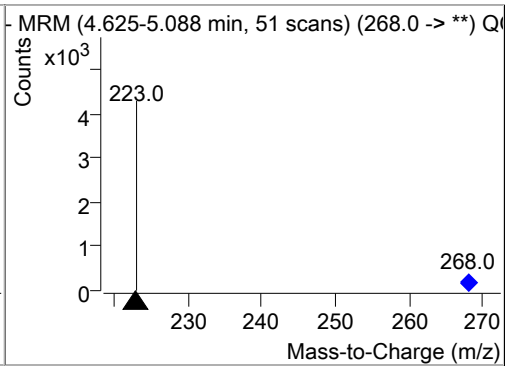
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0273	4.43	0.00	11	241.0 -> 117.0	50.9	51.4	77.2



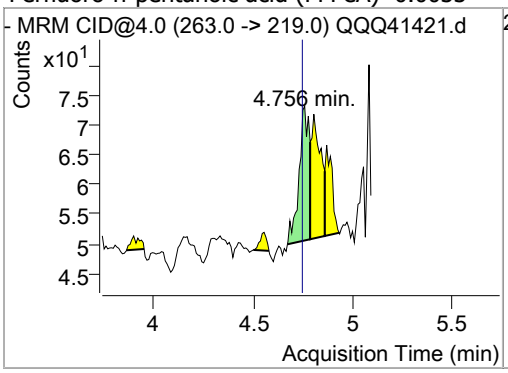
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.9745	4.76	0.04	120409				

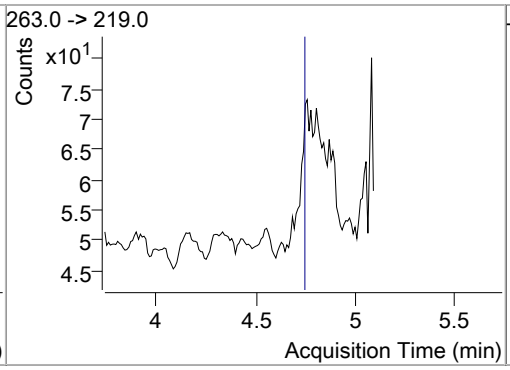


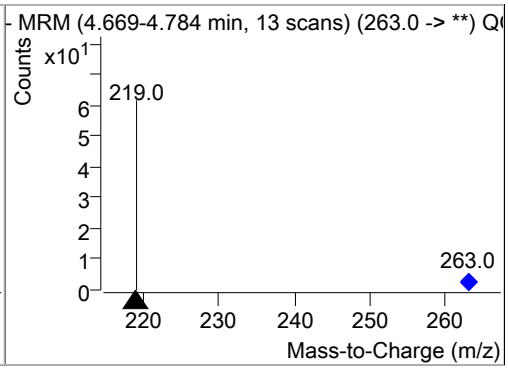




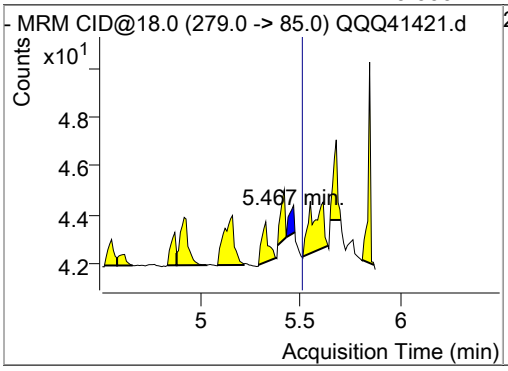
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0033	4.76	0.02	77				

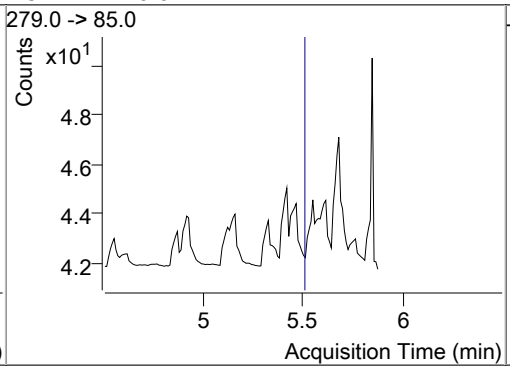


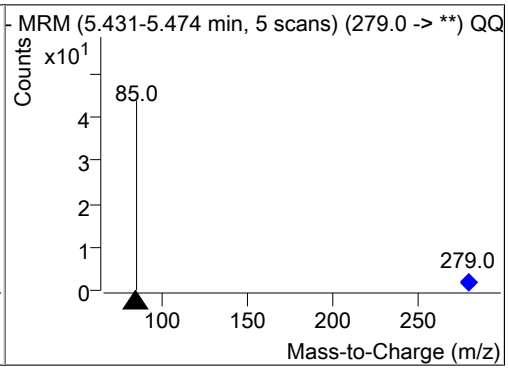




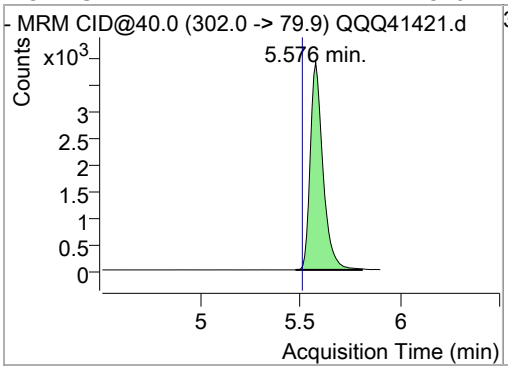
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0002	5.47	-0.04	2				

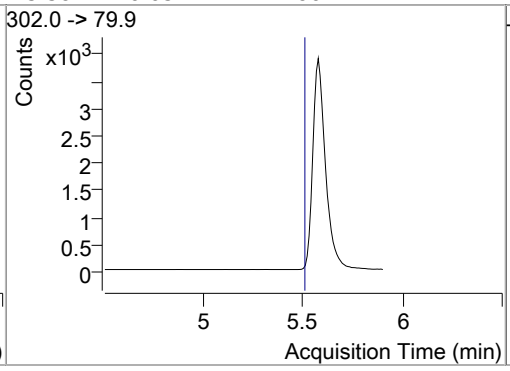


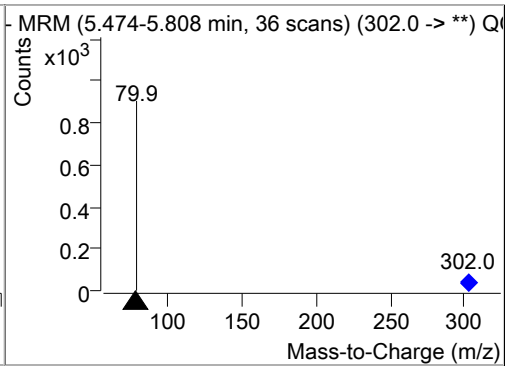




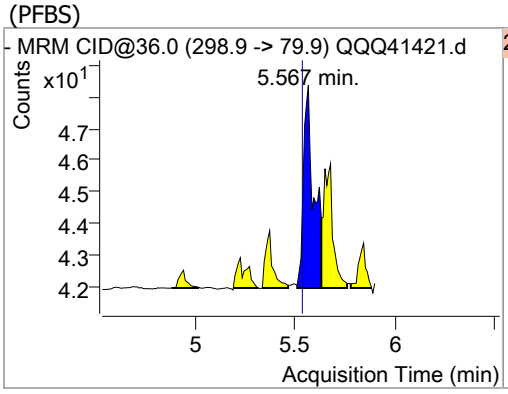
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.4570	5.58	0.05	17280				

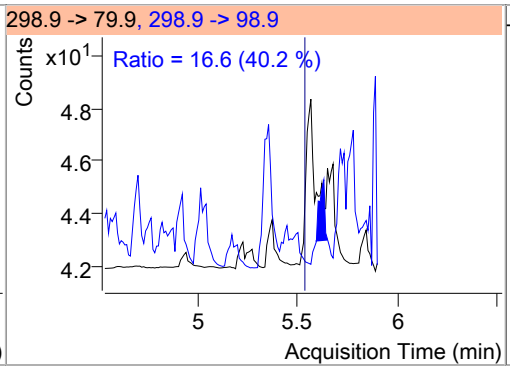


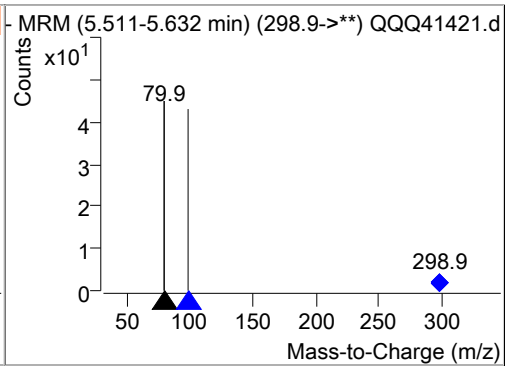




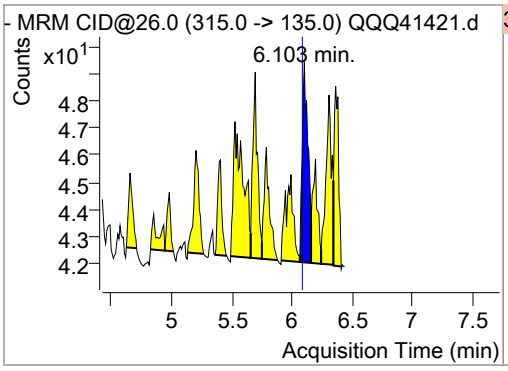
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0030	5.57	0.04	23	298.9 -> 98.9	16.6	33.1	49.7

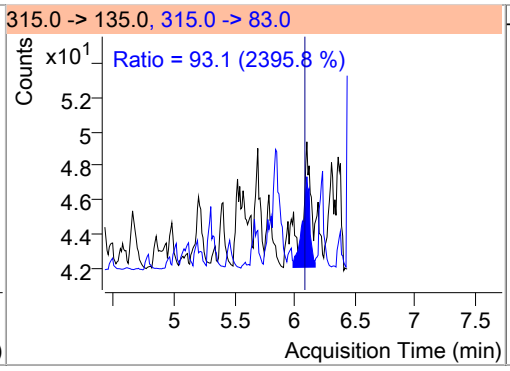


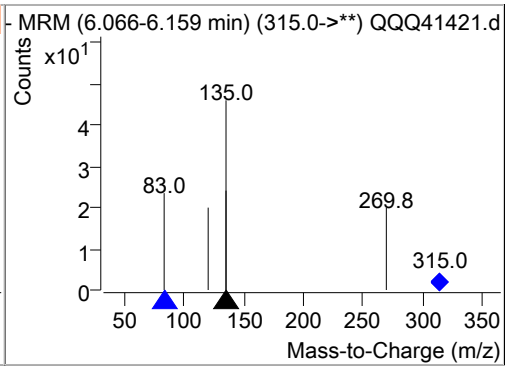




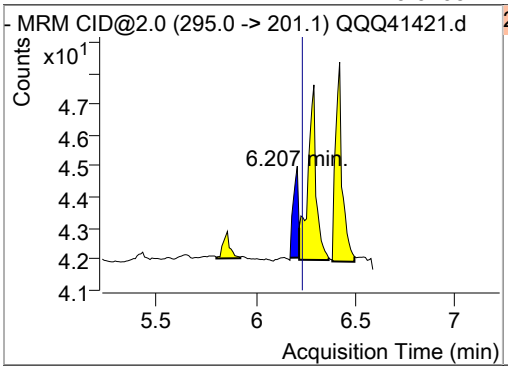
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0007	6.10	0.03	24	315.0 -> 83.0	93.1	3.1	4.7

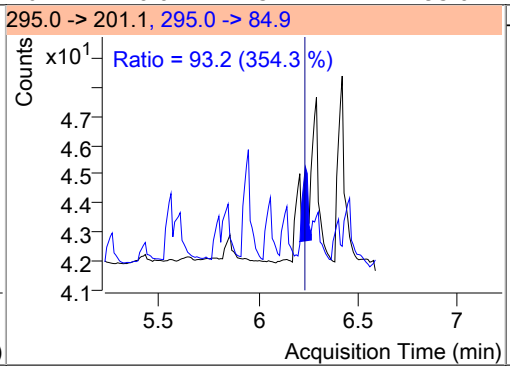


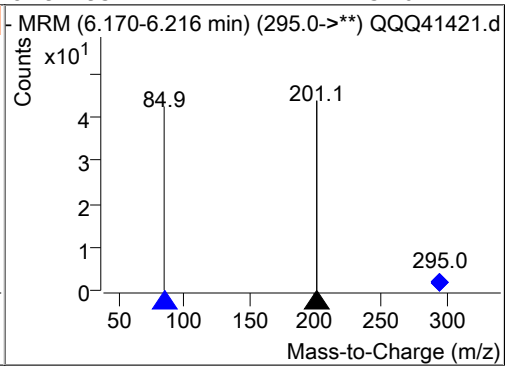




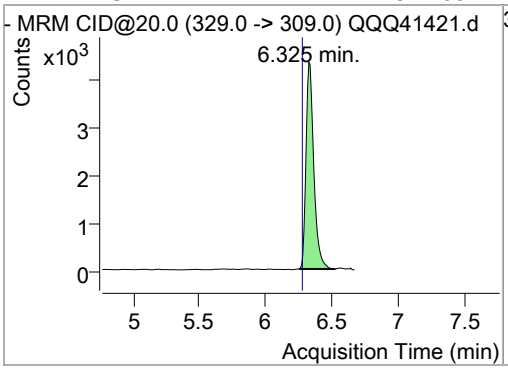
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0108	6.21	-0.02	5	295.0 -> 84.9	93.2	21.1	31.6

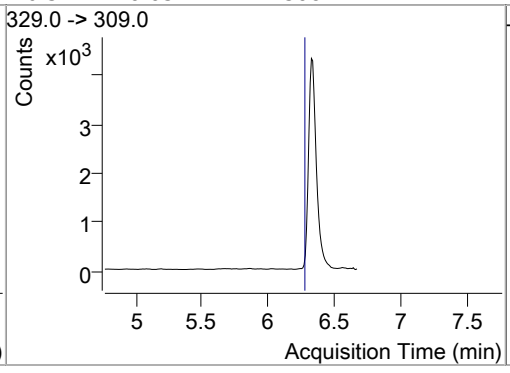


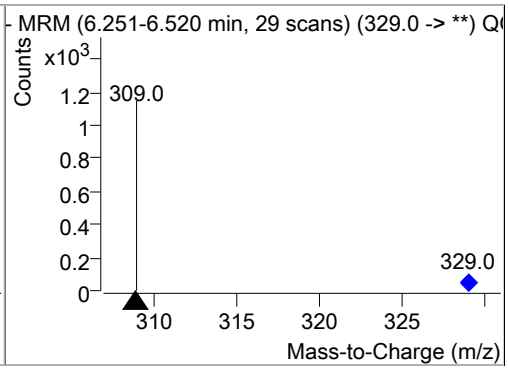




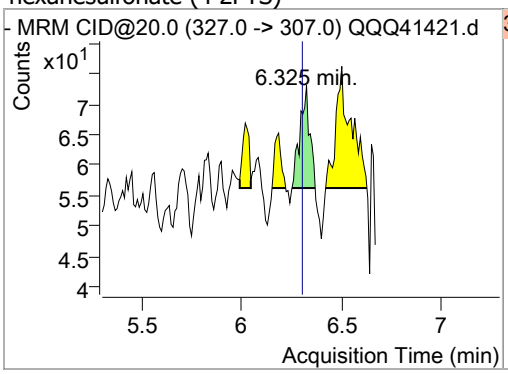
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	3.7288	6.32	0.03	17508				

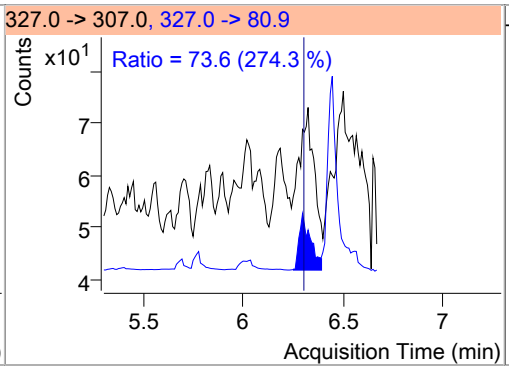


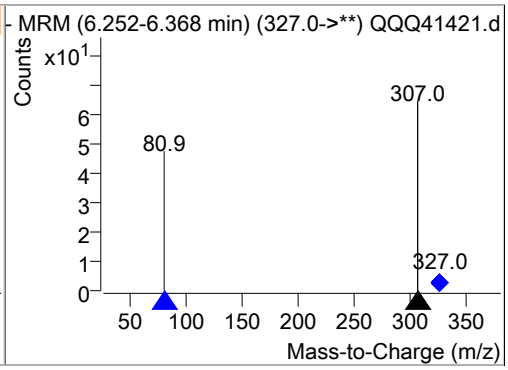




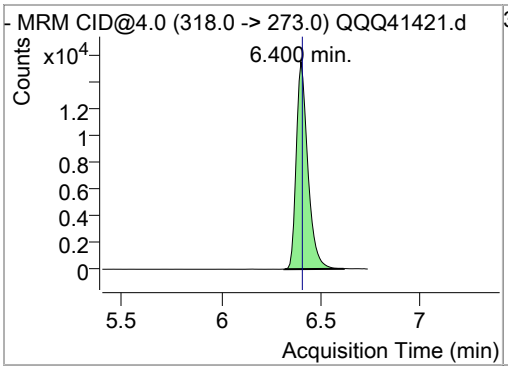
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0120	6.33	0.03	57	327.0 -> 80.9	73.6	21.5	32.2

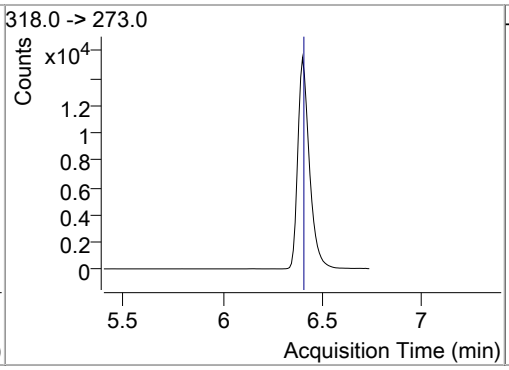


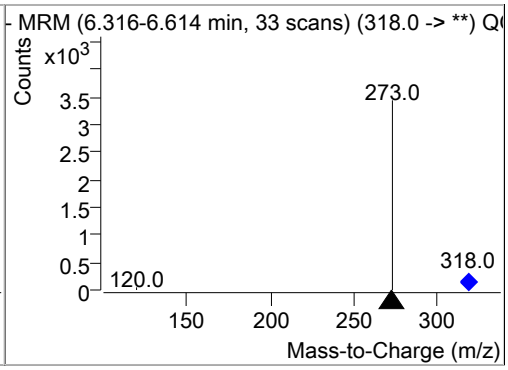




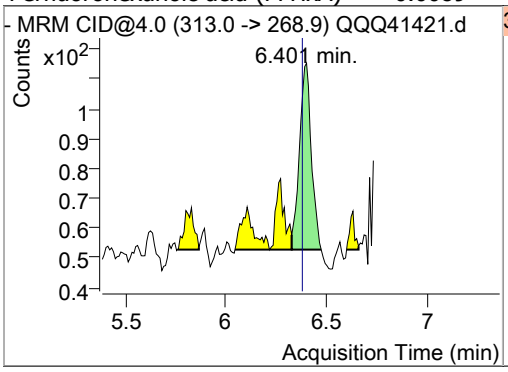
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.5652	6.40	0.03	62115				

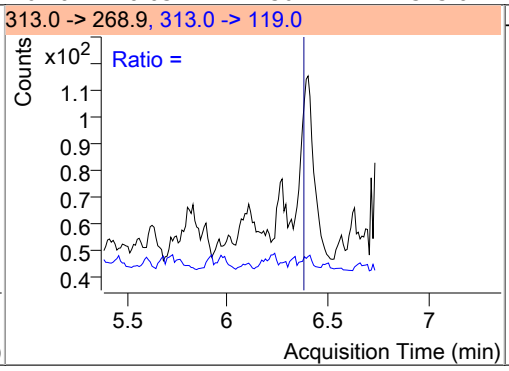


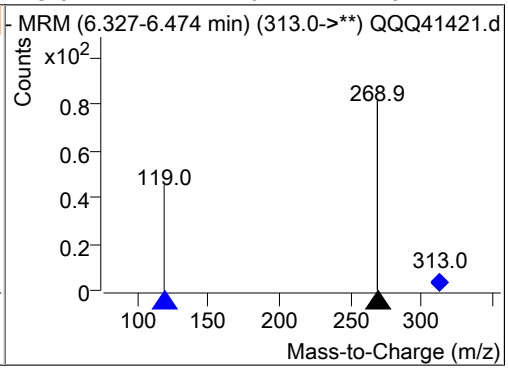




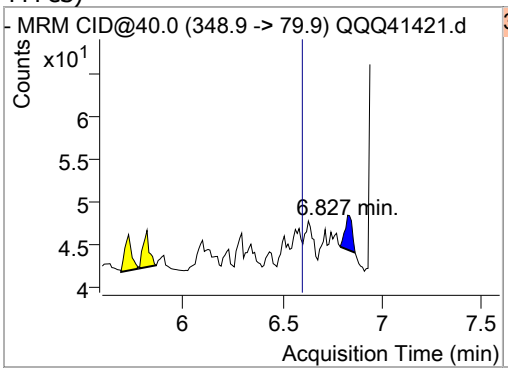
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0089	6.40	0.03	256	313.0 -> 119.0		2.6	4.0

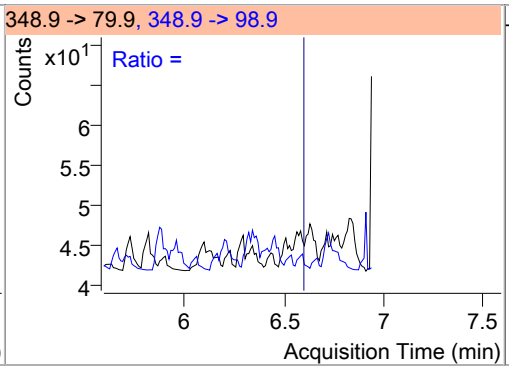


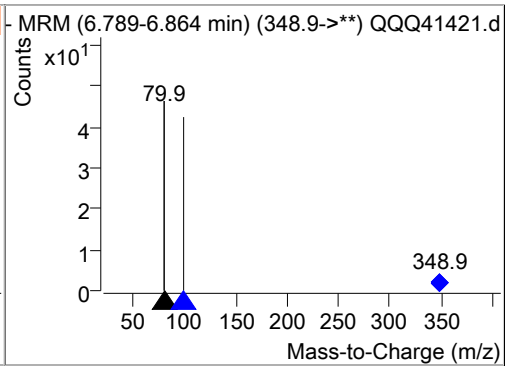




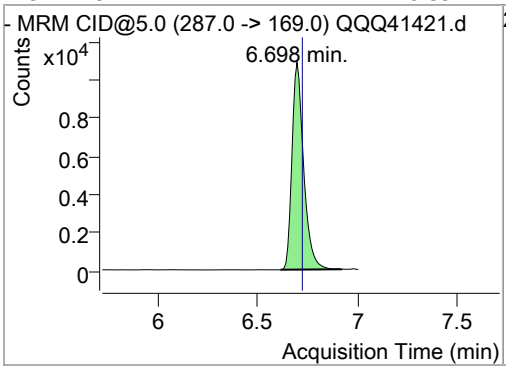
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0015	6.83	0.23	10	348.9 -> 98.9		30.4	45.6

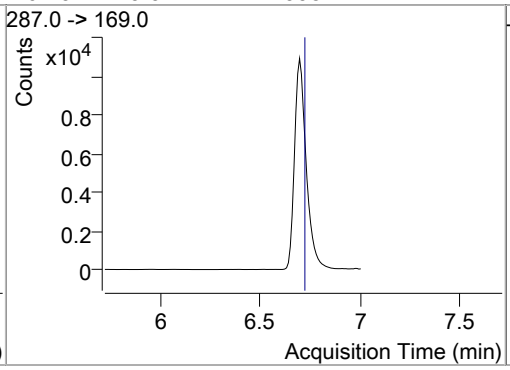


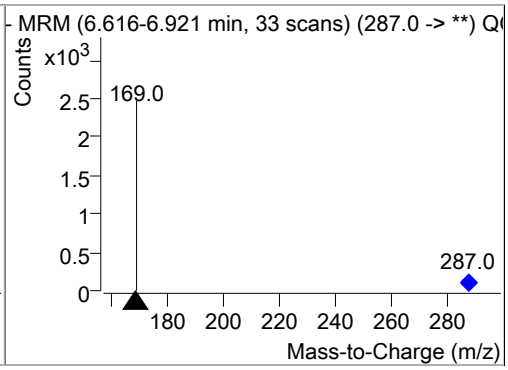




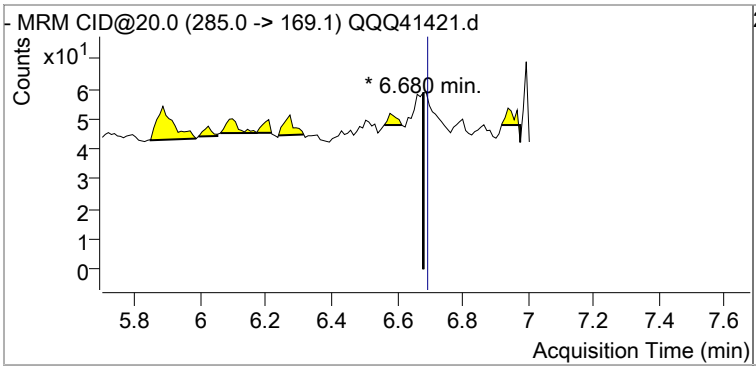
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.3971	6.70	0.01	44008				

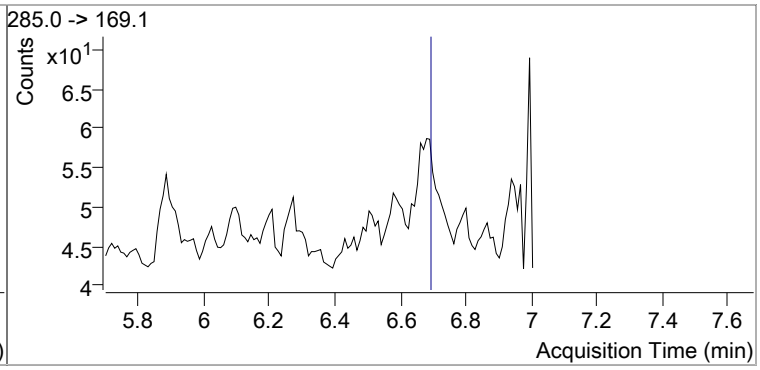




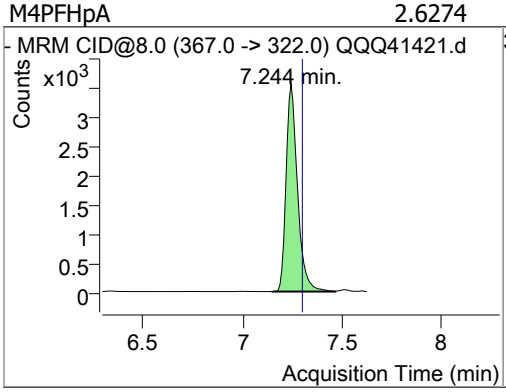


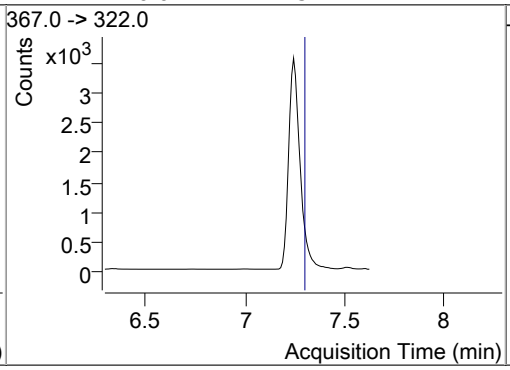
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

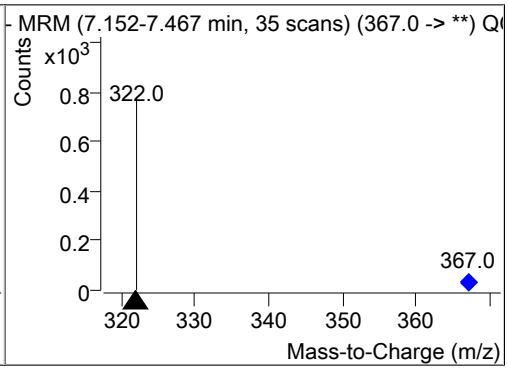




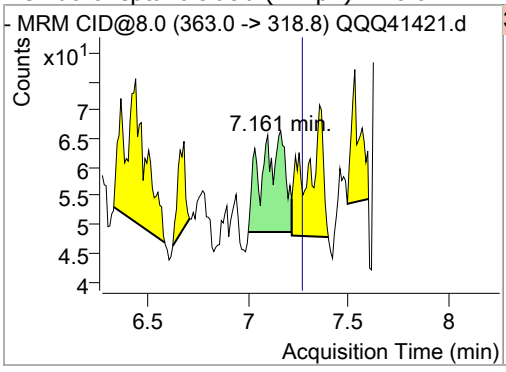
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.6274	7.24	-0.02	14132				

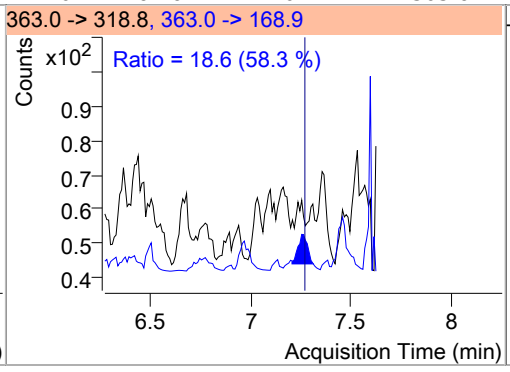


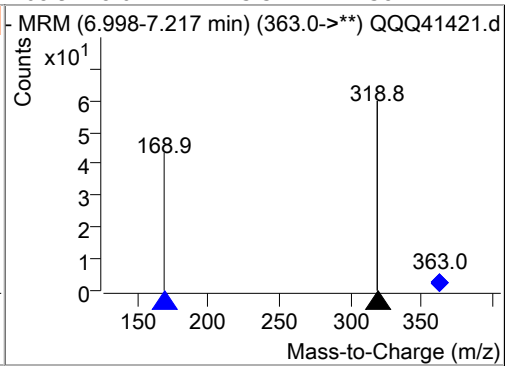




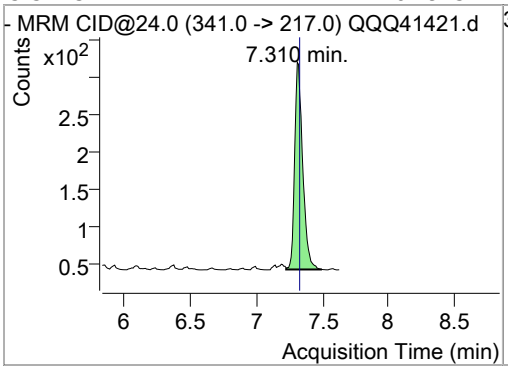
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0117	7.16	-0.10	146	363.0 -> 168.9	18.6	25.5	38.2

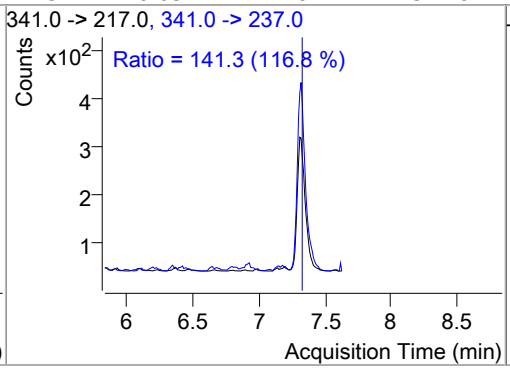


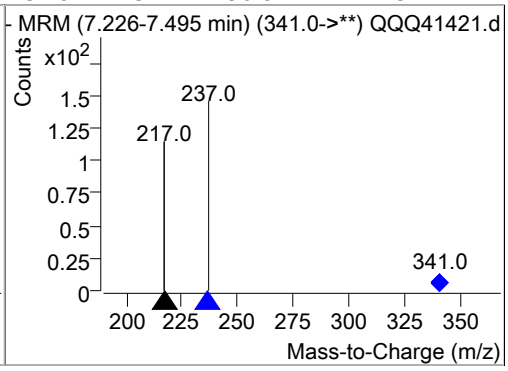




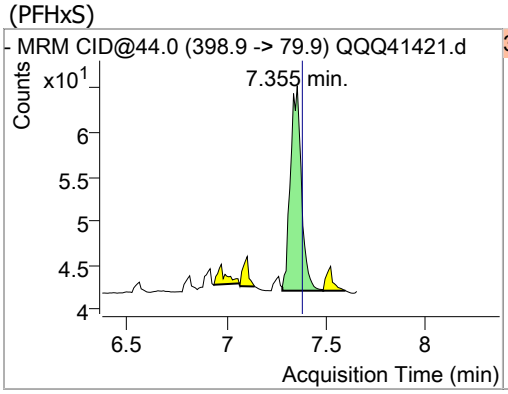
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.2943	7.31	-0.03	1170	341.0 -> 237.0	141.3	96.8	145.2

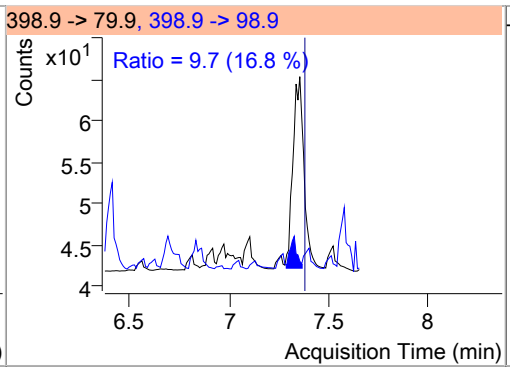


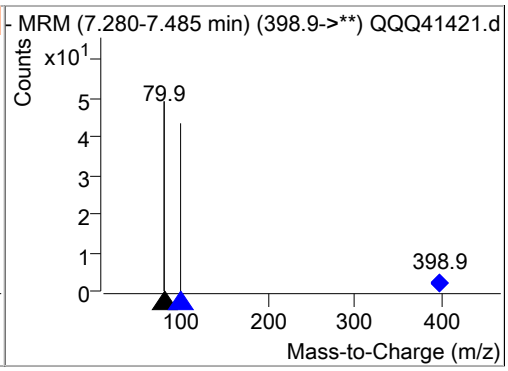




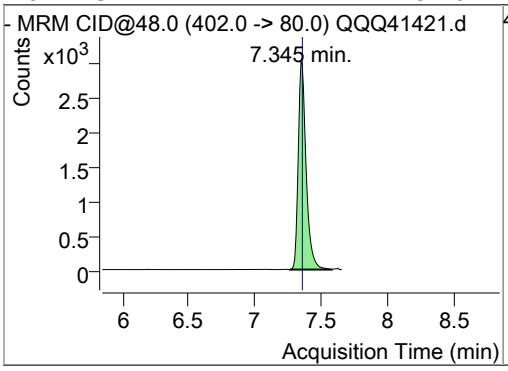
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0148	7.35	-0.02	89	398.9 -> 98.9	9.7	46.2	69.3

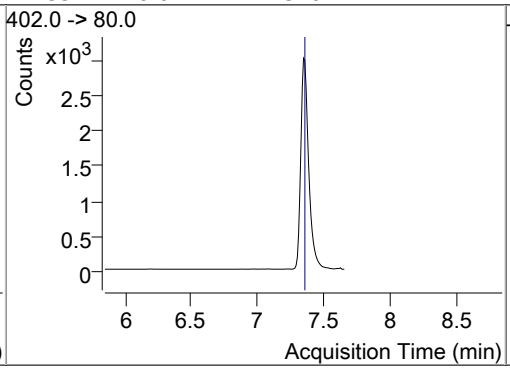


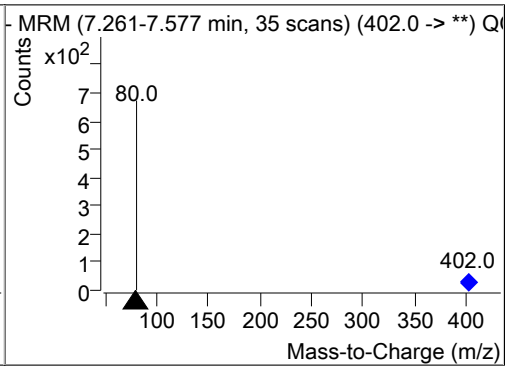




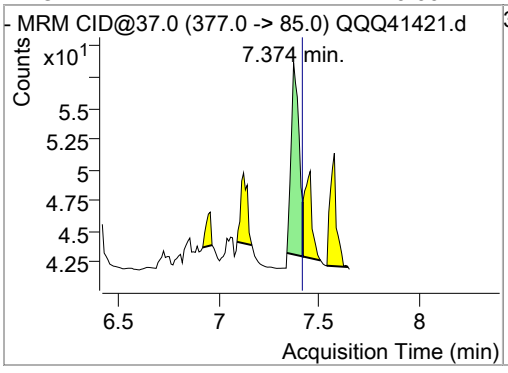
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.5148	7.35	-0.04	12340				

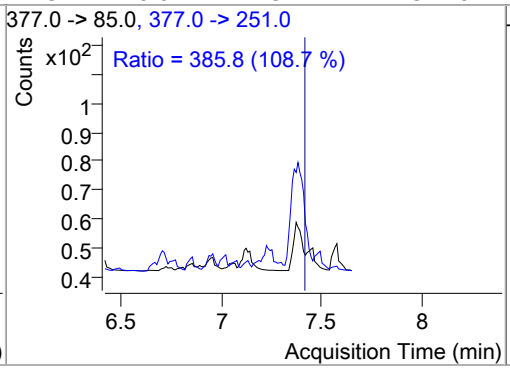


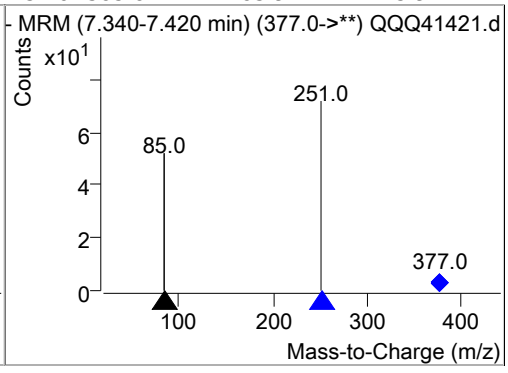




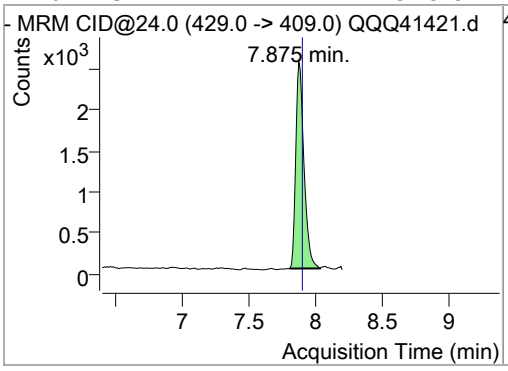
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0044	7.37	-0.04	43	377.0 -> 251.0	385.8	283.9	425.9

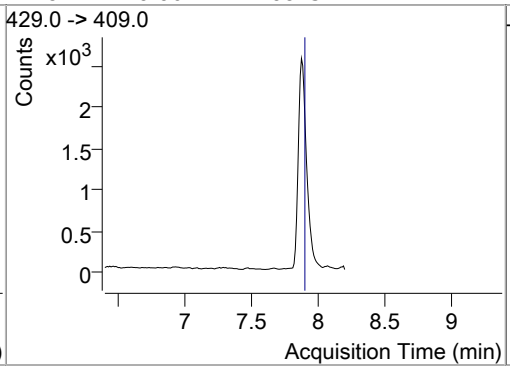


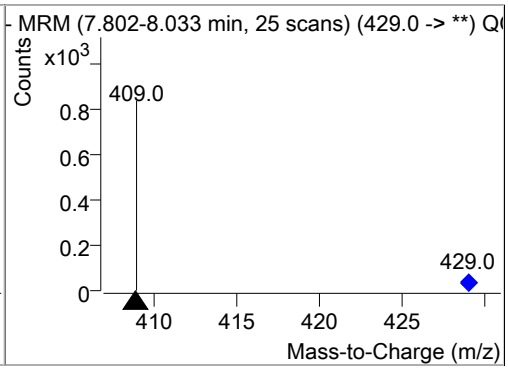




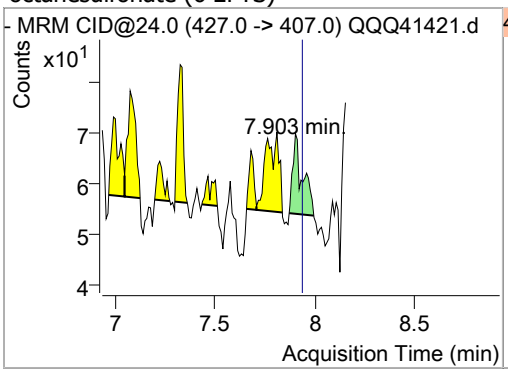
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	3.4579	7.87	-0.06	10873				

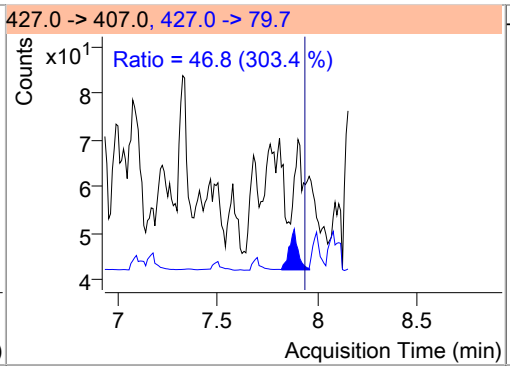


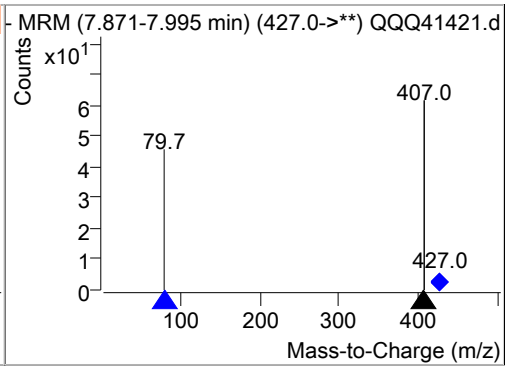




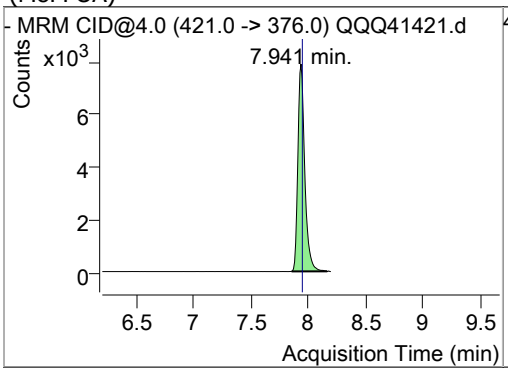
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0152	7.90	-0.03	54	427.0 -> 79.7	46.8	12.3	18.5

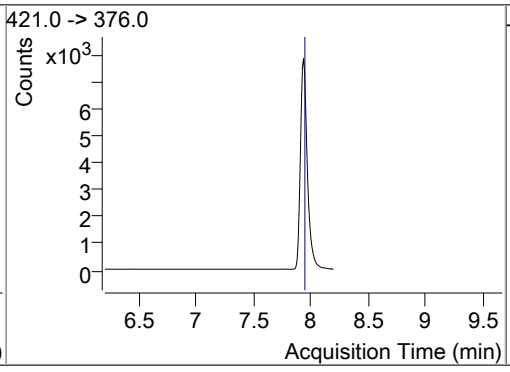


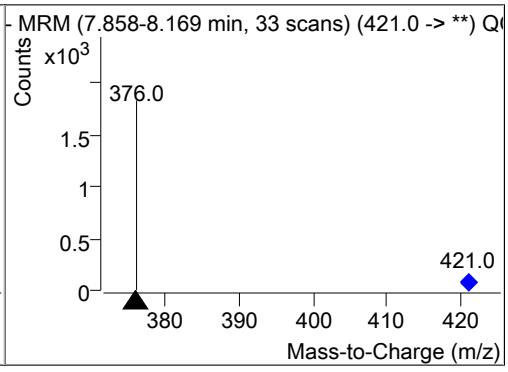




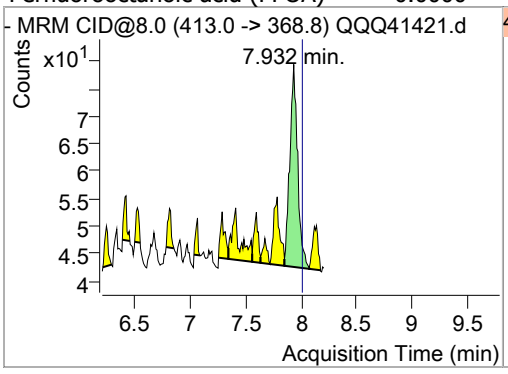
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.5225	7.94	-0.06	32739				

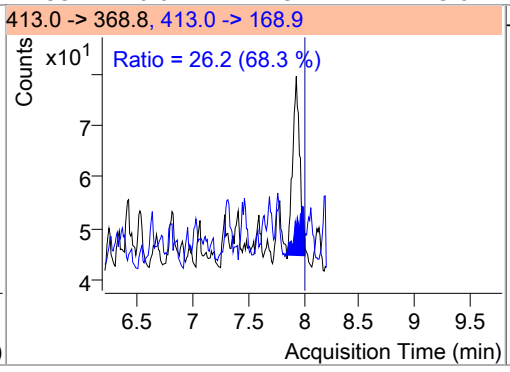


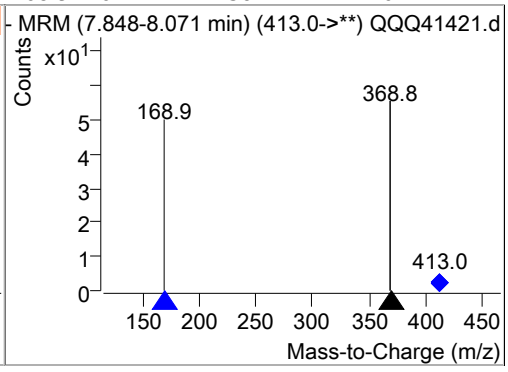




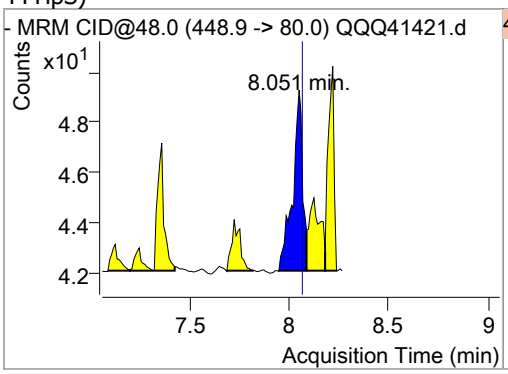
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	7.93	-0.07	179	413.0 -> 168.9	26.2	30.7	46.1

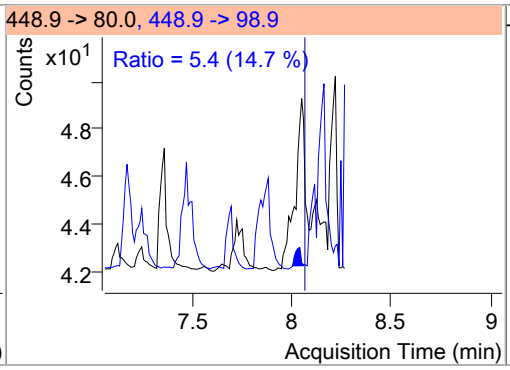


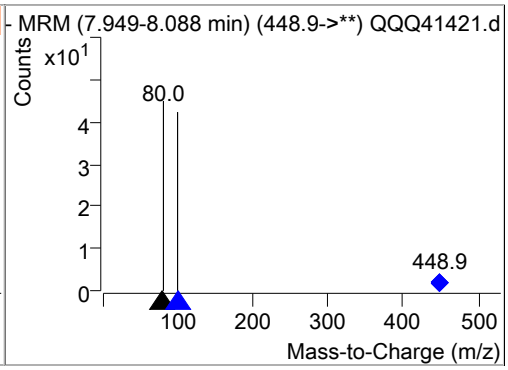




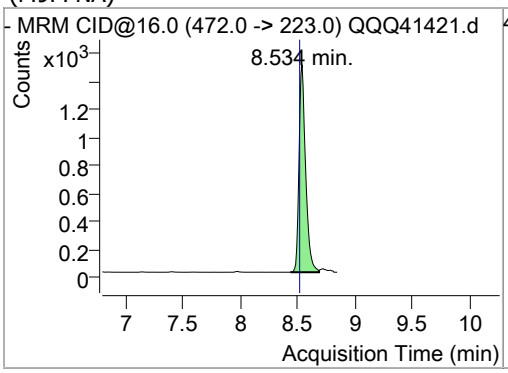
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0043	8.05	-0.01	25	448.9 -> 98.9	5.4	29.6	44.4

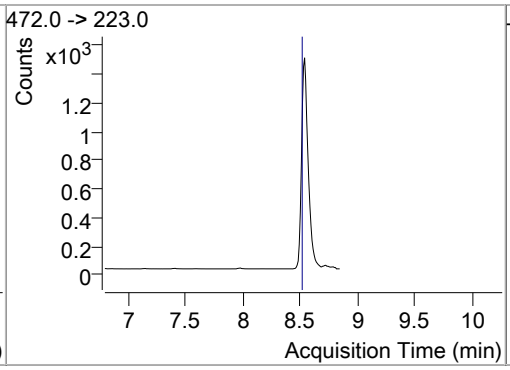


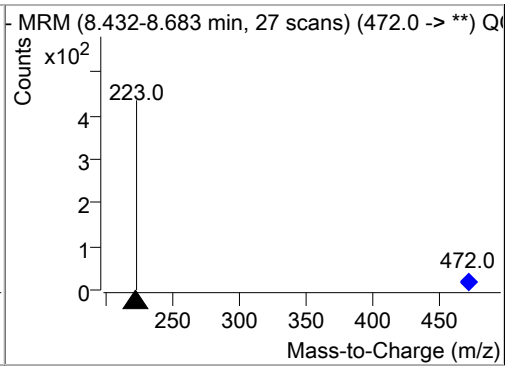




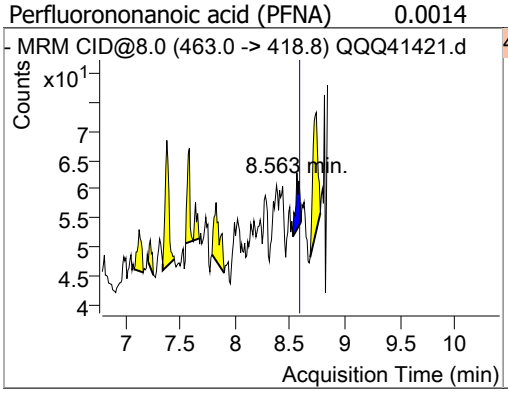
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.2498	8.53	-0.06	5913				

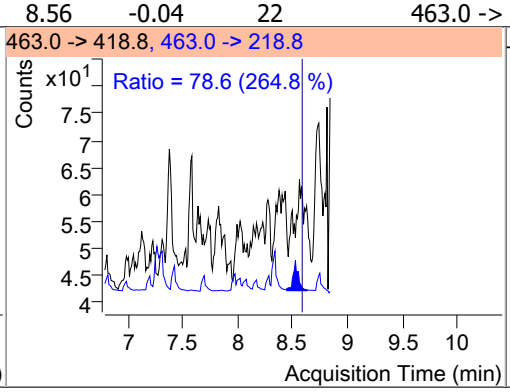


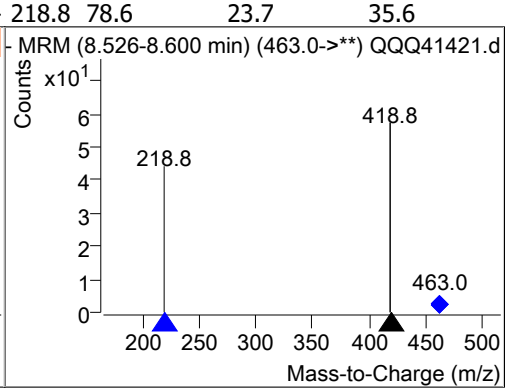




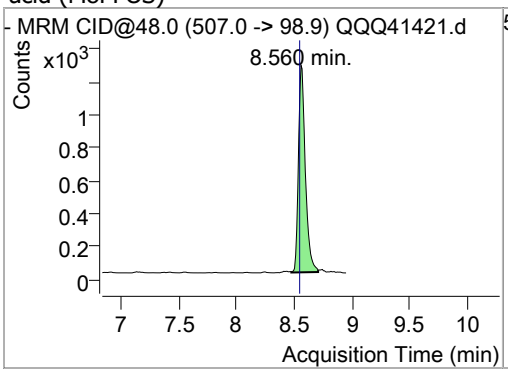
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0014	8.56	-0.04	22	463.0 -> 218.8	78.6	23.7	35.6

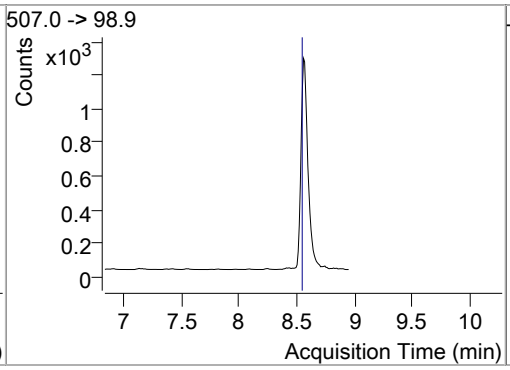


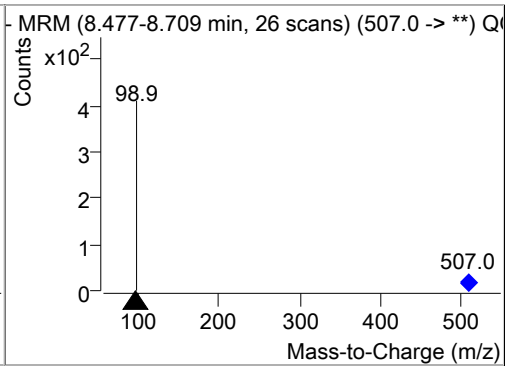




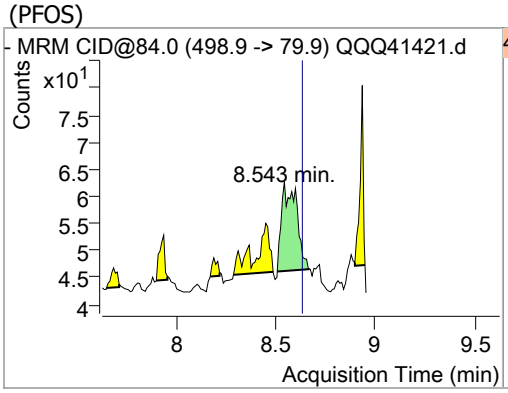
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.4317	8.56	-0.06	5258				

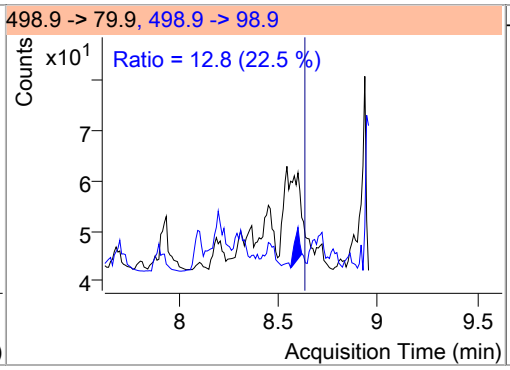


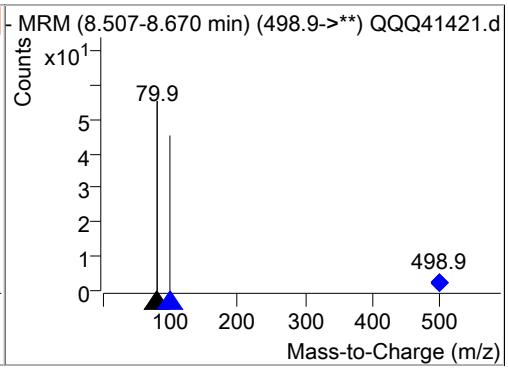




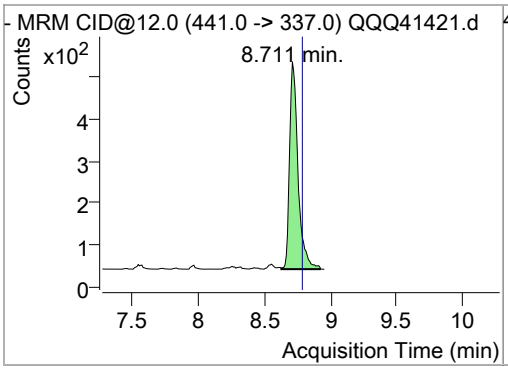
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.54	-0.08	84	498.9 -> 98.9	12.8	45.5	68.3

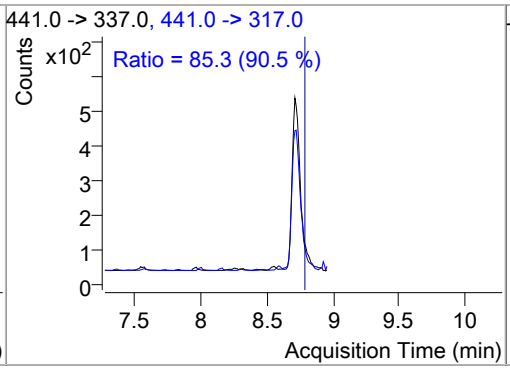


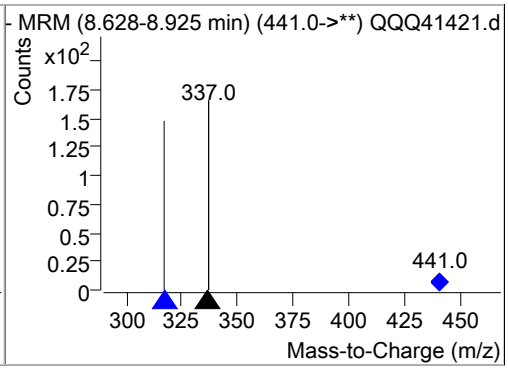




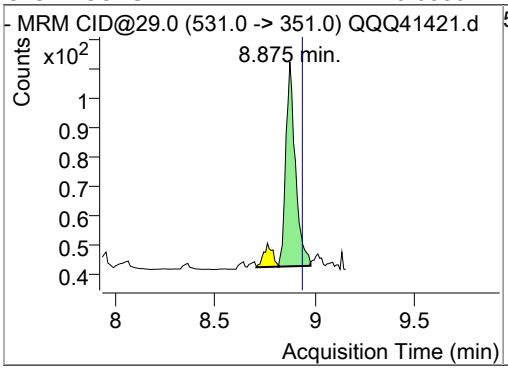
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.4124	8.71	-0.06	2197	441.0 -> 317.0	85.3	75.4	113.1

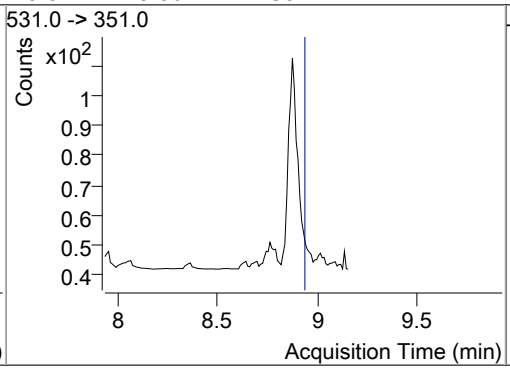


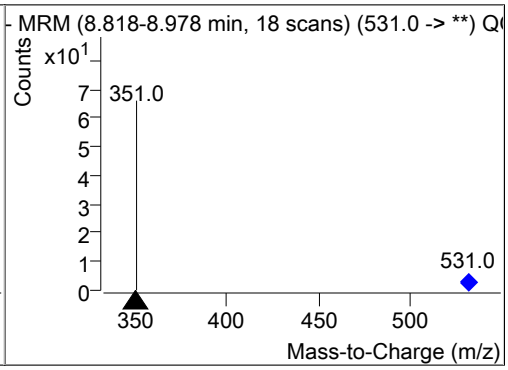




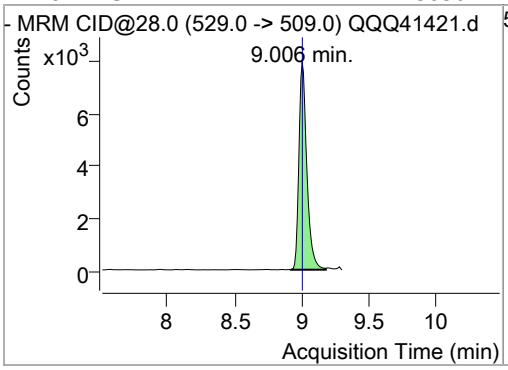
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0086	8.87	-0.06	230				

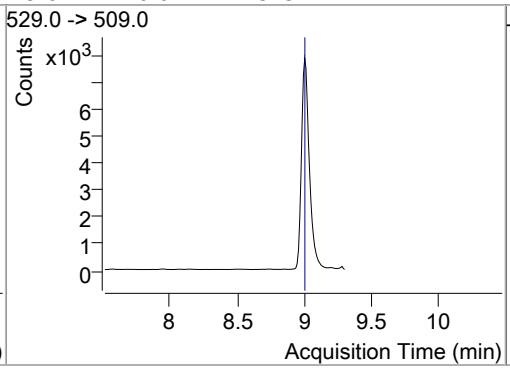


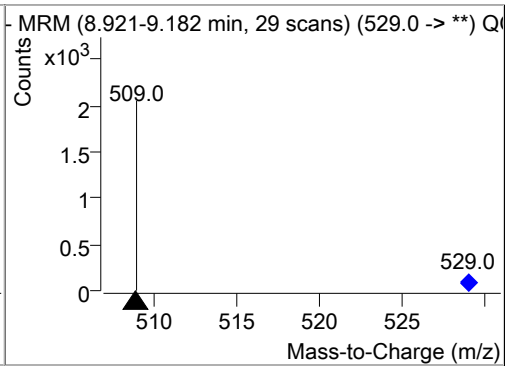




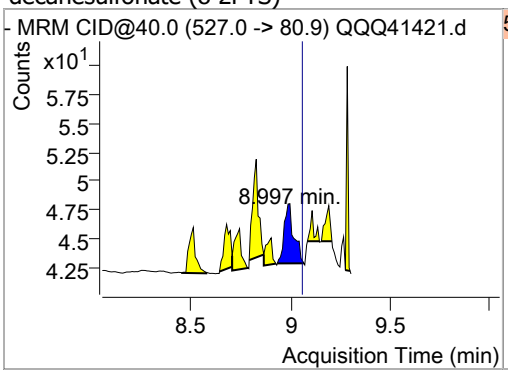
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.3836	9.01	-0.04	32371				

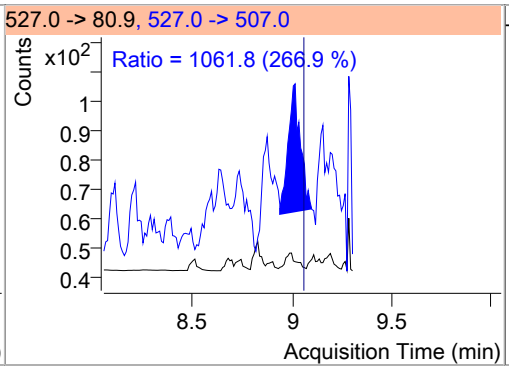


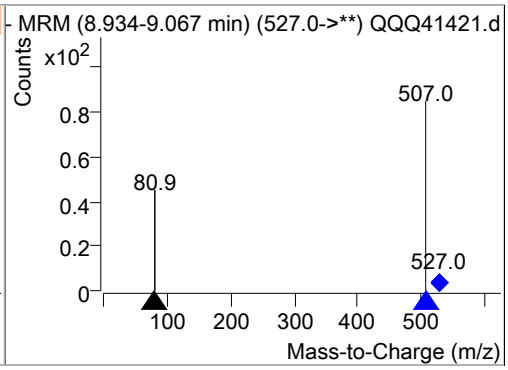




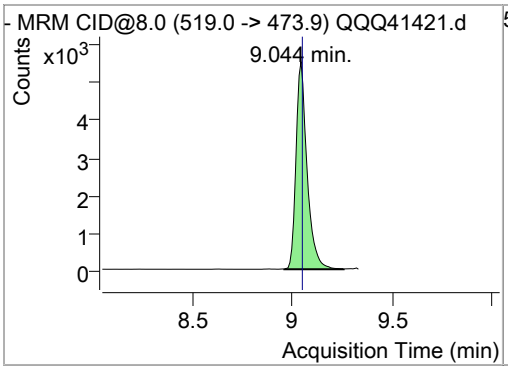
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0109	9.00	-0.06	17	527.0 -> 507.0	1061.8	318.3	477.4

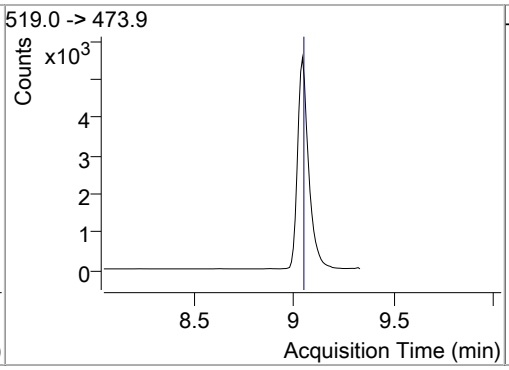


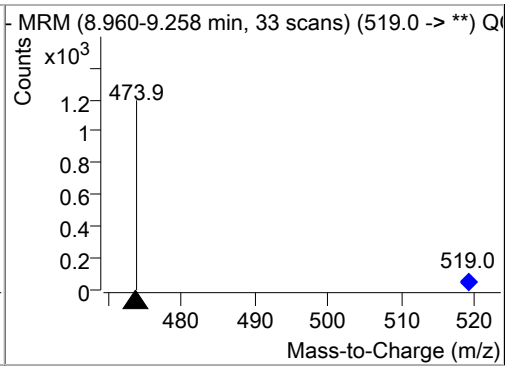




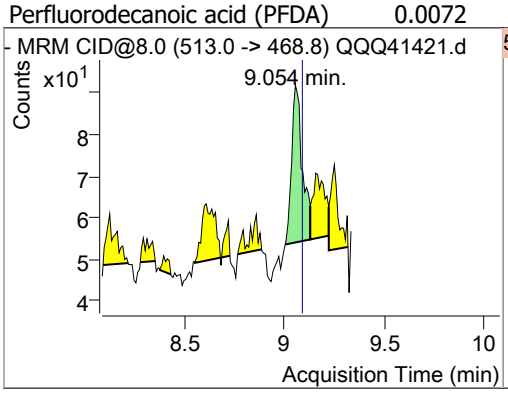
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.2616	9.04	-0.04	21231				

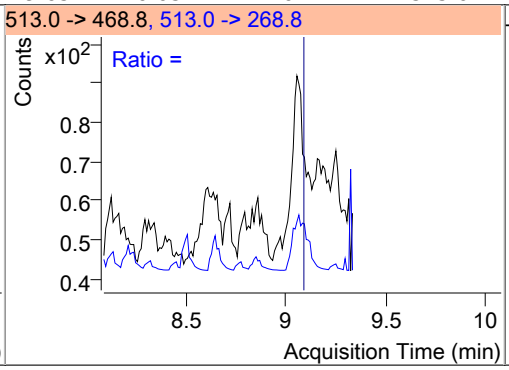


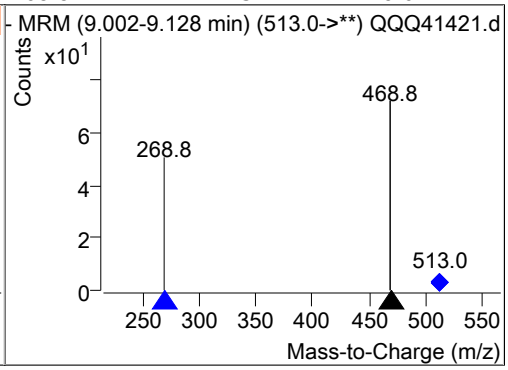




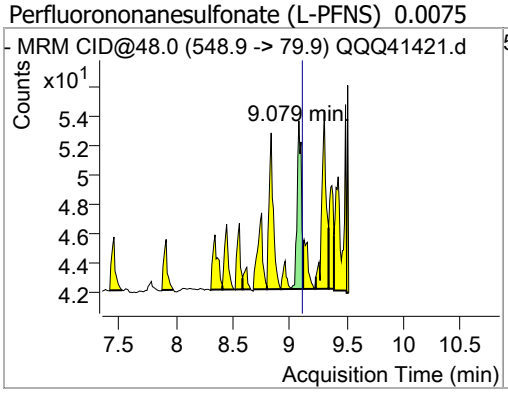
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0072	9.05	-0.03	140	513.0 -> 268.8		13.7	20.6

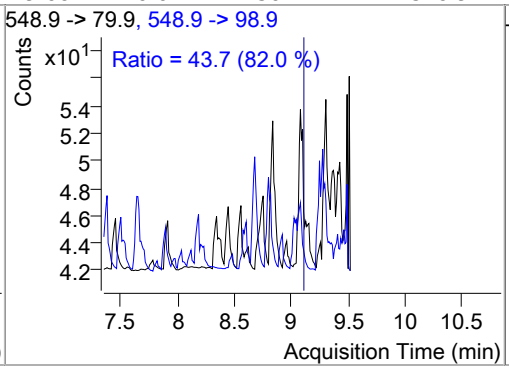


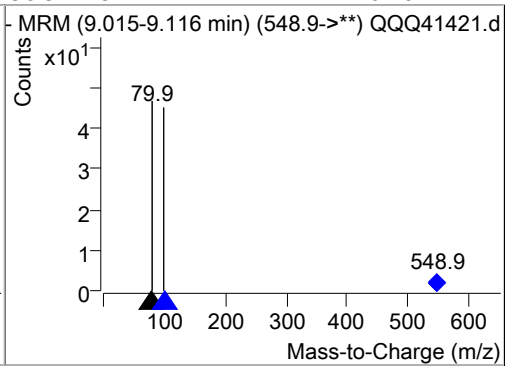




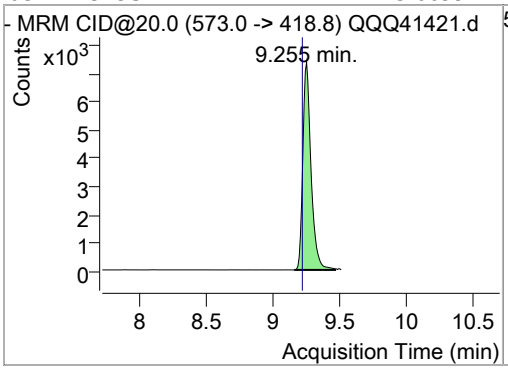
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0075	9.08	-0.02	30	548.9 -> 98.9	43.7	42.7	64.0

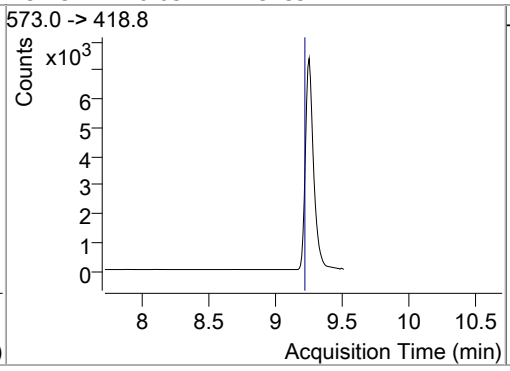


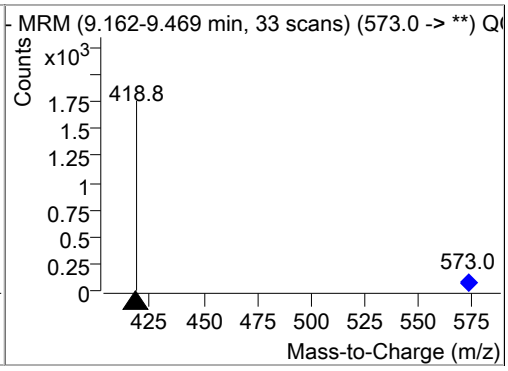




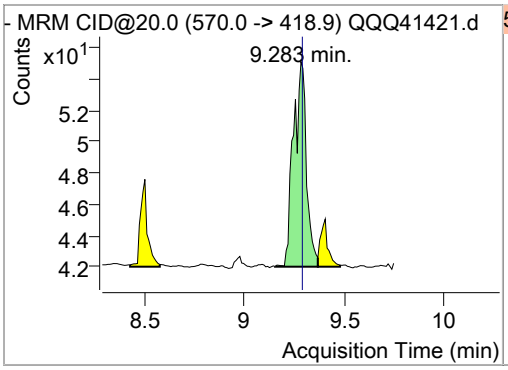
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.6699	9.25	-0.03	31591				

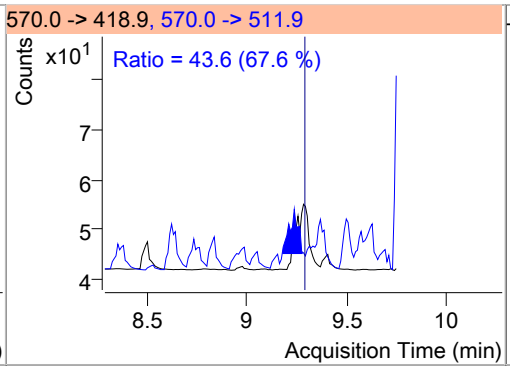


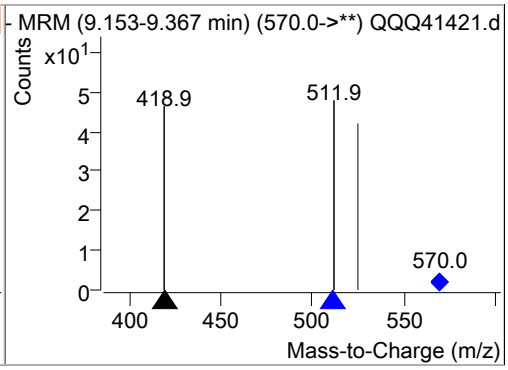




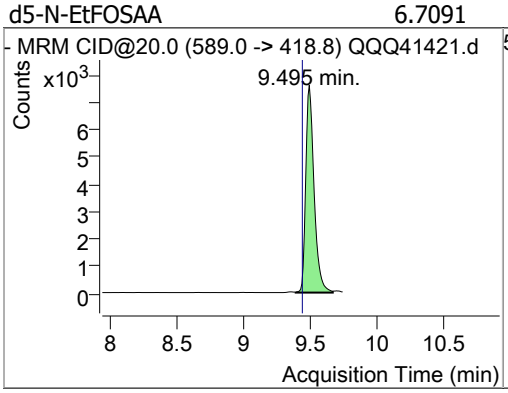
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0108	9.28	0.00	60	570.0 -> 511.9	43.6	51.6	77.4

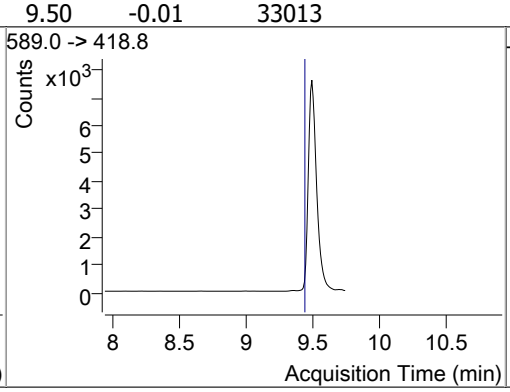


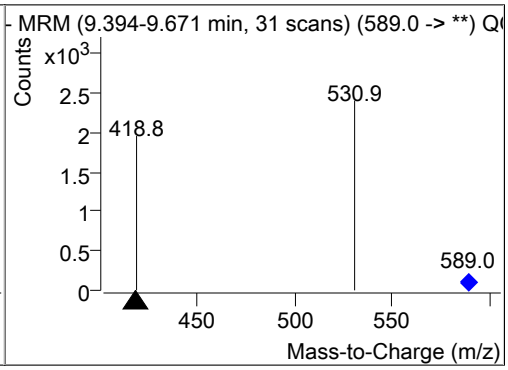




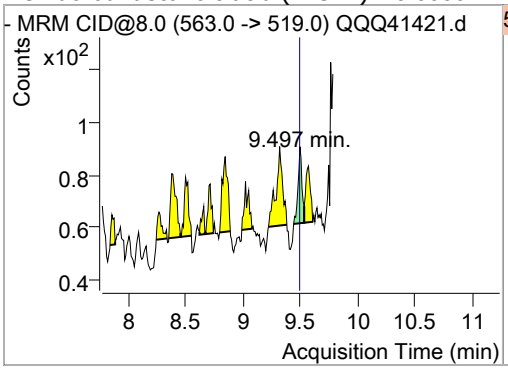
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.7091	9.50	-0.01	33013				

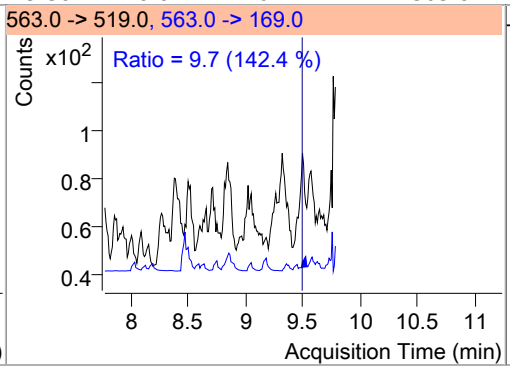


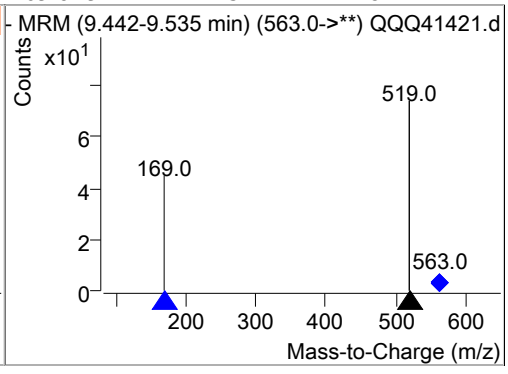




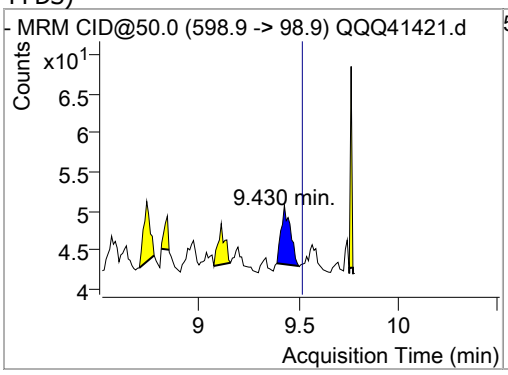
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.50	-0.01	67	563.0 -> 169.0	9.7	5.4	8.1

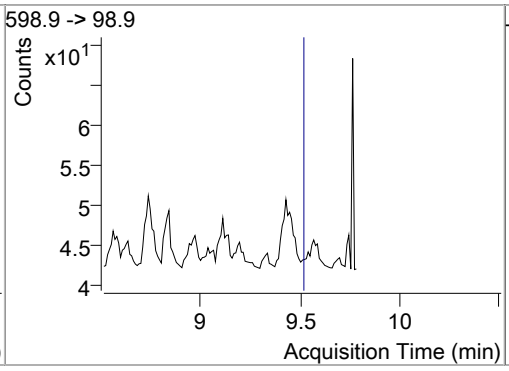


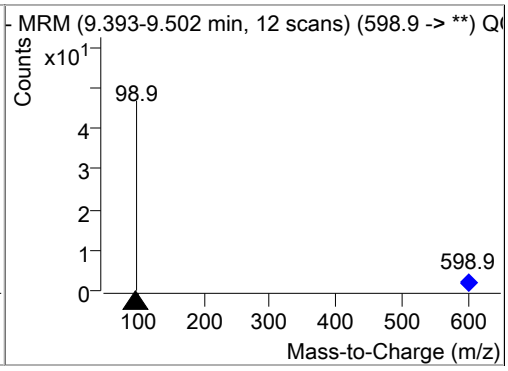




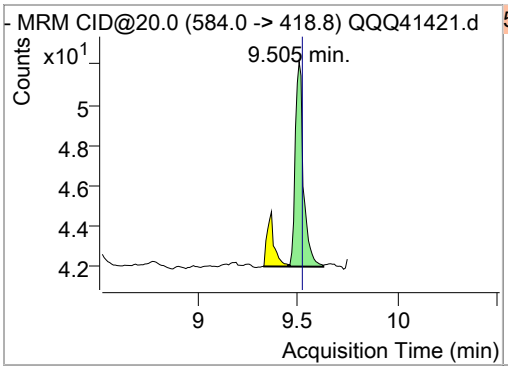
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0125	9.43	-0.08	24				

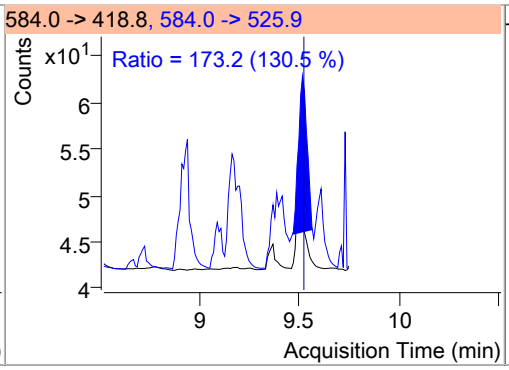


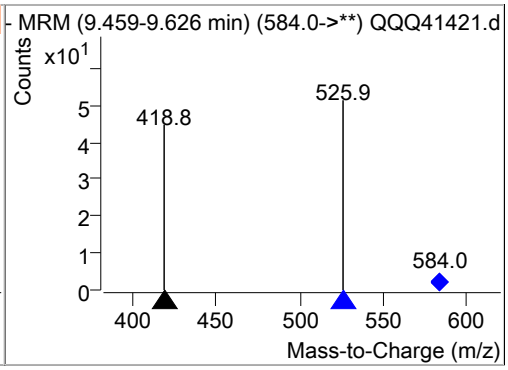




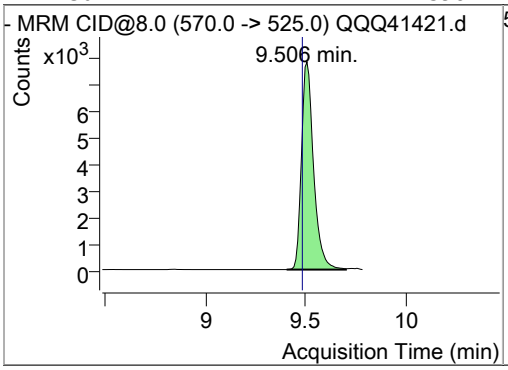
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0051	9.51	-0.01	29	584.0 -> 525.9	173.2	106.2	159.3

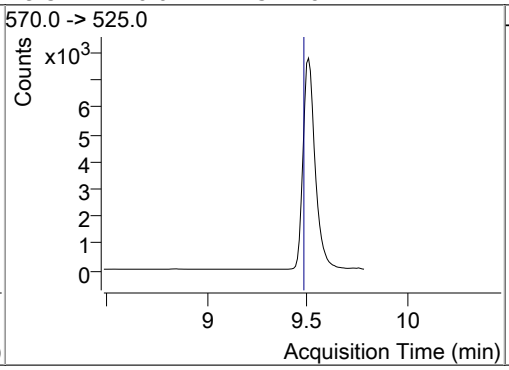


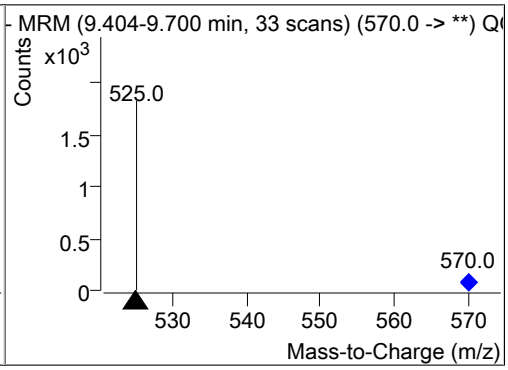




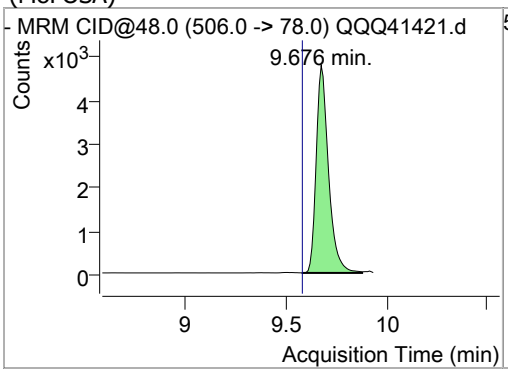
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.4390	9.51	-0.01	32778				

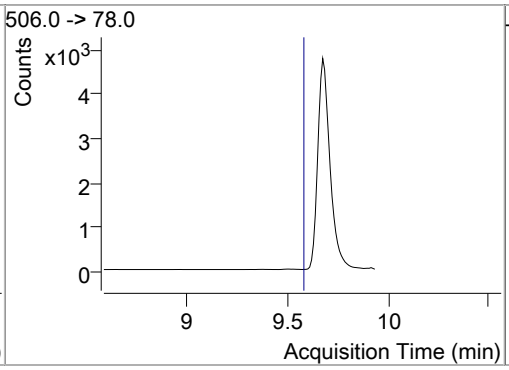


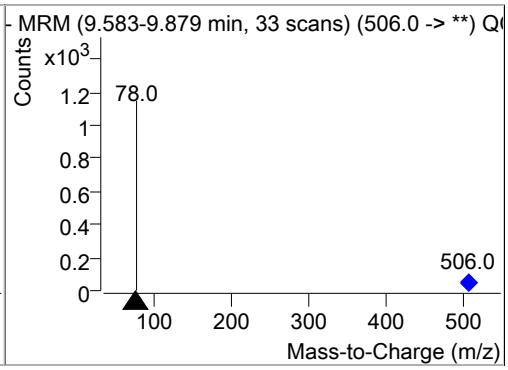




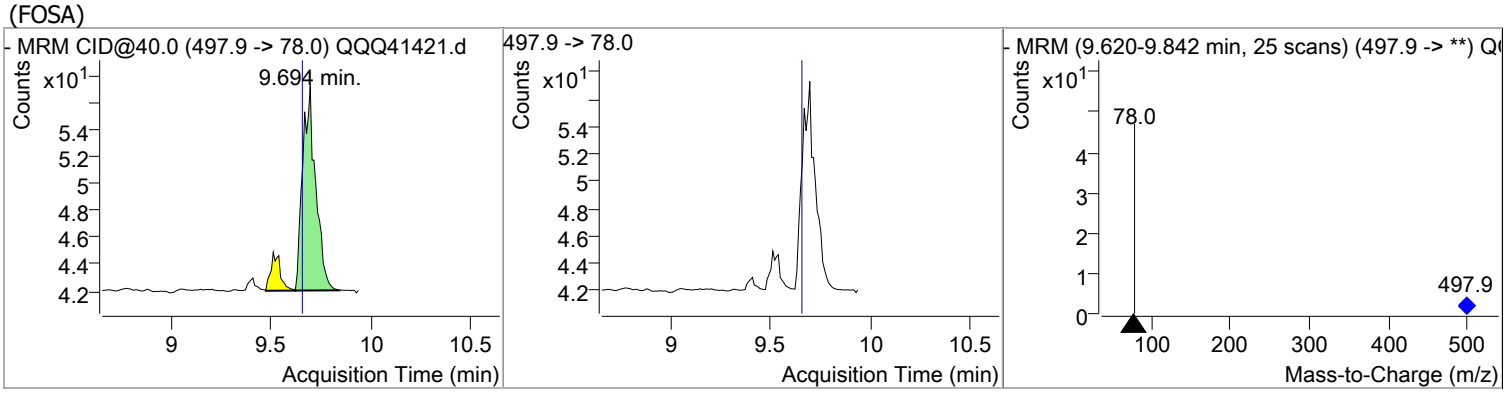
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.8600	9.68	0.03	20264				



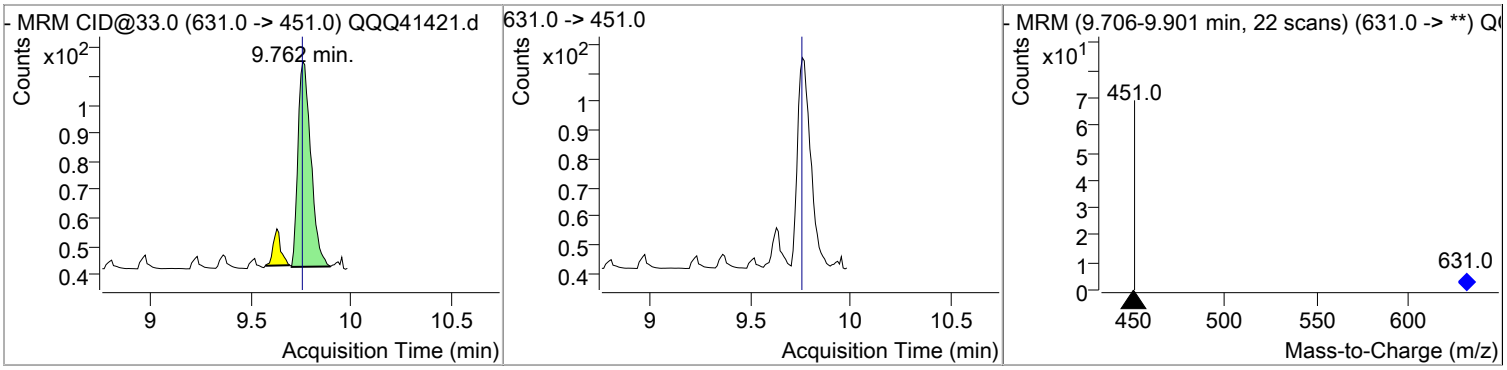




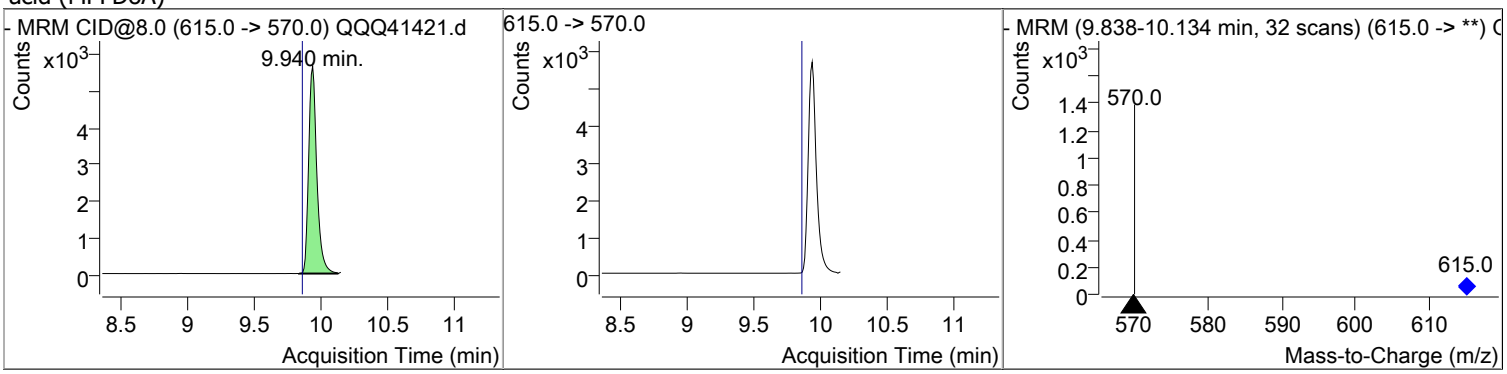
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0060	9.69	0.05	69				



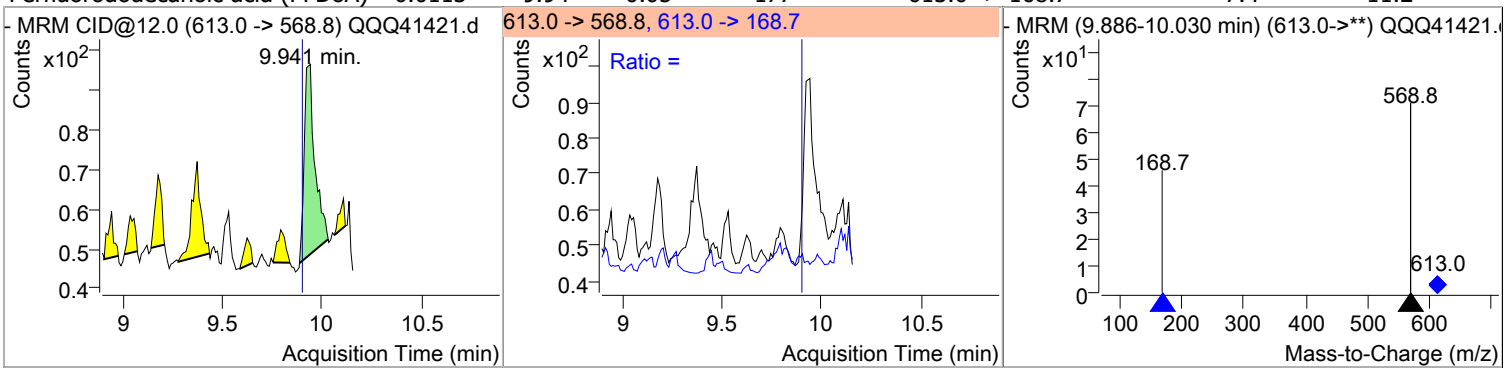
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0177	9.76	0.01	325				



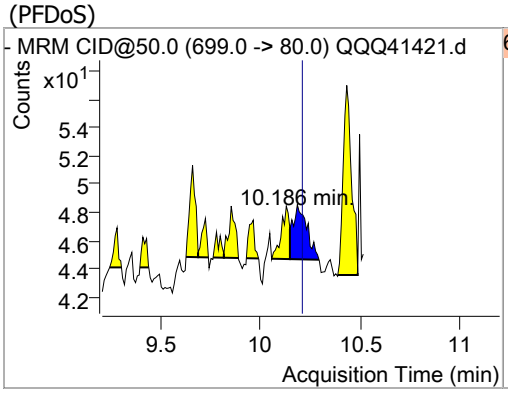
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.2031	9.94	0.05	24092				

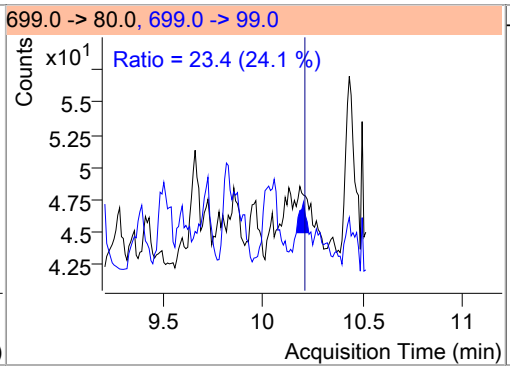


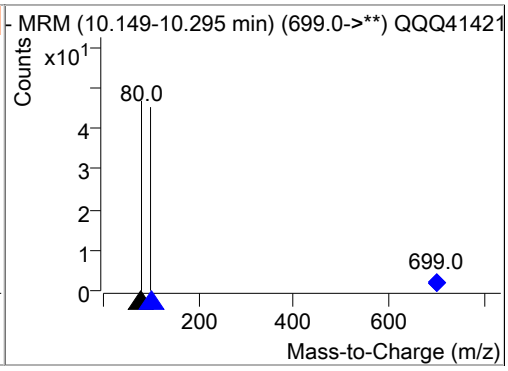
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0113	9.94	0.05	177	613.0 -> 168.7	7.4	11.2	



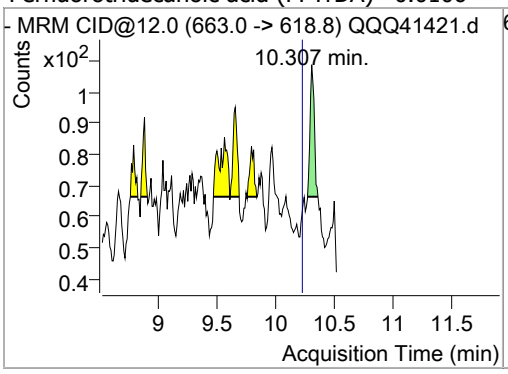
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0188	10.19	-0.02	19	699.0 -> 99.0	23.4	77.6	116.4

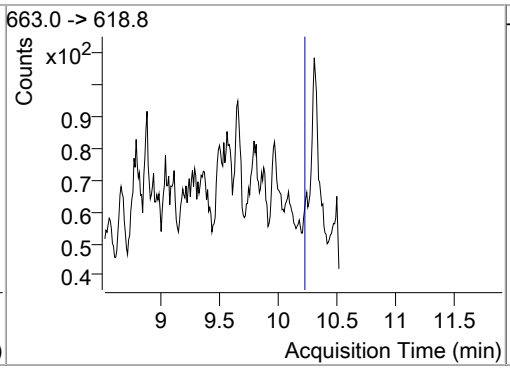


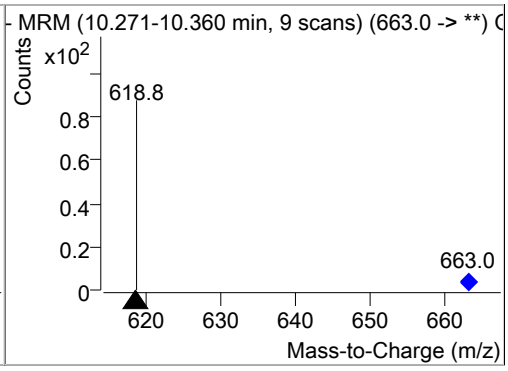




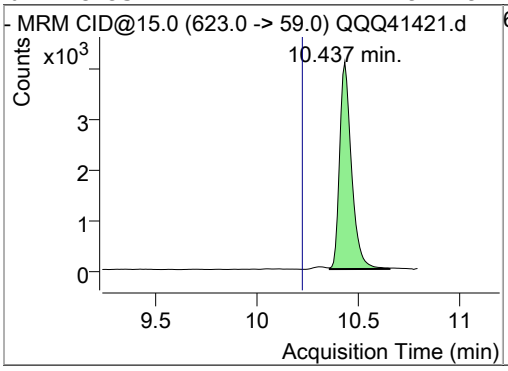
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0106	10.31	0.09	103				

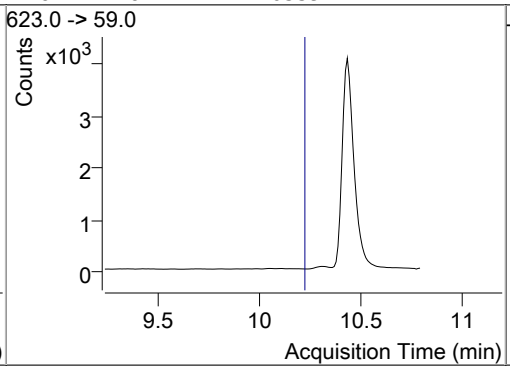


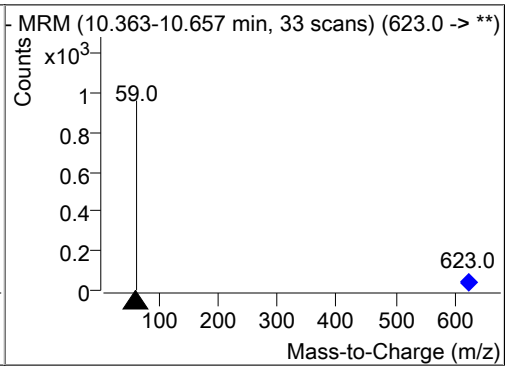




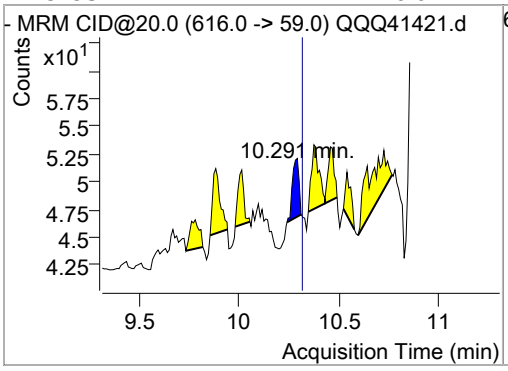
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	29.1249	10.44	0.14	16559				

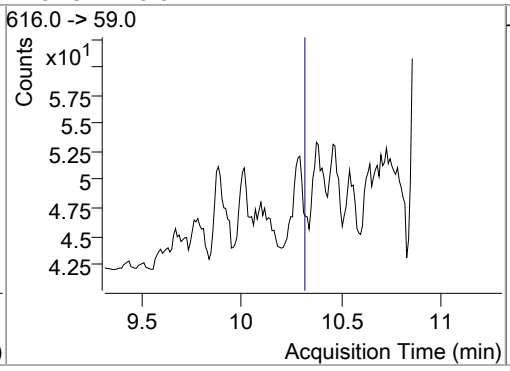


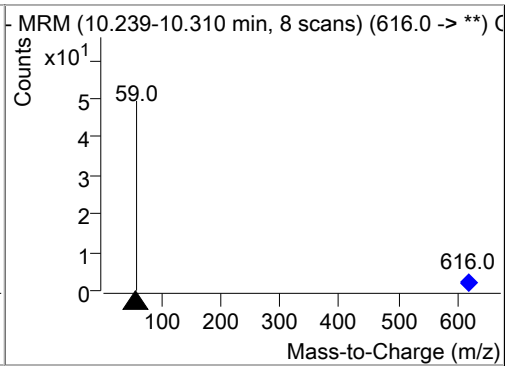




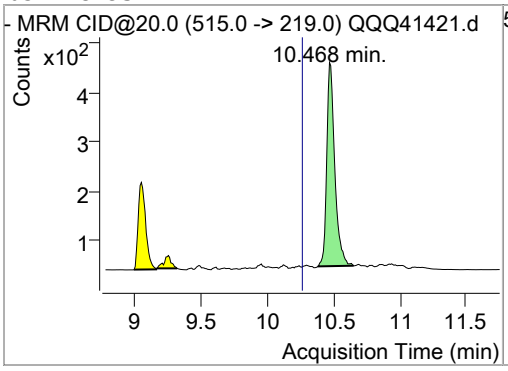
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0217	10.29	-0.02	12				

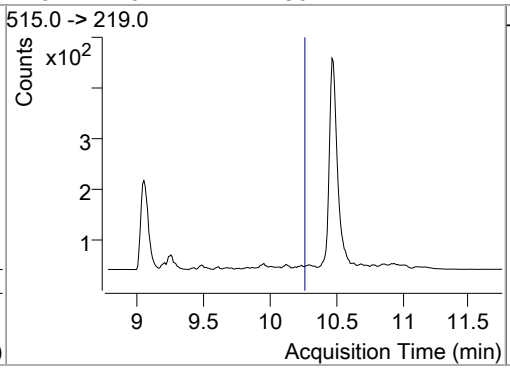


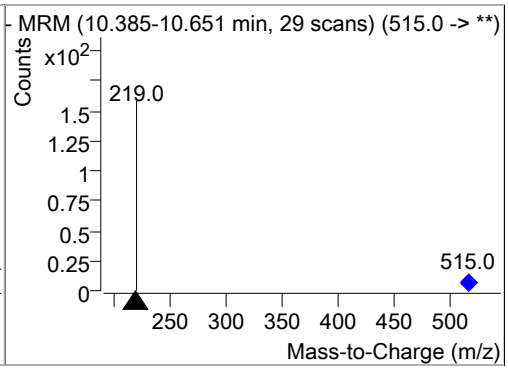




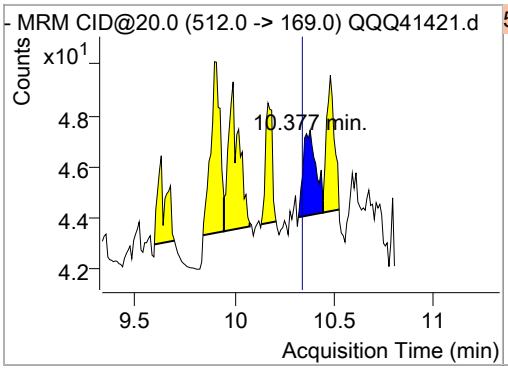
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.4247	10.47	0.14	1736				

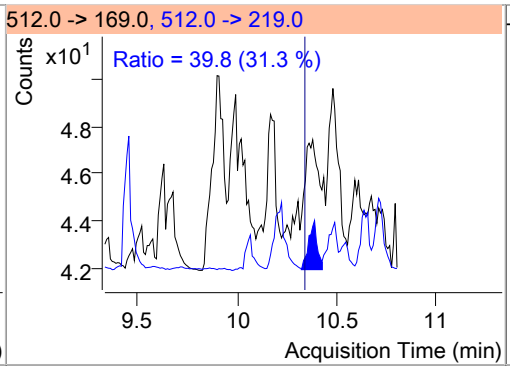


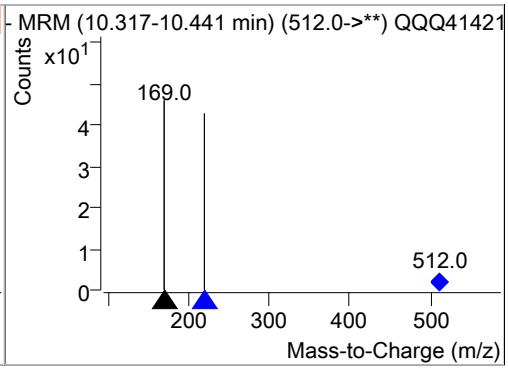




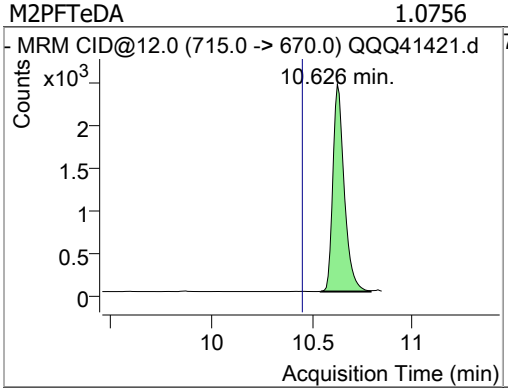
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.38	0.05	15	512.0 -> 219.0	39.8	101.6	152.5

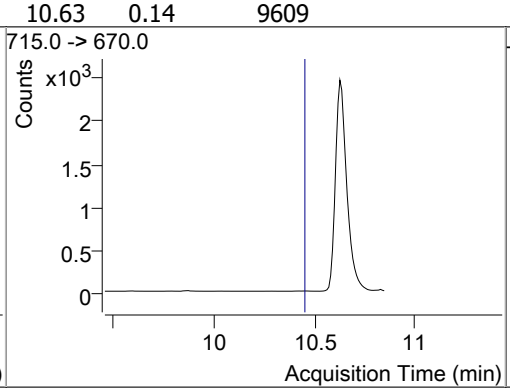


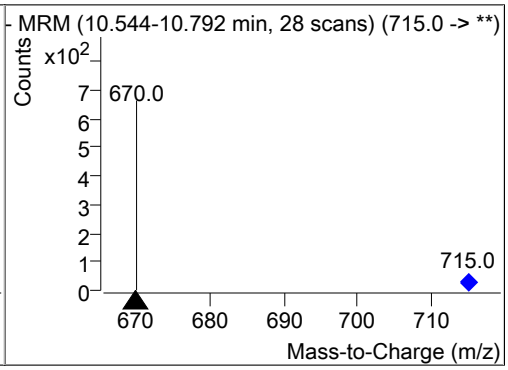




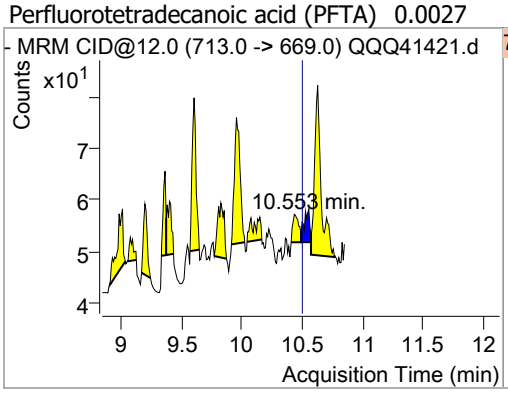
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.0756	10.63	0.14	9609				

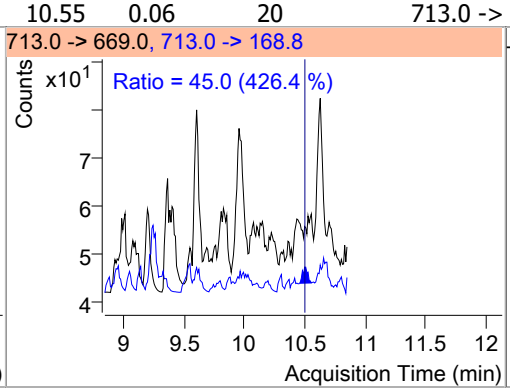


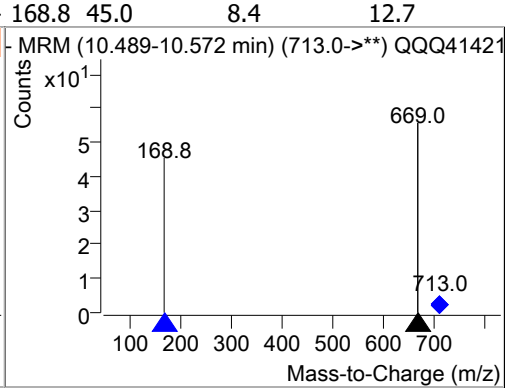




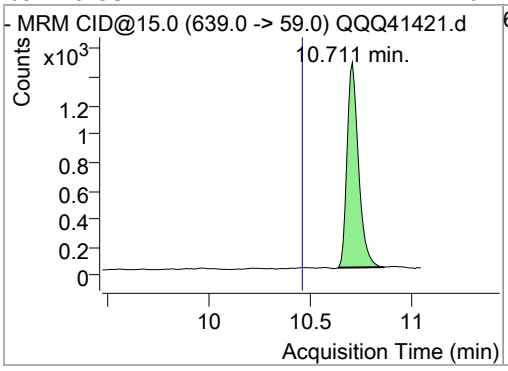
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0027	10.55	0.06	20	713.0 -> 168.8	45.0	8.4	12.7

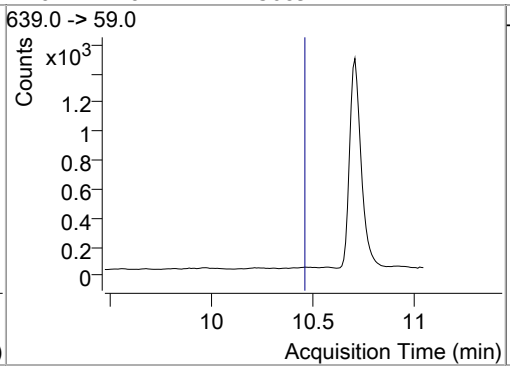


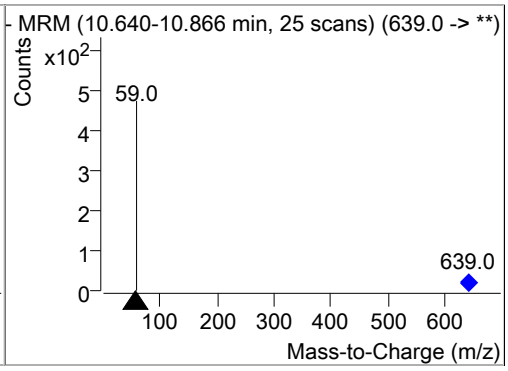




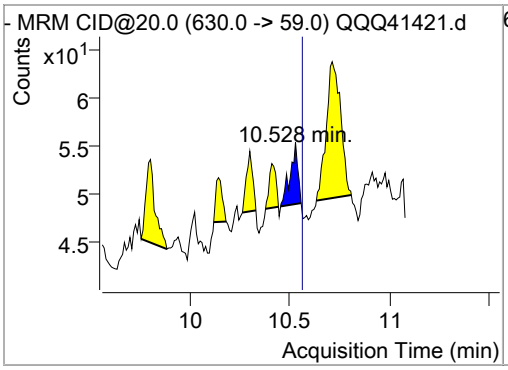
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	22.4728	10.71	0.17	5689				

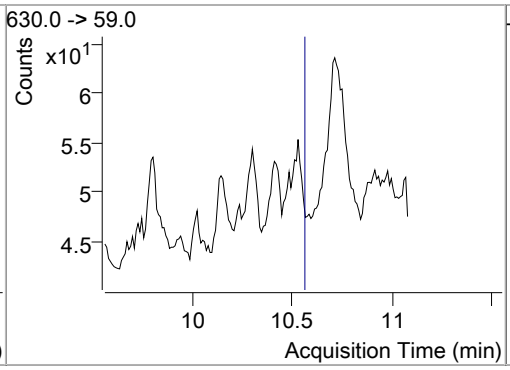


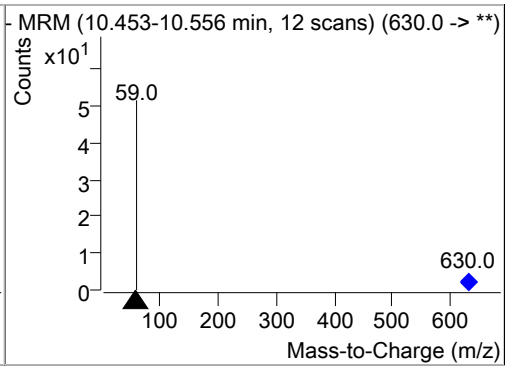




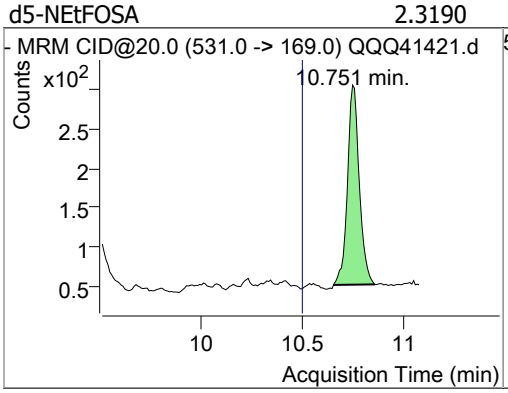
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0341	10.53	-0.03	17				

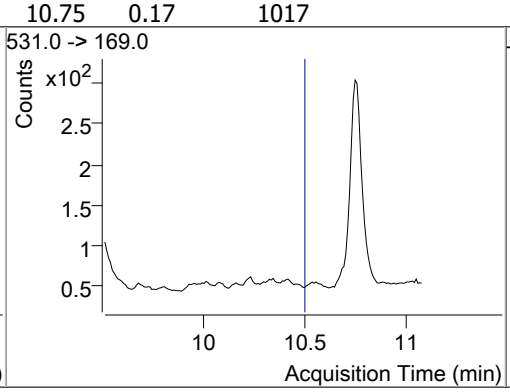


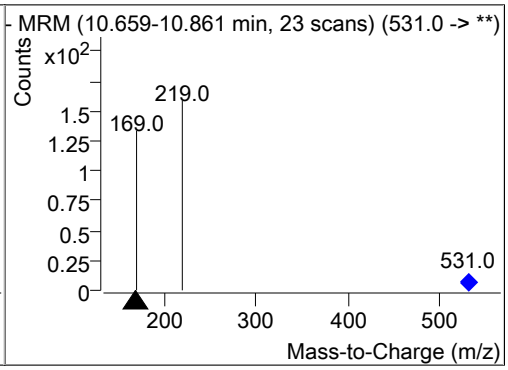




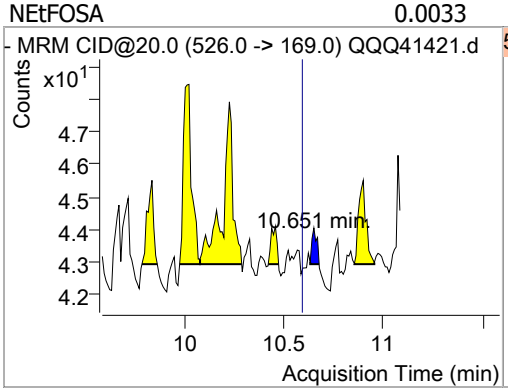
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.3190	10.75	0.17	1017				

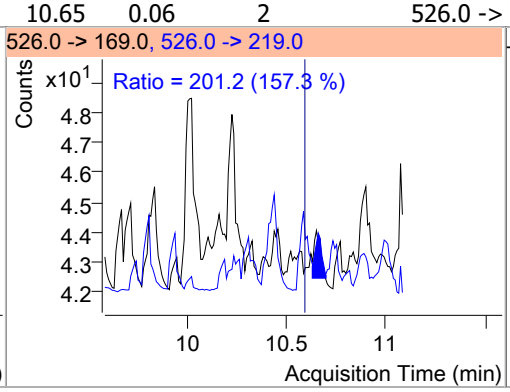


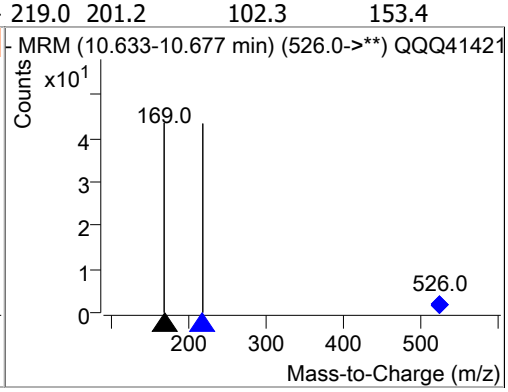




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0033	10.65	0.06	2	526.0 -> 219.0	201.2	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 11:00:27 PM	**Data File**	QQQ41421.d
Sample Type	Sample	**Sampe Name**	SEQ-CCB5
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	153387	22831	0.468			1.73			403.18
Perfluoro-n-butanoic acid (PFBA)	1.292	78	13	0.205			1.23			4.39
PFMPA	2.217	12	1	0.275			1.34			4.64
3:3FTCA	4.433	11	3	0.117			0.48			6.90
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.765	120409	17393	0.463			1.71			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.756	77	23	0.114			0.60			7.80
PFMBA	5.467	2	1	0.044			0.19			12.34
M3PFBS	5.576	17280	3886	0.334			1.60			438.55
Perfluorobutanesulfonic acid (PFBS)	5.567	23	6	0.121			1.72			53.97
PFEESA	6.103	24	7	0.093			2.14			9.88
NFDHA	6.207	5	3	0.046			1.35			3.61
M2-4-2FTS	6.325	17508	4281	0.269			1.81			294.42
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.325	57	17	0.116			0.63			1.30
M5PFHxA	6.400	62115	15456	0.297			1.69			∞
Perfluorohexanoic acid (PFHxA)	6.401	256	63	0.147			0.82			1.37
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.827	10	4	0.075			0.25			0.10
M3-HFPO-DA	6.698	44008	10876	0.305			1.59			690.96
HFPO-DA	6.680	0	59	0.000			1.00			8.67
M4PFHpA	7.244	14132	3546	0.316			1.55			24561.01
Perfluoroheptanoic acid (PFHpA)	7.161	146	18	0.218			1.11			0.17
5-3FTCA	7.310	1170	278	0.269			1.99			412.90
Perfluorohexanesulfonic acid (PFHxS)	7.355	89	23	0.205			0.96			49.33
M3PFHxS	7.345	12340	2980	0.316			1.89			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.374	43	16	0.080			1.89			12.89
M2-6-2FTS	7.875	10873	2527	0.231			1.79			76.57
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.903	54	16	0.124			3.11			1.47
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.941	32739	7864	0.311			1.49			124.01
Perfluorooctanoic acid (PFOA)	7.932	179	37	0.223			1.07			9.13
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.051	25	7	0.139			0.53			35.37
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.534	5913	1474	0.250			1.50			14461.12
Perfluorononanoic acid (PFNA)	8.563	22	10	0.074			2.42			0.17
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.560	5258	1255	0.232			1.80			∞
Perfluorooctanesulfonic acid (PFOS)	8.543	84	17	0.163			3.45			4.68
7-3FTCA	8.711	2197	494	0.297			2.13			611.66
9-Cl-PF3ONS	8.875	230	69	0.160			1.72			30.76
M2-8-2FTS	9.006	32371	7893	0.261			1.68			2713.25
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.997	17	5	0.133			1.13			48.41
M6PFDA	9.044	21231	5518	0.297			1.58			∞
Perfluorodecanoic acid (PFDA)	9.054	140	38	0.126			2.39			4.57
Perfluorononanesulfonate (L-PFNS)	9.079	30	12	0.102			1.35			53.65
d3-N-MeFOSAA	9.255	31591	7365	0.307			1.49			75550.89
N-MeFOSAA	9.283	60	13	0.214			0.92			74.01
d5-N-EtFOSAA	9.495	33013	7601	0.278			1.66			∞
Perfluoroundecanoic acid (PFUnA)	9.497	67	29	0.092			1.31			2.03
Perfluoro-1-decanesulfonate (L-PFDS)	9.430	24	8	0.110			1.61			1.84
N-EtFOSAA	9.505	29	10	0.167			1.52			7.42
M7PFUdA	9.506	32778	7773	0.296			1.49			74459.87
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.676	20264	4768	0.296			1.65			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.694	69	15	0.222			1.14			51.24
11-Cl-PF3OUdS	9.762	325	72	0.195			1.82			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.940	24092	5645	0.295			1.35			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.941	177	48	0.144			1.86			7.71
Perfluorododecanesulfonic acid (PFDoS)	10.186	19	4	0.146			2.66			0.15
Perfluorotridecanoic acid (PFTrDA)	10.307	103	42	0.090			1.20			1.96
d7-NMeFOSE	10.437	16559	4075	0.294			1.61			124.55
NMeFOSE	10.291	12	5	0.071			0.51			1.44
d3-NMeFOSA	10.468	1736	411	0.265			2.01			46.63
NMeFOSA	10.377	15	3	0.124			1.37			1.89
M2PFTeDA	10.626	9609	2435	0.249			1.73			∞
Perfluorotetradecanoic acid (PFTA)	10.553	20	6	0.083			0.27			0.93
d9-NEtFOSE	10.711	5689	1446	0.226			1.47			339.63
NEtFOSE	10.528	17	6	0.103			0.42			1.56
d5-NEtFOSA	10.751	1017	251	0.202			1.34			71.75
NEtFOSA	10.651	2	1	0.045			1.42			0.84

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41433.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/11/24
Lab Sample ID:	S4G1047-CCB6	Injection Time:	02:13

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
11CL-PF3OUdS	A		0.00109	0.8591385				30
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	A		0.0219	0.2419004				30
1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	A		0.00961	1.185549				30
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	A		0.00782	1.255886				30
3-Perfluoroheptyl propanoic acid (FHpPA)	A		0.453	0.2201101				30
3-Perfluoropentyl propanoic acid (FPePA)	A		0.334	0.1241024				30
3-Perfluoropropyl propanoic acid (FPrPA)	A		0.0334	1.286716E-02				30
9CL-PF3ONS	A		0.00754	1.369128				30
ADONA	A		0.00611	0.556015				30
HFPO-DA (Gen-X)	A		0.00	2.239571E-02				30
N-EtFOSA	A		0.00482	1.287944				30
N-EtFOSAA	A		0.00339	0.94945				30
N-EtFOSE	A		0.00930	1.993152				30
N-MeFOSA	A		0.00	0.7524916				30
N-MeFOSAA	A		0.00663	0.8763811				30
N-MeFOSE	A		0.0415	0.824401				30
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	A		0.00142	1.241156				30
Perfluoro-1-decanesulfonic acid (PFDS)	A		0.0126	0.7352727				30
Perfluoro-1-heptanesulfonic acid (PFHpS)	A		0.00263	2.525683				30
Perfluoro-1-nonanesulfonic acid (PFNS)	A		0.00219	0.1655348				30
Perfluoro-1-octanesulfonamide (FOSA)	A		0.00152	1.385288				30
Perfluoro-1-pentanesulfonate (PFPeS)	A		0.00307	1.400558				30
Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	A		0.0302	1.573594E-02				30

FORM VII

CONTINUING CALIBRATION BLANK

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford	SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.	Project:	240625028
Instrument ID:	LCQQQ	Calibration:	SF40019
Lab File ID:	QQQ41433.d	Calibration Date:	06/11/24 08:00
Sequence:	S4G1047	Injection Date:	07/11/24
Lab Sample ID:	S4G1047-CCB6	Injection Time:	02:13

		CONC. (ng/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Perfluoro-4-oxapentanoic acid (PFMPA)	A		0.00136	0.2604373				30
Perfluoro-5-oxahexanoic acid (PFMBA)	A		0.000986	0.4108024				30
Perfluorobutanesulfonic acid (PFBS)	A		0.00137	1.128938				30
Perfluorodecanoic acid (PFDA)	A		0.00984	1.09146				30
Perfluorododecanesulfonic acid (PFDoS)	A		0.0322	0.4284993				30
Perfluorododecanoic acid (PFDoA)	A		0.00302	0.8702134				30
Perfluoroheptanoic acid (PFHpA)	A		0.00217	2.370614				30
Perfluorohexanesulfonic acid (PFHxS)	A		0.00708	1.39602				30
Perfluorohexanoic acid (PFHxA)	A		0.00649	1.166423				30
Perfluoro-n-butanoic acid (PFBA)	A		0.00502	0.9037138				30
Perfluorononanoic acid (PFNA)	A		0.00614	3.453721				30
Perfluorooctanesulfonic acid (PFOS)	A		0.00	2.631087				30
Perfluorooctanoic acid (PFOA)	A		0.00	1.254067				30
Perfluoropentanoic acid (PFPeA)	A		0.00450	1.003786				30
Perfluorotetradecanoic acid (PFTA)	A		0.0260	1.041146				30
Perfluorotridecanoic acid (PFTrDA)	A		0.00190	1.484165				30
Perfluoroundecanoic acid (PFUnA)	A		0.00	0.9068038				30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data File	QQQ41433.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/11/2024 2:13:56 AM
Sample Name	SEQ-CCB6	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

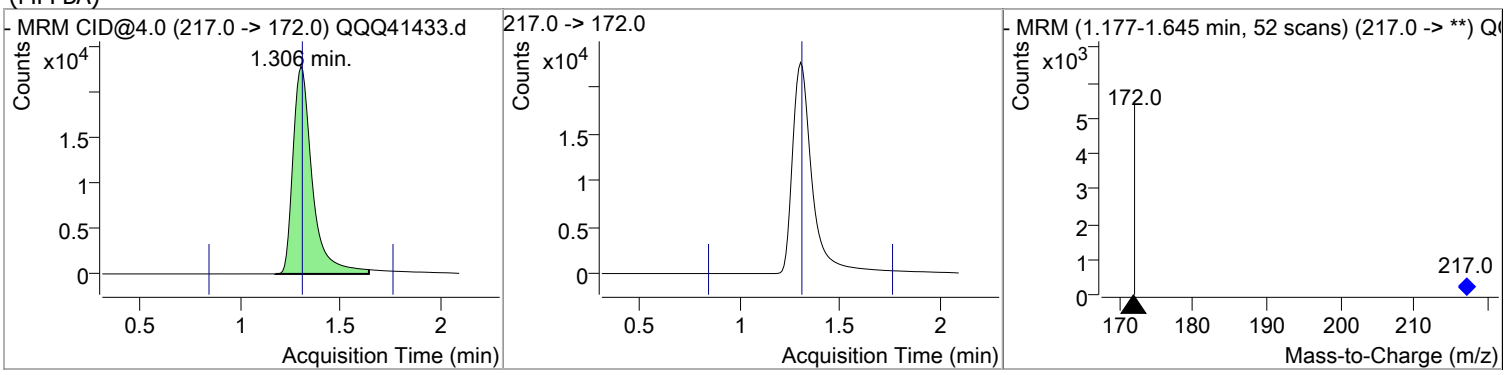
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.308	216.0 -> 172.0	26039	5.0000	ng/ml	0.055
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.306	217.0 -> 172.0	152673	10.0000	ng/ml	0.055
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.756	268.0 -> 223.0	121748	5.0000	ng/ml	0.028
MPFHxA	6.382	315.0 -> 269.8	37953	2.5000	ng/ml	0.009
MPFHxS	7.345	403.0 -> 103.0	4370	2.3700	ng/ml	-0.037
M3PFBS-EIS	5.548	302.0 -> 79.9	19561	2.3300	ng/ml	0.018
M5PFHxA-EIS	6.381	318.0 -> 273.0	64939	2.5000	ng/ml	0.009
M2-4-2FTS-EIS	6.306	329.0 -> 309.0	20712	4.6900	ng/ml	0.009
M3PFHxS-EIS	7.345	402.0 -> 80.0	13448	2.3700	ng/ml	-0.037
M3-HFPO-DA-EIS	6.680	287.0 -> 169.0	46028	10.0000	ng/ml	-0.009
M4PFHpA-EIS	7.235	367.0 -> 322.0	15180	2.5000	ng/ml	-0.028
M2-6-2FTS-EIS	7.884	429.0 -> 409.0	13337	4.7550	ng/ml	-0.046
MPFOA	7.941	417.0 -> 372.0	43840	2.5000	ng/ml	-0.056
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.950	421.0 -> 376.0	39274	2.5000	ng/ml	-0.047
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.588	507.0 -> 98.9	5473	2.3950	ng/ml	-0.037
MPFNA	8.553	468.0 -> 423.0	20306	1.2500	ng/ml	-0.046
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.553	472.0 -> 223.0	6000	1.2500	ng/ml	-0.037
MPFOS	8.589	503.0 -> 80.0	12067	2.3950	ng/ml	-0.037
M2-8-2FTS-EIS	9.043	529.0 -> 509.0	32964	4.8000	ng/ml	0.000
MPFDA	9.082	515.0 -> 469.8	14662	1.2500	ng/ml	0.000
M6PFDA-EIS	9.090	519.0 -> 473.9	21335	1.2500	ng/ml	0.009
d3-N-MeFOSAA-EIS	9.301	573.0 -> 418.8	32177	5.0000	ng/ml	0.019
M7PFUdA-EIS	9.562	570.0 -> 525.0	29830	1.2500	ng/ml	0.047
d5-N-EtFOSAA-EIS	9.551	589.0 -> 418.8	32945	5.0000	ng/ml	0.047
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.731	506.0 -> 78.0	21551	2.5000	ng/ml	0.083
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.995	615.0 -> 570.0	25536	1.2500	ng/ml	0.102
M2PFTeDA-EIS	10.700	715.0 -> 670.0	10796	1.2500	ng/ml	0.212
d7-NMeFOSE-EIS	10.511	623.0 -> 59.0	15446	25.0000	ng/ml	0.212
d3-NMeFOSA-EIS	10.551	515.0 -> 219.0	2193	2.5000	ng/ml	0.221
d9-NEtFOSE-EIS	10.785	639.0 -> 59.0	6192	25.0000	ng/ml	0.249
d5-NEtFOSA-EIS	10.834	531.0 -> 169.0	1243	2.5000	ng/ml	0.258
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	217.0 -> 172.0	152673	11.7087	ng/ml	0.055
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.756	268.0 -> 223.0	121748	5.0285	ng/ml	0.028
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.548	302.0 -> 79.9	19561	2.5087	ng/ml	0.018
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.306	329.0 -> 309.0	20712	3.9788	ng/ml	0.009

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.381	318.0 -> 273.0	64939	2.6811	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.680	287.0 -> 169.0	46028	10.8715	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.235	367.0 -> 322.0	15180	2.8215	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.345	402.0 -> 80.0	13449	2.4723	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.884	429.0 -> 409.0	13410	3.8466	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	421.0 -> 376.0	39270	2.8128	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.553	472.0 -> 223.0	6000	1.3864	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.588	507.0 -> 98.9	5480	2.4763	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.043	529.0 -> 509.0	33033	4.0348	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.090	519.0 -> 473.9	21335	1.3281	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.301	573.0 -> 418.8	32158	5.6401	ng/ml		0.019
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.551	589.0 -> 418.8	32945	6.5427	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.562	570.0 -> 525.0	29830	1.3719	ng/ml		0.047
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.731	506.0 -> 78.0	21551	2.9724	ng/ml		0.083
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.995	615.0 -> 570.0	25537	1.3360	ng/ml		0.102
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.511	623.0 -> 59.0	15446	26.5476	ng/ml		0.212
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.551	515.0 -> 219.0	2193	2.9925	ng/ml		0.221
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.700	715.0 -> 670.0	10796	1.2659	ng/ml		0.212
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.785	639.0 -> 59.0	6193	23.9064	ng/ml		0.249
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.834	531.0 -> 169.0	1243	2.7716	ng/ml		0.258
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.310	213.0 -> 168.9	67	0.0050	ng/ml		100
PFMPA	2.226	229.0 -> 85.0	10	0.0014	ng/ml		100
3:3FTCA	4.442	241.0 -> 177.0	14	0.0334	ng/ml		18
Perfluoro-n-pentanoic acid (PFPeA)	4.738	263.0 -> 219.0	105	0.0045	ng/ml		100
PFMBA	5.523	279.0 -> 85.0	10	0.0010	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.530	298.9 -> 79.9	12	0.0014	ng/ml	#	1
PFEESA	6.084	315.0 -> 135.0	49	0.0014	ng/ml	#	71
NFDHA	6.151	295.0 -> 201.1	14	0.0302	ng/ml	#	1
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	327.0 -> 307.0	53	0.0096	ng/ml	#	41

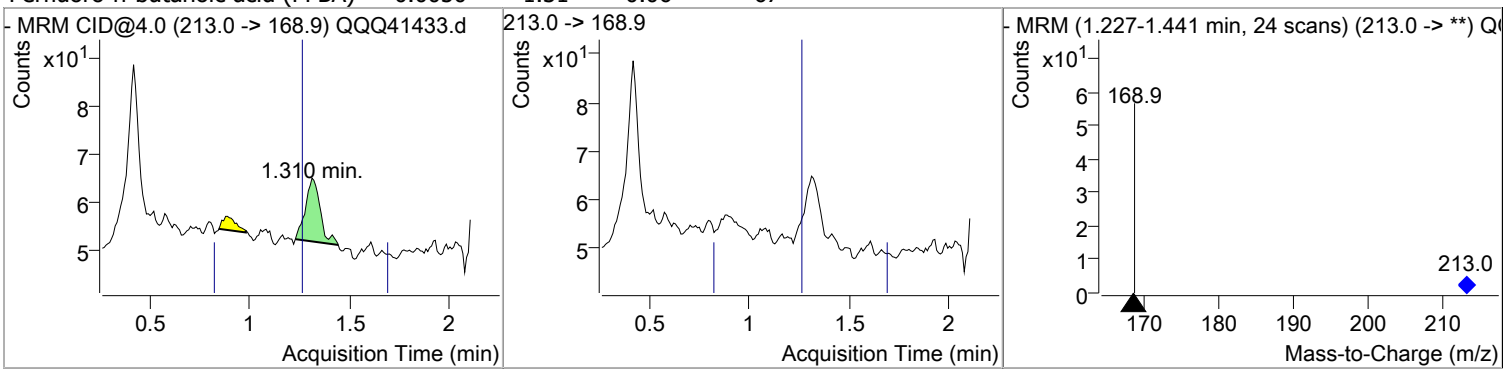
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.383	313.0 -> 268.9	195	0.0065	ng/ml	#	61
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.621	348.9 -> 79.9	22	0.0031	ng/ml	#	51
HFPO-DA	6.689	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.328	363.0 -> 318.8	29	0.0022	ng/ml	#	82
5-3FTCA	7.310	341.0 -> 217.0	1388	0.3338	ng/ml		98
Perfluorohexanesulfonic acid (PFHxS)	7.336	398.9 -> 79.9	46	0.0071	ng/ml		94
ADONA	7.383	377.0 -> 85.0	62	0.0061	ng/ml	#	61
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.884	427.0 -> 407.0	35	0.0078	ng/ml	#	71
Perfluorooctanoic acid (PFOA)	7.960	413.0 -> 368.8	244	0.0000	ng/ml	#	67
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.023	448.9 -> 80.0	15	0.0026	ng/ml		98
Perfluorononanoic acid (PFNA)	8.553	463.0 -> 418.8	95	0.0061	ng/ml	#	54
Perfluorooctanesulfonic acid (PFOS)	8.626	498.9 -> 79.9	87	0.0000	ng/ml	#	83
7-3FTCA	8.739	441.0 -> 337.0	2525	0.4533	ng/ml		85
9-Cl-PF3ONS	8.912	531.0 -> 351.0	210	0.0075	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	527.0 -> 80.9	35	0.0219	ng/ml	#	33
Perfluorodecanoic acid (PFDA)	9.156	513.0 -> 468.8	192	0.0098	ng/ml		100
Perfluorononanesulfonate (L-PFNS)	9.070	548.9 -> 79.9	9	0.0022	ng/ml	#	1
N-MeFOSAA	9.311	570.0 -> 418.9	37	0.0066	ng/ml	#	80
Perfluoroundecanoic acid (PFUnA)	9.479	563.0 -> 519.0	46	0.0000	ng/ml	#	68
Perfluoro-1-decanesulfonate (L-PFDS)	9.495	598.9 -> 98.9	25	0.0126	ng/ml		100
N-EtFOSAA	9.552	584.0 -> 418.8	19	0.0034	ng/ml	#	70
Perfluoro-1-octanesulfonamide (FOSA)	9.731	497.9 -> 78.0	19	0.0015	ng/ml		100
11-Cl-PF3OUdS	9.678	631.0 -> 451.0	21	0.0011	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.996	613.0 -> 568.8	50	0.0030	ng/ml	#	1
Perfluorododecanesulfonic acid (PFDoS)	10.130	699.0 -> 80.0	33	0.0322	ng/ml	#	13
Perfluorotridecanoic acid (PFTrDA)	10.196	663.0 -> 618.8	21	0.0019	ng/ml		100
NMeFOSE	10.171	616.0 -> 59.0	21	0.0415	ng/ml		100
NMeFOSA	10.211	512.0 -> 169.0	11	0.0000	ng/ml		1
Perfluorotetradecanoic acid (PFTA)	10.719	713.0 -> 669.0	219	0.0260	ng/ml		98
NEtFOSE	10.537	630.0 -> 59.0	5	0.0093	ng/ml		100
NEtFOSA	10.679	526.0 -> 169.0	3	0.0048	ng/ml	#	27

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

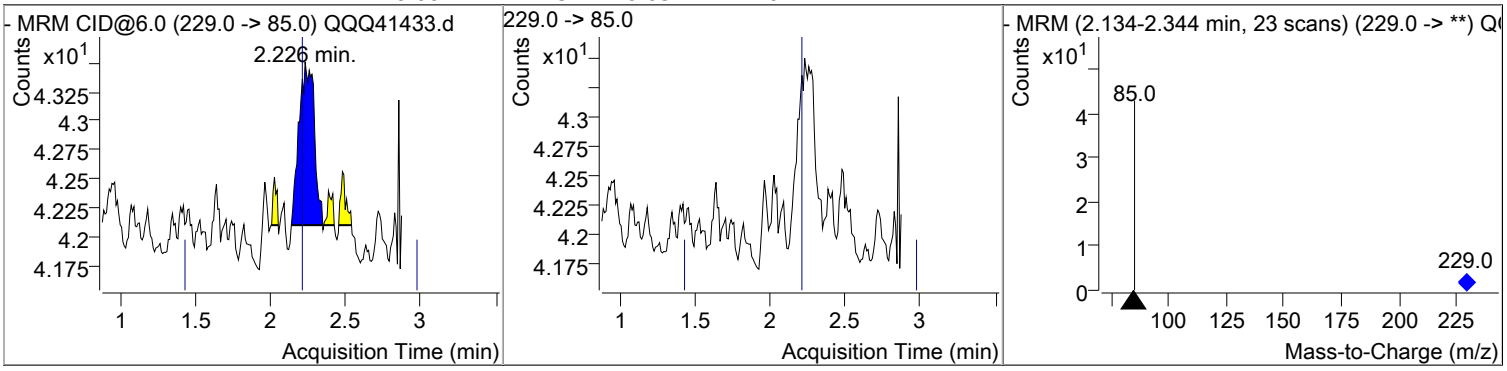
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	11.7087	1.31	0.06	152673				



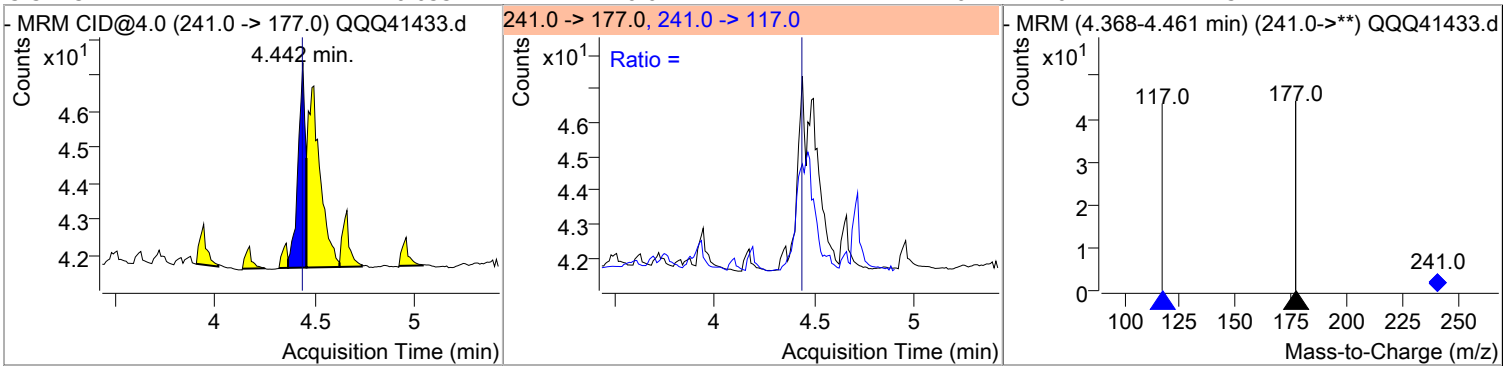
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	0.0050	1.31	0.06	67				



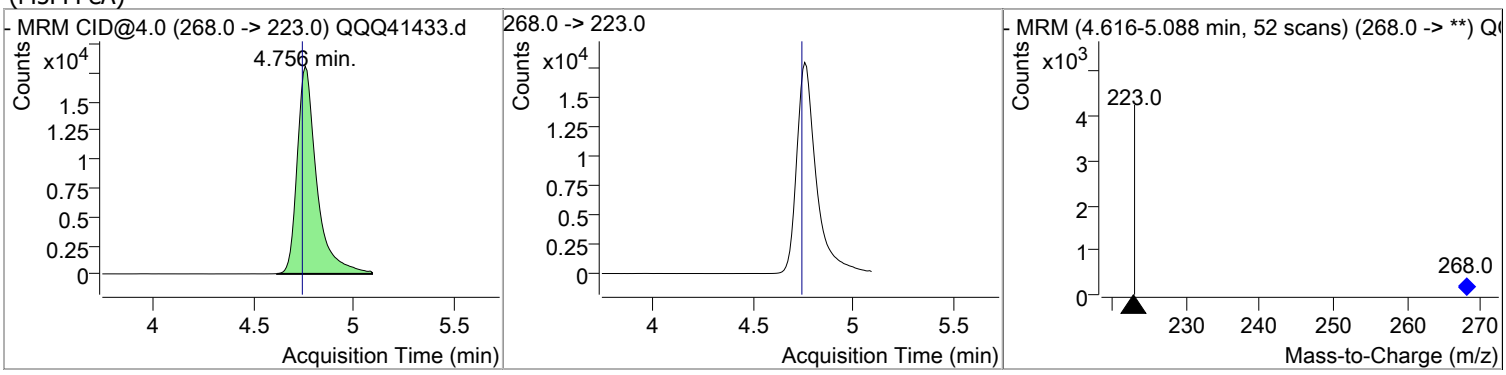
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0014	2.23	0.03	10				



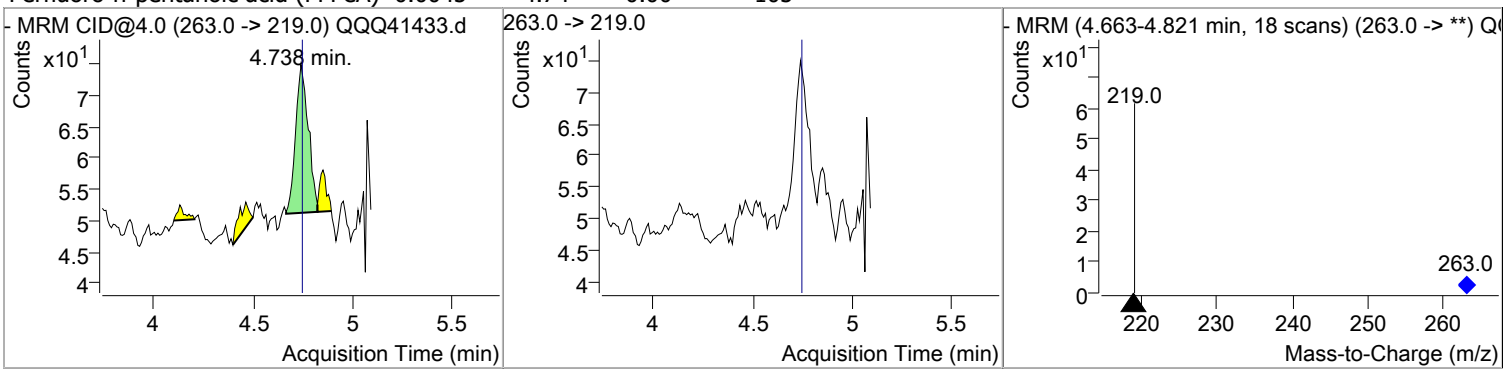
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0334	4.44	0.01	14	241.0 -> 117.0		51.4	77.2



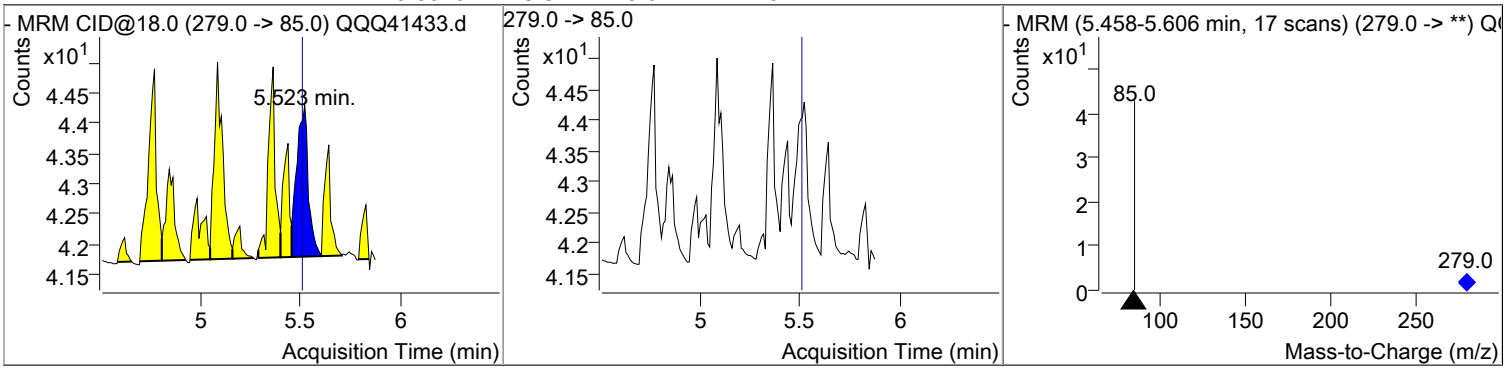
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.0285	4.76	0.03	121748				



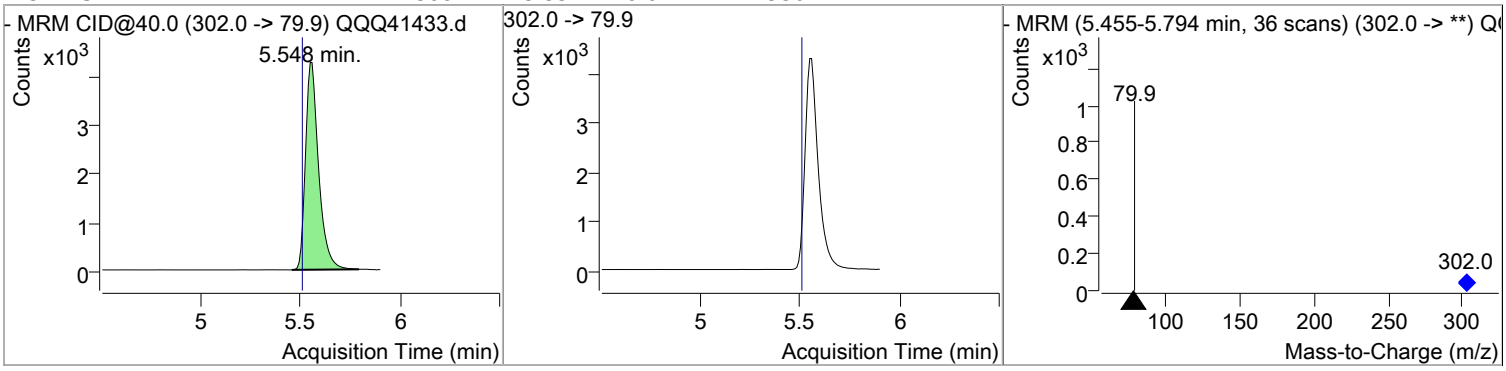
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0045	4.74	0.00	105				



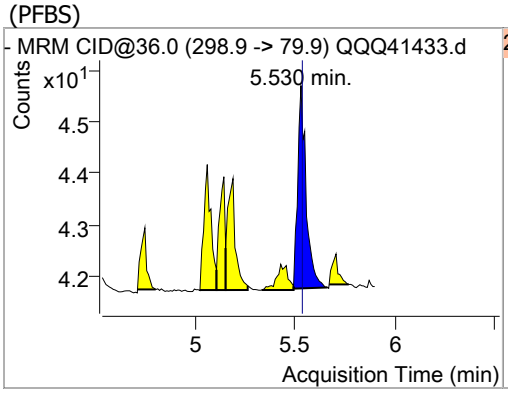
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0010	5.52	0.02	10				

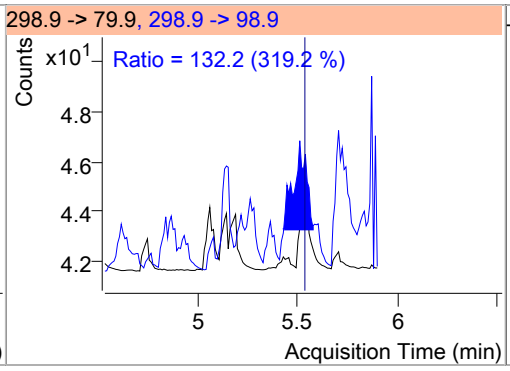


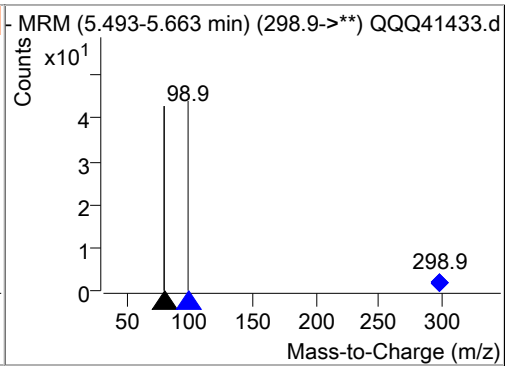
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	2.5087	5.55	0.02	19561				



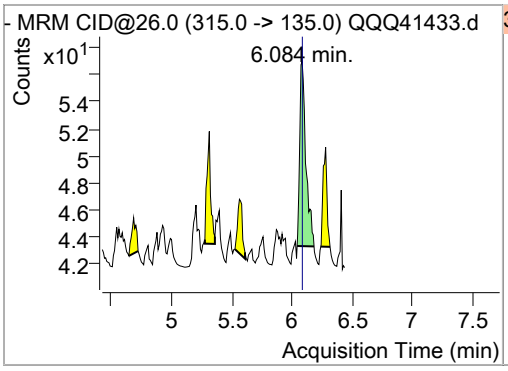
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0014	5.53	0.00	12	298.9 -> 98.9	132.2	33.1	49.7

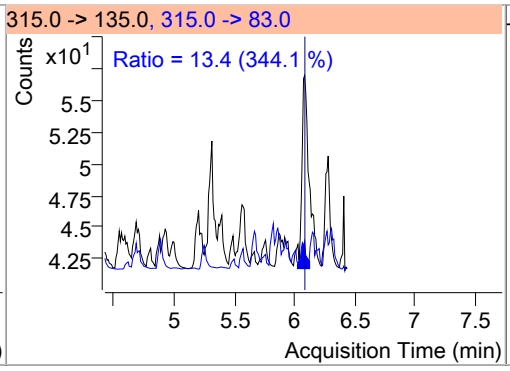


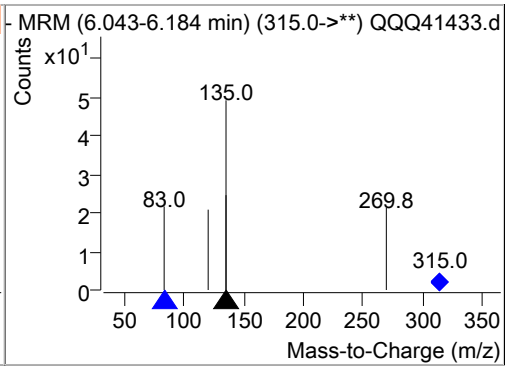




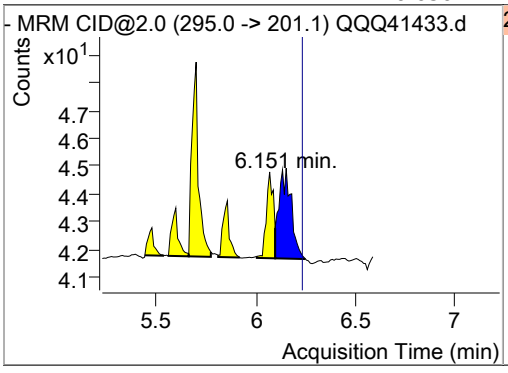
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0014	6.08	0.01	49	315.0 -> 83.0	13.4	3.1	4.7

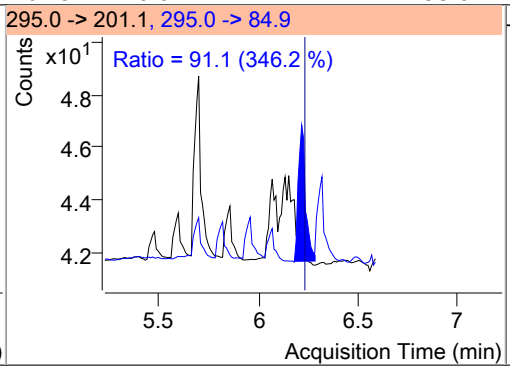


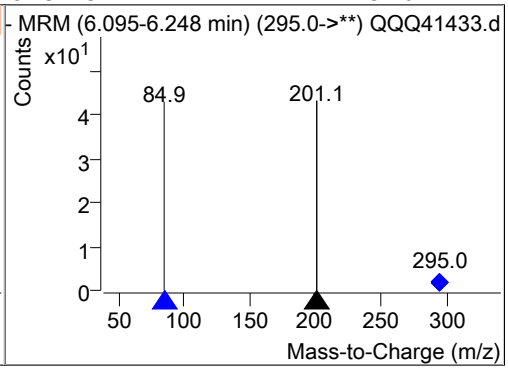




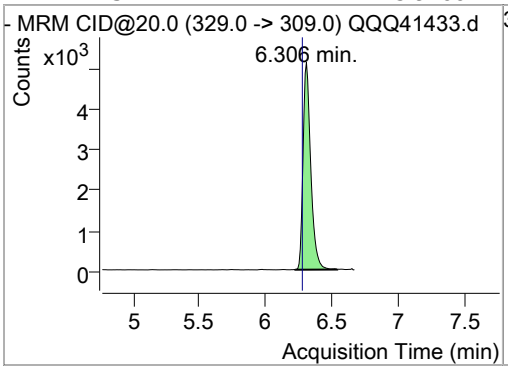
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0302	6.15	-0.07	14	295.0 -> 84.9	91.1	21.1	31.6

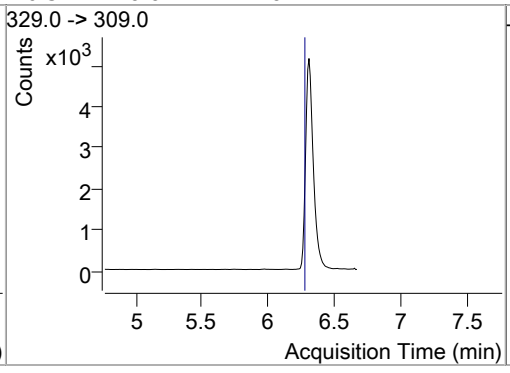


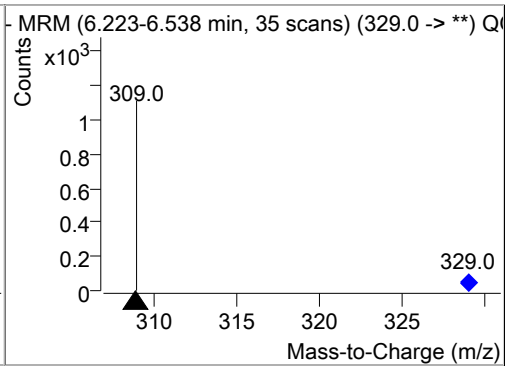




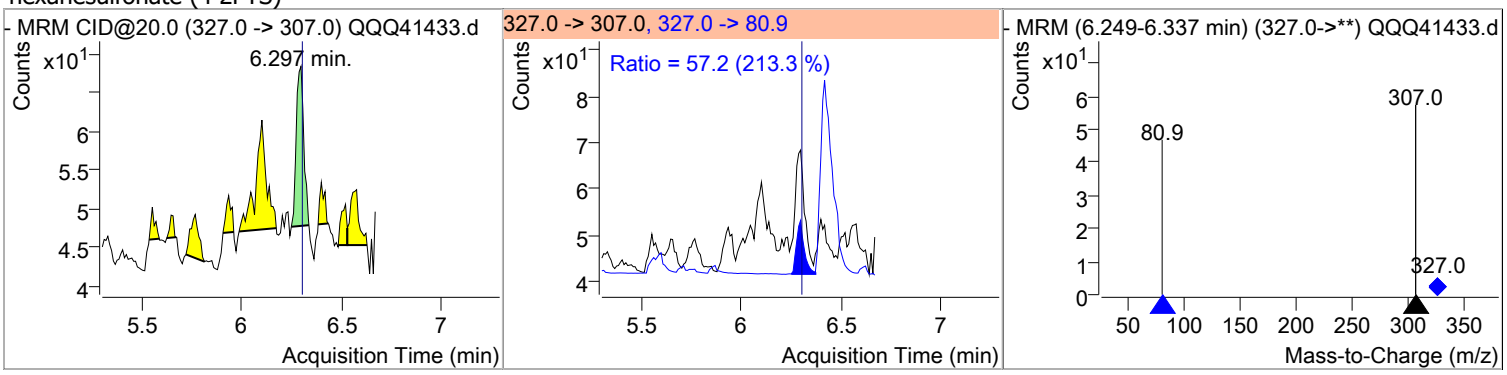
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	3.9788	6.31	0.01	20712				



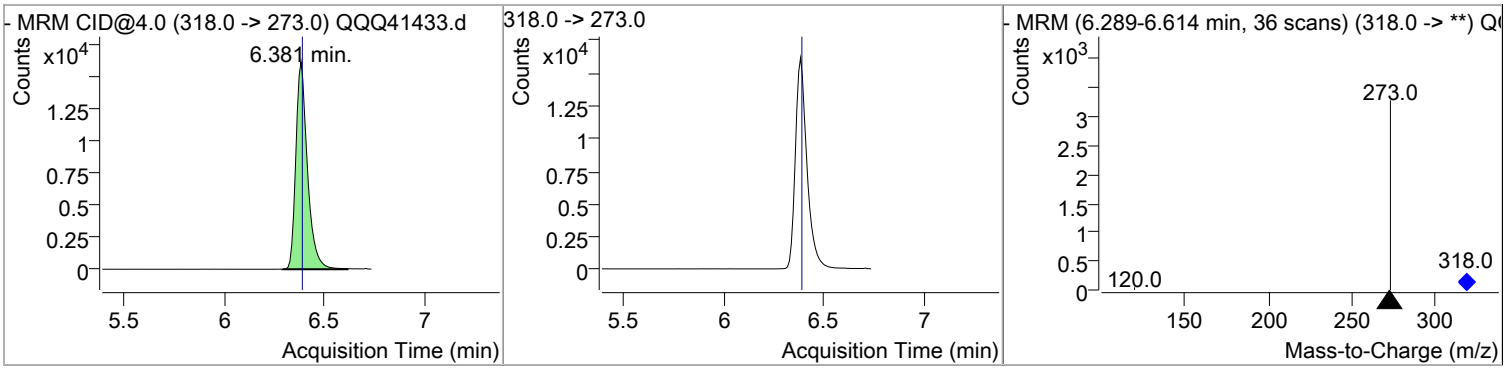




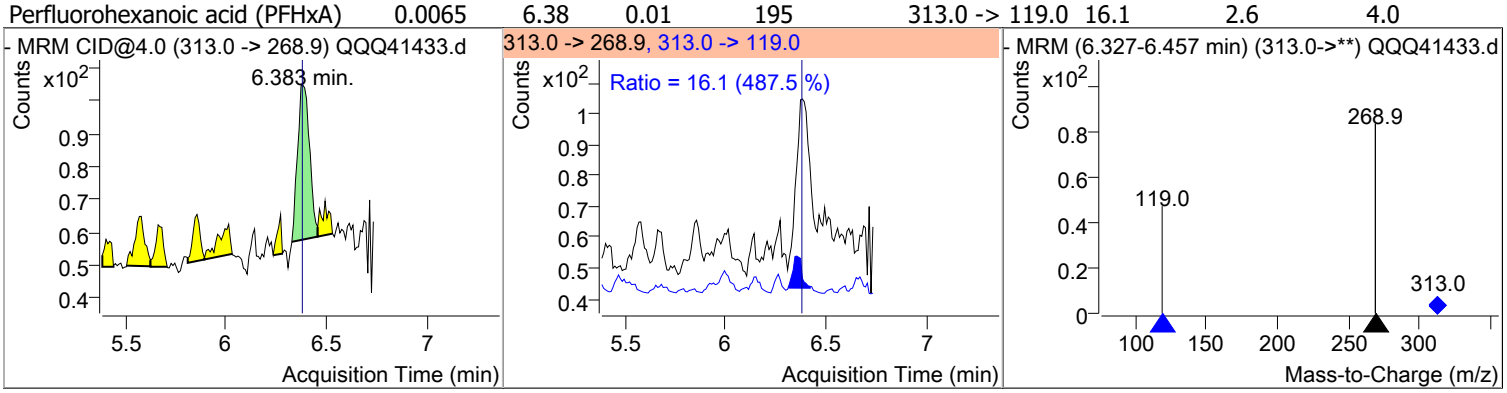
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0096	6.30	0.00	53	327.0 -> 80.9	57.2	21.5	32.2



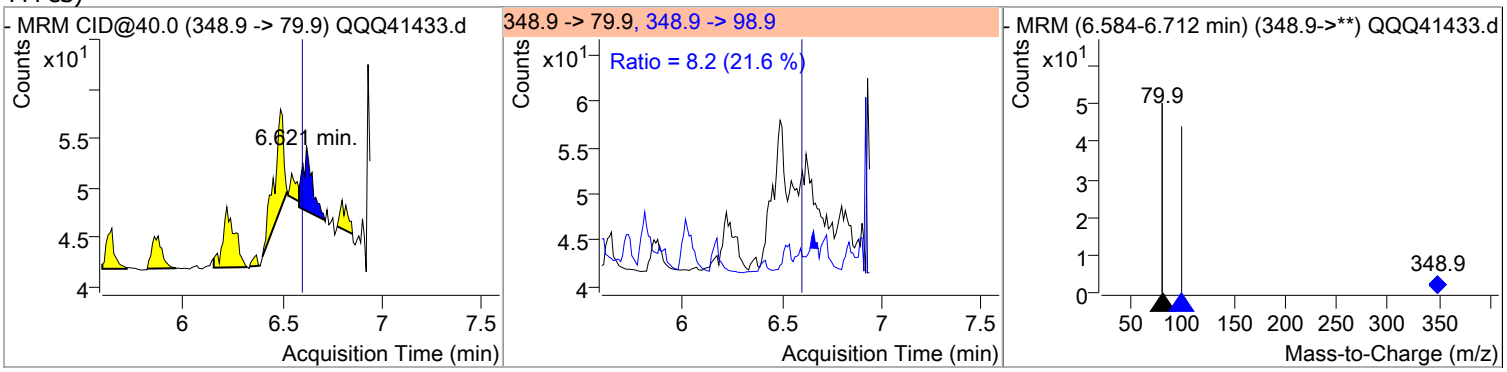
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	2.6811	6.38	0.01	64939				



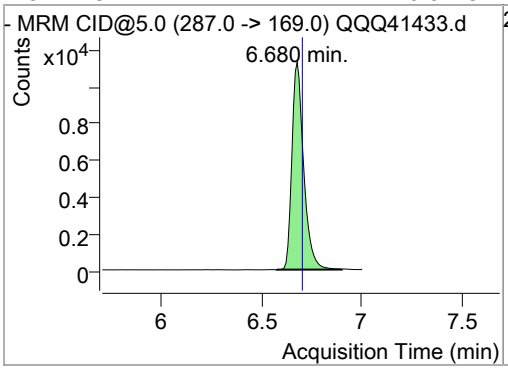
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0065	6.38	0.01	195	313.0 -> 119.0	16.1	2.6	4.0

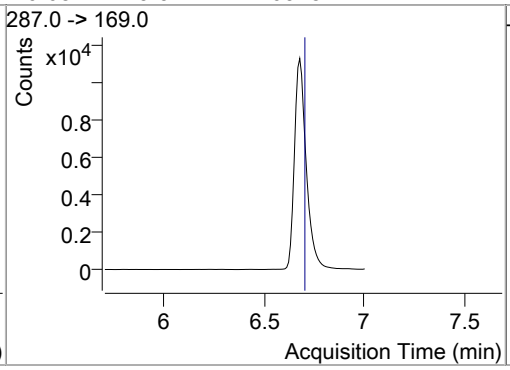


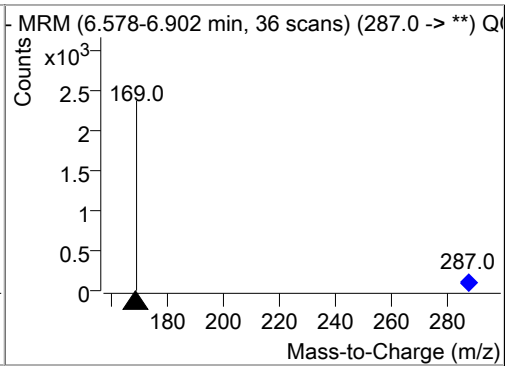
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0031	6.62	0.03	22	348.9 -> 98.9	8.2	30.4	45.6



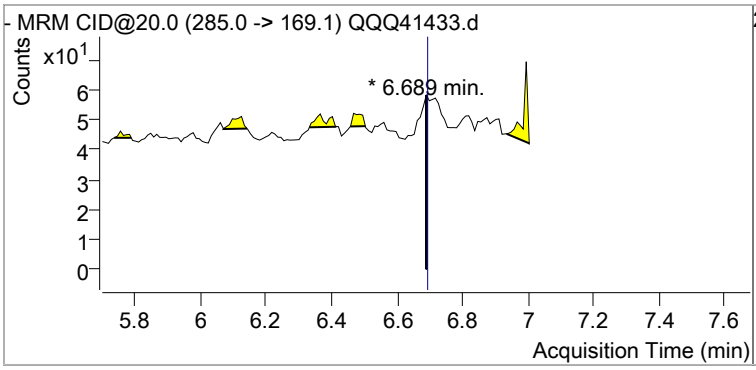
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.8715	6.68	-0.01	46028				

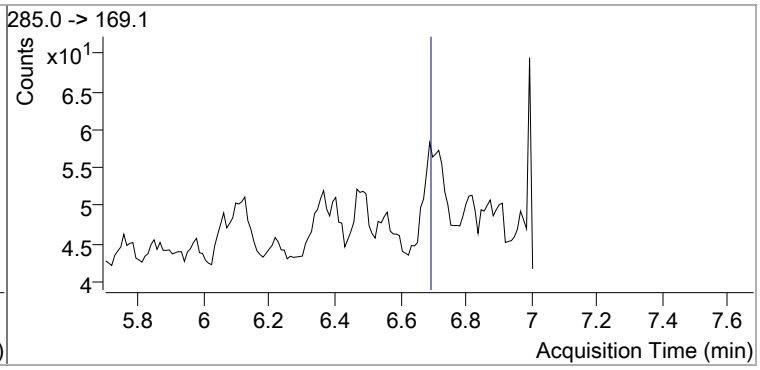




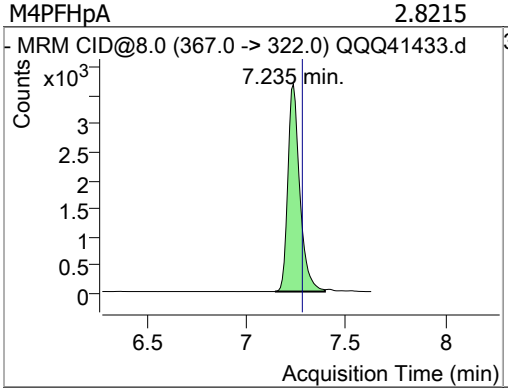


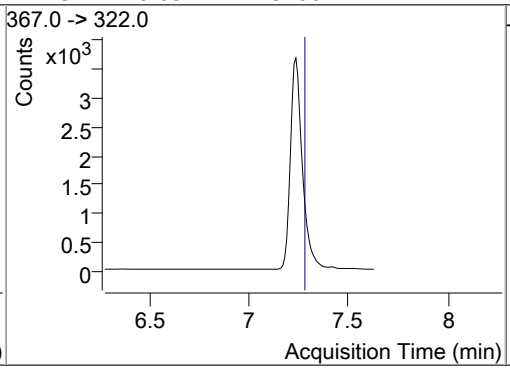
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

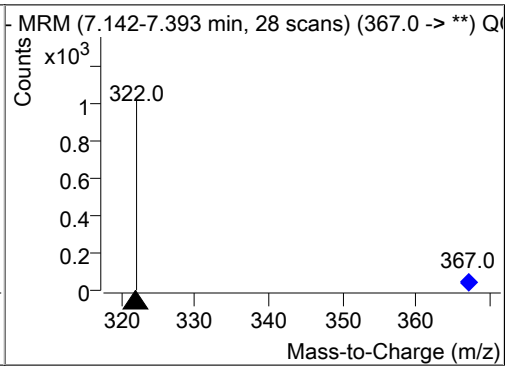




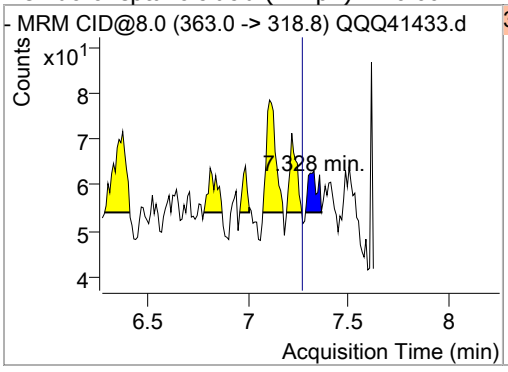
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	2.8215	7.23	-0.03	15180				

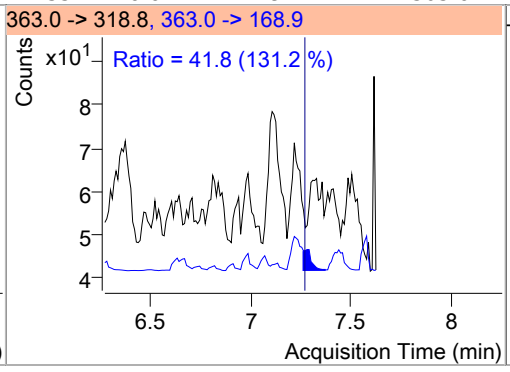


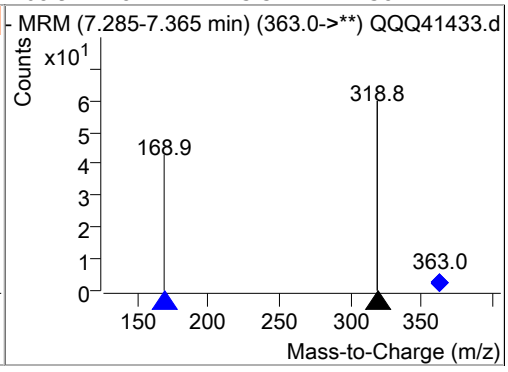




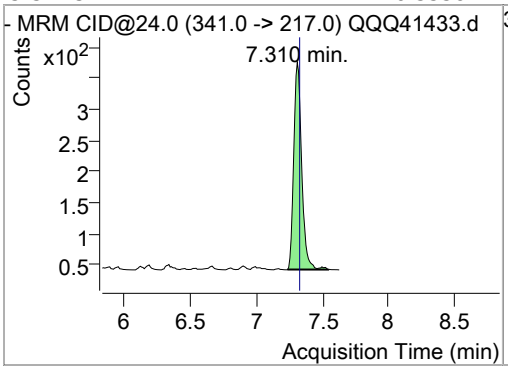
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0022	7.33	0.07	29	363.0 -> 168.9	41.8	25.5	38.2

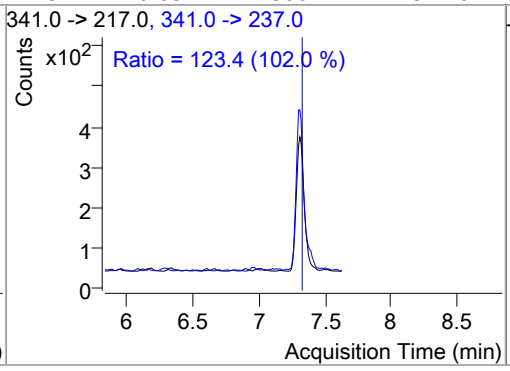


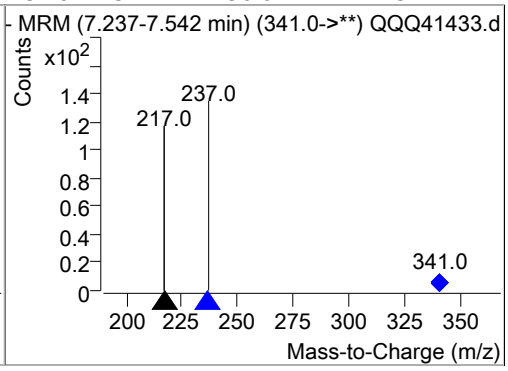




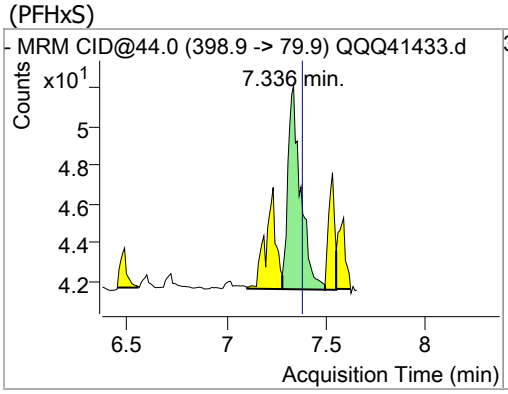
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.3338	7.31	-0.03	1388	341.0 -> 237.0	123.4	96.8	145.2

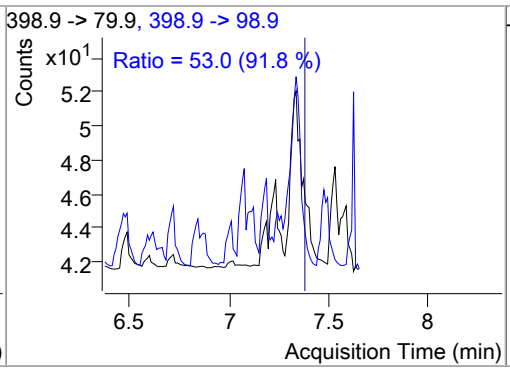


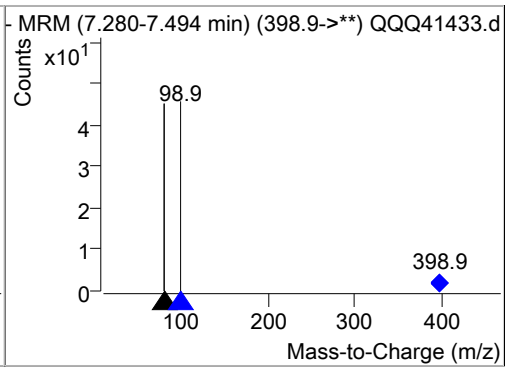




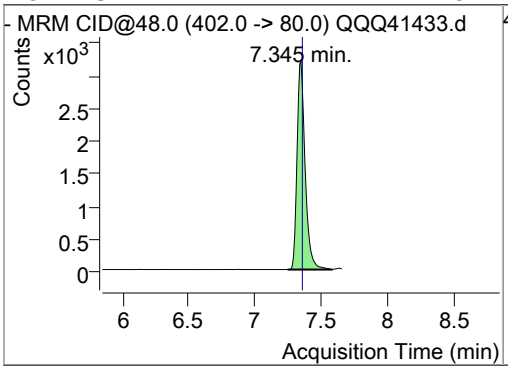
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0071	7.34	-0.04	46	398.9 -> 98.9	53.0	46.2	69.3

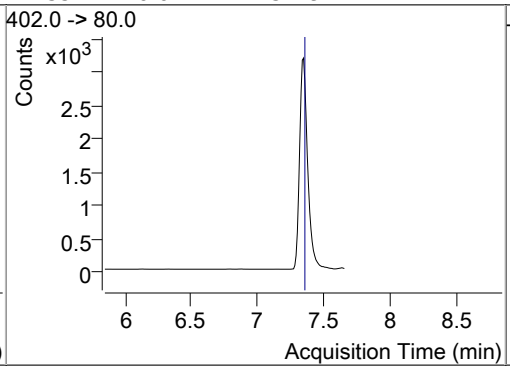


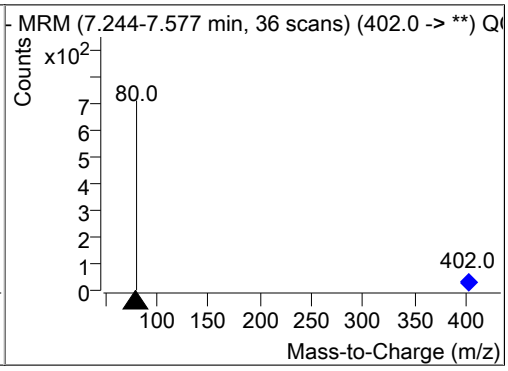




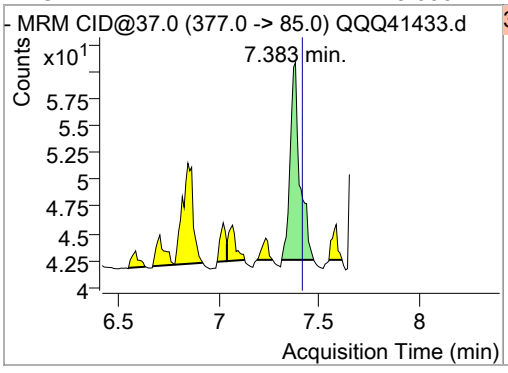
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	2.4723	7.35	-0.04	13449				

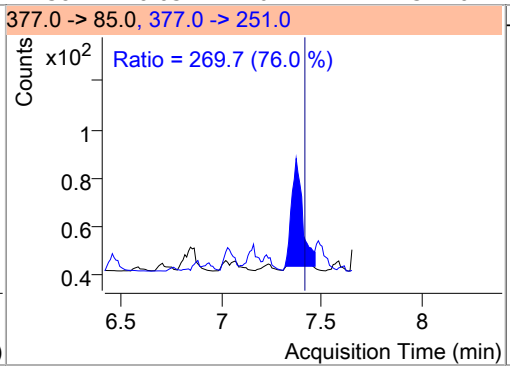


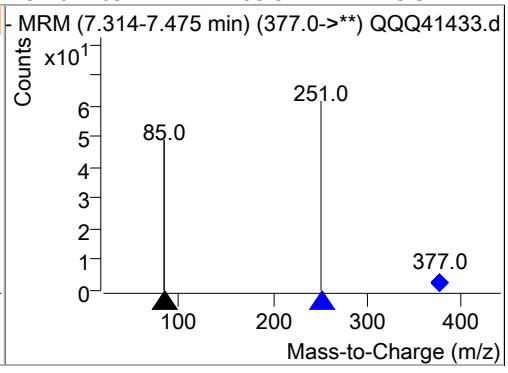




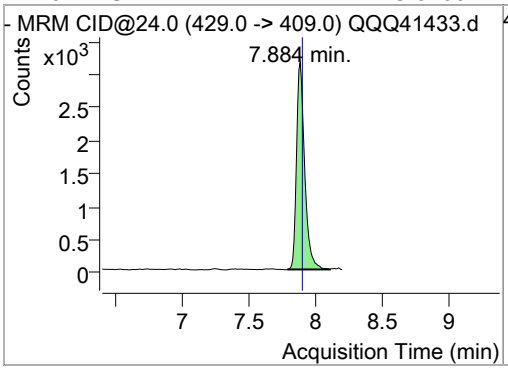
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0061	7.38	-0.03	62	377.0 -> 251.0	269.7	283.9	425.9

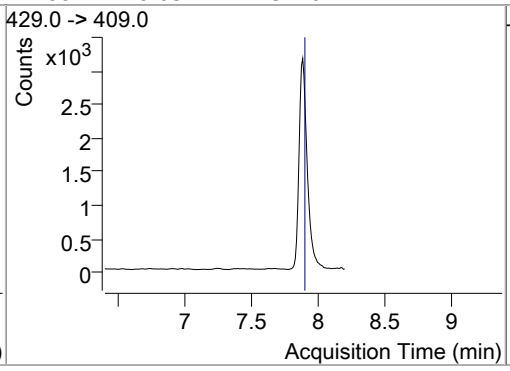


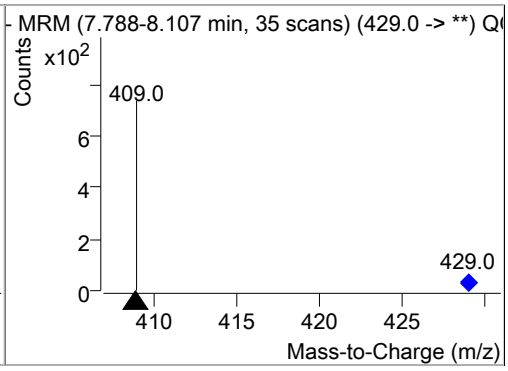




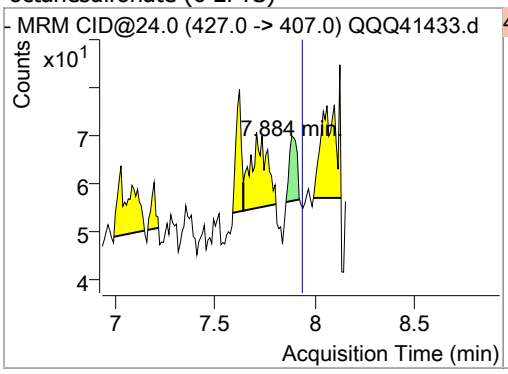
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	3.8466	7.88	-0.05	13410				

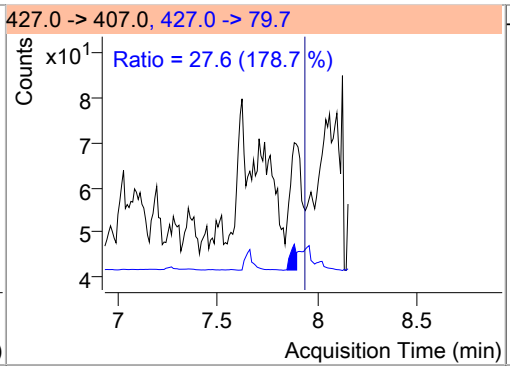


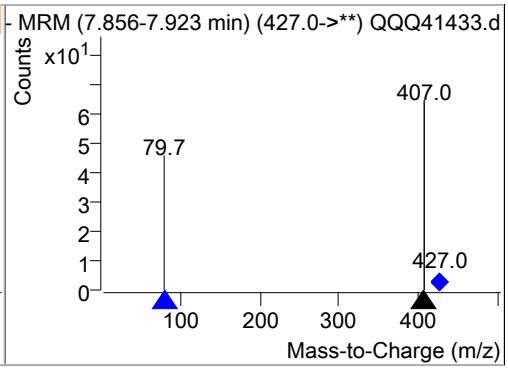




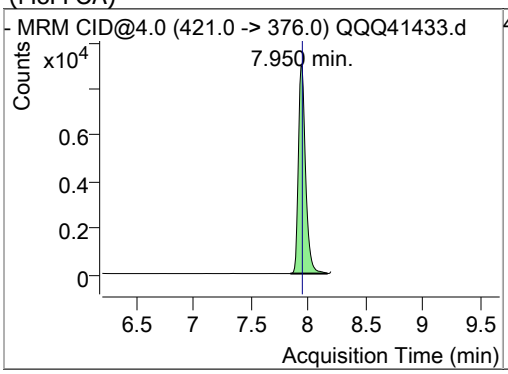
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0078	7.88	-0.05	35	427.0 -> 79.7	27.6	12.3	18.5

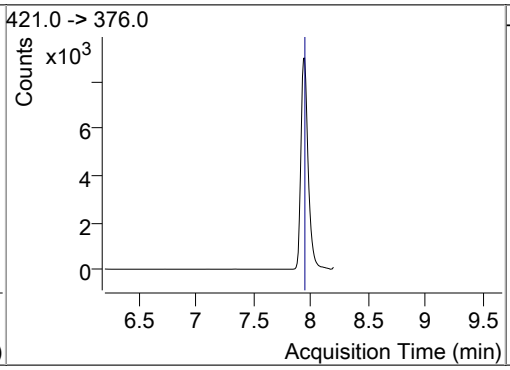


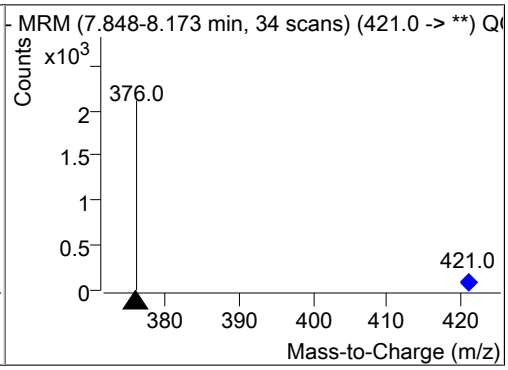




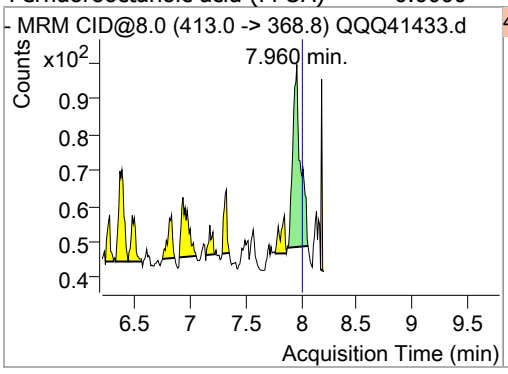
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.8128	7.95	-0.05	39270				

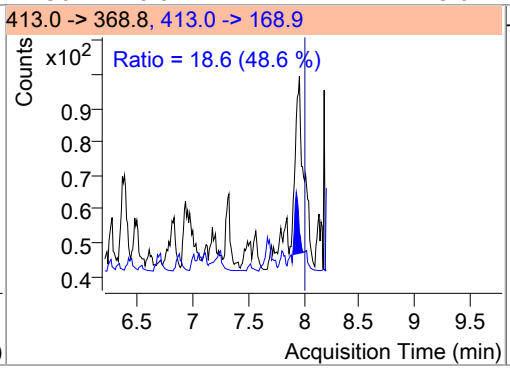


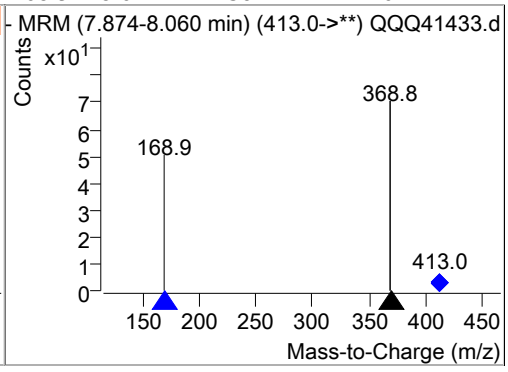




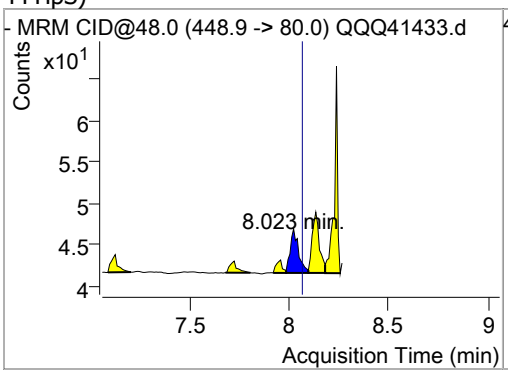
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	7.96	-0.04	244	413.0 -> 168.9	18.6	30.7	46.1

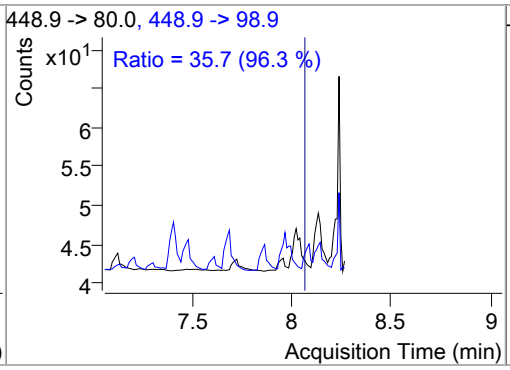


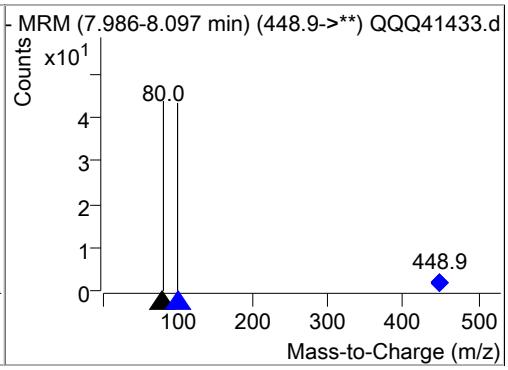




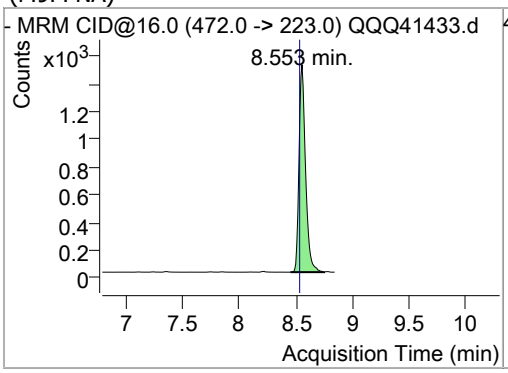
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0026	8.02	-0.04	15	448.9 -> 98.9	35.7	29.6	44.4

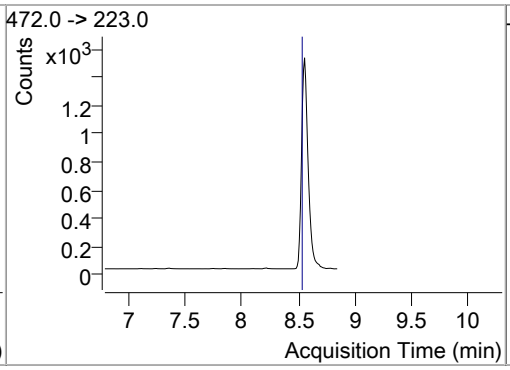


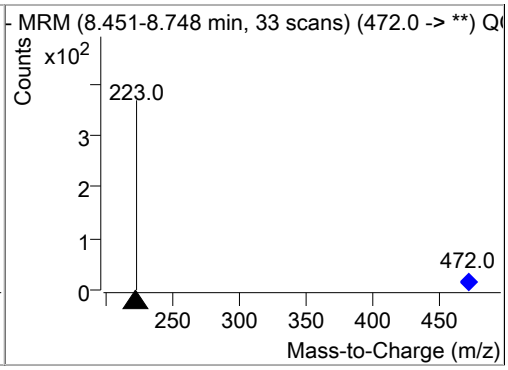




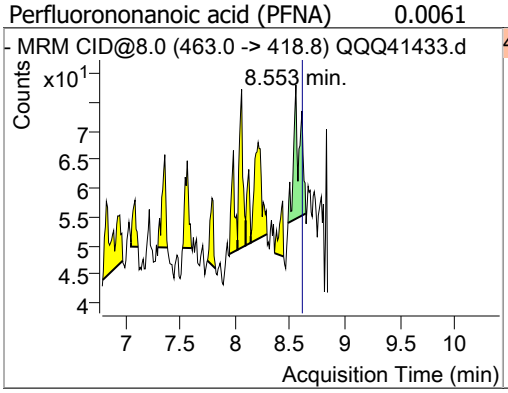
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.3864	8.55	-0.04	6000				

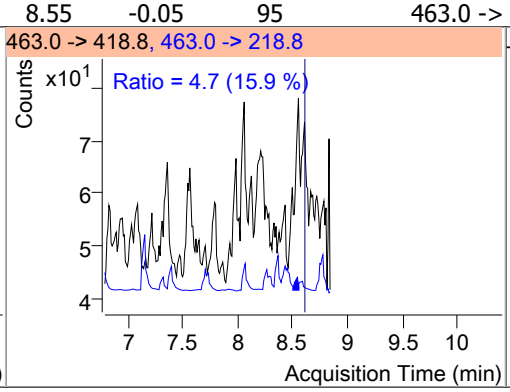


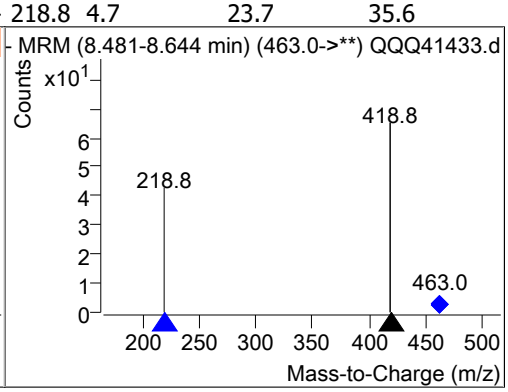




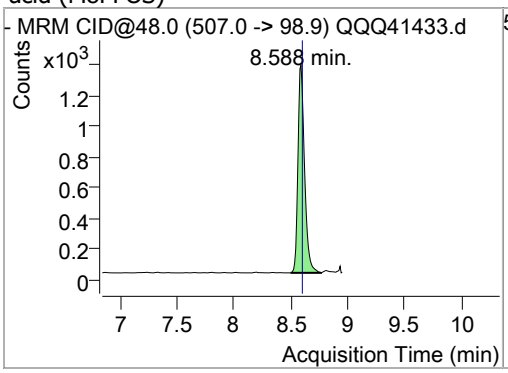
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0061	8.55	-0.05	95	463.0 -> 218.8	4.7	23.7	35.6

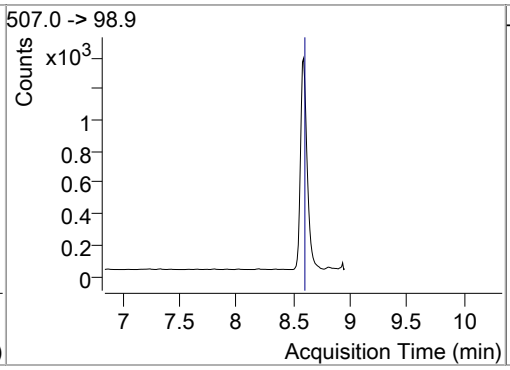


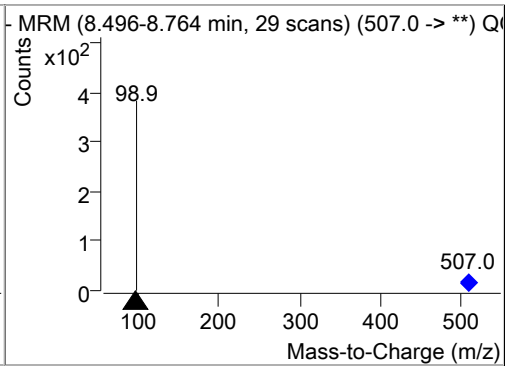




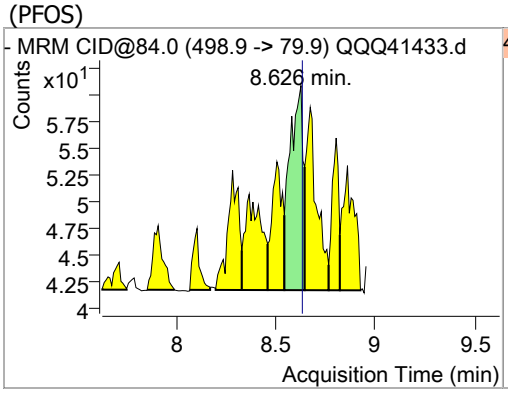
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.4763	8.59	-0.04	5480				

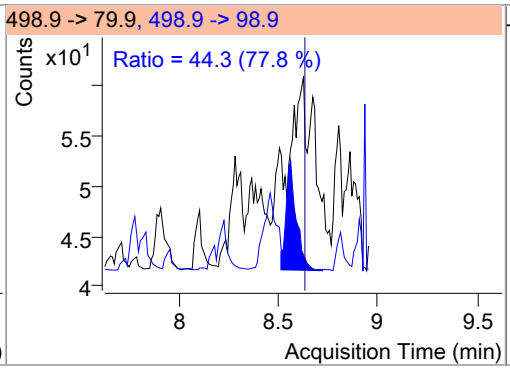


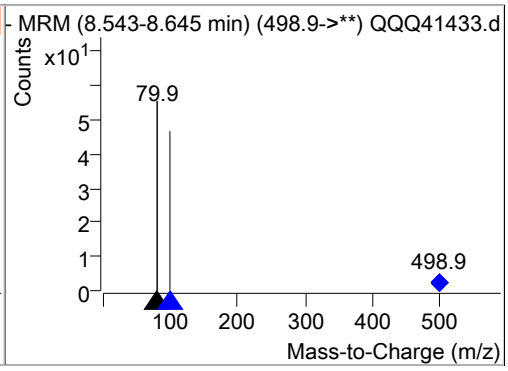




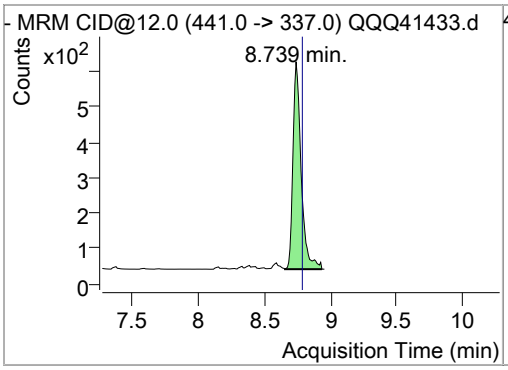
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.63	0.00	87	498.9 -> 98.9	44.3	45.5	68.3

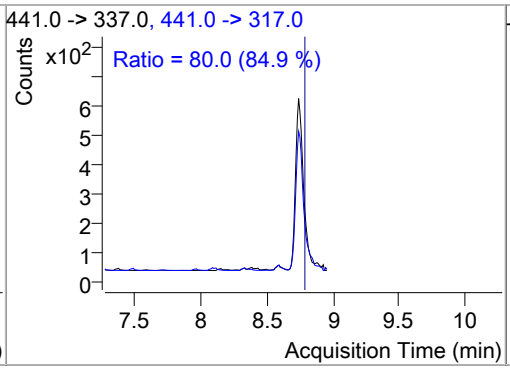


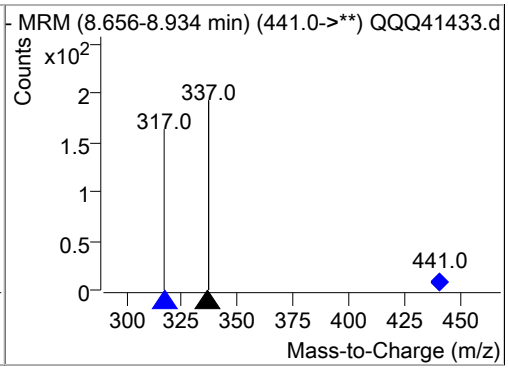




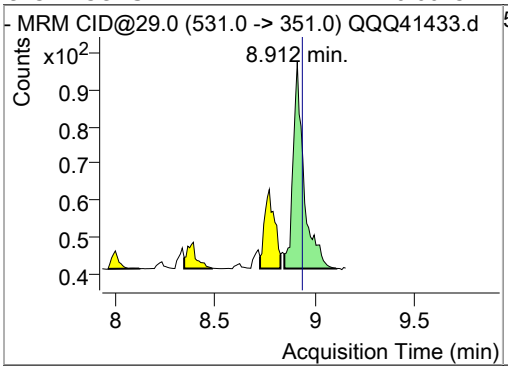
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.4533	8.74	-0.04	2525	441.0 -> 317.0	80.0	75.4	113.1

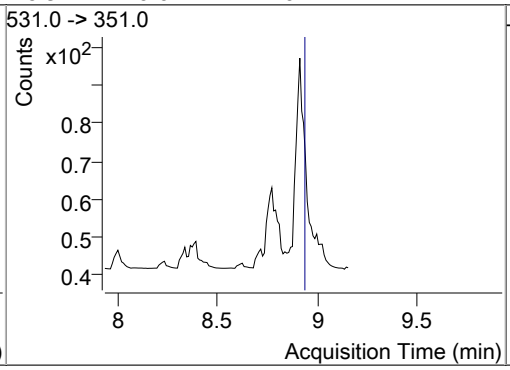


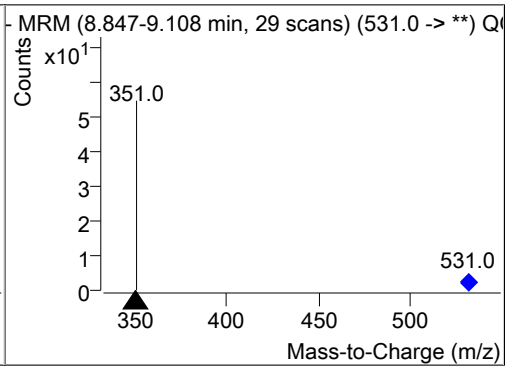




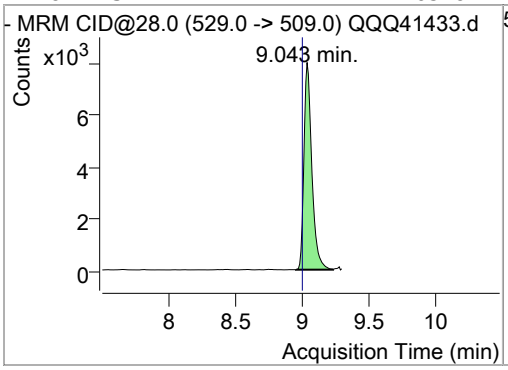
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0075	8.91	-0.02	210				

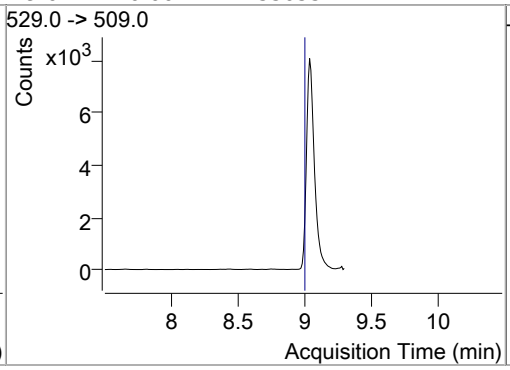


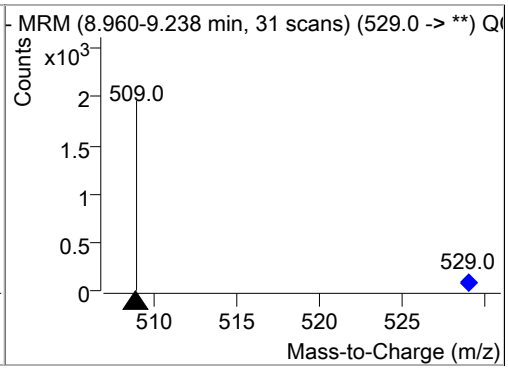




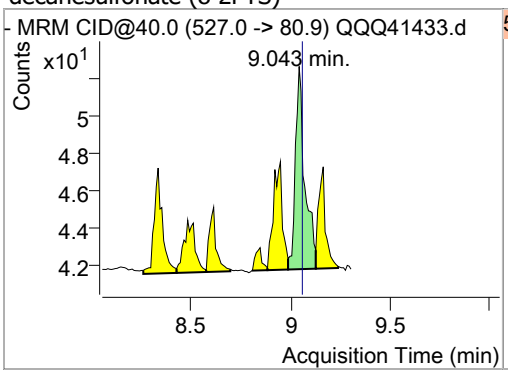
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.0348	9.04	0.00	33033				

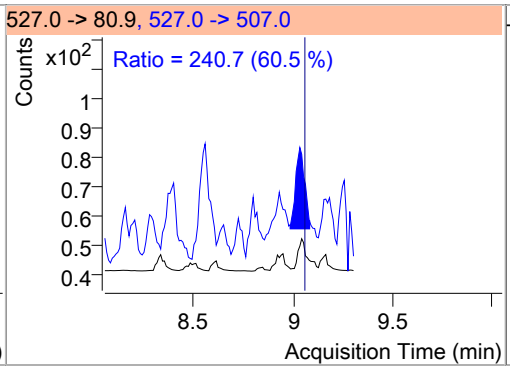


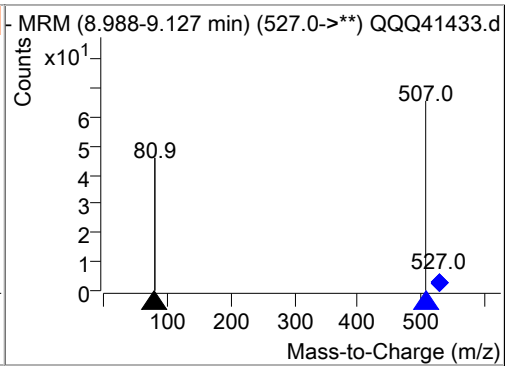




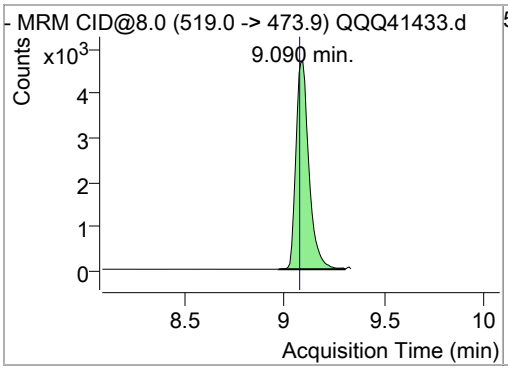
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0219	9.04	-0.01	35	527.0 -> 507.0	240.7	318.3	477.4

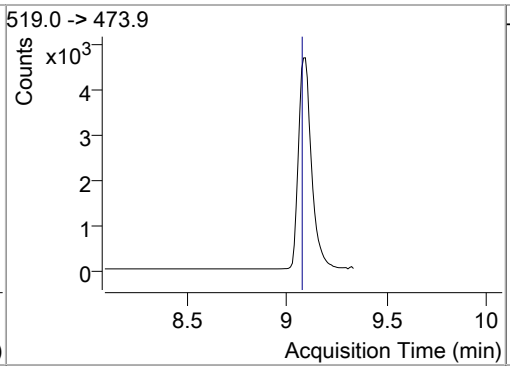


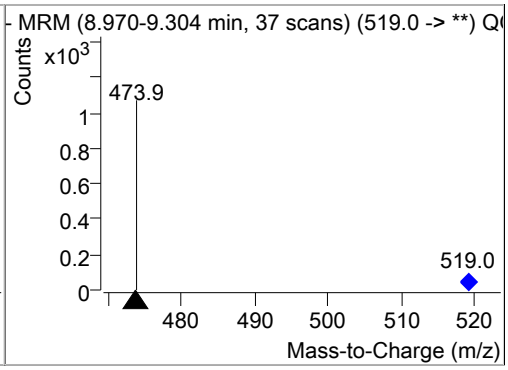




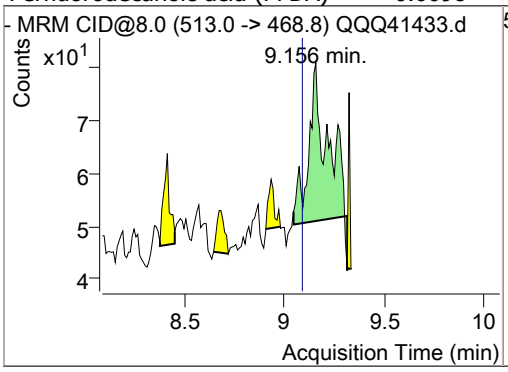
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.3281	9.09	0.01	21335				

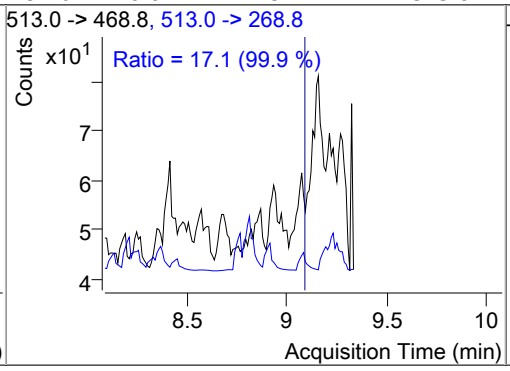


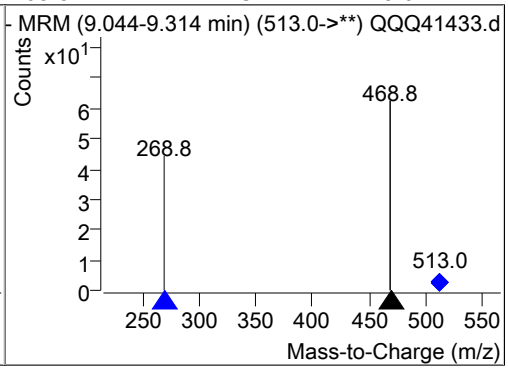




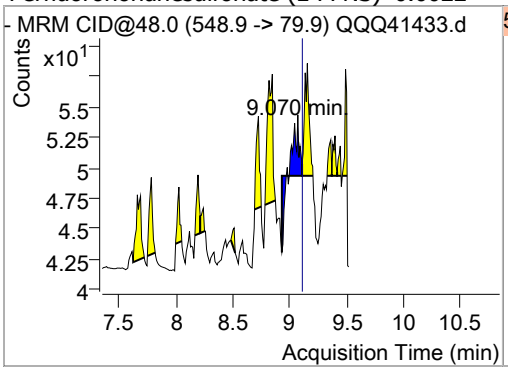
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0098	9.16	0.07	192	513.0 -> 268.8	17.1	13.7	20.6

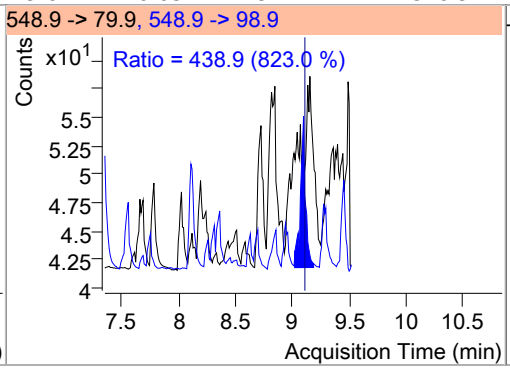


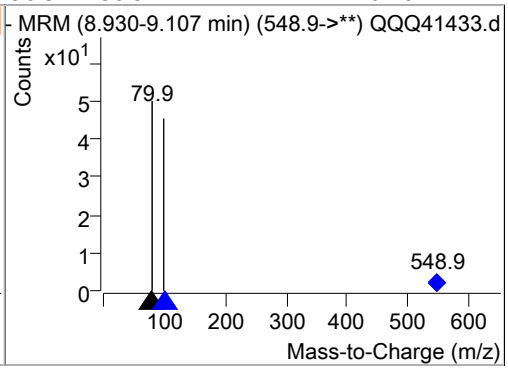




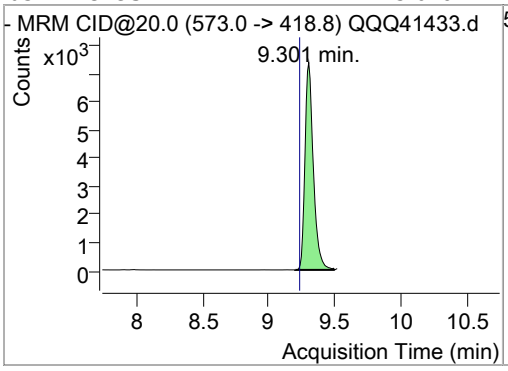
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0022	9.07	-0.03	9	548.9 -> 98.9	438.9	42.7	64.0

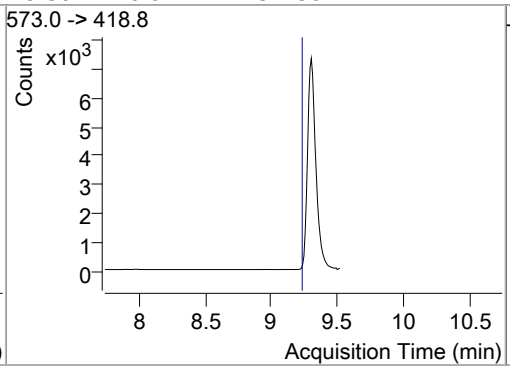


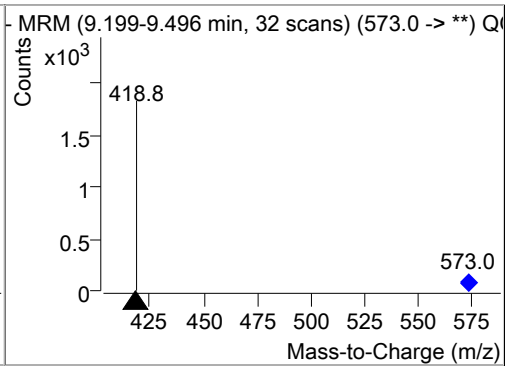




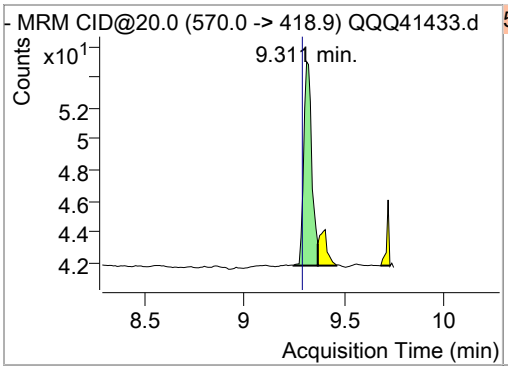
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.6401	9.30	0.02	32158				

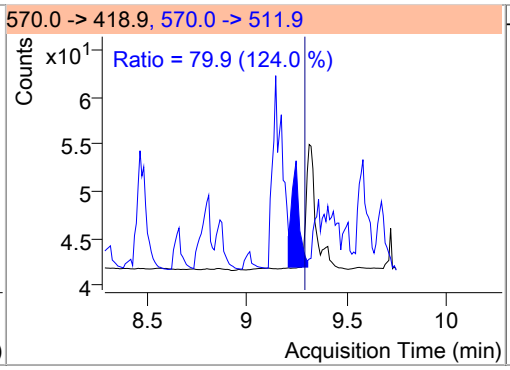


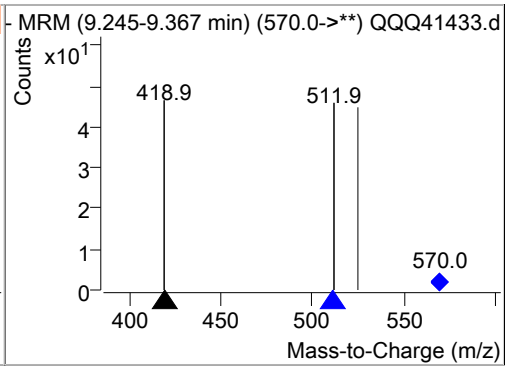




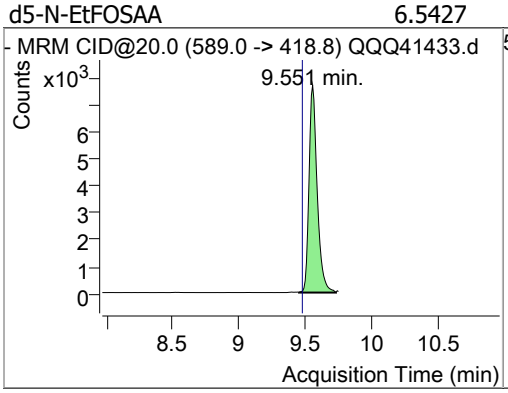
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0066	9.31	0.03	37	570.0 -> 511.9	79.9	51.6	77.4

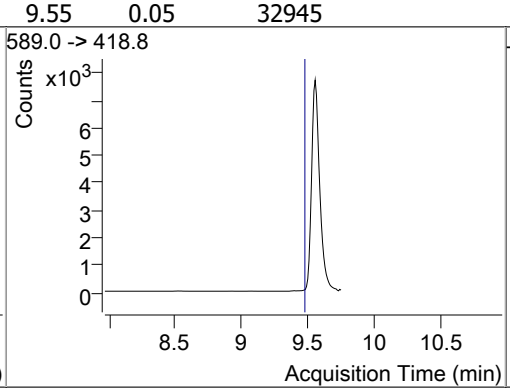


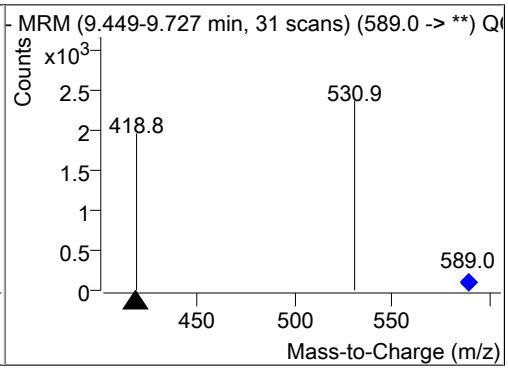




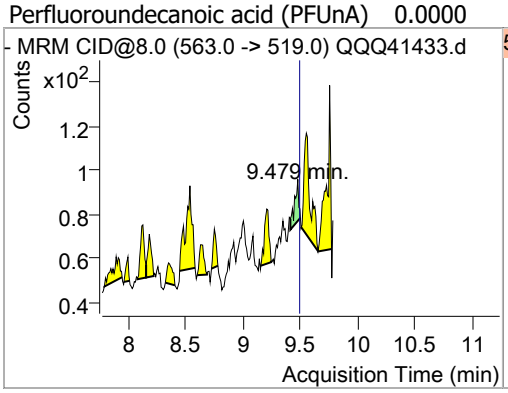
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.5427	9.55	0.05	32945				

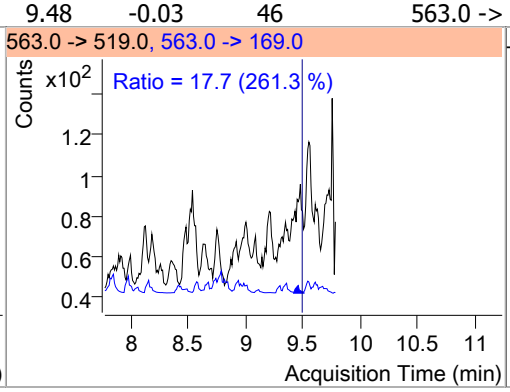


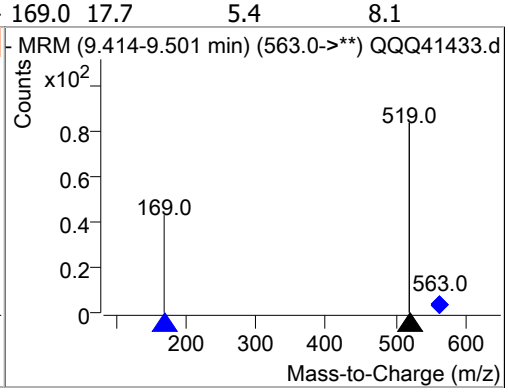




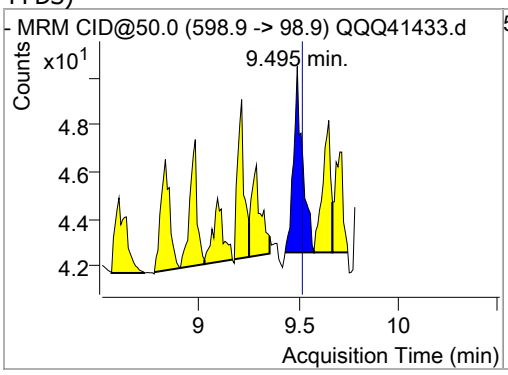
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.48	-0.03	46	563.0 -> 169.0	17.7	5.4	8.1

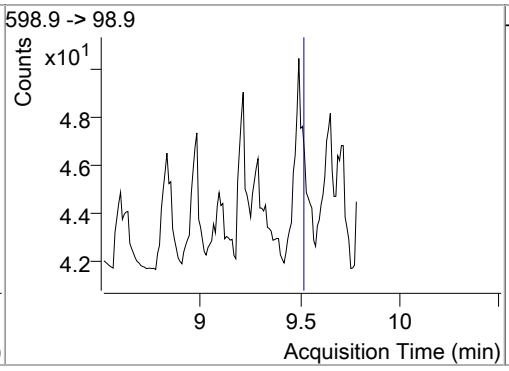


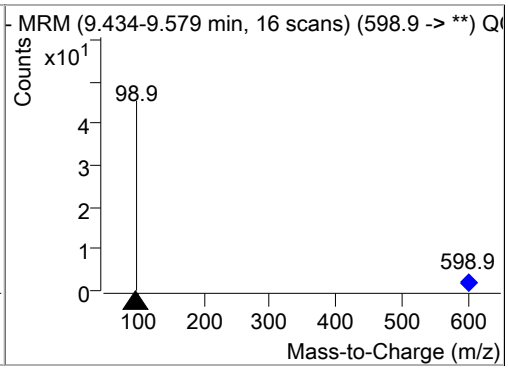




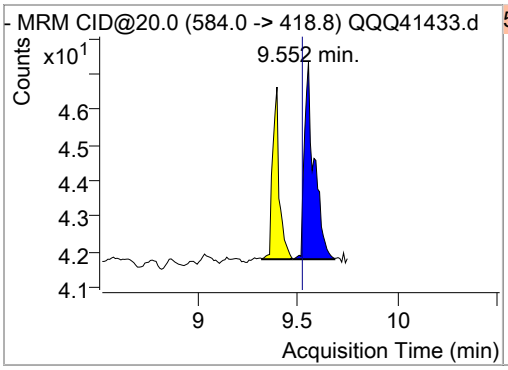
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0126	9.49	-0.02	25				

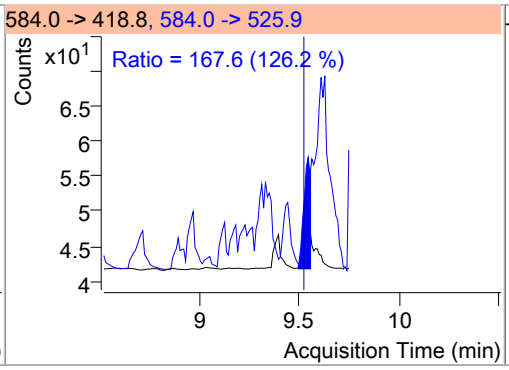


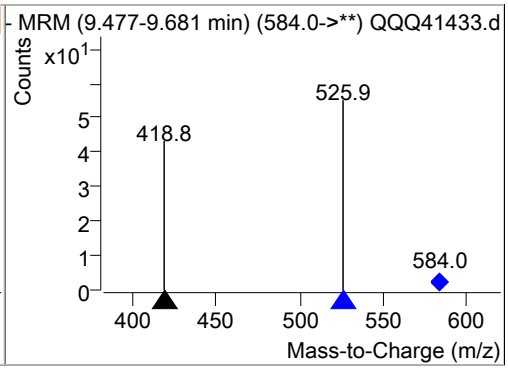




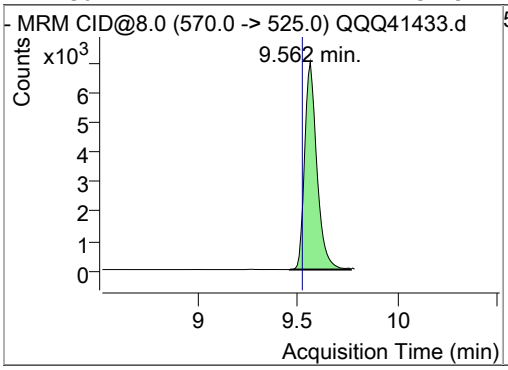
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0034	9.55	0.04	19	584.0 -> 525.9	167.6	106.2	159.3

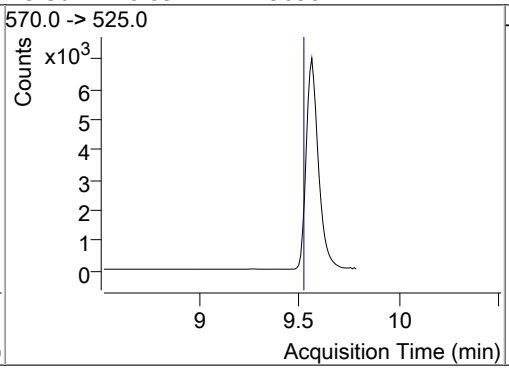


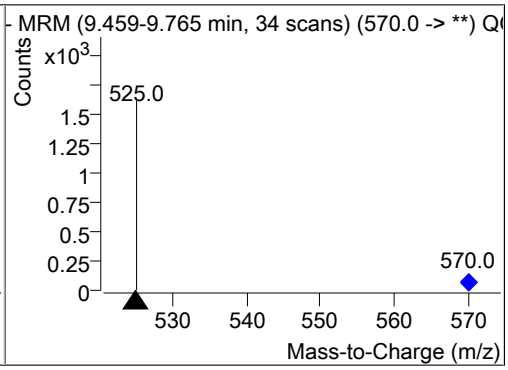




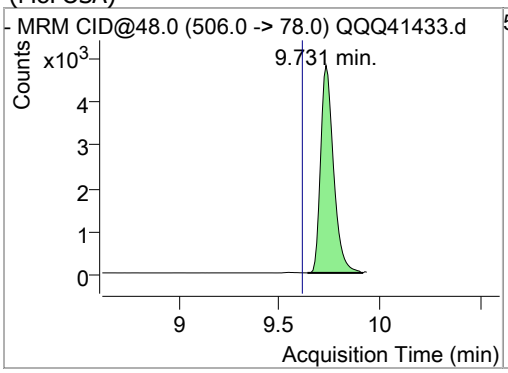
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.3719	9.56	0.05	29830				

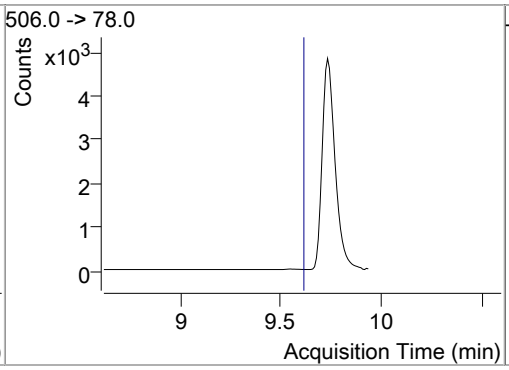


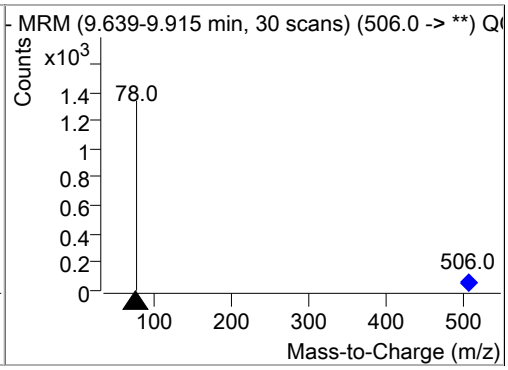




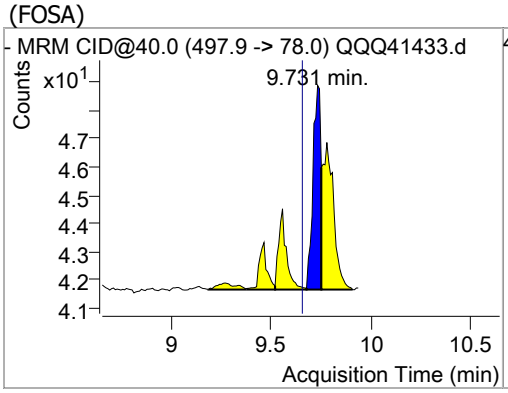
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.9724	9.73	0.08	21551				

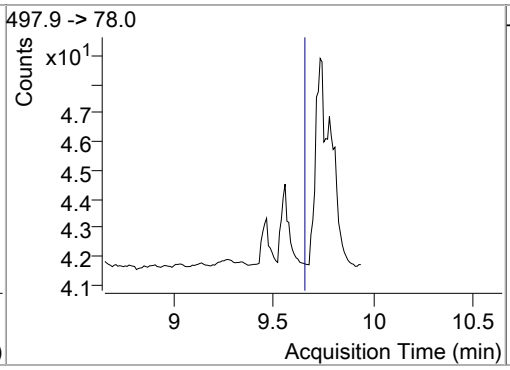


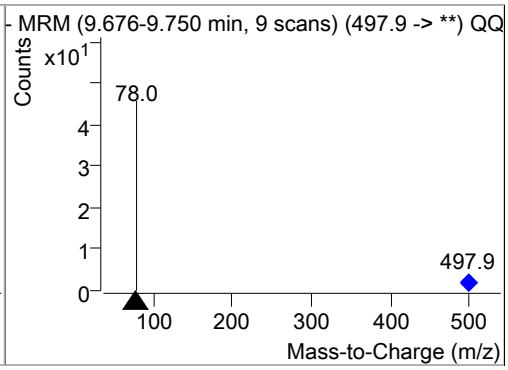




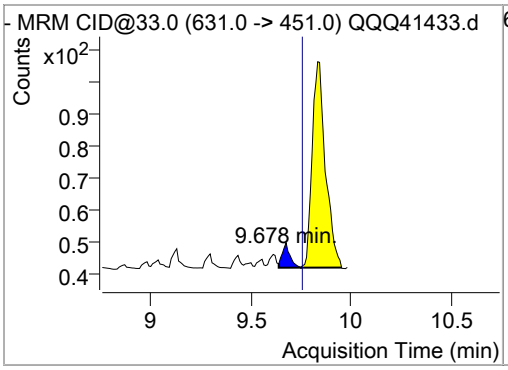
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0015	9.73	0.08	19				

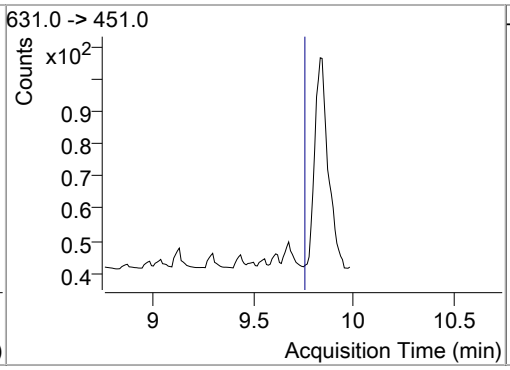


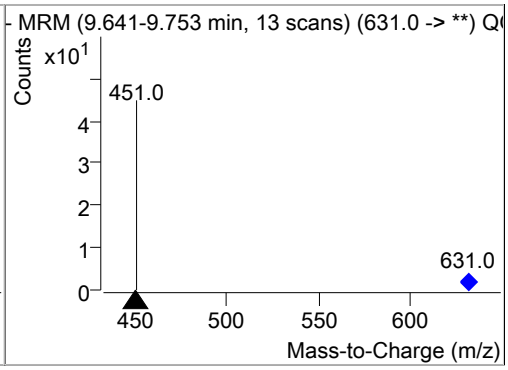




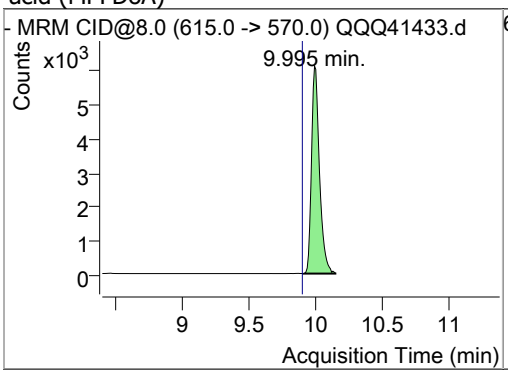
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0011	9.68	-0.07	21				

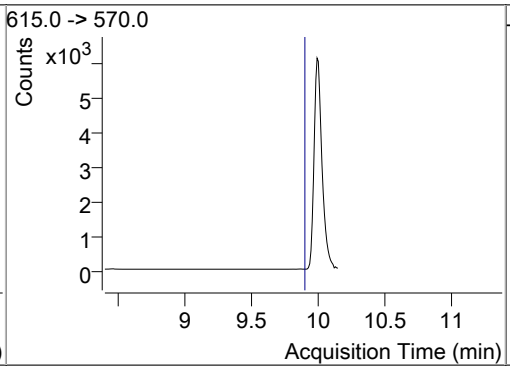


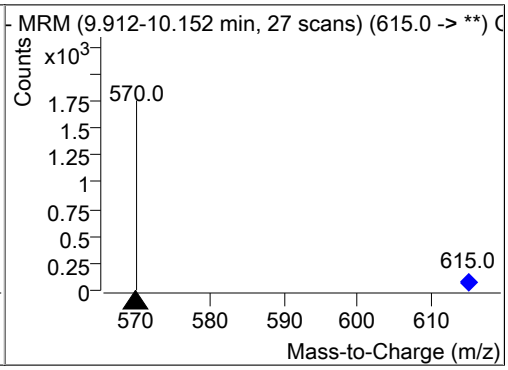




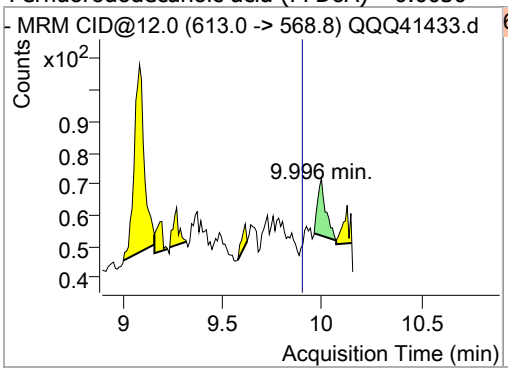
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.3360	10.00	0.10	25537				

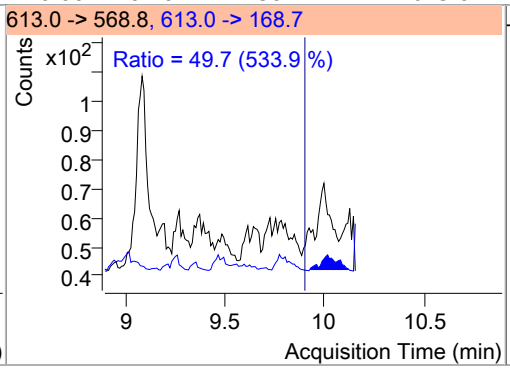


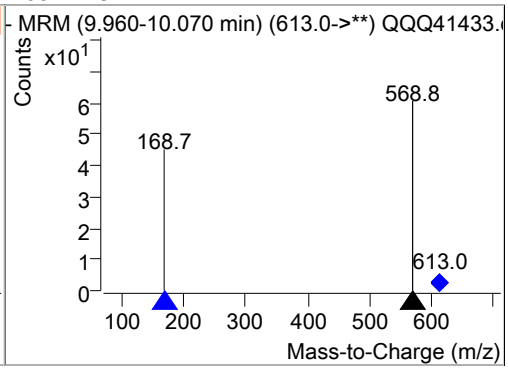




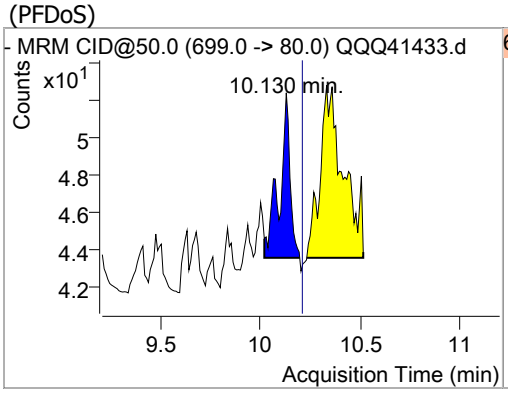
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0030	10.00	0.10	50	613.0 -> 168.7	49.7	7.4	11.2

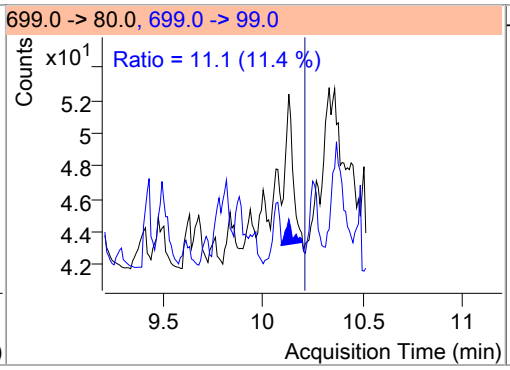


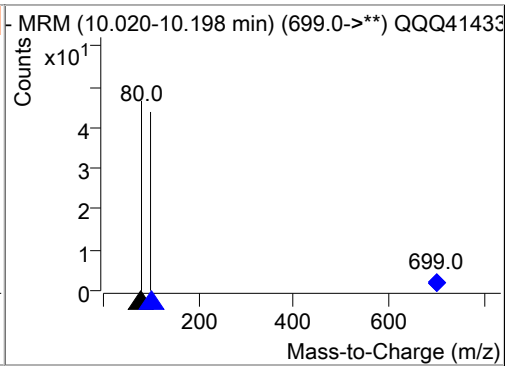




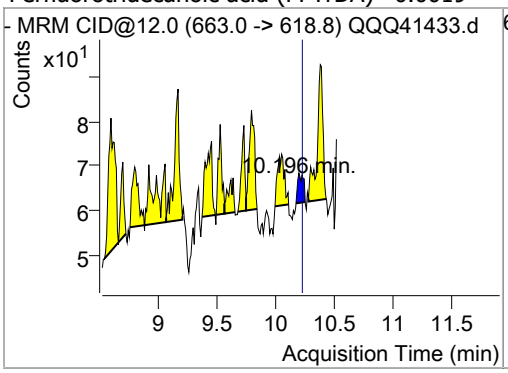
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0322	10.13	-0.07	33	699.0 -> 99.0	11.1	77.6	116.4

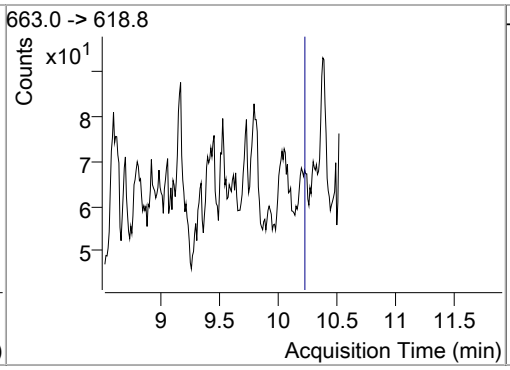


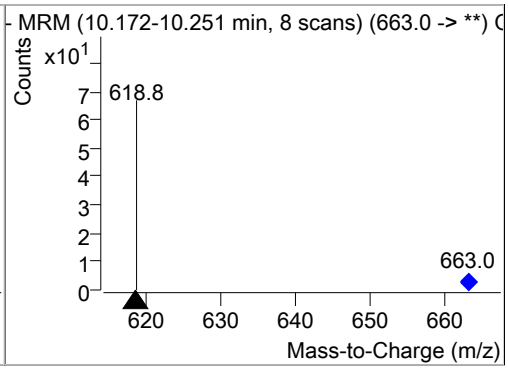




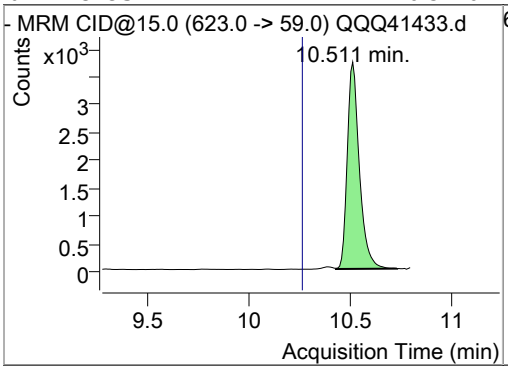
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0019	10.20	-0.02	21				

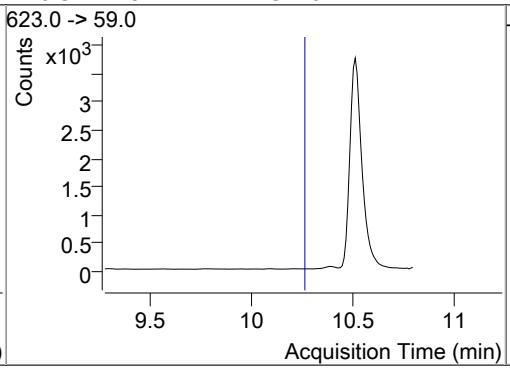


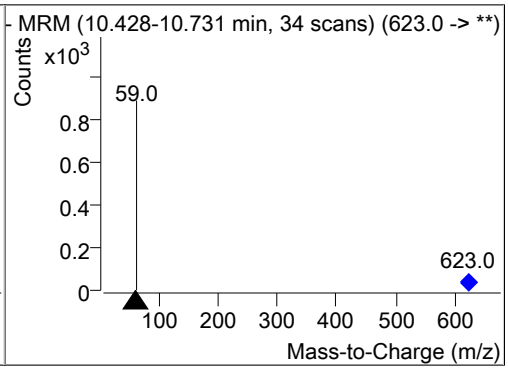




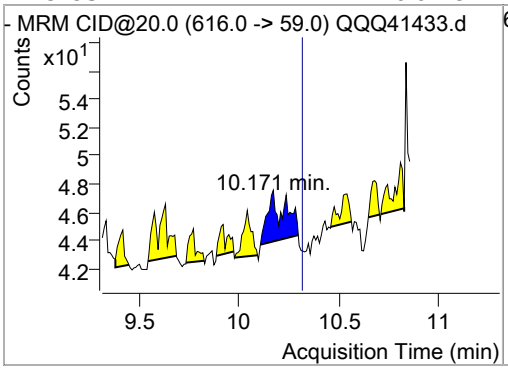
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	26.5476	10.51	0.21	15446				

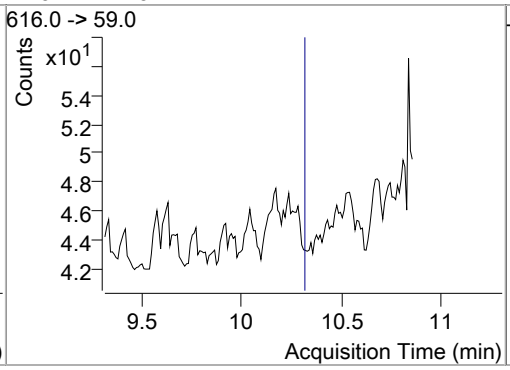


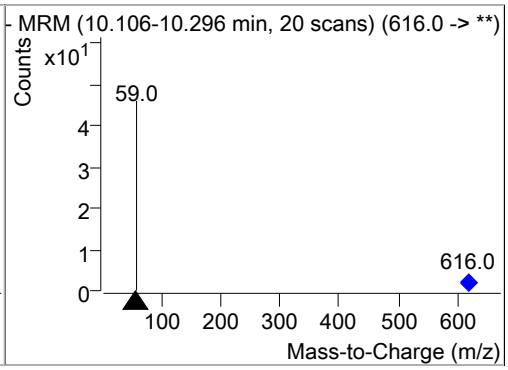




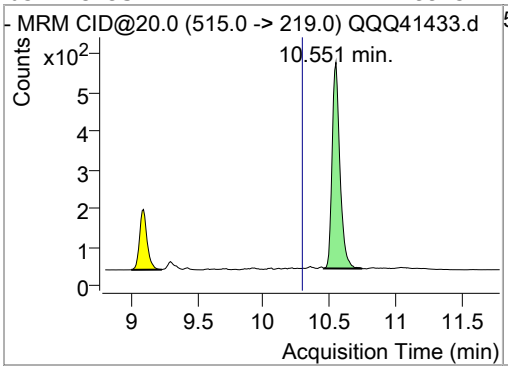
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	0.0415	10.17	-0.14	21				

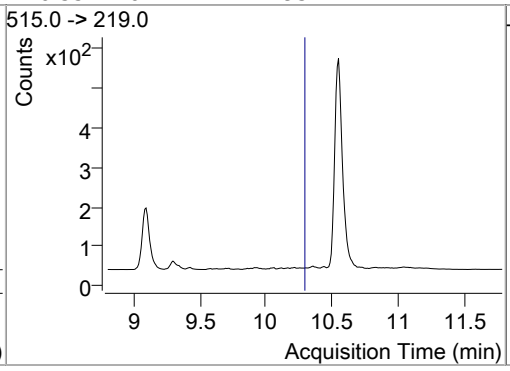


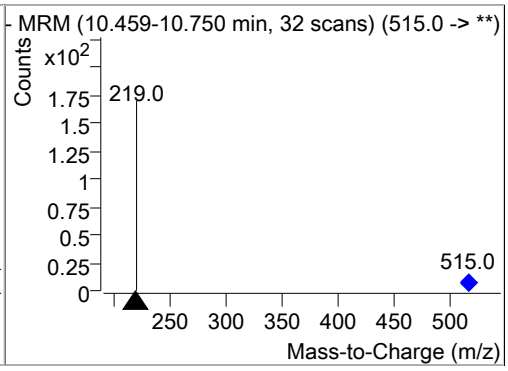




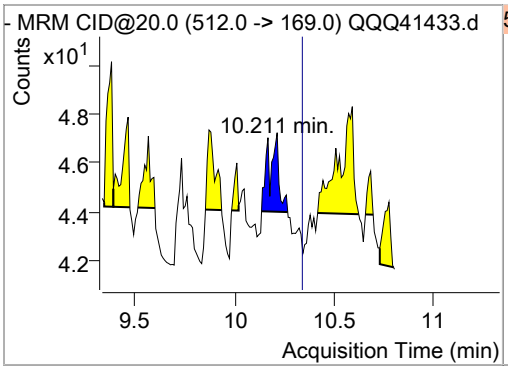
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.9925	10.55	0.22	2193				

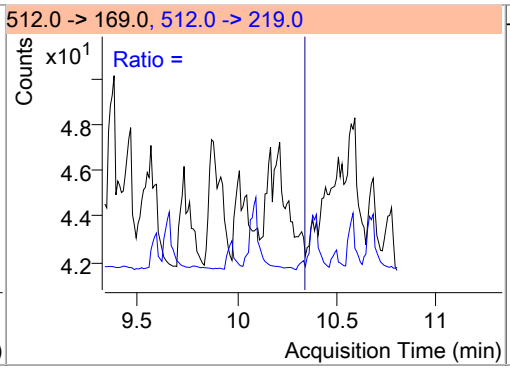


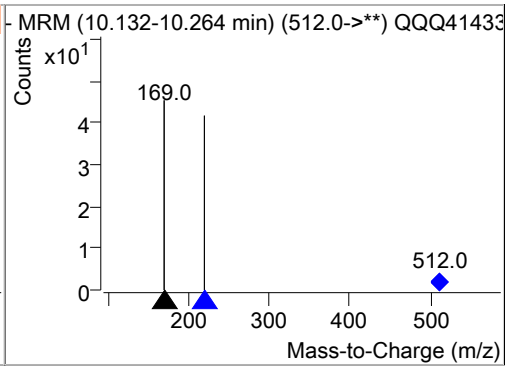




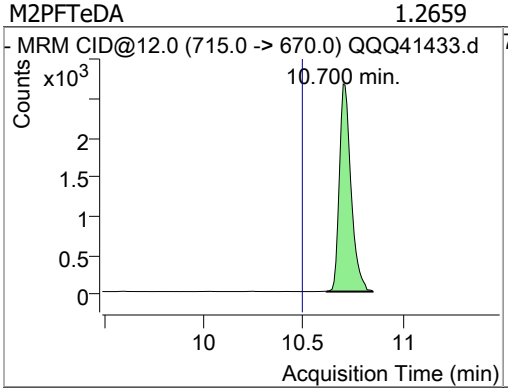
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.21	-0.12	11	512.0 -> 219.0		101.6	152.5

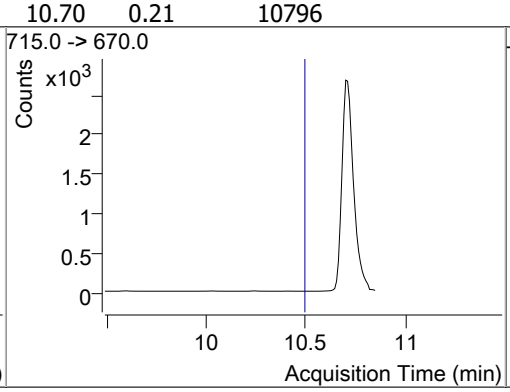


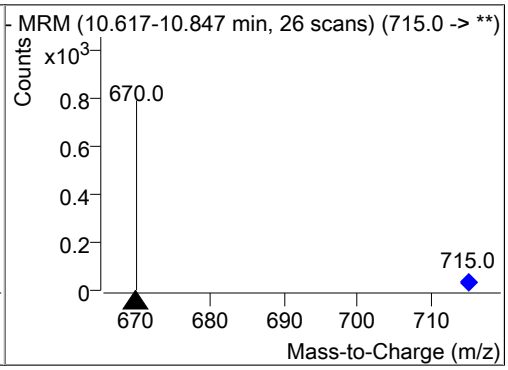




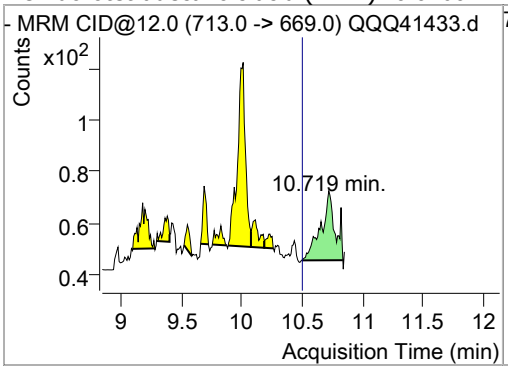
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.2659	10.70	0.21	10796				

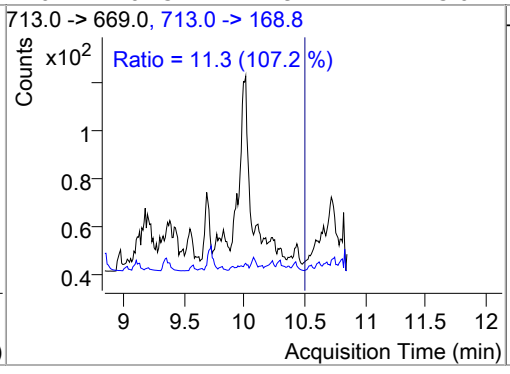


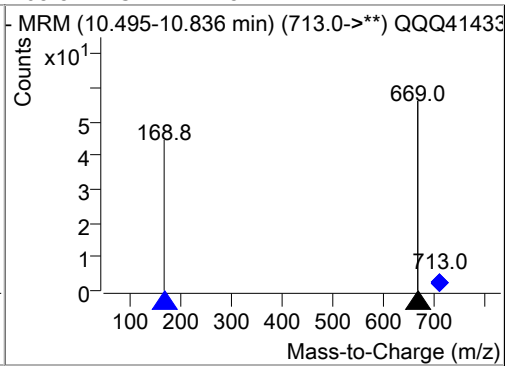




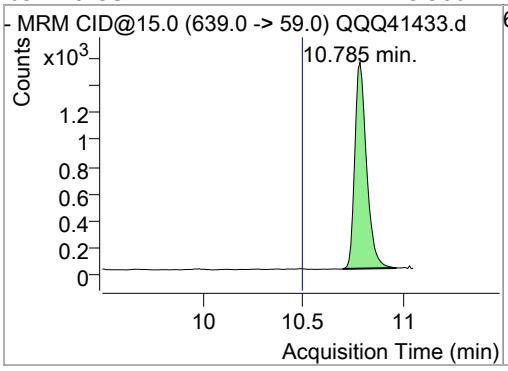
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0260	10.72	0.23	219	713.0 -> 168.8	11.3	8.4	12.7

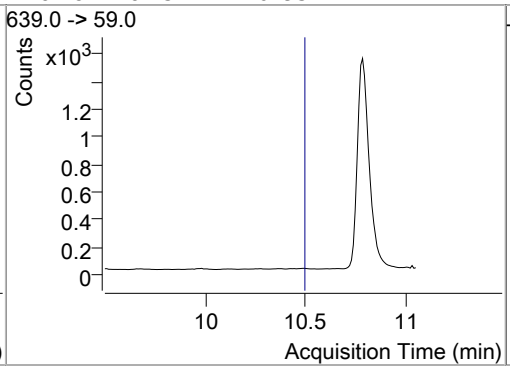


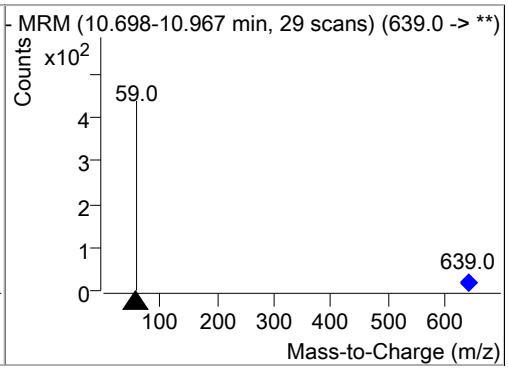




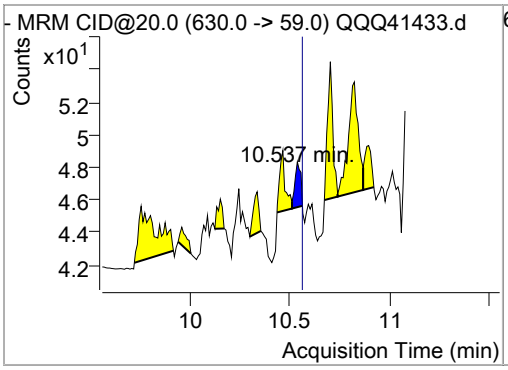
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	23.9064	10.78	0.25	6193				

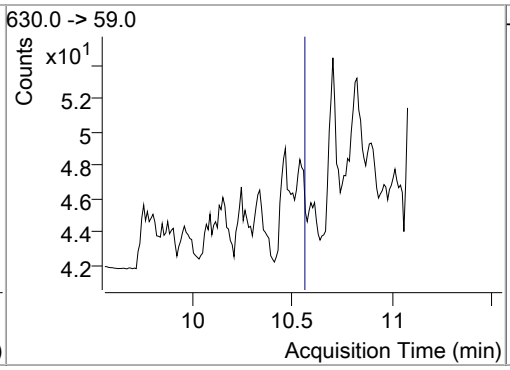


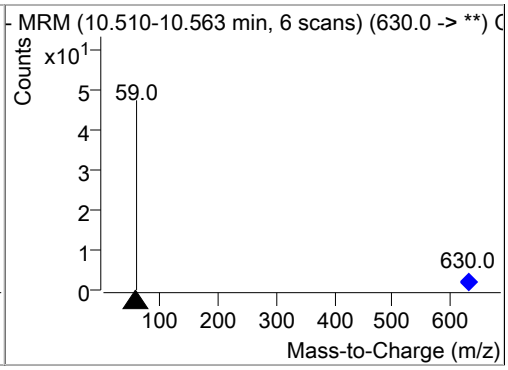




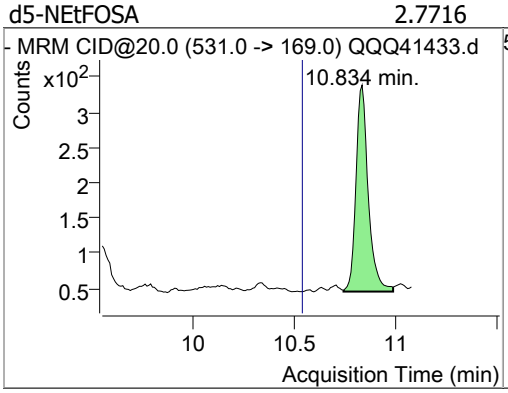
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	0.0093	10.54	-0.02	5				

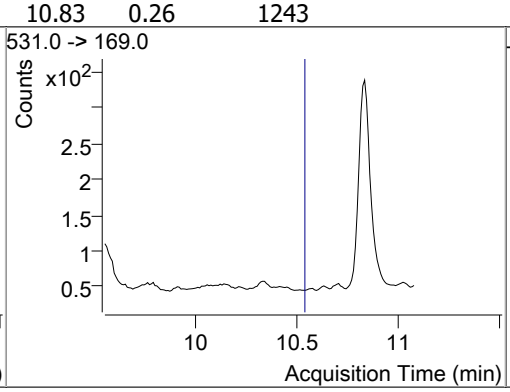


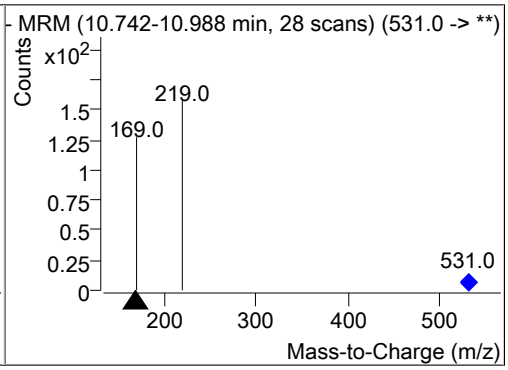




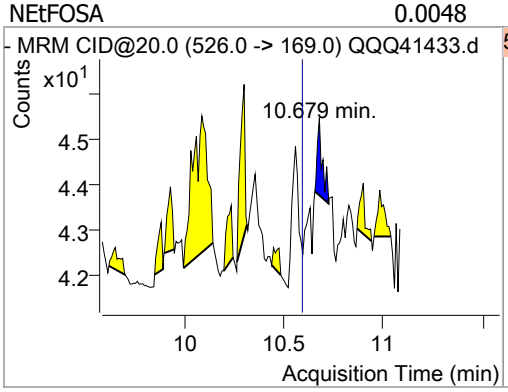
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.7716	10.83	0.26	1243				

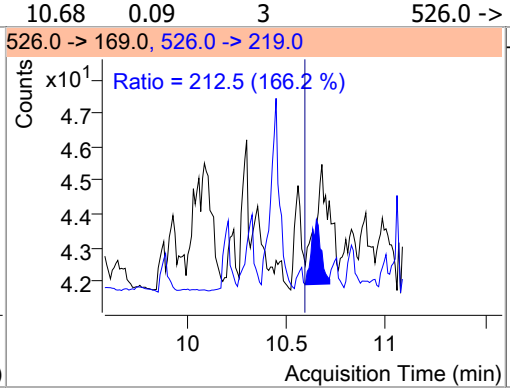


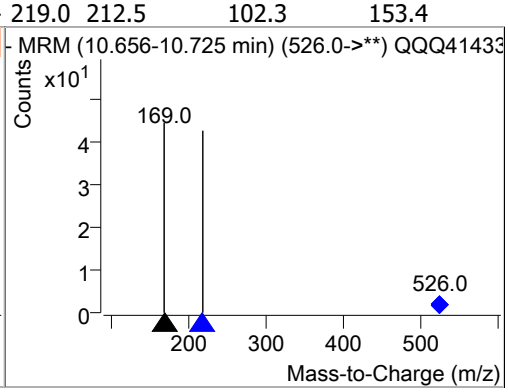




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0048	10.68	0.09	3	526.0 -> 219.0	212.5	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/11/2024 2:13:56 AM	**Data File**	QQQ41433.d
Sample Type	Sample	**Sampe Name**	SEQ-CCB6
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.306	152673	22659	0.468			1.71			30237.90
Perfluoro-n-butanoic acid (PFBA)	1.310	67	13	0.214			0.83			3.14
PFMPA	2.226	10	1	0.210			1.36			4.02
3:3FTCA	4.442	14	6	0.092			0.31			131.74
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.756	121748	17990	0.472			1.75			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.738	105	24	0.158			1.36			4.23
PFMBA	5.523	10	2	0.148			0.71			3.84
M3PFBS	5.548	19561	4261	0.339			1.91			∞
Perfluorobutanesulfonic acid (PFBS)	5.530	12	4	0.170			1.86			41.35
PFEESA	6.084	49	14	0.141			2.30			1.84
NFDHA	6.151	14	3	0.153			1.18			14.15
M2-4-2FTS	6.306	20712	5121	0.316			1.60			1300.15
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	53	21	0.088			0.94			4.27
M5PFHxA	6.381	64939	16143	0.325			1.53			143142.36
Perfluorohexanoic acid (PFHxA)	6.383	195	47	0.129			1.44			4.04
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.621	22	7	0.129			1.19			3.42
M3-HFPO-DA	6.680	46028	11294	0.324			1.53			275.02
HFPO-DA	6.689	0	58	0.000			1.00			2.98
M4PFHpA	7.235	15180	3655	0.251			1.46			30700.50
Perfluoroheptanoic acid (PFHpA)	7.328	29	9	0.080			0.90			0.66
5-3FTCA	7.310	1388	333	0.305			1.35			108.92
Perfluorohexanesulfonic acid (PFHxS)	7.336	46	10	0.214			1.68			18.96
M3PFHxS	7.345	13449	3170	0.334			1.35			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.383	62	18	0.161			1.28			0.72
M2-6-2FTS	7.884	13410	3138	0.319			1.54			269.34
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.884	35	14	0.068			1.45			0.32
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	39270	8942	0.325			1.32			49532.58
Perfluorooctanoic acid (PFOA)	7.960	244	51	0.187			1.40			3.97
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.023	15	5	0.112			1.78			38.78
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.553	6000	1496	0.297			1.42			8515.81
Perfluorononanoic acid (PFNA)	8.553	95	23	0.163			2.49			0.39
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.588	5480	1353	0.268			1.45			4575.65
Perfluorooctanesulfonic acid (PFOS)	8.626	87	19	0.102			0.20			3.35
7-3FTCA	8.739	2525	587	0.278			1.82			1032.22
9-Cl-PF3ONS	8.912	210	56	0.261			2.58			61.02
M2-8-2FTS	9.043	33033	8015	0.278			1.74			1714.89
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	35	11	0.139			2.32			27.26
M6PFDA	9.090	21335	4677	0.334			1.32			53357.97
Perfluorodecanoic acid (PFDA)	9.156	192	30	0.269			1.59			4.04
Perfluorononanesulfonate (L-PFNS)	9.070	9	5	0.177			4.99			0.63
d3-N-MeFOSAA	9.301	32158	7354	0.297			1.49			63.76
N-MeFOSAA	9.311	37	13	0.122			2.11			99.49
d5-N-EtFOSAA	9.551	32945	7716	0.278			1.52			∞
Perfluoroundecanoic acid (PFUnA)	9.479	46	19	0.088			0.63			1.63
Perfluoro-1-decanesulfonate (L-PFDS)	9.495	25	8	0.145			1.58			1.15
N-EtFOSAA	9.552	19	6	0.204			2.24			13.08
M7PFUdA	9.562	29830	6993	0.305			1.44			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.731	21551	4812	0.277			1.61			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.731	19	7	0.074			0.75			33.94
11-Cl-PF3OUdS	9.678	21	8	0.111			1.13			9.29
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.995	25537	6115	0.240			1.78			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.996	50	18	0.110			1.67			2.06
Perfluorododecanesulfonic acid (PFDoS)	10.130	33	9	0.178			0.51			3.51
Perfluorotridecanoic acid (PFTrDA)	10.196	21	7	0.079			2.43			0.23
d7-NMeFOSE	10.511	15446	3716	0.303			1.52			289.30
NMeFOSE	10.171	21	4	0.189			2.15			1.71
d3-NMeFOSA	10.551	2193	531	0.291			1.35			2977.30
NMeFOSA	10.211	11	3	0.132			0.65			0.92
M2PFTeDA	10.700	10796	2646	0.230			2.00			39823.23
Perfluorotetradecanoic acid (PFTA)	10.719	219	27	0.341			0.66			4.70
d9-NEtFOSE	10.785	6193	1514	0.269			1.54			465.15
NEtFOSE	10.537	5	3	0.052			0.40			1.10
d5-NEtFOSA	10.834	1243	293	0.246			1.34			51.73
NEtFOSA	10.679	3	2	0.068			1.27			0.79

METHOD BLANK RAW DATA

SDG: 24F1801
CLASS: PFAS
METHOD: EPA 1633 Draft 3

FORM I

METHOD BLANK DATA SHEET

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Water	Laboratory ID:	BG40502-BLK1	File ID:	QQQ41366.d
Prepared:	07/08/24 17:39	Preparation:	EPA 1633 Prep	Initial/Final:	250.02 mL / 5 mL
Analyzed:	07/10/24 10:28	Instrument:	LCQQQ		
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019

CAS NO.	COMPOUND	CONC. (ng/L)	Q
375-73-5	Perfluorobutanesulfonic acid (PFBS)	3.54	U
307-24-4	Perfluorohexanoic acid (PFHxA)	4.00	U
375-85-9	Perfluoroheptanoic acid (PFHpA)	4.00	U
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	3.66	U
335-67-1	Perfluorooctanoic acid (PFOA)	4.00	U
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.72	U
375-95-1	Perfluorononanoic acid (PFNA)	4.00	U
335-76-2	Perfluorodecanoic acid (PFDA)	4.00	U
2058-94-8	Perfluoroundecanoic acid (PFUnA)	4.00	U
307-55-1	Perfluorododecanoic acid (PFDoA)	4.00	U
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	4.00	U
376-06-7	Perfluorotetradecanoic acid (PFTA)	4.00	U
2355-31-9	N-MeFOSAA	4.00	U
2991-50-6	N-EtFOSAA	4.00	U
2706-90-3	Perfluoropentanoic acid (PFPeA)	8.00	U
754-91-6	Perfluoro-1-octanesulfonamide (FOSA)	4.00	U
375-92-8	Perfluoro-1-heptanesulfonic acid (PFHpS)	3.82	U
335-77-3	Perfluoro-1-decanesulfonic acid (PFDS)	3.86	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	15.2	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	15.4	U
375-22-4	Perfluoro-n-butanoic acid (PFBA)	16.0	U
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7.12	U
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	8.00	U
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	8.00	U
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	8.00	U
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	3.76	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	15.0	U
13252-13-6	HFPO-DA (Gen-X)	16.0	U
763051-92-9	11CL-PF3OUdS	15.1	U
756426-58-1	9CL-PF3ONS	15.0	U

FORM I

METHOD BLANK DATA SHEET

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Water	Laboratory ID:	BG40502-BLK1	File ID:	QQQ41366.d
Prepared:	07/08/24 17:39	Preparation:	EPA 1633 Prep	Initial/Final:	250.02 mL / 5 mL
Analyzed:	07/10/24 10:28	Instrument:	LCQQQ		
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019

CAS NO.	COMPOUND	CONC. (ng/L)	Q
919005-14-4	ADONA	15.1	U
79780-39-5	Perfluorododecanesulfonic acid (PFDoS)	3.88	U
68259-12-1	Perfluoro-1-nonanesulfonic acid (PFNS)	3.84	U
356-02-5	3-Perfluoropropyl propanoic acid (FPrPA)	10.0	U
914637-49-3	3-Perfluoropentyl propanoic acid (FPePA)	50.0	U
812-70-4	3-Perfluoroheptyl propanoic acid (FHpPA)	50.0	U
24448-09-7	N-MeFOSE	40.0	U
31506-32-8	N-MeFOSA	4.00	U
1691-99-2	N-EtFOSE	40.0	U
4151-50-2	N-EtFOSA	4.00	U

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
M3PFBS	46.6	72.2	155	25 - 150	*
M5PFHxA	50.0	70.8	142	25 - 150	
M4PFHpA	50.0	77.9	156	25 - 150	*
M3PFHxS	47.4	70.6	149	25 - 150	
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	50.0	67.9	136	25 - 150	
M6PFDA	25.0	30.8	123	25 - 150	
M7PFUdA	25.0	35.2	141	25 - 150	
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	25.0	32.4	129	25 - 150	
M2PFTeDA	25.0	28.7	115	10 - 150	
Perfluoro-n-[13C4]butanoic acid (MPFBA)	200	20.1	10.1	25 - 150	*
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	47.9	59.7	125	25 - 150	
Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	100	119	119	25 - 150	
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	50.0	67.7	135	10 - 150	
d3-N-MeFOSAA	100	138	138	25 - 150	
d5-N-EtFOSAA	100	155	155	25 - 150	*
M2-6:2 FTS	95.1	126	132	25 - 200	
M2-8:2 FTS	96.0	110	115	25 - 200	
M9PFNA	25.0	32.6	130	25 - 150	
M2-4:2 FTS	93.8	126	135	25 - 150	

FORM I

METHOD BLANK DATA SHEET

EPA 1633 Draft 3

Laboratory:	York Analytical Laboratories, Inc. - Stratford			SDG:	24F1801
Client:	Adirondack Environmental Services, Inc.			Project:	240625028
Matrix:	Water	Laboratory ID:	BG40502-BLK1	File ID:	QQQ41366.d
Prepared:	07/08/24 17:39	Preparation:	EPA 1633 Prep	Initial/Final:	250.02 mL / 5 mL
Analyzed:	07/10/24 10:28	Instrument:	LCQQQ		
Batch:	BG40502	Sequence:	S4G1047	Calibration:	SF40019

SYSTEM MONITORING COMPOUND	ADDED (ng/L)	CONC (ng/L)	% REC	QC LIMITS	Q
d-N-MeFOSA	50.0	67.3	135	25 - 150	
d-N-EtFOSA	50.0	59.4	119	25 - 150	
M3HFPO-DA	200	295	147	25 - 150	
d9-N-EtFOSE	500	409	81.8	25 - 150	
d7-N-MeFOSE	500	497	99.4	25 - 150	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
MPFOA	36856.59	7.88525	48987.36	7.829566	
MPFOS	9433.09	8.523916	11805.16	8.4773	

Data File	QQQ41366.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 10:28:03 AM
Sample Name	BG40502-BLK1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

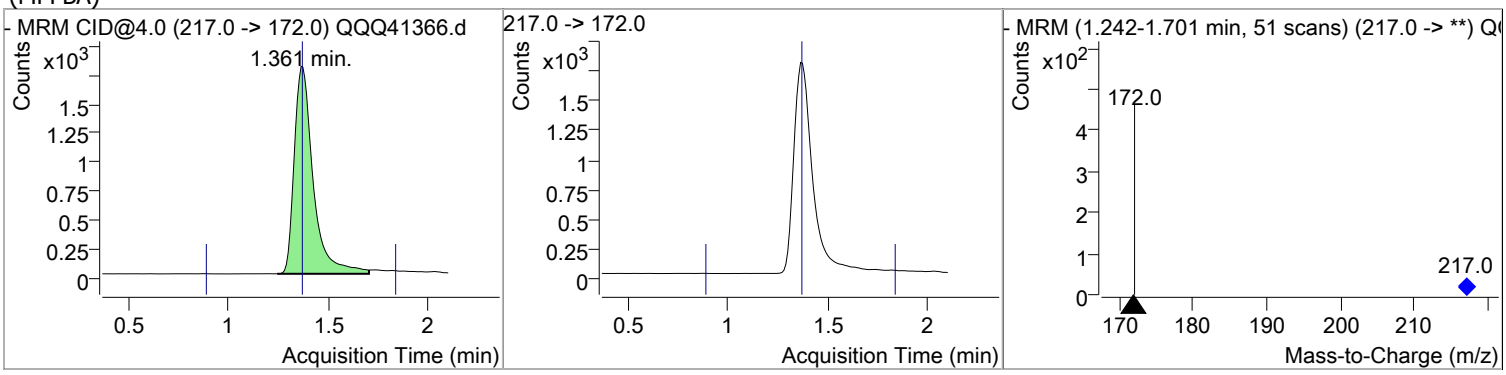
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.363	216.0 -> 172.0	23372	5.0000	ng/ml	0.110
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.361	217.0 -> 172.0	11602	10.0000	ng/ml	0.110
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.774	268.0 -> 223.0	119744	5.0000	ng/ml	0.046
MPFHxA	6.336	315.0 -> 269.8	31602	2.5000	ng/ml	-0.037
MPFHxS	7.279	403.0 -> 103.0	3436	2.3700	ng/ml	-0.103
M3PFBS-EIS	5.520	302.0 -> 79.9	22132	2.3300	ng/ml	-0.010
M5PFHxA-EIS	6.335	318.0 -> 273.0	71426	2.5000	ng/ml	-0.037
M2-4-2FTS-EIS	6.260	329.0 -> 309.0	25819	4.6900	ng/ml	-0.037
M3PFHxS-EIS	7.289	402.0 -> 80.0	15098	2.3700	ng/ml	-0.094
M3-HFPO-DA-EIS	6.634	287.0 -> 169.0	51921	10.0000	ng/ml	-0.056
M4PFHpA-EIS	7.179	367.0 -> 322.0	17454	2.5000	ng/ml	-0.083
M2-6-2FTS-EIS	7.819	429.0 -> 409.0	17174	4.7550	ng/ml	-0.111
MPFOA	7.885	417.0 -> 372.0	36857	2.5000	ng/ml	-0.112
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.885	421.0 -> 376.0	39854	2.5000	ng/ml	-0.112
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.523	507.0 -> 98.9	5164	2.3950	ng/ml	-0.102
MPFNA	8.488	468.0 -> 423.0	18002	1.2500	ng/ml	-0.111
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.488	472.0 -> 223.0	6251	1.2500	ng/ml	-0.102
MPFOS	8.524	503.0 -> 80.0	9433	2.3950	ng/ml	-0.102
M2-8-2FTS-EIS	8.978	529.0 -> 509.0	35321	4.8000	ng/ml	-0.065
MPFDA	9.016	515.0 -> 469.8	12248	1.2500	ng/ml	-0.065
M6PFDA-EIS	9.016	519.0 -> 473.9	20676	1.2500	ng/ml	-0.065
d3-N-MeFOSAA-EIS	9.227	573.0 -> 418.8	30830	5.0000	ng/ml	-0.056
M7PFUdA-EIS	9.487	570.0 -> 525.0	31930	1.2500	ng/ml	-0.028
d5-N-EtFOSAA-EIS	9.477	589.0 -> 418.8	30430	5.0000	ng/ml	-0.028
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.629	506.0 -> 78.0	19264	2.5000	ng/ml	-0.018
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.921	615.0 -> 570.0	25841	1.2500	ng/ml	0.028
M2PFTeDA-EIS	10.590	715.0 -> 670.0	10231	1.2500	ng/ml	0.101
d7-NMeFOSE-EIS	10.363	623.0 -> 59.0	11299	25.0000	ng/ml	0.064
d3-NMeFOSA-EIS	10.404	515.0 -> 219.0	1928	2.5000	ng/ml	0.074
d9-NEtFOSE-EIS	10.619	639.0 -> 59.0	4142	25.0000	ng/ml	0.083
d5-NEtFOSA-EIS	10.668	531.0 -> 169.0	1041	2.5000	ng/ml	0.092
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.361	217.0 -> 172.0	11770	1.0057	ng/ml	0.110
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	268.0 -> 223.0	119744	5.9397	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.520	302.0 -> 79.9	22132	3.6103	ng/ml	-0.010
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.260	329.0 -> 309.0	25819	6.3086	ng/ml	-0.037

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.335	318.0 -> 273.0	71426	3.5416	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.634	287.0 -> 169.0	51921	14.7278	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.179	367.0 -> 322.0	17454	3.8963	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.289	402.0 -> 80.0	15098	3.5301	ng/ml		-0.094
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.819	429.0 -> 409.0	17225	6.2842	ng/ml		-0.111
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.885	421.0 -> 376.0	39854	3.3955	ng/ml		-0.112
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.488	472.0 -> 223.0	6251	1.6293	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.523	507.0 -> 98.9	5165	2.9858	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.978	529.0 -> 509.0	35518	5.5179	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.016	519.0 -> 473.9	20676	1.5408	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.227	573.0 -> 418.8	30826	6.9159	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.477	589.0 -> 418.8	30429	7.7302	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.487	570.0 -> 525.0	31931	1.7580	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.629	506.0 -> 78.0	19197	3.3869	ng/ml		-0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.921	615.0 -> 570.0	25840	1.6183	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.363	623.0 -> 59.0	11299	24.8415	ng/ml		0.064
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.404	515.0 -> 219.0	1928	3.3663	ng/ml		0.074
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.590	715.0 -> 670.0	10228	1.4358	ng/ml		0.101
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.619	639.0 -> 59.0	4142	20.4568	ng/ml		0.083
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.668	531.0 -> 169.0	1041	2.9693	ng/ml		0.092
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.347	213.0 -> 168.9	0		ng/ml	md	1
PFMPA	2.125	229.0 -> 85.0	1	0.0001	ng/ml		100
3:3FTCA	4.396	241.0 -> 177.0	3	0.0070	ng/ml	#	1
Perfluoro-n-pentanoic acid (PFPeA)	4.784	263.0 -> 219.0	162	0.0071	ng/ml		100
PFMBA	5.504	279.0 -> 85.0	19	0.0019	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.520	298.9 -> 79.9	16	0.0016	ng/ml	#	1
PFEESA	6.075	315.0 -> 135.0	62	0.0016	ng/ml	#	86
NFDHA	6.188	295.0 -> 201.1	9	0.0186	ng/ml		49
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.251	327.0 -> 307.0	10	0.0015	ng/ml	#	1

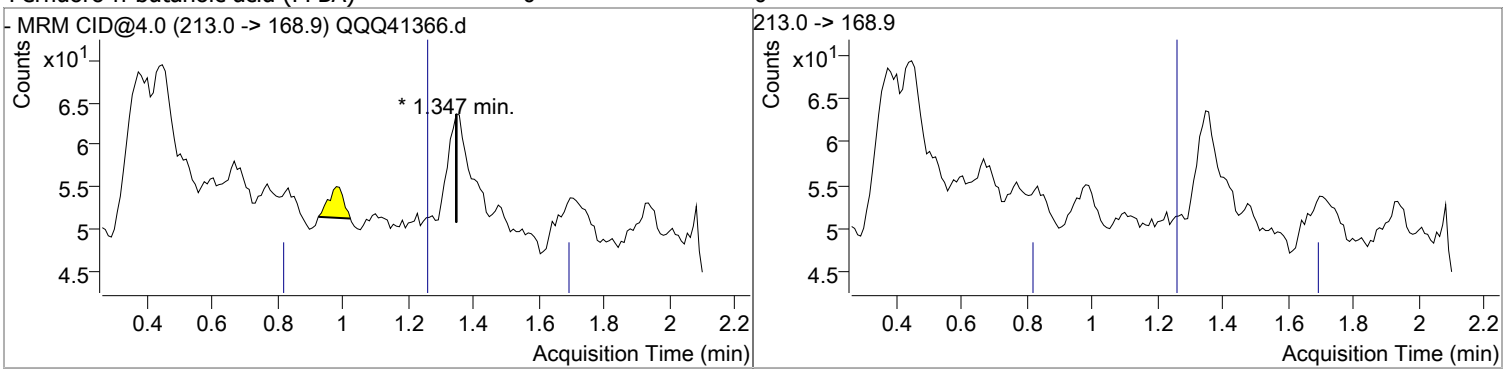
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.364	313.0 -> 268.9	162	0.0049	ng/ml	#	76
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	348.9 -> 79.9	26	0.0032	ng/ml	#	65
HFPO-DA	6.476	285.0 -> 169.1	0		ng/ml	md	1
Perfluoroheptanoic acid (PFHpA)	7.319	363.0 -> 318.8	34	0.0022	ng/ml	#	36
5-3FTCA	7.254	341.0 -> 217.0	229	0.0502	ng/ml	#	63
Perfluorohexanesulfonic acid (PFHxS)	7.299	398.9 -> 79.9	106	0.0144	ng/ml	#	58
ADONA	7.420	377.0 -> 85.0	15	0.0013	ng/ml	#	44
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.792	427.0 -> 407.0	66	0.0115	ng/ml	#	19
Perfluorooctanoic acid (PFOA)	8.053	413.0 -> 368.8	9	0.0000	ng/ml	#	46
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.163	448.9 -> 80.0	17	0.0031	ng/ml		93
Perfluorononanoic acid (PFNA)	8.646	463.0 -> 418.8	22	0.0014	ng/ml	#	50
Perfluorooctanesulfonic acid (PFOS)	8.617	498.9 -> 79.9	40	0.0000	ng/ml	#	46
7-3FTCA	8.674	441.0 -> 337.0	391	0.0639	ng/ml		87
9-Cl-PF3ONS	8.828	531.0 -> 351.0	10	0.0003	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	527.0 -> 80.9	4	0.0023	ng/ml		1
Perfluorodecanoic acid (PFDA)	9.128	513.0 -> 468.8	396	0.0209	ng/ml	#	72
Perfluorononanesulfonate (L-PFNS)	9.070	548.9 -> 79.9	26	0.0069	ng/ml		96
N-MeFOSAA	9.208	570.0 -> 418.9	0	0.0001	ng/ml		18
Perfluoroundecanoic acid (PFUnA)	9.516	563.0 -> 519.0	114	0.0000	ng/ml	#	95
Perfluoro-1-decanesulfonate (L-PFDS)	9.532	598.9 -> 98.9	5	0.0025	ng/ml		100
N-EtFOSAA	9.505	584.0 -> 418.8	36	0.0069	ng/ml	#	18
Perfluoro-1-octanesulfonamide (FOSA)	9.639	497.9 -> 78.0	26	0.0023	ng/ml		100
11-Cl-PF3OUdS	9.753	631.0 -> 451.0	29	0.0013	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.021	613.0 -> 568.8	247	0.0147	ng/ml		96
Perfluorododecanesulfonic acid (PFDoS)	10.306	699.0 -> 80.0	15	0.0153	ng/ml	#	76
Perfluorotridecanoic acid (PFTrDA)	10.178	663.0 -> 618.8	212	0.0204	ng/ml		100
NMeFOSE	10.318	616.0 -> 59.0	0		ng/ml	md	1
NMeFOSA	10.349	512.0 -> 169.0	3	0.0000	ng/ml		1
Perfluorotetradecanoic acid (PFTA)	10.572	713.0 -> 669.0	26	0.0033	ng/ml	#	1
NEtFOSE	10.647	630.0 -> 59.0	0		ng/ml	md	1
NEtFOSA	10.559	526.0 -> 169.0	2	0.0031	ng/ml		1

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

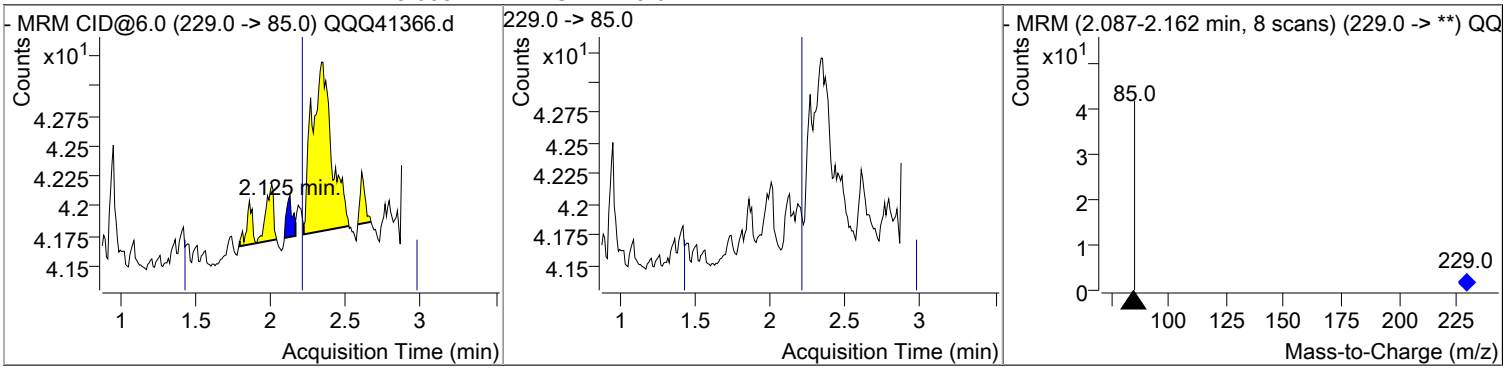
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.0057	1.36	0.11	11770				



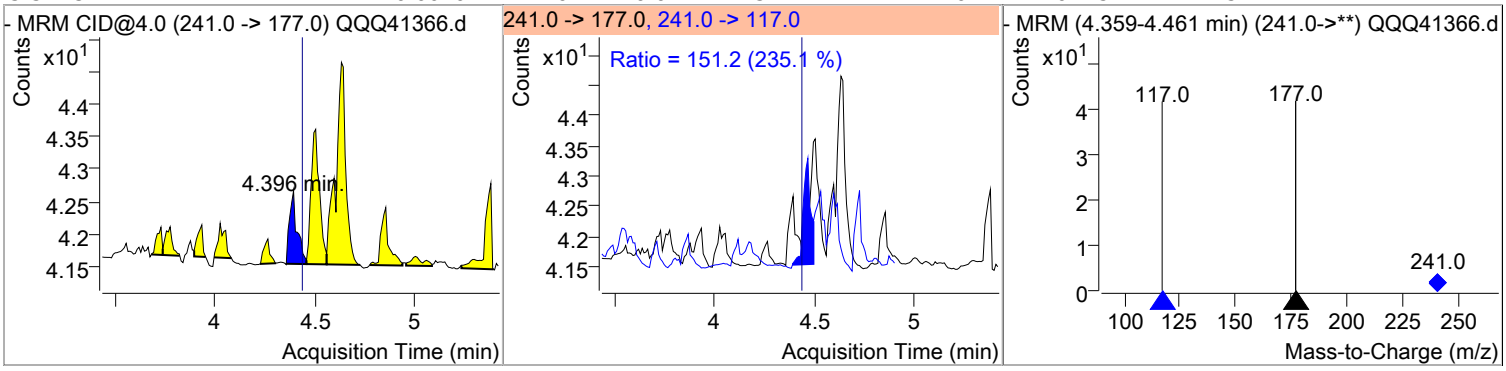
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)		0		0				



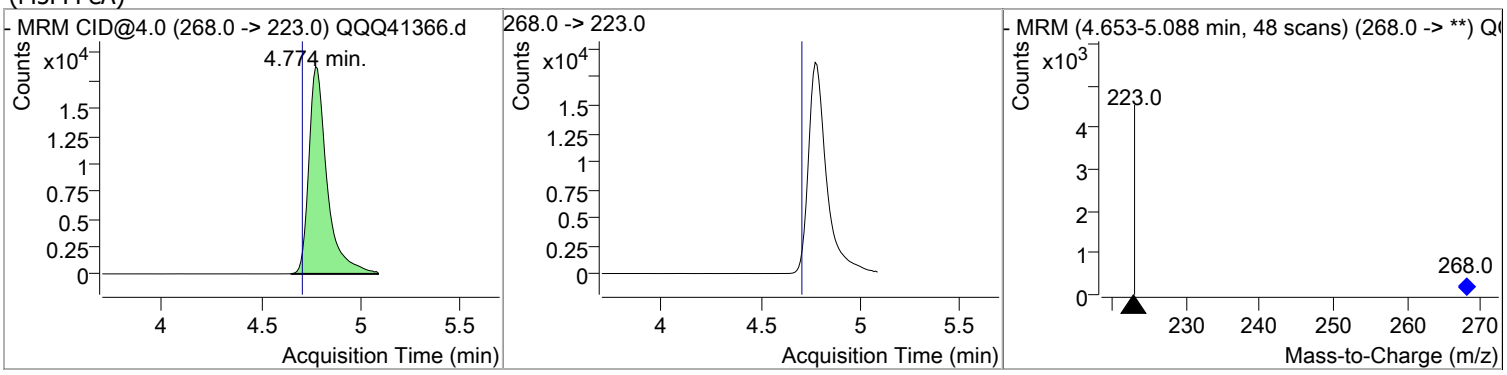
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.0001	2.13	-0.07	1				



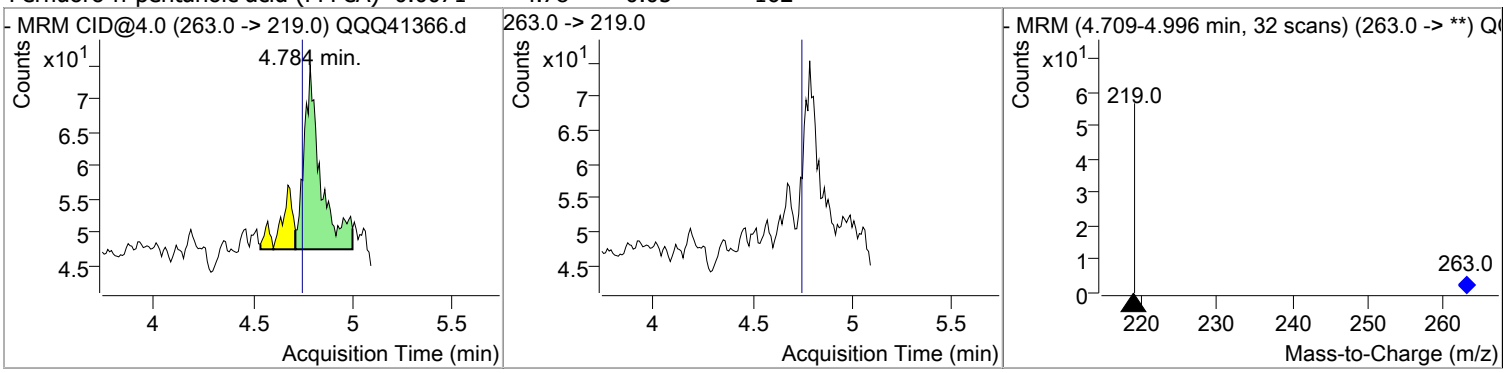
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	0.0070	4.40	-0.04	3	241.0 -> 117.0	151.2	51.4	77.2



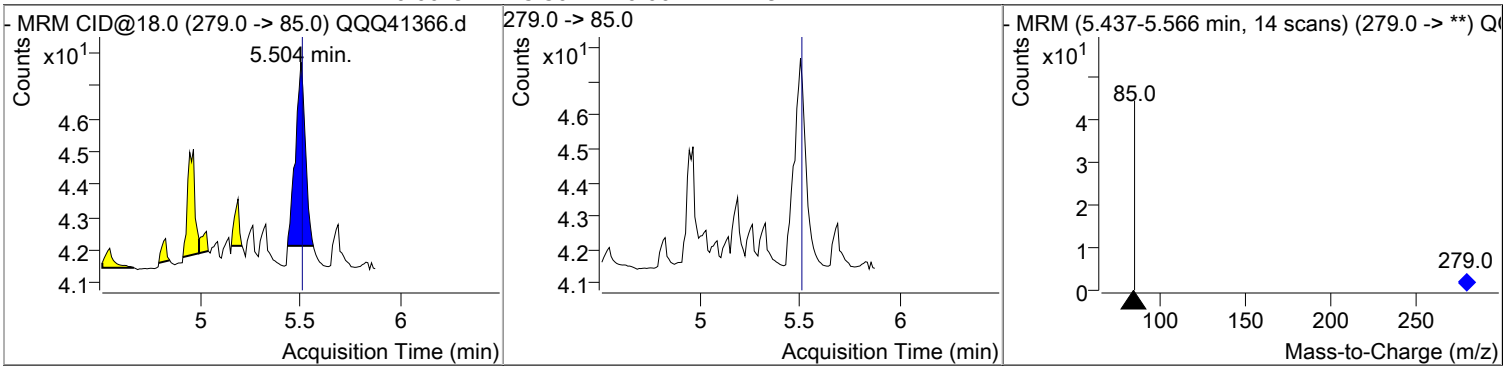
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	5.9397	4.77	0.05	119744				



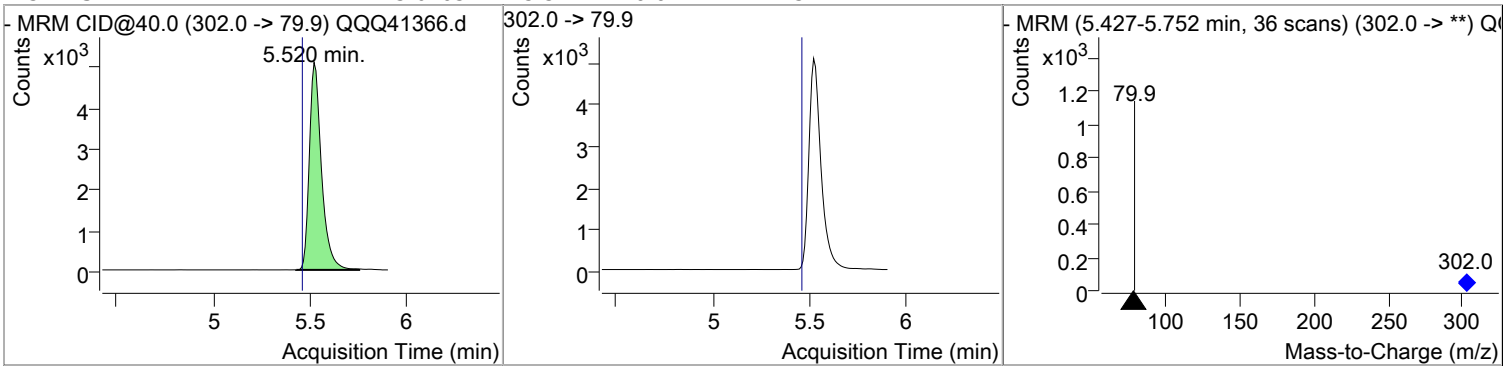
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	0.0071	4.78	0.05	162				



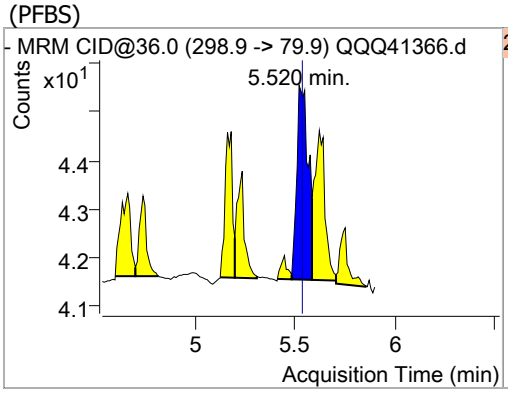
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	0.0019	5.50	0.00	19				

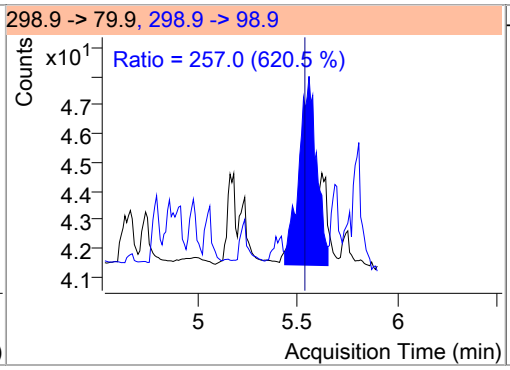


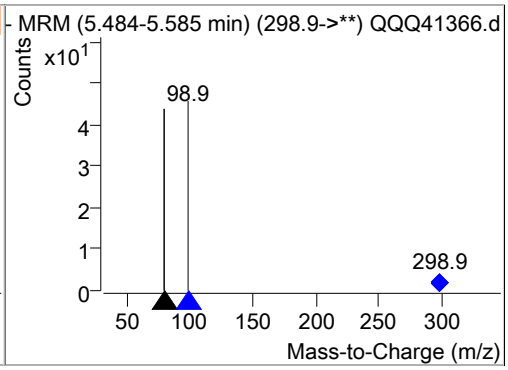
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.6103	5.52	-0.01	22132				



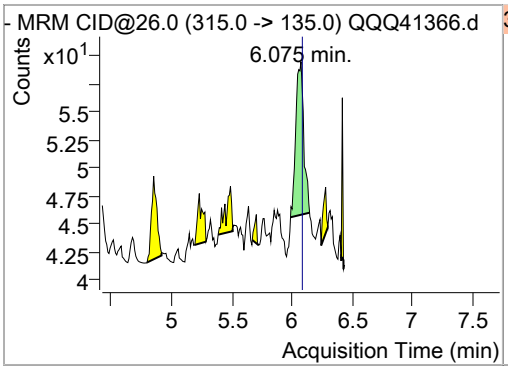
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.0016	5.52	-0.01	16	298.9 -> 98.9	257.0	33.1	49.7

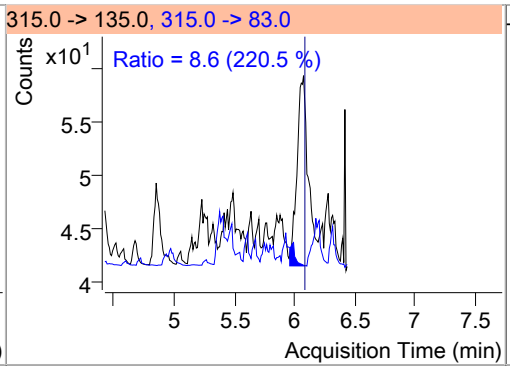


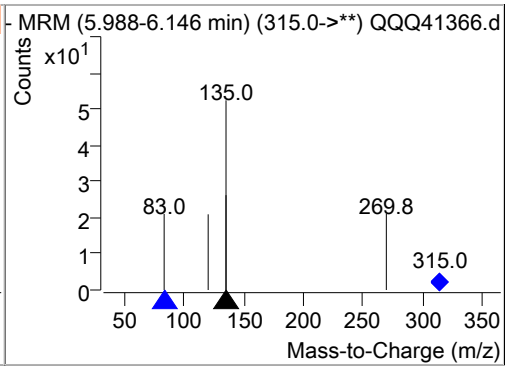




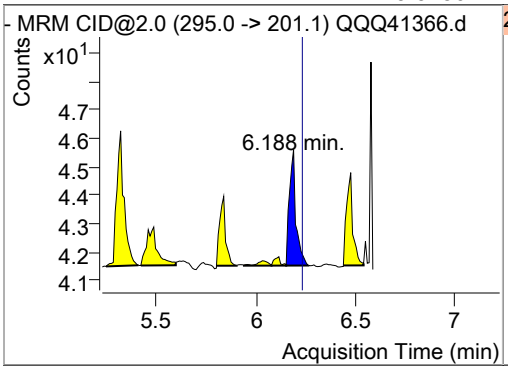
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	0.0016	6.08	0.00	62	315.0 -> 83.0	8.6	3.1	4.7

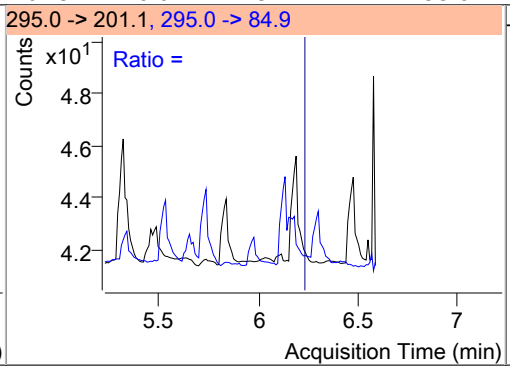


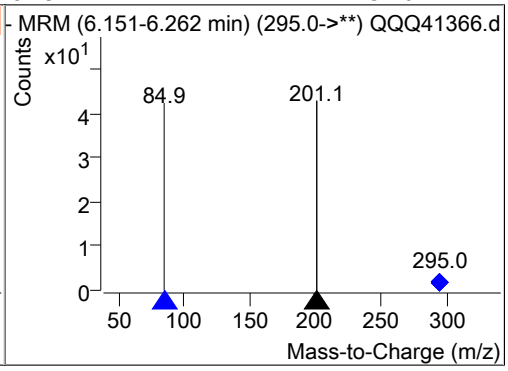




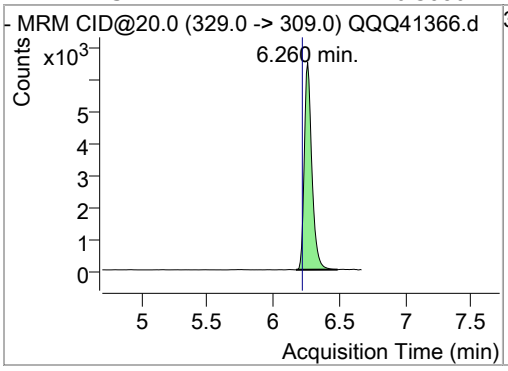
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	0.0186	6.19	-0.04	9	295.0 -> 84.9		21.1	31.6

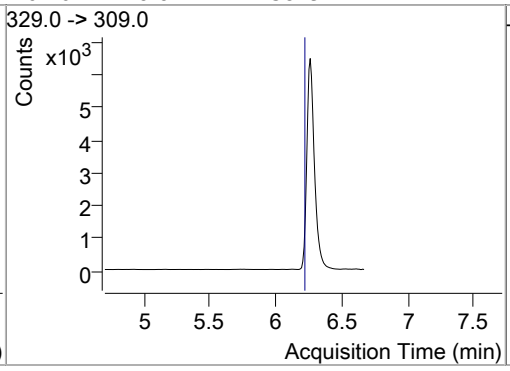


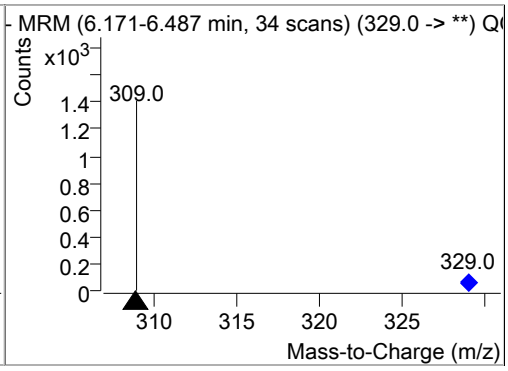




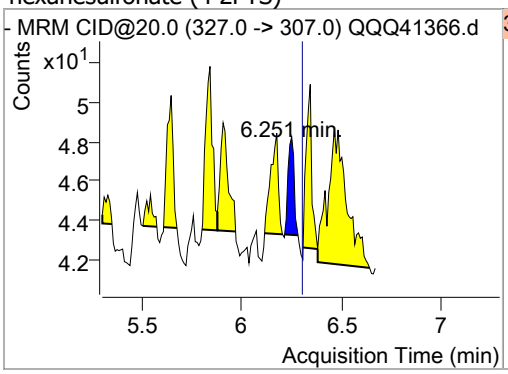
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	6.3086	6.26	-0.04	25819				

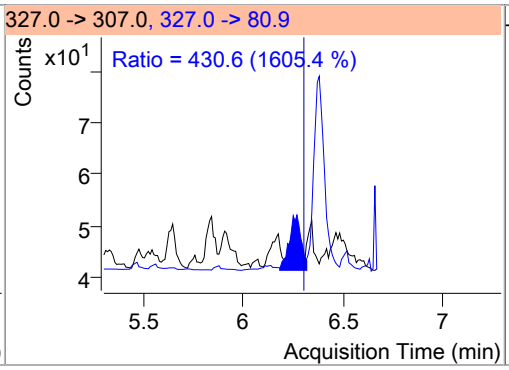


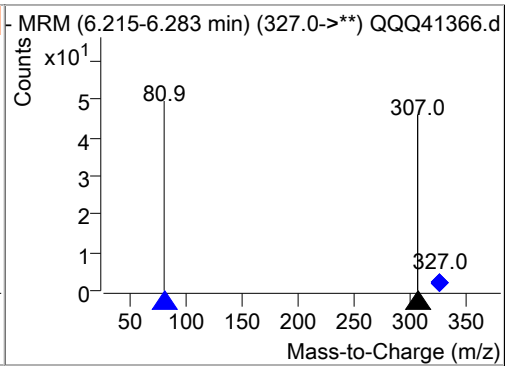




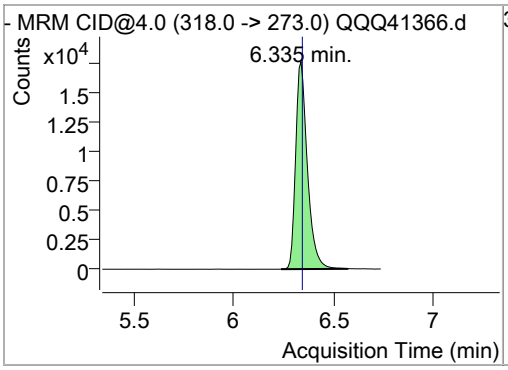
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	0.0015	6.25	-0.05	10	327.0 -> 80.9	430.6	21.5	32.2

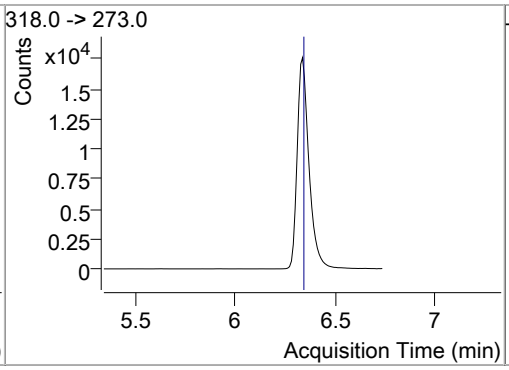


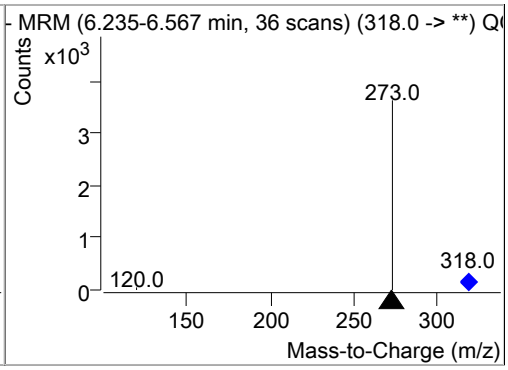




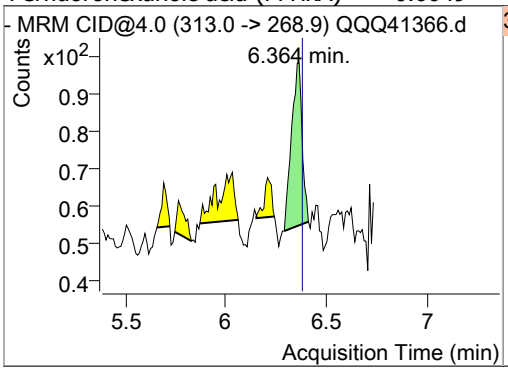
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.5416	6.33	-0.04	71426				

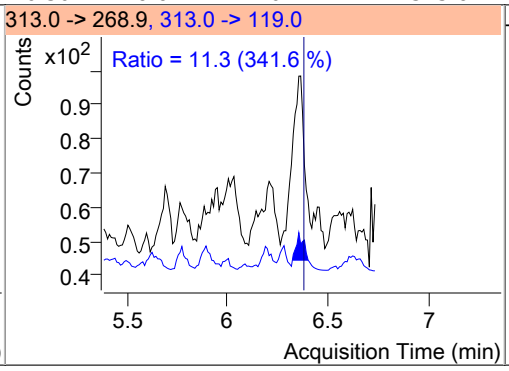


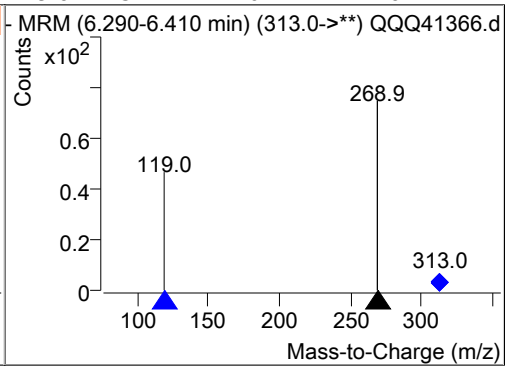




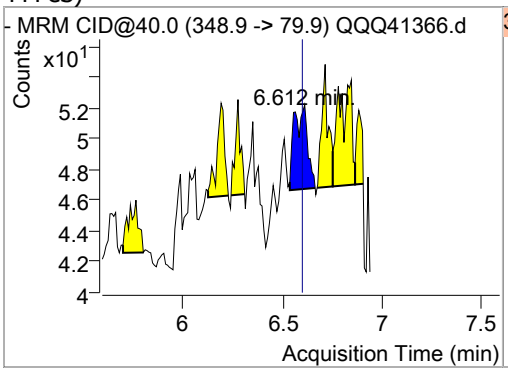
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.0049	6.36	-0.01	162	313.0 -> 119.0	11.3	2.6	4.0

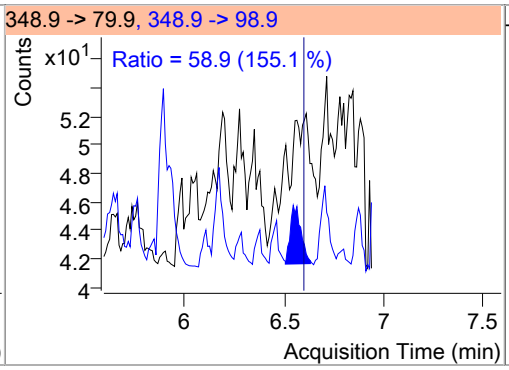


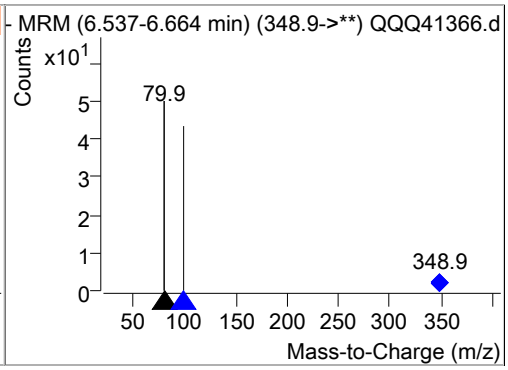




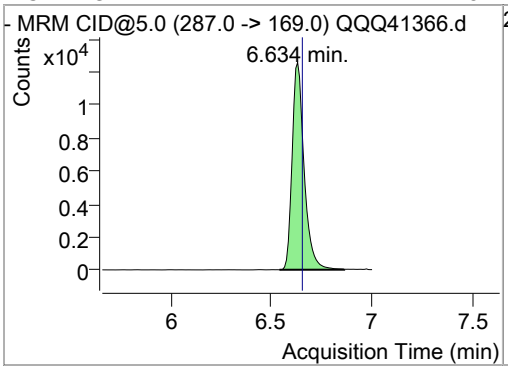
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.0032	6.61	0.02	26	348.9 -> 98.9	58.9	30.4	45.6

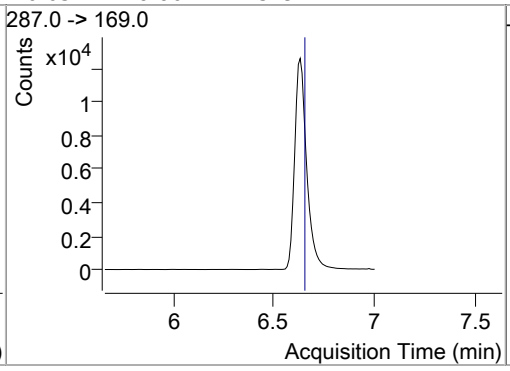


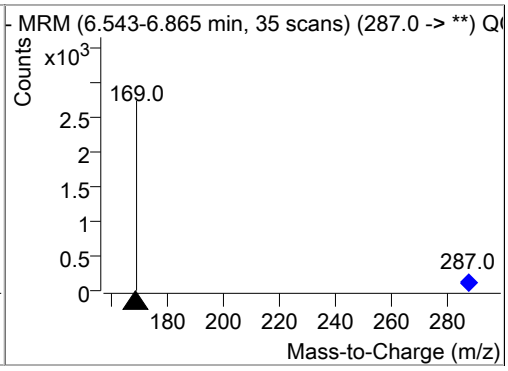




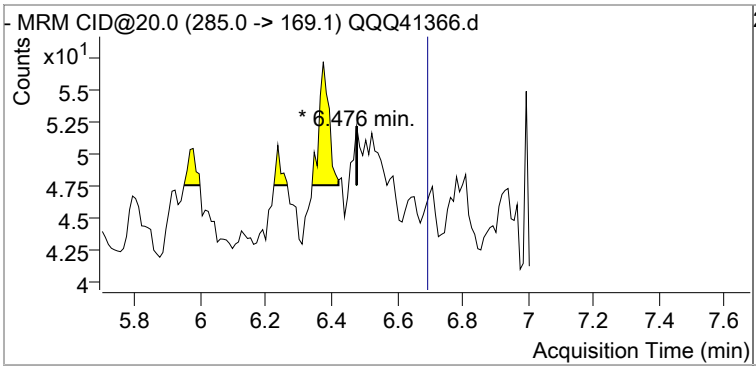
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	14.7278	6.63	-0.06	51921				

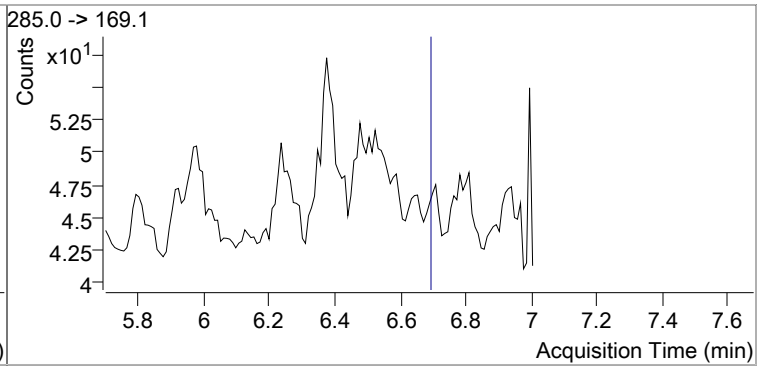




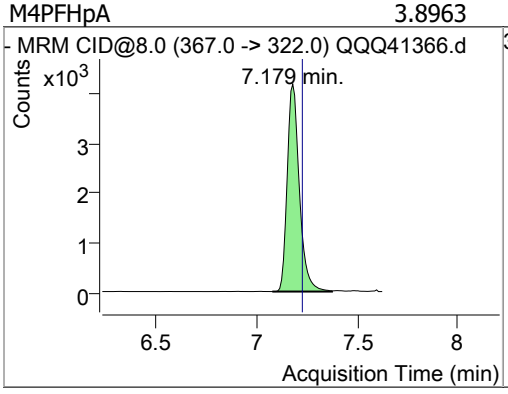


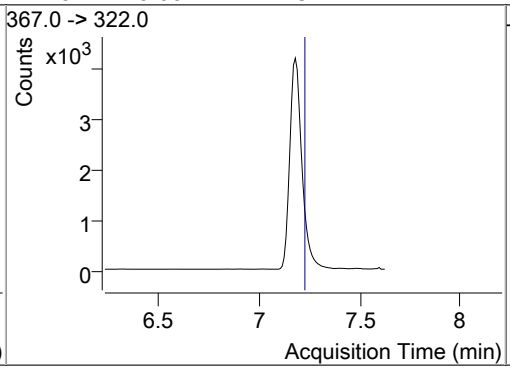
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA		0		0				

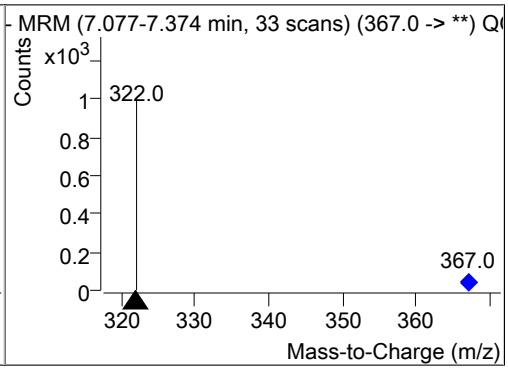




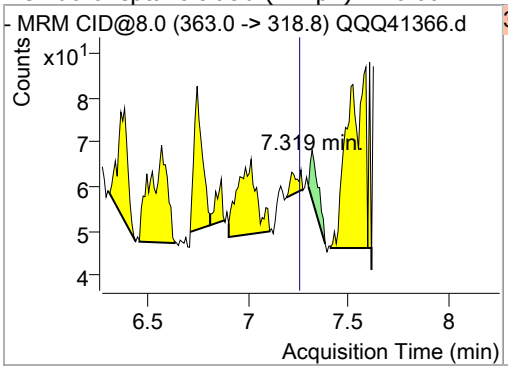
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.8963	7.18	-0.08	17454				

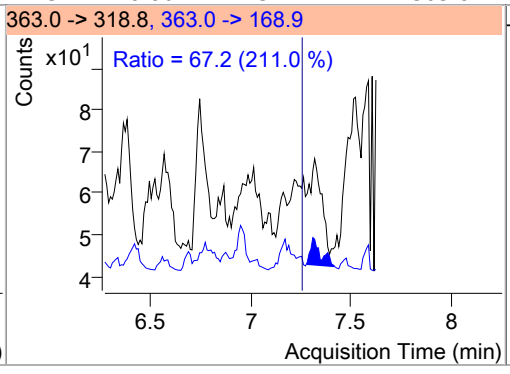


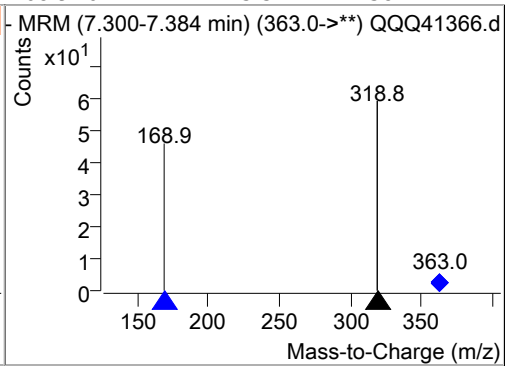




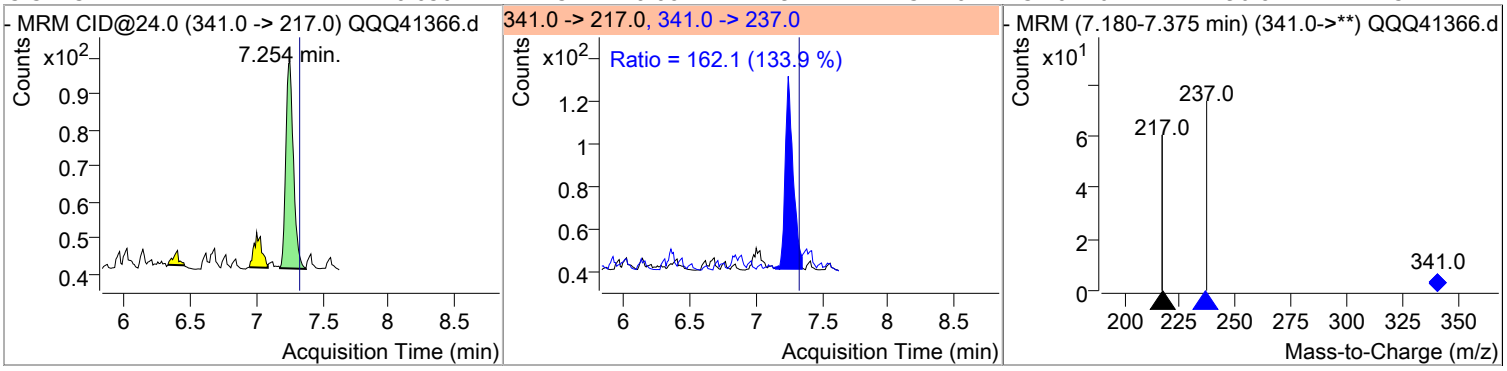
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.0022	7.32	0.06	34	363.0 -> 168.9	67.2	25.5	38.2



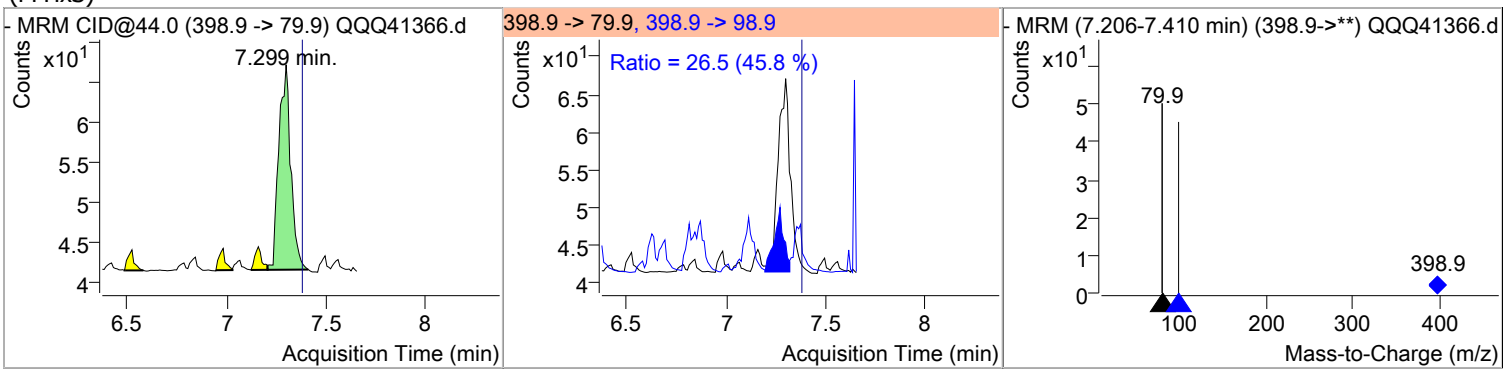




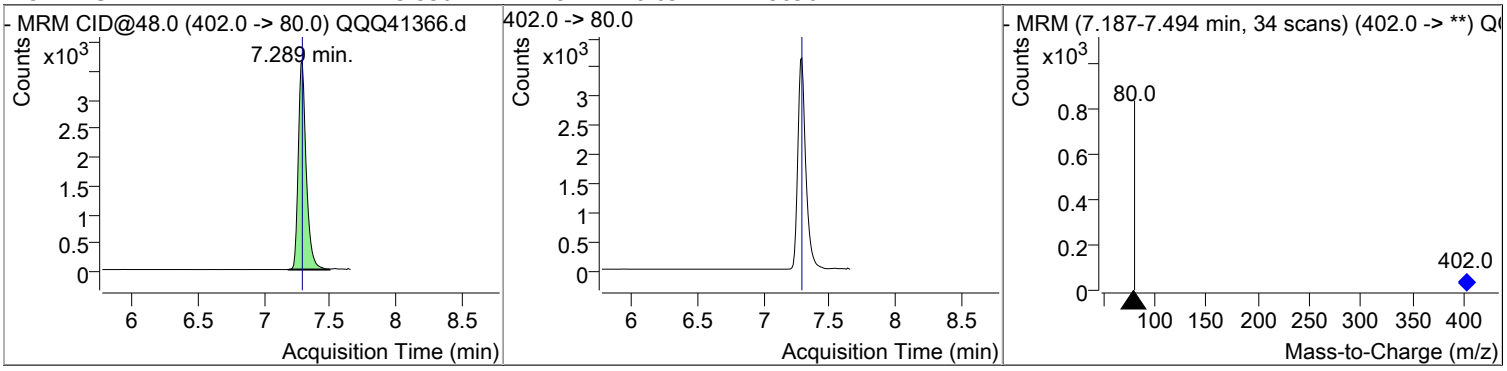
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	0.0502	7.25	-0.08	229	341.0 -> 237.0	162.1	96.8	145.2



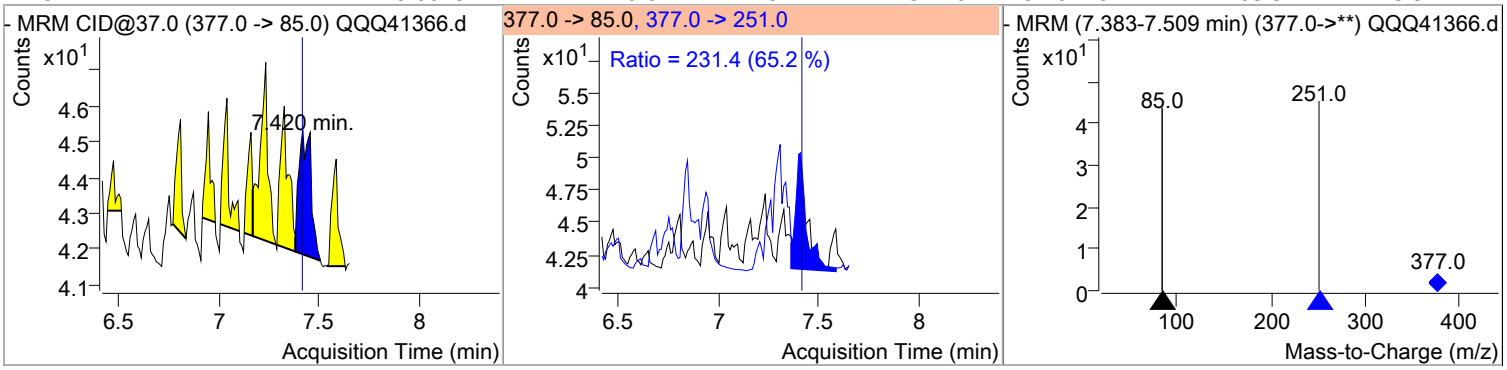
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.0144	7.30	-0.07	106	398.9 -> 98.9	26.5	46.2	69.3



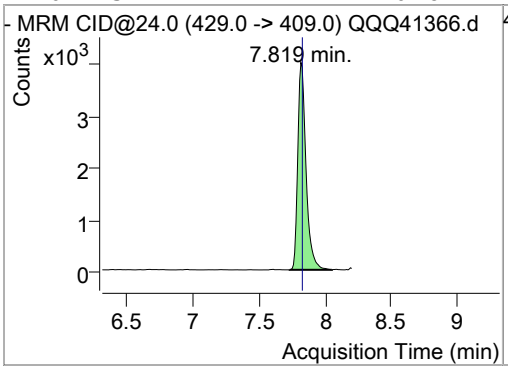
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	3.5301	7.29	-0.09	15098				

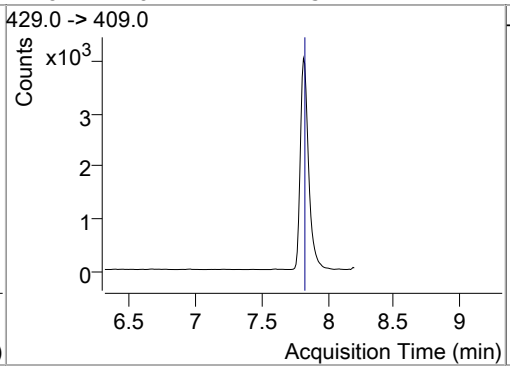


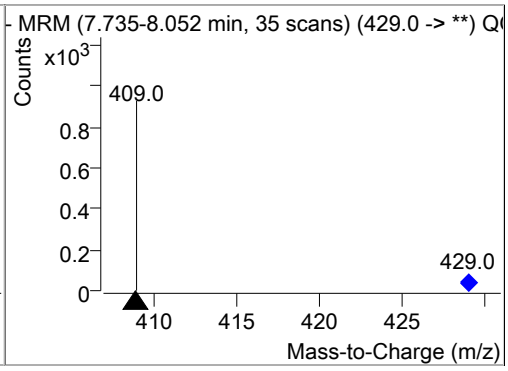
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	0.0013	7.42	0.01	15	377.0 -> 251.0	231.4	283.9	425.9



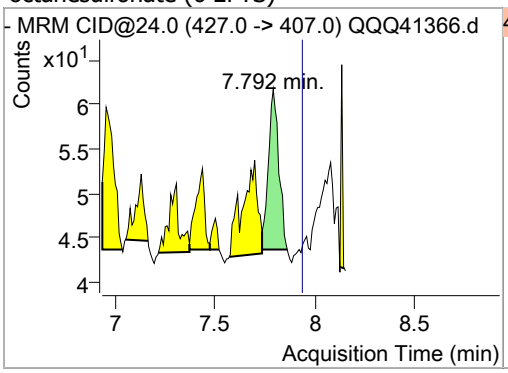
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	6.2842	7.82	-0.11	17225				

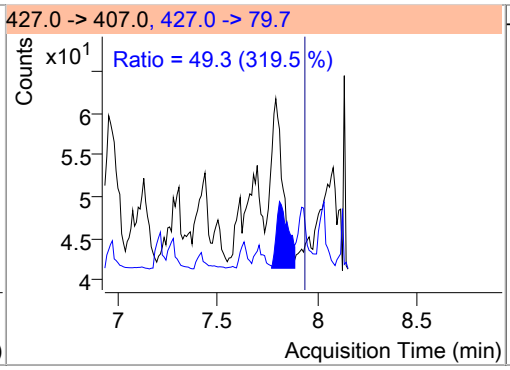


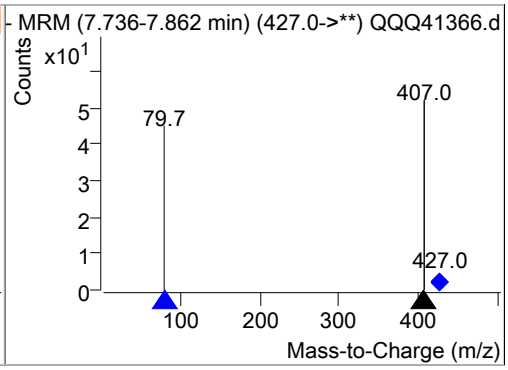




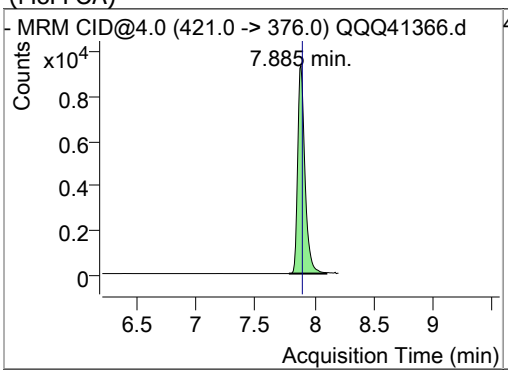
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	0.0115	7.79	-0.14	66	427.0 -> 79.7	49.3	12.3	18.5

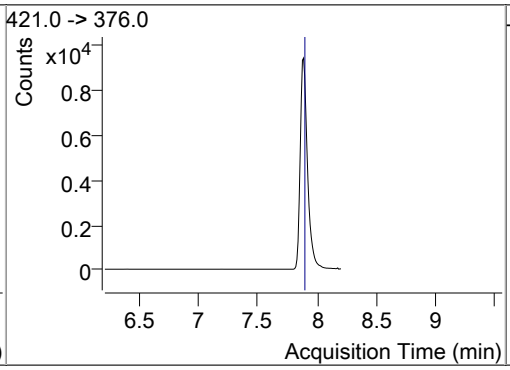


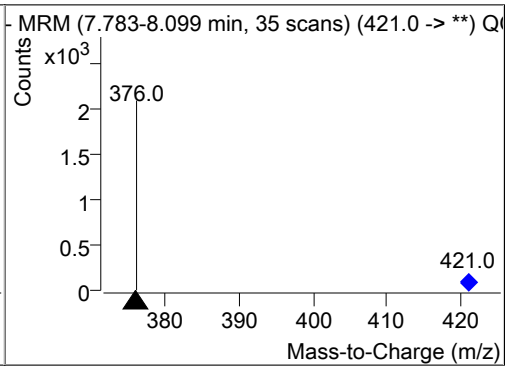




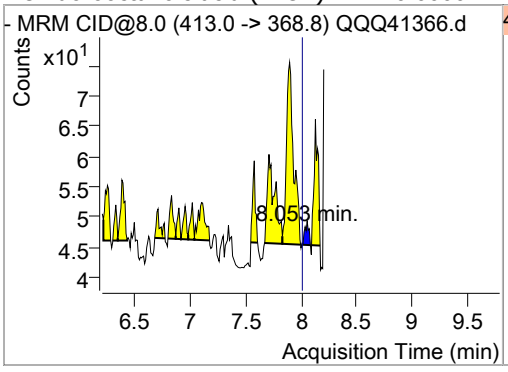
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	3.3955	7.88	-0.11	39854				

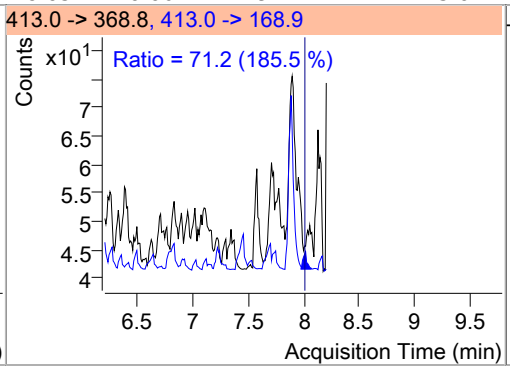


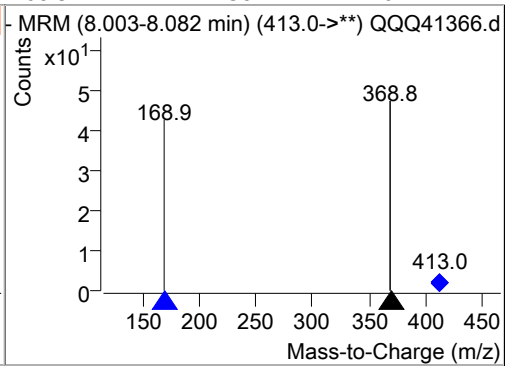




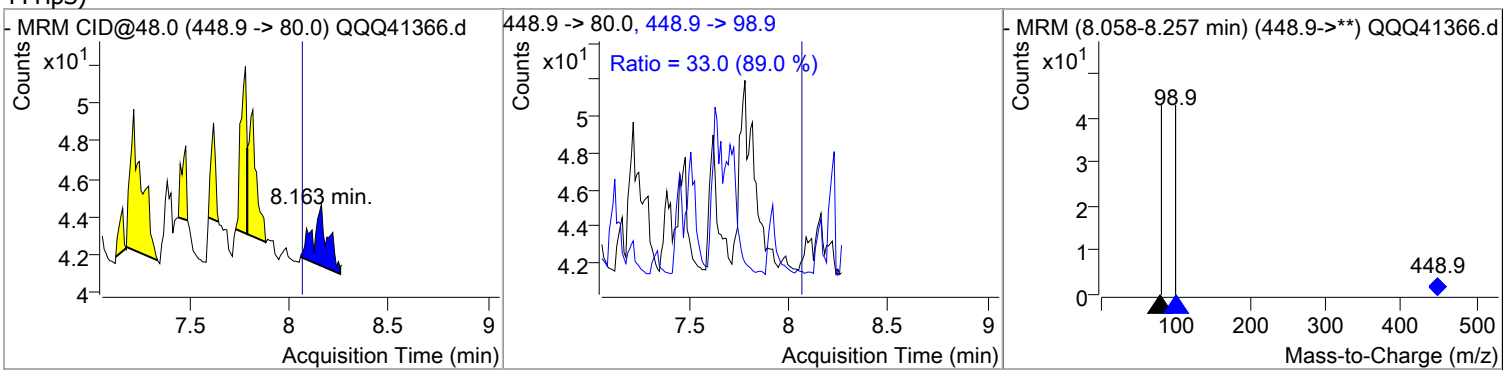
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.0000	8.05	0.06	9	413.0 -> 168.9	71.2	30.7	46.1



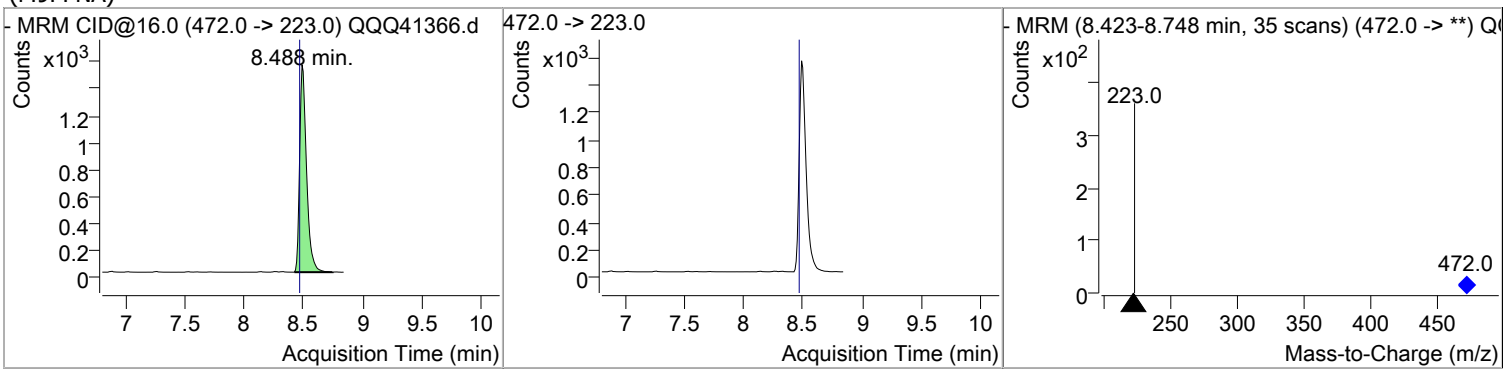




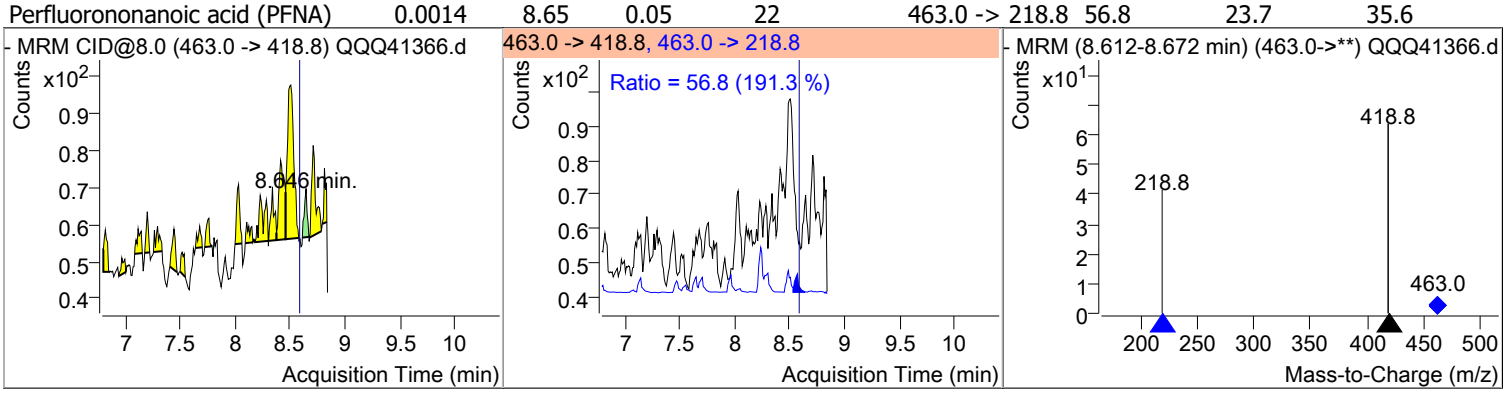
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.0031	8.16	0.10	17	448.9 -> 98.9	33.0	29.6	44.4



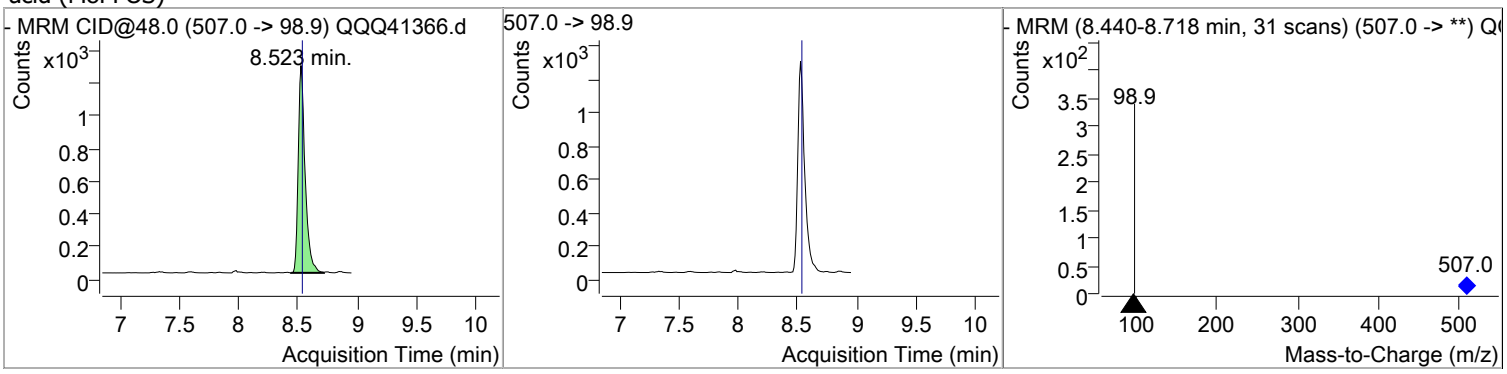
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.6293	8.49	-0.10	6251				



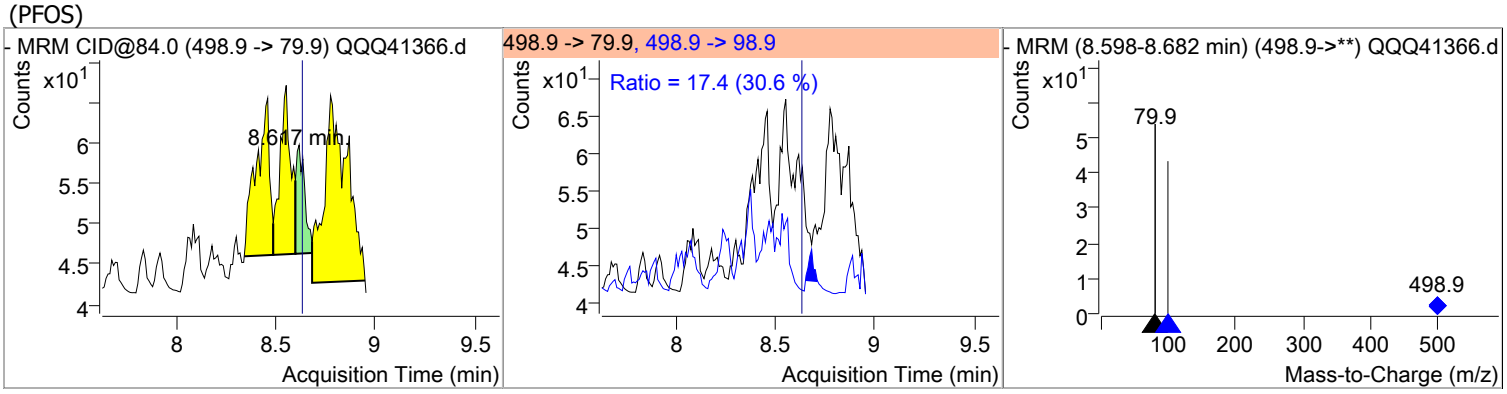
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.0014	8.65	0.05	22	463.0 -> 218.8	56.8	23.7	35.6



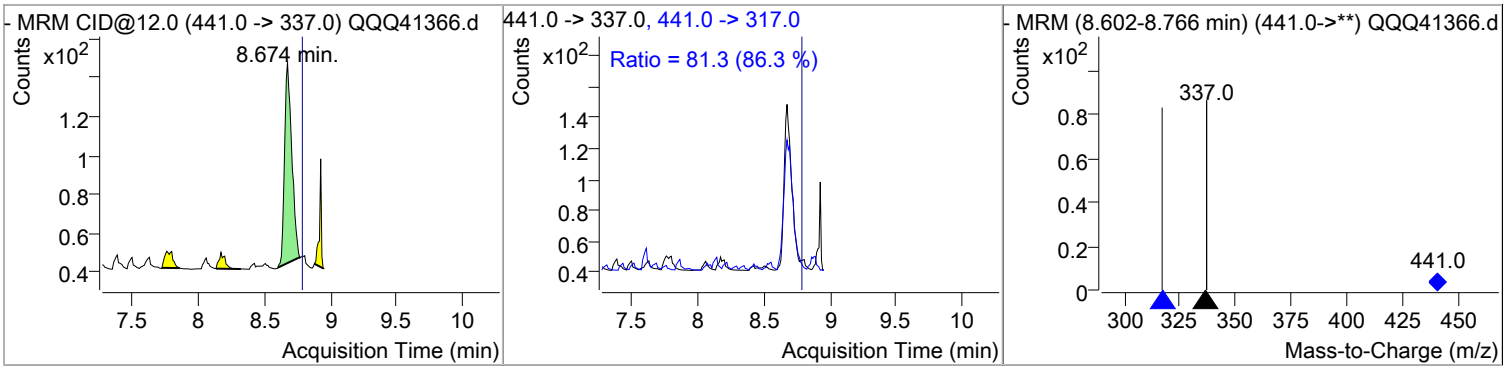
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.9858	8.52	-0.10	5165				



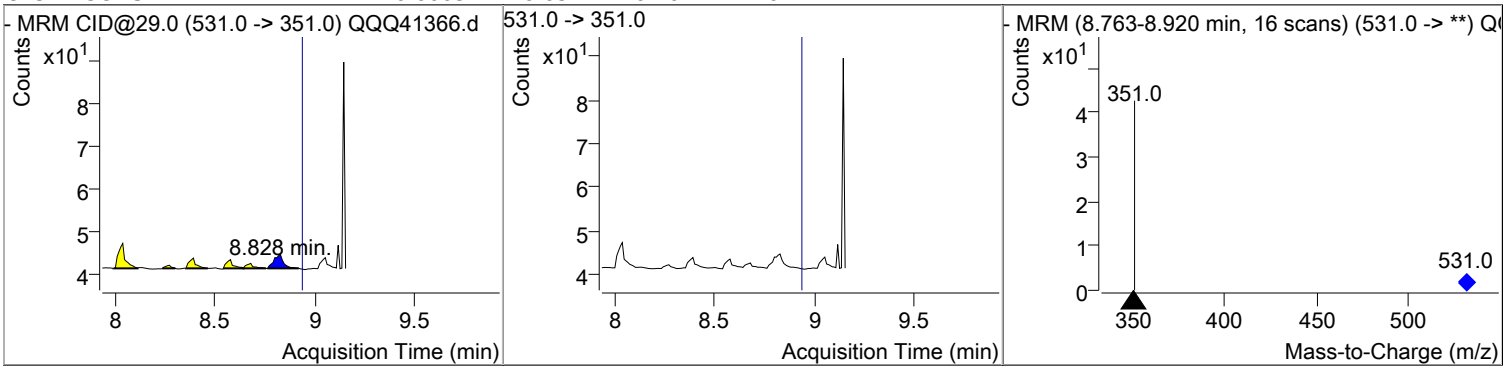
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.0000	8.62	-0.01	40	498.9 -> 98.9	17.4	45.5	68.3



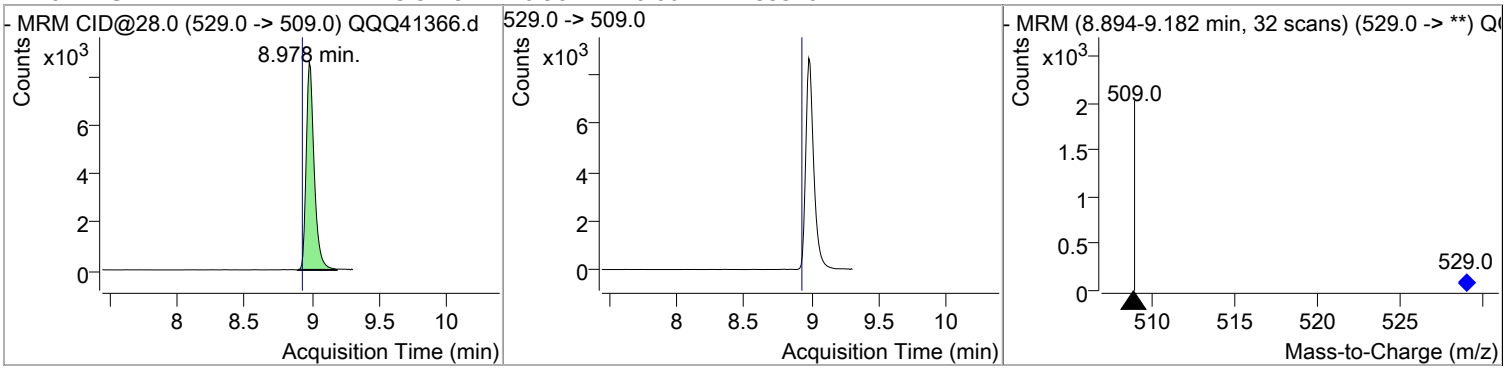
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	0.0639	8.67	-0.10	391	441.0 -> 317.0	81.3	75.4	113.1



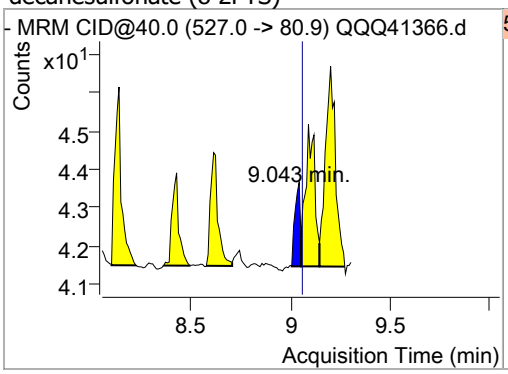
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	0.0003	8.83	-0.10	10				

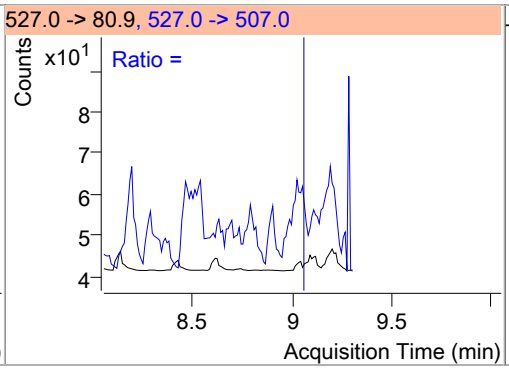


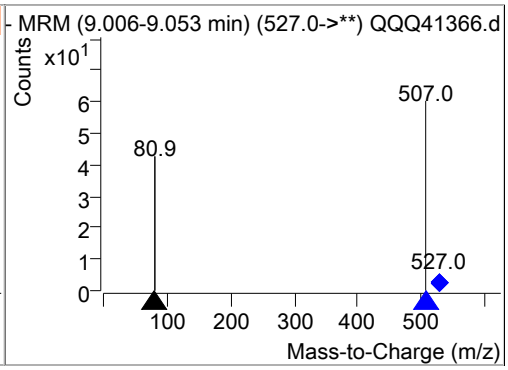
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	5.5179	8.98	-0.06	35518				



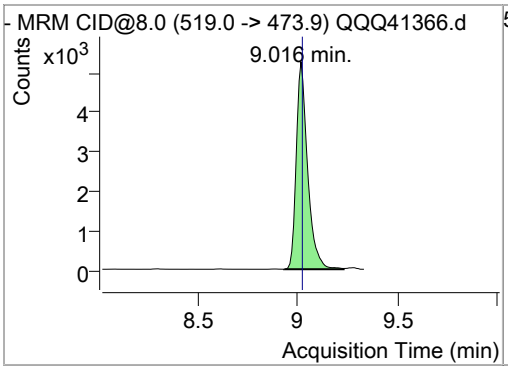
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	0.0023	9.04	-0.01	4	527.0 -> 507.0		318.3	477.4

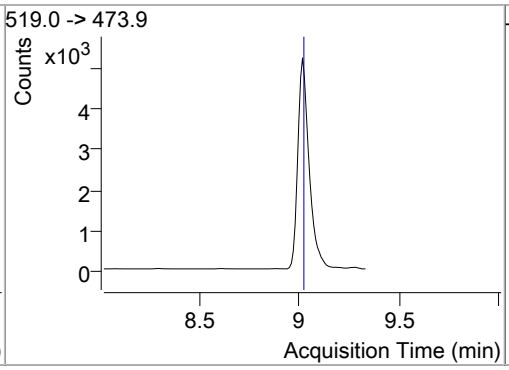


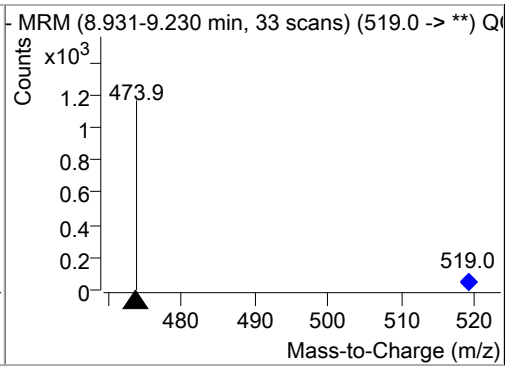




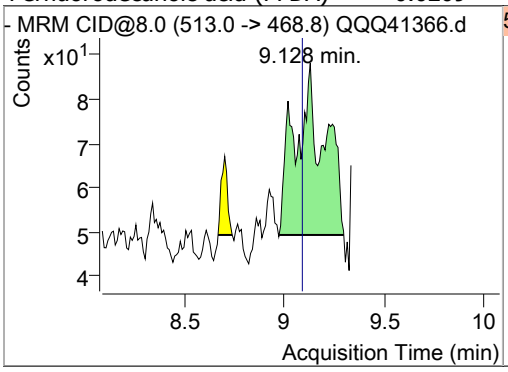
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.5408	9.02	-0.07	20676				

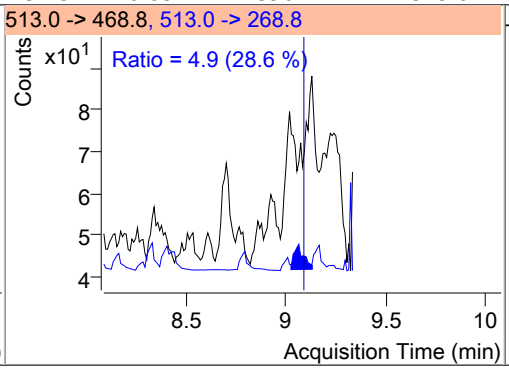


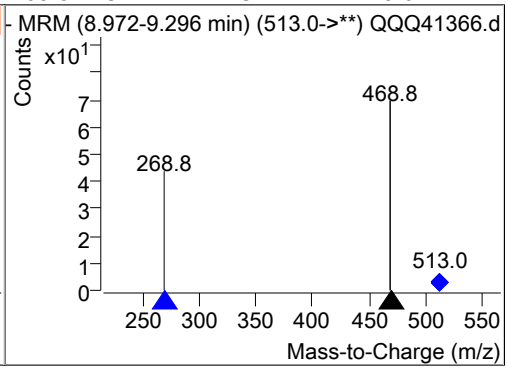




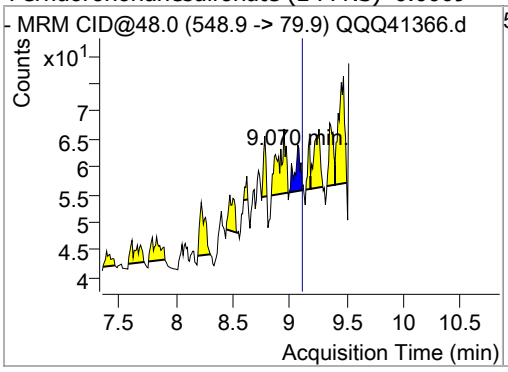
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.0209	9.13	0.05	396	513.0 -> 268.8	4.9	13.7	20.6

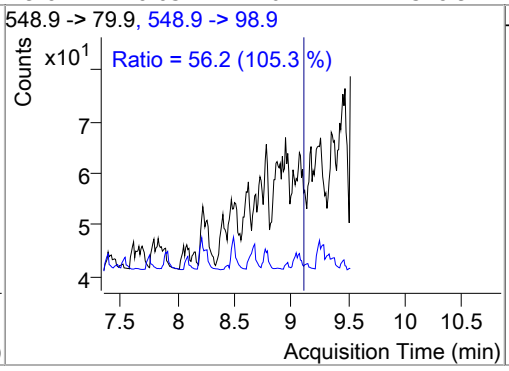


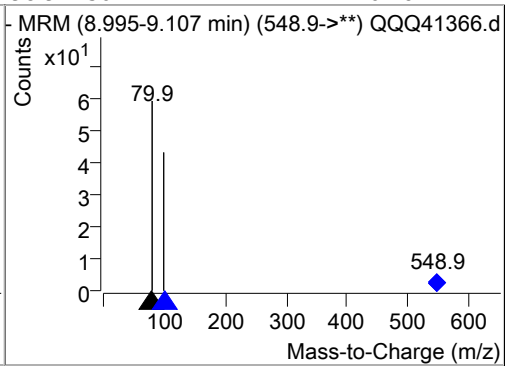




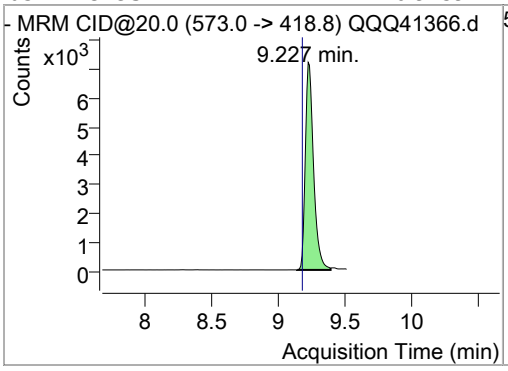
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.0069	9.07	-0.03	26	548.9 -> 98.9	56.2	42.7	64.0

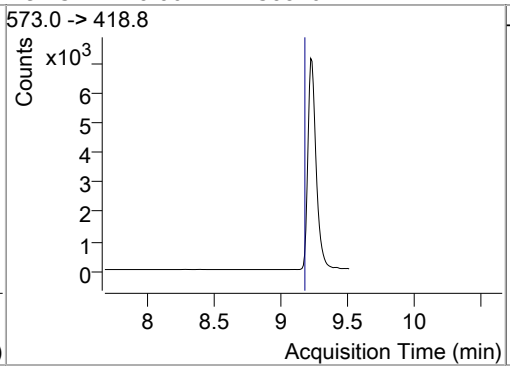


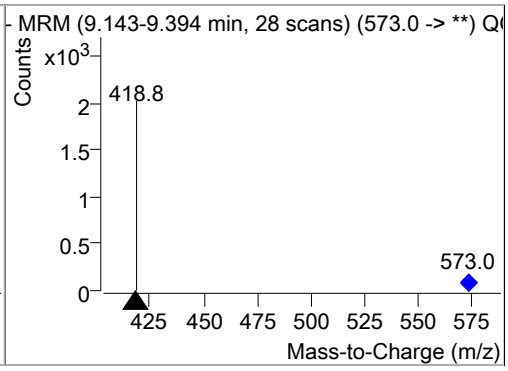




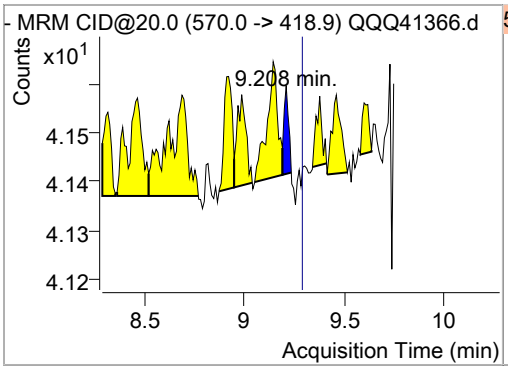
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	6.9159	9.23	-0.06	30826				

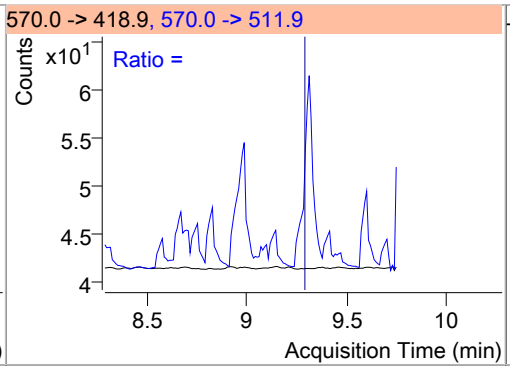


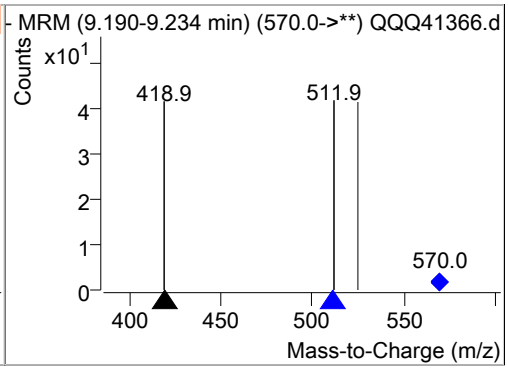




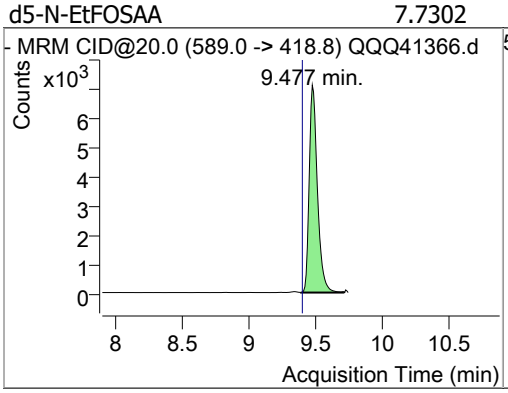
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.0001	9.21	-0.07	0	570.0 -> 511.9		51.6	77.4

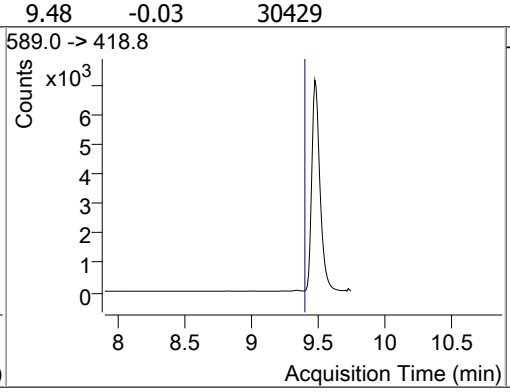


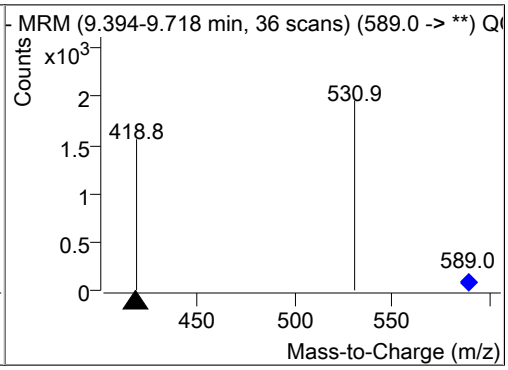




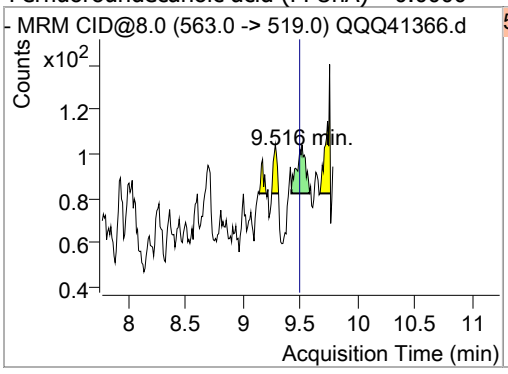
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	7.7302	9.48	-0.03	30429				

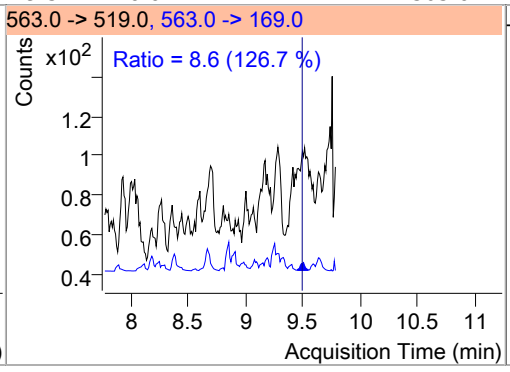


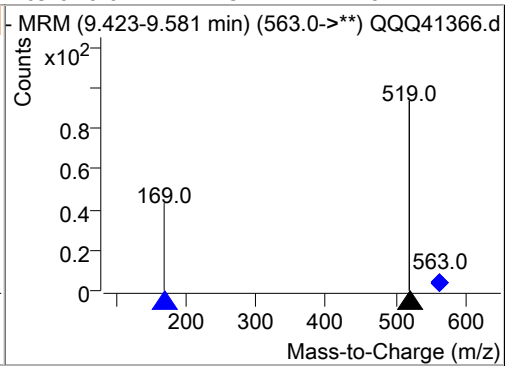




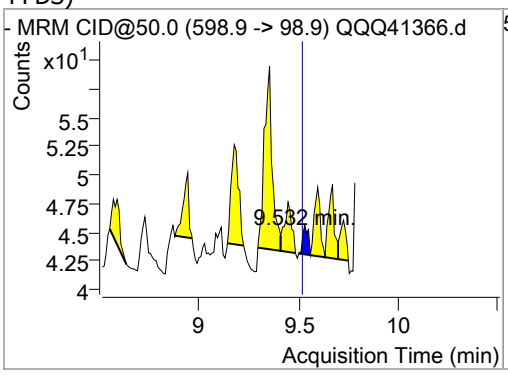
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.0000	9.52	0.01	114	563.0 -> 169.0	8.6	5.4	8.1

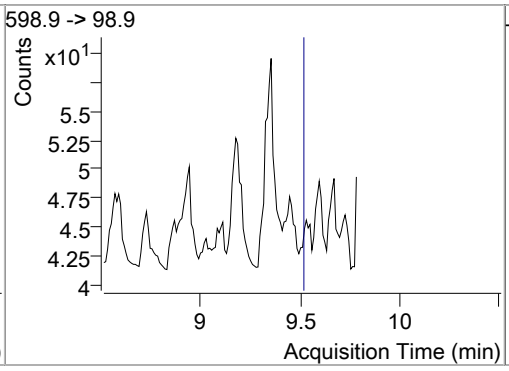


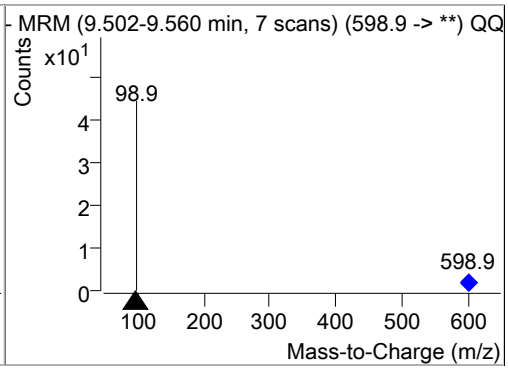




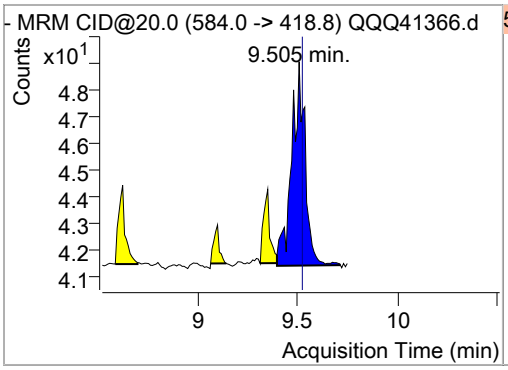
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.0025	9.53	0.02	5				

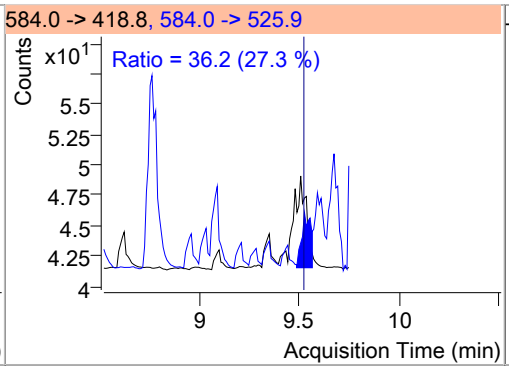


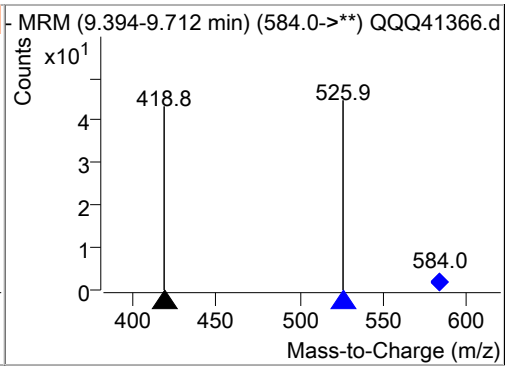




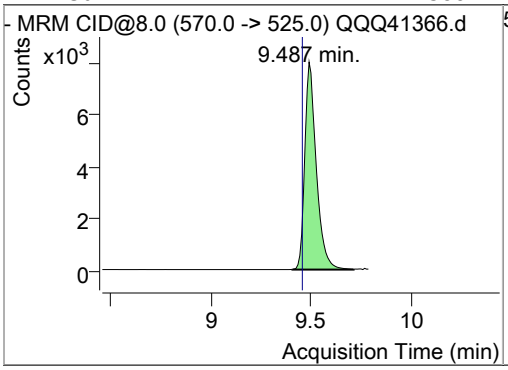
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.0069	9.51	-0.01	36	584.0 -> 525.9	36.2	106.2	159.3

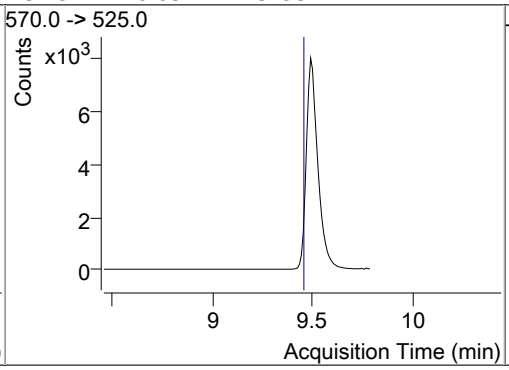


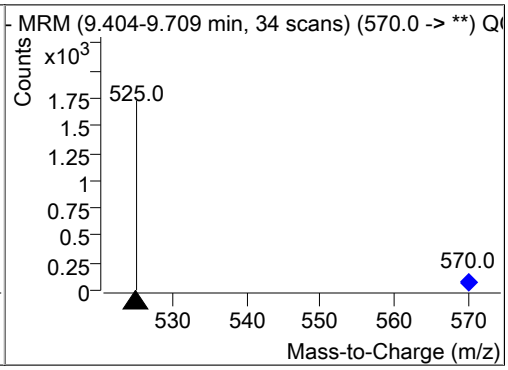




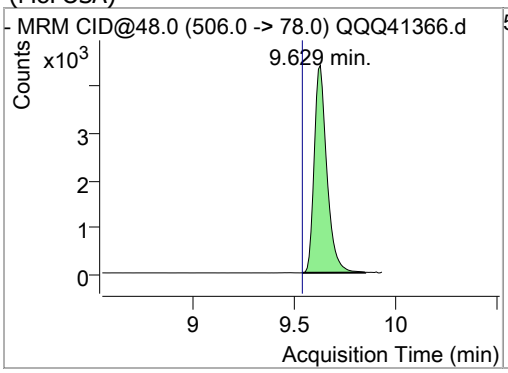
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.7580	9.49	-0.03	31931				

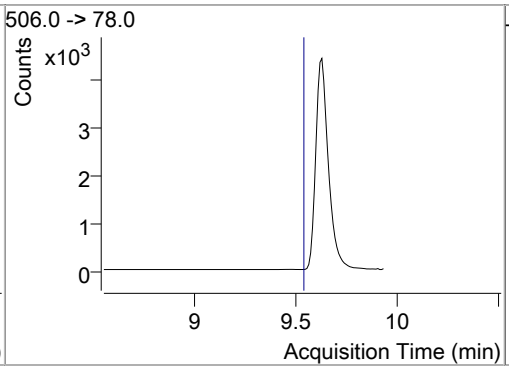


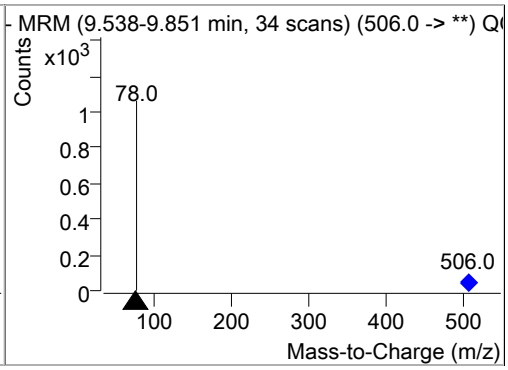




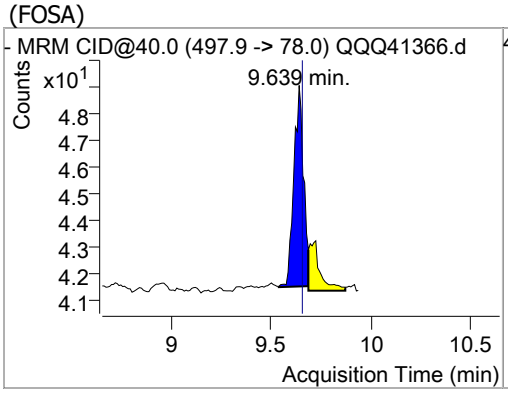
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	3.3869	9.63	-0.02	19197				

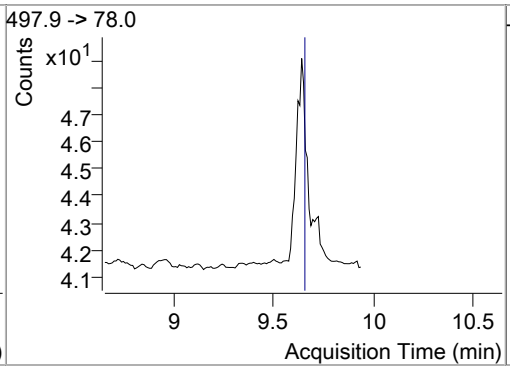


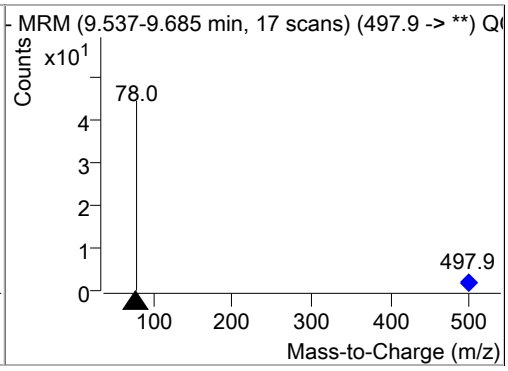




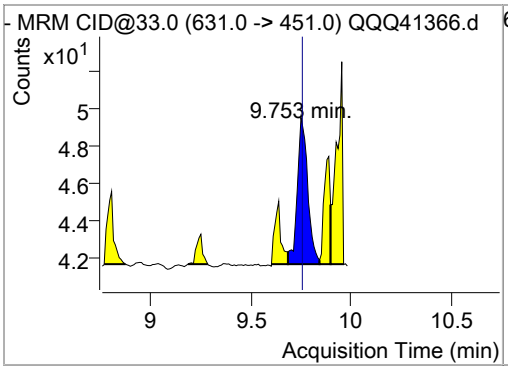
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.0023	9.64	-0.01	26				

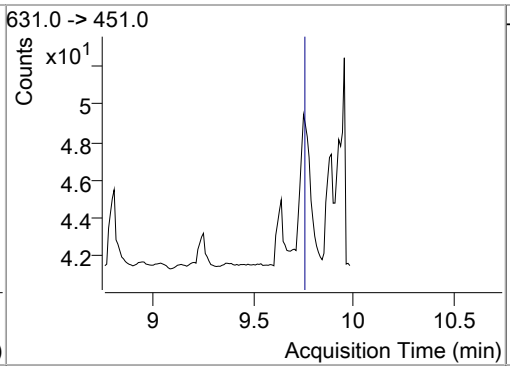


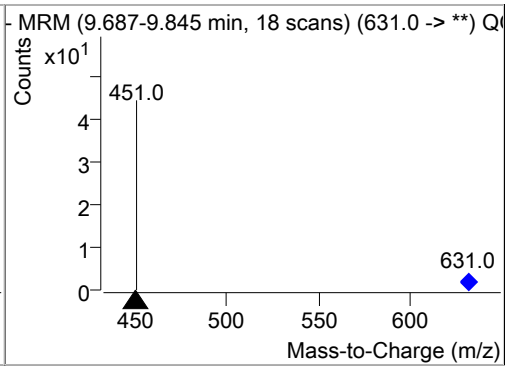




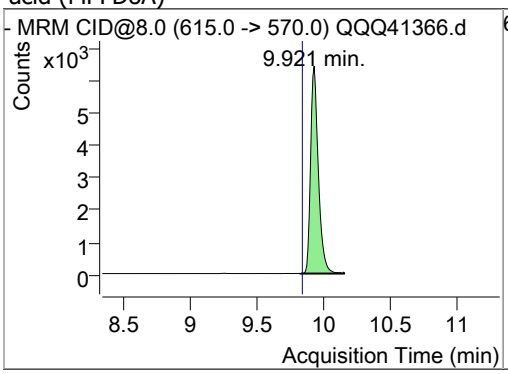
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	0.0013	9.75	0.00	29				

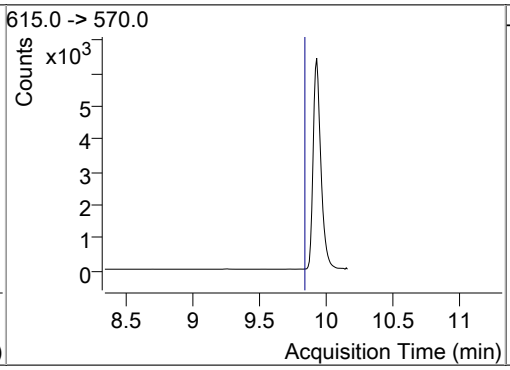


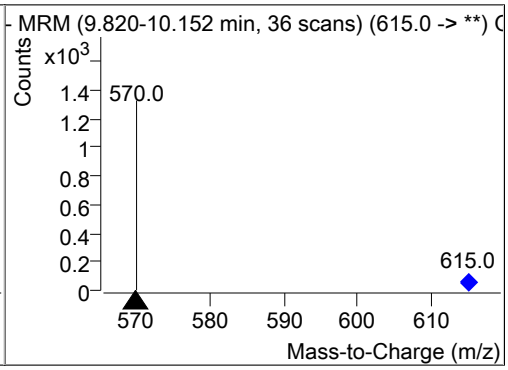




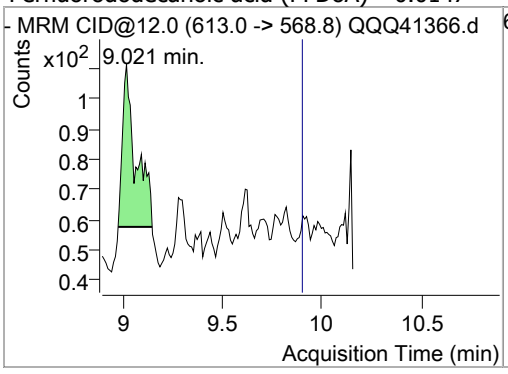
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.6183	9.92	0.03	25840				

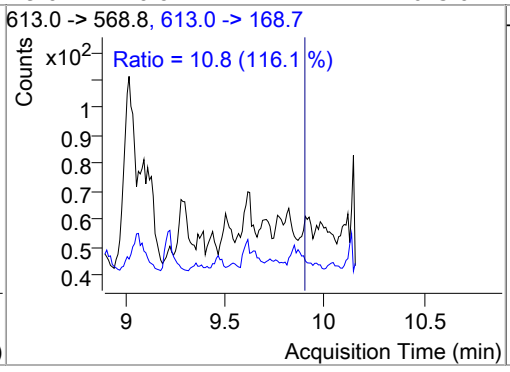


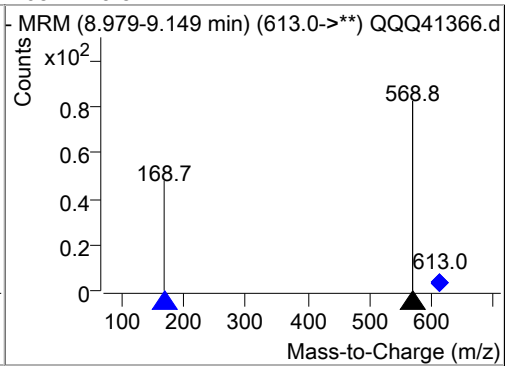




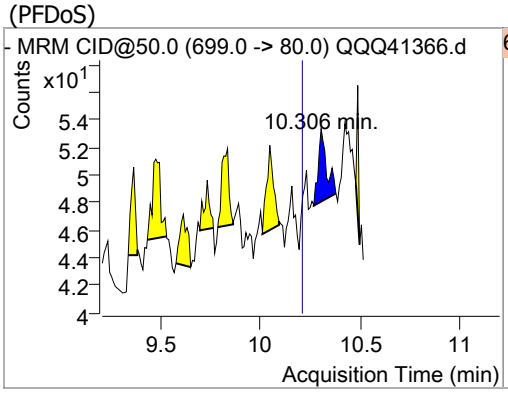
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.0147	9.02	-0.87	247	613.0 -> 168.7	10.8	7.4	11.2

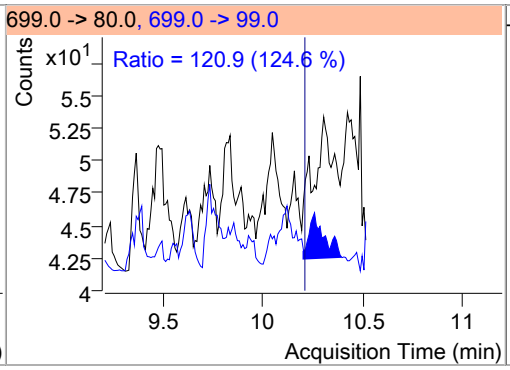


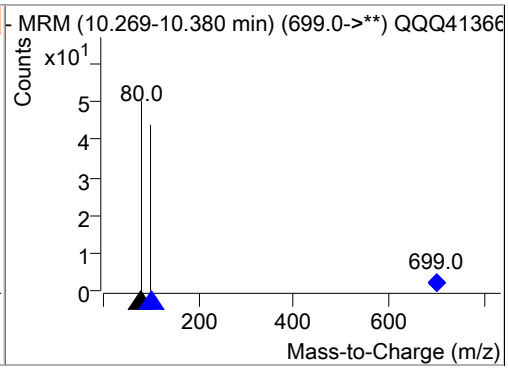




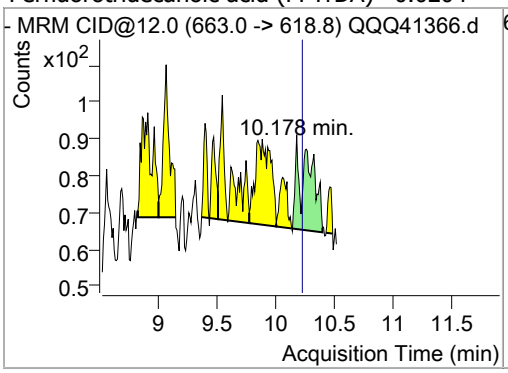
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.0153	10.31	0.10	15	699.0 -> 99.0	120.9	77.6	116.4

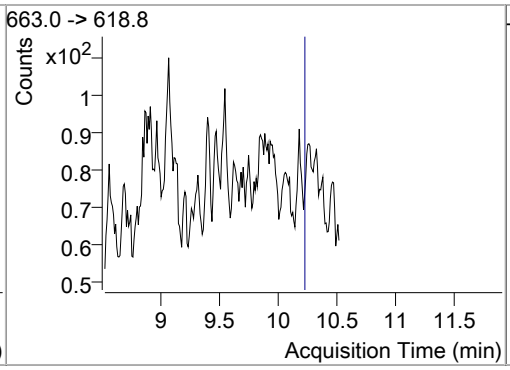


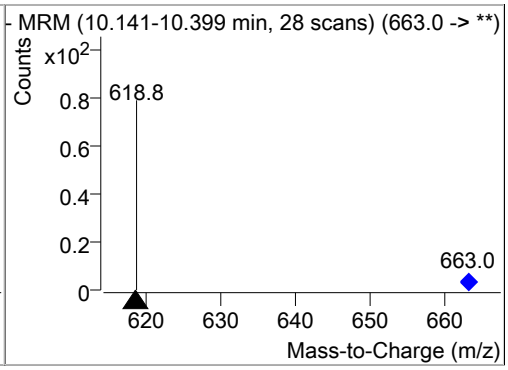




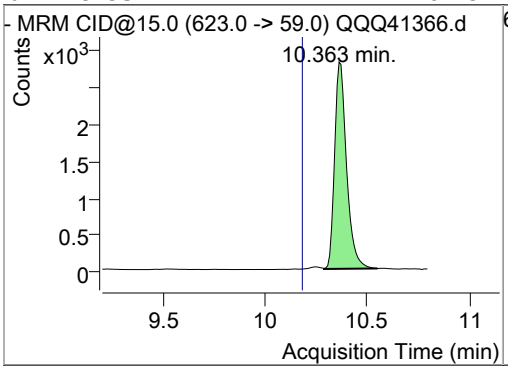
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.0204	10.18	-0.04	212				

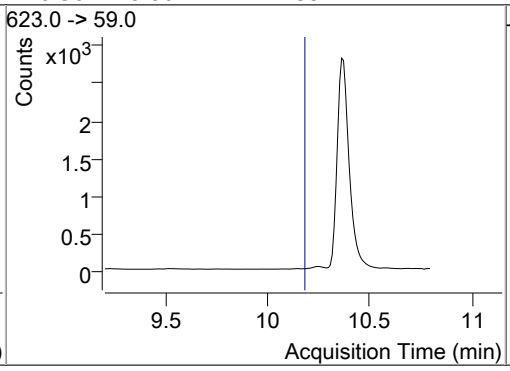


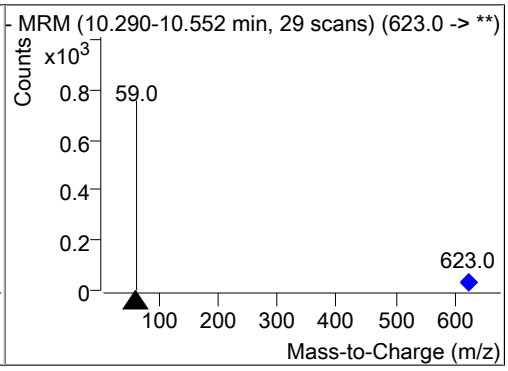




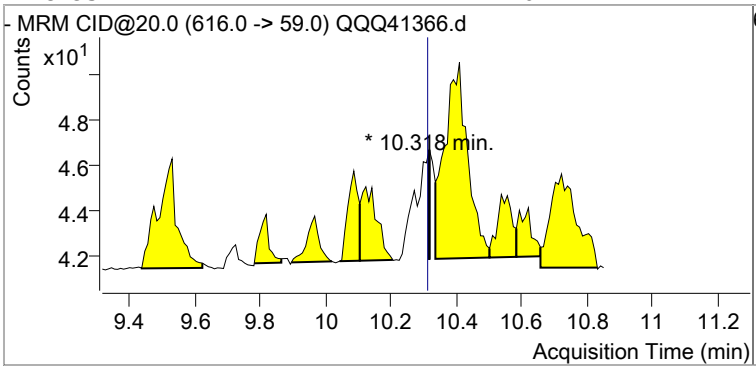
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	24.8415	10.36	0.06	11299				

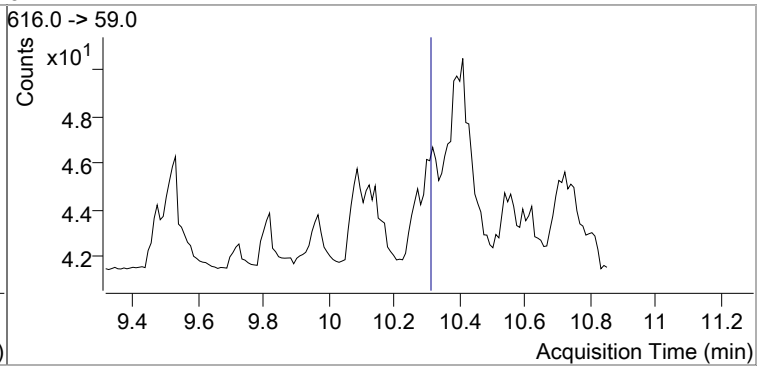




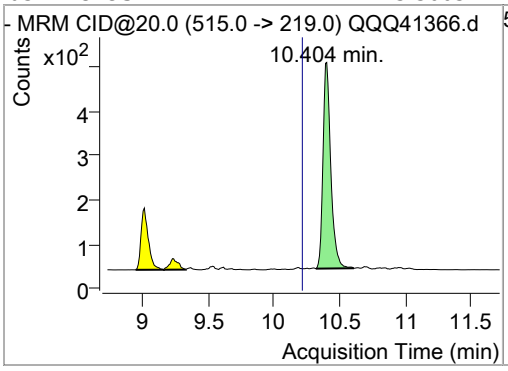


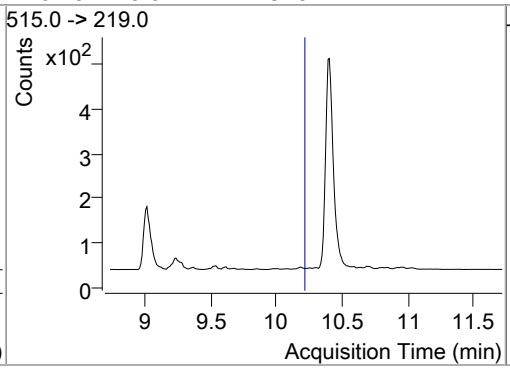
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE		0		0				

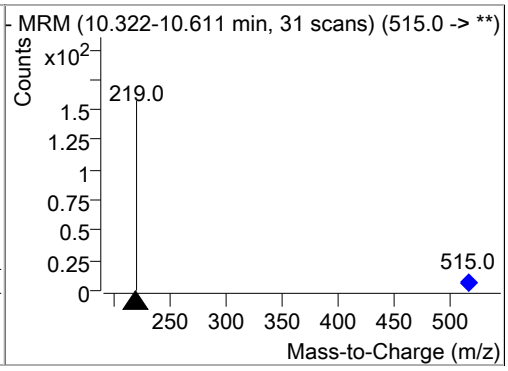




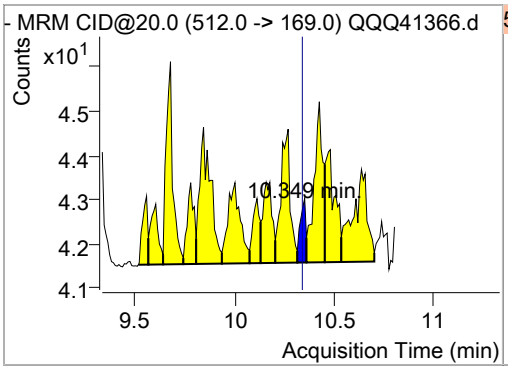
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	3.3663	10.40	0.07	1928				

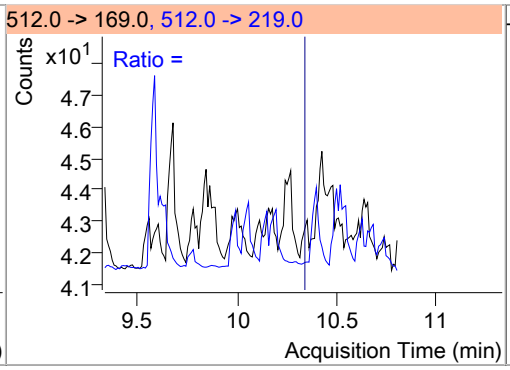


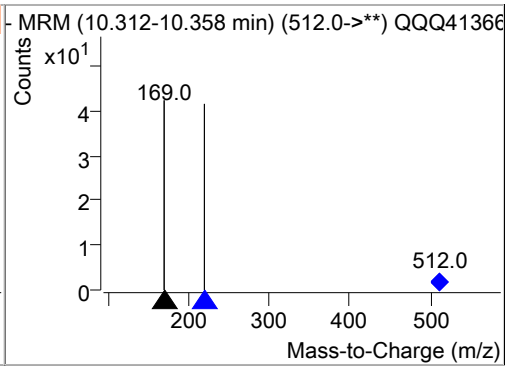




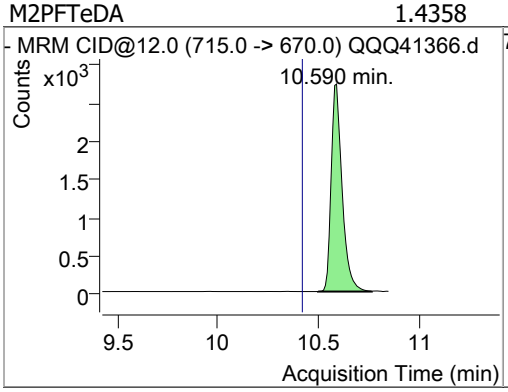
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.0000	10.35	0.02	3	512.0 -> 219.0		101.6	152.5

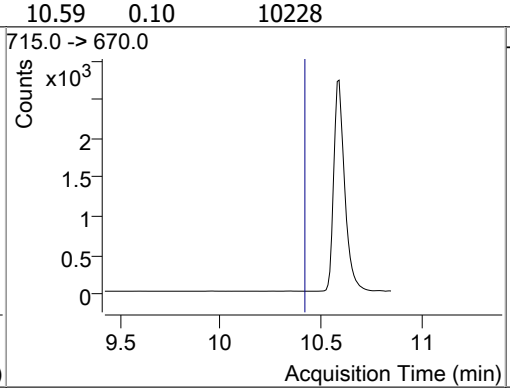


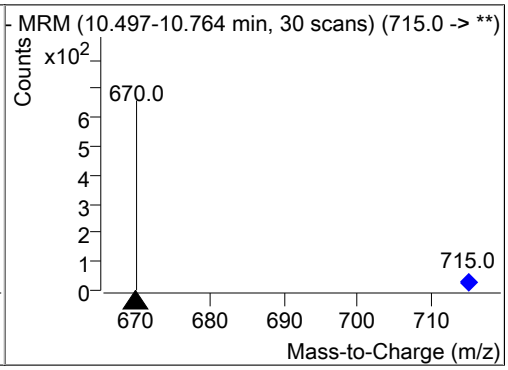




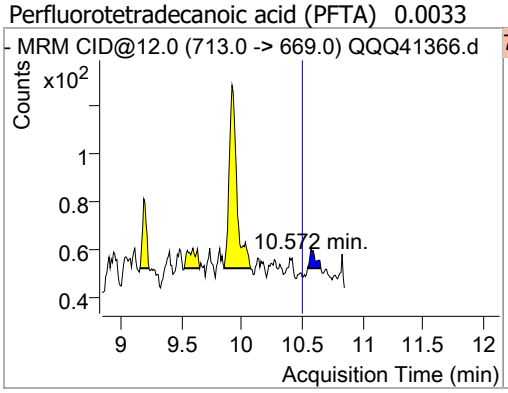
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.4358	10.59	0.10	10228				

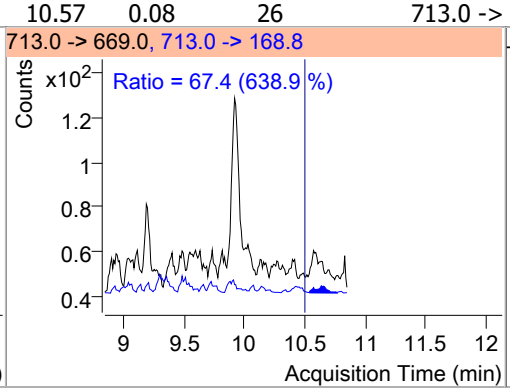


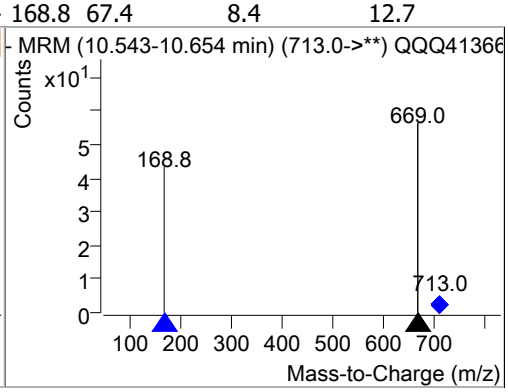




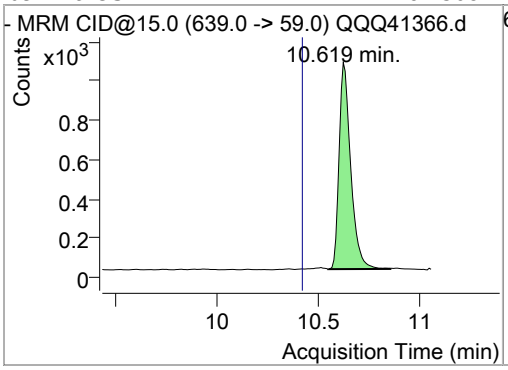
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.0033	10.57	0.08	26	713.0 -> 168.8	67.4	8.4	12.7

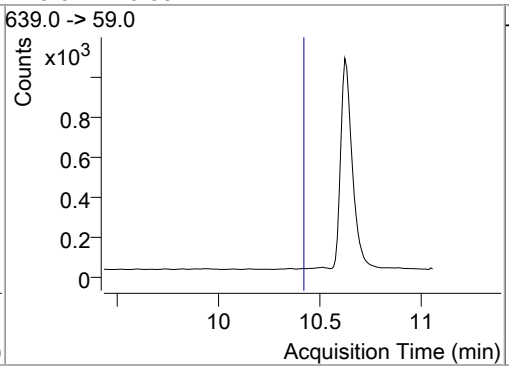


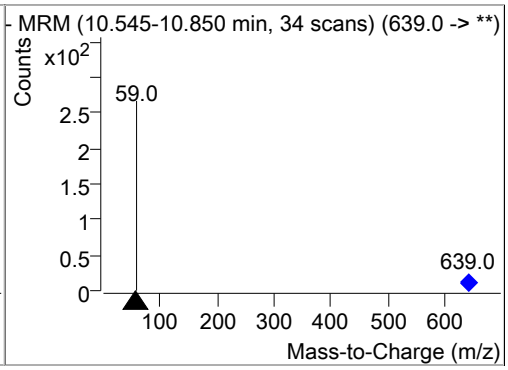




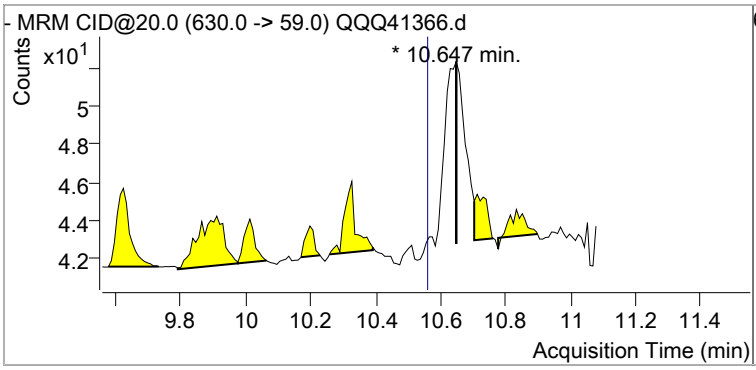
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	20.4568	10.62	0.08	4142				

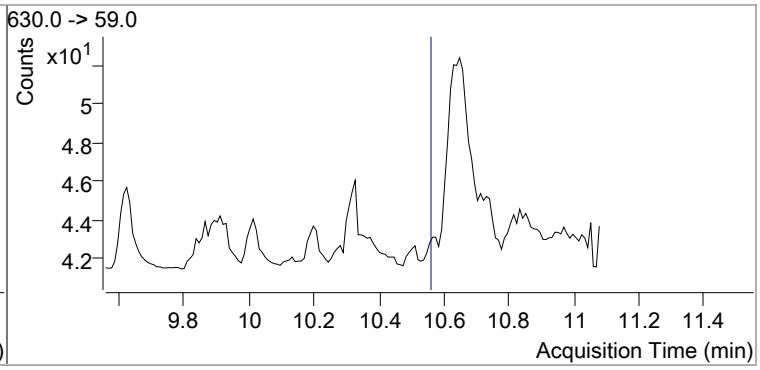




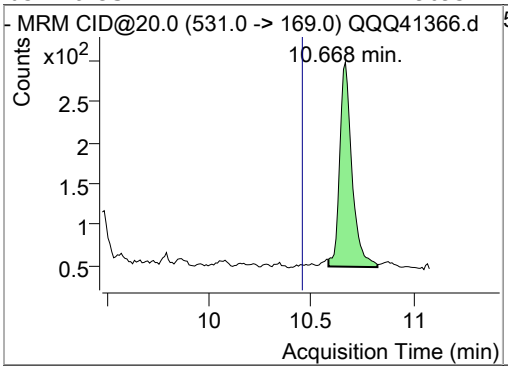


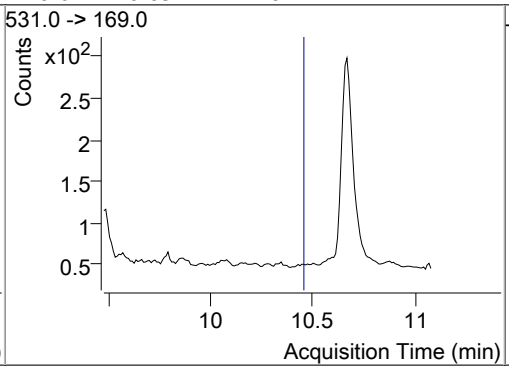
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE		0		0				

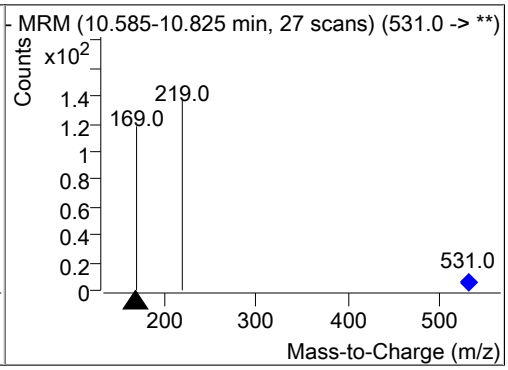




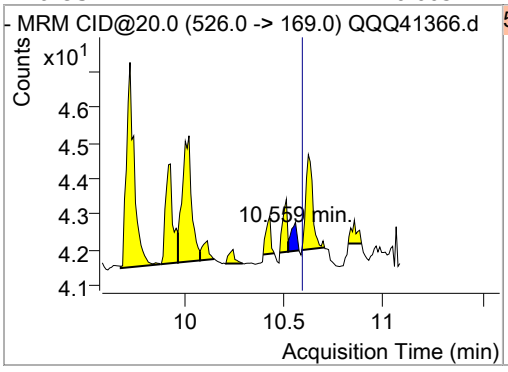
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.9693	10.67	0.09	1041				

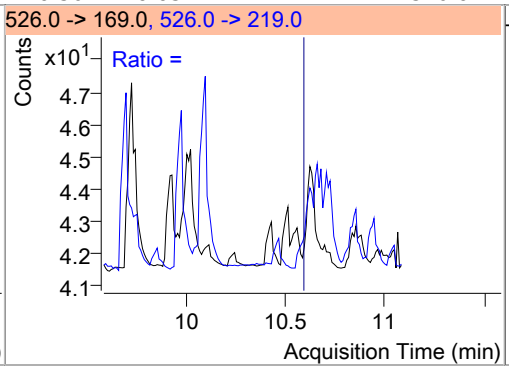


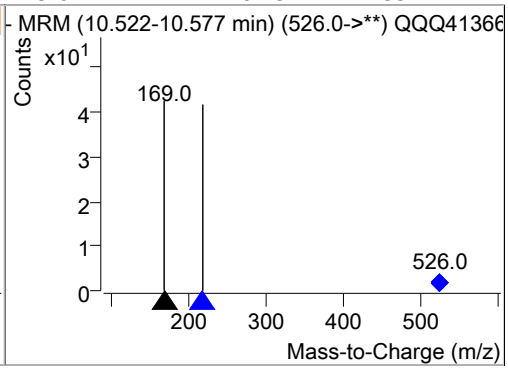




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.0031	10.56	-0.03	2	526.0 -> 219.0		102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 10:28:03 AM	**Data File**	QQQ41366.d
Sample Type	Sample	**Sampe Name**	BG40502-BLK1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.361	11770	1782	0.459			1.96			859.53
Perfluoro-n-butanoic acid (PFBA)	1.347	0	64	0.000			1.00			3.20
PFMPA	2.125	1	0	0.075			1.27			1.44
3:3FTCA	4.396	3	1	0.101			1.57			7.18
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.774	119744	18767	0.436			1.93			14694.47
Perfluoro-n-pentanoic acid (PFPeA)	4.784	162	28	0.287			1.68			4.24
PFMBA	5.504	19	6	0.129			0.83			4.64
M3PFBS	5.520	22132	5081	0.325			1.77			∞
Perfluorobutanesulfonic acid (PFBS)	5.520	16	4	0.102			2.28			7.38
PFEESA	6.075	62	14	0.158			0.90			3.50
NFDHA	6.188	9	4	0.112			1.23			0.28
M2-4-2FTS	6.260	25819	6469	0.316			1.54			∞
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.251	10	5	0.067			0.79			1.86
M5PFHxA	6.335	71426	17520	0.332			1.53			6894.33
Perfluorohexanoic acid (PFHxA)	6.364	162	44	0.120			0.62			3.44
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.612	26	5	0.127			0.40			0.36
M3-HFPO-DA	6.634	51921	12534	0.322			1.46			1515.57
HFPO-DA	6.476	0	52	0.000			1.00			7.37
M4PFHpA	7.179	17454	4150	0.297			1.41			∞
Perfluoroheptanoic acid (PFHpA)	7.319	34	11	0.084			0.48			1.55
5-3FTCA	7.254	229	57	0.195			1.19			62.08
Perfluorohexanesulfonic acid (PFHxS)	7.299	106	26	0.204			0.97			98.41
M3PFHxS	7.289	15098	3620	0.307			1.35			45394.60

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.420	15	3	0.126			1.49			0.75
M2-6-2FTS	7.819	17225	4004	0.317			1.82			3525.01
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.792	66	18	0.126			0.74			5.69
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.885	39854	9353	0.316			1.56			119678.12
Perfluorooctanoic acid (PFOA)	8.053	9	4	0.078			0.74			0.05
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.163	17	3	0.199			0.65			1.70
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.488	6251	1539	0.325			1.94			∞
Perfluorononanoic acid (PFNA)	8.646	22	13	0.060			0.72			1.10
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.523	5165	1270	0.278			1.79			∞
Perfluorooctanesulfonic acid (PFOS)	8.617	40	13	0.083			3.00			4.17
7-3FTCA	8.674	391	104	0.164			1.81			48.21
9-Cl-PF3ONS	8.828	10	3	0.156			0.74			8.96
M2-8-2FTS	8.978	35518	8590	0.289			1.77			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.043	4	2	0.046			0.53			3.38
M6PFDA	9.016	20676	5245	0.298			1.68			∞
Perfluorodecanoic acid (PFDA)	9.128	396	39	0.325			1.07			0.72
Perfluorononanesulfonate (L-PFNS)	9.070	26	8	0.112			0.57			1.04
d3-N-MeFOSAA	9.227	30826	7184	0.251			1.93			∞
N-MeFOSAA	9.208	0	0	0.044			0.65			1.44
d5-N-EtFOSAA	9.477	30429	7123	0.324			1.81			∞
Perfluoroundecanoic acid (PFUnA)	9.516	114	22	0.158			0.54			0.78
Perfluoro-1-decanesulfonate (L-PFDS)	9.532	5	3	0.058			1.42			0.13
N-EtFOSAA	9.505	36	8	0.318			1.02			29.85
M7PFUdA	9.487	31931	7989	0.305			1.83			33981.68
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.629	19197	4413	0.312			1.41			82.19
Perfluoro-1-octanesulfonamide (FOSA)	9.639	26	8	0.148			1.03			66.29
11-Cl-PF3OUdS	9.753	29	8	0.158			1.88			17.82
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.921	25840	6419	0.333			1.51			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.021	247	54	0.171			3.33			4.37
Perfluorododecanesulfonic acid (PFDoS)	10.306	15	5	0.111			2.33			0.83
Perfluorotridecanoic acid (PFTrDA)	10.178	212	26	0.257			6.71			1.33
d7-NMeFOSE	10.363	11299	2783	0.262			1.76			∞
NMeFOSE	10.318	0	47	0.000			1.00			75.50
d3-NMeFOSA	10.404	1928	468	0.289			1.43			126.80
NMeFOSA	10.349	3	1	0.046			0.80			1.13
M2PFTeDA	10.590	10228	2711	0.267			1.46			46684.61
Perfluorotetradecanoic acid (PFTA)	10.572	26	8	0.111			3.21			0.51
d9-NEtFOSE	10.619	4142	1048	0.304			1.93			168.66
NEtFOSE	10.647	0	52	0.000			1.00			2.51
d5-NEtFOSA	10.668	1041	250	0.240			1.49			40.95
NEtFOSA	10.559	2	1	0.054			0.45			4.78

MATRIX SPIKE RAW DATA

SDG: 24F1801
CLASS: PFAS
METHOD: EPA 1633 Draft 3

Data File	QQQ41379.d	Operator	
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Sample Name	BG40502-MS1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

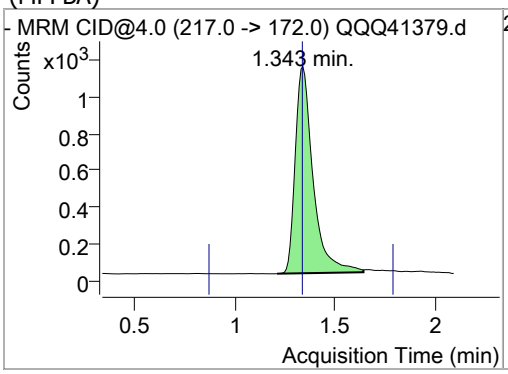
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Internal Standards							
M3PFBA	1.336	216.0 -> 172.0	21138	5.0000	ng/ml		0.083
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.343	217.0 -> 172.0	6951	10.0000	ng/ml		0.092
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.746	268.0 -> 223.0	108705	5.0000	ng/ml		0.018
MPFHxA	6.354	315.0 -> 269.8	27681	2.5000	ng/ml		-0.019
MPFHxS	7.336	403.0 -> 103.0	2677	2.3700	ng/ml		-0.047
M3PFBS-EIS	5.520	302.0 -> 79.9	16363	2.3300	ng/ml		-0.010
M5PFHxA-EIS	6.353	318.0 -> 273.0	64940	2.5000	ng/ml		-0.019
M2-4-2FTS-EIS	6.278	329.0 -> 309.0	12734	4.6900	ng/ml		-0.019
M3PFHxS-EIS	7.336	402.0 -> 80.0	10826	2.3700	ng/ml		-0.047
M3-HFPO-DA-EIS	6.661	287.0 -> 169.0	30969	10.0000	ng/ml		-0.028
M4PFHpA-EIS	7.226	367.0 -> 322.0	14298	2.5000	ng/ml		-0.037
M2-6-2FTS-EIS	7.884	429.0 -> 409.0	9277	4.7550	ng/ml		-0.046
MPFOA	7.950	417.0 -> 372.0	31891	2.5000	ng/ml		-0.047
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.950	421.0 -> 376.0	35025	2.5000	ng/ml		-0.047
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.607	507.0 -> 98.9	4746	2.3950	ng/ml		-0.019
MPFNA	8.572	468.0 -> 423.0	14738	1.2500	ng/ml		-0.028
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.571	472.0 -> 223.0	5722	1.2500	ng/ml		-0.019
MPFOS	8.607	503.0 -> 80.0	8843	2.3950	ng/ml		-0.019
M2-8-2FTS-EIS	9.071	529.0 -> 509.0	24428	4.8000	ng/ml		0.028
MPFDA	9.110	515.0 -> 469.8	10681	1.2500	ng/ml		0.028
M6PFDA-EIS	9.109	519.0 -> 473.9	21206	1.2500	ng/ml		0.028
d3-N-MeFOSAA-EIS	9.320	573.0 -> 418.8	23788	5.0000	ng/ml		0.038
M7PFUdA-EIS	9.580	570.0 -> 525.0	28359	1.2500	ng/ml		0.065
d5-N-EtFOSAA-EIS	9.570	589.0 -> 418.8	22666	5.0000	ng/ml		0.065
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.722	506.0 -> 78.0	15682	2.5000	ng/ml		0.074
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	10.023	615.0 -> 570.0	21531	1.2500	ng/ml		0.130
M2PFTeDA-EIS	10.700	715.0 -> 670.0	8208	1.2500	ng/ml		0.212
d7-NMeFOSE-EIS	10.474	623.0 -> 59.0	9923	25.0000	ng/ml		0.175
d3-NMeFOSA-EIS	10.514	515.0 -> 219.0	1064	2.5000	ng/ml		0.184
d9-NEtFOSE-EIS	10.739	639.0 -> 59.0	3352	25.0000	ng/ml		0.203
d5-NEtFOSA-EIS	10.788	531.0 -> 169.0	563	2.5000	ng/ml	m	0.212
System Monitoring Compounds							
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.343	217.0 -> 172.0	6951	0.6567	ng/ml		0.092
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.746	268.0 -> 223.0	108714	6.1565	ng/ml		0.018
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFBS	5.520	302.0 -> 79.9	16363	3.4258	ng/ml		-0.010
Spiked Amount:	Range: - %			Recovery = NA%			
M2-4-2FTS	6.278	329.0 -> 309.0	12682	3.9771	ng/ml		-0.019

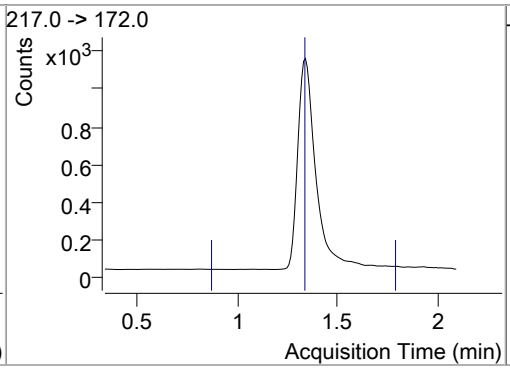
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.353	318.0 -> 273.0	64940	3.6762	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.661	287.0 -> 169.0	30969	10.0293	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.226	367.0 -> 322.0	14298	3.6438	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.336	402.0 -> 80.0	10829	3.2494	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.884	429.0 -> 409.0	9283	4.3465	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	421.0 -> 376.0	35033	3.4495	ng/ml		-0.047
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.571	472.0 -> 223.0	5723	1.8221	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.607	507.0 -> 98.9	4746	2.9267	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.071	529.0 -> 509.0	24207	4.8265	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.109	519.0 -> 473.9	21206	1.8121	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.320	573.0 -> 418.8	23788	5.6930	ng/ml		0.038
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.570	589.0 -> 418.8	22666	6.1424	ng/ml		0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.580	570.0 -> 525.0	28355	1.7902	ng/ml		0.065
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.722	506.0 -> 78.0	15682	2.9515	ng/ml		0.074
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	10.023	615.0 -> 570.0	21531	1.5463	ng/ml		0.130
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.474	623.0 -> 59.0	9923	23.2734	ng/ml		0.175
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.514	515.0 -> 219.0	1064	1.9818	ng/ml		0.184
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.700	715.0 -> 670.0	8208	1.3212	ng/ml		0.212
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.739	639.0 -> 59.0	3352	17.6578	ng/ml		0.203
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.788	531.0 -> 169.0	563	1.7116	ng/ml	m	0.212
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.338	213.0 -> 168.9	8125	13.3111	ng/ml		100
PFMPA	2.272	229.0 -> 85.0	11959	1.8428	ng/ml		100
3:3FTCA	4.452	241.0 -> 177.0	2078	5.5038	ng/ml		94
Perfluoro-n-pentanoic acid (PFPeA)	4.747	263.0 -> 219.0	153882	7.3750	ng/ml		100
PFMBA	5.495	279.0 -> 85.0	73797	8.1530	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.520	298.9 -> 79.9	22164	3.0855	ng/ml		98
PFEESA	6.057	315.0 -> 135.0	191819	5.6261	ng/ml		100
NFDHA	6.197	295.0 -> 201.1	2605	5.7341	ng/ml	#	85
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.279	327.0 -> 307.0	34933	11.0689	ng/ml		97

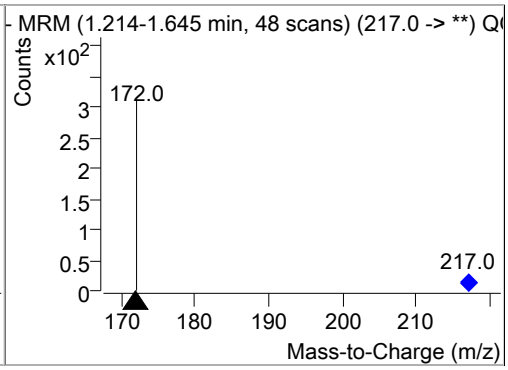
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.355	313.0 -> 268.9	110072	3.6740	ng/ml		100
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.574	348.9 -> 79.9	20435	3.4988	ng/ml		95
HFPO-DA	6.662	285.0 -> 169.1	2041	7.4834	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.226	363.0 -> 318.8	51295	4.0014	ng/ml		97
5-3FTCA	7.300	341.0 -> 217.0	161989	39.2389	ng/ml		97
Perfluorohexanesulfonic acid (PFHxS)	7.336	398.9 -> 79.9	18856	3.5326	ng/ml	m	97
ADONA	7.365	377.0 -> 85.0	63456	9.2571	ng/ml		95
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.894	427.0 -> 407.0	32011	10.4074	ng/ml		99
Perfluorooctanoic acid (PFOA)	7.951	413.0 -> 368.8	56525	3.9649	ng/ml		97
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.014	448.9 -> 80.0	16989	3.3734	ng/ml		95
Perfluorononanoic acid (PFNA)	8.572	463.0 -> 418.8	53195	3.5809	ng/ml		98
Perfluorooctanesulfonic acid (PFOS)	8.608	498.9 -> 79.9	15076	3.3491	ng/ml	m	92
7-3FTCA	8.758	441.0 -> 337.0	262488	47.5779	ng/ml		96
9-Cl-PF3ONS	8.940	531.0 -> 351.0	170534	9.1146	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	527.0 -> 80.9	14505	12.1146	ng/ml		90
Perfluorodecanoic acid (PFDA)	9.110	513.0 -> 468.8	63769	3.2853	ng/ml		97
Perfluorononanesulfonate (L-PFNS)	9.116	548.9 -> 79.9	12890	3.6411	ng/ml		100
N-MeFOSAA	9.320	570.0 -> 418.9	15146	3.6553	ng/ml	#m	82
Perfluoroundecanoic acid (PFUnA)	9.581	563.0 -> 519.0	71835	3.2718	ng/ml		98
Perfluoro-1-decanesulfonate (L-PFDS)	9.579	598.9 -> 98.9	4712	2.7551	ng/ml		100
N-EtFOSAA	9.580	584.0 -> 418.8	14677	3.7443	ng/ml	m	99
Perfluoro-1-octanesulfonamide (FOSA)	9.722	497.9 -> 78.0	32441	3.6228	ng/ml		100
11-Cl-PF3OUdS	9.855	631.0 -> 451.0	86969	6.7229	ng/ml		100
Perfluorododecanoic acid (PFDoA)	10.024	613.0 -> 568.8	53691	3.8260	ng/ml		97
Perfluorododecanesulfonic acid (PFDoS)	10.370	699.0 -> 80.0	2202	2.5309	ng/ml		97
Perfluorotridecanoic acid (PFTrDA)	10.389	663.0 -> 618.8	32816	3.9758	ng/ml		100
NMeFOSE	10.493	616.0 -> 59.0	12159	37.3737	ng/ml		100
NMeFOSA	10.515	512.0 -> 169.0	1213	3.4074	ng/ml		96
Perfluorotetradecanoic acid (PFTA)	10.691	713.0 -> 669.0	24645	3.8472	ng/ml		100
NEtFOSE	10.758	630.0 -> 59.0	9189	31.6349	ng/ml		100
NEtFOSA	10.789	526.0 -> 169.0	906	3.2136	ng/ml		90

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

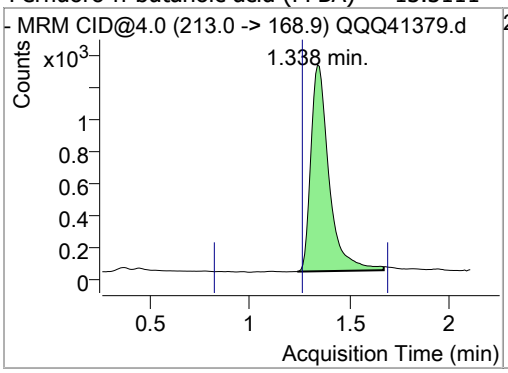
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	0.6567	1.34	0.09	6951				

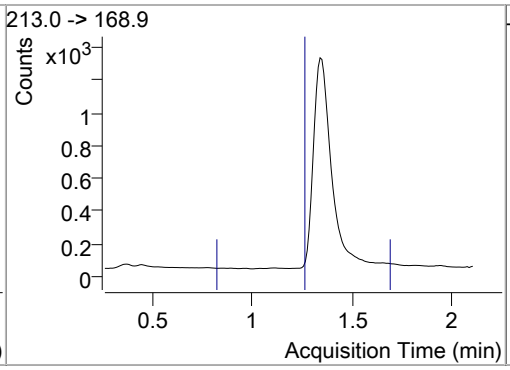


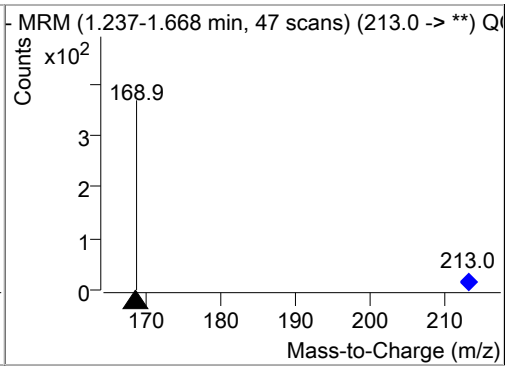




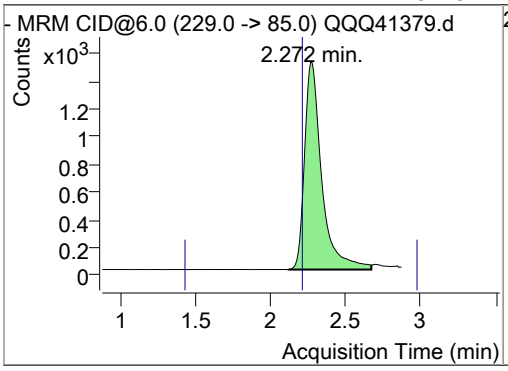
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	13.3111	1.34	0.08	8125				

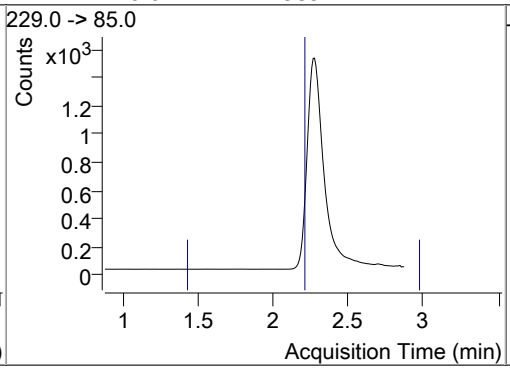


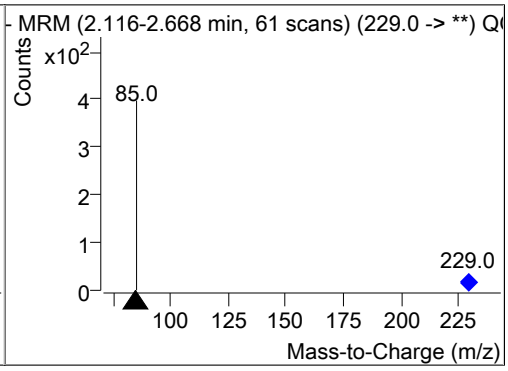




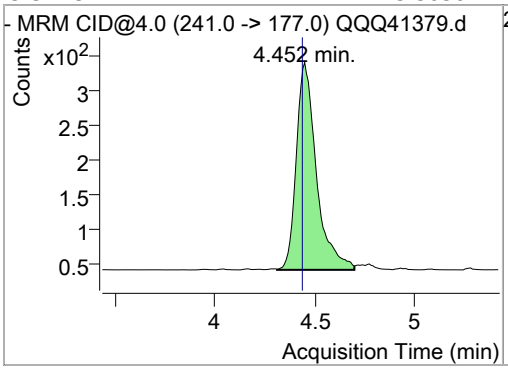
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	1.8428	2.27	0.07	11959				

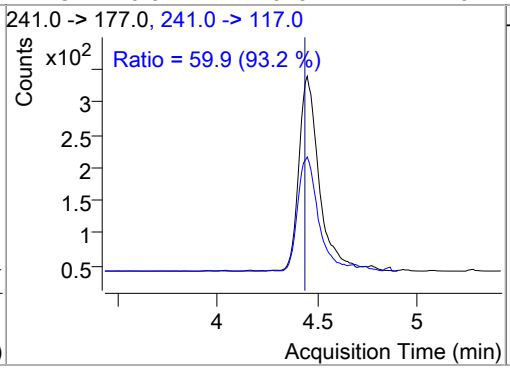


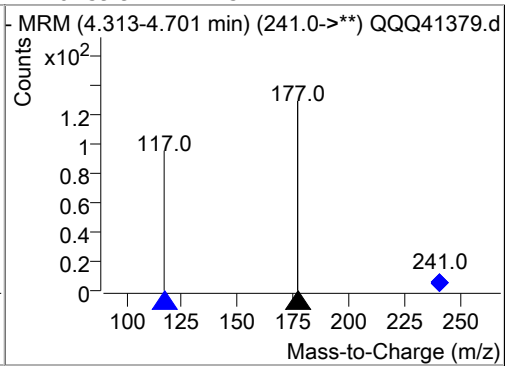




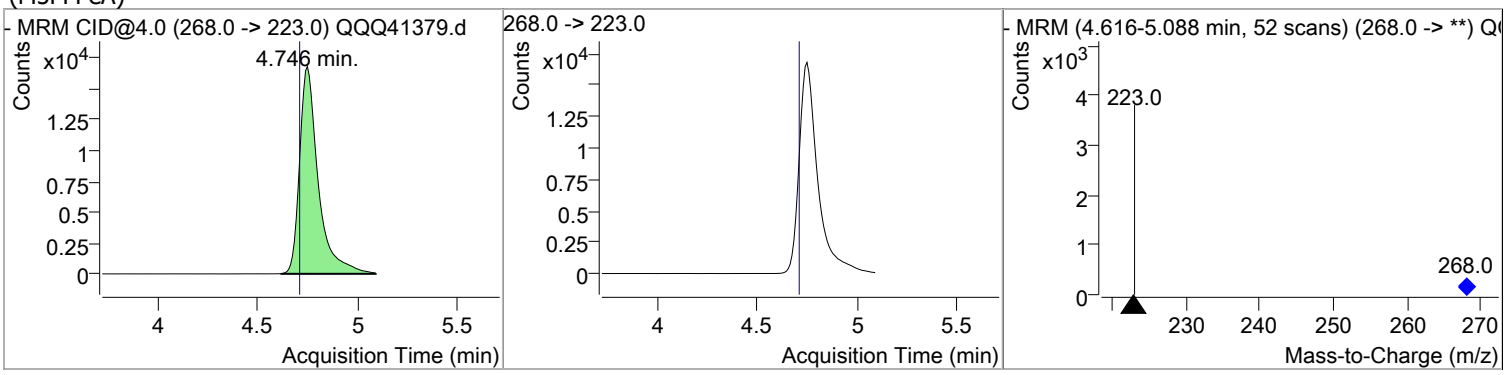
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	5.5038	4.45	0.02	2078	241.0 -> 117.0	59.9	51.4	77.2



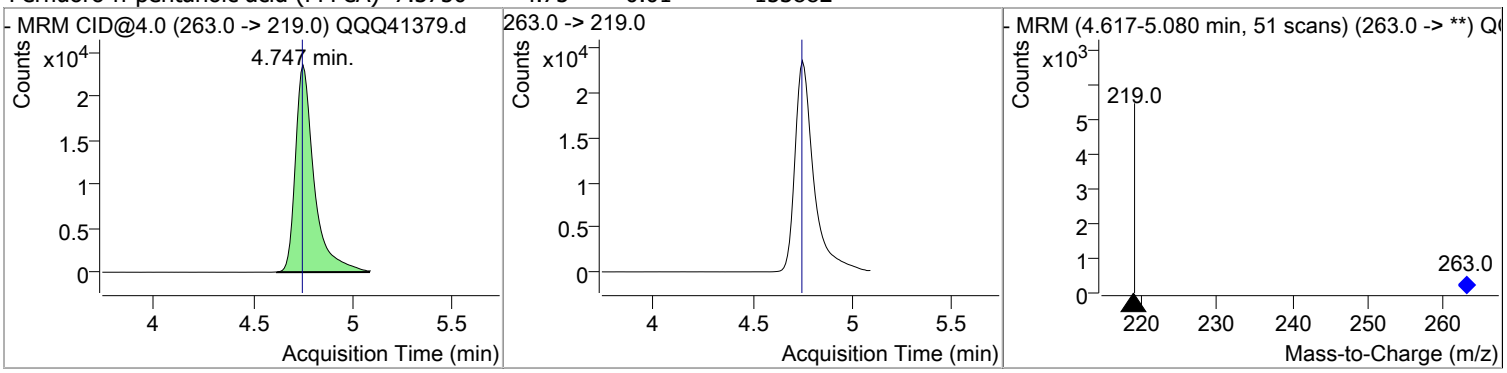




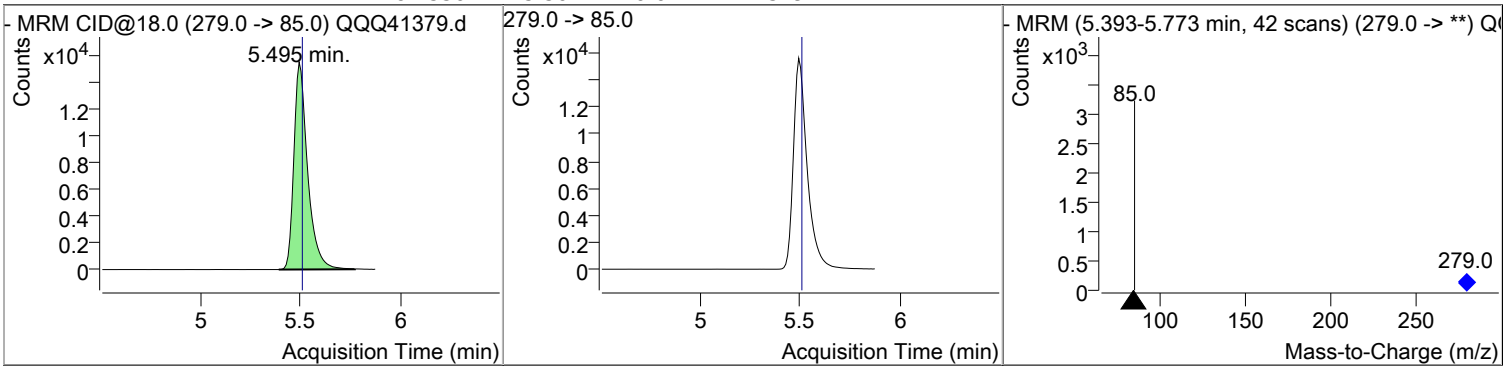
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	6.1565	4.75	0.02	108714				



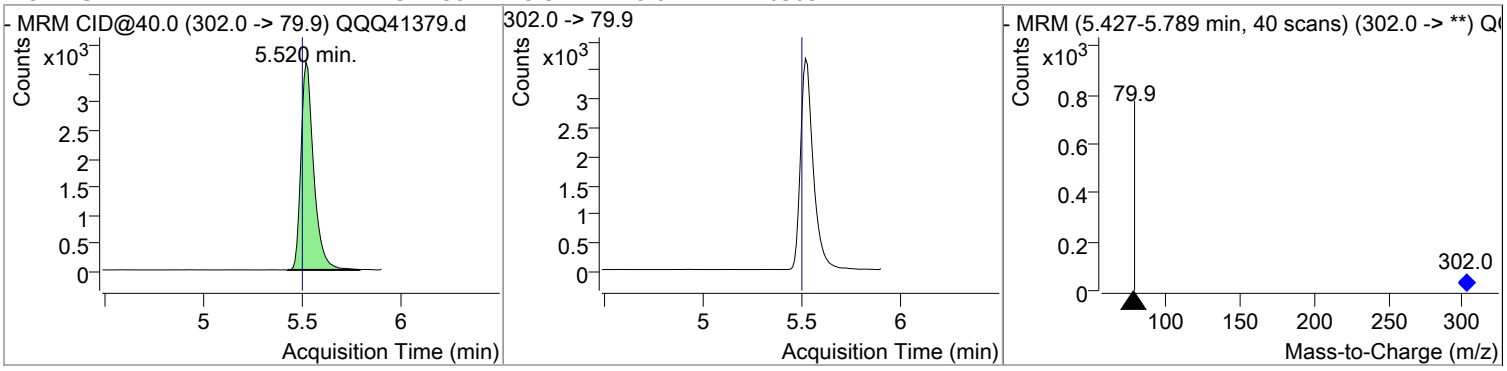
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	7.3750	4.75	0.01	153882				



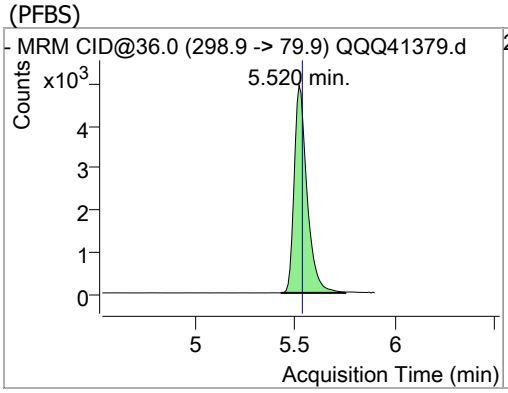
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	8.1530	5.50	-0.01	73797				

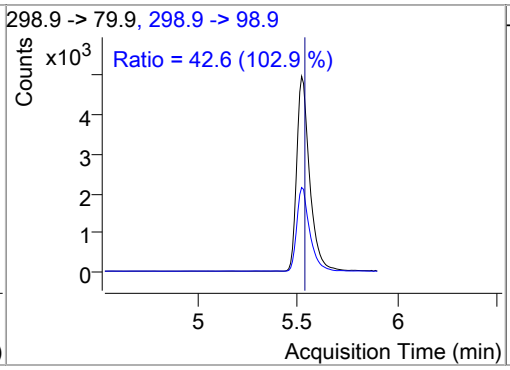


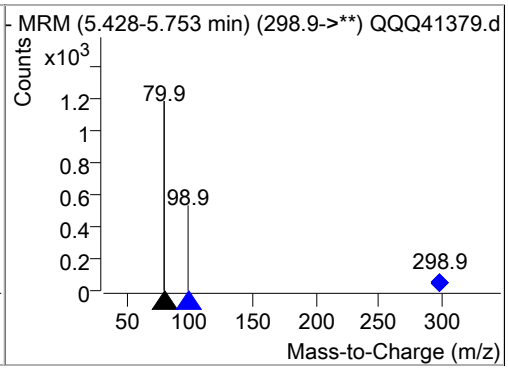
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.4258	5.52	-0.01	16363				



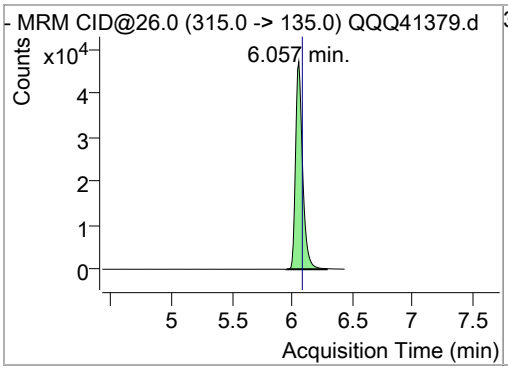
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	3.0855	5.52	-0.01	22164	298.9 -> 98.9	42.6	33.1	49.7

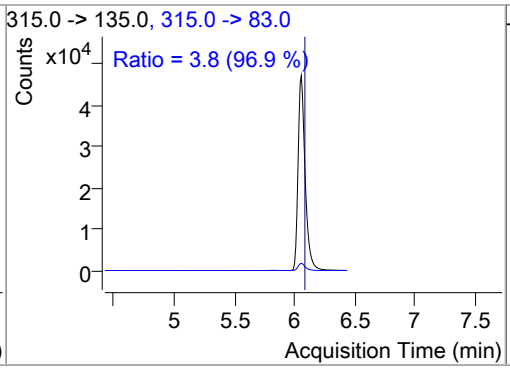


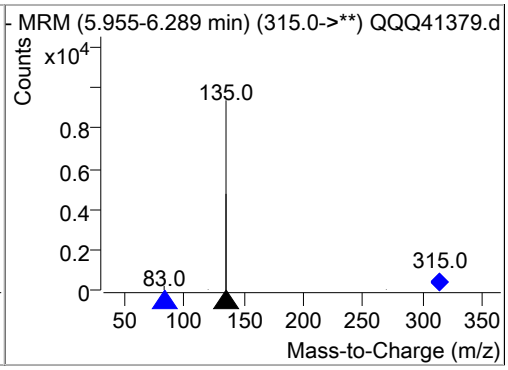




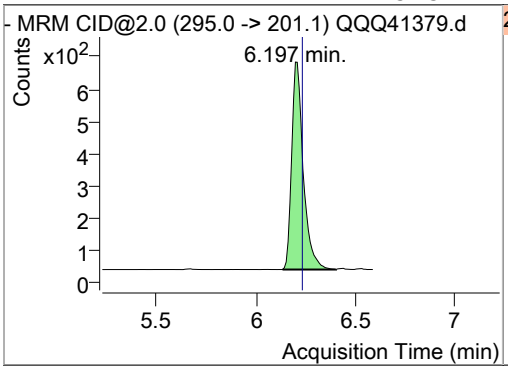
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	5.6261	6.06	-0.02	191819	315.0 -> 83.0	3.8	3.1	4.7

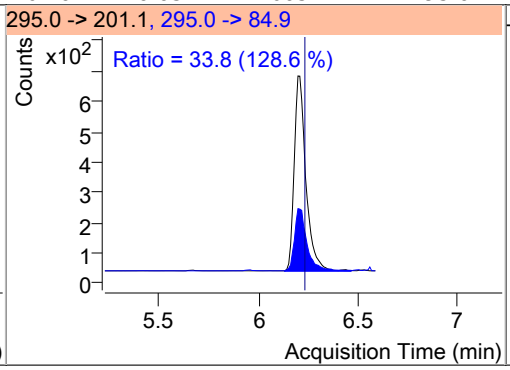


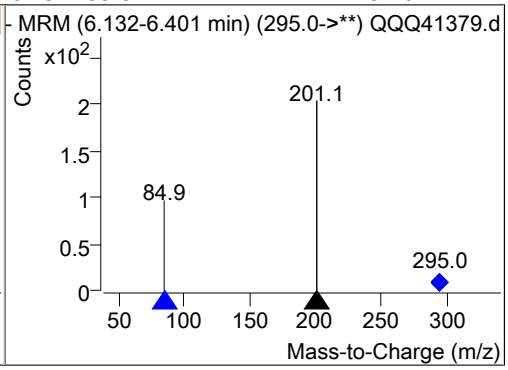




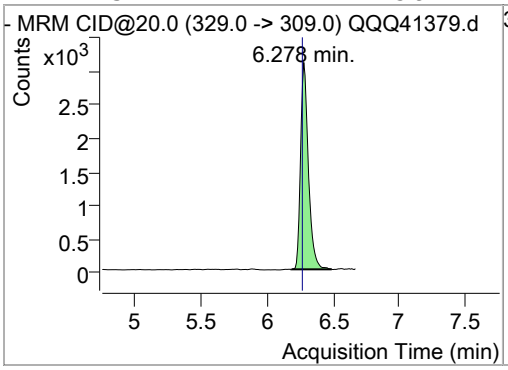
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	5.7341	6.20	-0.03	2605	295.0 -> 84.9	33.8	21.1	31.6

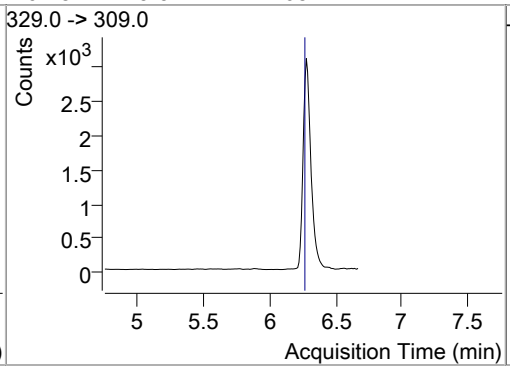


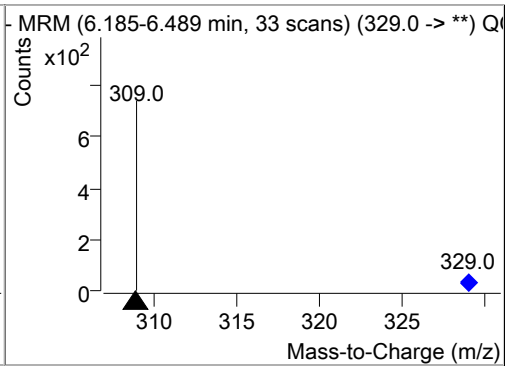




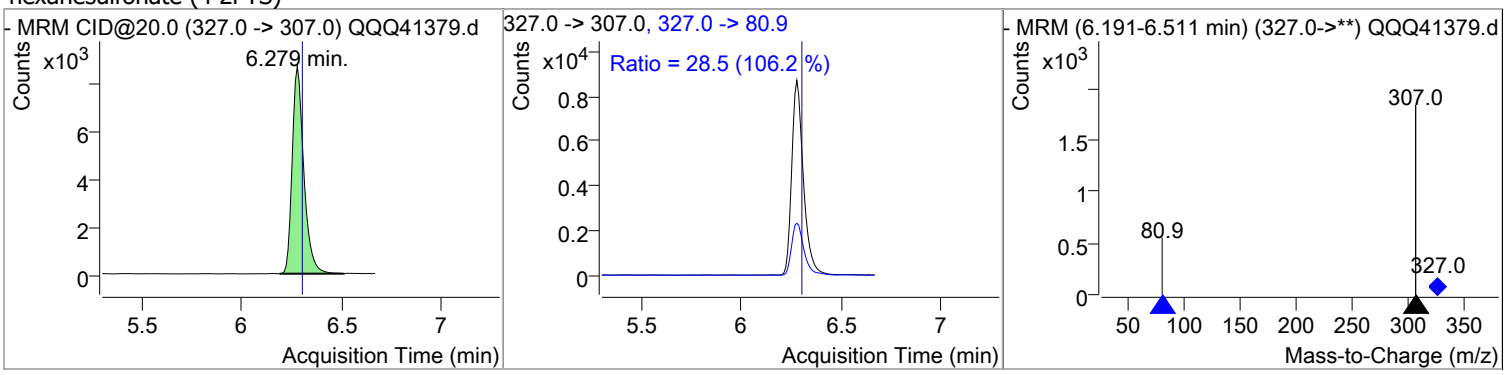
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	3.9771	6.28	-0.02	12682				



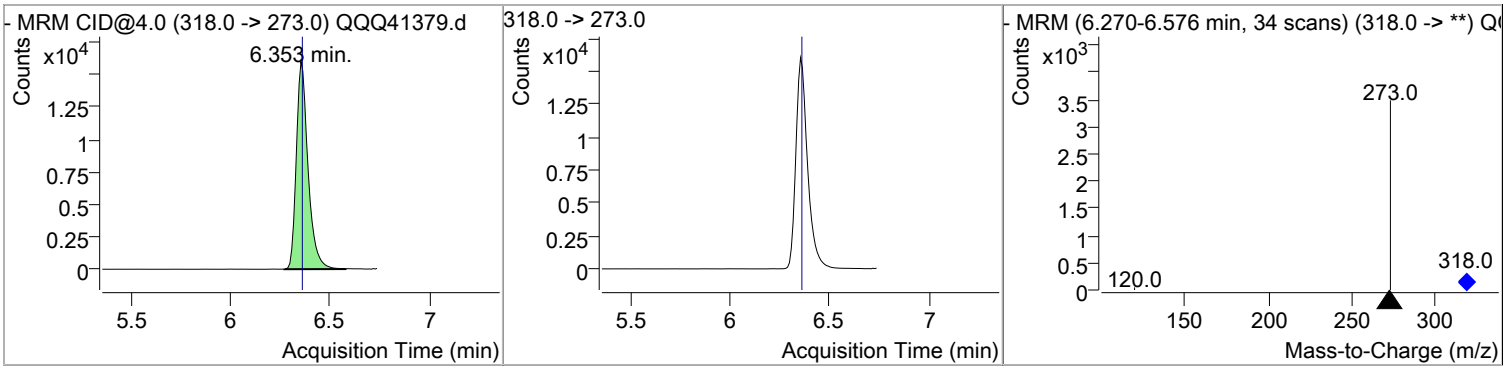




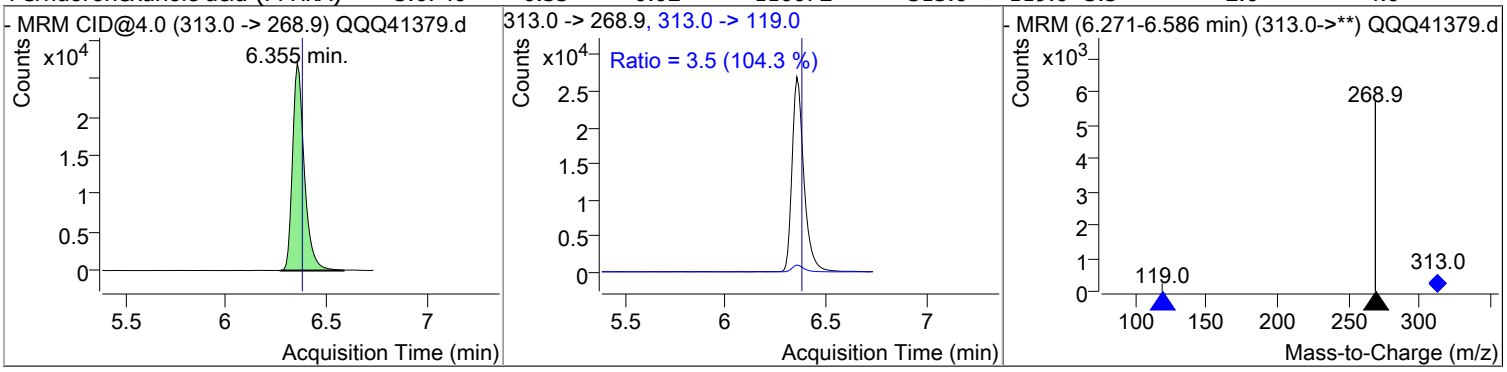
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	11.0689	6.28	-0.02	34933	327.0 -> 80.9	28.5	21.5	32.2



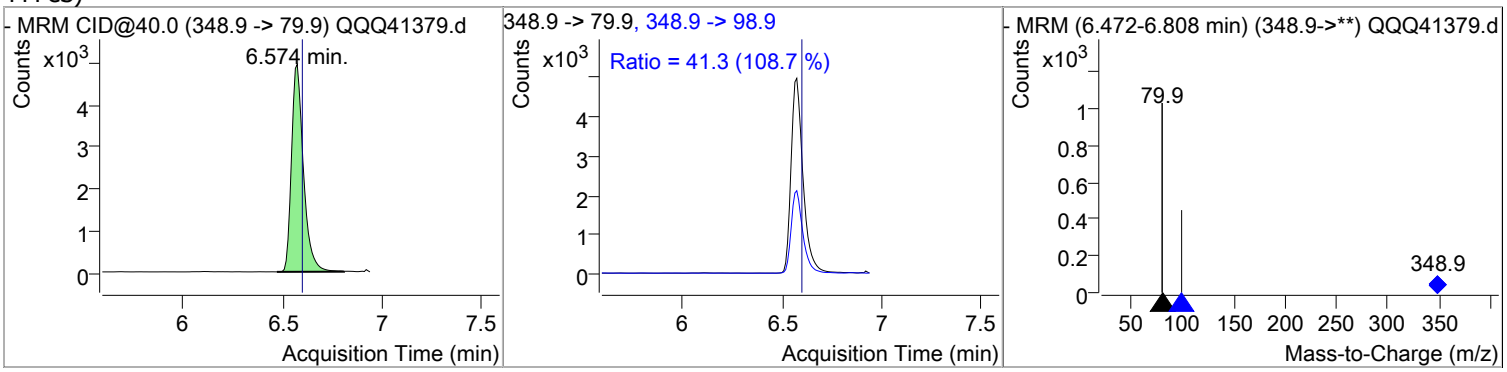
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.6762	6.35	-0.02	64940				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	3.6740	6.35	-0.02	110072	313.0 -> 119.0	3.5	2.6	4.0

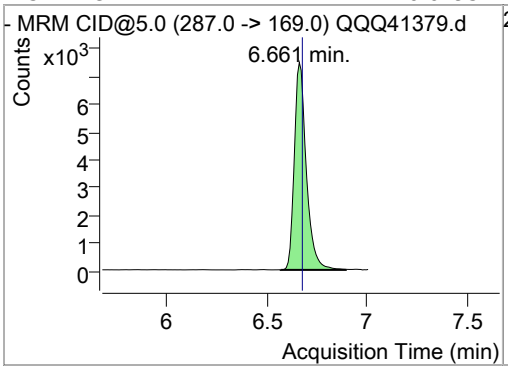


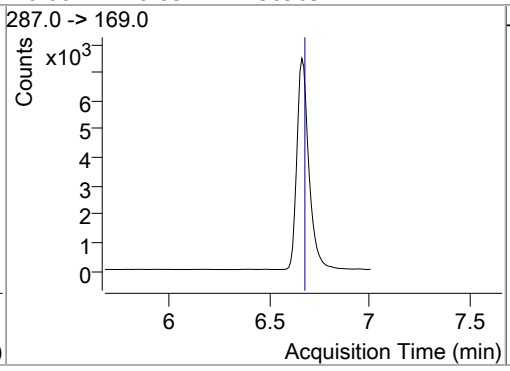
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	3.4988	6.57	-0.02	20435	348.9 -> 98.9	41.3	30.4	45.6

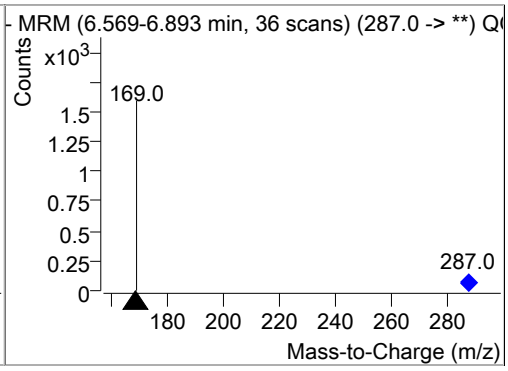


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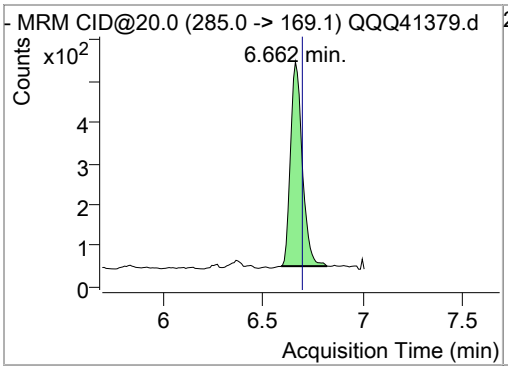
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	10.0293	6.66	-0.03	30969				

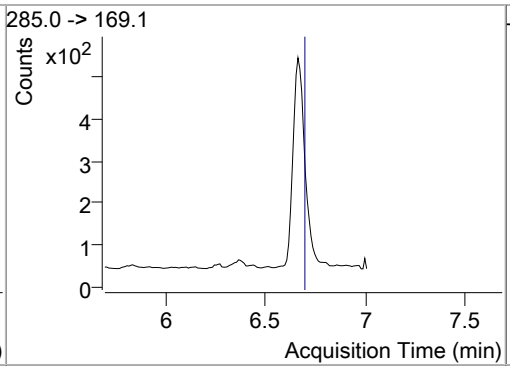


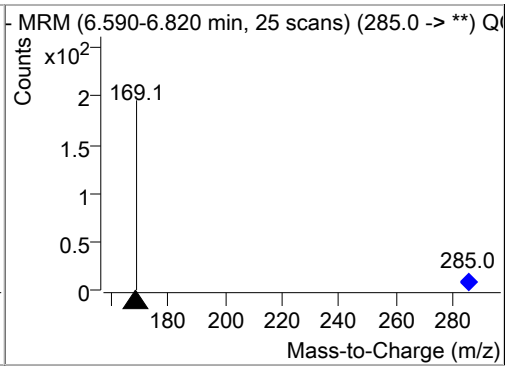




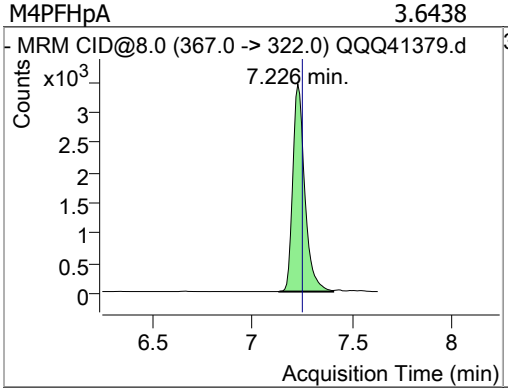
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	7.4834	6.66	-0.03	2041				

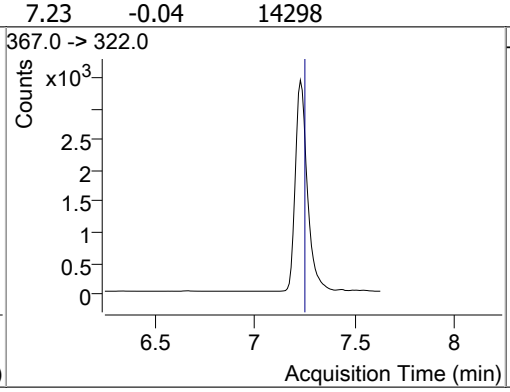


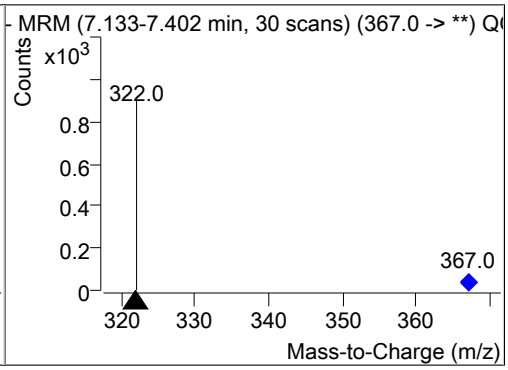




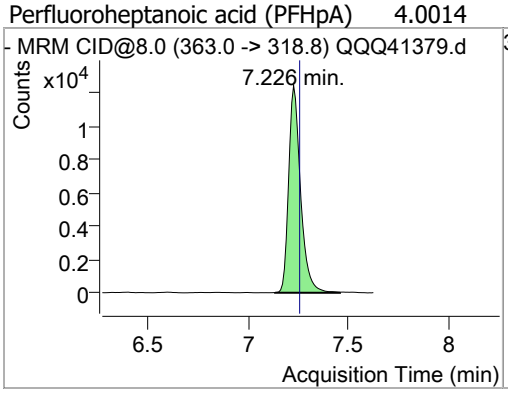
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.6438	7.23	-0.04	14298				

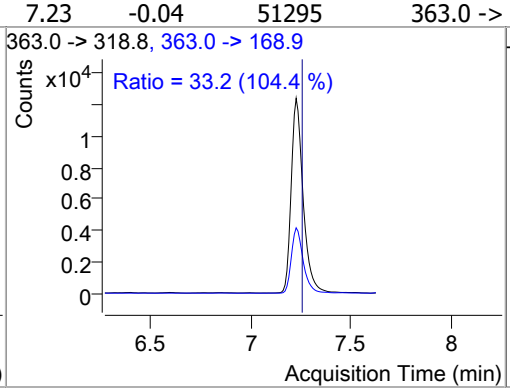


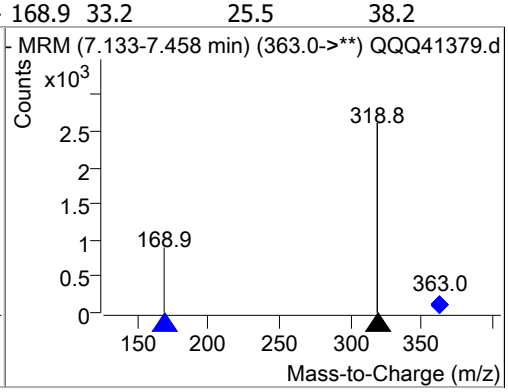




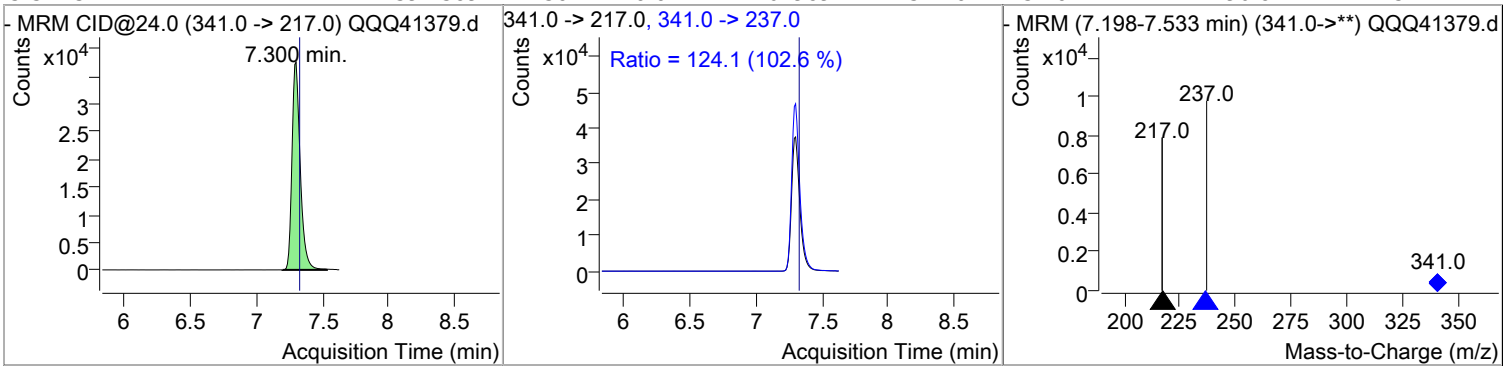
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	4.0014	7.23	-0.04	51295	363.0 -> 168.9	33.2	25.5	38.2



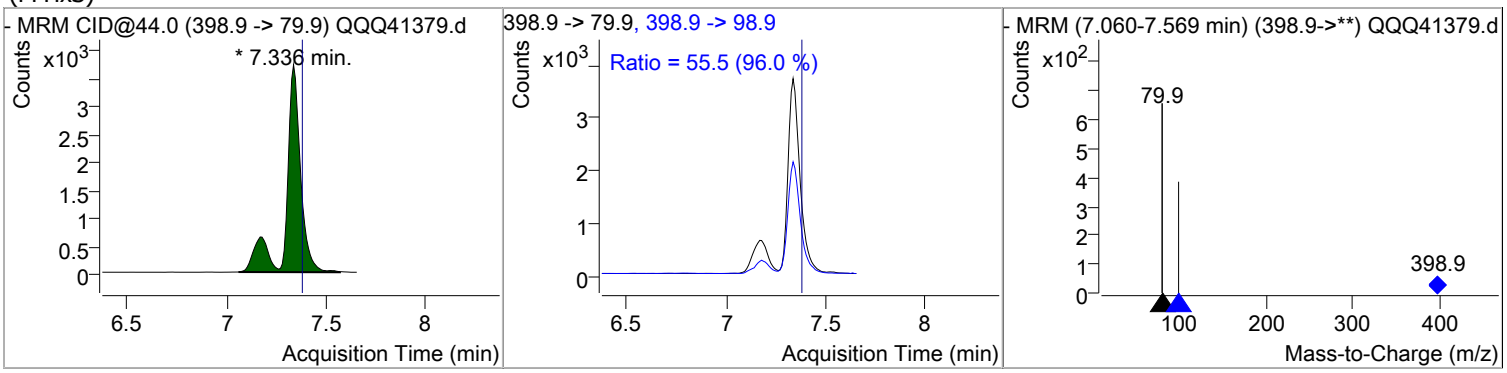




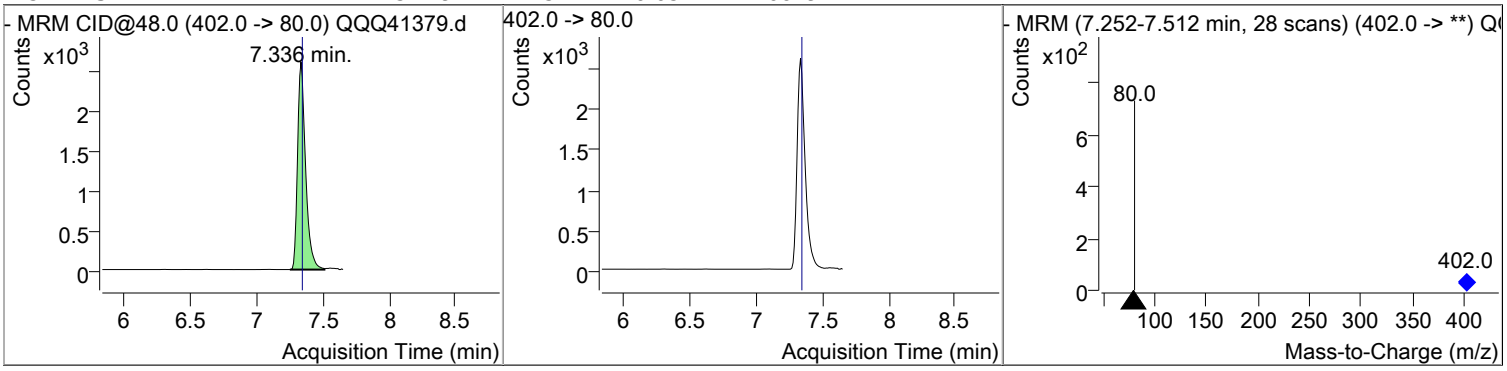
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	39.2389	7.30	-0.04	161989	341.0 -> 237.0	124.1	96.8	145.2



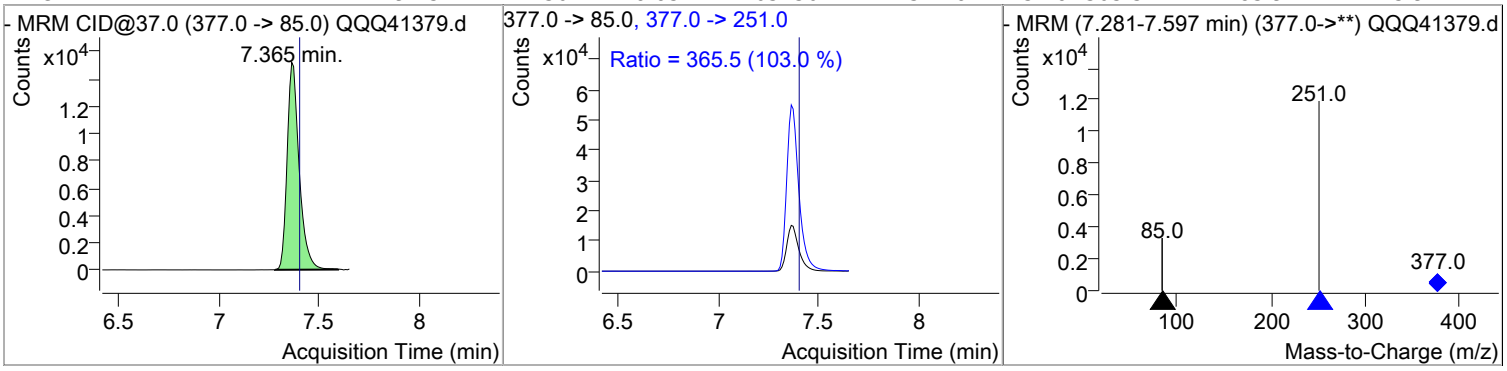
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	3.5326	7.34	-0.04	18856 (m)	398.9 -> 98.9	55.5	46.2	69.3



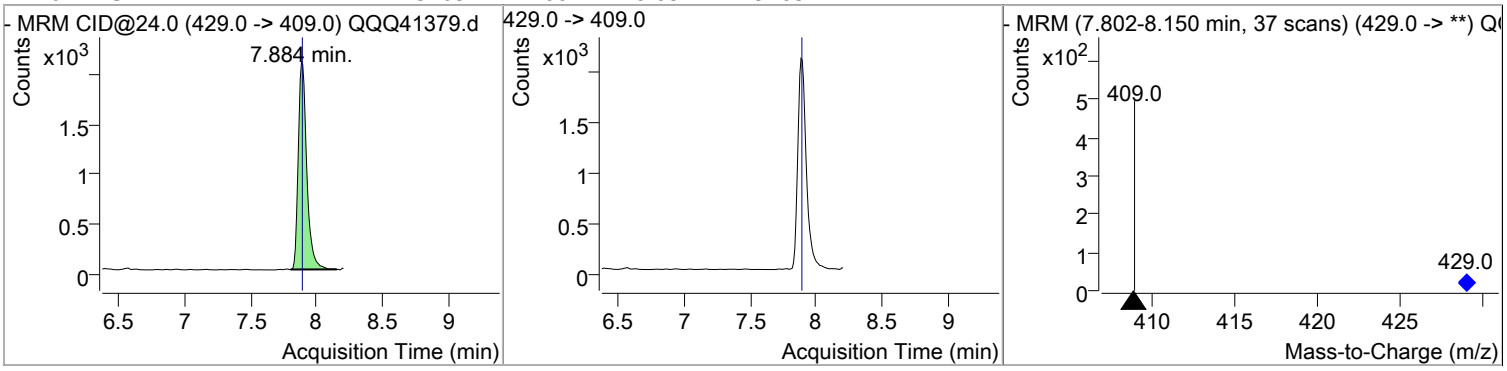
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	3.2494	7.34	-0.05	10829				



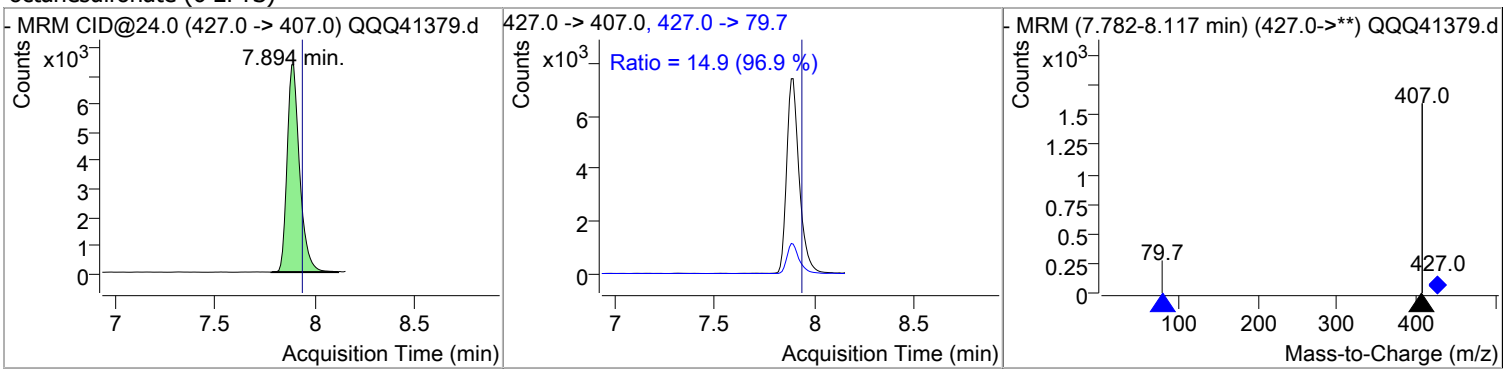
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	9.2571	7.36	-0.05	63456	377.0 -> 251.0	365.5	283.9	425.9



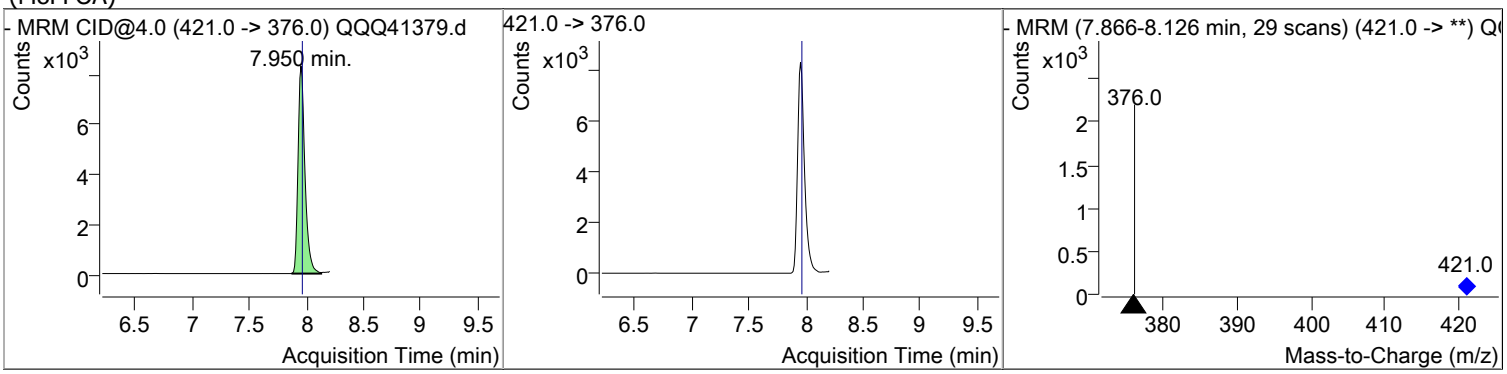
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.3465	7.88	-0.05	9283				



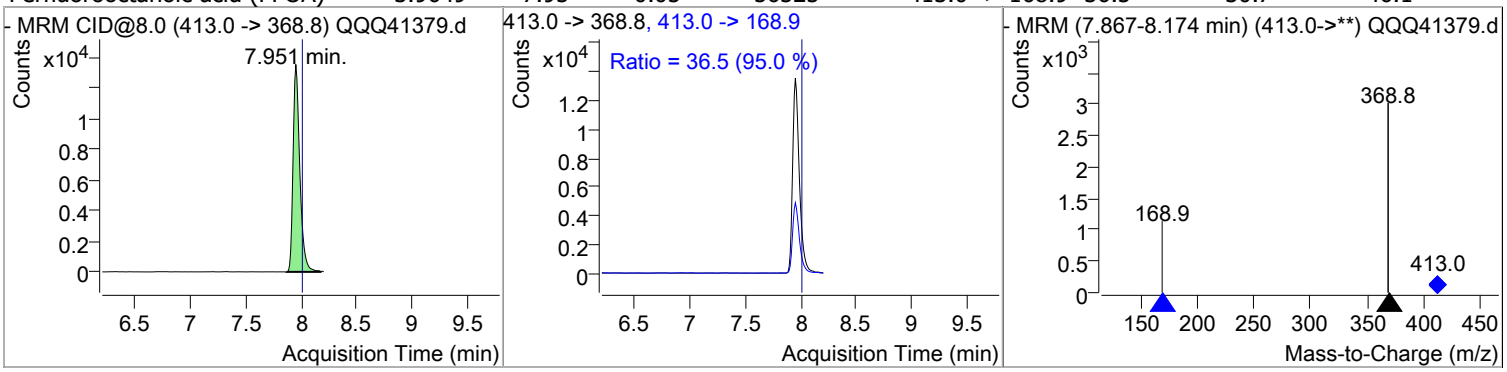
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	10.4074	7.89	-0.04	32011	427.0 -> 79.7	14.9	12.3	18.5



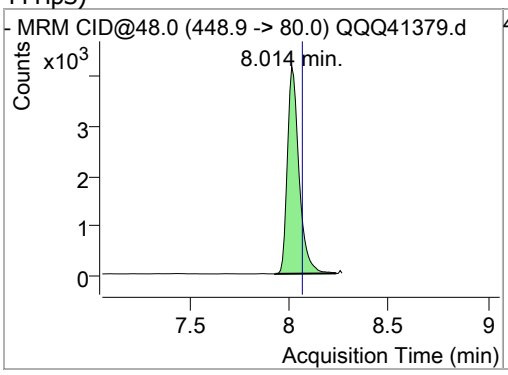
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	3.4495	7.95	-0.05	35033				

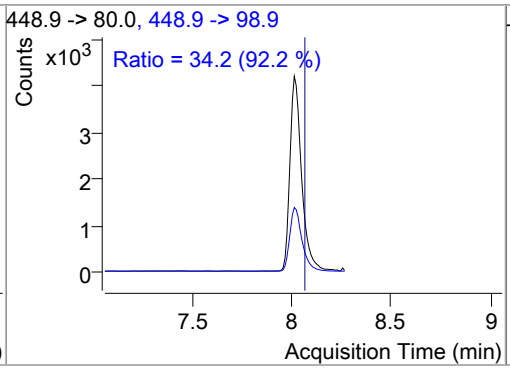


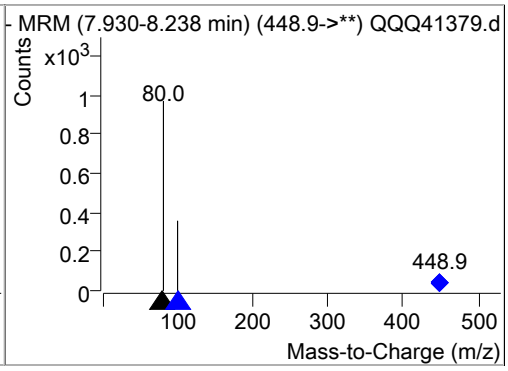
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	3.9649	7.95	-0.05	56525	413.0 -> 168.9	36.5	30.7	46.1



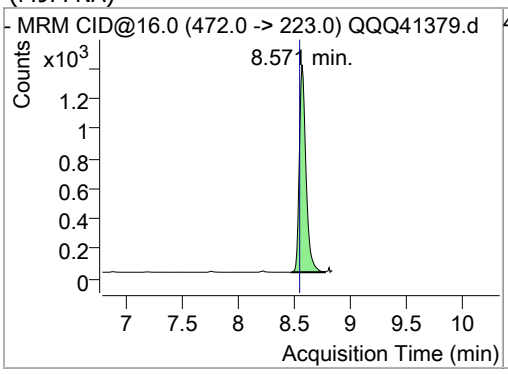
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	3.3734	8.01	-0.05	16989	448.9 -> 98.9	34.2	29.6	44.4

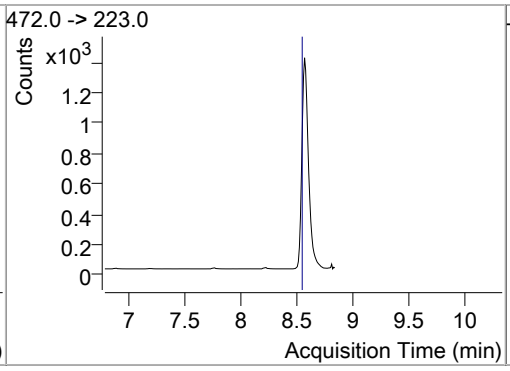


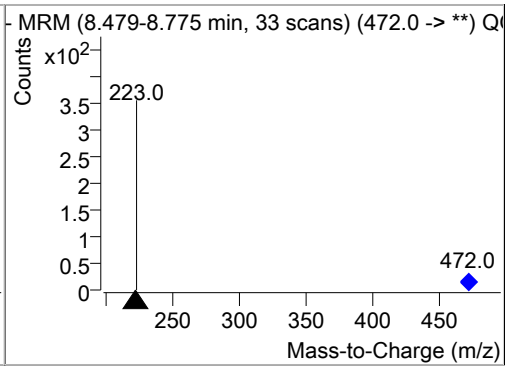




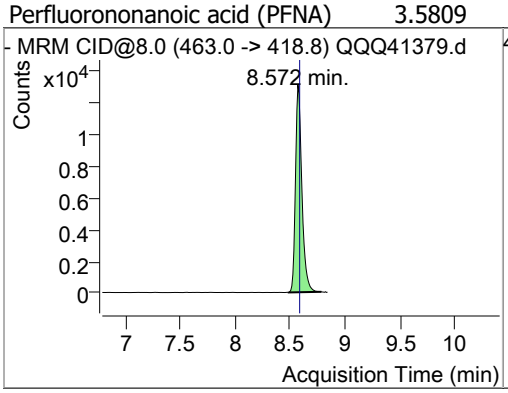
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.8221	8.57	-0.02	5723				

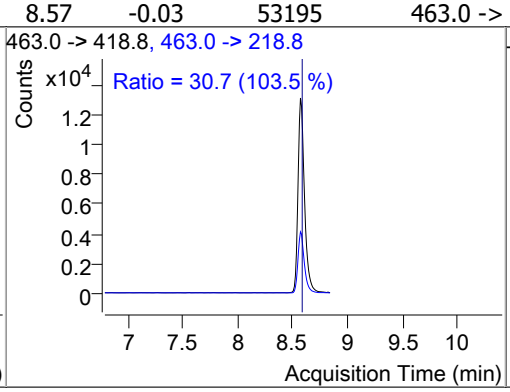


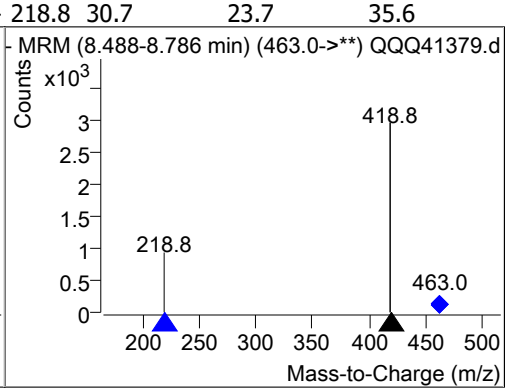




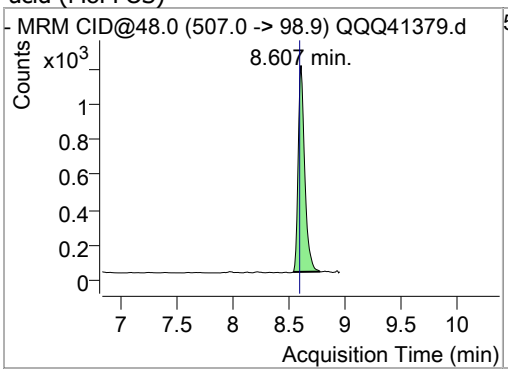
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	3.5809	8.57	-0.03	53195	463.0 -> 218.8	30.7	23.7	35.6

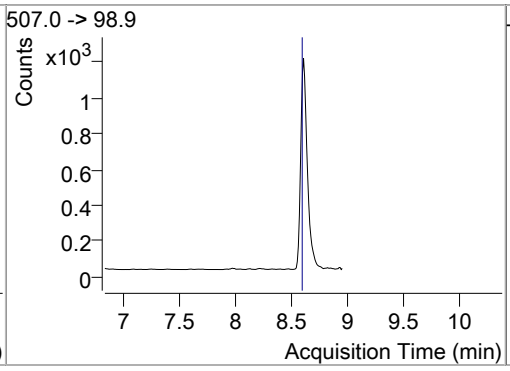


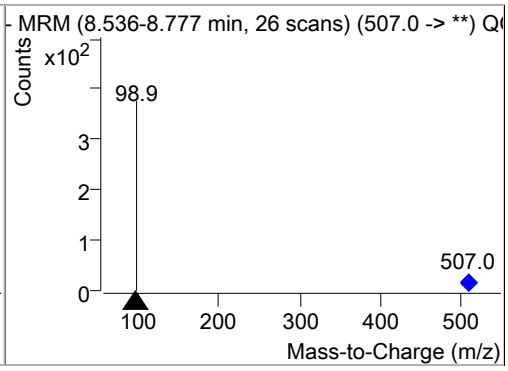




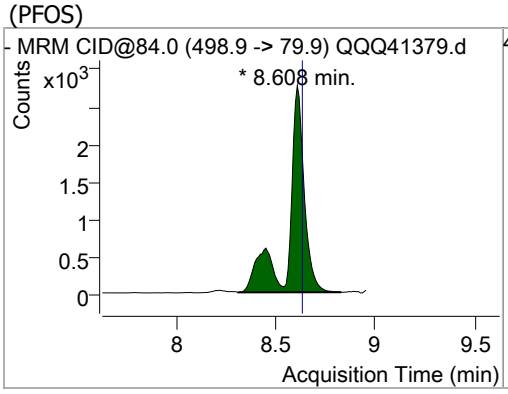
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.9267	8.61	-0.02	4746				

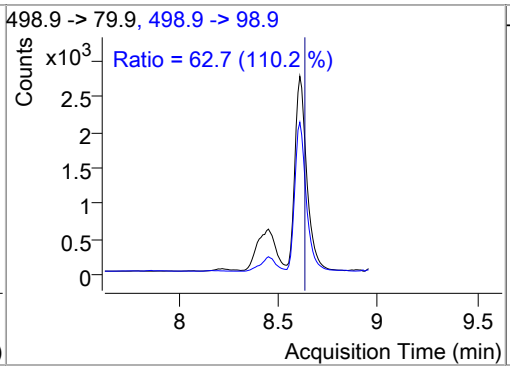


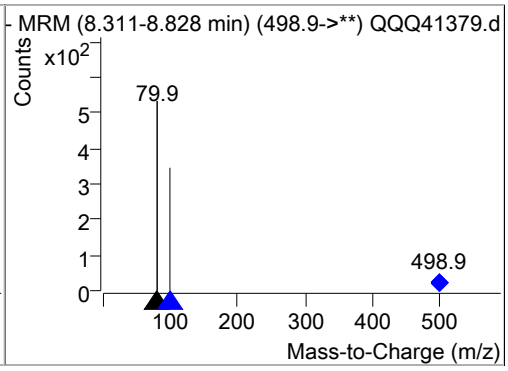




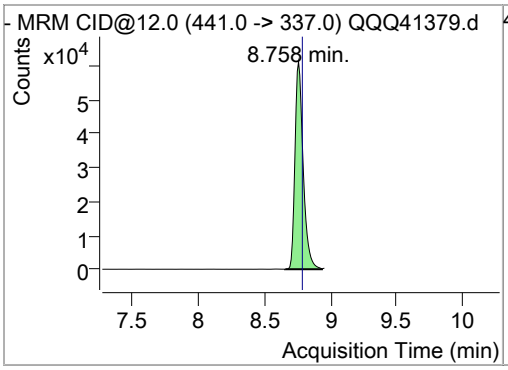
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	3.3491	8.61	-0.02	15076 (m)	498.9 -> 98.9	62.7	45.5	68.3

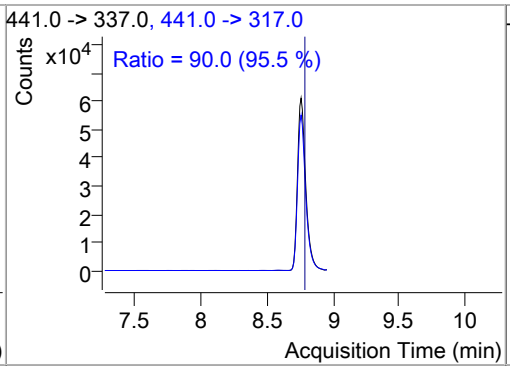


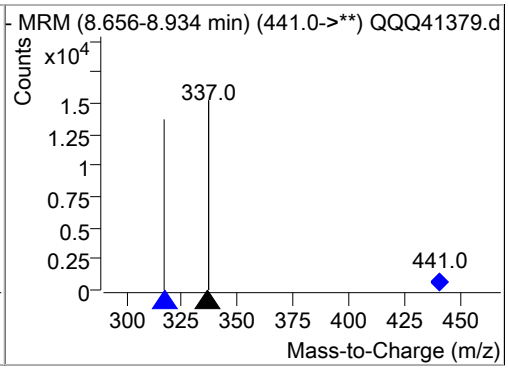




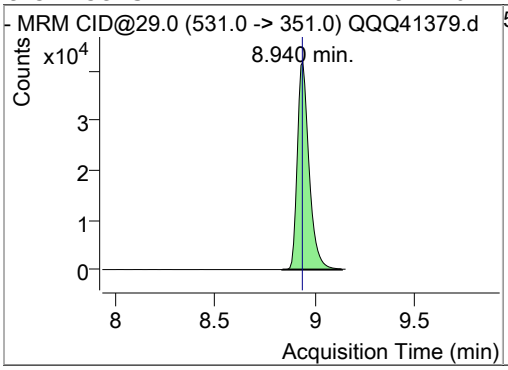
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	47.5779	8.76	-0.02	262488	441.0 -> 317.0	90.0	75.4	113.1

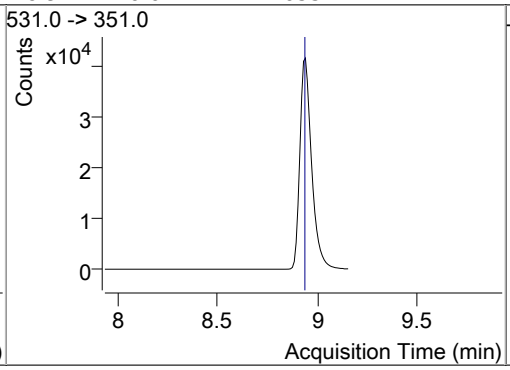


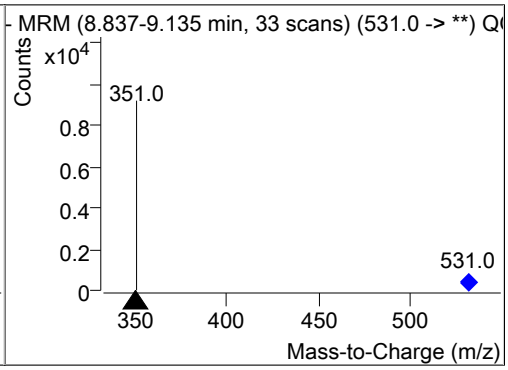




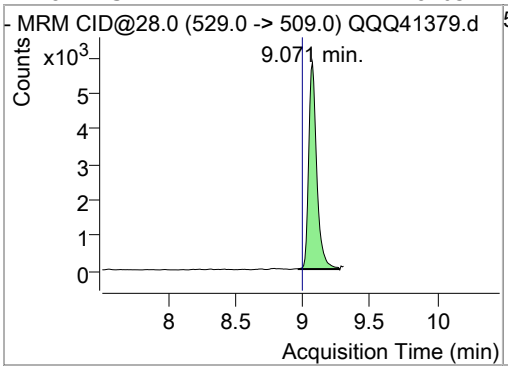
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	9.1146	8.94	0.01	170534				

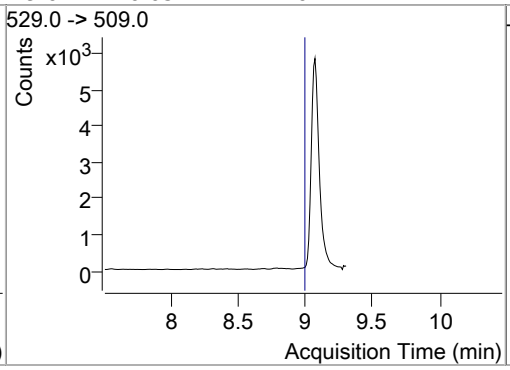


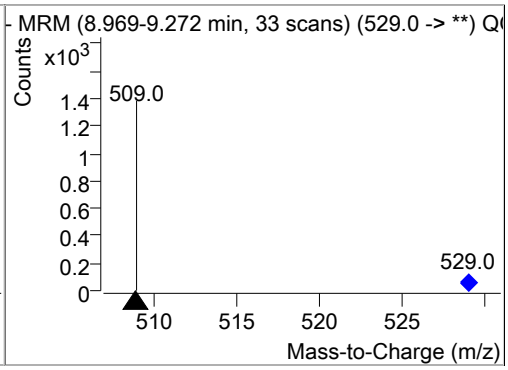




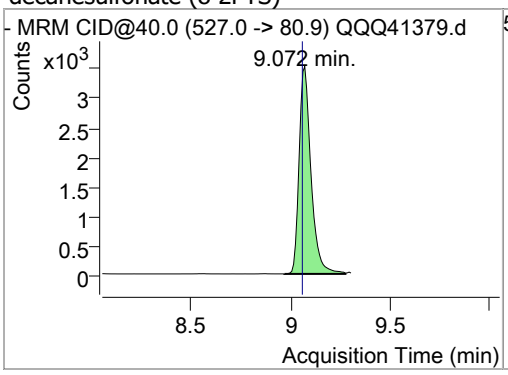
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.8265	9.07	0.03	24207				

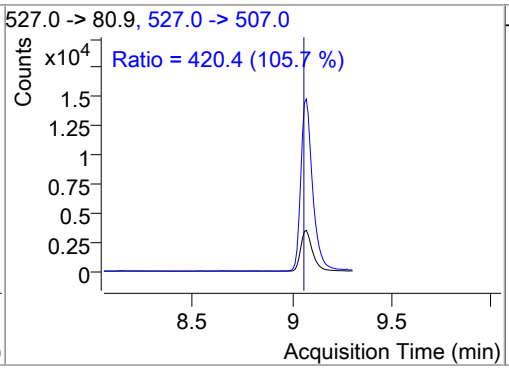


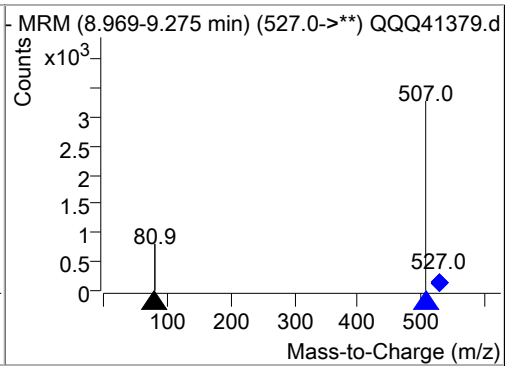




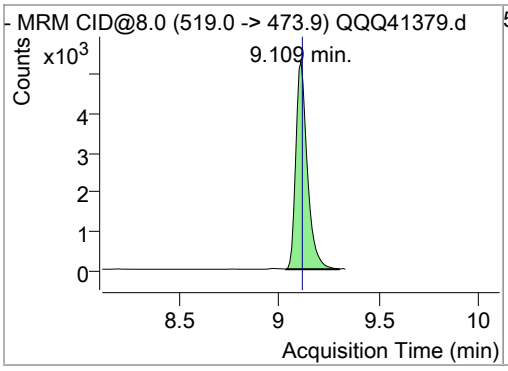
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	12.1146	9.07	0.02	14505	527.0 -> 507.0	420.4	318.3	477.4

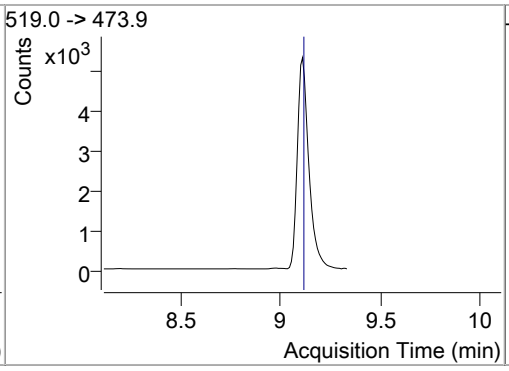


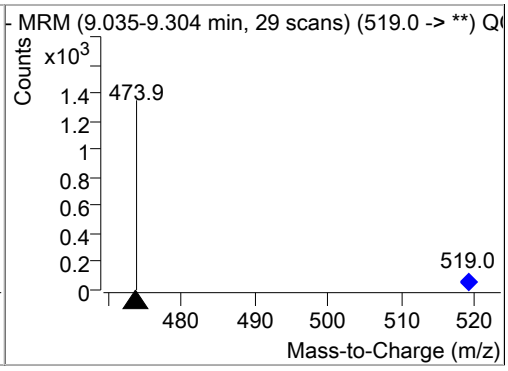




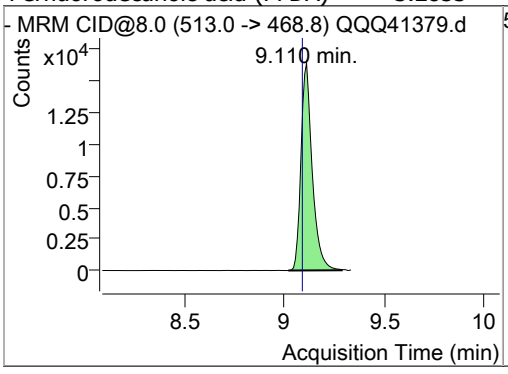
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.8121	9.11	0.03	21206				

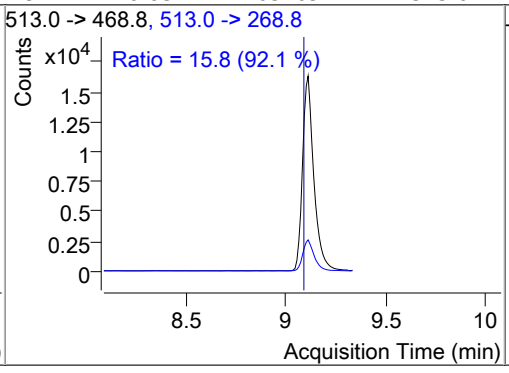


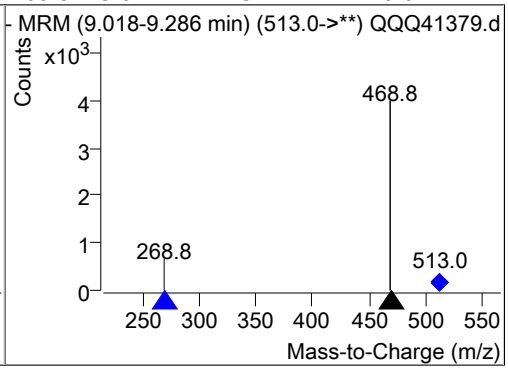




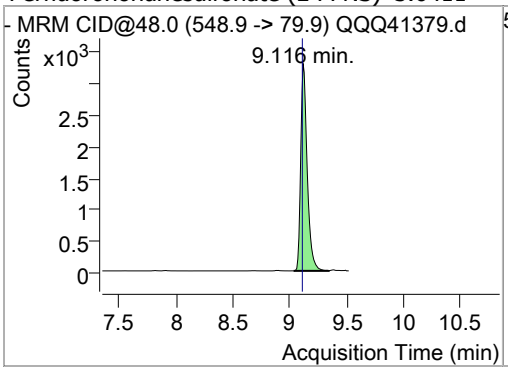
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	3.2853	9.11	0.03	63769	513.0 -> 268.8	15.8	13.7	20.6

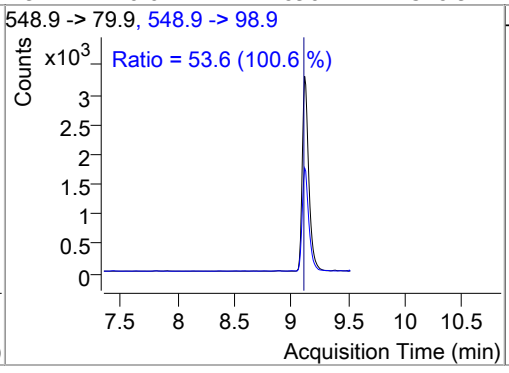


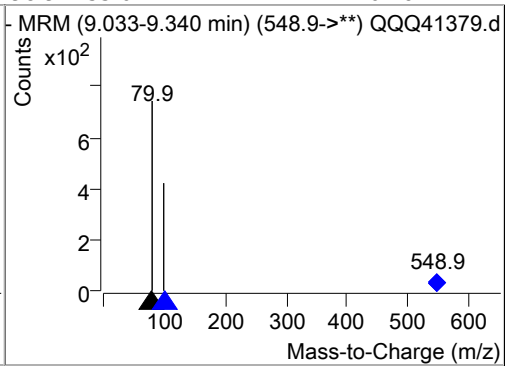




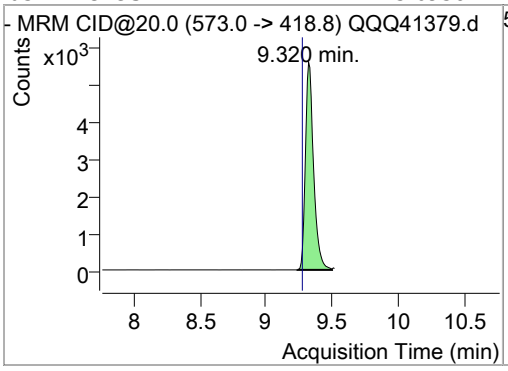
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	3.6411	9.12	0.02	12890	548.9 -> 98.9	53.6	42.7	64.0

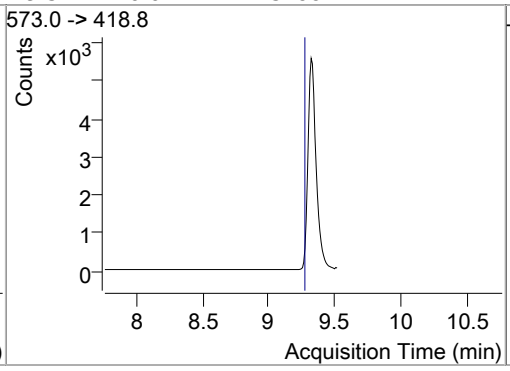


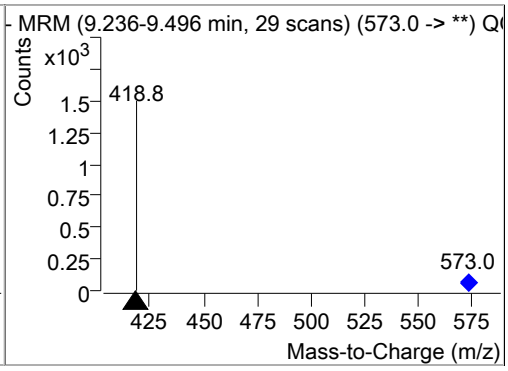




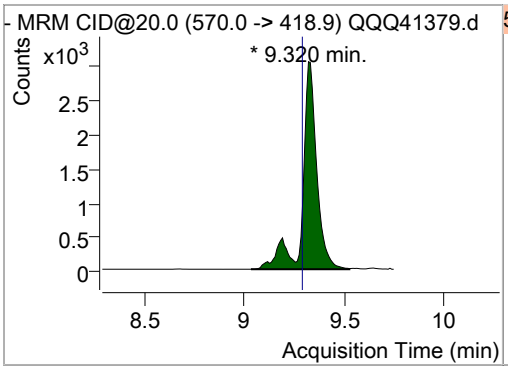
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.6930	9.32	0.04	23788				

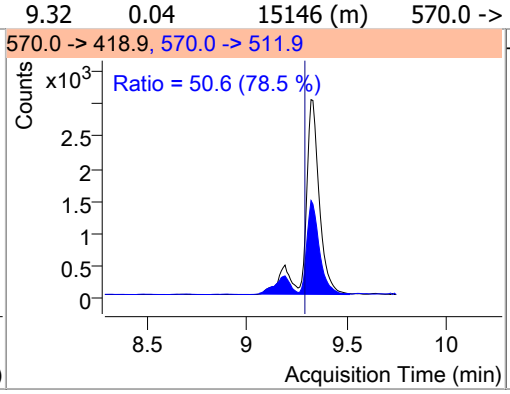


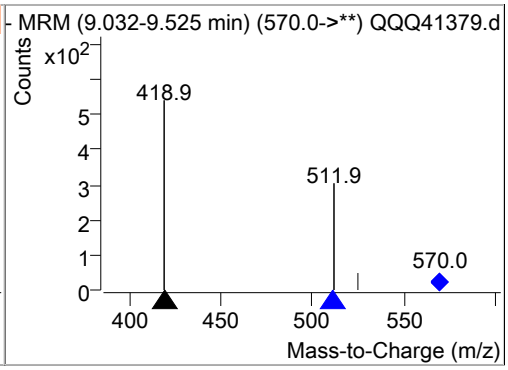




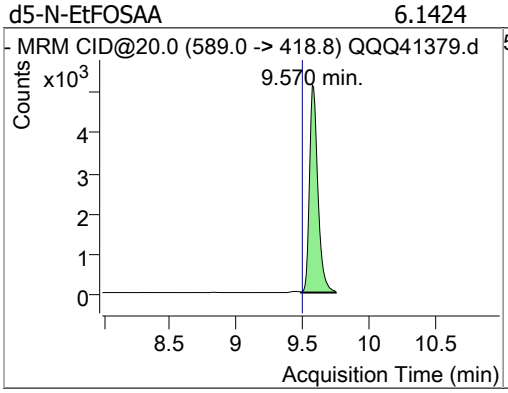
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	3.6553	9.32	0.04	15146 (m)	570.0 -> 511.9	50.6	51.6	77.4

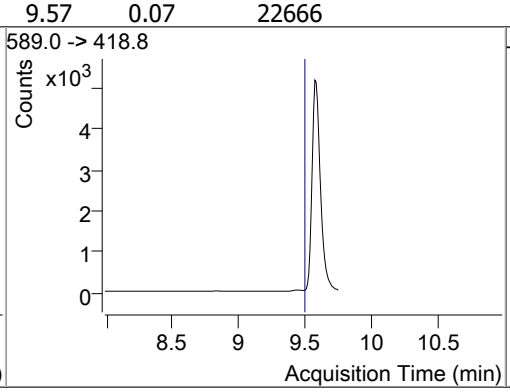


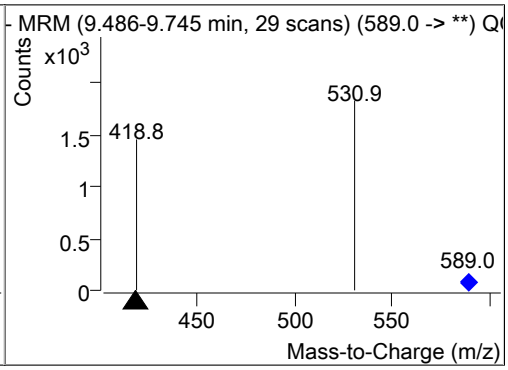




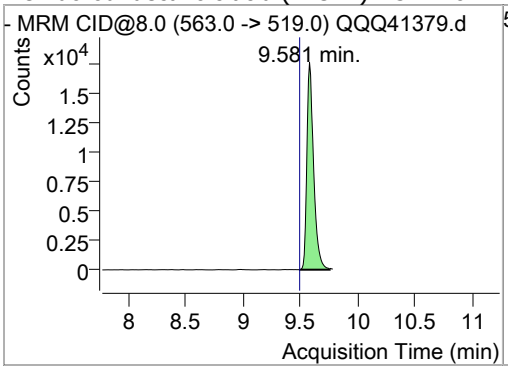
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.1424	9.57	0.07	22666				

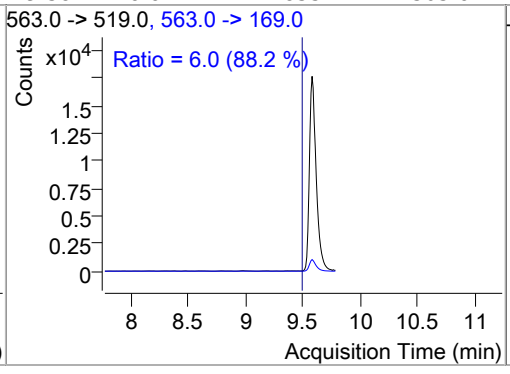


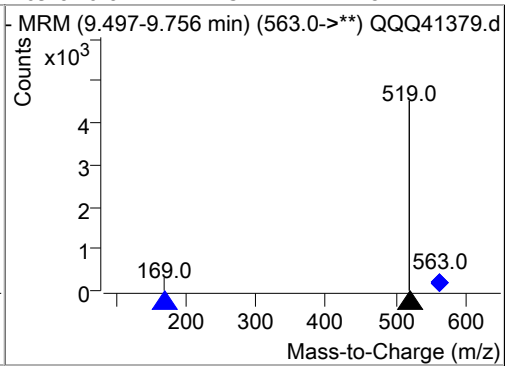




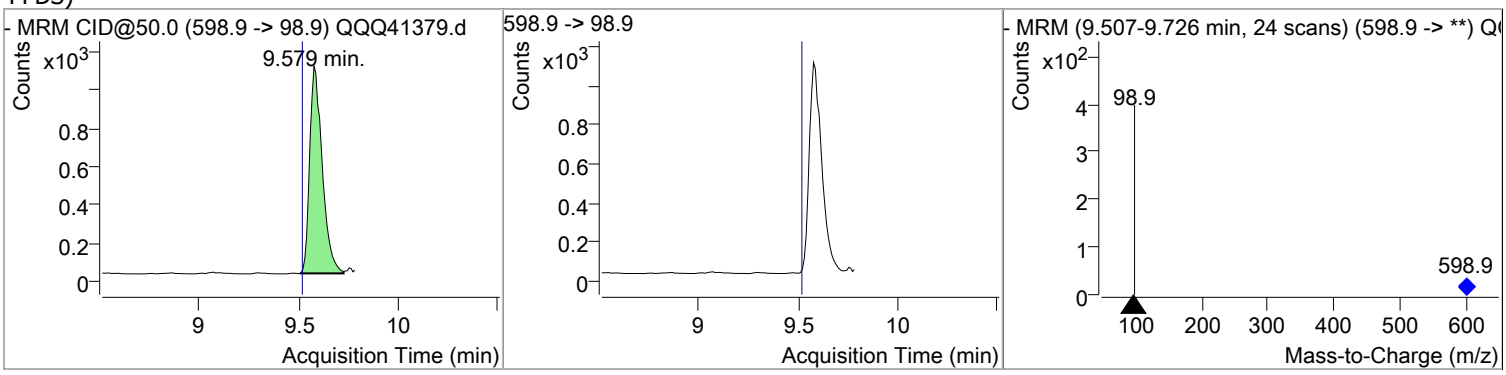
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	3.2718	9.58	0.07	71835	563.0 -> 169.0	6.0	5.4	8.1



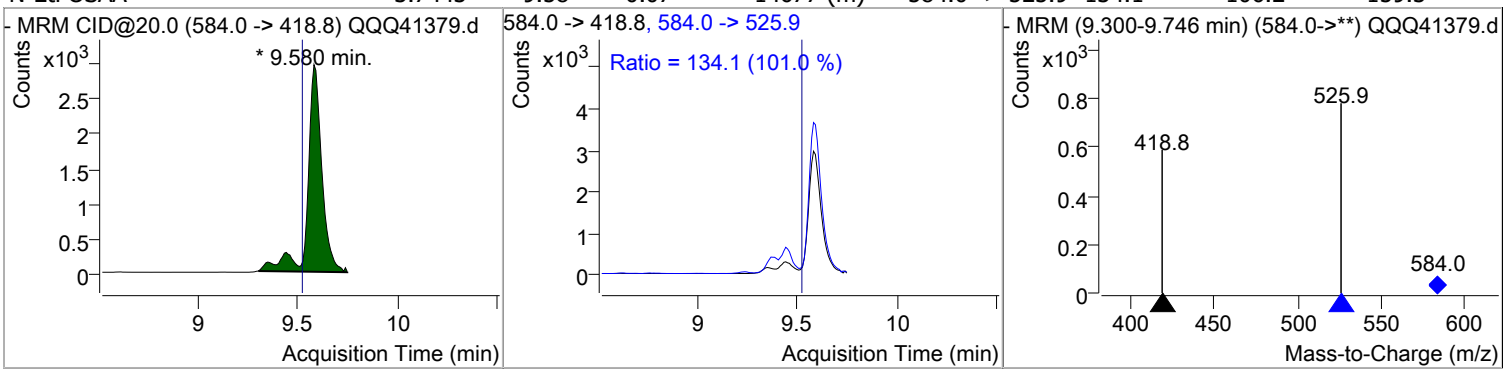




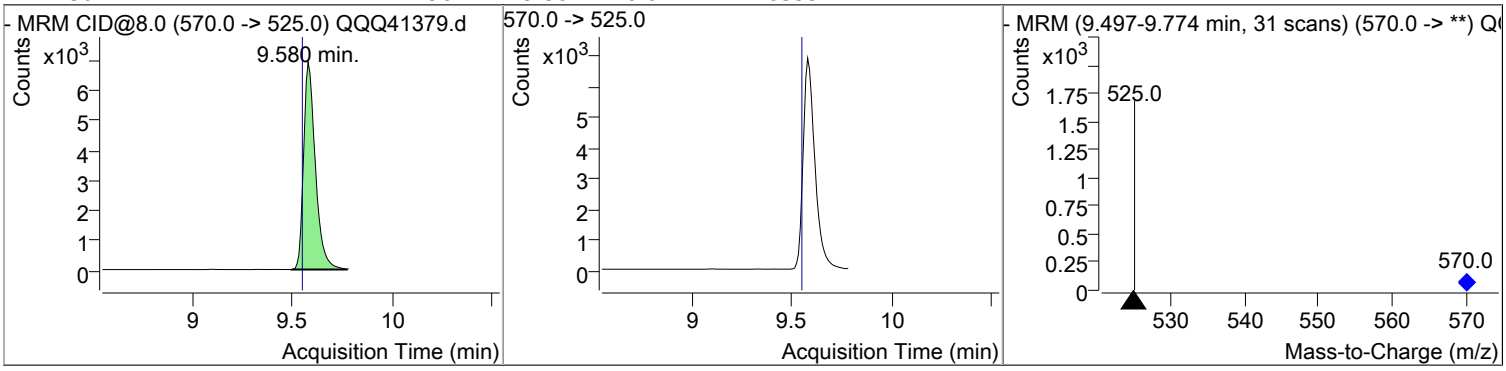
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.7551	9.58	0.07	4712				



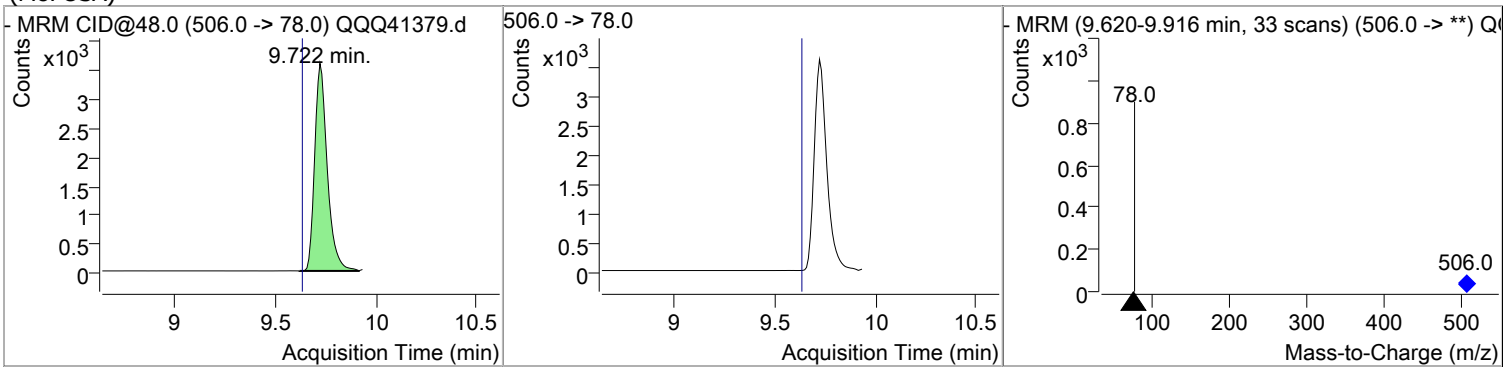
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	3.7443	9.58	0.07	14677 (m)	584.0 -> 525.9	134.1	106.2	159.3



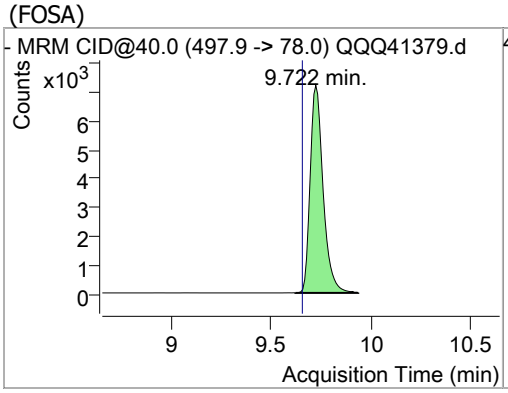
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.7902	9.58	0.07	28355				

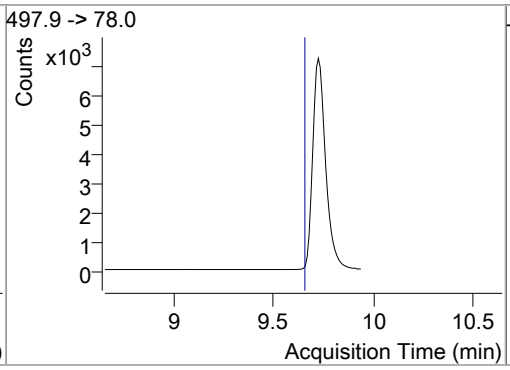


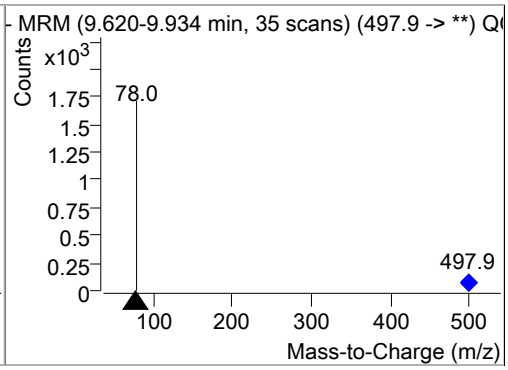
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.9515	9.72	0.07	15682				



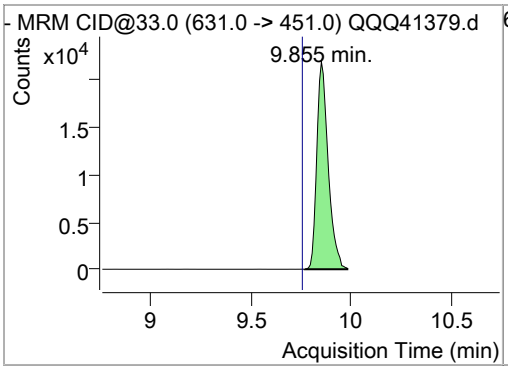
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	3.6228	9.72	0.07	32441				

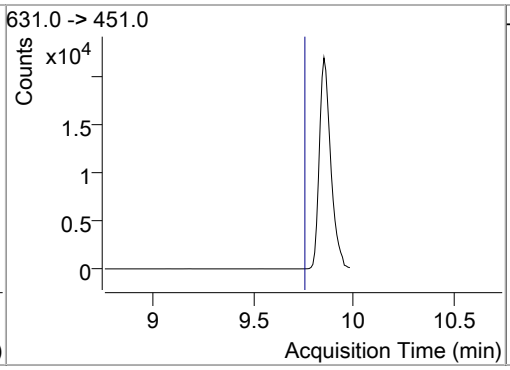


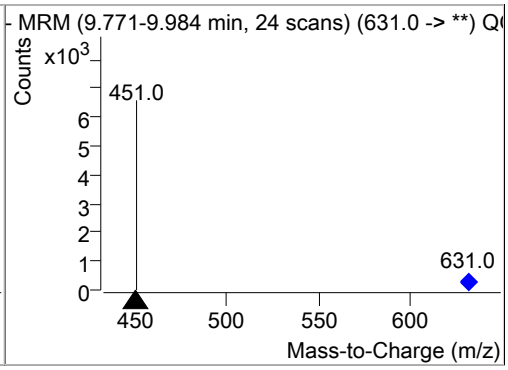




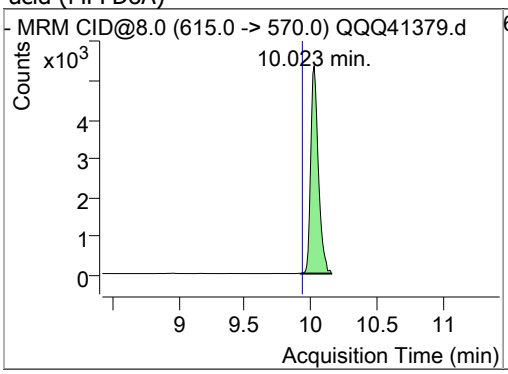
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	6.7229	9.85	0.10	86969				

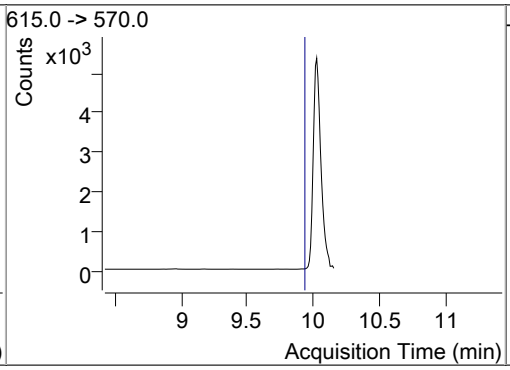


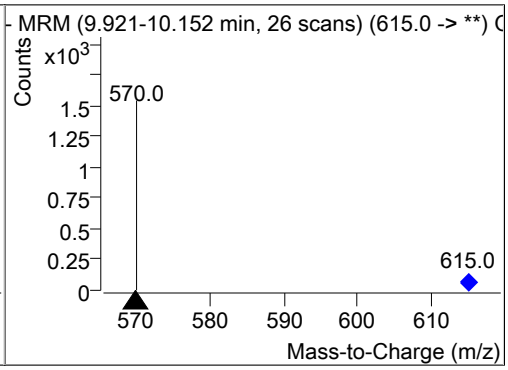




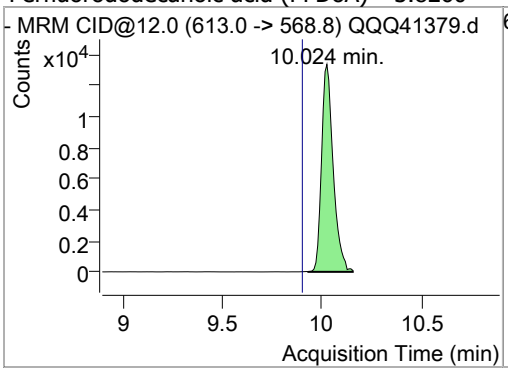
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.5463	10.02	0.13	21531				

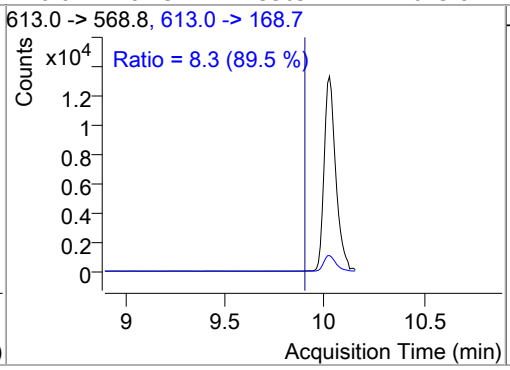


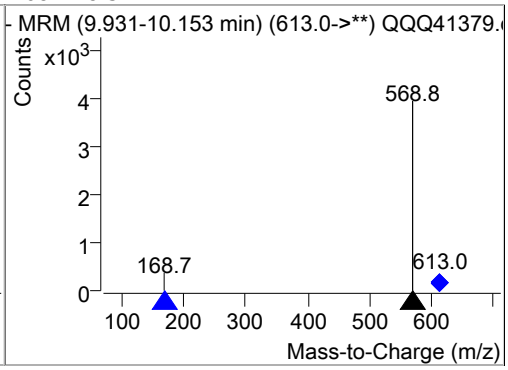




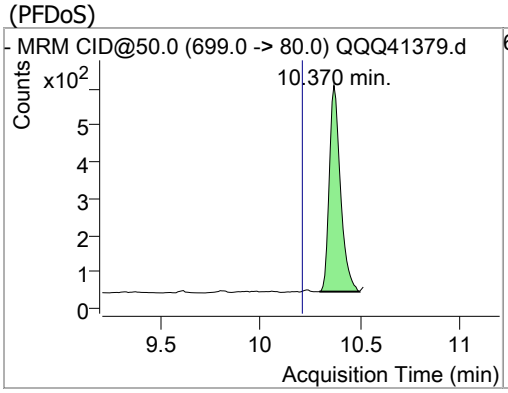
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	3.8260	10.02	0.13	53691	613.0 -> 168.7	8.3	7.4	11.2

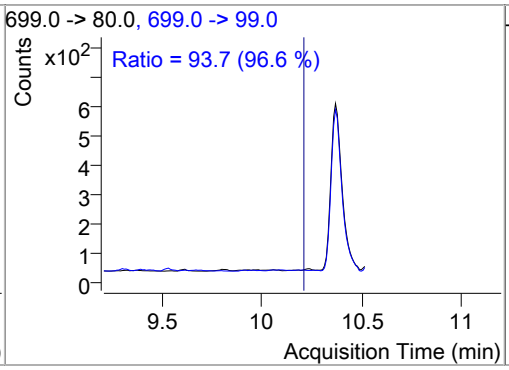


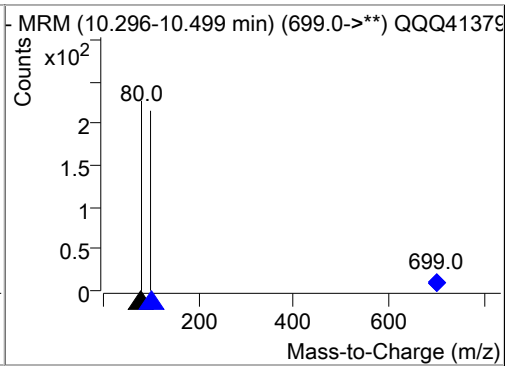




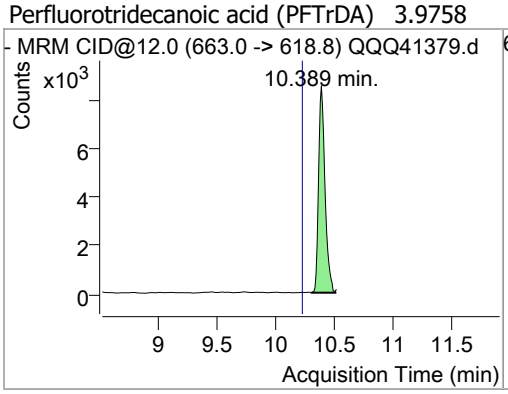
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.5309	10.37	0.17	2202	699.0 -> 99.0	93.7	77.6	116.4

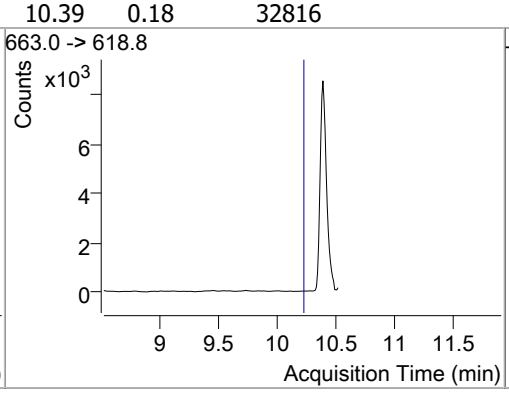


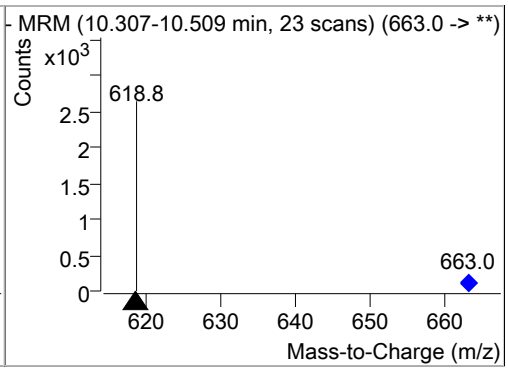




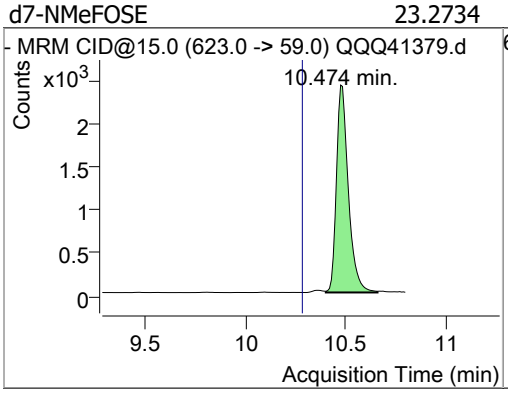
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	3.9758	10.39	0.18	32816				

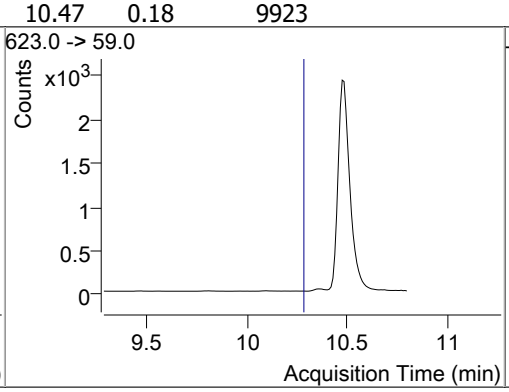


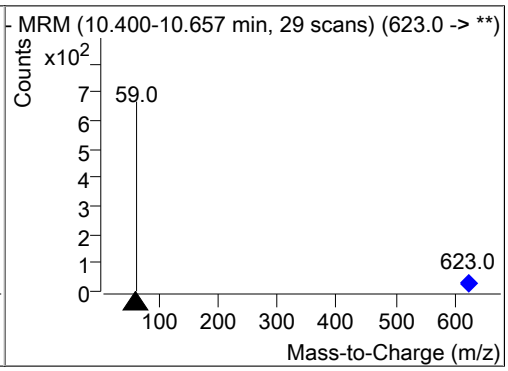




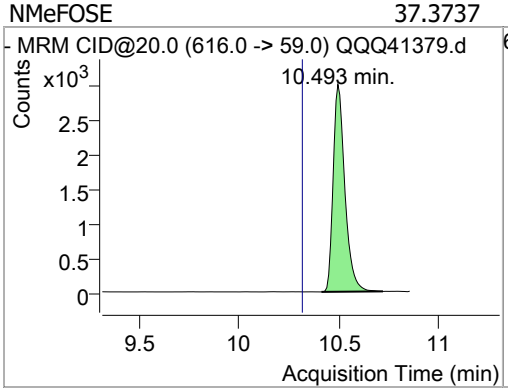
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	23.2734	10.47	0.18	9923				

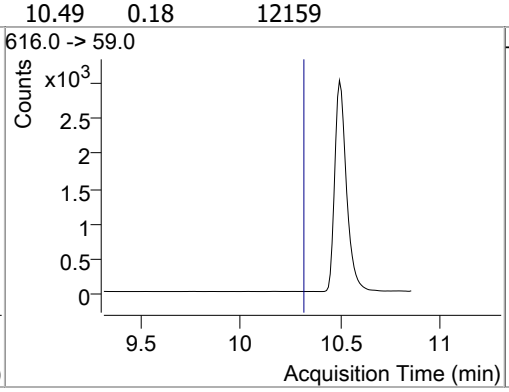


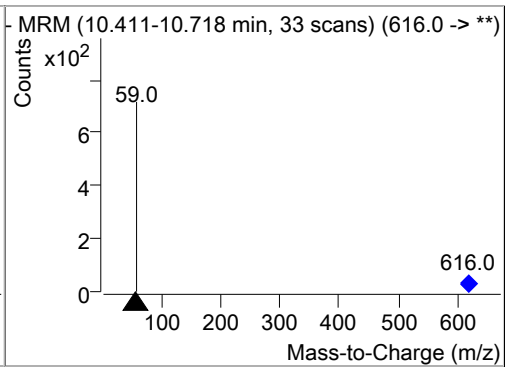




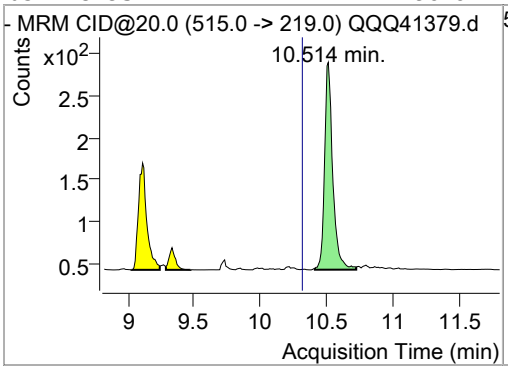
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	37.3737	10.49	0.18	12159				

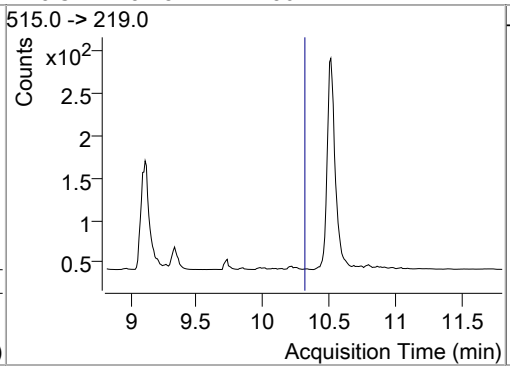


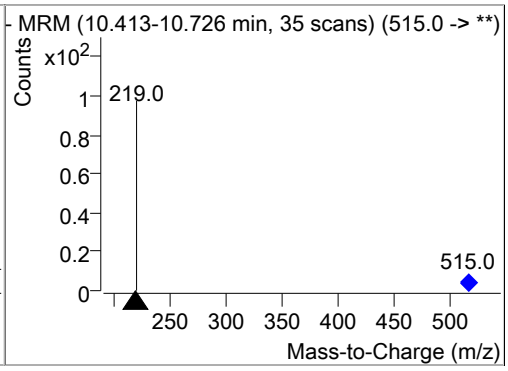




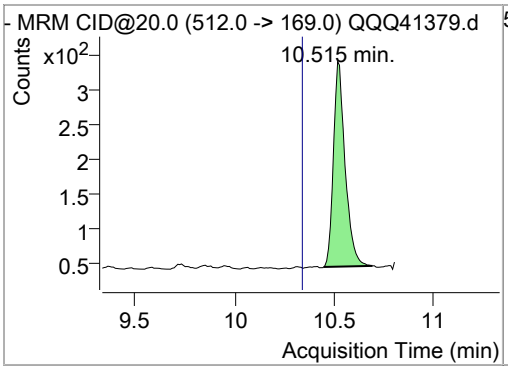
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	1.9818	10.51	0.18	1064				

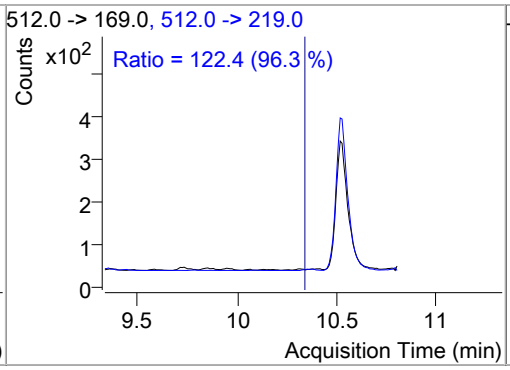


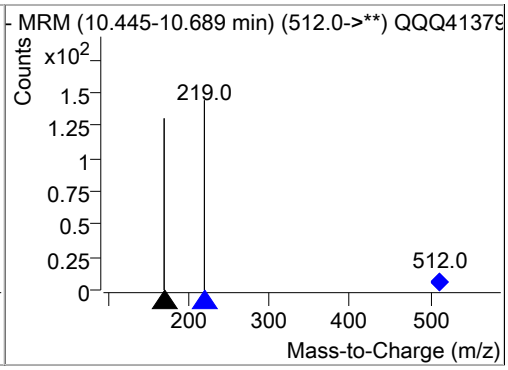




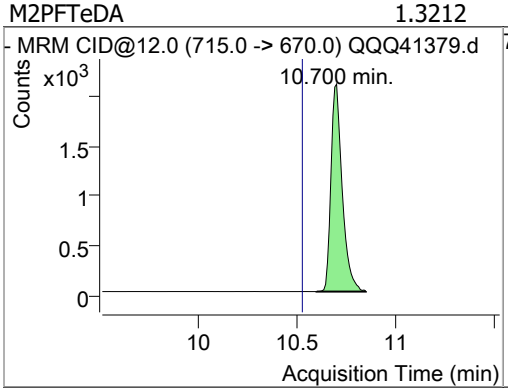
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	3.4074	10.51	0.18	1213	512.0 -> 219.0	122.4	101.6	152.5

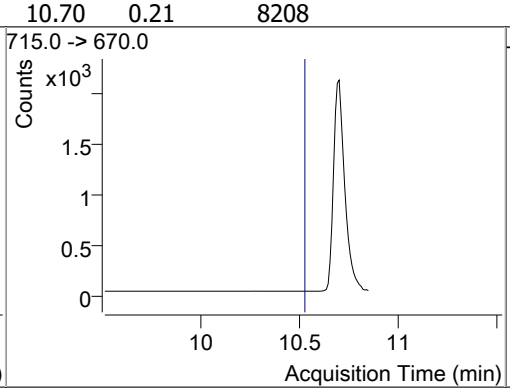


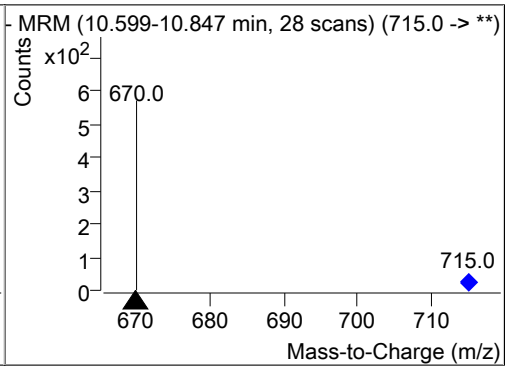




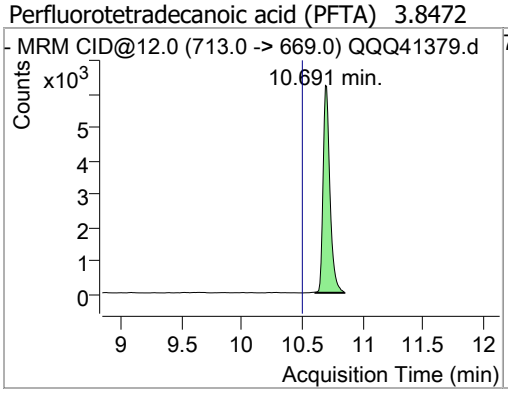
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.3212	10.70	0.21	8208				

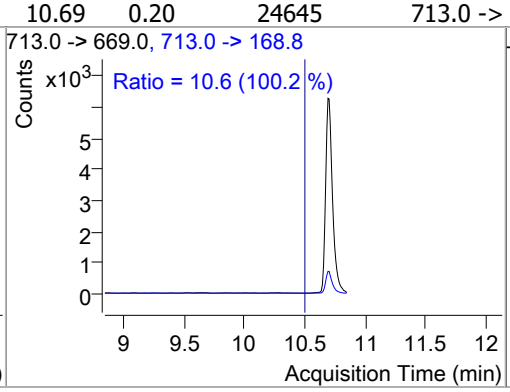


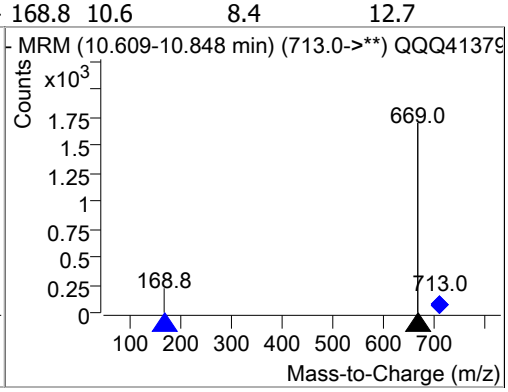




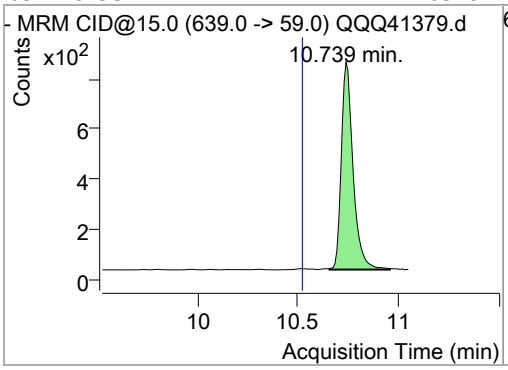
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	3.8472	10.69	0.20	24645	713.0 -> 168.8	10.6	8.4	12.7

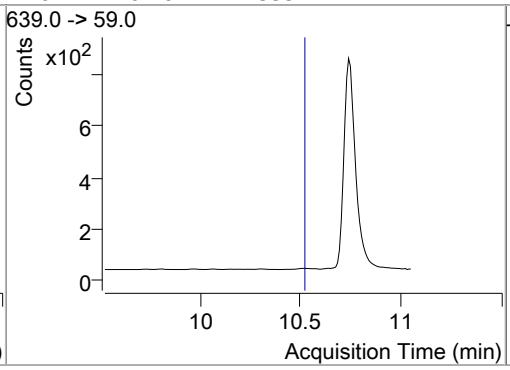


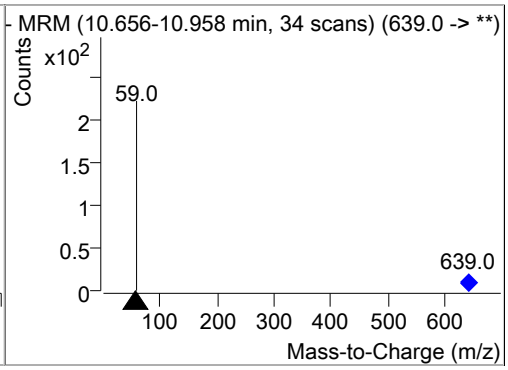




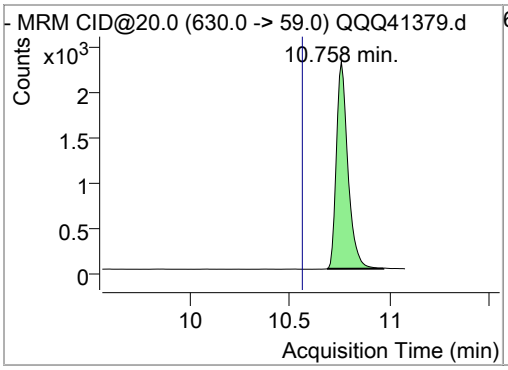
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	17.6578	10.74	0.20	3352				

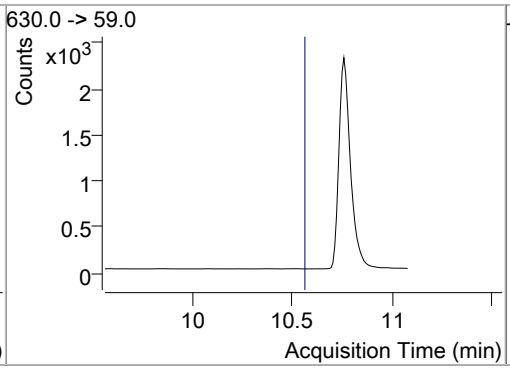


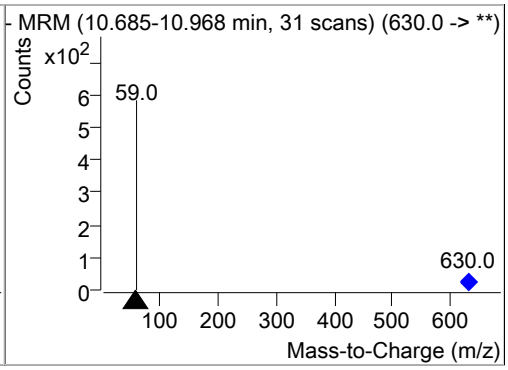




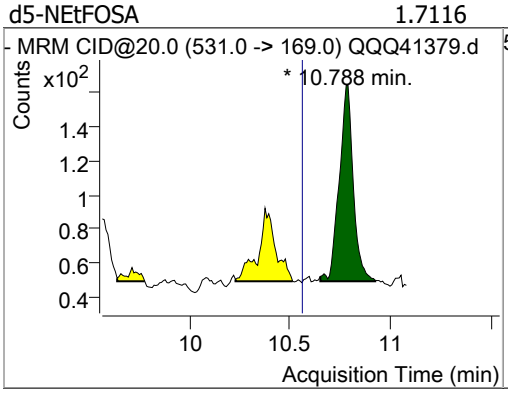
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	31.6349	10.76	0.20	9189				

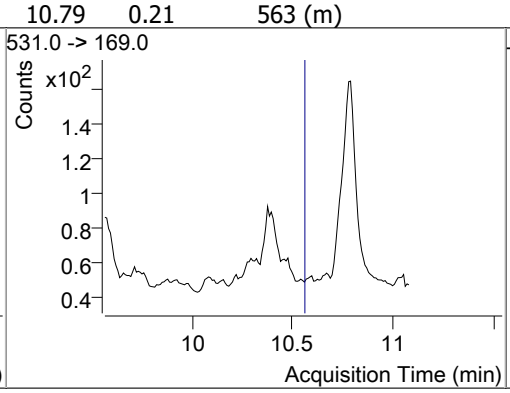


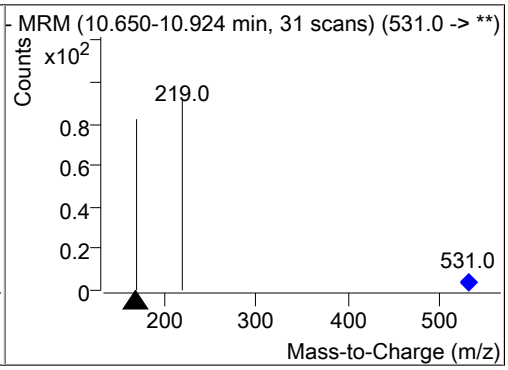




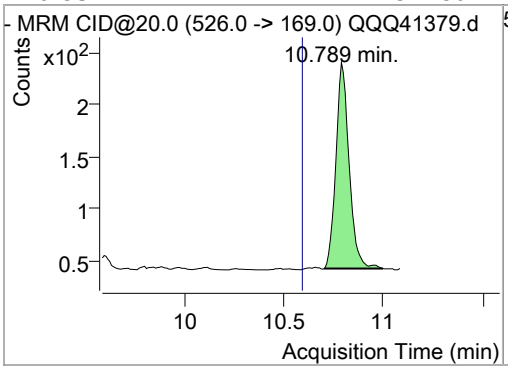
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	1.7116	10.79	0.21	563 (m)				

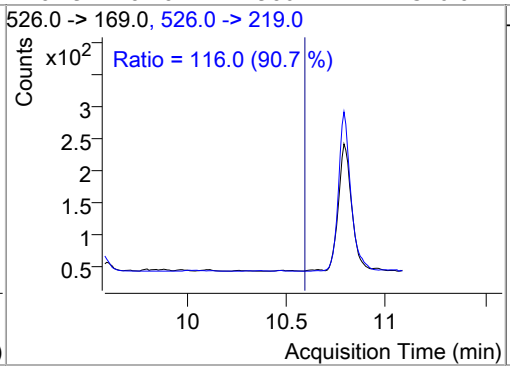


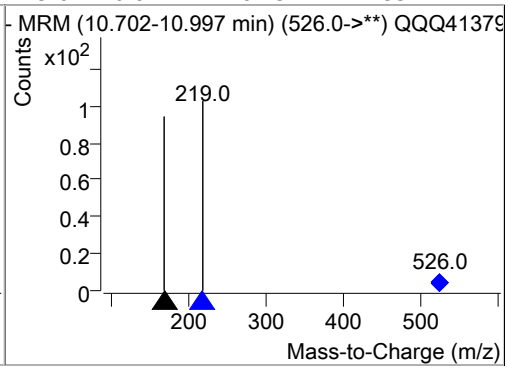




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	3.2136	10.79	0.20	906	526.0 -> 219.0	116.0	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 1:57:53 PM	**Data File**	QQQ41379.d
Sample Type	Sample	**Sampe Name**	BG40502-MS1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.343	6951	1116	0.431			1.70			2791.41
Perfluoro-n-butanoic acid (PFBA)	1.338	8125	1287	0.431			1.94			435.01
PFMPA	2.272	11959	1495	0.552			1.70			11074.36
3:3FTCA	4.452	2078	297	0.387			1.84			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.746	108714	16739	0.472			1.73			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.747	153882	23548	0.463			1.84			5972.02
PFMBA	5.495	73797	15550	0.380			1.84			∞
M3PFBS	5.520	16363	3664	0.362			1.75			16866.51
Perfluorobutanesulfonic acid (PFBS)	5.520	22164	4924	0.325			1.85			24088.42
PFEESA	6.057	191819	47222	0.334			1.50			25991.24
NFDHA	6.197	2605	642	0.269			2.05			10371.95
M2-4-2FTS	6.278	12682	3089	0.305			1.63			589.15
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.279	34933	8655	0.320			1.52			∞
M5PFHxA	6.353	64940	15958	0.306			1.68			1102.69
Perfluorohexanoic acid (PFHxA)	6.355	110072	26915	0.315			1.67			1318.11
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.574	20435	4923	0.336			1.42			∞
M3-HFPO-DA	6.661	30969	7461	0.324			1.61			1554.20
HFPO-DA	6.662	2041	499	0.230			1.53			8.04
M4PFHpA	7.226	14298	3432	0.269			1.59			31003.17
Perfluoroheptanoic acid (PFHpA)	7.226	51295	12358	0.325			1.60			2114.58
5-3FTCA	7.300	161989	37425	0.334			1.36			19312.76
Perfluorohexanesulfonic acid (PFHxS)	7.336	18856	3709	0.509			1.65			37090.54
M3PFHxS	7.336	10829	2586	0.260			1.64			6895.51

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.365	63456	15155	0.316			1.74			11145.22
M2-6-2FTS	7.884	9283	2079	0.349			1.79			174.49
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.894	32011	7352	0.334			1.31			195.18
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.950	35033	8322	0.260			1.61			117797.48
Perfluorooctanoic acid (PFOA)	7.951	56525	13466	0.307			1.71			141.91
Perfluoro-1-heptanesulfonate (L-PFHpS)	8.014	16989	4174	0.308			1.80			∞
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.571	5723	1387	0.297			1.62			14049.14
Perfluorononanoic acid (PFNA)	8.572	53195	13093	0.297			1.72			∞
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.607	4746	1170	0.241			1.66			∞
Perfluorooctanesulfonic acid (PFOS)	8.608	15076	2739	0.517			1.65			473.73
7-3FTCA	8.758	262488	61096	0.279			1.57			143.78
9-Cl-PF3ONS	8.940	170534	41702	0.299			1.49			1366.30
M2-8-2FTS	9.071	24207	5804	0.303			1.50			442.22
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.072	14505	3501	0.306			1.42			92.56
M6PFDA	9.109	21206	5274	0.269			1.57			∞
Perfluorodecanoic acid (PFDA)	9.110	63769	16298	0.268			1.36			140.40
Perfluorononanesulfonate (L-PFNS)	9.116	12890	3272	0.307			1.83			25017.11
d3-N-MeFOSAA	9.320	23788	5559	0.260			1.75			38804.78
N-MeFOSAA	9.320	15146	3032	0.493			1.99			14119.75
d5-N-EtFOSAA	9.570	22666	5155	0.259			1.90			∞
Perfluoroundecanoic acid (PFUnA)	9.581	71835	17585	0.259			1.82			1282.59
Perfluoro-1-decanesulfonate (L-PFDS)	9.579	4712	1076	0.219			2.02			140.52
N-EtFOSAA	9.580	14677	2938	0.446			1.71			∞
M7PFUdA	9.580	28355	6913	0.278			1.79			2895.26
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.722	15682	3591	0.295			1.57			65.62
Perfluoro-1-octanesulfonamide (FOSA)	9.722	32441	7201	0.314			1.55			24671.91
11-Cl-PF3OUdS	9.855	86969	21922	0.213			1.74			∞
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	10.023	21531	5341	0.231			1.60			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	10.024	53691	13301	0.222			1.50			3394.88
Perfluorododecanesulfonic acid (PFDoS)	10.370	2202	563	0.202			1.69			177.96
Perfluorotridecanoic acid (PFTrDA)	10.389	32816	8517	0.203			1.62			676.32
d7-NMeFOSE	10.474	9923	2413	0.257			1.89			∞
NMeFOSE	10.493	12159	2992	0.307			1.71			∞
d3-NMeFOSA	10.514	1064	248	0.313			1.47			56.42
NMeFOSA	10.515	1213	296	0.245			1.81			217.20
M2PFTeDA	10.700	8208	2081	0.249			1.42			38468.26
Perfluorotetradecanoic acid (PFTA)	10.691	24645	6227	0.240			1.91			1286.04
d9-NEtFOSE	10.739	3352	821	0.302			1.71			146.69
NEtFOSE	10.758	9189	2289	0.283			1.64			35514.07
d5-NEtFOSA	10.788	563	116	0.274			0.82			12.50
NEtFOSA	10.789	906	197	0.295			1.30			58.08

Data File	QQQ41380.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 2:13:57 PM
Sample Name	BG40502-MSD1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

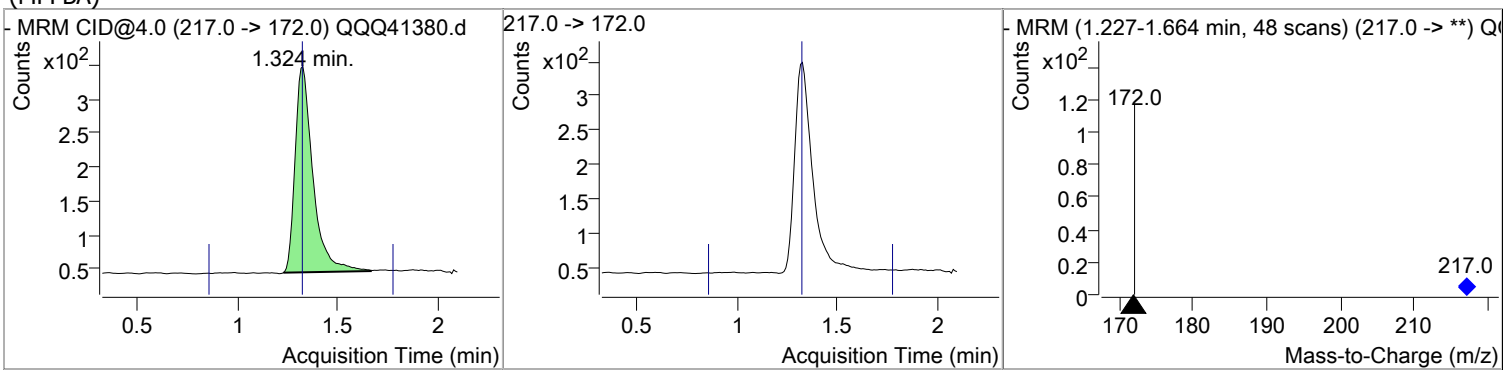
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.317	216.0 -> 172.0	21319	5.0000	ng/ml	0.064
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.324	217.0 -> 172.0	1908	10.0000	ng/ml	0.073
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.792	268.0 -> 223.0	64078	5.0000	ng/ml	0.065
MPFHxA	6.364	315.0 -> 269.8	29949	2.5000	ng/ml	-0.009
MPFHxS	7.317	403.0 -> 103.0	2664	2.3700	ng/ml	-0.065
M3PFBS-EIS	5.557	302.0 -> 79.9	16802	2.3300	ng/ml	0.028
M5PFHxA-EIS	6.372	318.0 -> 273.0	67074	2.5000	ng/ml	0.000
M2-4-2FTS-EIS	6.297	329.0 -> 309.0	12770	4.6900	ng/ml	0.000
M3PFHxS-EIS	7.317	402.0 -> 80.0	12407	2.3700	ng/ml	-0.065
M3-HFPO-DA-EIS	6.661	287.0 -> 169.0	24093	10.0000	ng/ml	-0.028
M4PFHpA-EIS	7.207	367.0 -> 322.0	14656	2.5000	ng/ml	-0.056
M2-6-2FTS-EIS	7.847	429.0 -> 409.0	9342	4.7550	ng/ml	-0.084
MPFOA	7.913	417.0 -> 372.0	29692	2.5000	ng/ml	-0.084
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.913	421.0 -> 376.0	32619	2.5000	ng/ml	-0.084
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.542	507.0 -> 98.9	5756	2.3950	ng/ml	-0.083
MPFNA	8.516	468.0 -> 423.0	13653	1.2500	ng/ml	-0.083
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.516	472.0 -> 223.0	5607	1.2500	ng/ml	-0.074
MPFOS	8.552	503.0 -> 80.0	8910	2.3950	ng/ml	-0.074
M2-8-2FTS-EIS	9.006	529.0 -> 509.0	24722	4.8000	ng/ml	-0.037
MPFDA	9.044	515.0 -> 469.8	11510	1.2500	ng/ml	-0.037
M6PFDA-EIS	9.044	519.0 -> 473.9	19031	1.2500	ng/ml	-0.037
d3-N-MeFOSAA-EIS	9.255	573.0 -> 418.8	25079	5.0000	ng/ml	-0.028
M7PFUdA-EIS	9.515	570.0 -> 525.0	30657	1.2500	ng/ml	0.000
d5-N-EtFOSAA-EIS	9.505	589.0 -> 418.8	22266	5.0000	ng/ml	0.000
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.666	506.0 -> 78.0	15680	2.5000	ng/ml	0.018
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.977	615.0 -> 570.0	22325	1.2500	ng/ml	0.084
M2PFTeDA-EIS	10.691	715.0 -> 670.0	7595	1.2500	ng/ml	0.203
d7-NMeFOSE-EIS	10.465	623.0 -> 59.0	9991	25.0000	ng/ml	0.166
d3-NMeFOSA-EIS	10.496	515.0 -> 219.0	1010	2.5000	ng/ml	0.166
d9-NEtFOSE-EIS	10.739	639.0 -> 59.0	3404	25.0000	ng/ml	0.203
d5-NEtFOSA-EIS	10.779	531.0 -> 169.0	654	2.5000	ng/ml	0.203
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	217.0 -> 172.0	1885	0.1766	ng/ml	0.073
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.792	268.0 -> 223.0	64078	3.3539	ng/ml	0.065
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.557	302.0 -> 79.9	16802	3.5344	ng/ml	0.028
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.297	329.0 -> 309.0	12771	4.0238	ng/ml	0.000

Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.372	318.0 -> 273.0	67074	3.5094	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.661	287.0 -> 169.0	24093	7.2115	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.207	367.0 -> 322.0	14656	3.4523	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.317	402.0 -> 80.0	12407	3.7406	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.847	429.0 -> 409.0	9290	4.3706	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	421.0 -> 376.0	32619	3.4496	ng/ml		-0.084
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.516	472.0 -> 223.0	5608	1.9273	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.542	507.0 -> 98.9	5757	3.5232	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.006	529.0 -> 509.0	24722	4.9525	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.044	519.0 -> 473.9	19029	1.5090	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.255	573.0 -> 418.8	25079	5.9571	ng/ml		-0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.505	589.0 -> 418.8	22266	5.9886	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.515	570.0 -> 525.0	30657	1.7961	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	506.0 -> 78.0	15680	2.9289	ng/ml		0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	615.0 -> 570.0	22326	1.4879	ng/ml		0.084
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.465	623.0 -> 59.0	10003	23.2832	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.496	515.0 -> 219.0	1009	1.8643	ng/ml		0.166
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.691	715.0 -> 670.0	7595	1.1345	ng/ml		0.203
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.739	639.0 -> 59.0	3404	17.7986	ng/ml		0.203
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.779	531.0 -> 169.0	654	1.9739	ng/ml	m	0.203
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.320	213.0 -> 168.9	1707	10.1975	ng/ml		100
PFMPA	2.263	229.0 -> 85.0	2738	0.7160	ng/ml		100
3:3FTCA	4.498	241.0 -> 177.0	601	2.7021	ng/ml		91
Perfluoro-n-pentanoic acid (PFPeA)	4.793	263.0 -> 219.0	89444	7.2726	ng/ml		100
PFMBA	5.532	279.0 -> 85.0	57569	10.8186	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.558	298.9 -> 79.9	22668	3.0733	ng/ml		99
PFEESA	6.075	315.0 -> 135.0	197541	5.6094	ng/ml		99
NFDHA	6.225	295.0 -> 201.1	2400	5.1056	ng/ml		96
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	327.0 -> 307.0	32507	10.2050	ng/ml		97

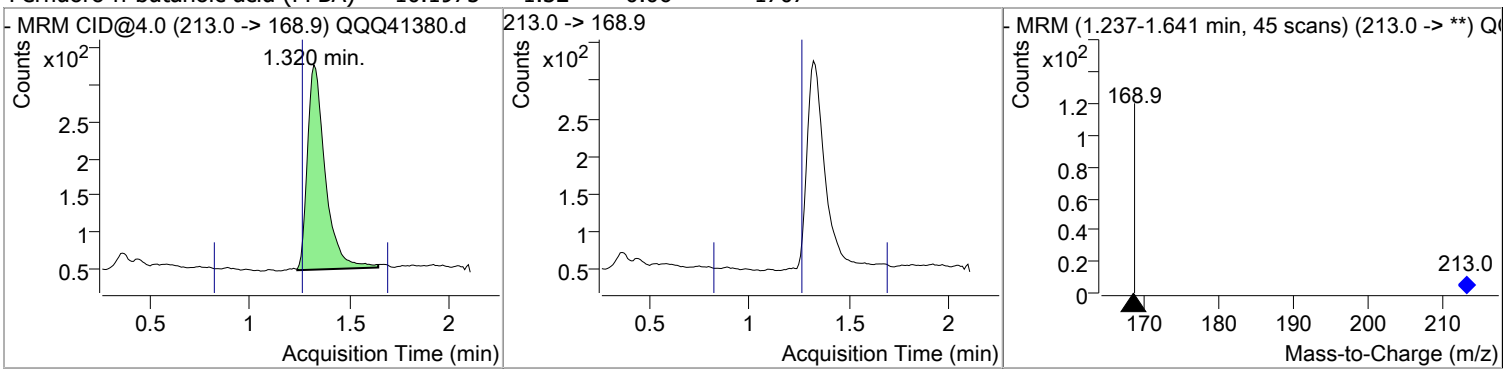
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.364	313.0 -> 268.9	113800	3.6776	ng/ml		99
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.574	348.9 -> 79.9	21461	3.2106	ng/ml		99
HFPO-DA	6.671	285.0 -> 169.1	1730	8.1538	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.217	363.0 -> 318.8	47353	3.6095	ng/ml		92
5-3FTCA	7.282	341.0 -> 217.0	144909	33.9523	ng/ml		94
Perfluorohexanesulfonic acid (PFHxS)	7.317	398.9 -> 79.9	20245	3.3116	ng/ml	m	90
ADONA	7.346	377.0 -> 85.0	68907	12.9177	ng/ml		97
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	427.0 -> 407.0	32243	10.4101	ng/ml		100
Perfluorooctanoic acid (PFOA)	7.913	413.0 -> 368.8	52628	3.9638	ng/ml		96
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.976	448.9 -> 80.0	18070	2.9565	ng/ml		99
Perfluorononanoic acid (PFNA)	8.516	463.0 -> 418.8	53936	3.7047	ng/ml		98
Perfluorooctanesulfonic acid (PFOS)	8.543	498.9 -> 79.9	16192	2.9632	ng/ml	m	85
7-3FTCA	8.702	441.0 -> 337.0	234504	41.0991	ng/ml		97
9-Cl-PF3ONS	8.875	531.0 -> 351.0	175037	12.0366	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.006	527.0 -> 80.9	15477	12.7725	ng/ml		94
Perfluorodecanoic acid (PFDA)	9.044	513.0 -> 468.8	63591	3.6508	ng/ml		97
Perfluorononanesulfonate (L-PFNS)	9.052	548.9 -> 79.9	14601	3.4002	ng/ml		97
N-MeFOSAA	9.264	570.0 -> 418.9	14273	3.2672	ng/ml	m	91
Perfluoroundecanoic acid (PFUnA)	9.516	563.0 -> 519.0	75844	3.1948	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.513	598.9 -> 98.9	5859	2.8247	ng/ml		100
N-EtFOSAA	9.514	584.0 -> 418.8	14939	3.8785	ng/ml	m	98
Perfluoro-1-octanesulfonamide (FOSA)	9.667	497.9 -> 78.0	35704	3.9887	ng/ml		100
11-Cl-PF3OUdS	9.799	631.0 -> 451.0	103814	10.3085	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.978	613.0 -> 568.8	55107	3.7874	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.352	699.0 -> 80.0	2407	2.2802	ng/ml		93
Perfluorotridecanoic acid (PFTrDA)	10.362	663.0 -> 618.8	36922	4.8411	ng/ml		100
NMeFOSE	10.475	616.0 -> 59.0	12056	36.8078	ng/ml		100
NMeFOSA	10.506	512.0 -> 169.0	1090	3.2233	ng/ml		96
Perfluorotetradecanoic acid (PFTA)	10.691	713.0 -> 669.0	23535	3.9701	ng/ml		98
NEtFOSE	10.758	630.0 -> 59.0	10035	34.0313	ng/ml		100
NEtFOSA	10.789	526.0 -> 169.0	902	2.7605	ng/ml		97

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

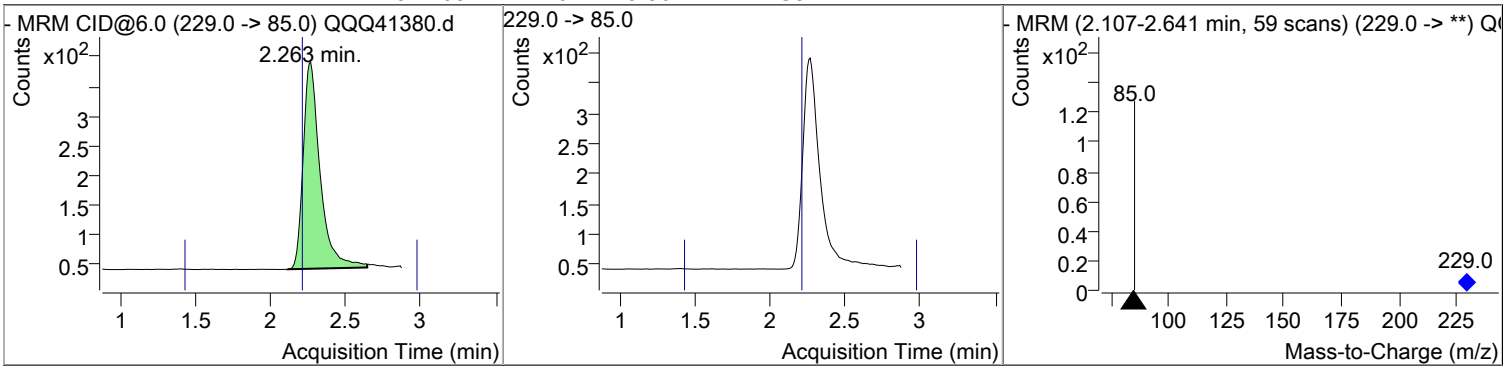
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	0.1766	1.32	0.07	1885				



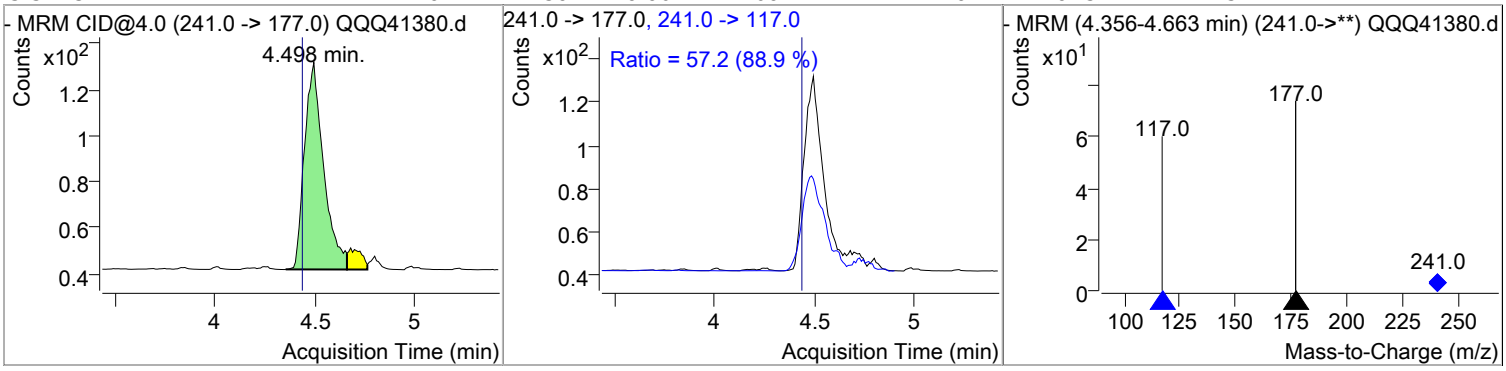
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	10.1975	1.32	0.06	1707				



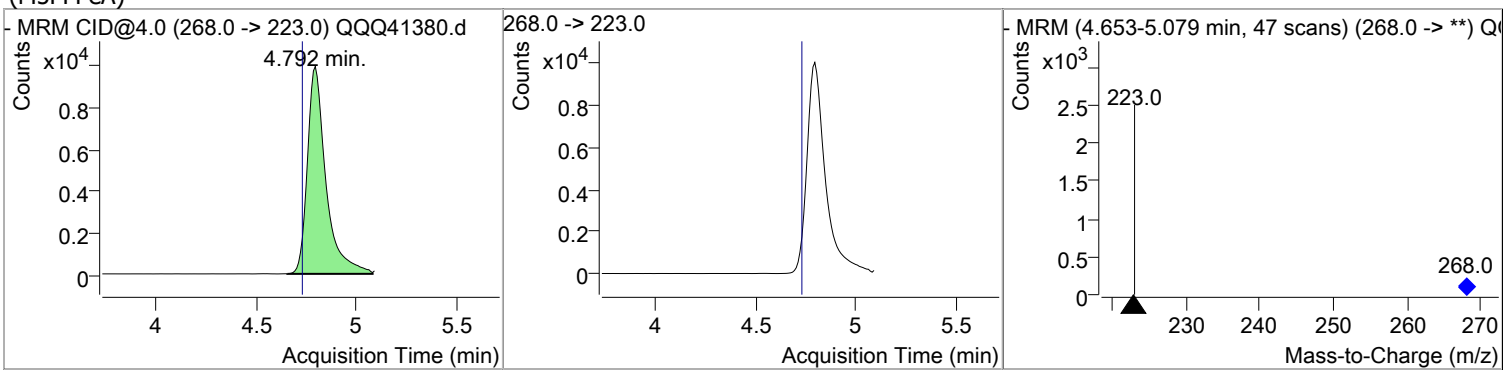
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.7160	2.26	0.06	2738				



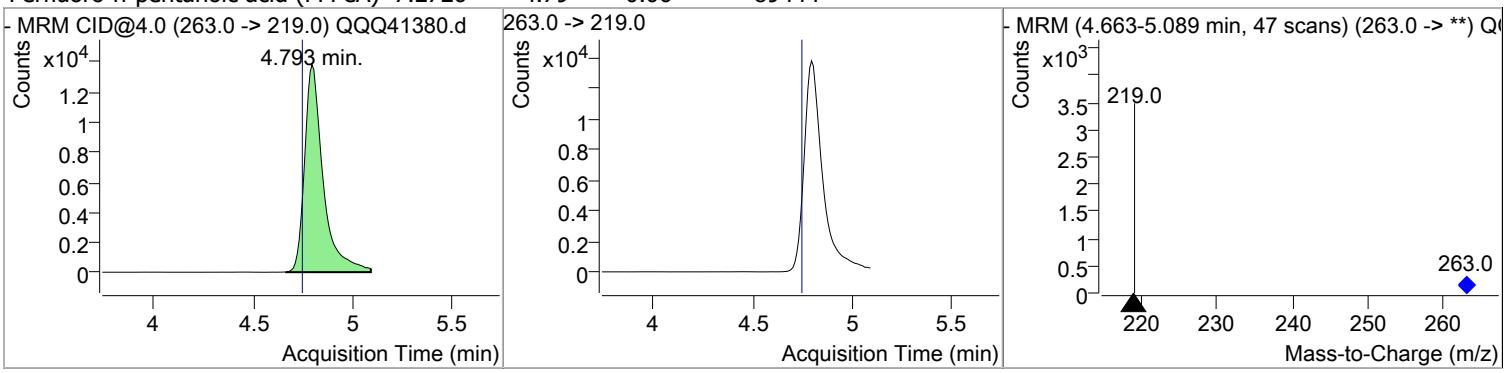
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	2.7021	4.50	0.06	601	241.0 -> 117.0	57.2	51.4	77.2



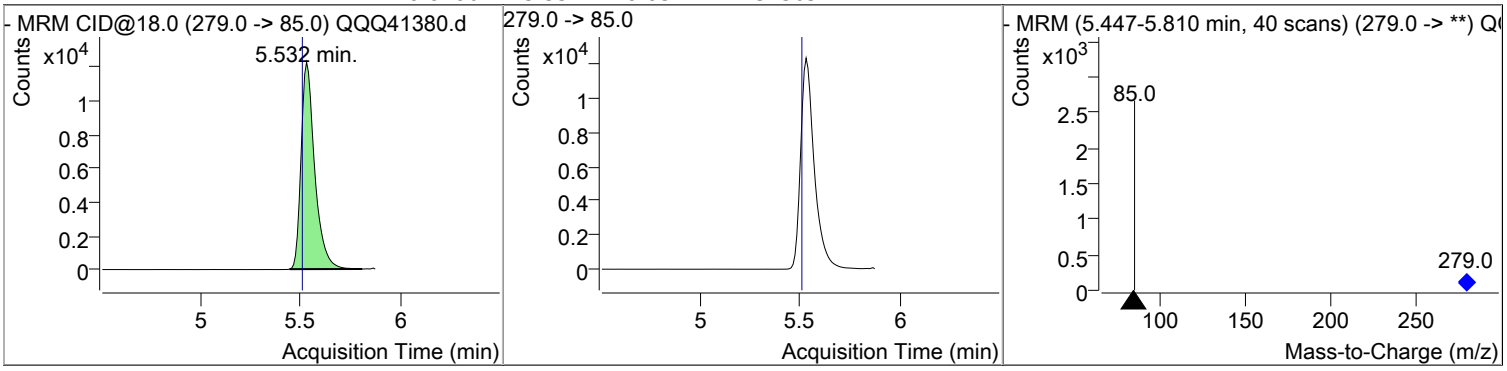
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	3.3539	4.79	0.06	64078				



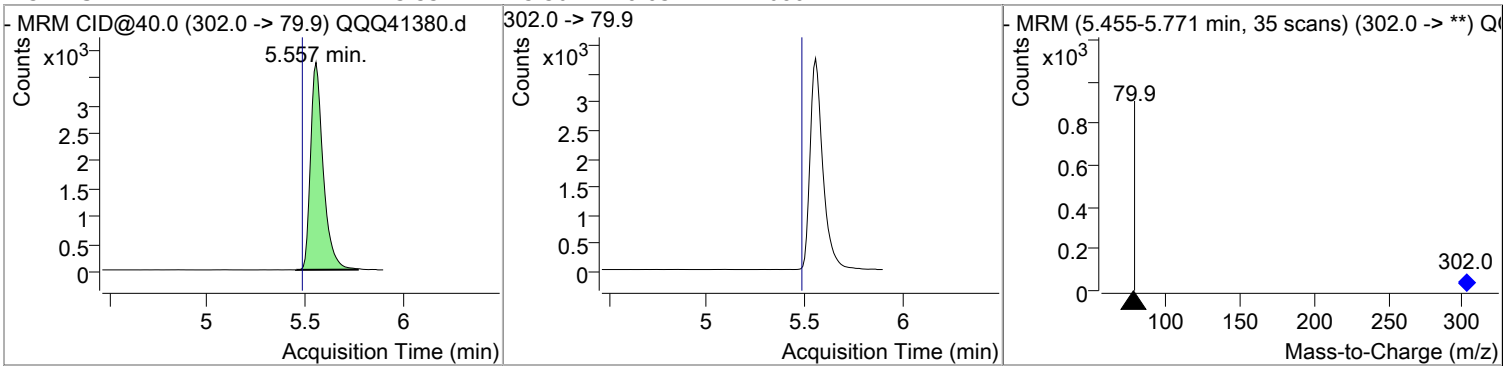
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	7.2726	4.79	0.06	89444				



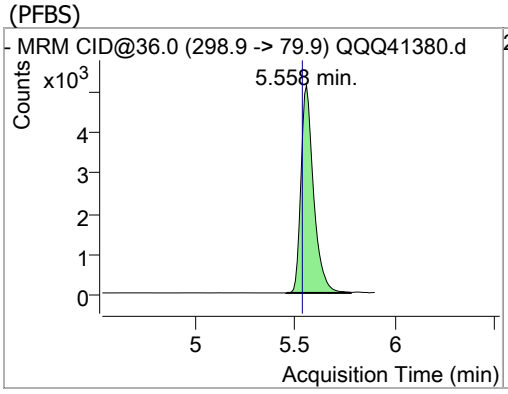
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	10.8186	5.53	0.03	57569				

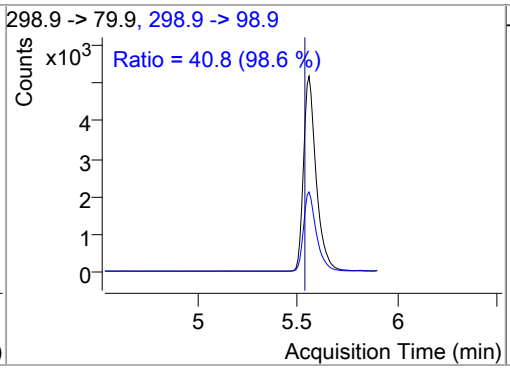


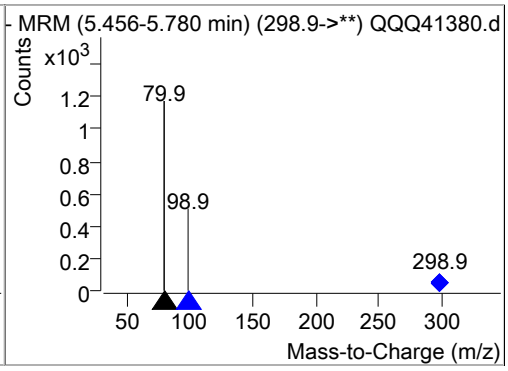
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.5344	5.56	0.03	16802				



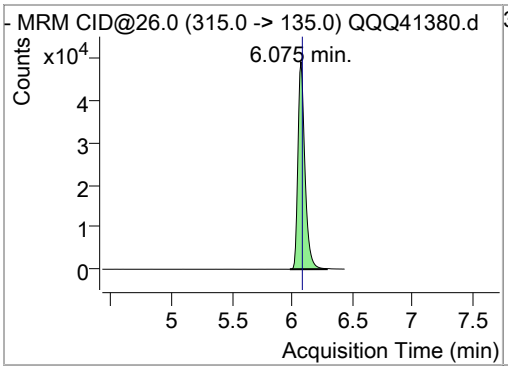
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	3.0733	5.56	0.03	22668	298.9 -> 98.9	40.8	33.1	49.7

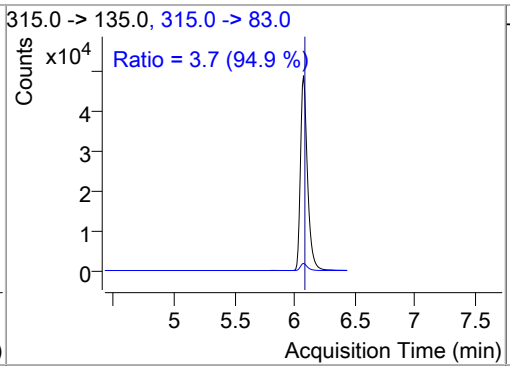


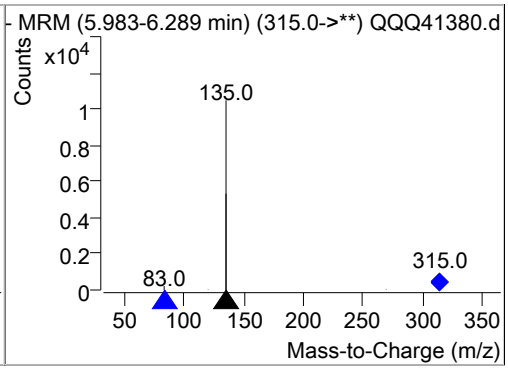




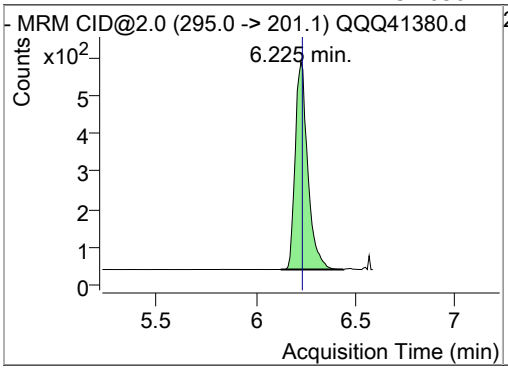
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	5.6094	6.08	0.00	197541	315.0 -> 83.0	3.7	3.1	4.7

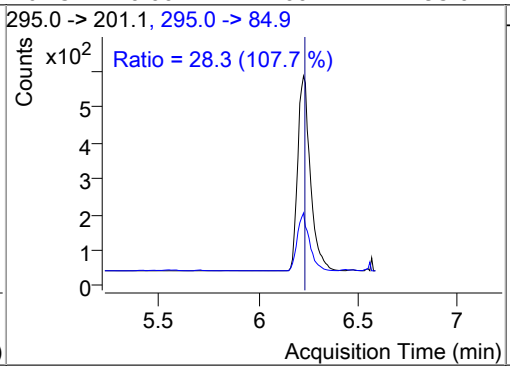


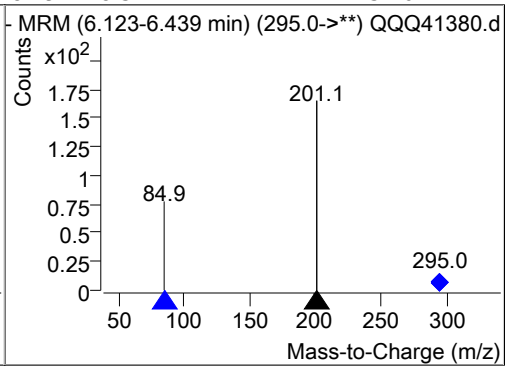




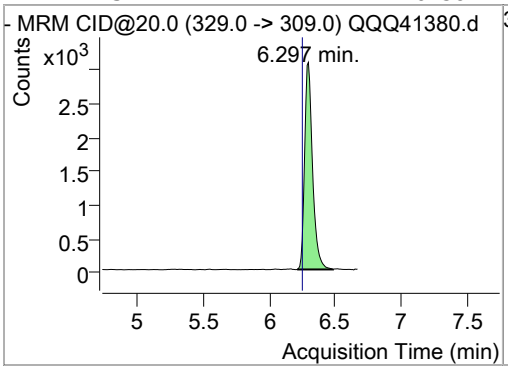
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	5.1056	6.23	0.00	2400	295.0 -> 84.9	28.3	21.1	31.6

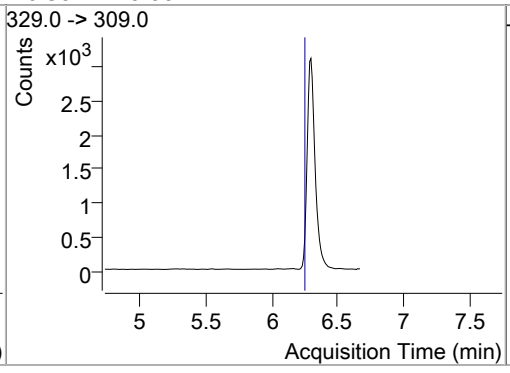


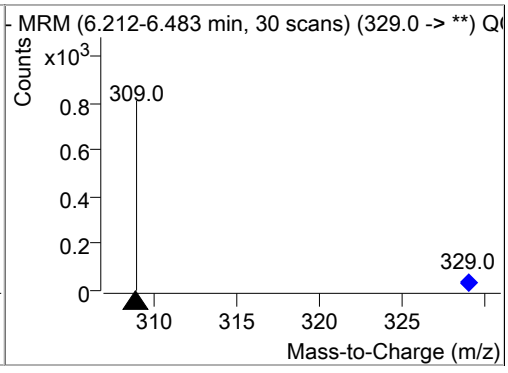




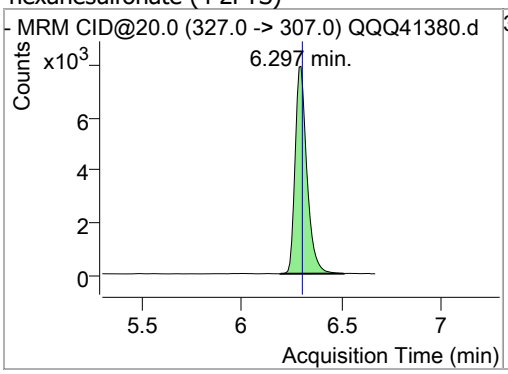
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	4.0238	6.30	0.00	12771				

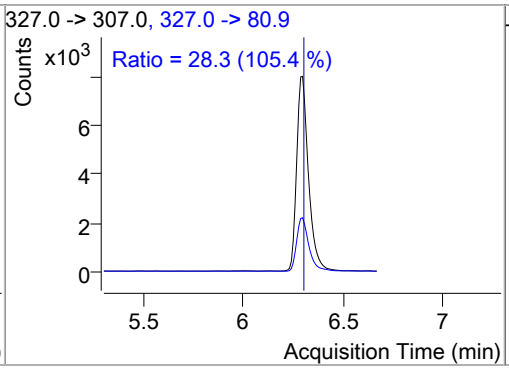


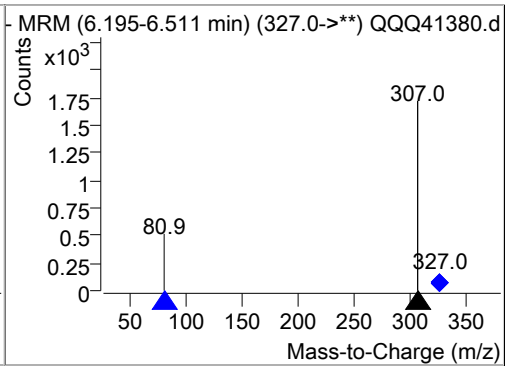




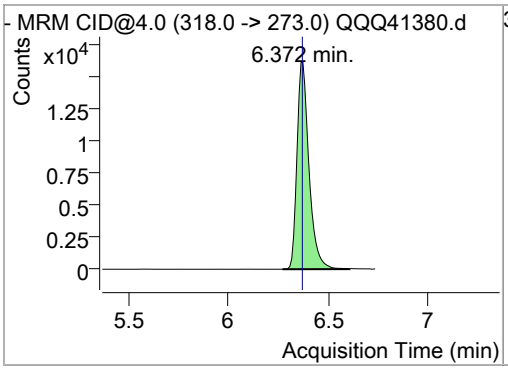
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	10.2050	6.30	0.00	32507	327.0 -> 80.9	28.3	21.5	32.2

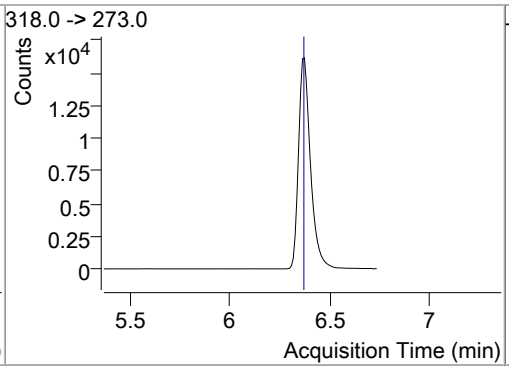


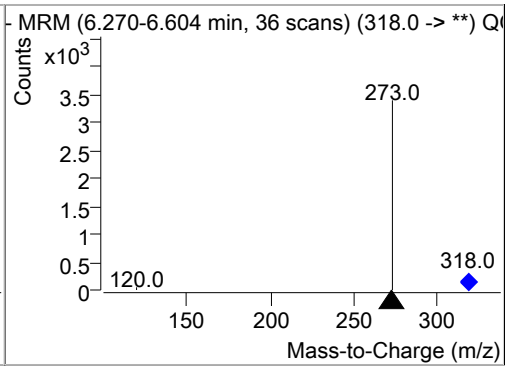




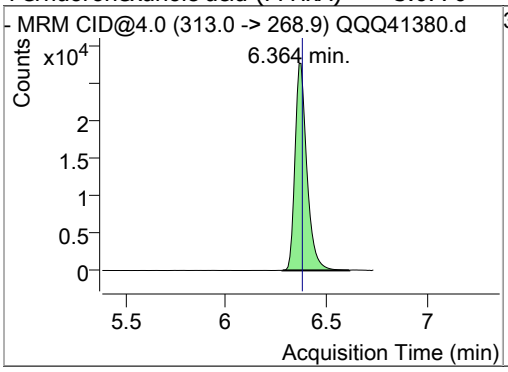
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.5094	6.37	0.00	67074				

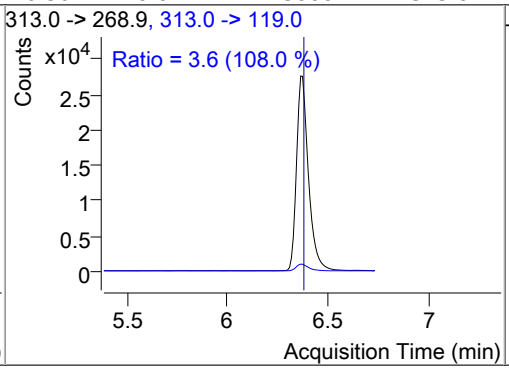


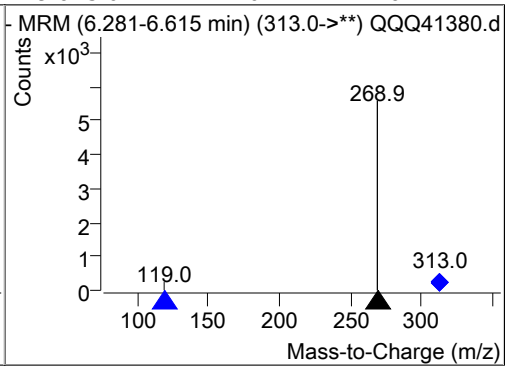




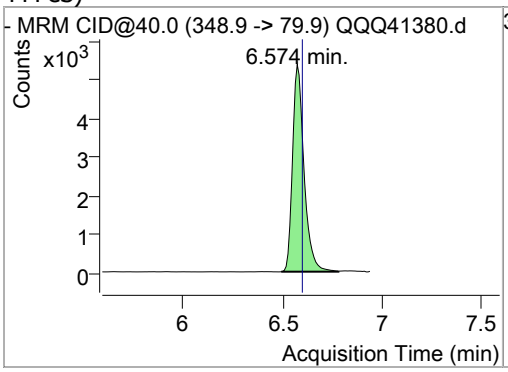
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	3.6776	6.36	-0.01	113800	313.0 -> 119.0	3.6	2.6	4.0

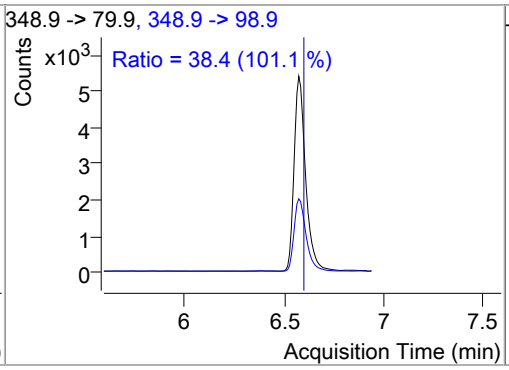


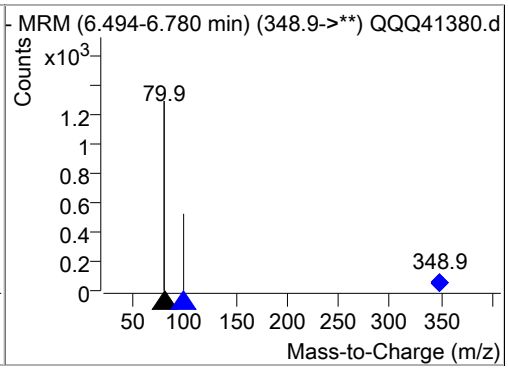




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	3.2106	6.57	-0.02	21461	348.9 -> 98.9	38.4	30.4	45.6

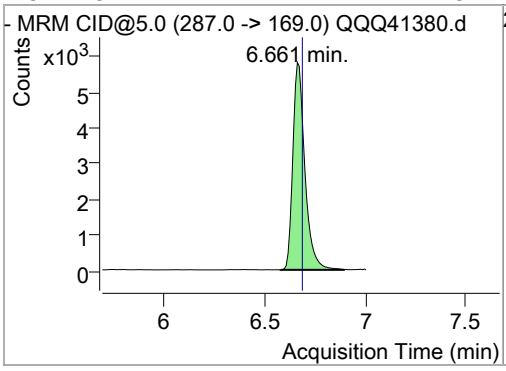


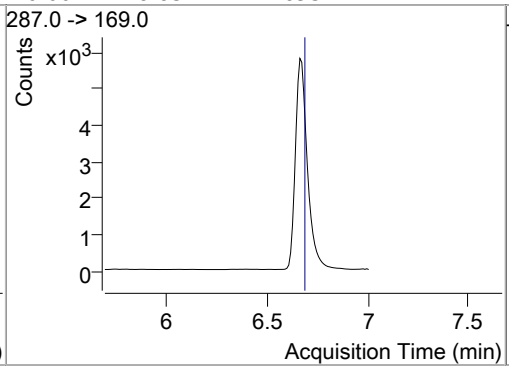


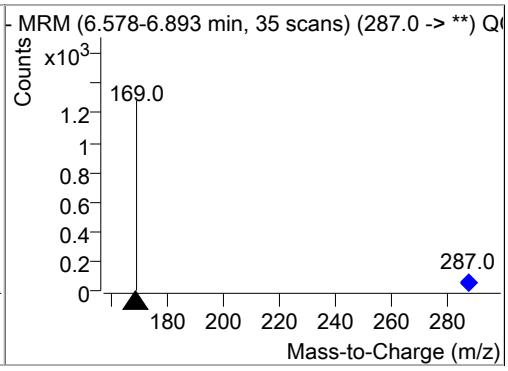


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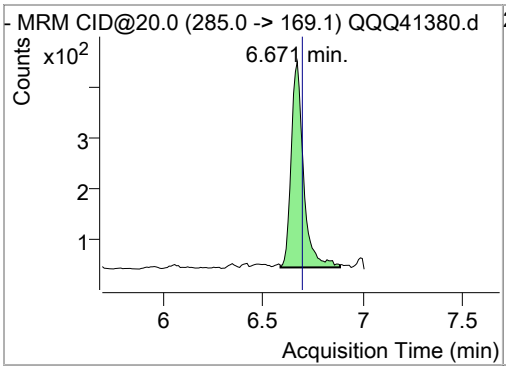
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	7.2115	6.66	-0.03	24093				

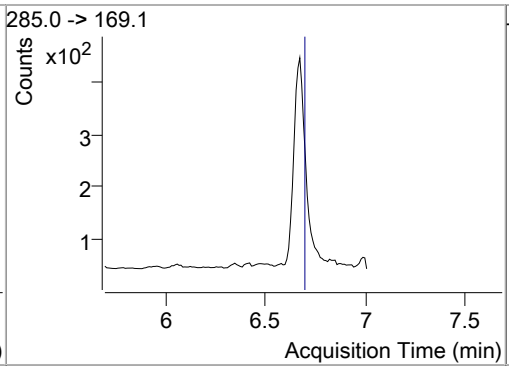


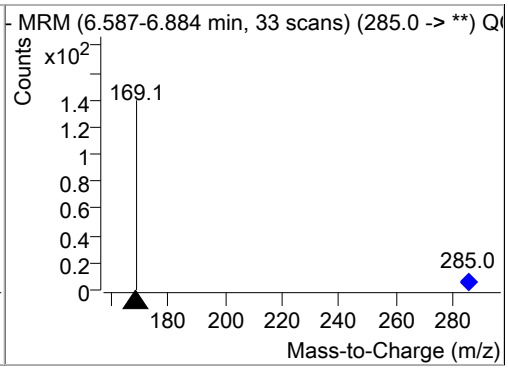




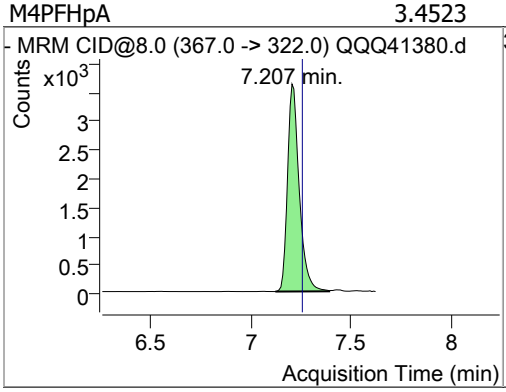
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	8.1538	6.67	-0.02	1730				

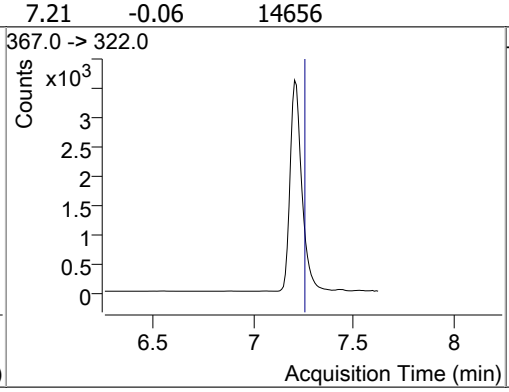


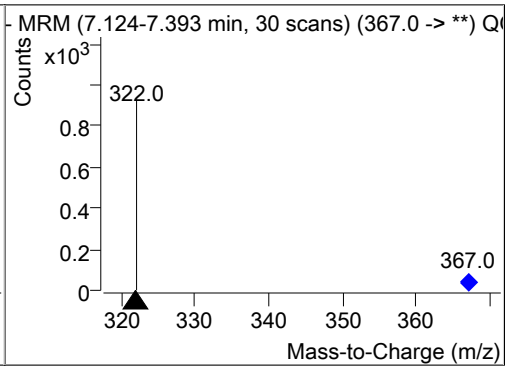




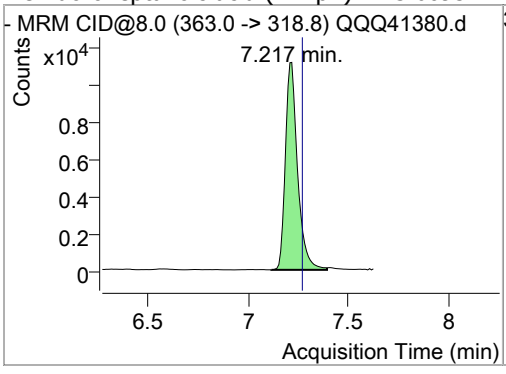
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.4523	7.21	-0.06	14656				

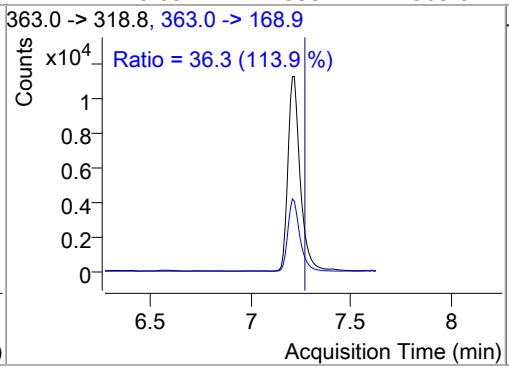


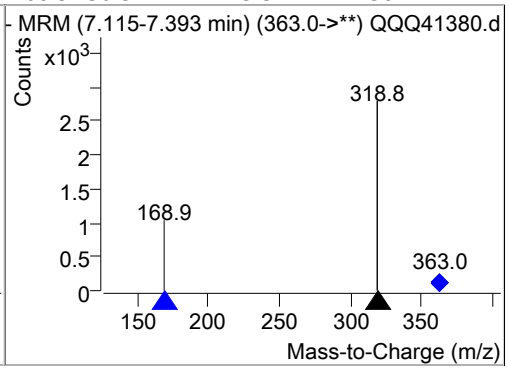




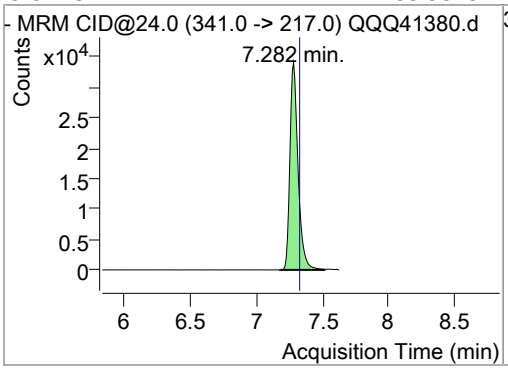
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	3.6095	7.22	-0.05	47353	363.0 -> 168.9	36.3	25.5	38.2

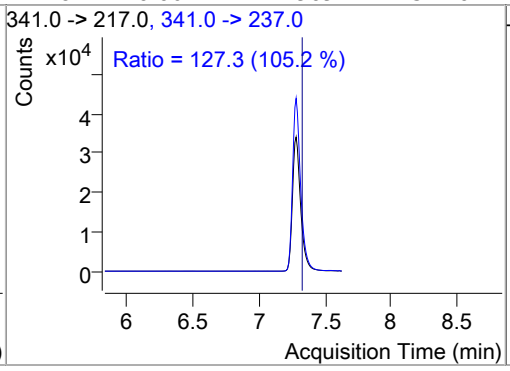


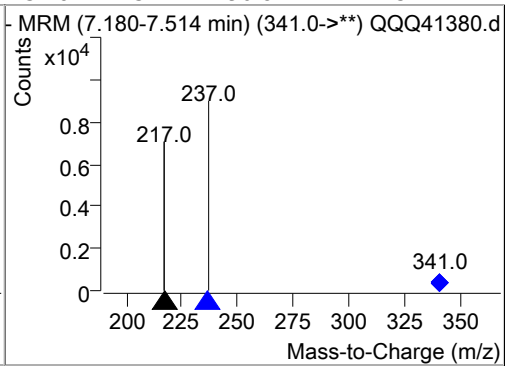




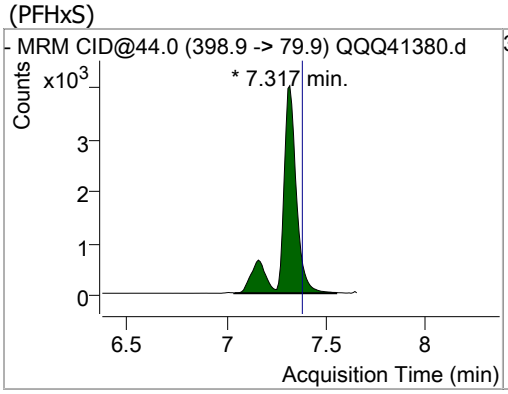
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	33.9523	7.28	-0.06	144909	341.0 -> 237.0	127.3	96.8	145.2

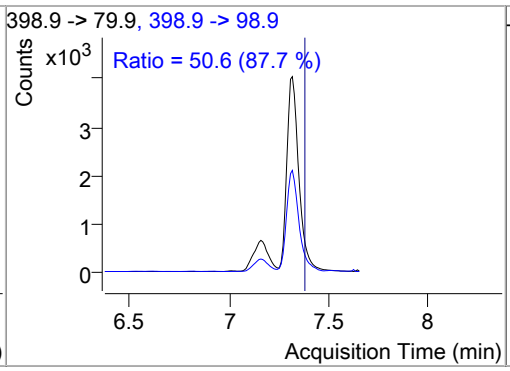


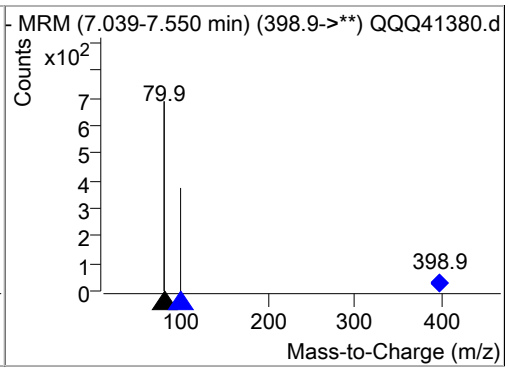




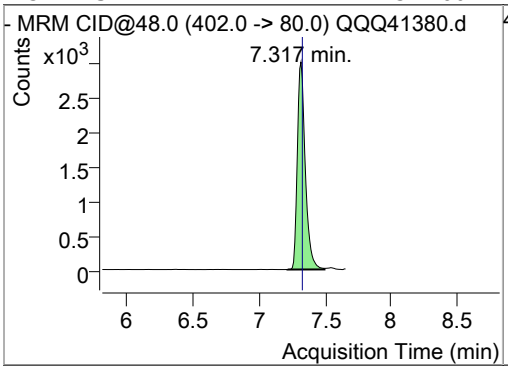
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	3.3116	7.32	-0.06	20245 (m)	398.9 -> 98.9	50.6	46.2	69.3

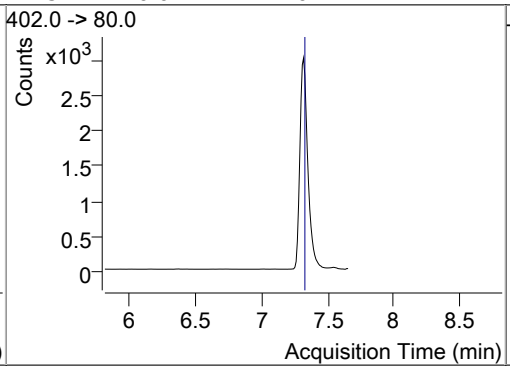


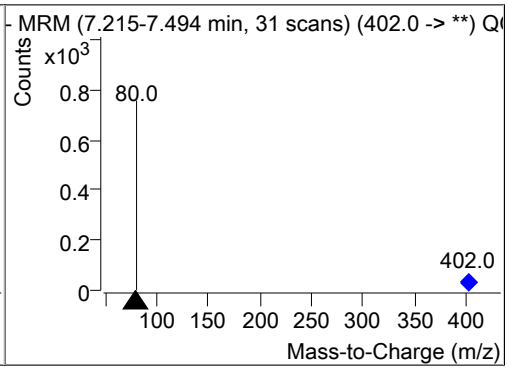




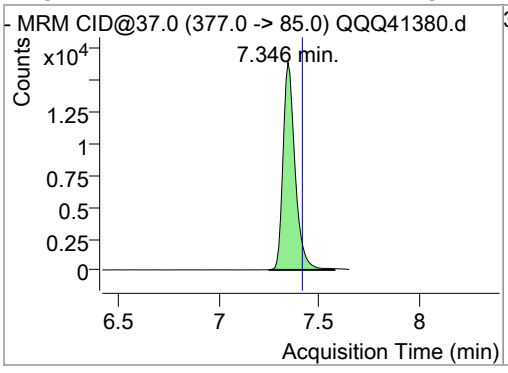
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	3.7406	7.32	-0.07	12407				

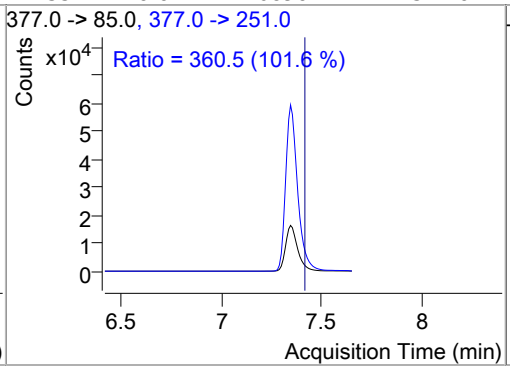


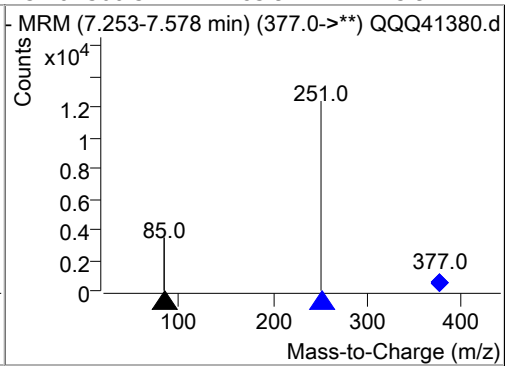




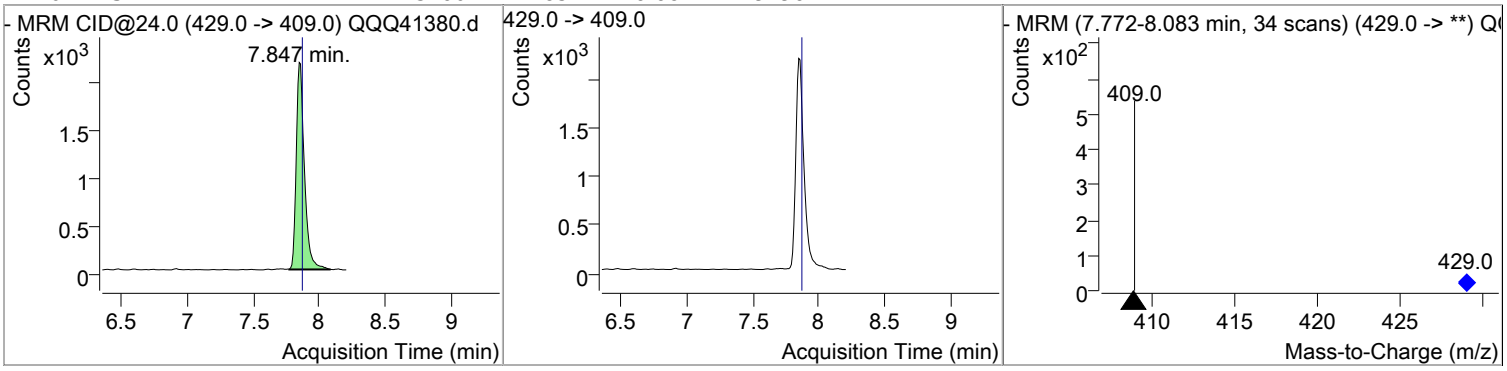
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	12.9177	7.35	-0.07	68907	377.0 -> 251.0	360.5	283.9	425.9



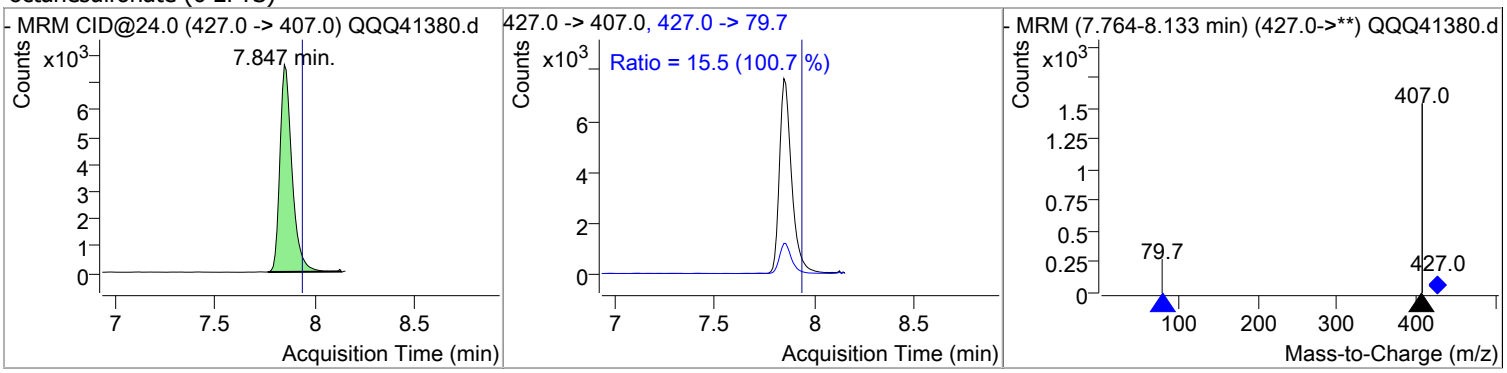




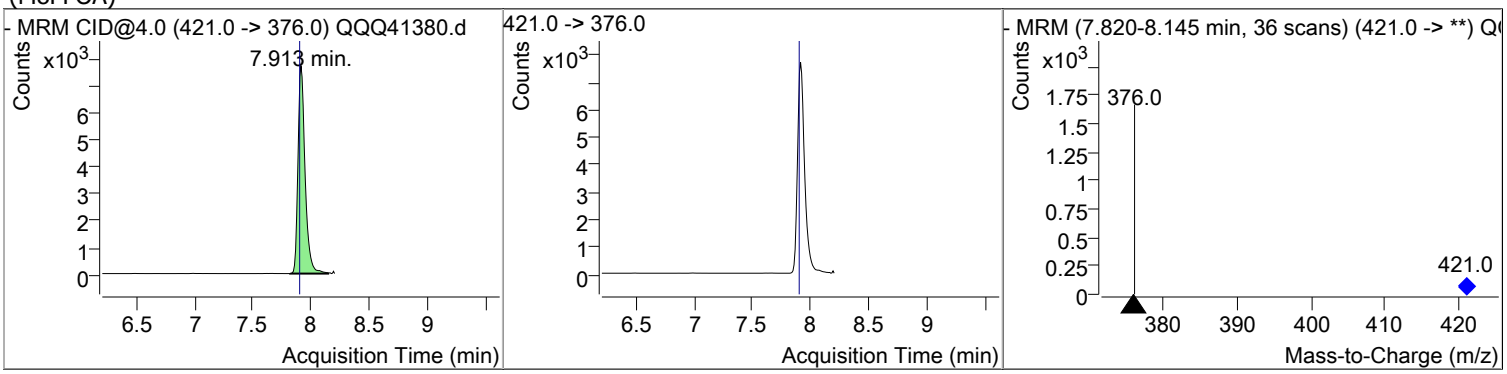
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	4.3706	7.85	-0.08	9290				



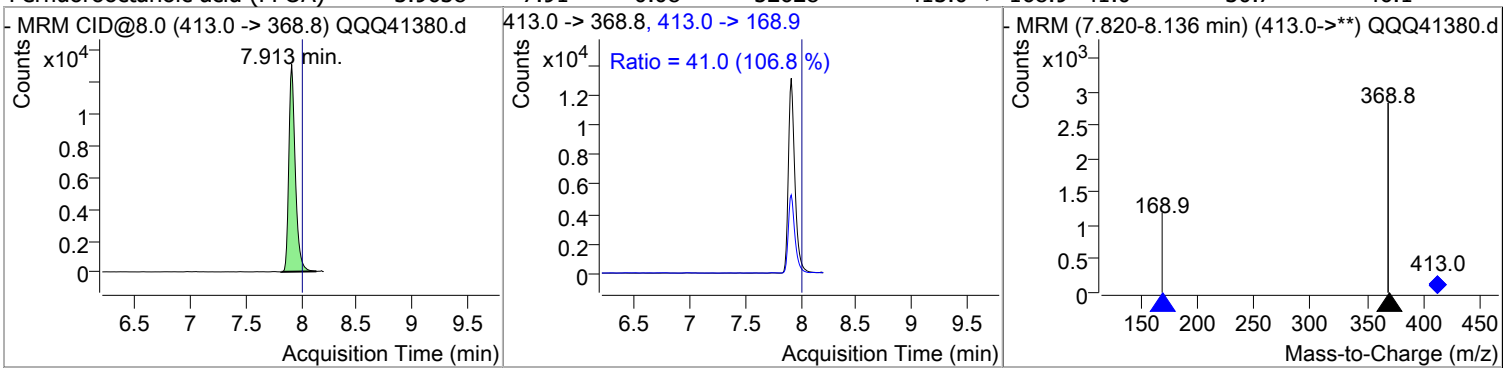
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	10.4101	7.85	-0.08	32243	427.0 -> 79.7	15.5	12.3	18.5



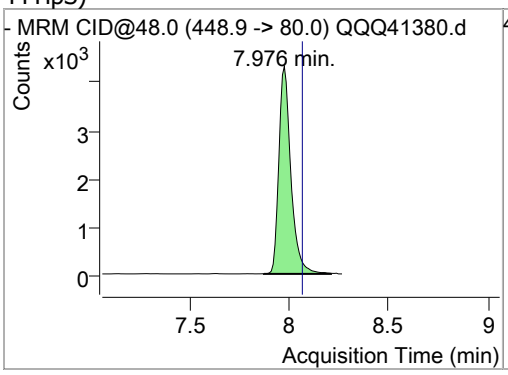
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	3.4496	7.91	-0.08	32619				

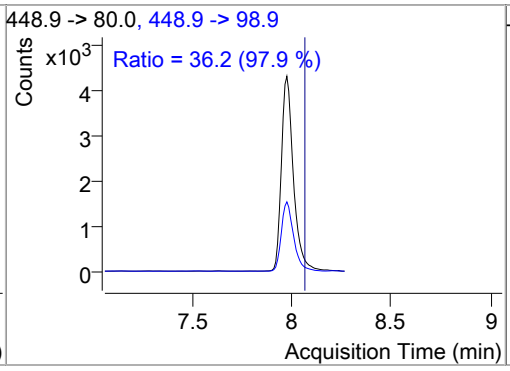


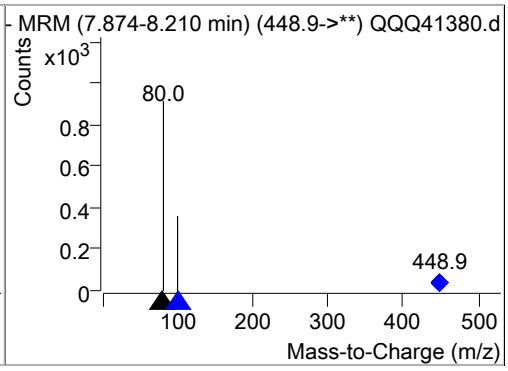
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	3.9638	7.91	-0.08	52628	413.0 -> 168.9	41.0	30.7	46.1



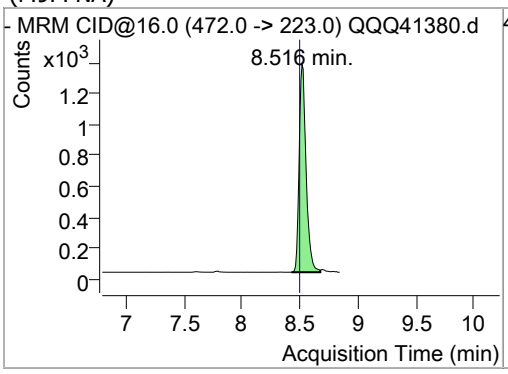
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	2.9565	7.98	-0.08	18070	448.9 -> 98.9	36.2	29.6	44.4

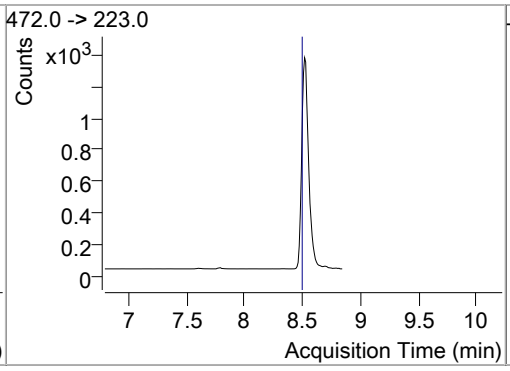


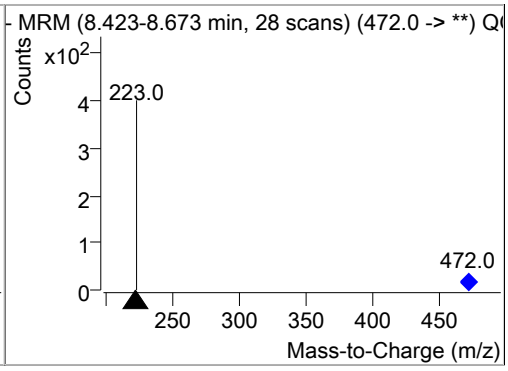




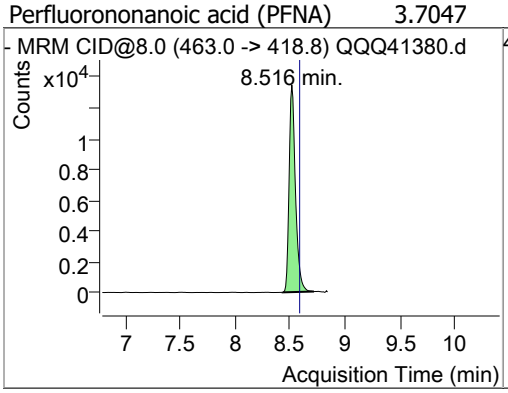
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.9273	8.52	-0.07	5608				

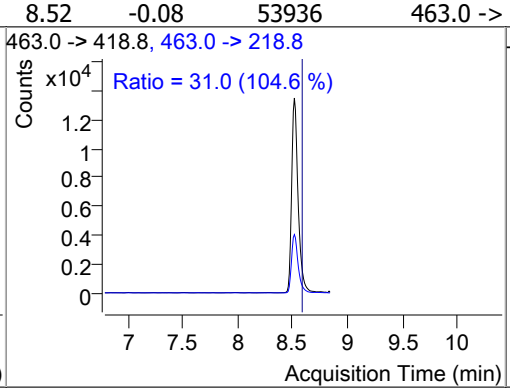


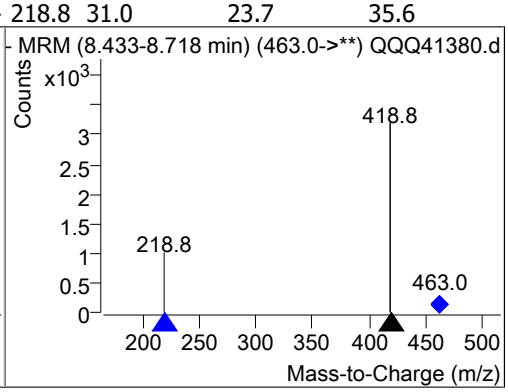




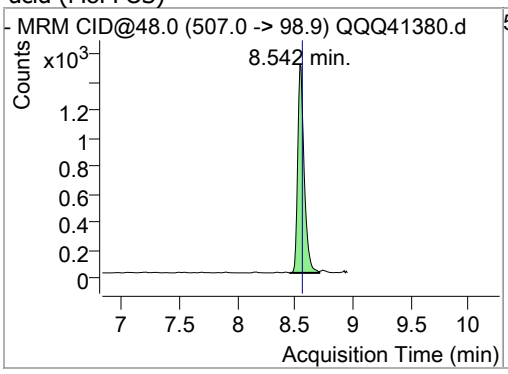
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	3.7047	8.52	-0.08	53936	463.0 -> 218.8	31.0	23.7	35.6

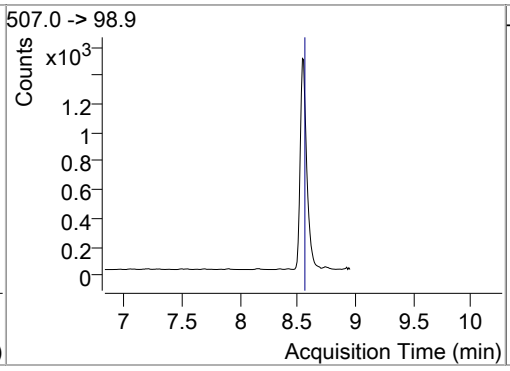


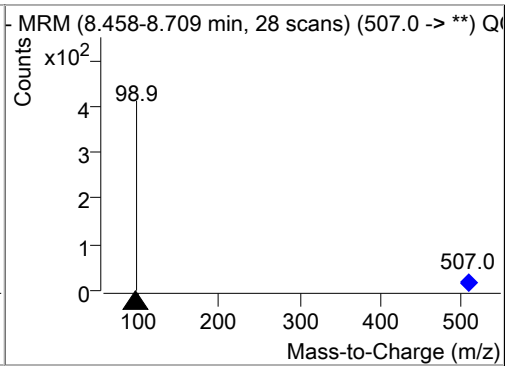




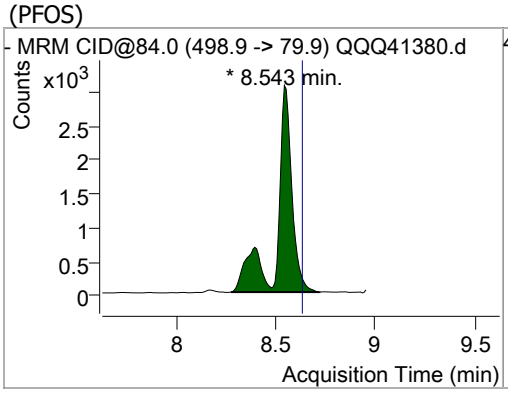
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	3.5232	8.54	-0.08	5757				

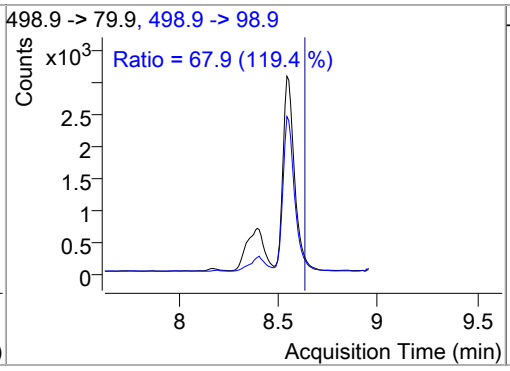


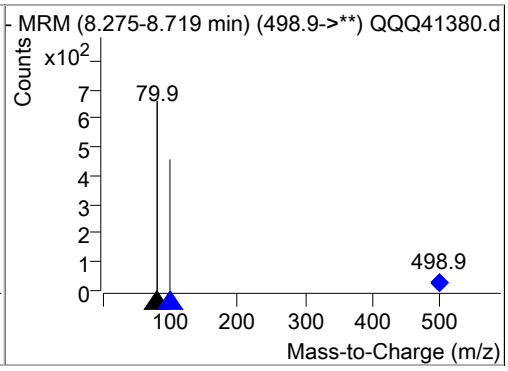




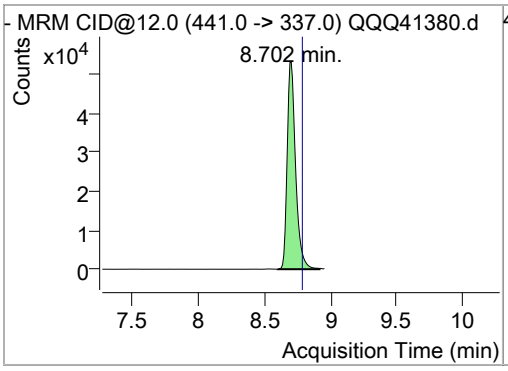
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.9632	8.54	-0.08	16192 (m)	498.9 -> 98.9	67.9	45.5	68.3

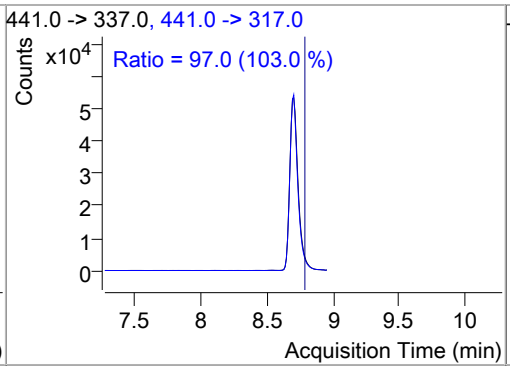


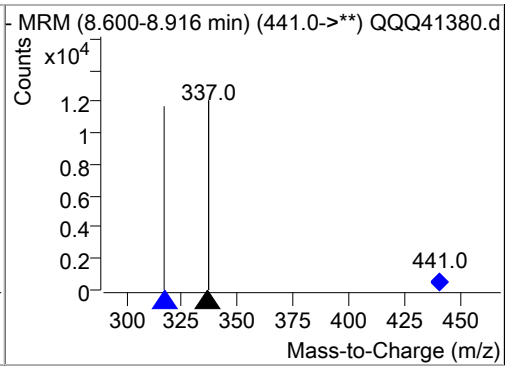




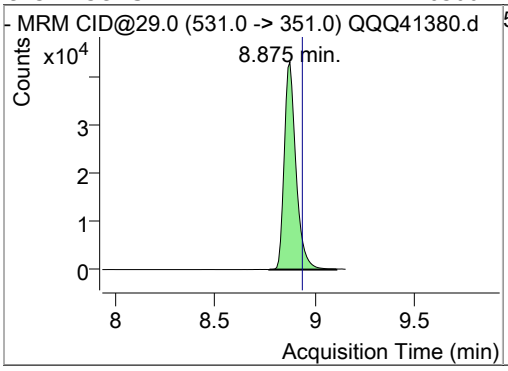
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	41.0991	8.70	-0.07	234504	441.0 -> 317.0	97.0	75.4	113.1

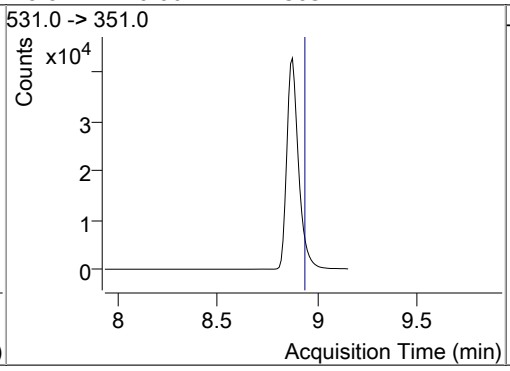


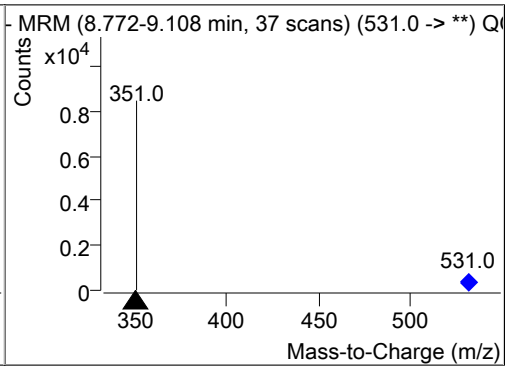




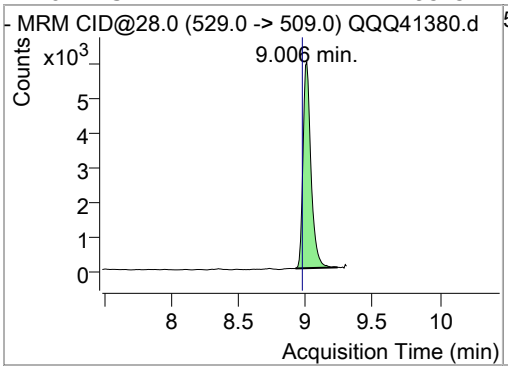
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	12.0366	8.87	-0.06	175037				

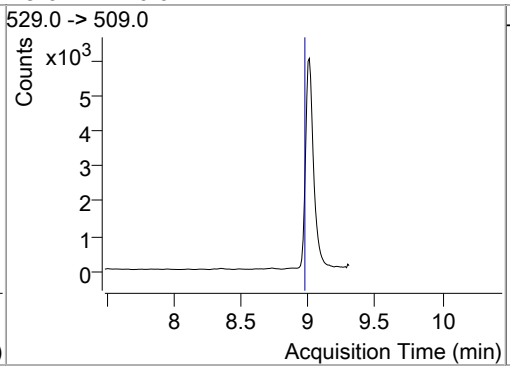


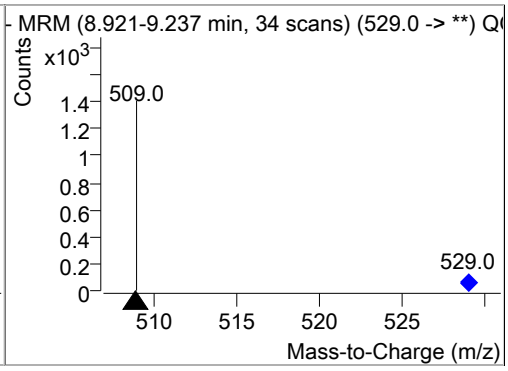




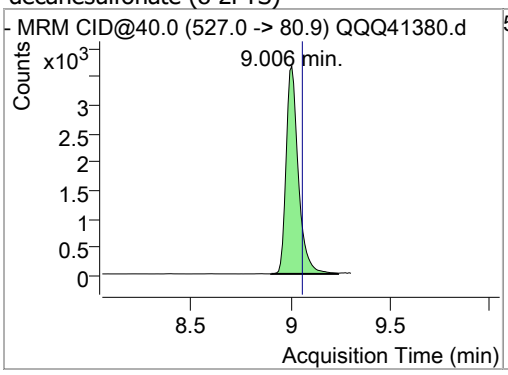
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	4.9525	9.01	-0.04	24722				

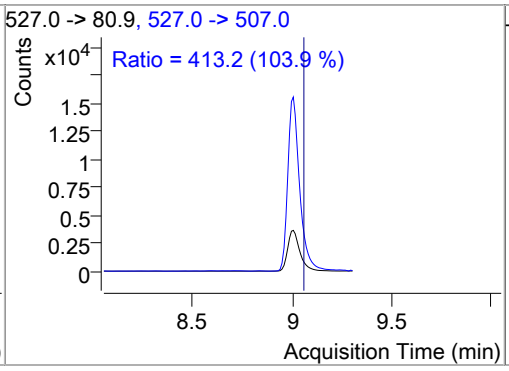


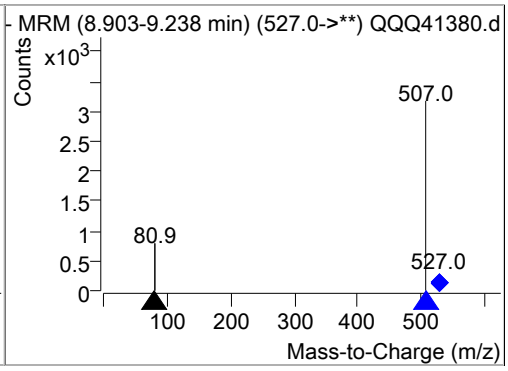




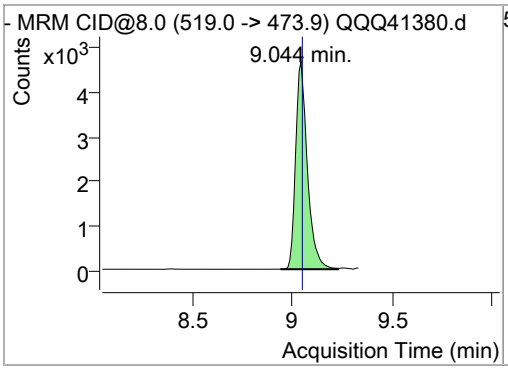
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	12.7725	9.01	-0.05	15477	527.0 -> 507.0	413.2	318.3	477.4

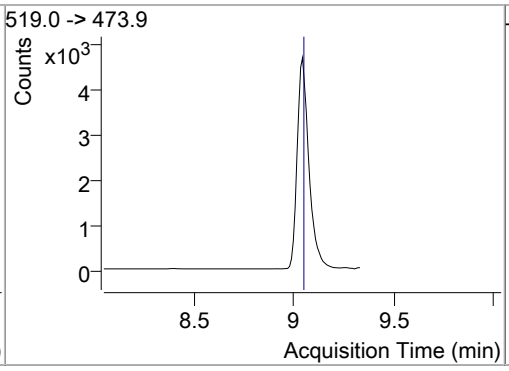


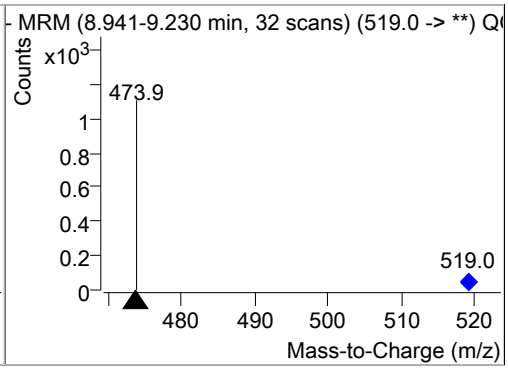




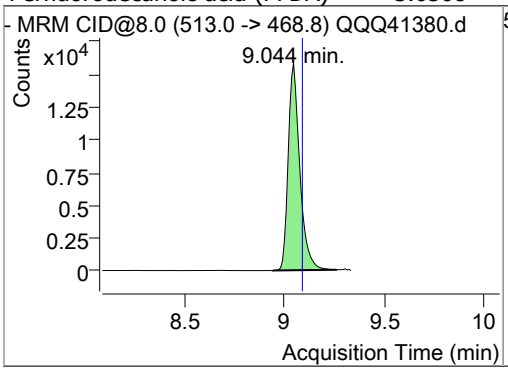
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.5090	9.04	-0.04	19029				

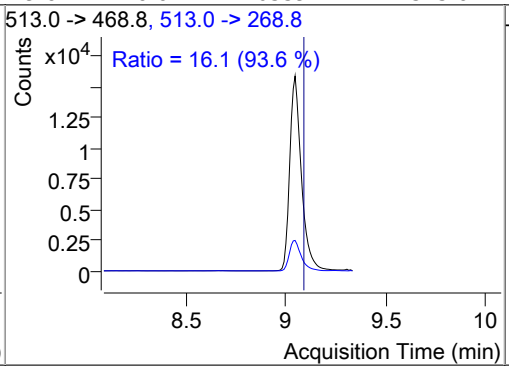


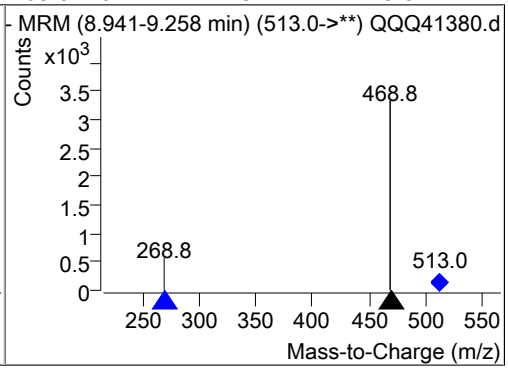




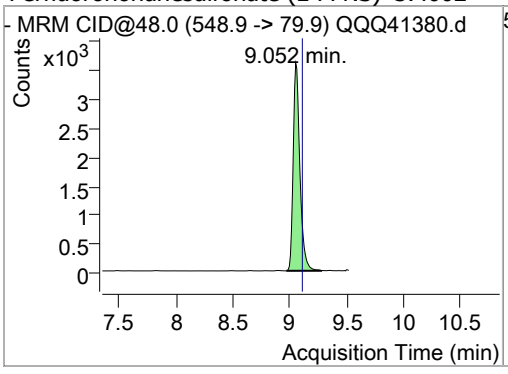
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	3.6508	9.04	-0.04	63591	513.0 -> 268.8	16.1	13.7	20.6

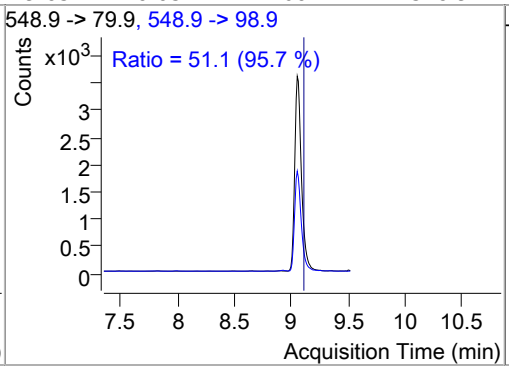


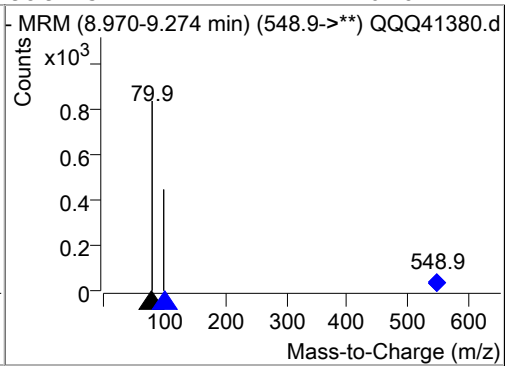




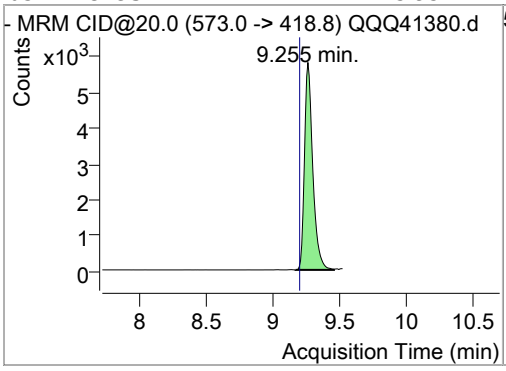
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	3.4002	9.05	-0.05	14601	548.9 -> 98.9	51.1	42.7	64.0

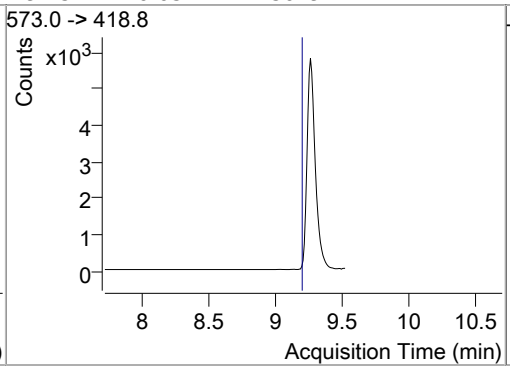


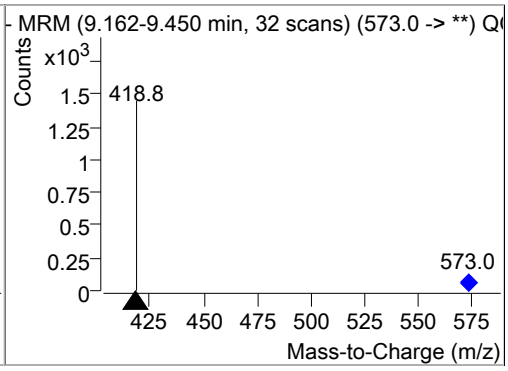




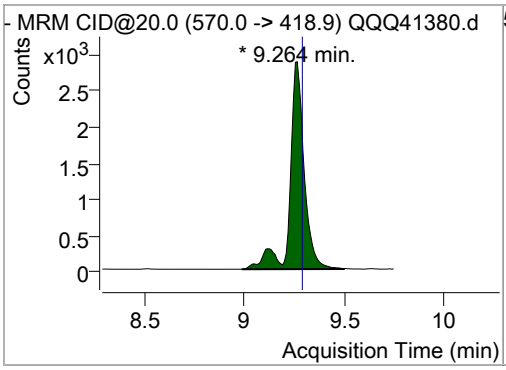
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	5.9571	9.25	-0.03	25079				

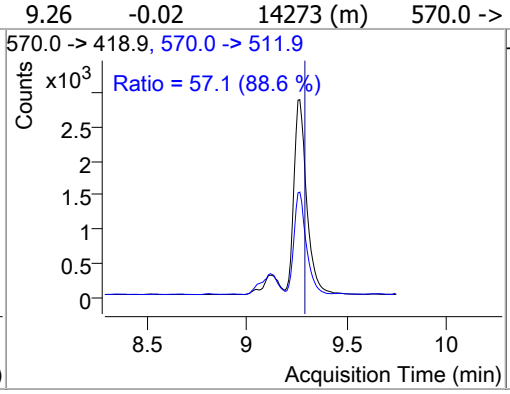


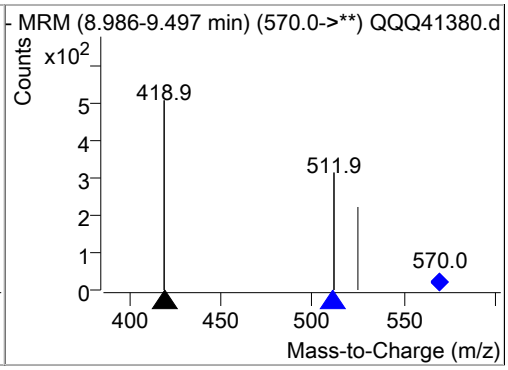




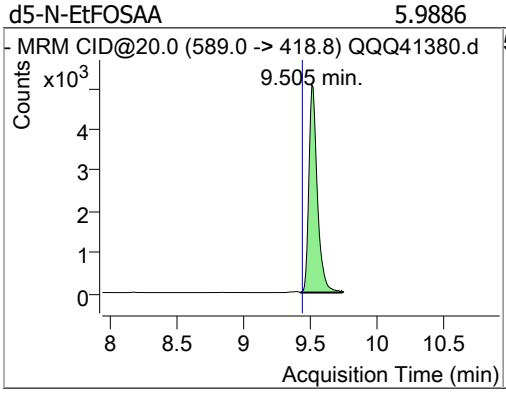
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	3.2672	9.26	-0.02	14273 (m)	570.0 -> 511.9	57.1	51.6	77.4

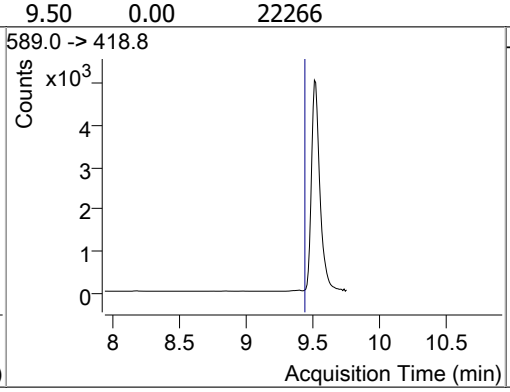


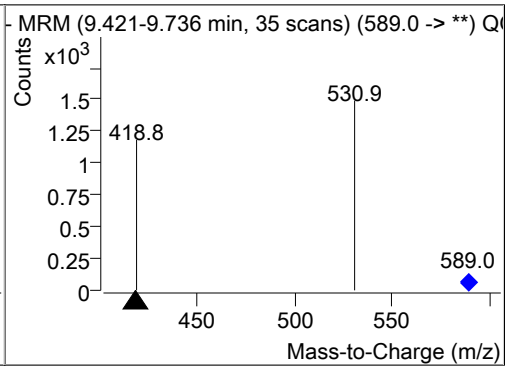




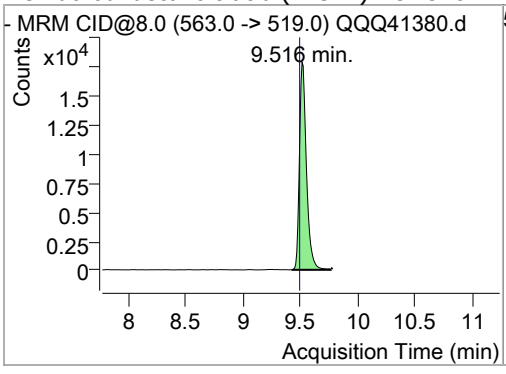
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	5.9886	9.50	0.00	22266				

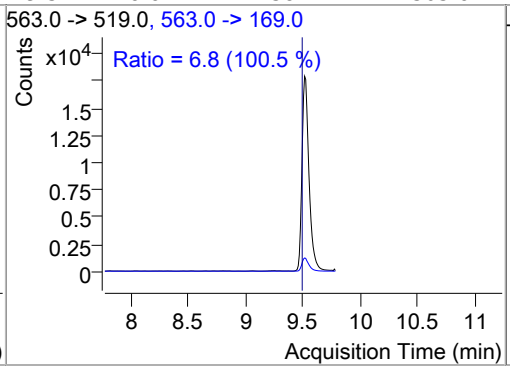


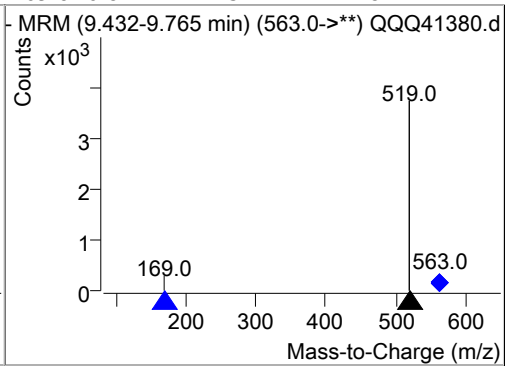




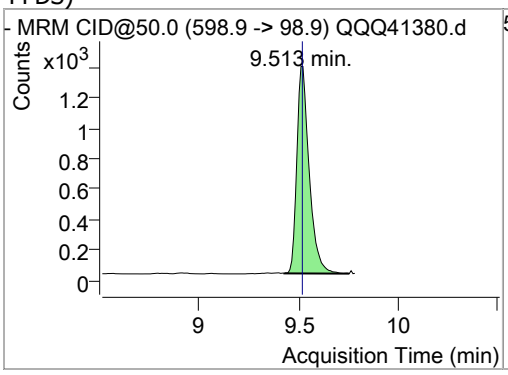
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	3.1948	9.52	0.01	75844	563.0 -> 169.0	6.8	5.4	8.1

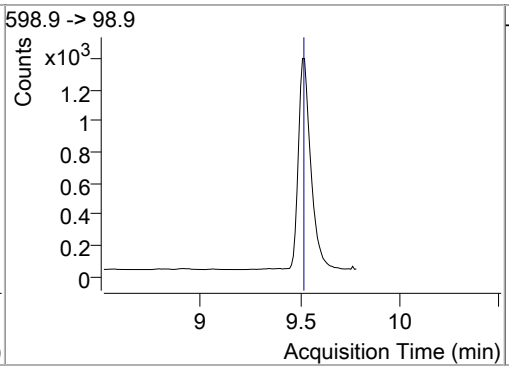


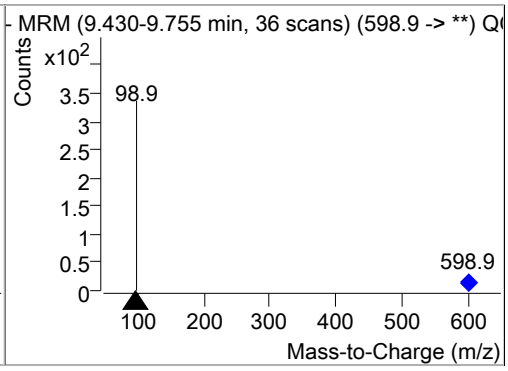




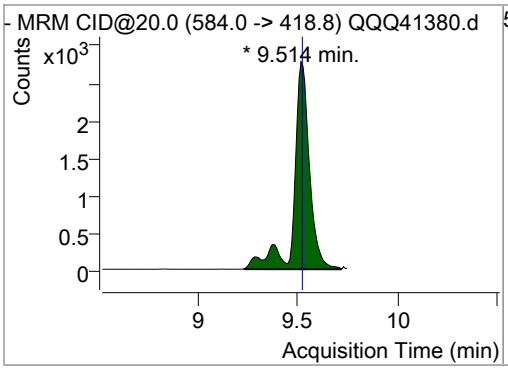
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	2.8247	9.51	0.00	5859				

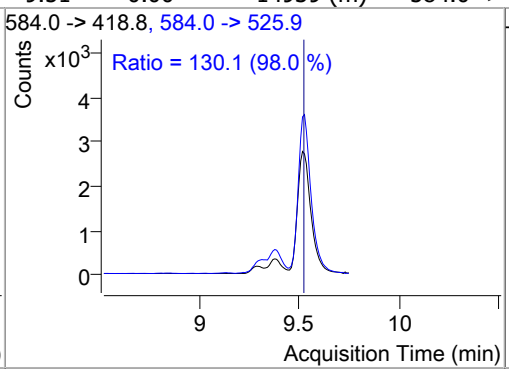


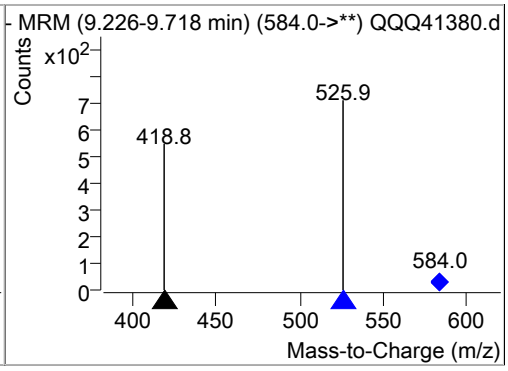




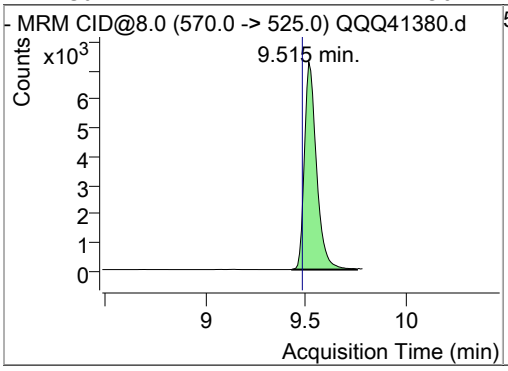
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	3.8785	9.51	0.00	14939 (m)	584.0 -> 525.9	130.1	106.2	159.3

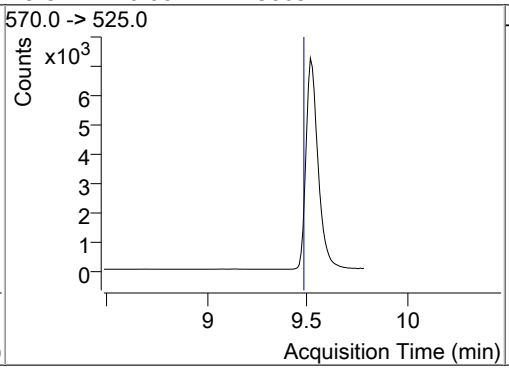


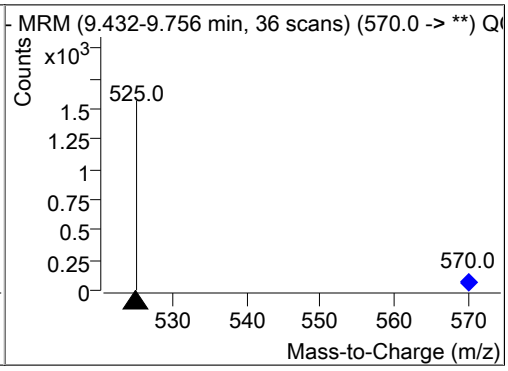




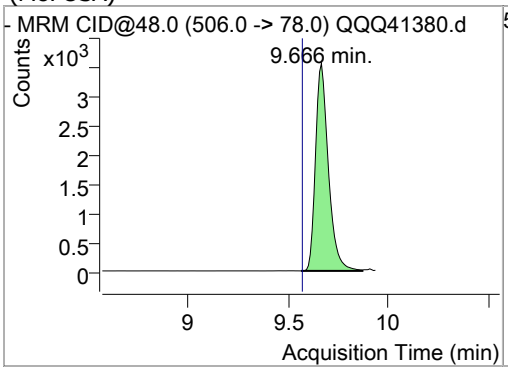
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.7961	9.52	0.00	30657				

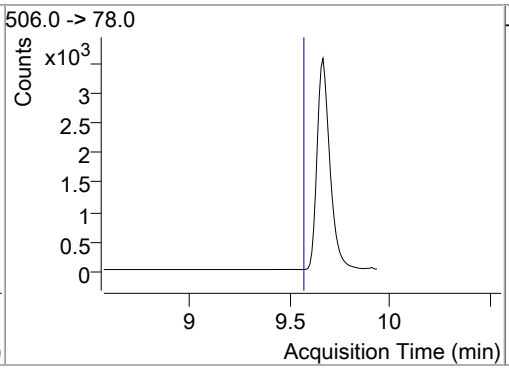


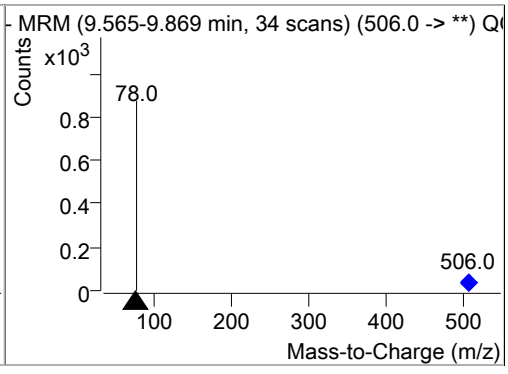




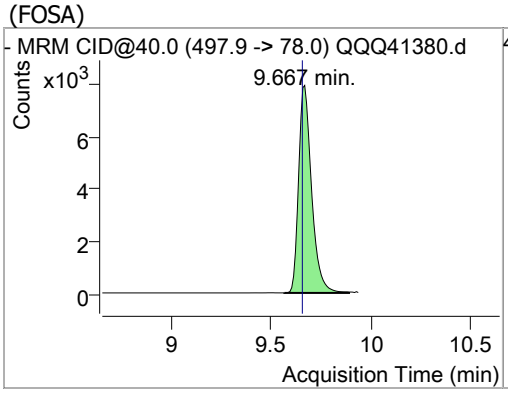
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	2.9289	9.67	0.02	15680				

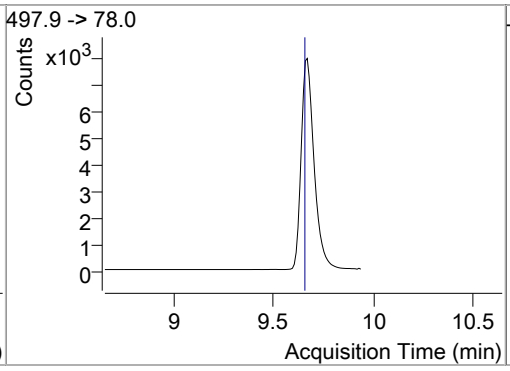


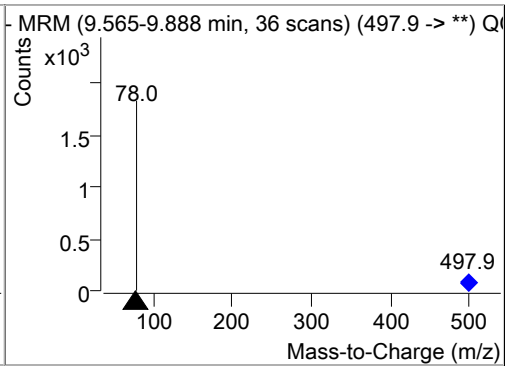




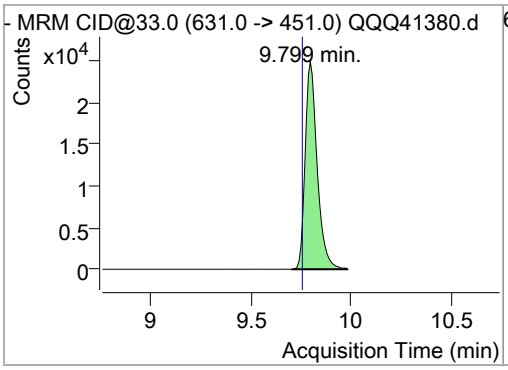
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	3.9887	9.67	0.02	35704				

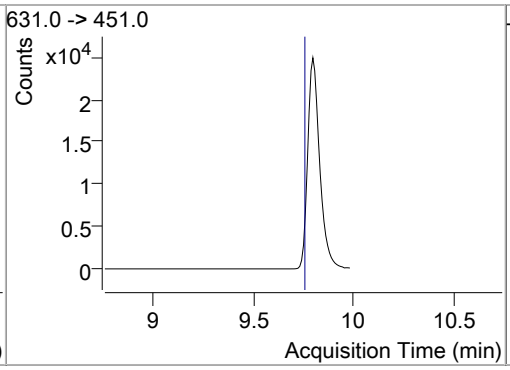


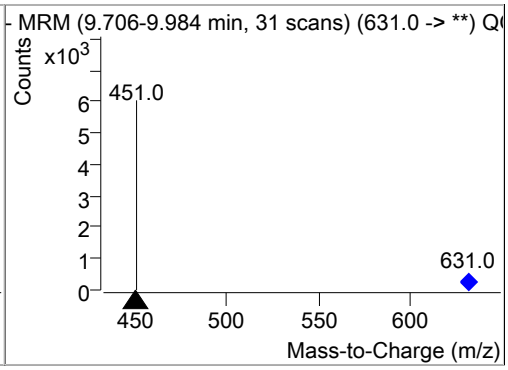




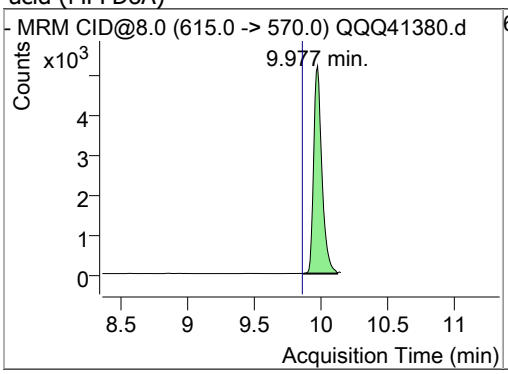
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	10.3085	9.80	0.05	103814				

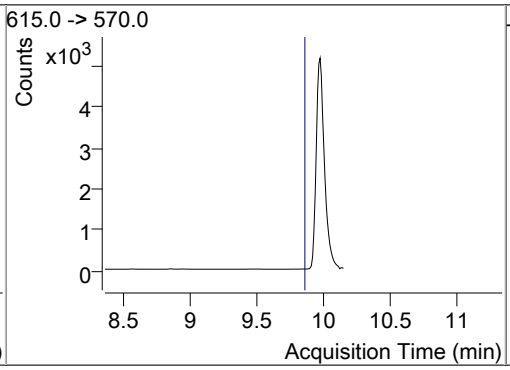


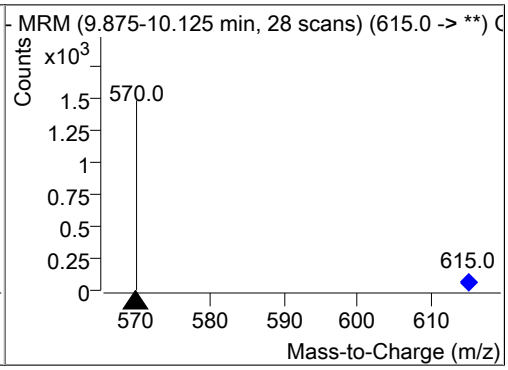




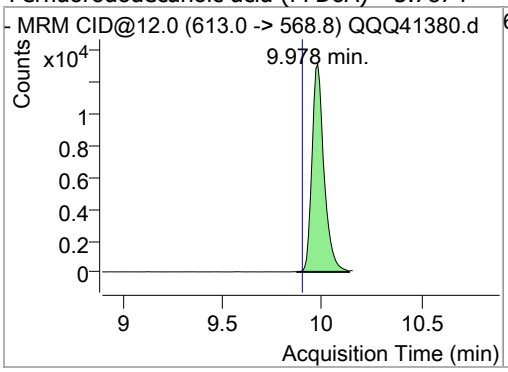
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.4879	9.98	0.08	22326				

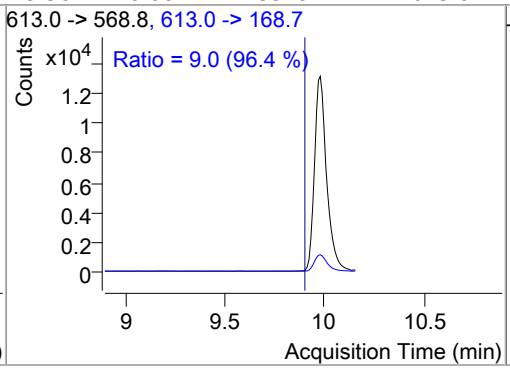


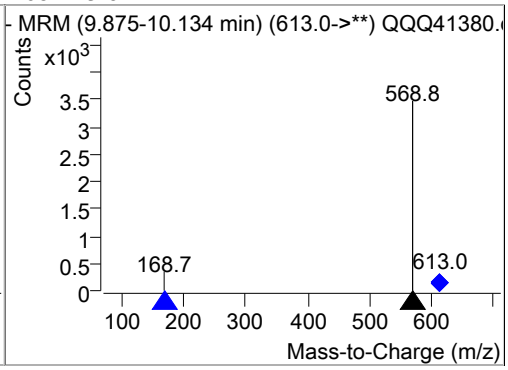




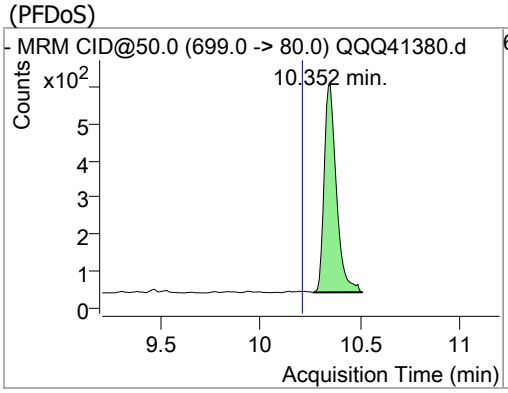
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	3.7874	9.98	0.08	55107	613.0 -> 168.7	9.0	7.4	11.2

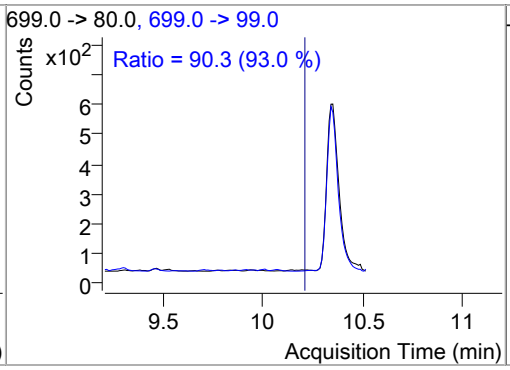


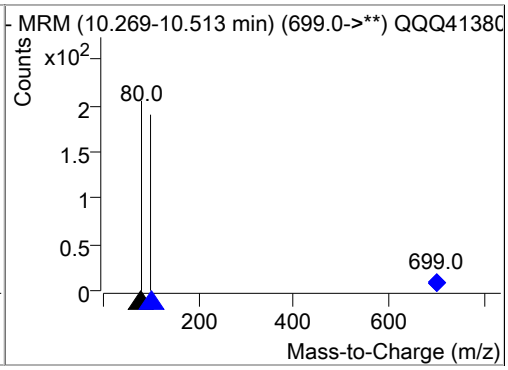




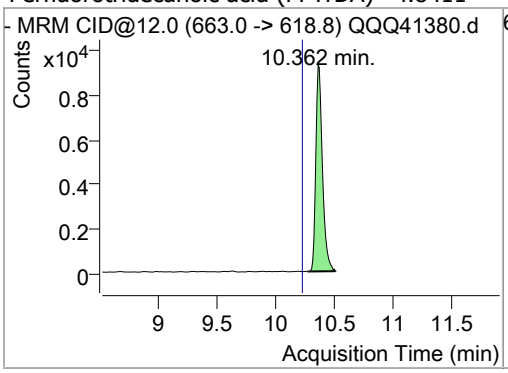
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.2802	10.35	0.15	2407	699.0 -> 99.0	90.3	77.6	116.4

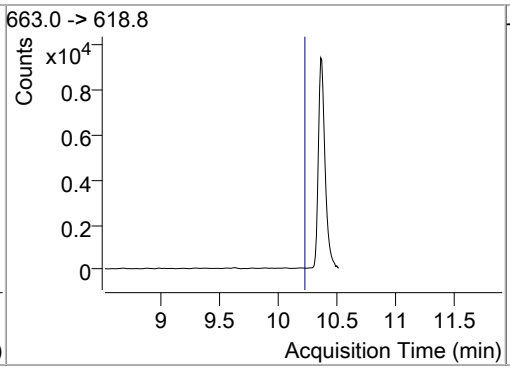


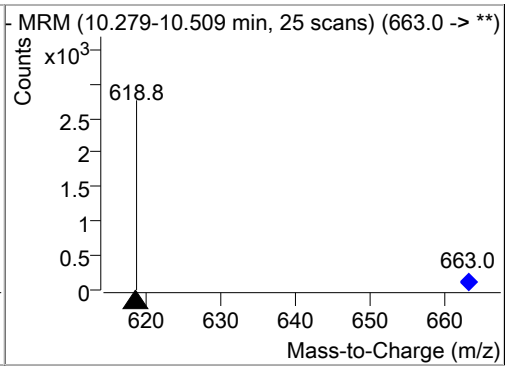




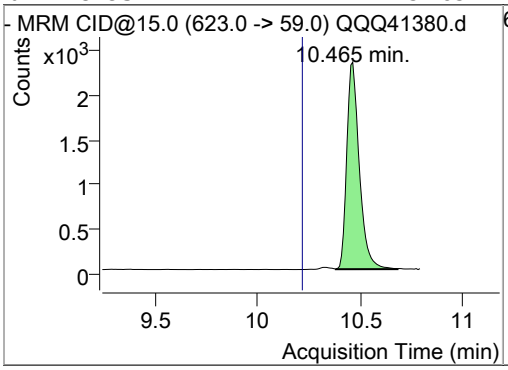
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	4.8411	10.36	0.15	36922				

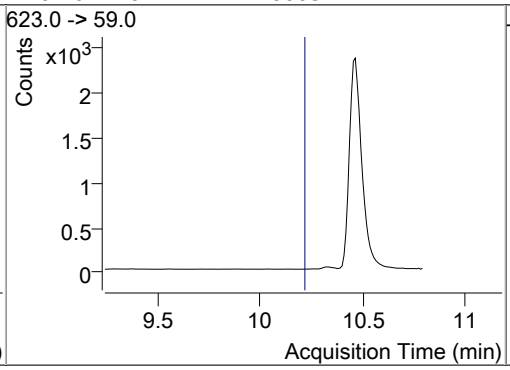


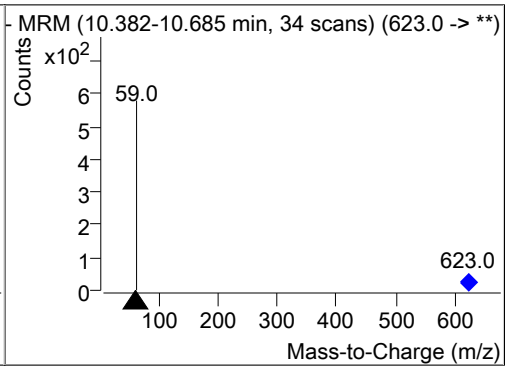




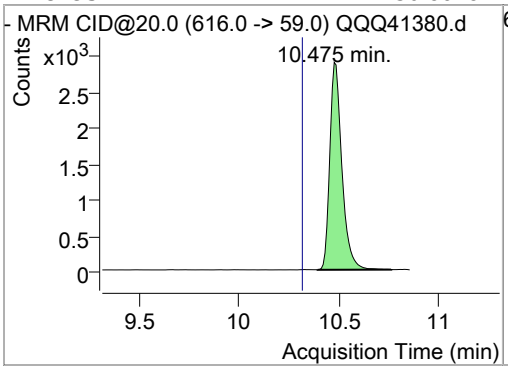
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	23.2832	10.46	0.17	10003				

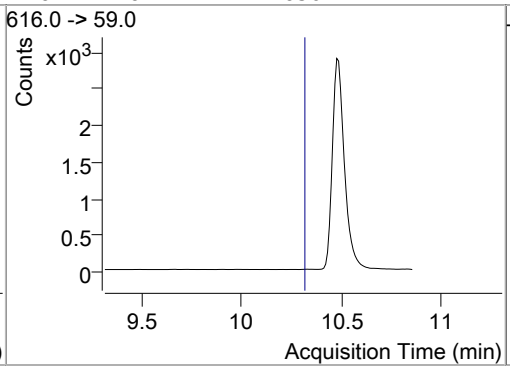


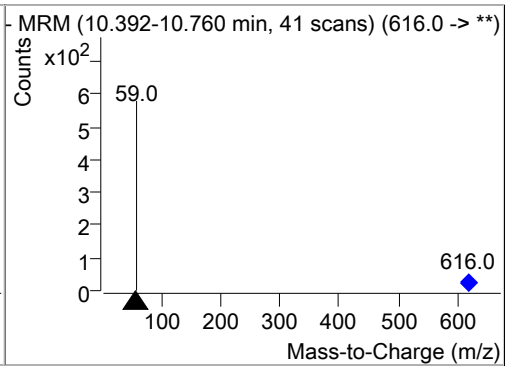




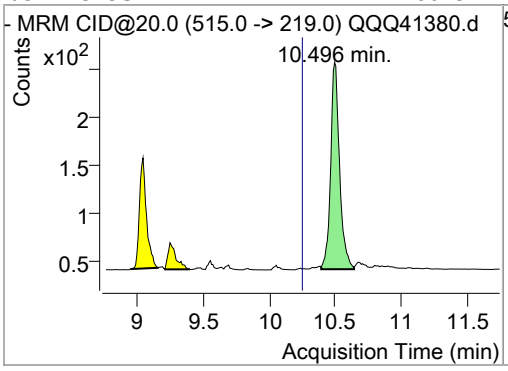
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	36.8078	10.47	0.17	12056				

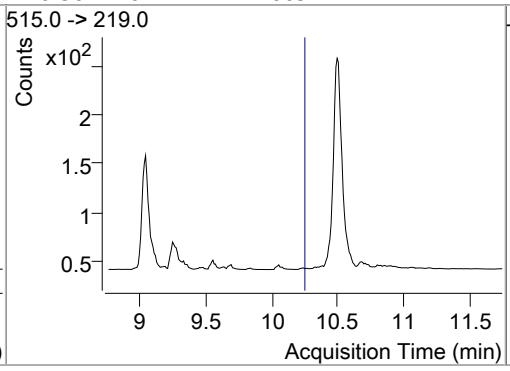


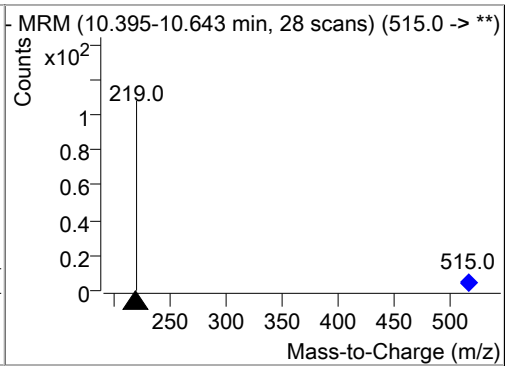




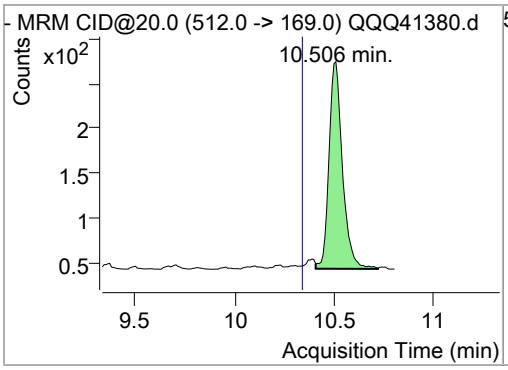
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	1.8643	10.50	0.17	1009				

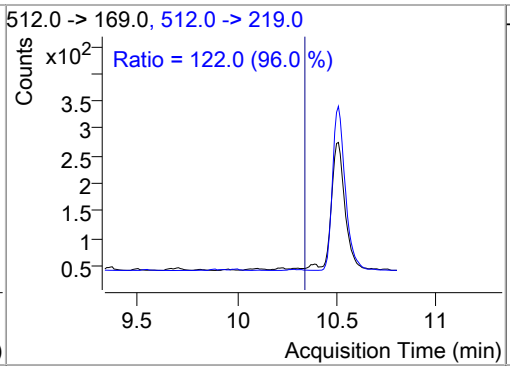


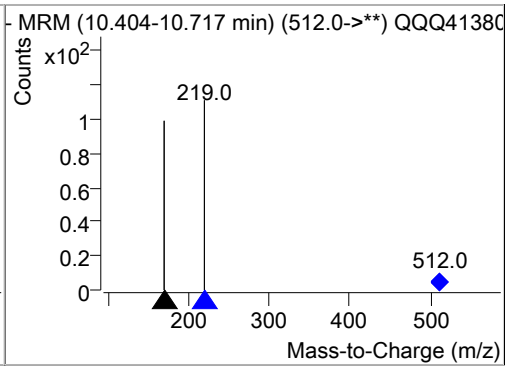




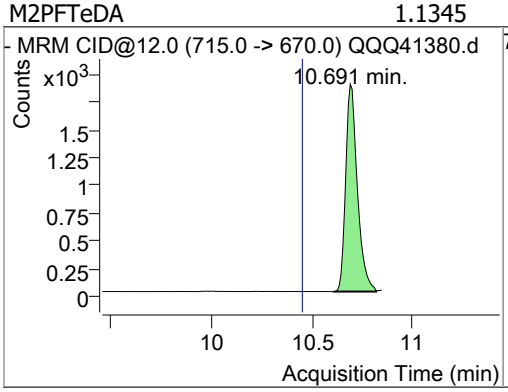
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	3.2233	10.51	0.17	1090	512.0 -> 219.0	122.0	101.6	152.5

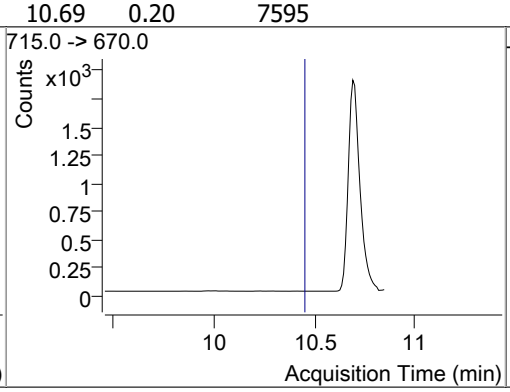


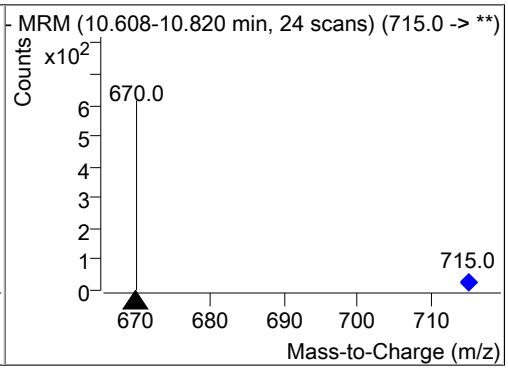




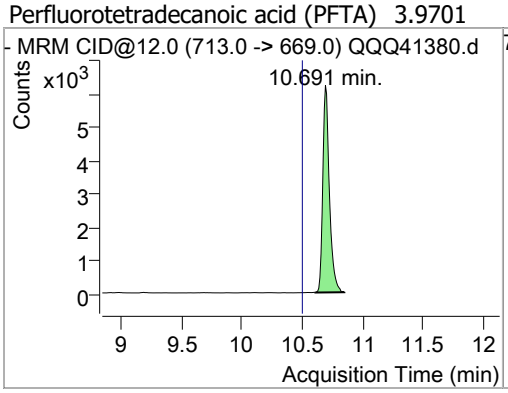
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.1345	10.69	0.20	7595				

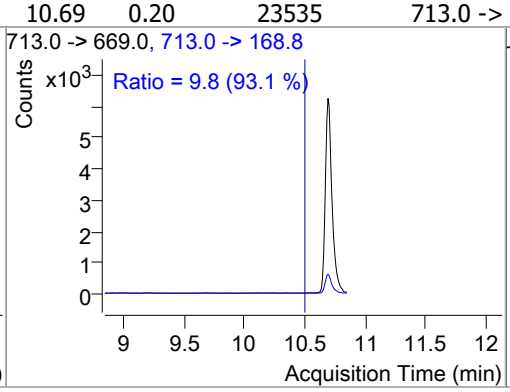


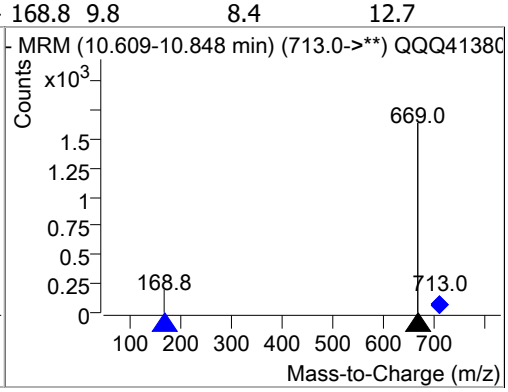




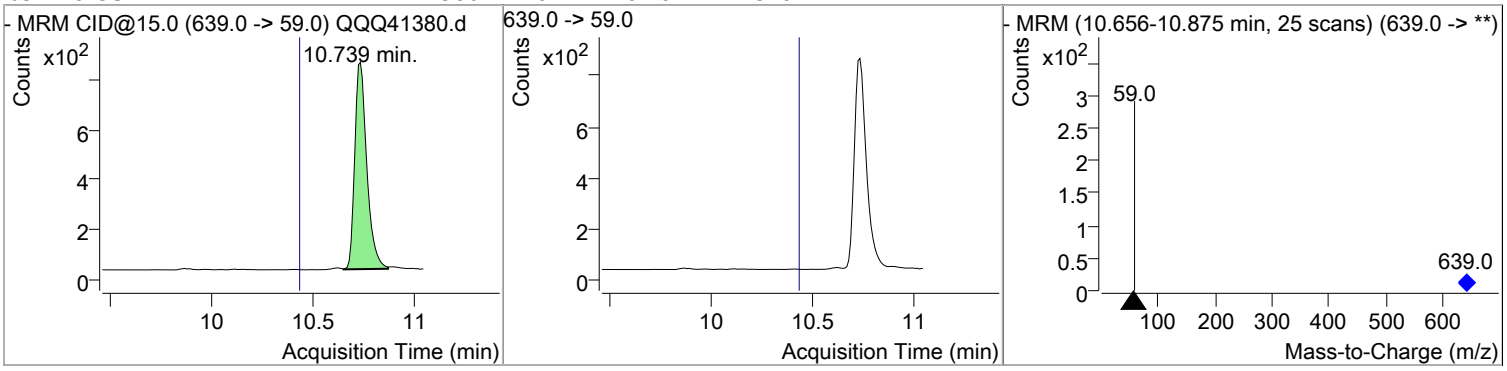
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	3.9701	10.69	0.20	23535	713.0 -> 168.8	9.8	8.4	12.7



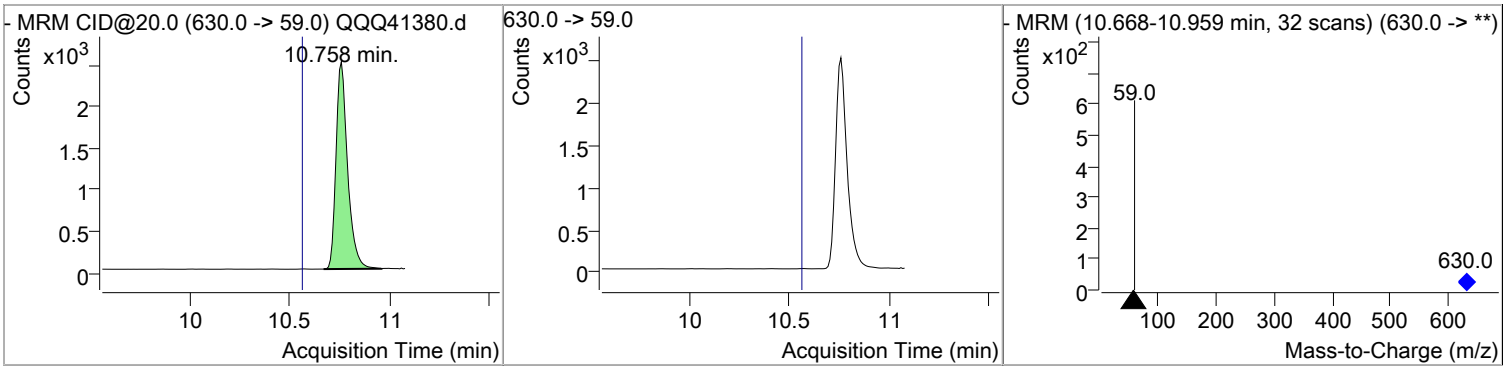




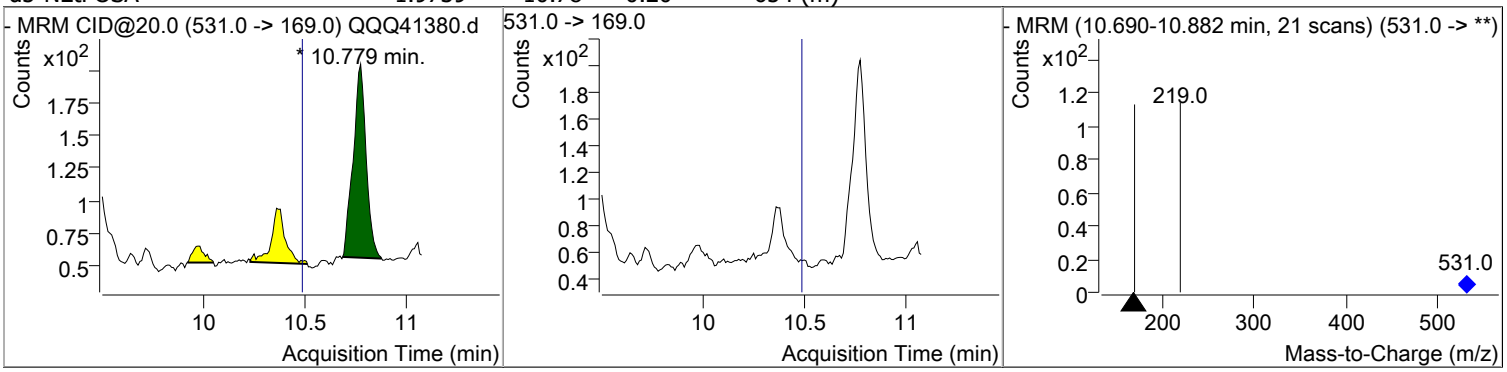
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	17.7986	10.74	0.20	3404				



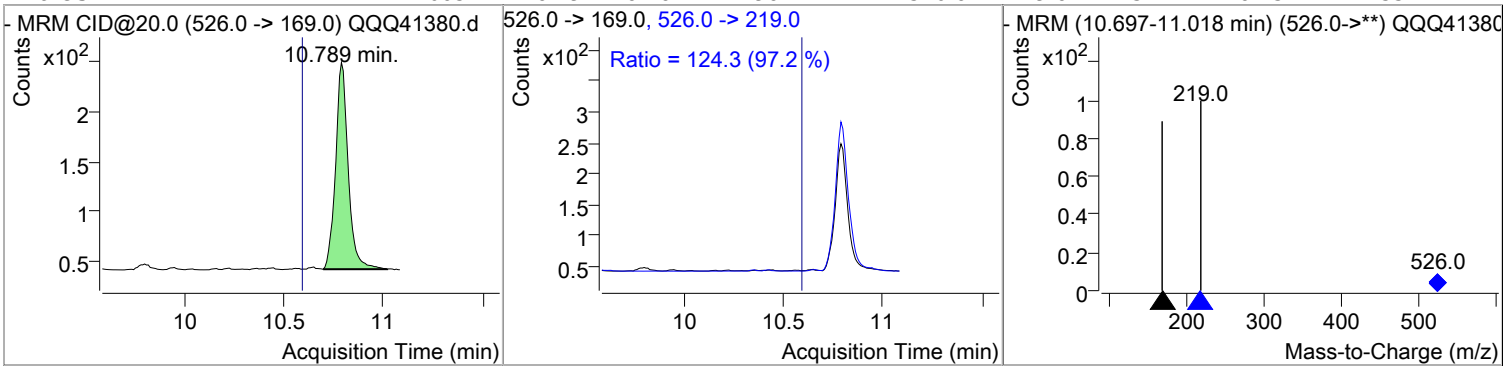
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	34.0313	10.76	0.20	10035				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	1.9739	10.78	0.20	654 (m)				



Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.7605	10.79	0.20	902	526.0 -> 219.0	124.3	102.3	153.4



Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 2:13:57 PM	**Data File**	QQQ41380.d
Sample Type	Sample	**Sampe Name**	BG40502-MSD1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.324	1885	304	0.437			1.74			126.01
Perfluoro-n-butanoic acid (PFBA)	1.320	1707	276	0.404			2.13			111.10
PFMPA	2.263	2738	348	0.534			1.63			1458.48
3:3FTCA	4.498	601	90	0.307			1.59			1216.54
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.792	64078	9930	0.426			1.70			∞
Perfluoro-n-pentanoic acid (PFPeA)	4.793	89444	13753	0.426			1.80			∞
PFMBA	5.532	57569	12217	0.363			1.78			∞
M3PFBS	5.557	16802	3737	0.316			1.67			∞
Perfluorobutanesulfonic acid (PFBS)	5.558	22668	5134	0.325			1.63			∞
PFEESA	6.075	197541	49036	0.306			1.57			15523.80
NFDHA	6.225	2400	547	0.315			1.49			5179.44
M2-4-2FTS	6.297	12771	3065	0.271			1.43			540.43
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.297	32507	7939	0.316			1.36			760.28
M5PFHxA	6.372	67074	16110	0.334			1.41			310.30
Perfluorohexanoic acid (PFHxA)	6.364	113800	27623	0.334			1.84			2607.79
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.574	21461	5363	0.286			1.66			2573.64
M3-HFPO-DA	6.661	24093	5786	0.315			1.76			∞
HFPO-DA	6.671	1730	404	0.296			1.32			69.75
M4PFHpA	7.207	14656	3605	0.269			1.73			∞
Perfluoroheptanoic acid (PFHpA)	7.217	47353	11179	0.278			1.31			1220.15
5-3FTCA	7.282	144909	34038	0.334			1.51			6626.29
Perfluorohexanesulfonic acid (PFHxS)	7.317	20245	4006	0.511			1.47			388.30
M3PFHxS	7.317	12407	2984	0.279			1.49			12654.05

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.346	68907	16399	0.325			1.63			11341.22
M2-6-2FTS	7.847	9290	2178	0.311			1.78			232.38
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.847	32243	7619	0.370			1.83			71.71
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.913	32619	7700	0.325			1.62			37.85
Perfluorooctanoic acid (PFOA)	7.913	52628	13058	0.316			1.53			∞
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.976	18070	4294	0.336			1.49			∞
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.516	5608	1346	0.250			1.60			21779.55
Perfluorononanoic acid (PFNA)	8.516	53936	13420	0.285			1.62			58.48
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.542	5757	1476	0.251			1.94			∞
Perfluorooctanesulfonic acid (PFOS)	8.543	16192	3044	0.444			1.93			82.53
7-3FTCA	8.702	234504	53126	0.316			1.45			202.35
9-Cl-PF3ONS	8.875	175037	42822	0.336			1.41			∞
M2-8-2FTS	9.006	24722	5972	0.316			1.48			185.05
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.006	15477	3640	0.335			1.47			∞
M6PFDA	9.044	19029	4655	0.289			1.51			∞
Perfluorodecanoic acid (PFDA)	9.044	63591	15824	0.317			1.47			1997.33
Perfluorononanesulfonate (L-PFNS)	9.052	14601	3582	0.305			1.76			∞
d3-N-MeFOSAA	9.255	25079	5804	0.288			1.70			∞
N-MeFOSAA	9.264	14273	2860	0.511			1.50			23975.80
d5-N-EtFOSAA	9.505	22266	5034	0.315			1.94			∞
Perfluoroundecanoic acid (PFUnA)	9.516	75844	17877	0.333			1.80			2997.78
Perfluoro-1-decanesulfonate (L-PFDS)	9.513	5859	1360	0.325			2.01			∞
N-EtFOSAA	9.514	14939	2746	0.492			1.79			∞
M7PFUdA	9.515	30657	7276	0.324			1.84			96789.89
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	15680	3535	0.305			1.46			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.667	35704	7920	0.323			1.47			∞
11-Cl-PF3OUdS	9.799	103814	24883	0.278			1.58			1375603.99
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.977	22326	5168	0.250			1.48			89.92

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.978	55107	13118	0.259			1.41			15980.95
Perfluorododecanesulfonic acid (PFDoS)	10.352	2407	559	0.244			1.37			144.65
Perfluorotridecanoic acid (PFTrDA)	10.362	36922	9311	0.230			1.86			441.69
d7-NMeFOSE	10.465	10003	2334	0.303			1.42			∞
NMeFOSE	10.475	12056	2871	0.368			1.80			∞
d3-NMeFOSA	10.496	1009	215	0.248			1.32			79.06
NMeFOSA	10.506	1090	232	0.313			1.30			108.58
M2PFTeDA	10.691	7595	1875	0.212			1.74			11219.19
Perfluorotetradecanoic acid (PFTA)	10.691	23535	6199	0.240			1.68			2311.73
d9-NEtFOSE	10.739	3404	823	0.219			1.51			∞
NEtFOSE	10.758	10035	2490	0.291			1.51			∞
d5-NEtFOSA	10.779	654	147	0.192			0.83			12.06
NEtFOSA	10.789	902	206	0.321			1.13			106.25

LCS RAW DATA

SDG: 24F1801
CLASS: PFAS
METHOD: EPA 1633 Draft 3

Data File	QQQ41367.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 10:44:23 AM
Sample Name	BG40502-BS1	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
Ref Library			

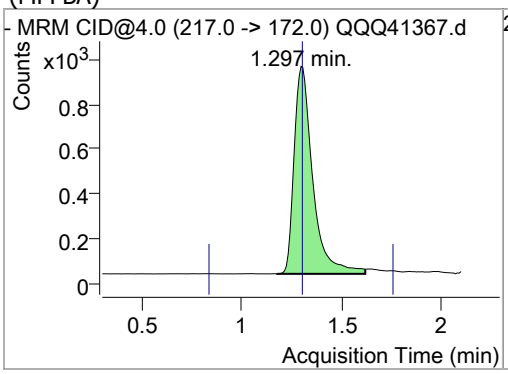
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.299	216.0 -> 172.0	24762	5.0000	ng/ml	0.046
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.297	217.0 -> 172.0	6020	10.0000	ng/ml	0.046
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.690	268.0 -> 223.0	105733	5.0000	ng/ml	-0.037
MPFHxA	6.336	315.0 -> 269.8	34860	2.5000	ng/ml	-0.037
MPFHxS	7.317	403.0 -> 103.0	3660	2.3700	ng/ml	-0.065
M3PFBS-EIS	5.492	302.0 -> 79.9	20639	2.3300	ng/ml	-0.037
M5PFHxA-EIS	6.335	318.0 -> 273.0	68752	2.5000	ng/ml	-0.037
M2-4-2FTS-EIS	6.260	329.0 -> 309.0	25038	4.6900	ng/ml	-0.037
M3PFHxS-EIS	7.317	402.0 -> 80.0	13689	2.3700	ng/ml	-0.065
M3-HFPO-DA-EIS	6.643	287.0 -> 169.0	50150	10.0000	ng/ml	-0.046
M4PFHpA-EIS	7.207	367.0 -> 322.0	15740	2.5000	ng/ml	-0.056
M2-6-2FTS-EIS	7.866	429.0 -> 409.0	17130	4.7550	ng/ml	-0.065
MPFOA	7.922	417.0 -> 372.0	43015	2.5000	ng/ml	-0.075
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.931	421.0 -> 376.0	38863	2.5000	ng/ml	-0.065
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.570	507.0 -> 98.9	5319	2.3950	ng/ml	-0.056
MPFNA	8.544	468.0 -> 423.0	18442	1.2500	ng/ml	-0.056
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.544	472.0 -> 223.0	6047	1.2500	ng/ml	-0.046
MPFOS	8.570	503.0 -> 80.0	10579	2.3950	ng/ml	-0.056
M2-8-2FTS-EIS	9.034	529.0 -> 509.0	35774	4.8000	ng/ml	-0.009
MPFDA	9.072	515.0 -> 469.8	12326	1.2500	ng/ml	-0.009
M6PFDA-EIS	9.072	519.0 -> 473.9	17981	1.2500	ng/ml	-0.009
d3-N-MeFOSAA-EIS	9.282	573.0 -> 418.8	30281	5.0000	ng/ml	0.000
M7PFUdA-EIS	9.543	570.0 -> 525.0	33565	1.2500	ng/ml	0.028
d5-N-EtFOSAA-EIS	9.533	589.0 -> 418.8	28283	5.0000	ng/ml	0.028
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.666	506.0 -> 78.0	19172	2.5000	ng/ml	0.018
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.959	615.0 -> 570.0	25696	1.2500	ng/ml	0.065
M2PFTeDA-EIS	10.599	715.0 -> 670.0	9639	1.2500	ng/ml	0.111
d7-NMeFOSE-EIS	10.391	623.0 -> 59.0	10925	25.0000	ng/ml	0.092
d3-NMeFOSA-EIS	10.422	515.0 -> 219.0	1873	2.5000	ng/ml	0.092
d9-NEtFOSE-EIS	10.637	639.0 -> 59.0	4338	25.0000	ng/ml	0.101
d5-NEtFOSA-EIS	10.677	531.0 -> 169.0	1060	2.5000	ng/ml	0.101
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	217.0 -> 172.0	6020	0.4855	ng/ml	0.046
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.690	268.0 -> 223.0	105735	4.7547	ng/ml	-0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.492	302.0 -> 79.9	20639	3.1606	ng/ml	-0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.260	329.0 -> 309.0	25038	5.7433	ng/ml	-0.037

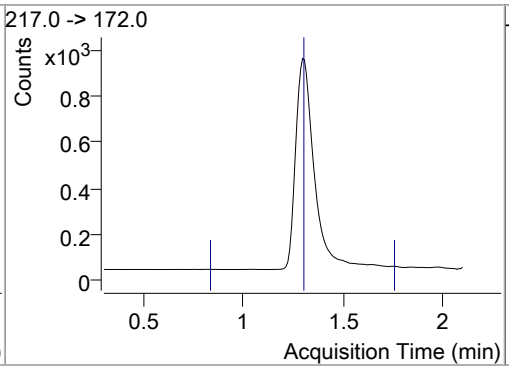
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.335	318.0 -> 273.0	68752	3.0905	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.643	287.0 -> 169.0	50150	12.8963	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.207	367.0 -> 322.0	15740	3.1852	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.317	402.0 -> 80.0	13688	3.0046	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.866	429.0 -> 409.0	17124	5.8653	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.931	421.0 -> 376.0	38862	2.8370	ng/ml		-0.065
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.544	472.0 -> 223.0	6047	1.5387	ng/ml		-0.046
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	507.0 -> 98.9	5315	2.7393	ng/ml		-0.056
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	9.034	529.0 -> 509.0	35701	5.2069	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	9.072	519.0 -> 473.9	17981	1.3314	ng/ml		-0.009
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.282	573.0 -> 418.8	30281	6.0576	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.533	589.0 -> 418.8	28283	6.4064	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.543	570.0 -> 525.0	33565	1.8363	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	506.0 -> 78.0	19214	3.0225	ng/ml		0.018
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.959	615.0 -> 570.0	25697	1.5991	ng/ml		0.065
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.391	623.0 -> 59.0	10934	21.4336	ng/ml		0.092
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.422	515.0 -> 219.0	1859	2.8940	ng/ml		0.092
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.599	715.0 -> 670.0	9639	1.3444	ng/ml		0.111
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.637	639.0 -> 59.0	4338	19.1004	ng/ml		0.101
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.677	531.0 -> 169.0	1060	2.6937	ng/ml		0.101
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.301	213.0 -> 168.9	6097	11.5384	ng/ml		100
PFMPA	2.208	229.0 -> 85.0	9076	1.4382	ng/ml		100
3:3FTCA	4.387	241.0 -> 177.0	3185	8.6657	ng/ml		98
Perfluoro-n-pentanoic acid (PFPeA)	4.691	263.0 -> 219.0	141316	6.9644	ng/ml		100
PFMBA	5.467	279.0 -> 85.0	69095	7.8457	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.493	298.9 -> 79.9	27083	2.9898	ng/ml		96
PFEESA	6.038	315.0 -> 135.0	207470	5.7491	ng/ml		100
NFDHA	6.188	295.0 -> 201.1	2705	5.6229	ng/ml	#	89
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.260	327.0 -> 307.0	78001	12.7281	ng/ml		95

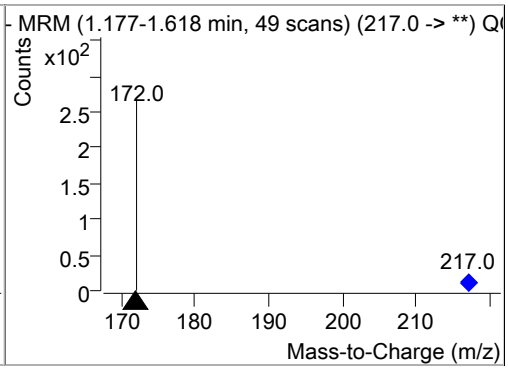
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.336	313.0 -> 268.9	109458	3.4506	ng/ml		99
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.556	348.9 -> 79.9	24978	3.3841	ng/ml		96
HFPO-DA	6.643	285.0 -> 169.1	3136	7.1007	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.207	363.0 -> 318.8	52548	3.7280	ng/ml		100
5-3FTCA	7.282	341.0 -> 217.0	268287	61.6344	ng/ml		99
Perfluorohexanesulfonic acid (PFHxS)	7.317	398.9 -> 79.9	20886	3.0982	ng/ml	m	93
ADONA	7.346	377.0 -> 85.0	65220	5.8770	ng/ml		98
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.866	427.0 -> 407.0	55543	9.7795	ng/ml		100
Perfluorooctanoic acid (PFOA)	7.932	413.0 -> 368.8	57782	3.6477	ng/ml		98
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.995	448.9 -> 80.0	18429	3.2648	ng/ml		97
Perfluorononanoic acid (PFNA)	8.535	463.0 -> 418.8	54399	3.4651	ng/ml		95
Perfluorooctanesulfonic acid (PFOS)	8.571	498.9 -> 79.9	15027	2.9763	ng/ml	m	89
7-3FTCA	8.721	441.0 -> 337.0	375820	64.5658	ng/ml		96
9-Cl-PF3ONS	8.903	531.0 -> 351.0	178124	5.8729	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.034	527.0 -> 80.9	23010	13.1225	ng/ml		96
Perfluorodecanoic acid (PFDA)	9.073	513.0 -> 468.8	62812	3.8169	ng/ml		100
Perfluorononanesulfonate (L-PFNS)	9.089	548.9 -> 79.9	14513	3.6584	ng/ml		91
N-MeFOSAA	9.283	570.0 -> 418.9	17061	3.2345	ng/ml	m	95
Perfluoroundecanoic acid (PFUnA)	9.544	563.0 -> 519.0	76162	2.9277	ng/ml		100
Perfluoro-1-decanesulfonate (L-PFDS)	9.542	598.9 -> 98.9	6309	3.2932	ng/ml		100
N-EtFOSAA	9.533	584.0 -> 418.8	18274	3.7361	ng/ml	m	98
Perfluoro-1-octanesulfonamide (FOSA)	9.667	497.9 -> 78.0	39252	3.5856	ng/ml		100
11-Cl-PF3OUdS	9.799	631.0 -> 451.0	113220	5.4061	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.959	613.0 -> 568.8	60247	3.5981	ng/ml		98
Perfluorododecanesulfonic acid (PFDoS)	10.296	699.0 -> 80.0	2625	2.6916	ng/ml		96
Perfluorotridecanoic acid (PFTrDA)	10.307	663.0 -> 618.8	39712	4.0977	ng/ml		100
NMeFOSE	10.410	616.0 -> 59.0	11864	33.1319	ng/ml		100
NMeFOSA	10.432	512.0 -> 169.0	1931	3.0759	ng/ml		98
Perfluorotetradecanoic acid (PFTA)	10.599	713.0 -> 669.0	26864	3.5715	ng/ml		96
NEtFOSE	10.656	630.0 -> 59.0	11480	30.5322	ng/ml		100
NEtFOSA	10.697	526.0 -> 169.0	1520	2.8664	ng/ml		99

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

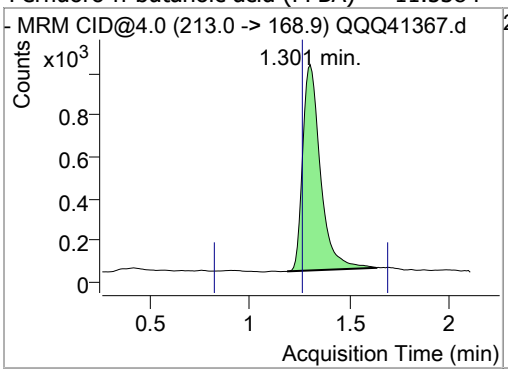
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	0.4855	1.30	0.05	6020				

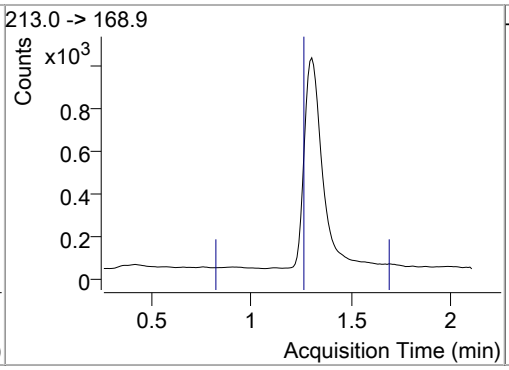


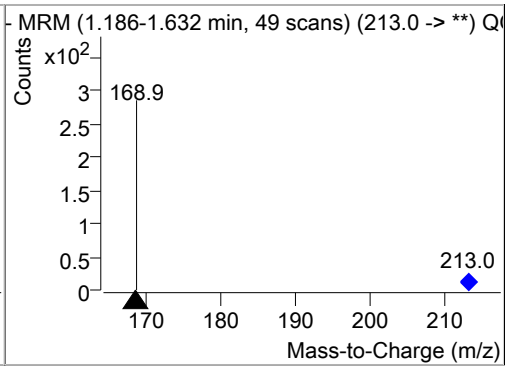




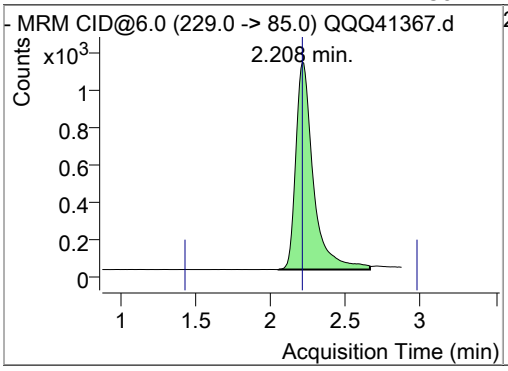
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	11.5384	1.30	0.05	6097				

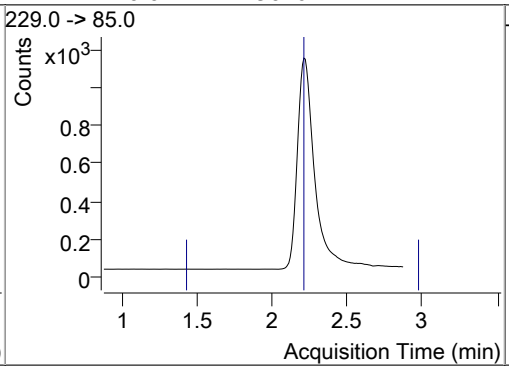


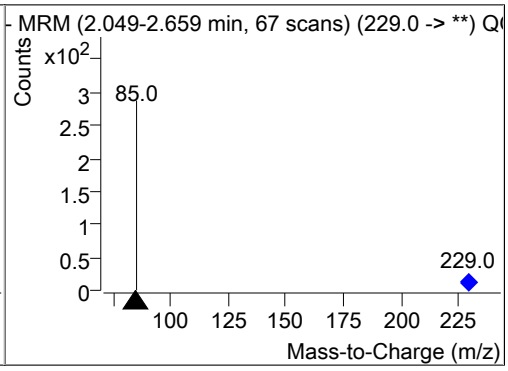




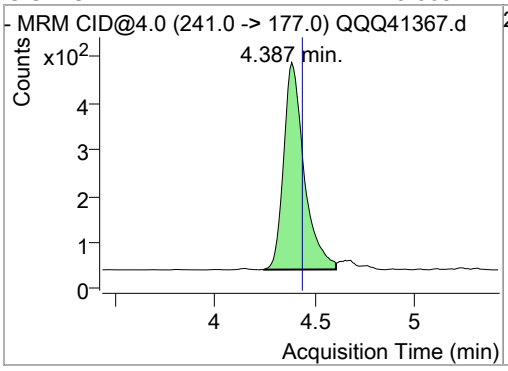
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	1.4382	2.21	0.01	9076				

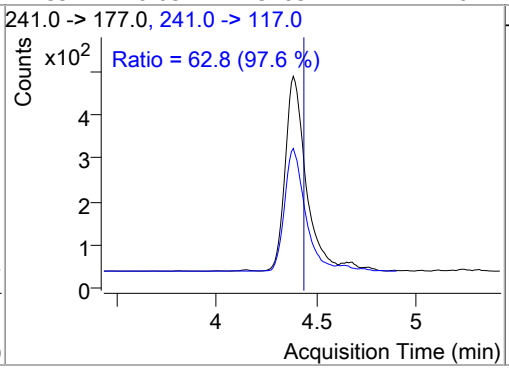


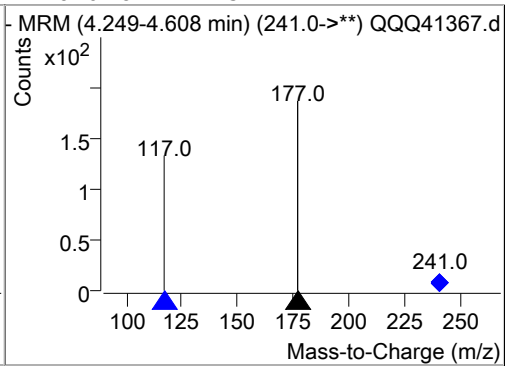




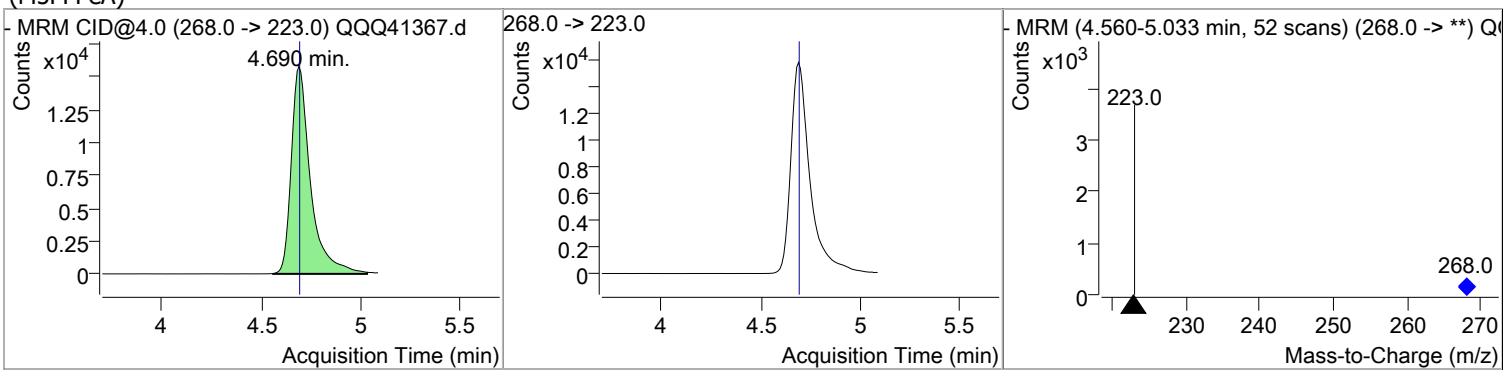
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	8.6657	4.39	-0.05	3185	241.0 -> 117.0	62.8	51.4	77.2



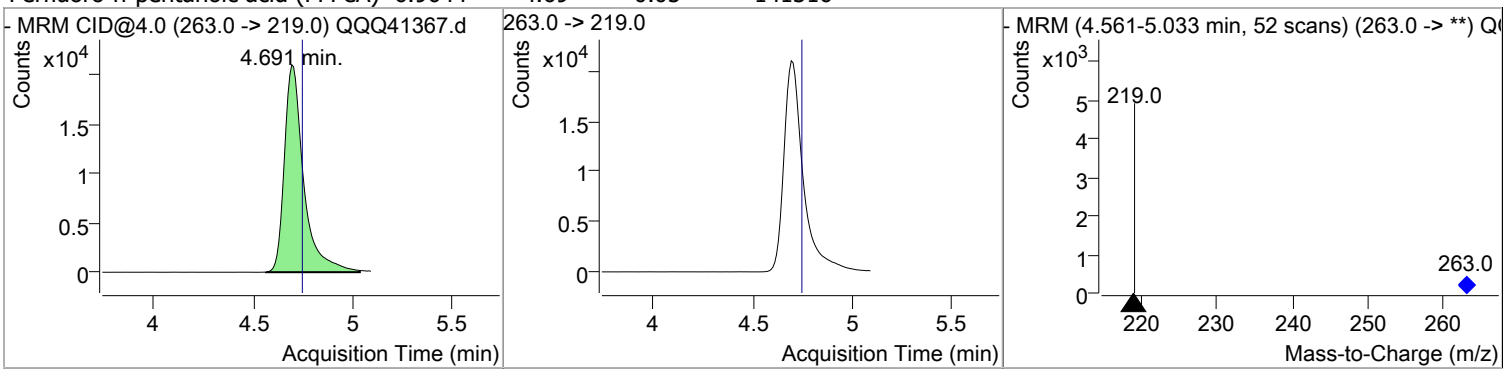




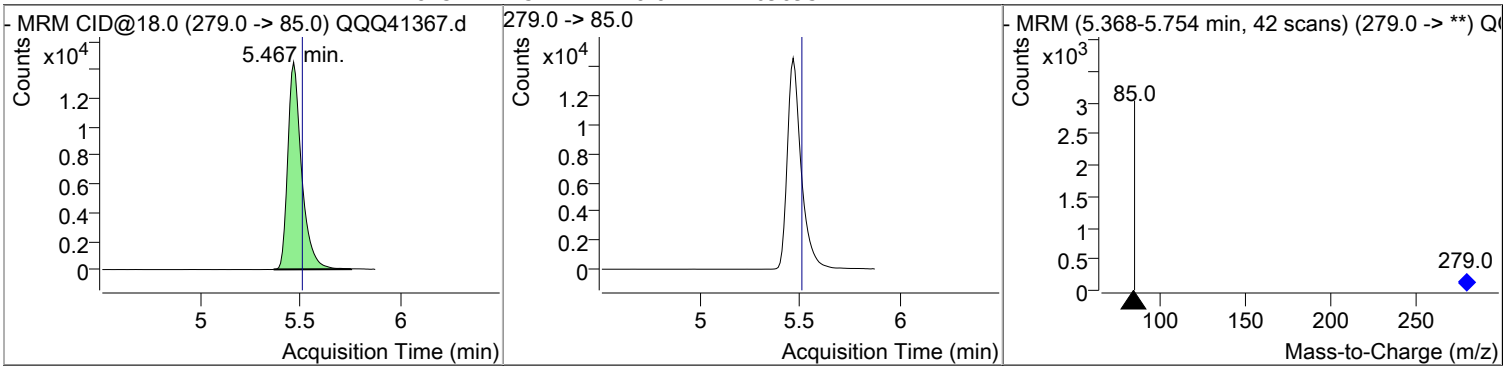
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.7547	4.69	-0.04	105735				



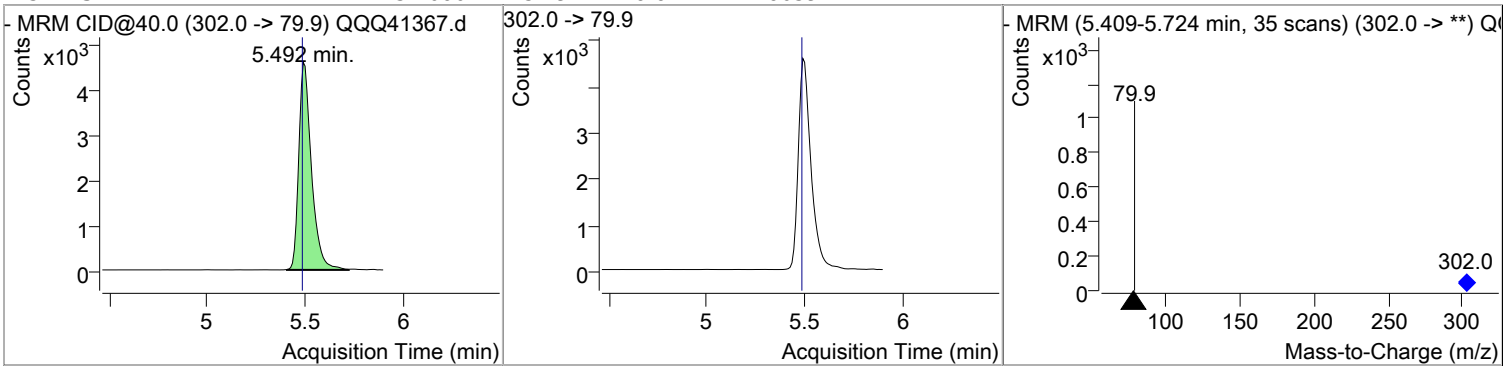
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	6.9644	4.69	-0.05	141316				



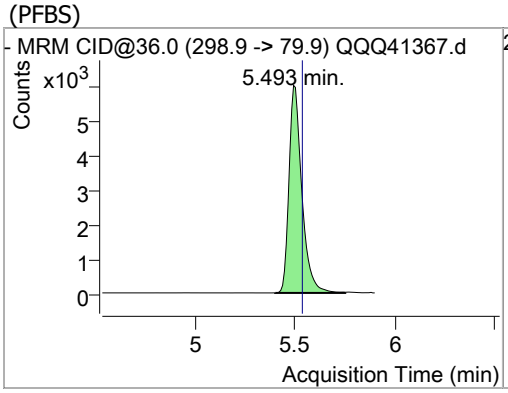
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	7.8457	5.47	-0.04	69095				

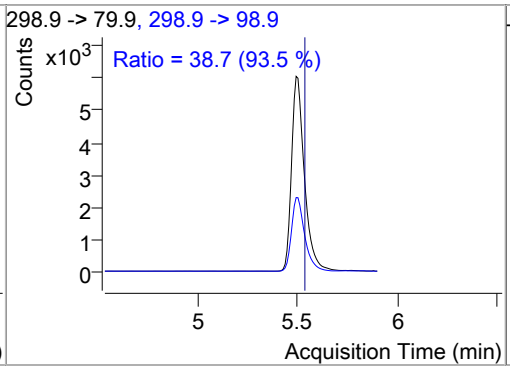


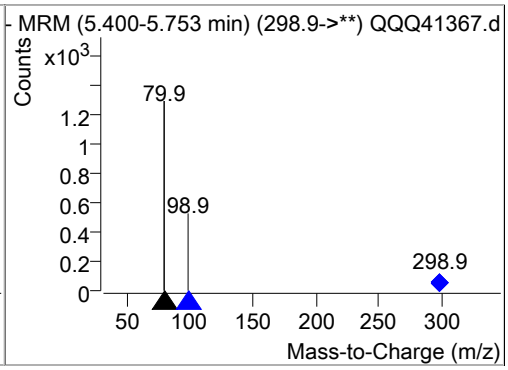
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.1606	5.49	-0.04	20639				



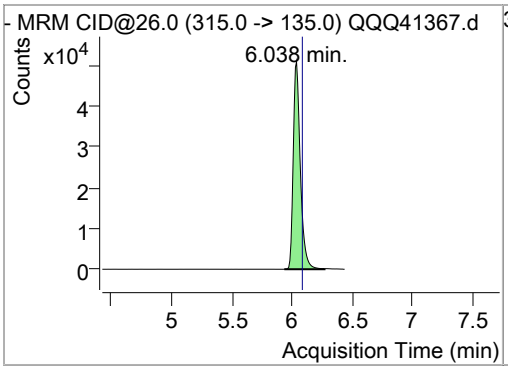
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	2.9898	5.49	-0.04	27083	298.9 -> 98.9	38.7	33.1	49.7

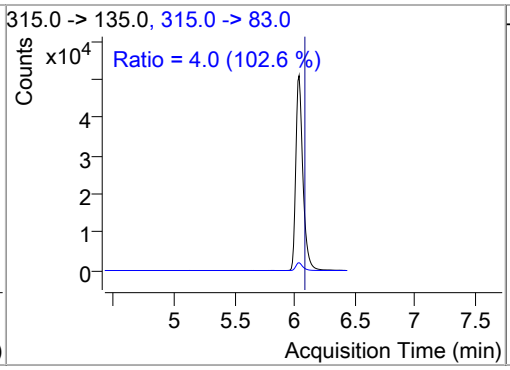


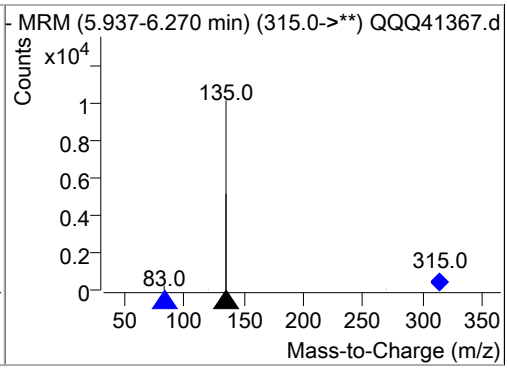




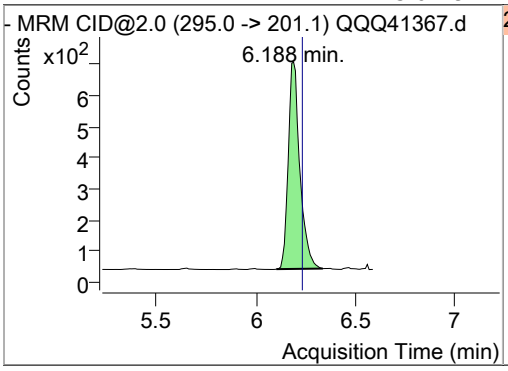
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	5.7491	6.04	-0.04	207470	315.0 -> 83.0	4.0	3.1	4.7

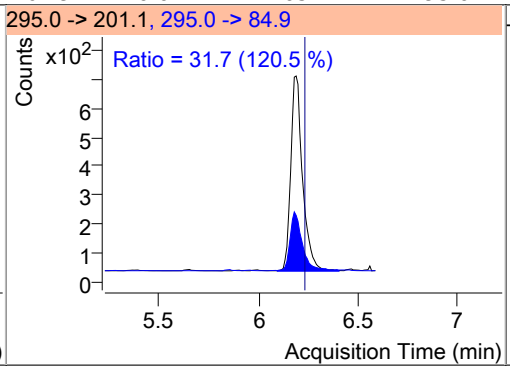


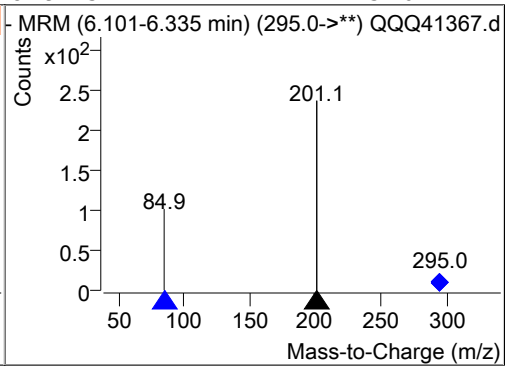




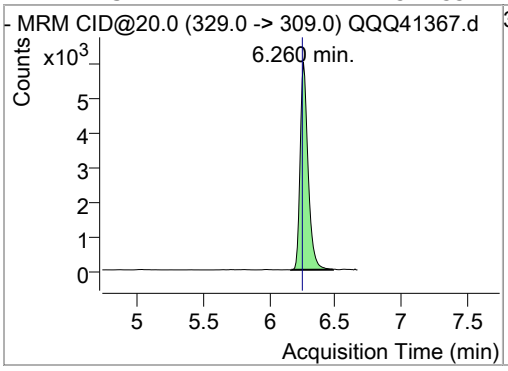
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	5.6229	6.19	-0.04	2705	295.0 -> 84.9	31.7	21.1	31.6

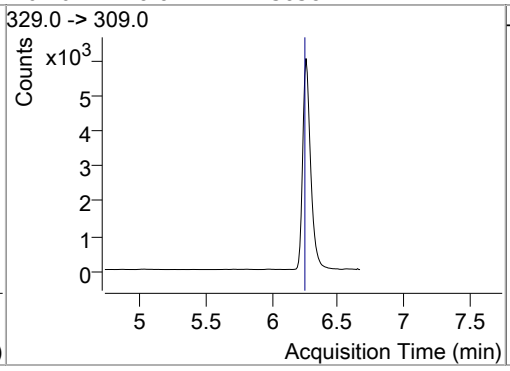


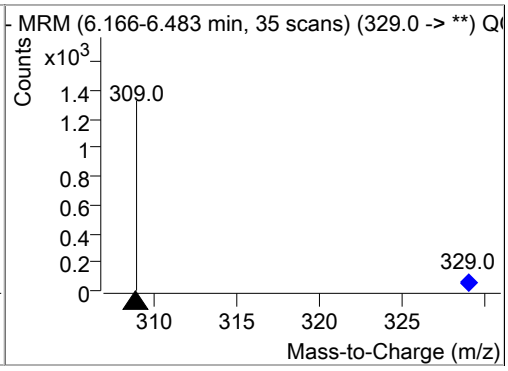




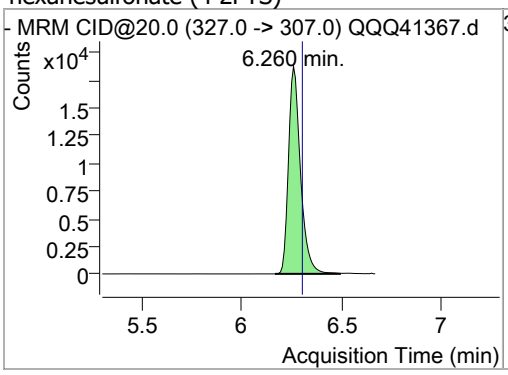
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	5.7433	6.26	-0.04	25038				

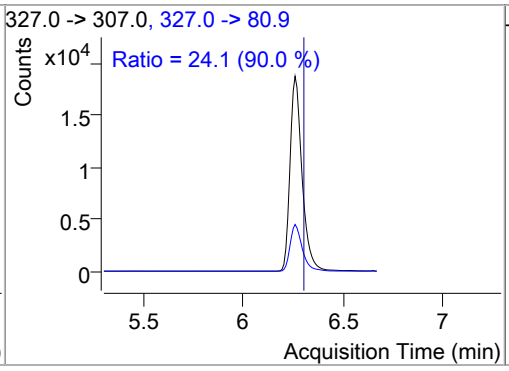


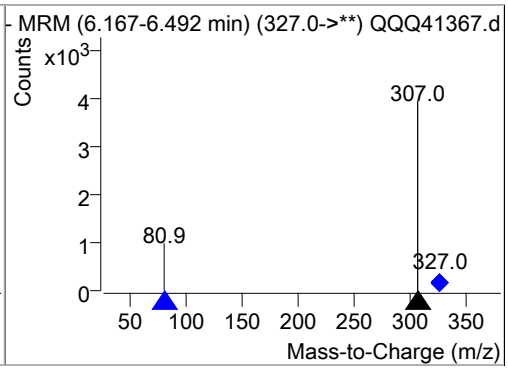




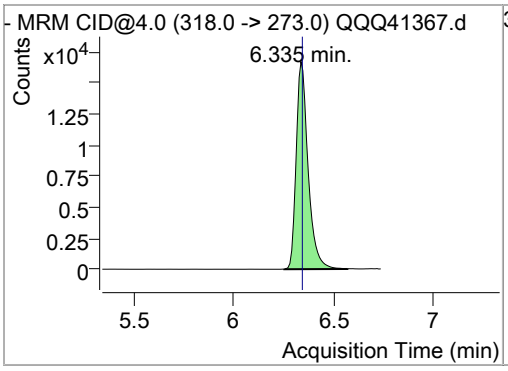
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	12.7281	6.26	-0.04	78001	327.0 -> 80.9	24.1	21.5	32.2

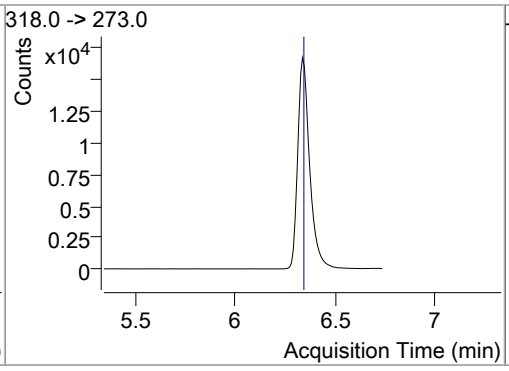


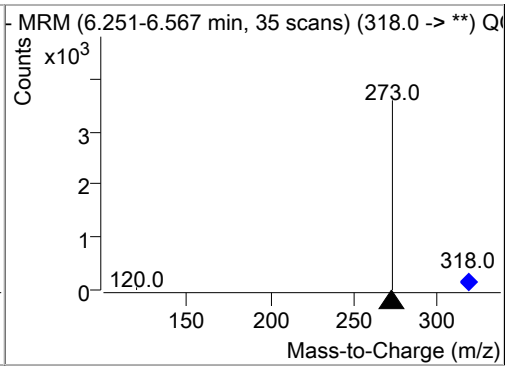




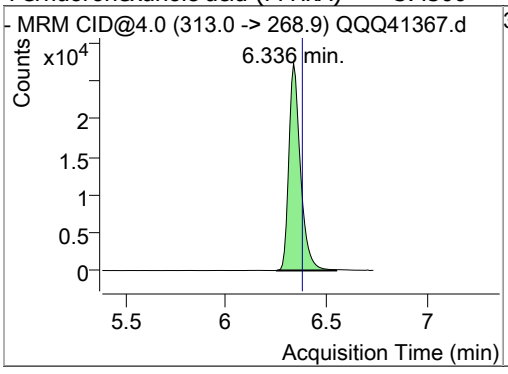
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.0905	6.33	-0.04	68752				

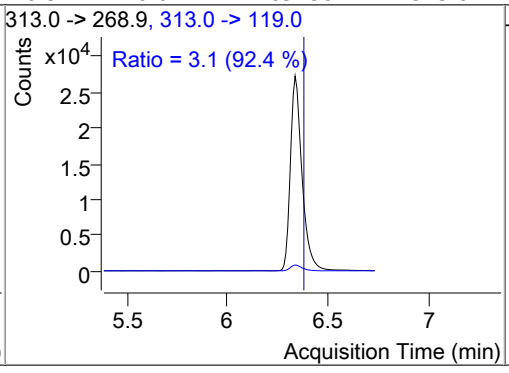


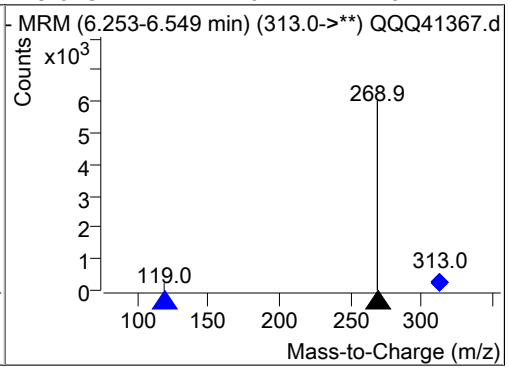




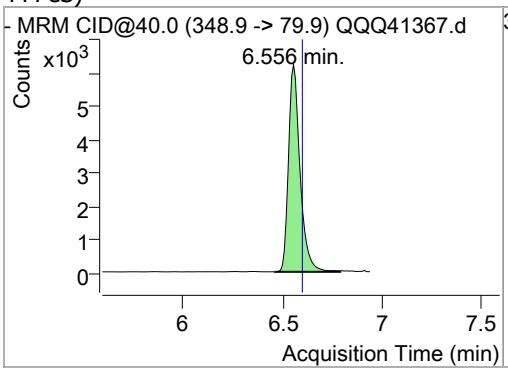
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	3.4506	6.34	-0.04	109458	313.0 -> 119.0	3.1	2.6	4.0

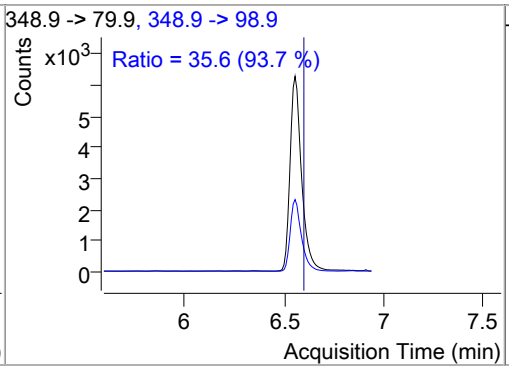


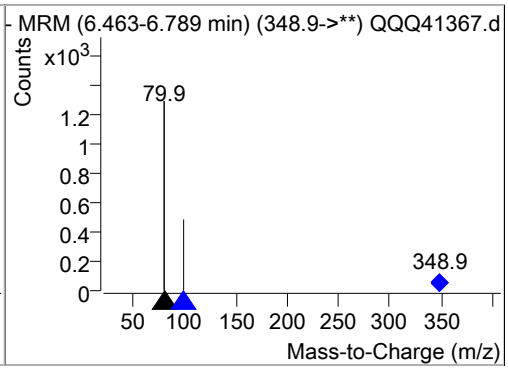




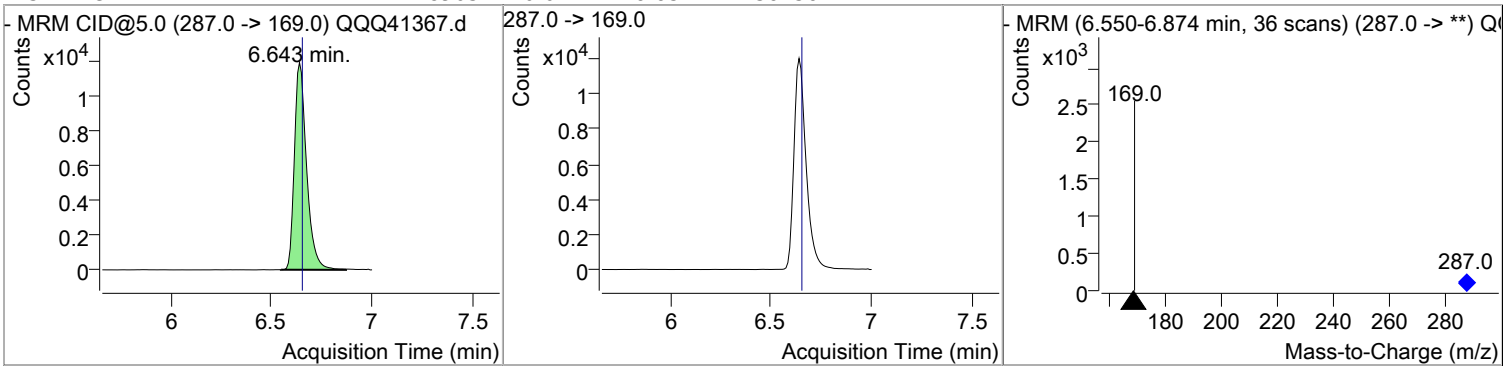
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	3.3841	6.56	-0.04	24978	348.9 -> 98.9	35.6	30.4	45.6



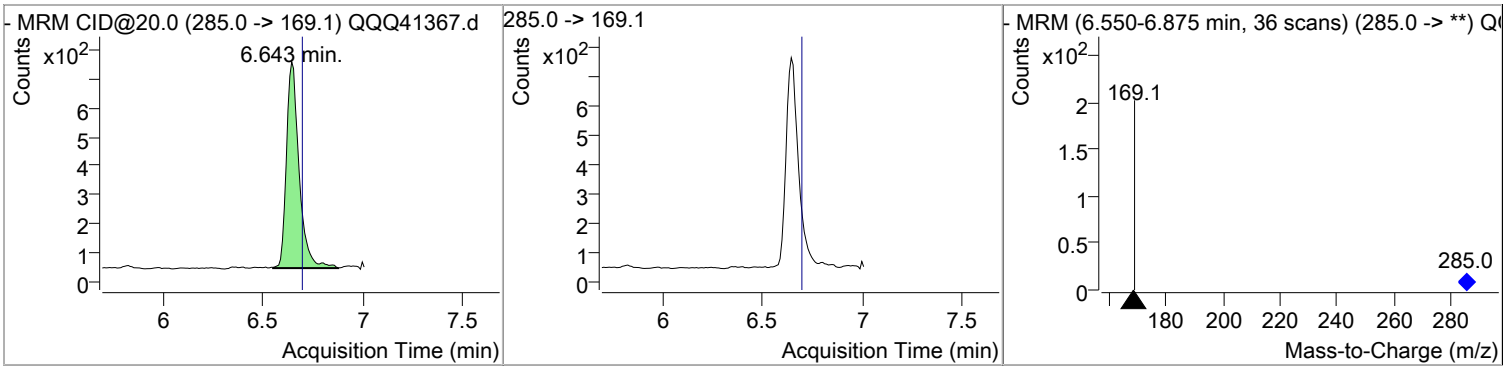




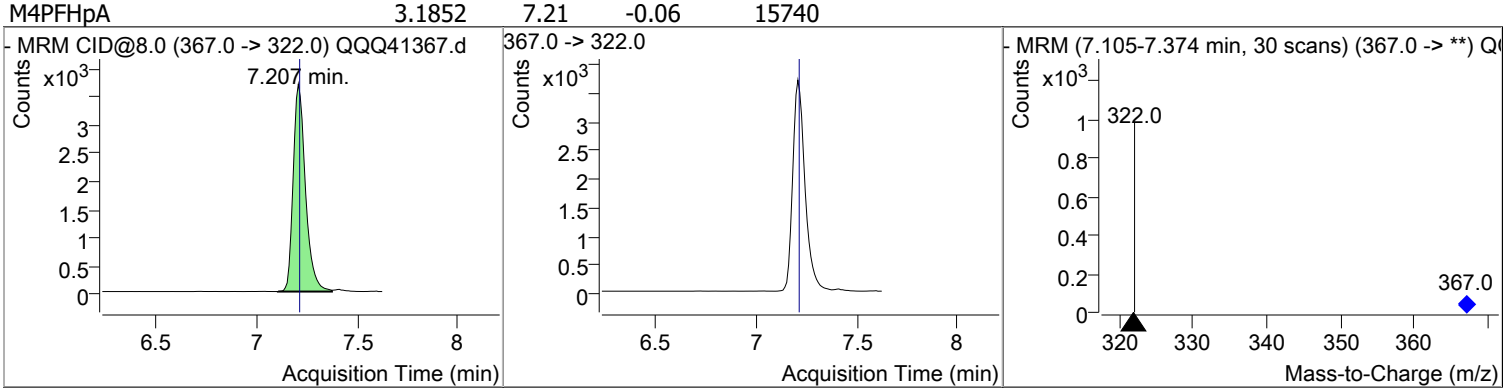
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	12.8963	6.64	-0.05	50150				



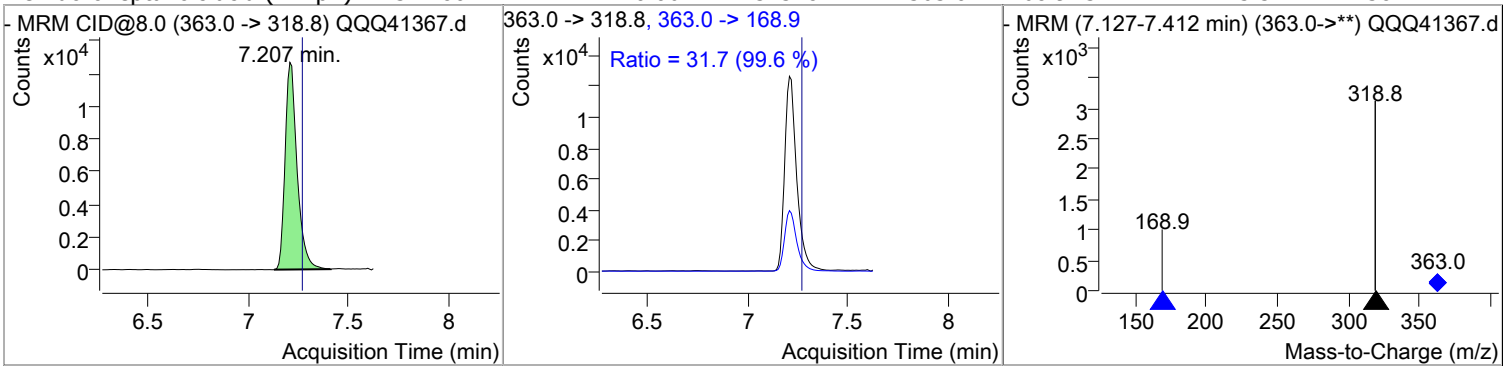
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	7.1007	6.64	-0.05	3136				



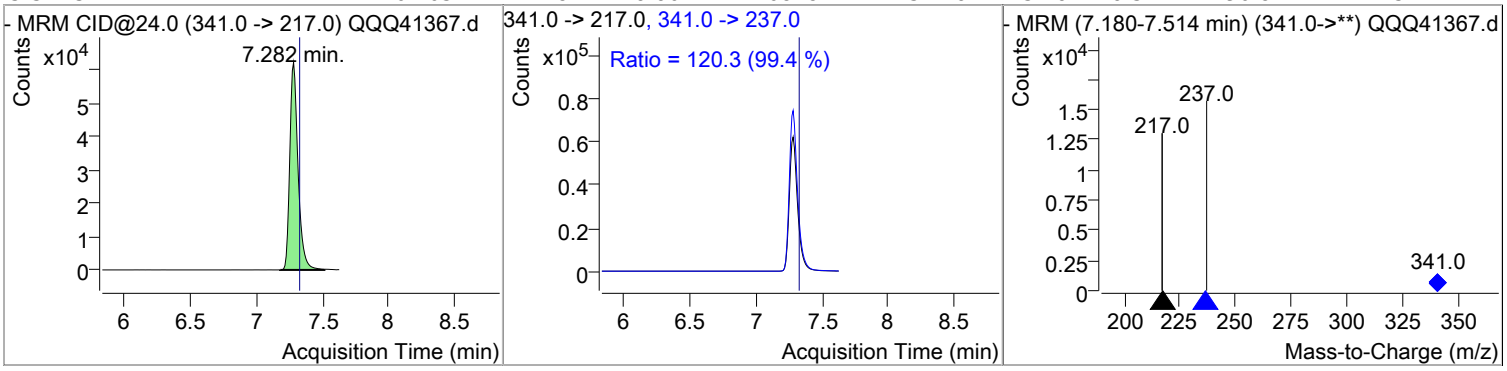
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.1852	7.21	-0.06	15740				



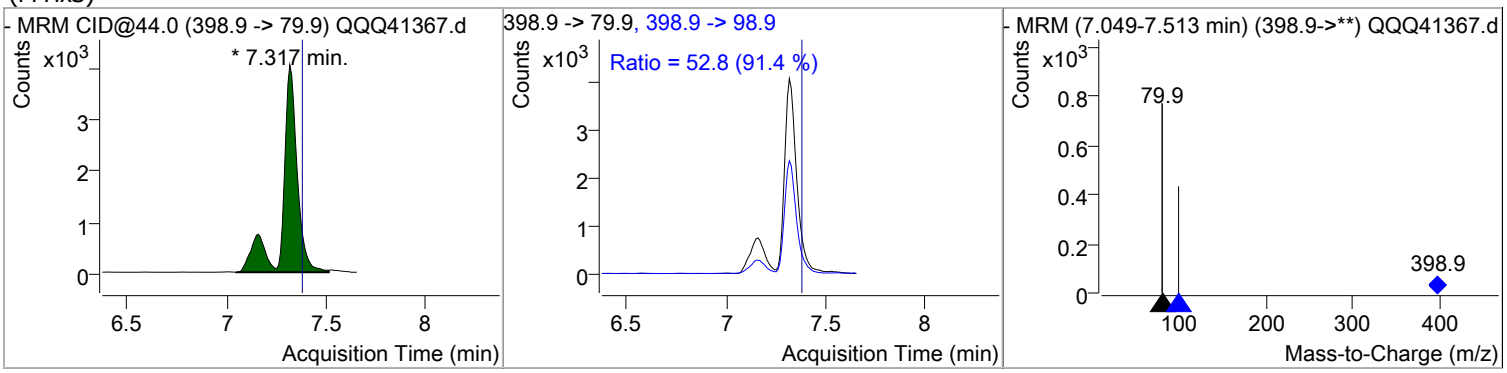
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	3.7280	7.21	-0.06	52548	363.0 -> 168.9	31.7	25.5	38.2



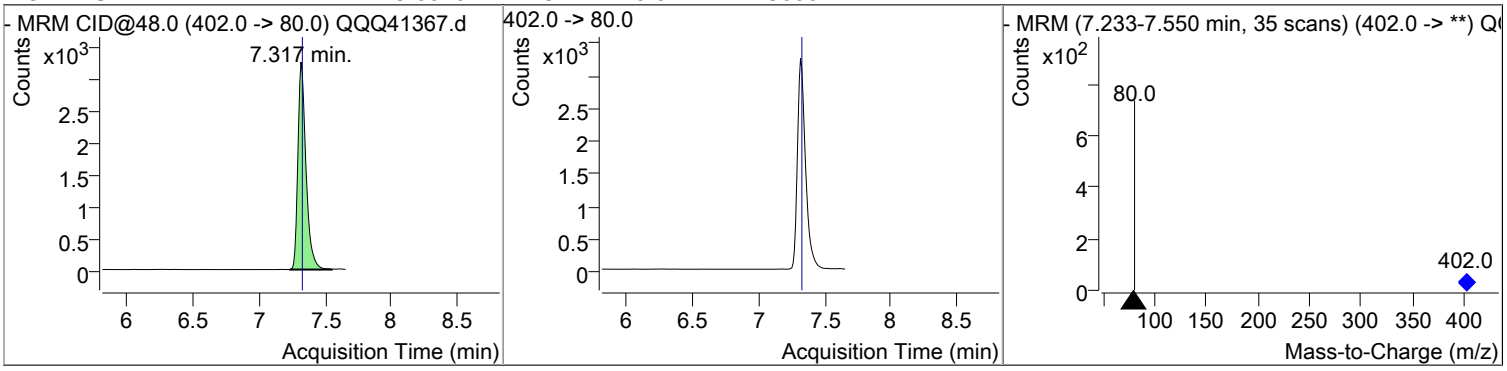
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	61.6344	7.28	-0.06	268287	341.0 -> 237.0	120.3	96.8	145.2



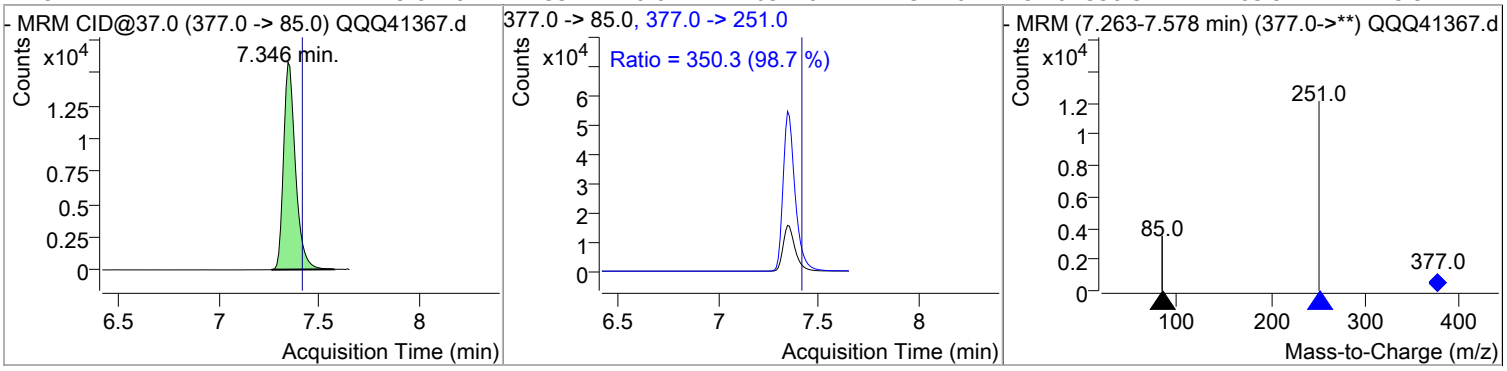
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	3.0982	7.32	-0.06	20886 (m)	398.9 -> 98.9	52.8	46.2	69.3



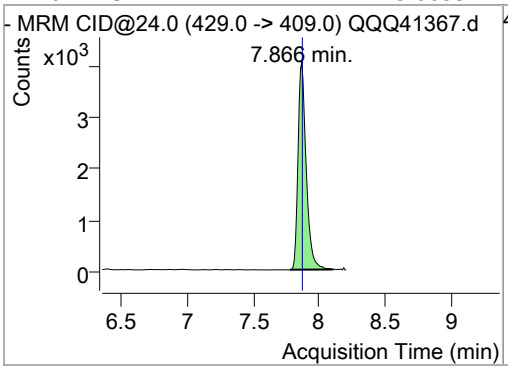
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	3.0046	7.32	-0.07	13688				

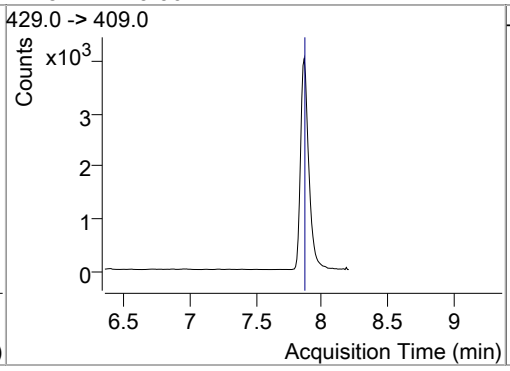


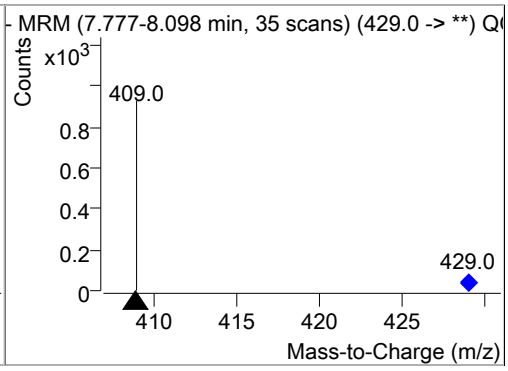
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	5.8770	7.35	-0.07	65220	377.0 -> 251.0	350.3	283.9	425.9



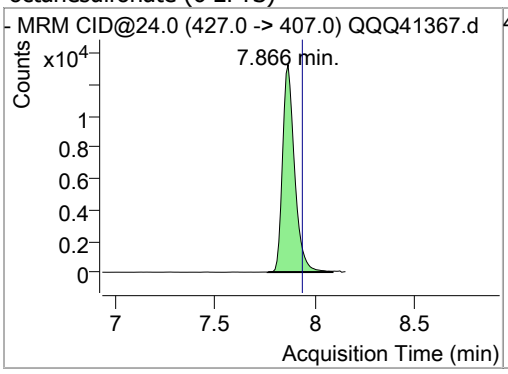
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.8653	7.87	-0.06	17124				

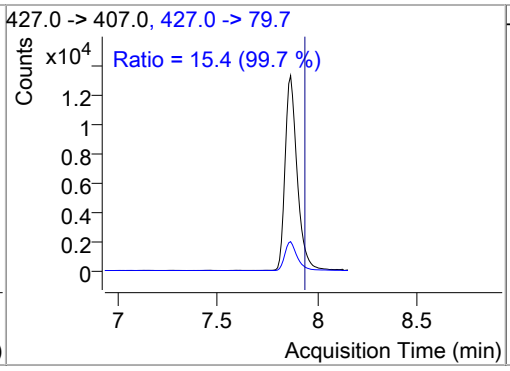


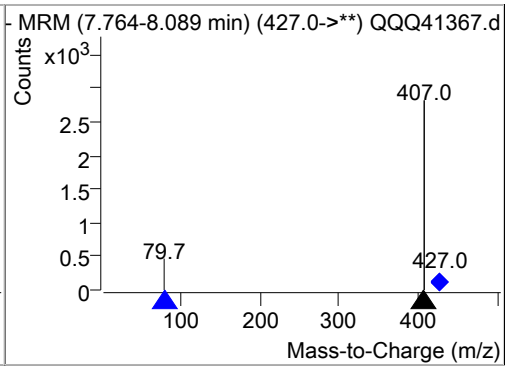




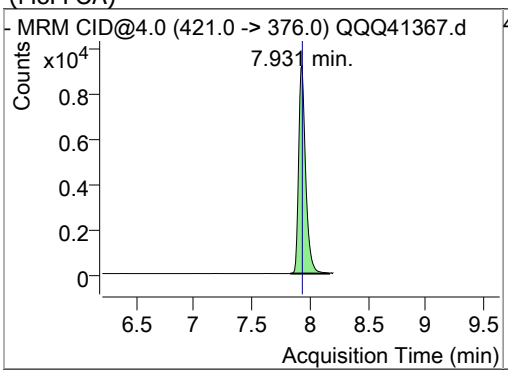
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	9.7795	7.87	-0.06	55543	427.0 -> 79.7	15.4	12.3	18.5

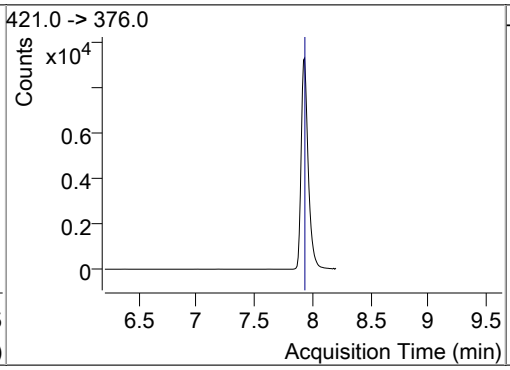


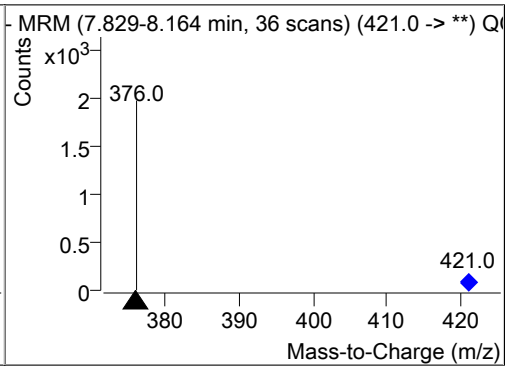




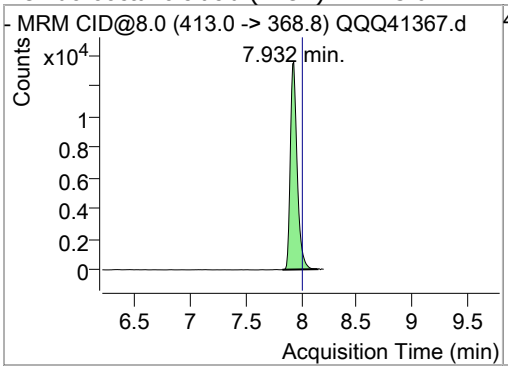
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	2.8370	7.93	-0.07	38862				

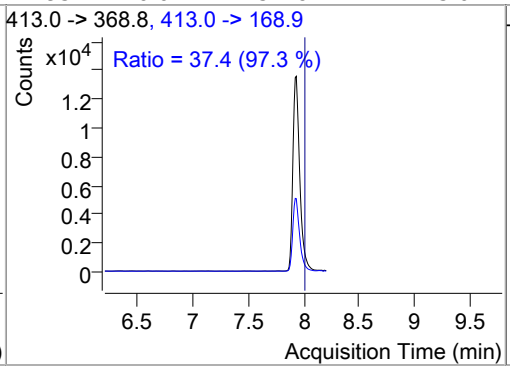


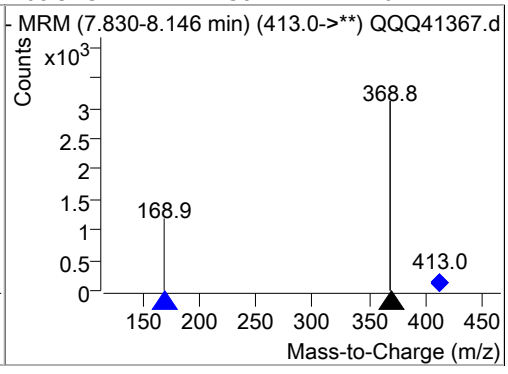




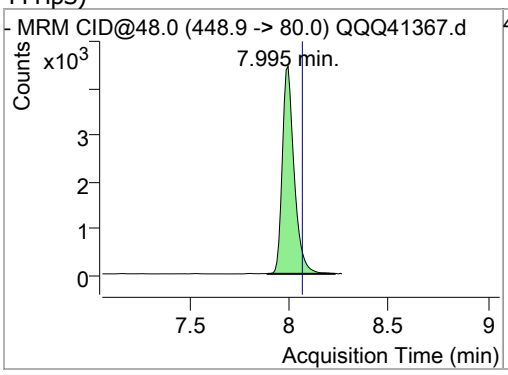
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	3.6477	7.93	-0.07	57782	413.0 -> 168.9	37.4	30.7	46.1

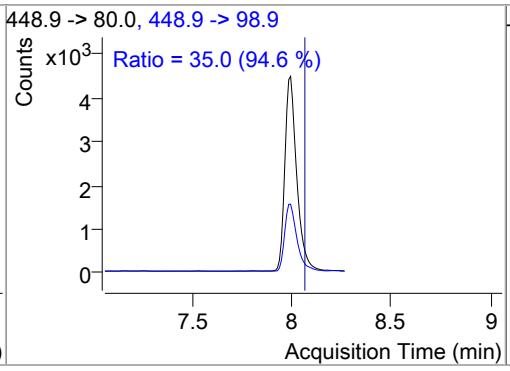


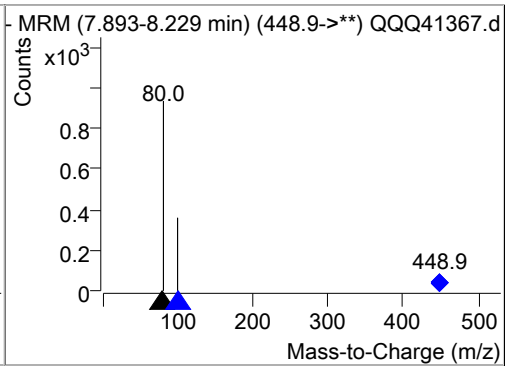




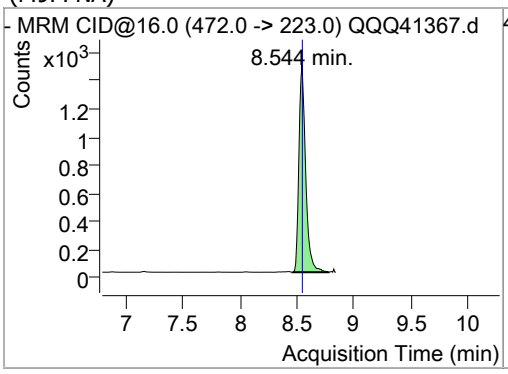
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	3.2648	8.00	-0.06	18429	448.9 -> 98.9	35.0	29.6	44.4

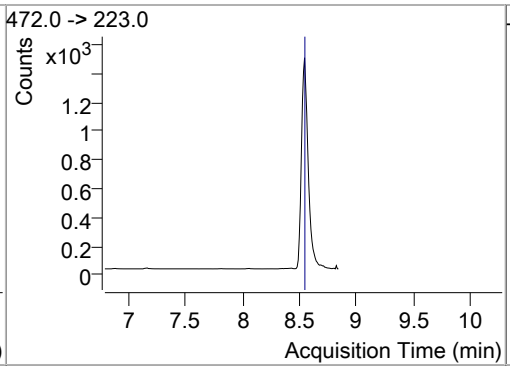


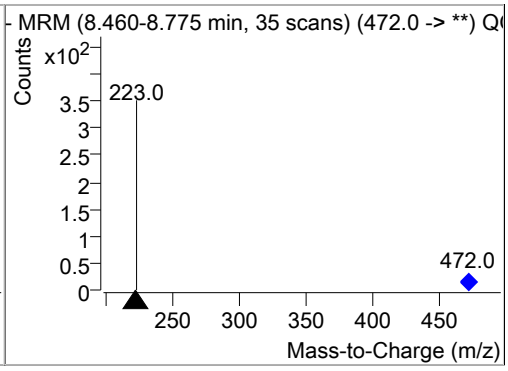




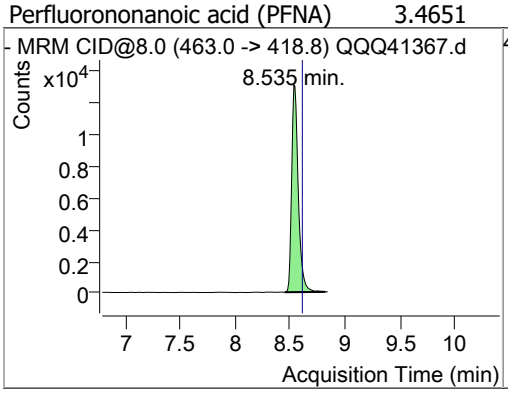
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.5387	8.54	-0.05	6047				

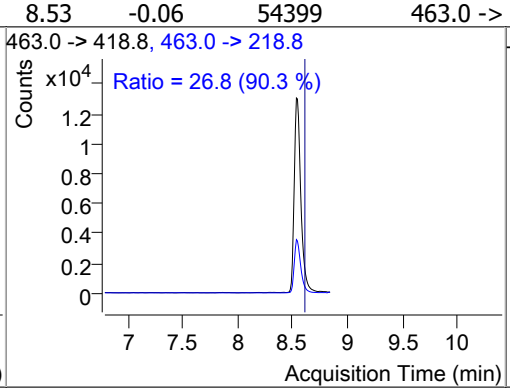


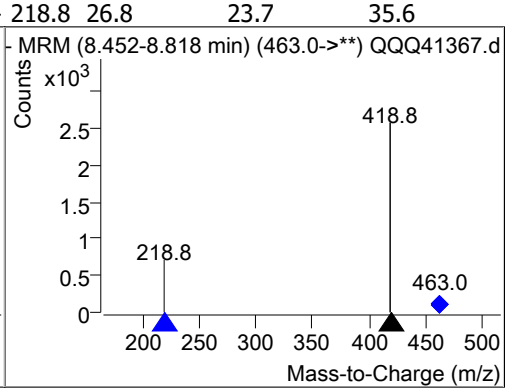




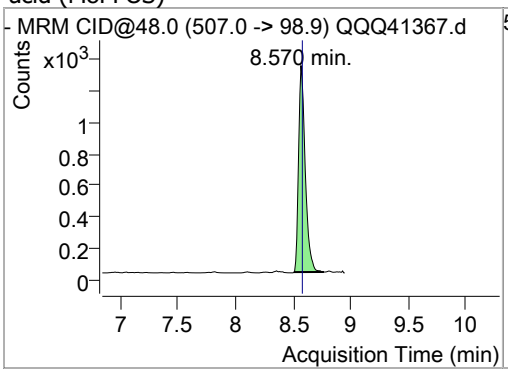
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	3.4651	8.53	-0.06	54399	463.0 -> 218.8	26.8	23.7	35.6

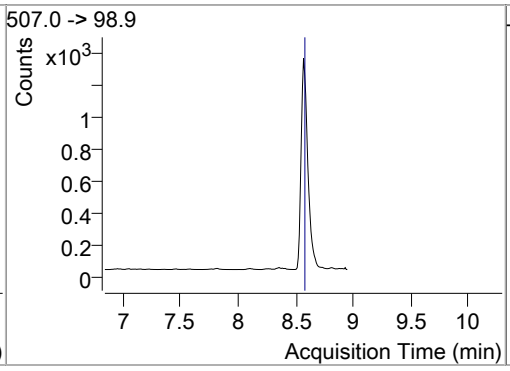


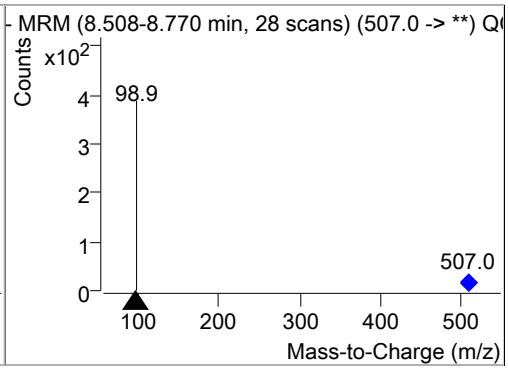




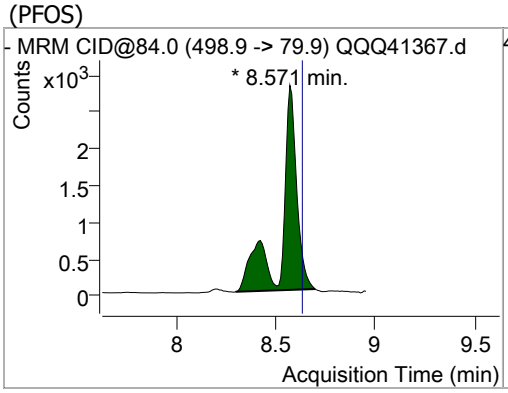
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	2.7393	8.57	-0.06	5315				

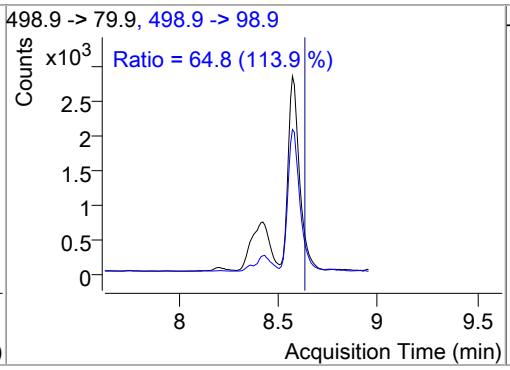


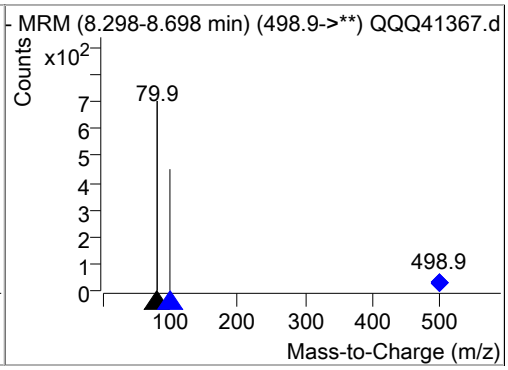




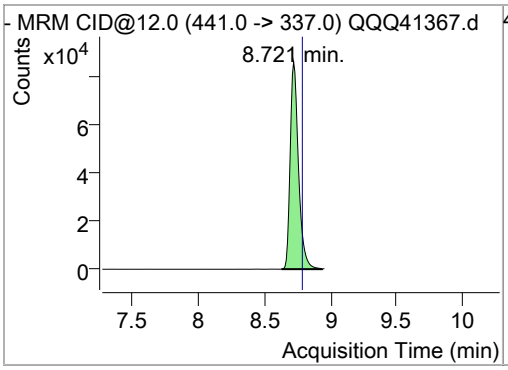
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	2.9763	8.57	-0.06	15027 (m)	498.9 -> 98.9	64.8	45.5	68.3

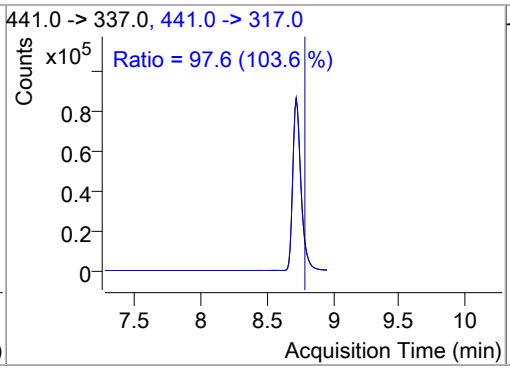


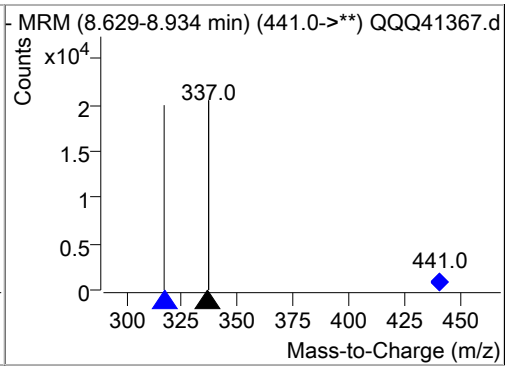




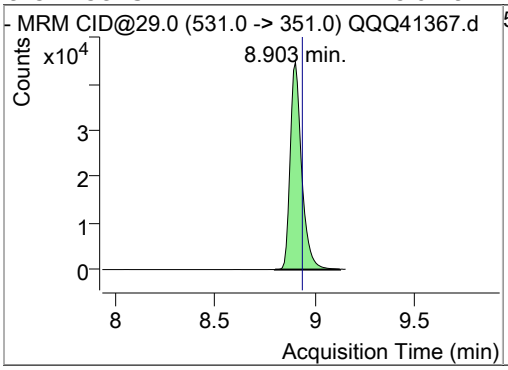
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	64.5658	8.72	-0.06	375820	441.0 -> 317.0	97.6	75.4	113.1

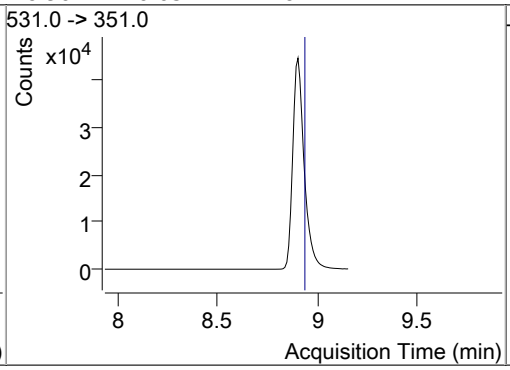


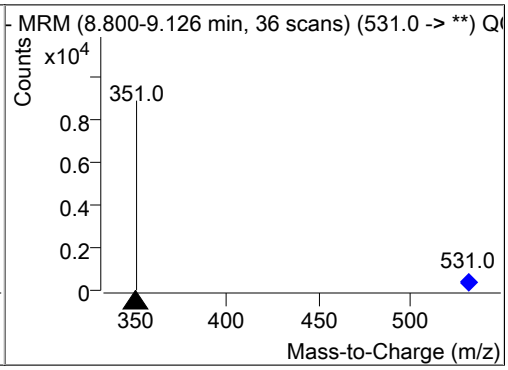




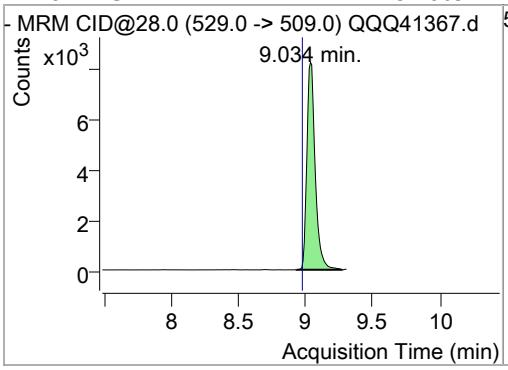
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	5.8729	8.90	-0.03	178124				

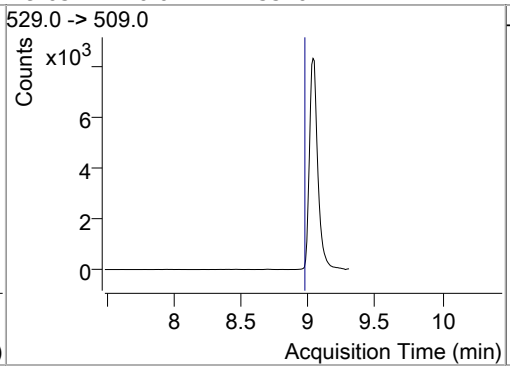


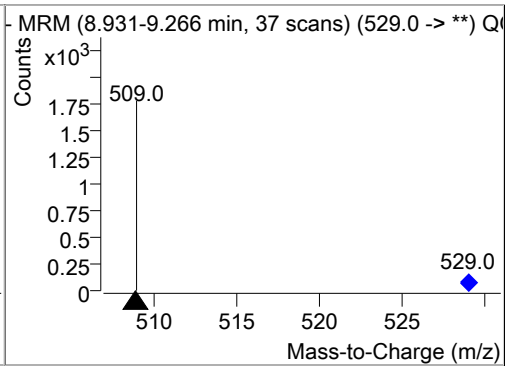




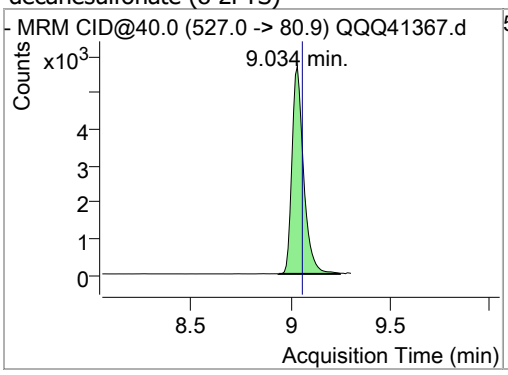
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	5.2069	9.03	-0.01	35701				

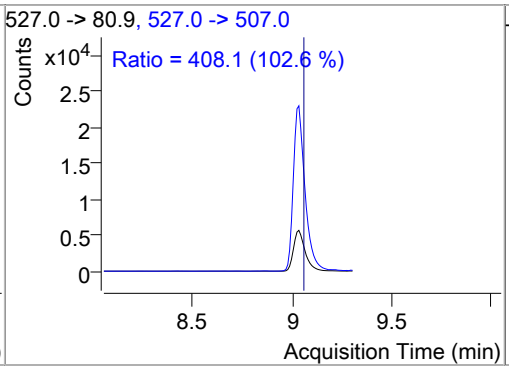


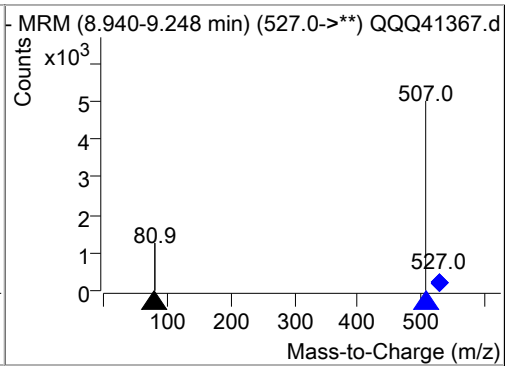




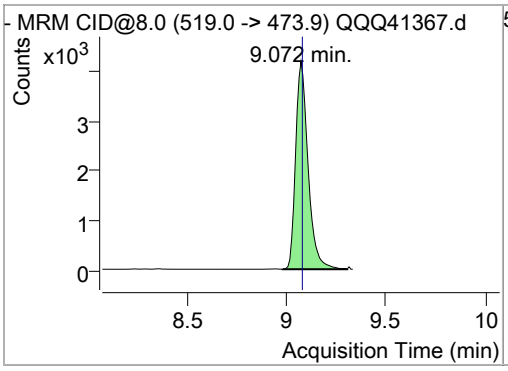
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	13.1225	9.03	-0.02	23010	527.0 -> 507.0	408.1	318.3	477.4

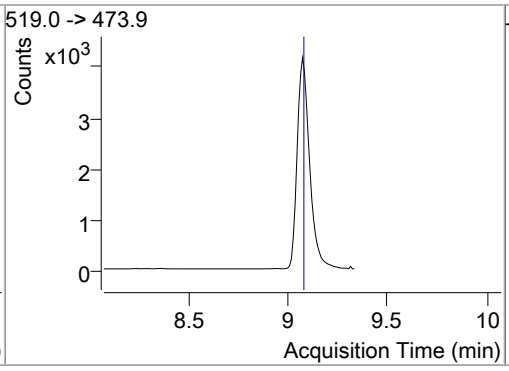


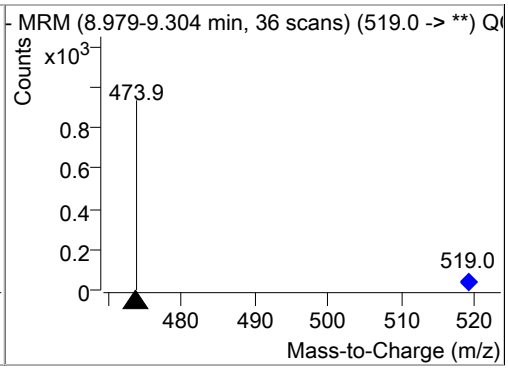




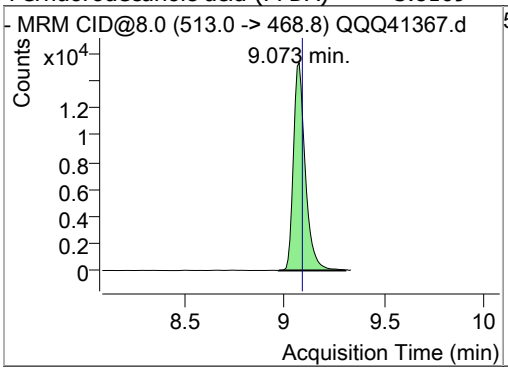
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.3314	9.07	-0.01	17981				

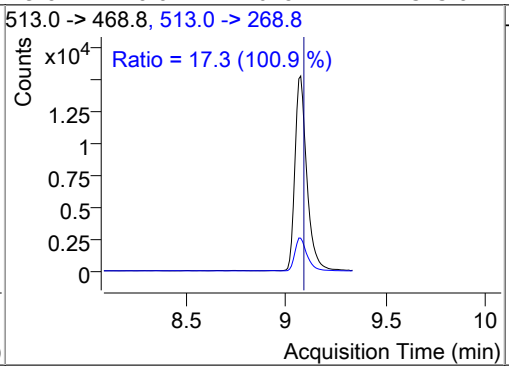


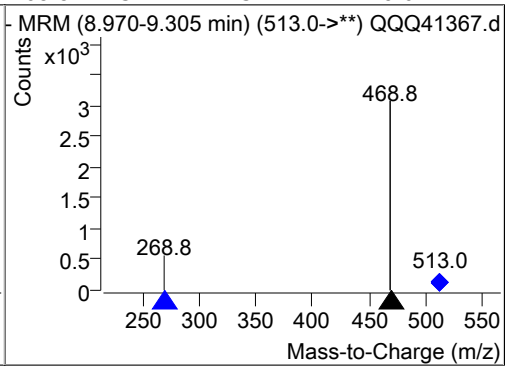




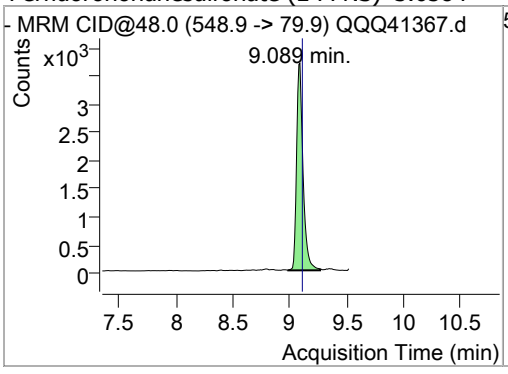
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	3.8169	9.07	-0.01	62812	513.0 -> 268.8	17.3	13.7	20.6

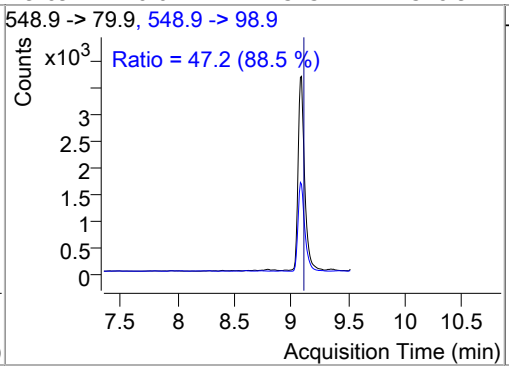


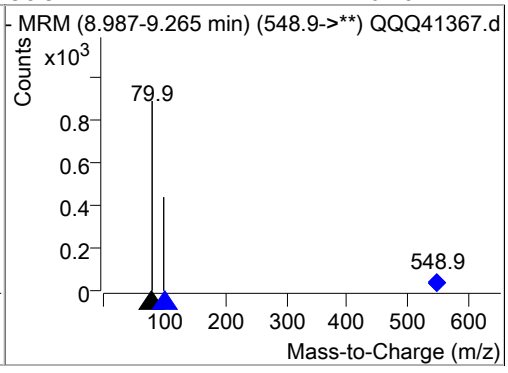




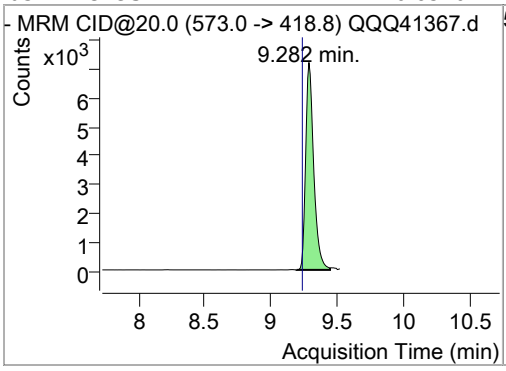
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	3.6584	9.09	-0.01	14513	548.9 -> 98.9	47.2	42.7	64.0

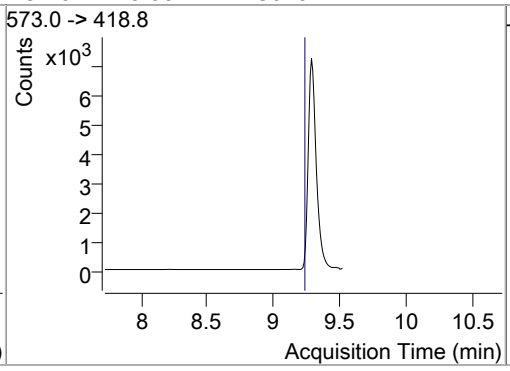


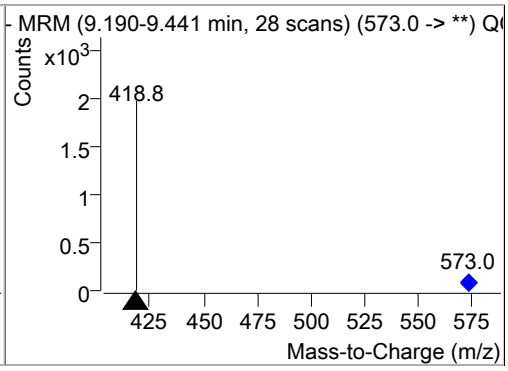




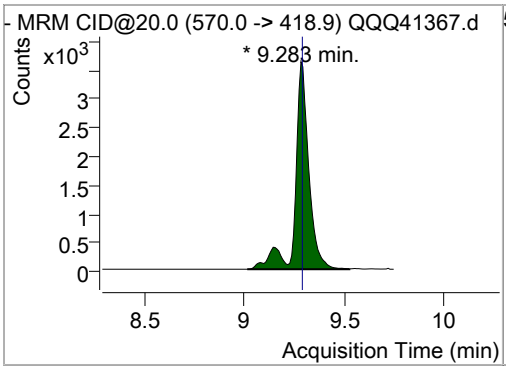
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	6.0576	9.28	0.00	30281				

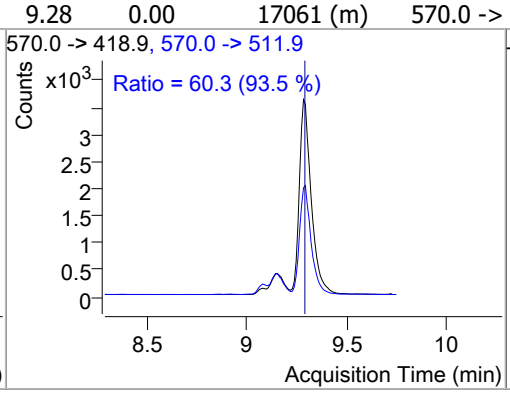


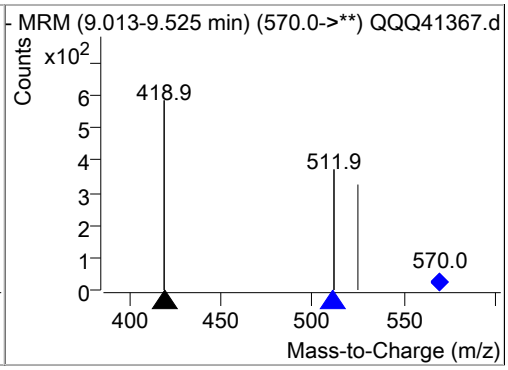




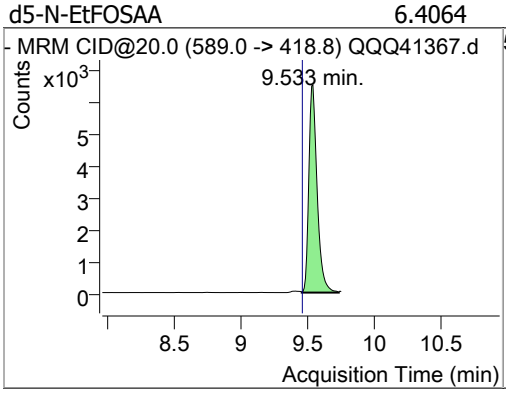
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	3.2345	9.28	0.00	17061 (m)	570.0 -> 511.9	60.3	51.6	77.4

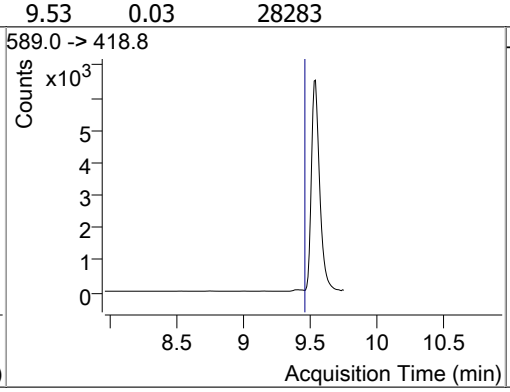


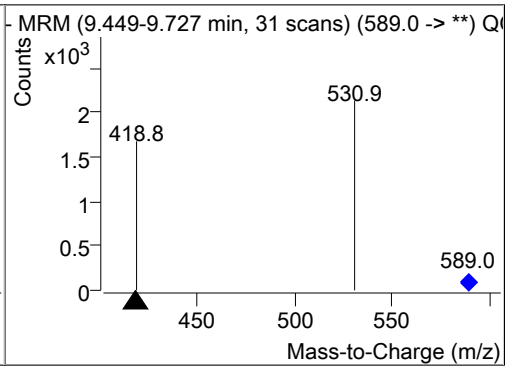




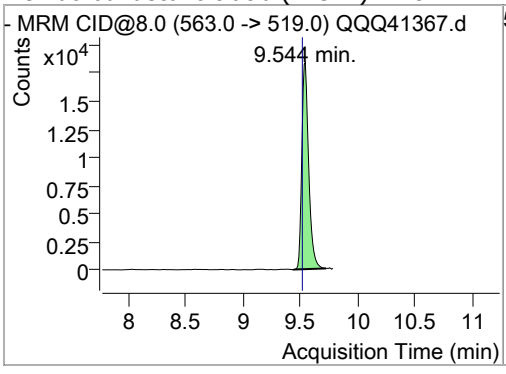
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	6.4064	9.53	0.03	28283				

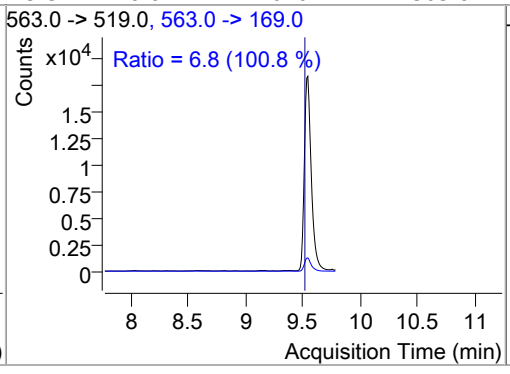


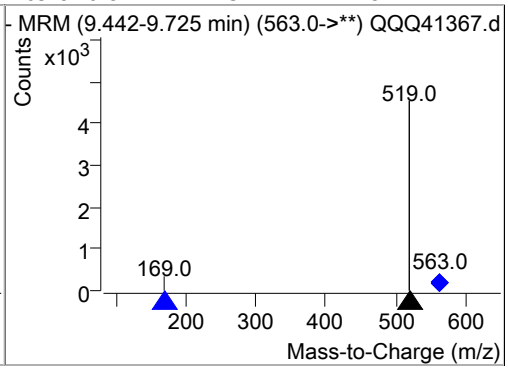




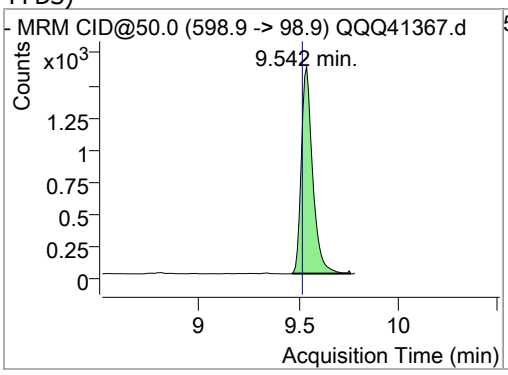
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	2.9277	9.54	0.04	76162	563.0 -> 169.0	6.8	5.4	8.1

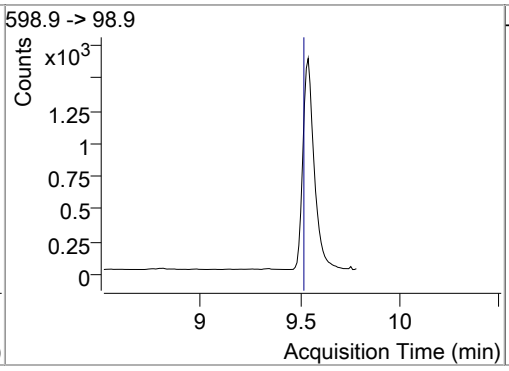


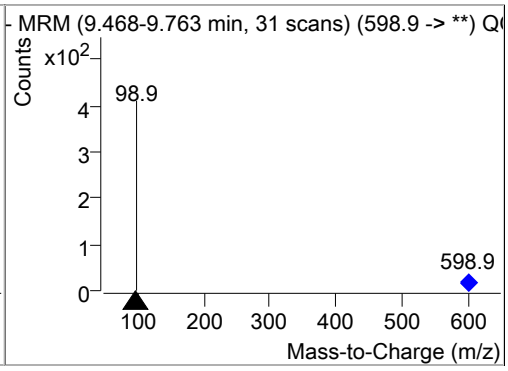




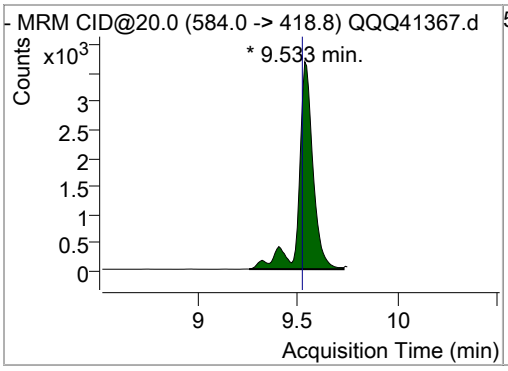
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	3.2932	9.54	0.03	6309				

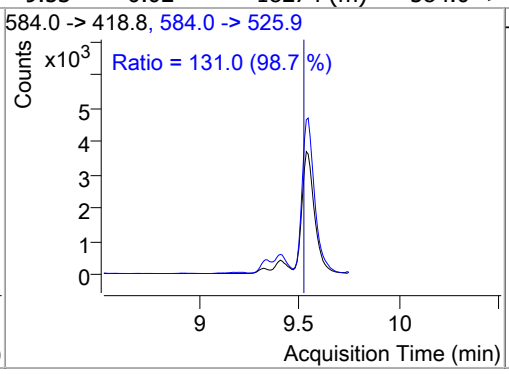


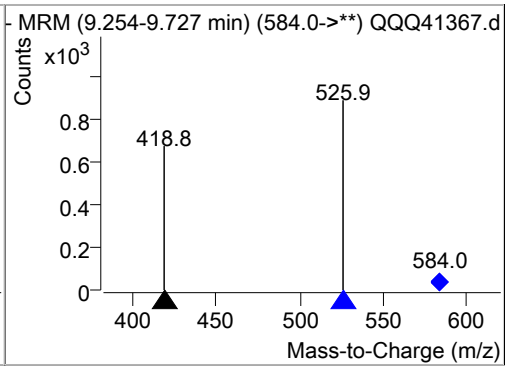




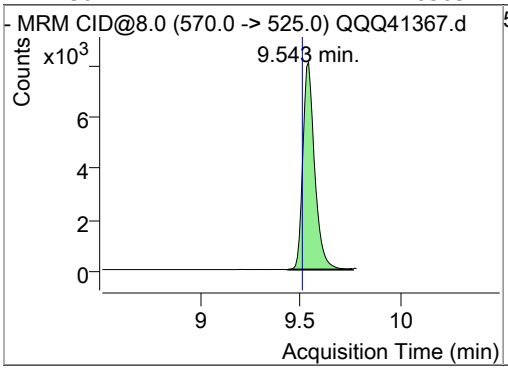
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	3.7361	9.53	0.02	18274 (m)	584.0 -> 525.9	131.0	106.2	159.3

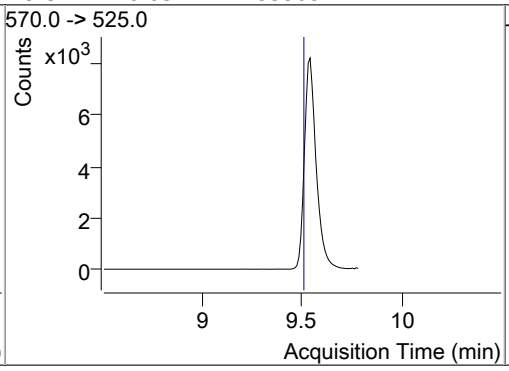


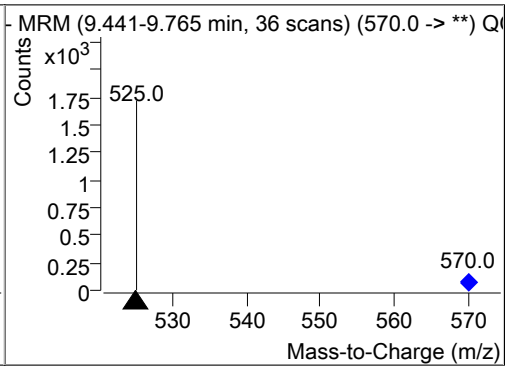




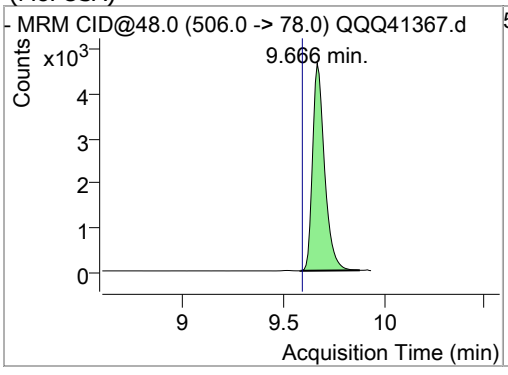
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.8363	9.54	0.03	33565				

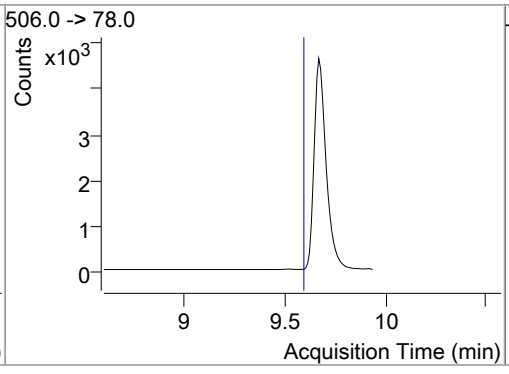


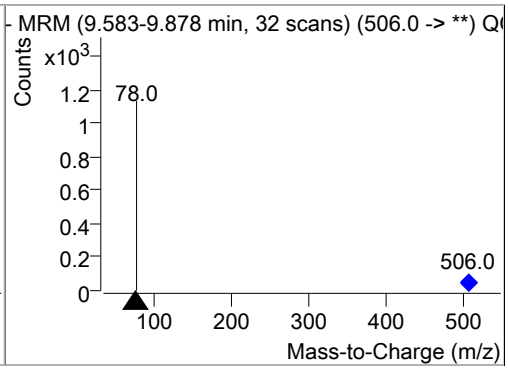




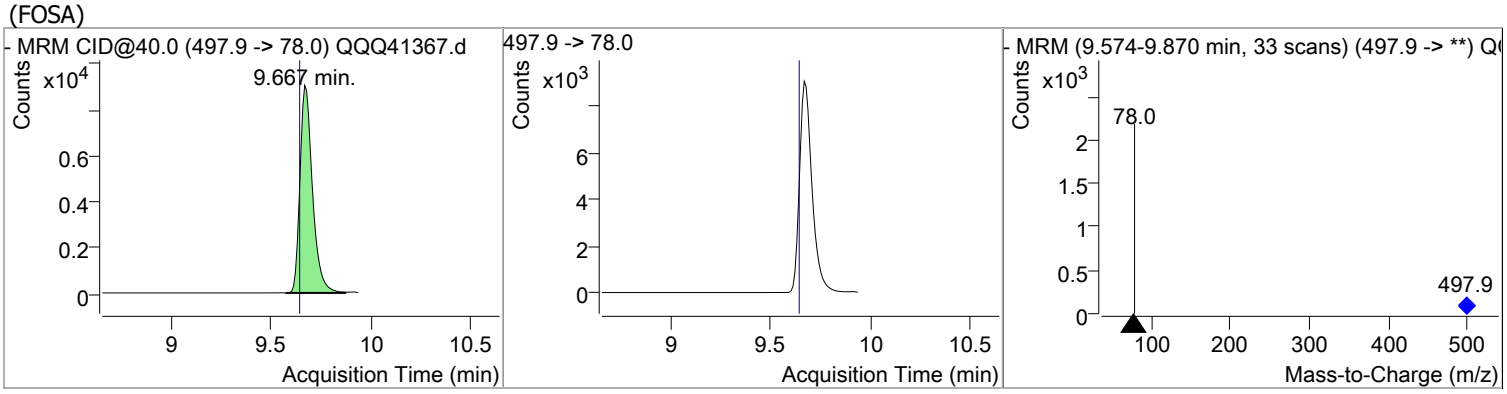
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	3.0225	9.67	0.02	19214				



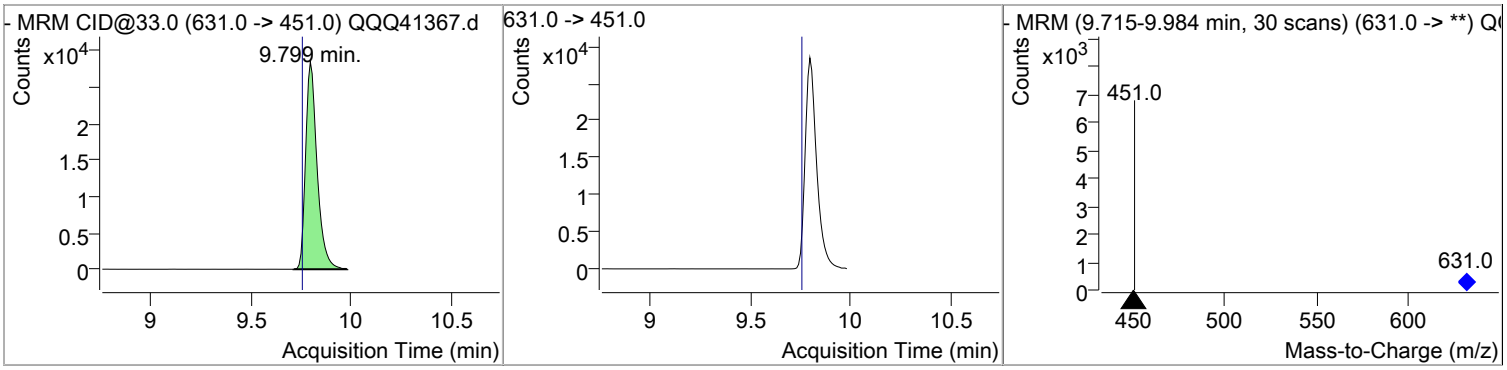




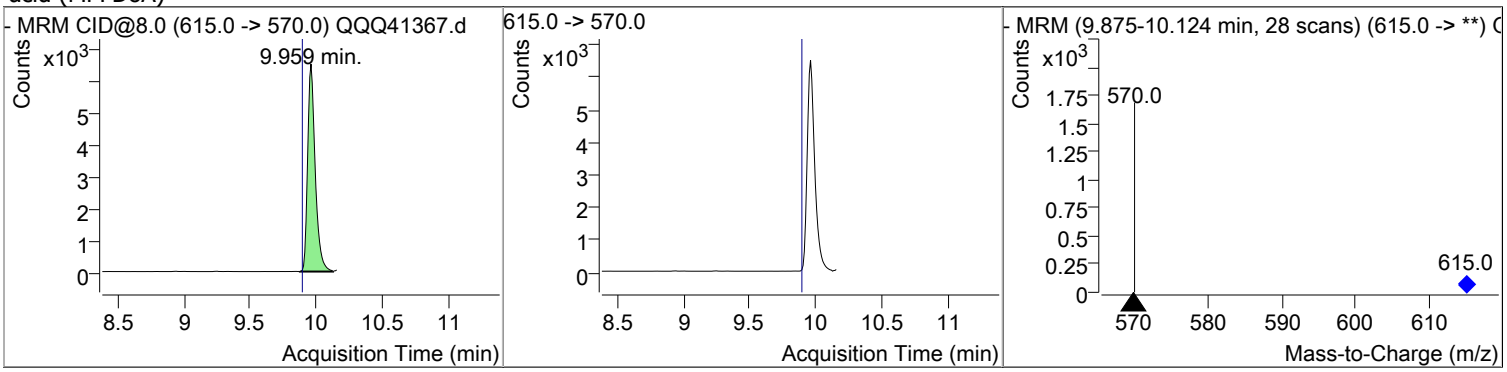
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	3.5856	9.67	0.02	39252				



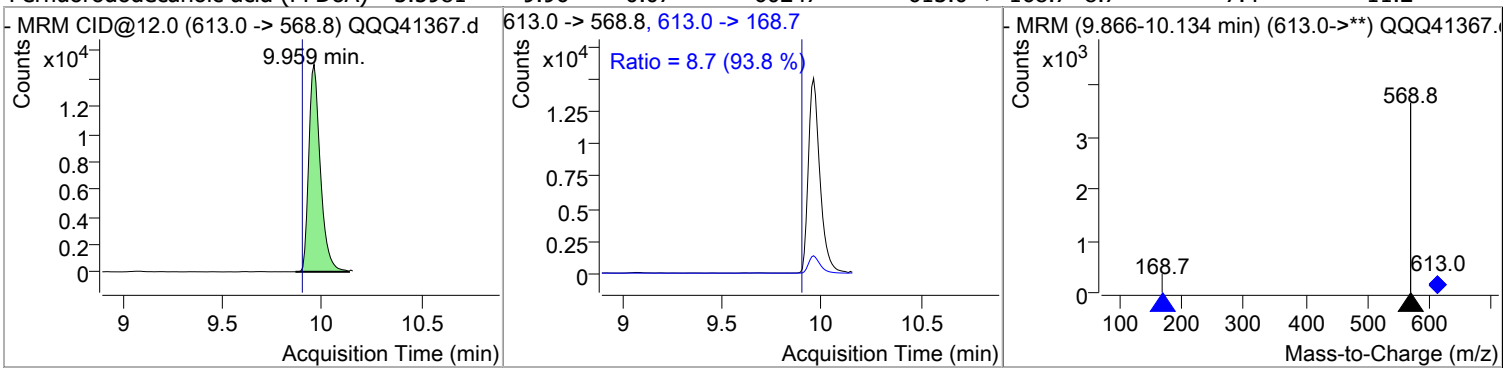
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	5.4061	9.80	0.05	113220				



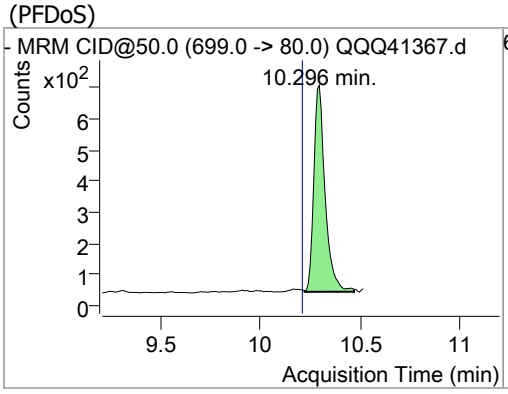
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.5991	9.96	0.07	25697				

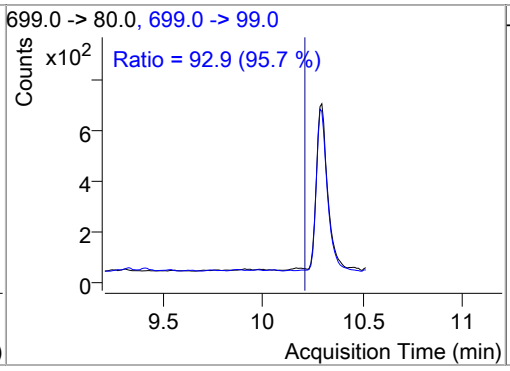


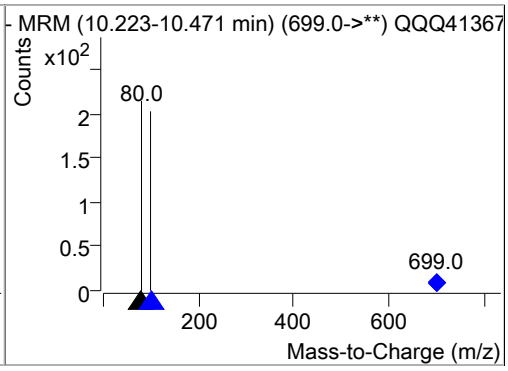
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	3.5981	9.96	0.07	60247	613.0 -> 168.7	8.7	7.4	11.2



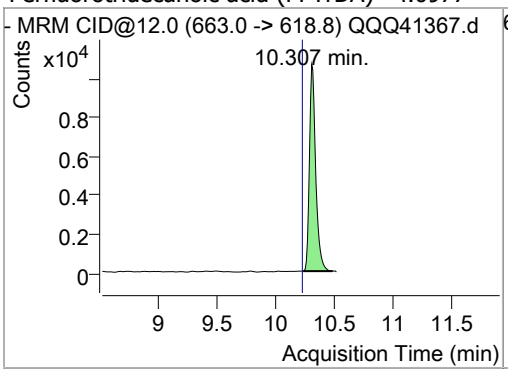
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	2.6916	10.30	0.09	2625	699.0 -> 99.0	92.9	77.6	116.4

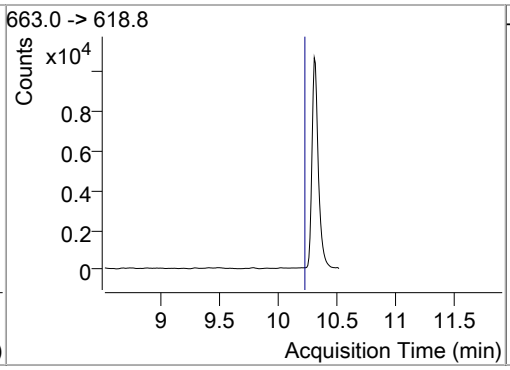


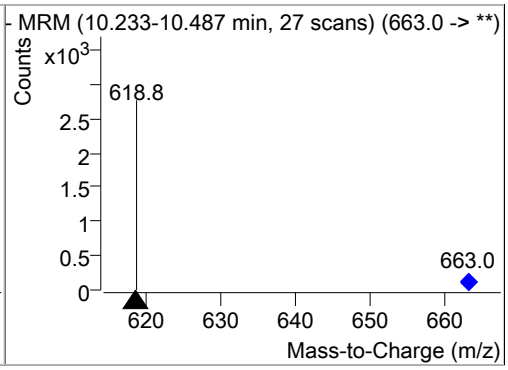




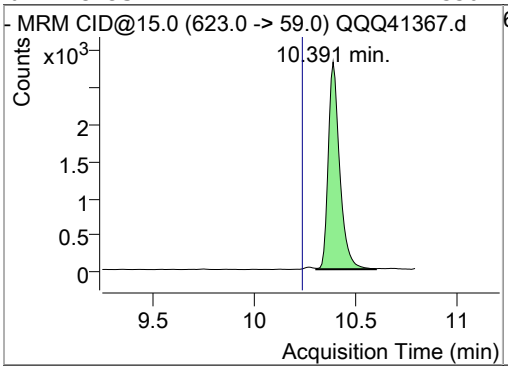
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	4.0977	10.31	0.09	39712				

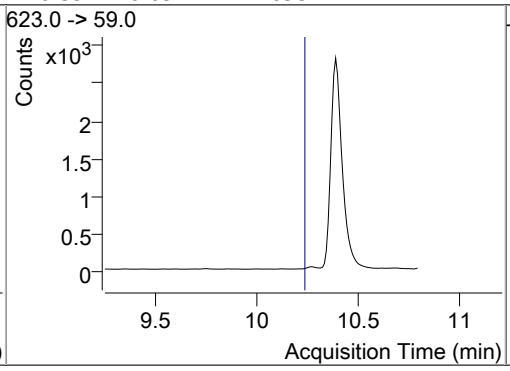


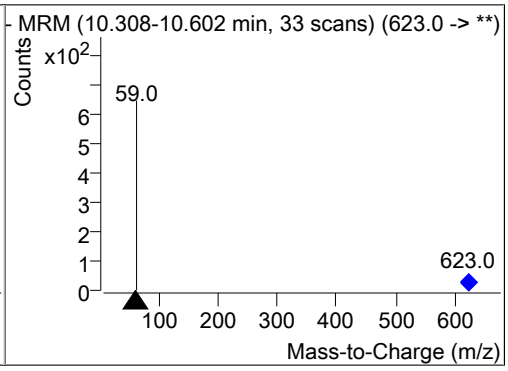




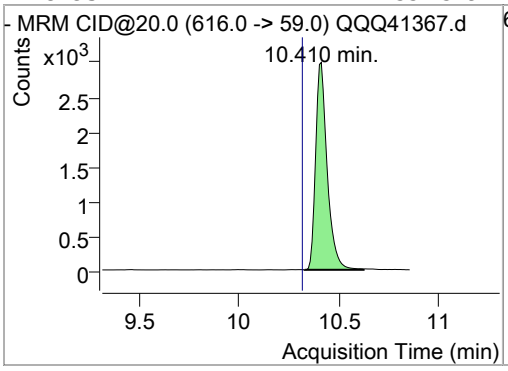
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	21.4336	10.39	0.09	10934				

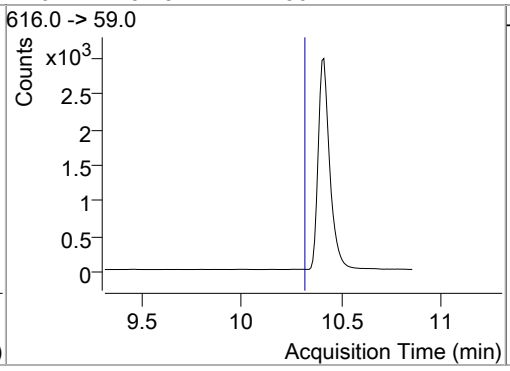


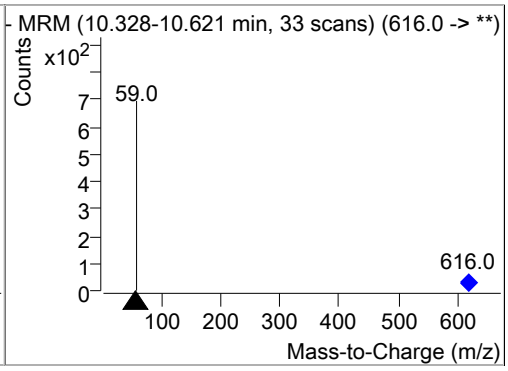




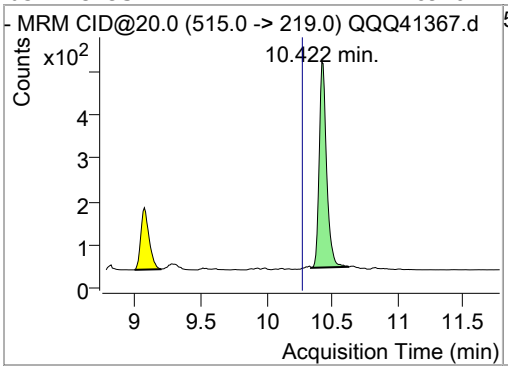
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	33.1319	10.41	0.10	11864				

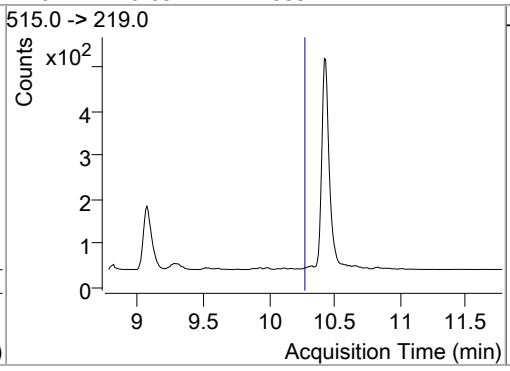


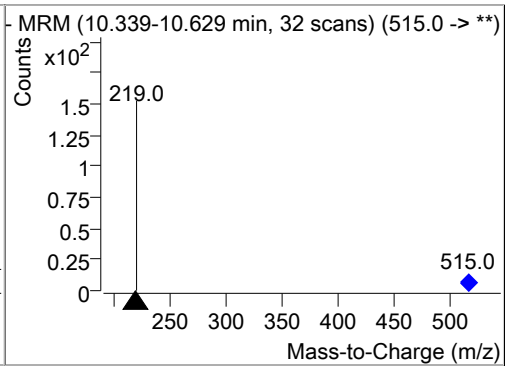




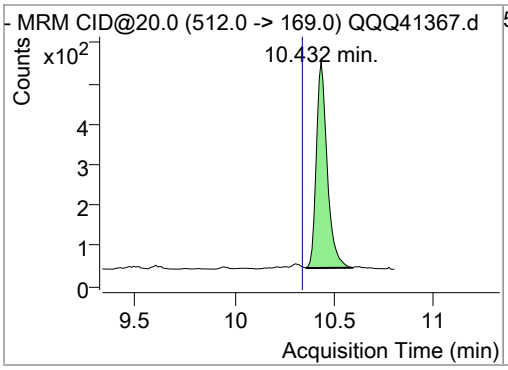
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	2.8940	10.42	0.09	1859				

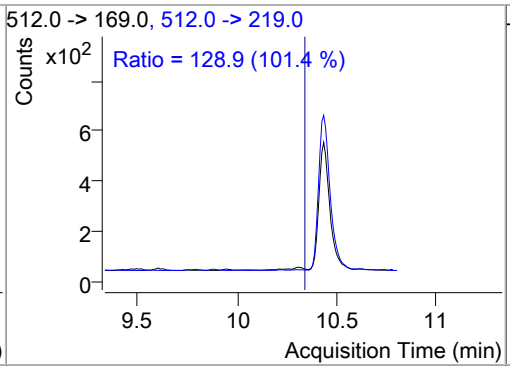


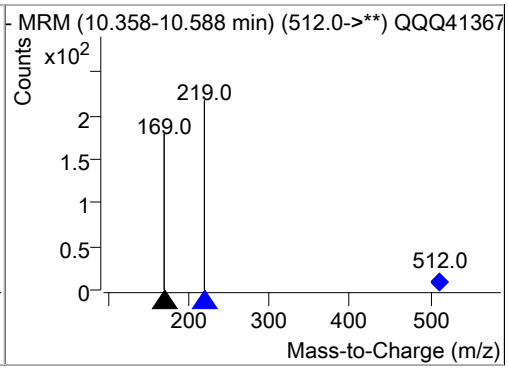




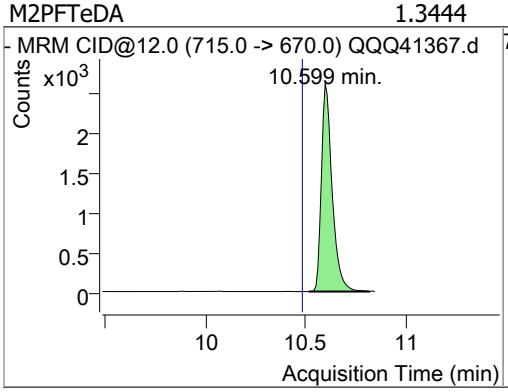
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	3.0759	10.43	0.10	1931	512.0 -> 219.0	128.9	101.6	152.5

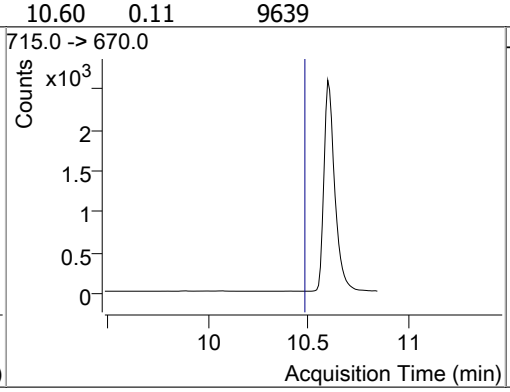


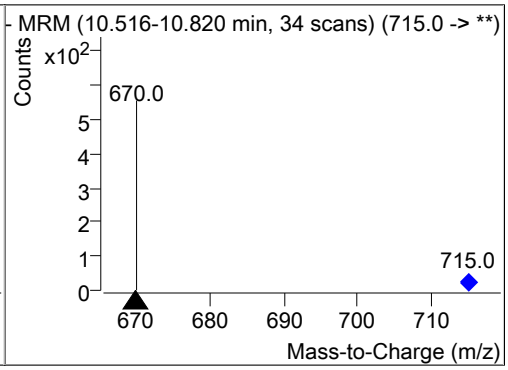




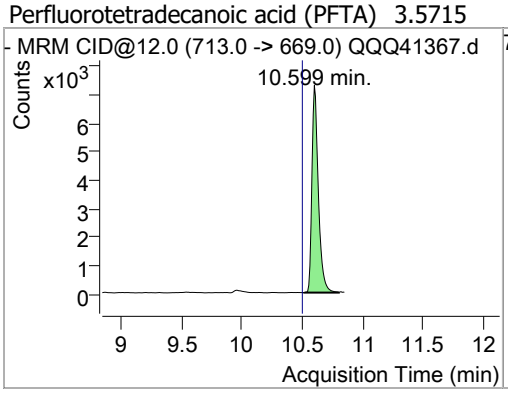
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.3444	10.60	0.11	9639				

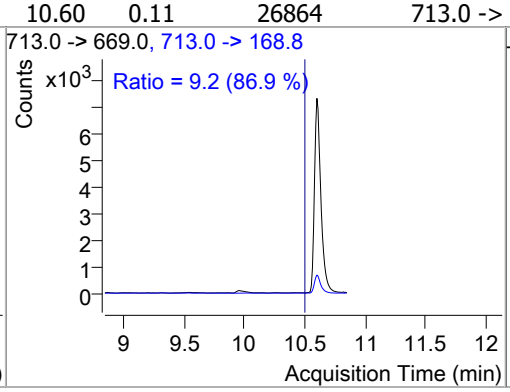


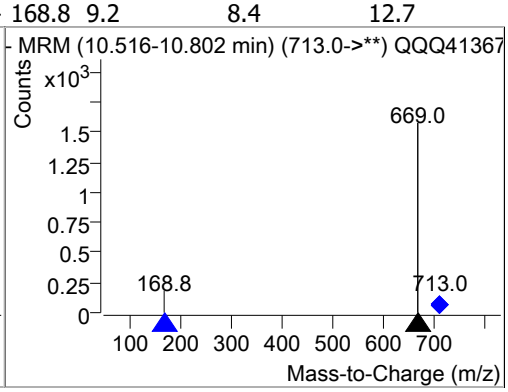




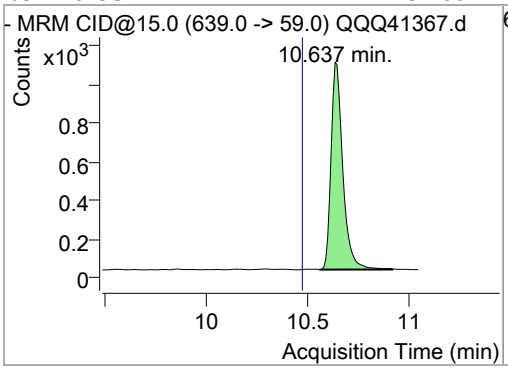
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	3.5715	10.60	0.11	26864	713.0 -> 168.8	9.2	8.4	12.7

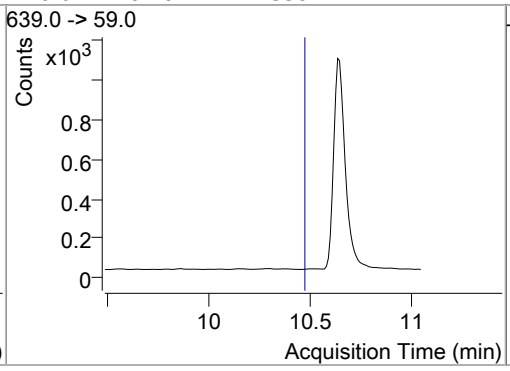


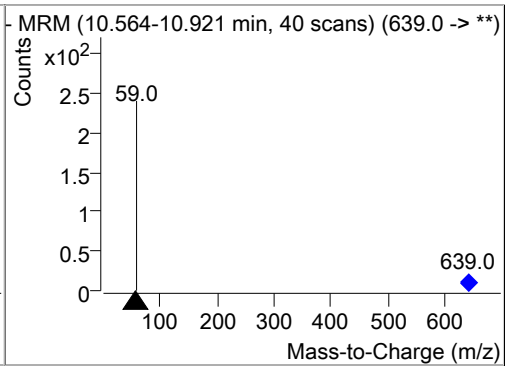




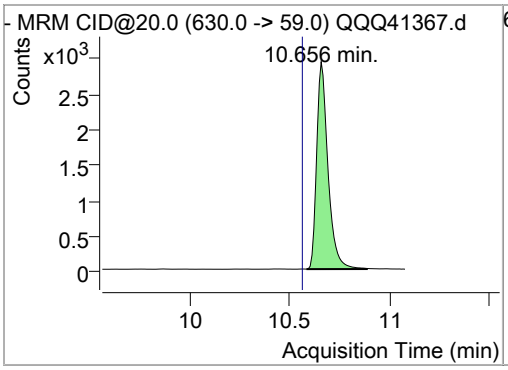
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	19.1004	10.64	0.10	4338				

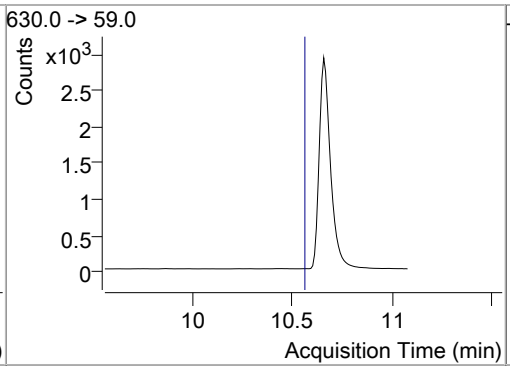


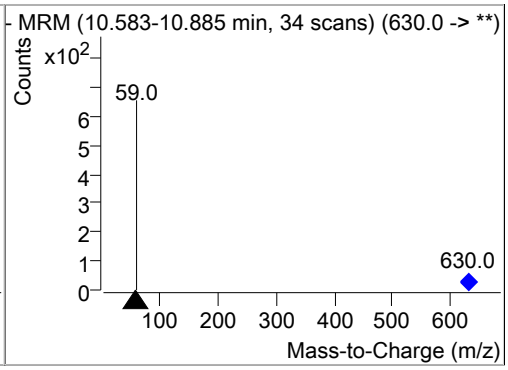




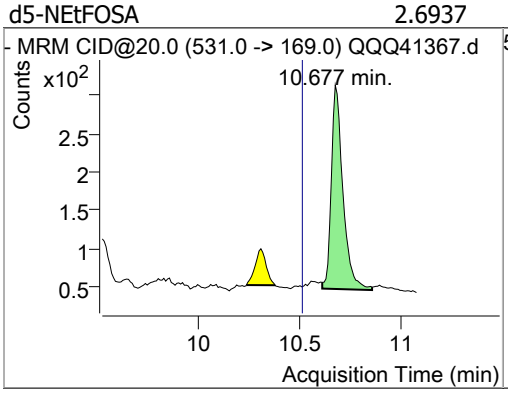
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	30.5322	10.66	0.10	11480				

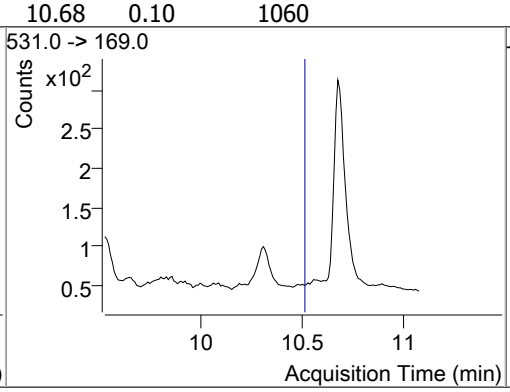


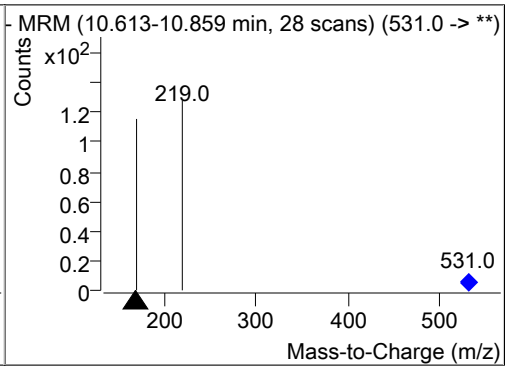




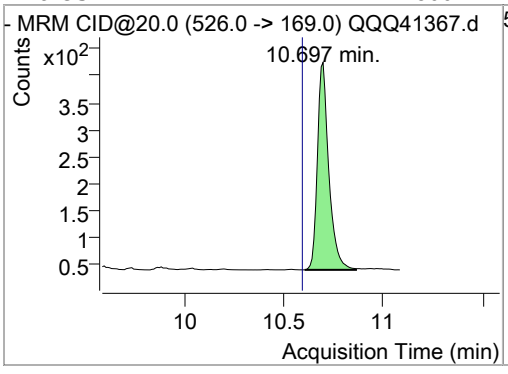
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	2.6937	10.68	0.10	1060				

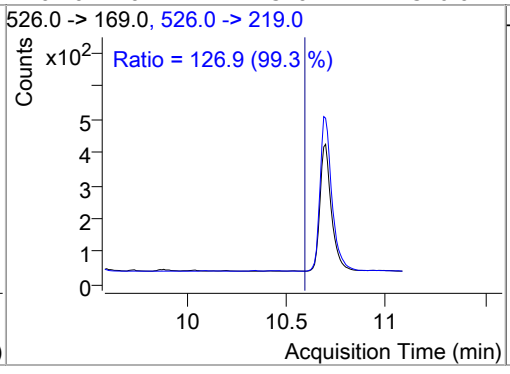


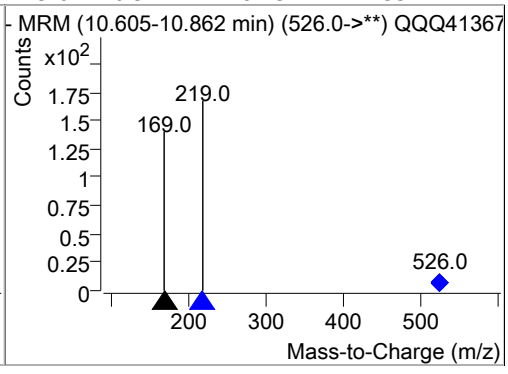




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	2.8664	10.70	0.11	1520	526.0 -> 219.0	126.9	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 10:44:23 AM	**Data File**	QQQ41367.d
Sample Type	Sample	**Sampe Name**	BG40502-BS1
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.297	6020	927	0.441			1.94			3087.15
Perfluoro-n-butanoic acid (PFBA)	1.301	6097	985	0.446			1.72			213.63
PFMPA	2.208	9076	1113	0.610			1.94			∞
3:3FTCA	4.387	3185	446	0.359			1.84			∞
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.690	105735	15726	0.473			1.87			9186.94
Perfluoro-n-pentanoic acid (PFPeA)	4.691	141316	20954	0.472			1.88			17182.99
PFMBA	5.467	69095	14476	0.387			1.70			40840.87
M3PFBS	5.492	20639	4579	0.316			1.95			∞
Perfluorobutanesulfonic acid (PFBS)	5.493	27083	6017	0.353			1.89			35015.14
PFEESA	6.038	207470	50893	0.334			1.48			70238.21
NFDHA	6.188	2705	666	0.234			1.53			761.48
M2-4-2FTS	6.260	25038	6031	0.316			1.63			∞
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.260	78001	18727	0.325			1.59			∞
M5PFHxA	6.335	68752	16644	0.316			1.71			5467.62
Perfluorohexanoic acid (PFHxA)	6.336	109458	27235	0.297			1.67			387.20
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.556	24978	6224	0.326			1.58			1786.87
M3-HFPO-DA	6.643	50150	11931	0.324			1.66			2102.61
HFPO-DA	6.643	3136	716	0.324			1.63			127.31
M4PFHpA	7.207	15740	3698	0.269			1.59			6341.62
Perfluoroheptanoic acid (PFHpA)	7.207	52548	12601	0.284			1.72			427.48
5-3FTCA	7.282	268287	62199	0.334			1.46			∞
Perfluorohexanesulfonic acid (PFHxS)	7.317	20886	4024	0.464			1.72			∞
M3PFHxS	7.317	13688	3234	0.316			1.79			675.07

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.346	65220	15691	0.315			1.77			6701.85
M2-6-2FTS	7.866	17124	4010	0.321			1.51			307.56
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.866	55543	13233	0.325			1.47			141.05
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.931	38862	9240	0.334			1.42			90602.48
Perfluorooctanoic acid (PFOA)	7.932	57782	13513	0.315			1.38			236.85
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.995	18429	4445	0.336			1.41			732.90
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.544	6047	1471	0.315			1.43			∞
Perfluorononanoic acid (PFNA)	8.535	54399	12997	0.366			1.96			∞
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.570	5315	1318	0.262			1.92			∞
Perfluorooctanesulfonic acid (PFOS)	8.571	15027	2778	0.399			1.76			332.12
7-3FTCA	8.721	375820	86408	0.306			1.63			390.25
9-Cl-PF3ONS	8.903	178124	44656	0.326			1.53			173267.75
M2-8-2FTS	9.034	35701	8221	0.335			1.53			∞
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	9.034	23010	5679	0.307			1.51			7204.93
M6PFDA	9.072	17981	4141	0.325			1.53			∞
Perfluorodecanoic acid (PFDA)	9.073	62812	15220	0.334			1.41			124.40
Perfluorononanesulfonate (L-PFNS)	9.089	14513	3684	0.278			1.32			746.54
d3-N-MeFOSAA	9.282	30281	7197	0.251			1.72			∞
N-MeFOSAA	9.283	17061	3605	0.511			1.92			25398.70
d5-N-EtFOSAA	9.533	28283	6511	0.278			1.41			∞
Perfluoroundecanoic acid (PFUnA)	9.544	76162	18330	0.284			1.35			103.55
Perfluoro-1-decanesulfonate (L-PFDS)	9.542	6309	1604	0.296			1.48			85.18
N-EtFOSAA	9.533	18274	3666	0.473			1.83			∞
M7PFUdA	9.543	33565	8156	0.324			1.39			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.666	19214	4630	0.295			1.80			2963.54
Perfluoro-1-octanesulfonamide (FOSA)	9.667	39252	9032	0.296			1.77			∞
11-Cl-PF3OUdS	9.799	113220	28420	0.269			1.68			19179.97
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.959	25697	6495	0.250			1.58			∞

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.959	60247	15000	0.268			1.54			2328.74
Perfluorododecanesulfonic acid (PFDoS)	10.296	2625	663	0.249			1.45			90.00
Perfluorotridecanoic acid (PFTrDA)	10.307	39712	10604	0.254			1.80			83.90
d7-NMeFOSE	10.391	10934	2787	0.294			1.64			640.62
NMeFOSE	10.410	11864	2958	0.294			1.45			∞
d3-NMeFOSA	10.422	1859	474	0.290			1.80			7748.84
NMeFOSA	10.432	1931	509	0.230			1.56			∞
M2PFTeDA	10.599	9639	2563	0.304			1.97			217.91
Perfluorotetradecanoic acid (PFTA)	10.599	26864	7265	0.286			1.84			668.29
d9-NEtFOSE	10.637	4338	1069	0.357			1.89			237.75
NEtFOSE	10.656	11480	2913	0.303			1.74			1518.23
d5-NEtFOSA	10.677	1060	266	0.246			2.04			39.47
NEtFOSA	10.697	1520	383	0.257			1.41			2321.54

Data File	QQQ41368.d	Operator	
Acq. Method	PFAS-EPA1633D2_ACQ_111522.m	Acq. Date-Time	7/10/2024 11:00:27 AM
Sample Name	BG40502-BS2	Instrument	LCQQQ
Vial		Multiplier	1.00
DA Method File	2024-07-09A-1633-ICAL.batch.bin	Comment	
Tune File		Tune Date	
Batch Name	2024-07-10A-1633.batch.bin	Last Calib Update	7/10/2024 7:37:33 PM
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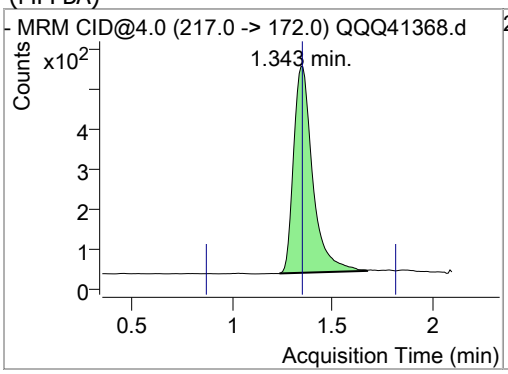
Compound	RT	QIon	Resp.	Conc.	Units	Dev(Min)
Internal Standards						
M3PFBA	1.345	216.0 -> 172.0	22628	5.0000	ng/ml	0.092
Perfluoro-n-[13C4]butanoic acid (MPFBA)-EIS	1.343	217.0 -> 172.0	3426	10.0000	ng/ml	0.092
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)-EIS	4.829	268.0 -> 223.0	85116	5.0000	ng/ml	0.101
MPFHxA	6.354	315.0 -> 269.8	32660	2.5000	ng/ml	-0.019
MPFHxS	7.279	403.0 -> 103.0	3495	2.3700	ng/ml	-0.103
M3PFBS-EIS	5.566	302.0 -> 79.9	22053	2.3300	ng/ml	0.037
M5PFHxA-EIS	6.353	318.0 -> 273.0	73037	2.5000	ng/ml	-0.019
M2-4-2FTS-EIS	6.288	329.0 -> 309.0	26094	4.6900	ng/ml	-0.009
M3PFHxS-EIS	7.280	402.0 -> 80.0	14790	2.3700	ng/ml	-0.103
M3-HFPO-DA-EIS	6.652	287.0 -> 169.0	55765	10.0000	ng/ml	-0.037
M4PFHpA-EIS	7.179	367.0 -> 322.0	17098	2.5000	ng/ml	-0.083
M2-6-2FTS-EIS	7.801	429.0 -> 409.0	16642	4.7550	ng/ml	-0.130
MPFOA	7.867	417.0 -> 372.0	36674	2.5000	ng/ml	-0.130
Perfluoro-n-[13C8]octanoic acid (M8PFOA)-EIS	7.866	421.0 -> 376.0	41562	2.5000	ng/ml	-0.130
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)-EIS	8.495	507.0 -> 98.9	5601	2.3950	ng/ml	-0.130
MPFNA	8.460	468.0 -> 423.0	17458	1.2500	ng/ml	-0.139
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)-EIS	8.460	472.0 -> 223.0	6517	1.2500	ng/ml	-0.130
MPFOS	8.496	503.0 -> 80.0	9905	2.3950	ng/ml	-0.130
M2-8-2FTS-EIS	8.940	529.0 -> 509.0	40259	4.8000	ng/ml	-0.103
MPFDA	8.979	515.0 -> 469.8	13659	1.2500	ng/ml	-0.102
M6PFDA-EIS	8.979	519.0 -> 473.9	23100	1.2500	ng/ml	-0.102
d3-N-MeFOSAA-EIS	9.190	573.0 -> 418.8	32852	5.0000	ng/ml	-0.093
M7PFUdA-EIS	9.432	570.0 -> 525.0	34282	1.2500	ng/ml	-0.083
d5-N-EtFOSAA-EIS	9.431	589.0 -> 418.8	31618	5.0000	ng/ml	-0.074
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)-EIS	9.574	506.0 -> 78.0	21609	2.5000	ng/ml	-0.074
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)-EIS	9.856	615.0 -> 570.0	27618	1.2500	ng/ml	-0.037
M2PFTeDA-EIS	10.525	715.0 -> 670.0	9934	1.2500	ng/ml	0.037
d7-NMeFOSE-EIS	10.299	623.0 -> 59.0	11160	25.0000	ng/ml	0.000
d3-NMeFOSA-EIS	10.339	515.0 -> 219.0	2261	2.5000	ng/ml	0.009
d9-NEtFOSE-EIS	10.564	639.0 -> 59.0	4065	25.0000	ng/ml	0.028
d5-NEtFOSA-EIS	10.613	531.0 -> 169.0	1168	2.5000	ng/ml	0.037
System Monitoring Compounds						
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.343	217.0 -> 172.0	3426	0.3024	ng/ml	0.092
Spiked Amount:	Range: - %			Recovery = NA%		
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.829	268.0 -> 223.0	85116	4.0852	ng/ml	0.101
Spiked Amount:	Range: - %			Recovery = NA%		
M3PFBS	5.566	302.0 -> 79.9	22053	3.5368	ng/ml	0.037
Spiked Amount:	Range: - %			Recovery = NA%		
M2-4-2FTS	6.288	329.0 -> 309.0	26094	6.2686	ng/ml	-0.009

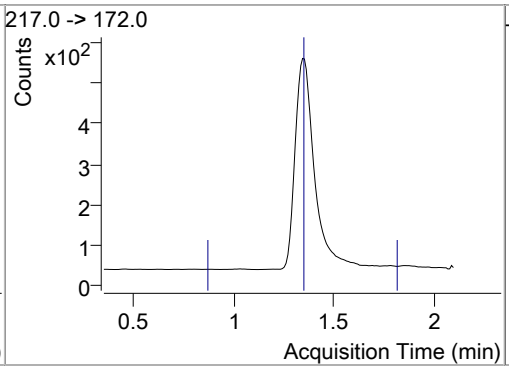
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Spiked Amount:	Range: - %			Recovery = NA%			
M5PFHxA	6.353	318.0 -> 273.0	73037	3.5042	ng/ml		-0.019
Spiked Amount:	Range: - %			Recovery = NA%			
M3-HFPO-DA	6.652	287.0 -> 169.0	55765	15.3060	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
M4PFHpA	7.179	367.0 -> 322.0	17098	3.6930	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
M3PFHxS	7.280	402.0 -> 80.0	14790	3.3998	ng/ml		-0.103
Spiked Amount:	Range: - %			Recovery = NA%			
M2-6-2FTS	7.801	429.0 -> 409.0	16639	5.9686	ng/ml		-0.130
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.866	421.0 -> 376.0	41466	3.5504	ng/ml		-0.130
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.460	472.0 -> 223.0	6517	1.7515	ng/ml		-0.130
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.495	507.0 -> 98.9	5623	3.0958	ng/ml		-0.130
Spiked Amount:	Range: - %			Recovery = NA%			
M2-8-2FTS	8.940	529.0 -> 509.0	40297	6.1550	ng/ml		-0.103
Spiked Amount:	Range: - %			Recovery = NA%			
M6PFDA	8.979	519.0 -> 473.9	23100	1.5436	ng/ml		-0.102
Spiked Amount:	Range: - %			Recovery = NA%			
d3-N-MeFOSAA	9.190	573.0 -> 418.8	32853	7.0194	ng/ml		-0.093
Spiked Amount:	Range: - %			Recovery = NA%			
d5-N-EtFOSAA	9.431	589.0 -> 418.8	31617	7.6491	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
M7PFUdA	9.432	570.0 -> 525.0	34242	1.6905	ng/ml		-0.083
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.574	506.0 -> 78.0	21608	3.6307	ng/ml		-0.074
Spiked Amount:	Range: - %			Recovery = NA%			
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.856	615.0 -> 570.0	27619	1.5510	ng/ml		-0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d7-NMeFOSE	10.299	623.0 -> 59.0	11159	23.3639	ng/ml		0.000
Spiked Amount:	Range: - %			Recovery = NA%			
d3-NMeFOSA	10.339	515.0 -> 219.0	2261	3.7596	ng/ml		0.009
Spiked Amount:	Range: - %			Recovery = NA%			
M2PFTeDA	10.525	715.0 -> 670.0	9934	1.2504	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
d9-NEtFOSE	10.564	639.0 -> 59.0	4090	19.2366	ng/ml		0.028
Spiked Amount:	Range: - %			Recovery = NA%			
d5-NEtFOSA	10.613	531.0 -> 169.0	1168	3.1717	ng/ml		0.037
Spiked Amount:	Range: - %			Recovery = NA%			
Target Compounds							QValue
Perfluoro-n-butanoic acid (PFBA)	1.347	213.0 -> 168.9	698	2.3249	ng/ml		100
PFMPA	2.327	229.0 -> 85.0	974	0.1919	ng/ml		100
3:3FTCA	4.553	241.0 -> 177.0	533	1.8057	ng/ml	#	78
Perfluoro-n-pentanoic acid (PFPeA)	4.839	263.0 -> 219.0	24259	1.4889	ng/ml		100
PFMBA	5.541	279.0 -> 85.0	13264	1.8598	ng/ml		100
Perfluorobutanesulfonic acid (PFBS)	5.567	298.9 -> 79.9	6044	0.6270	ng/ml		98
PFEESA	6.075	315.0 -> 135.0	48315	1.2497	ng/ml		100
NFDHA	6.216	295.0 -> 201.1	595	1.1482	ng/ml	#	80
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.288	327.0 -> 307.0	18458	2.6854	ng/ml		99

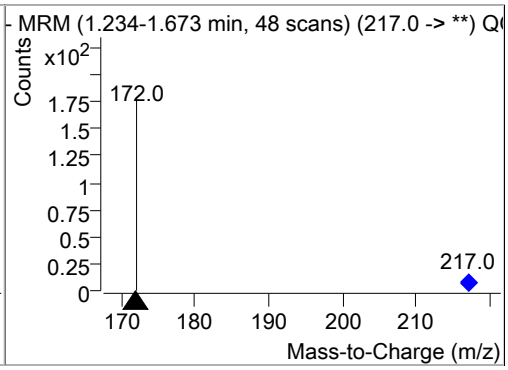
Compound	RT	QIon	Resp.	Conc.	Units		Dev(Min)
Perfluorohexanoic acid (PFHxA)	6.355	313.0 -> 268.9	22997	0.6815	ng/ml	#	96
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.556	348.9 -> 79.9	5673	0.7204	ng/ml		97
HFPO-DA	6.652	285.0 -> 169.1	913	1.8592	ng/ml		100
Perfluoroheptanoic acid (PFHpA)	7.179	363.0 -> 318.8	11610	0.7680	ng/ml		99
5-3FTCA	7.245	341.0 -> 217.0	60237	12.9121	ng/ml		96
Perfluorohexanesulfonic acid (PFHxS)	7.280	398.9 -> 79.9	4614	0.6378	ng/ml	m	97
ADONA	7.309	377.0 -> 85.0	14296	1.1589	ng/ml		94
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.801	427.0 -> 407.0	13129	2.3795	ng/ml		100
Perfluorooctanoic acid (PFOA)	7.858	413.0 -> 368.8	12999	0.6891	ng/ml		99
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.920	448.9 -> 80.0	4257	0.7133	ng/ml		94
Perfluorononanoic acid (PFNA)	8.461	463.0 -> 418.8	11653	0.6898	ng/ml		100
Perfluorooctanesulfonic acid (PFOS)	8.496	498.9 -> 79.9	3710	0.6781	ng/ml	m	91
7-3FTCA	8.647	441.0 -> 337.0	89857	14.3846	ng/ml		97
9-Cl-PF3ONS	8.809	531.0 -> 351.0	41790	1.2373	ng/ml		100
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.940	527.0 -> 80.9	5979	3.0302	ng/ml		89
Perfluorodecanoic acid (PFDA)	8.980	513.0 -> 468.8	14600	0.6901	ng/ml		94
Perfluorononanesulfonate (L-PFNS)	8.996	548.9 -> 79.9	3771	0.9016	ng/ml		87
N-MeFOSAA	9.190	570.0 -> 418.9	4122	0.7201	ng/ml	m	88
Perfluoroundecanoic acid (PFUnA)	9.432	563.0 -> 519.0	16865	0.6158	ng/ml		97
Perfluoro-1-decanesulfonate (L-PFDS)	9.439	598.9 -> 98.9	1551	0.7672	ng/ml		100
N-EtFOSAA	9.440	584.0 -> 418.8	4359	0.8027	ng/ml	m	95
Perfluoro-1-octanesulfonamide (FOSA)	9.574	497.9 -> 78.0	8717	0.7053	ng/ml		100
11-Cl-PF3OUdS	9.697	631.0 -> 451.0	28120	1.2084	ng/ml		100
Perfluorododecanoic acid (PFDoA)	9.857	613.0 -> 568.8	14249	0.7935	ng/ml		99
Perfluorododecanesulfonic acid (PFDoS)	10.195	699.0 -> 80.0	795	0.7727	ng/ml		91
Perfluorotridecanoic acid (PFTrDA)	10.214	663.0 -> 618.8	9222	0.9183	ng/ml		100
NMeFOSE	10.318	616.0 -> 59.0	3164	8.6619	ng/ml		100
NMeFOSA	10.349	512.0 -> 169.0	638	0.7866	ng/ml		94
Perfluorotetradecanoic acid (PFTA)	10.526	713.0 -> 669.0	6910	0.8925	ng/ml		100
NEtFOSE	10.583	630.0 -> 59.0	2892	8.1746	ng/ml		100
NEtFOSA	10.623	526.0 -> 169.0	477	0.8225	ng/ml		85

(#) = Qualifier Out of Range; (m) = Manual Integration; (+) = Area Summed; (*) = Surrogate Percent Recovery Out of Range; (d): Zeroed Peak

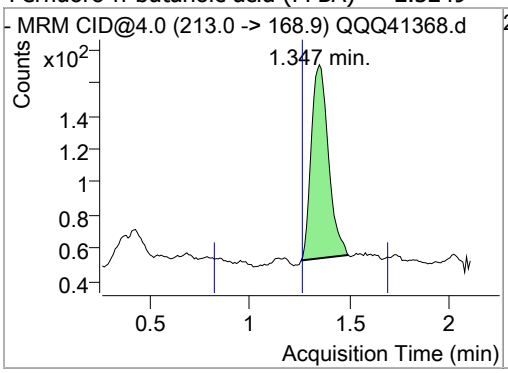
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C4]butanoic acid (MPFBA)	0.3024	1.34	0.09	3426				

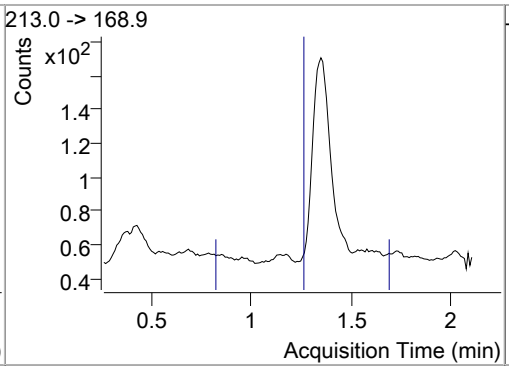


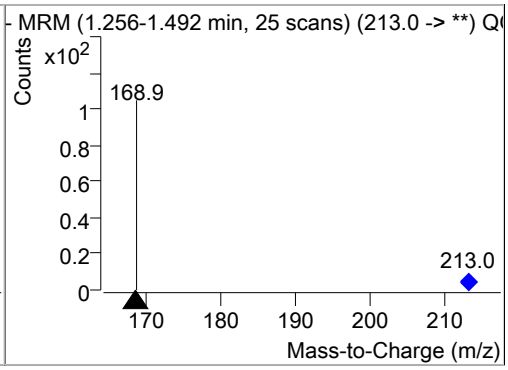




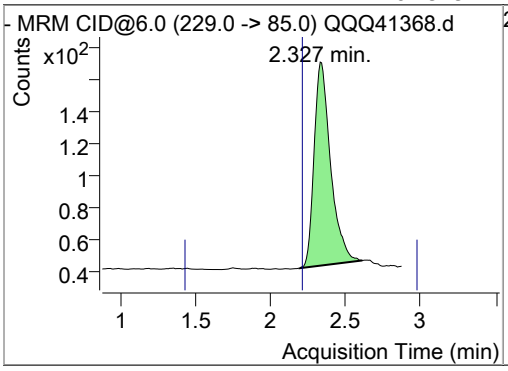
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-butanoic acid (PFBA)	2.3249	1.35	0.09	698				

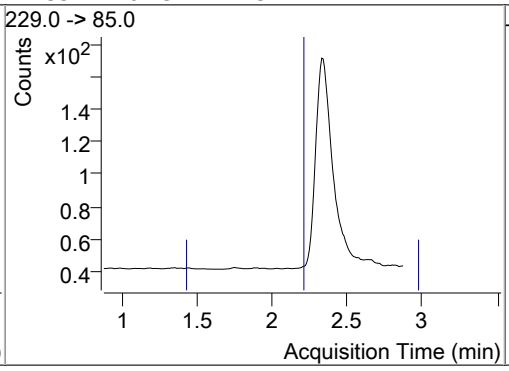


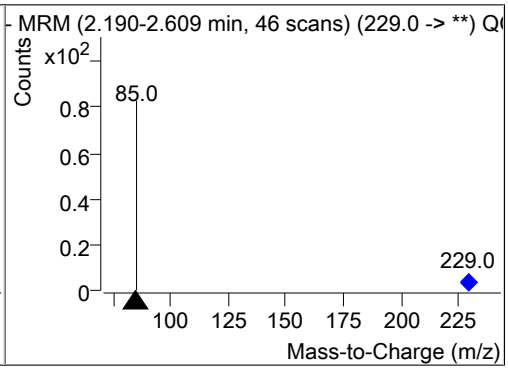




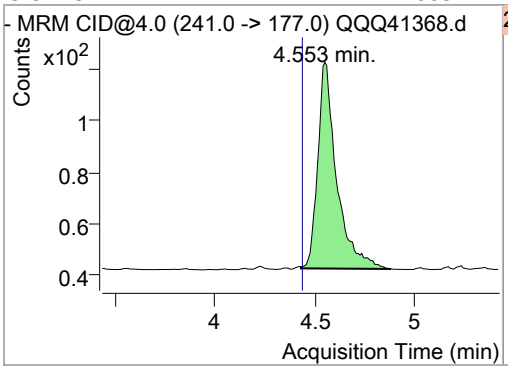
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMPA	0.1919	2.33	0.13	974				

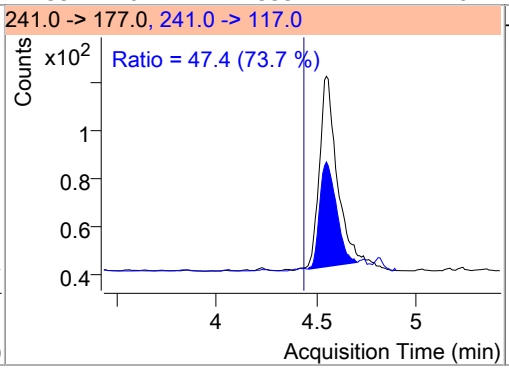


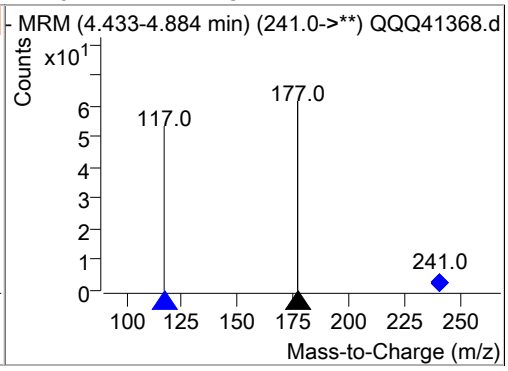




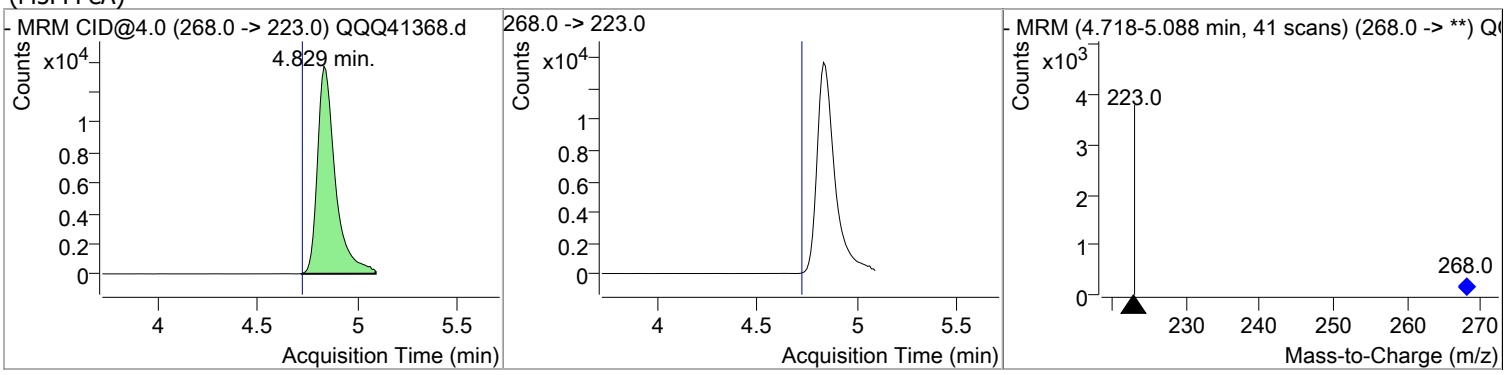
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
3:3FTCA	1.8057	4.55	0.12	533	241.0 -> 117.0	47.4	51.4	77.2



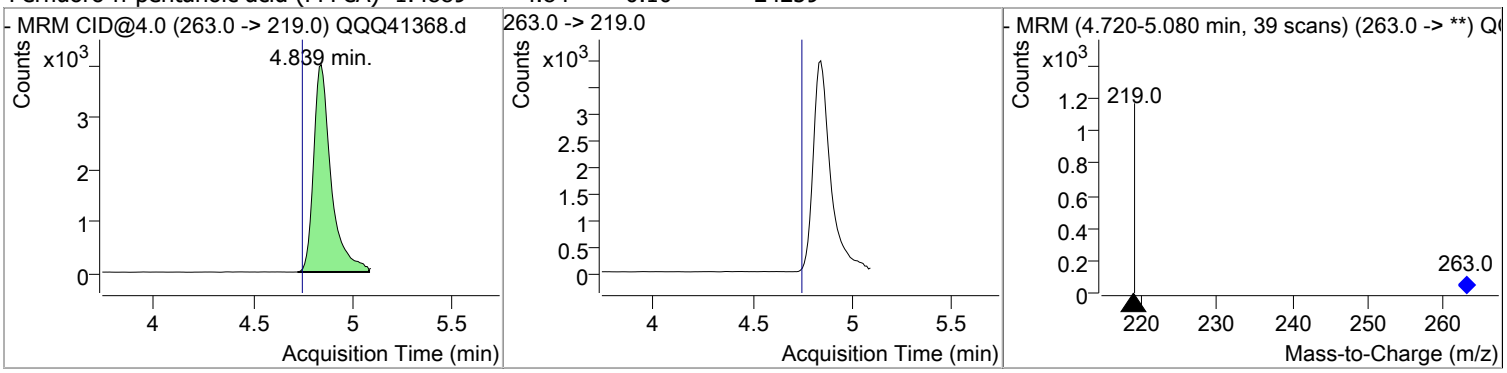




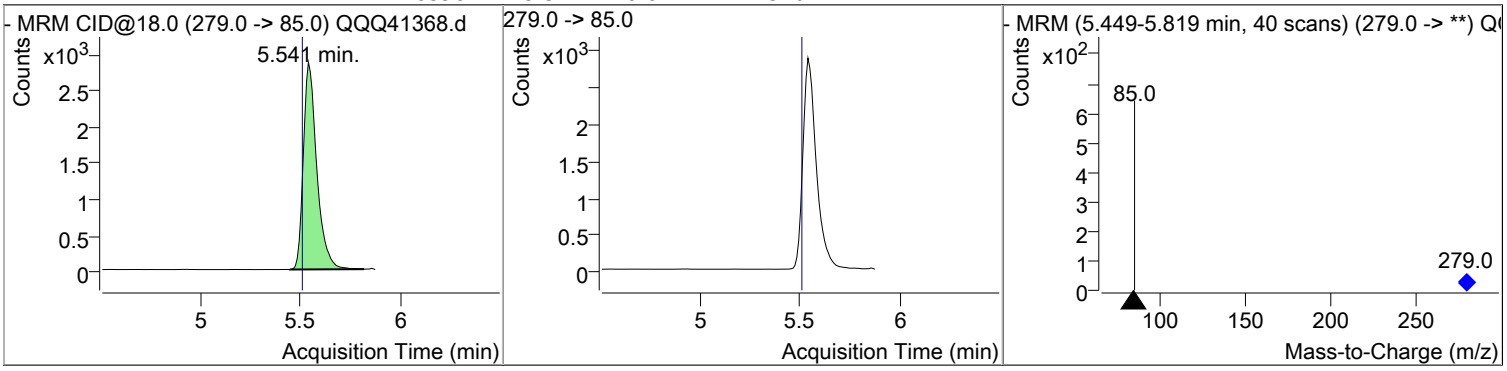
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.0852	4.83	0.10	85116				



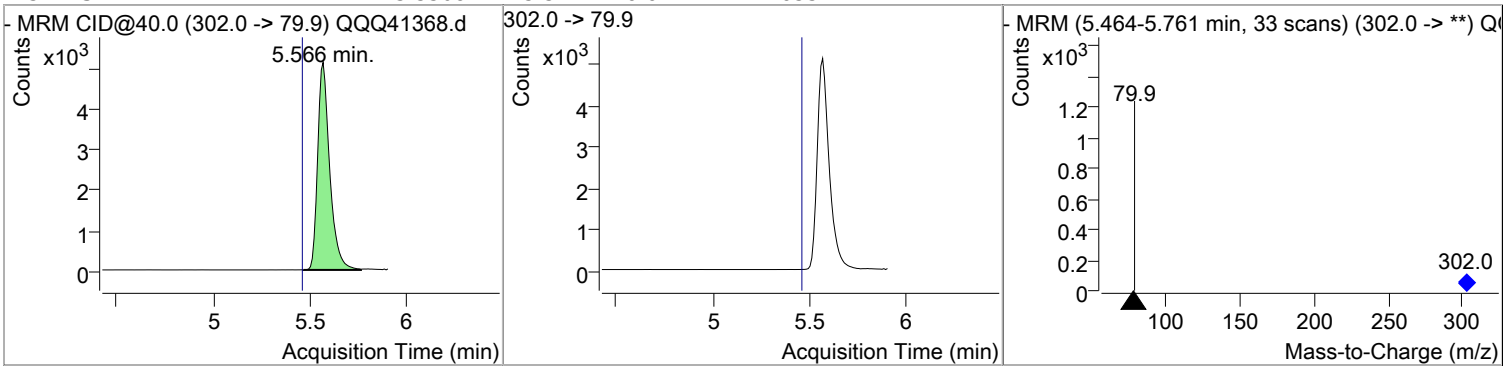
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-pentanoic acid (PFPeA)	1.4889	4.84	0.10	24259				



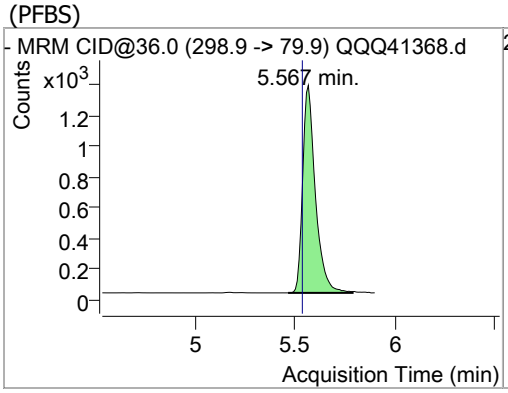
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFMBA	1.8598	5.54	0.04	13264				

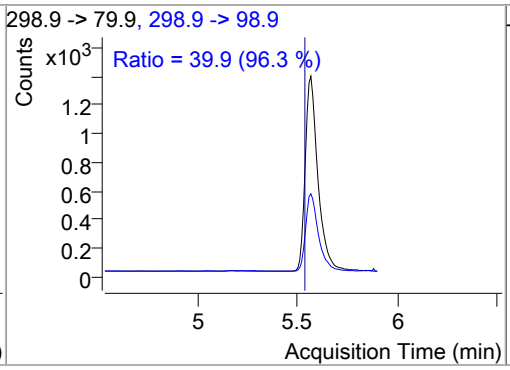


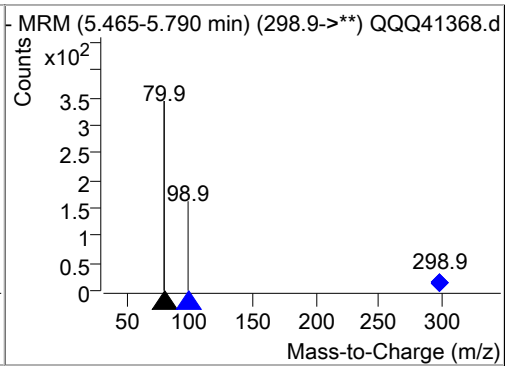
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFBS	3.5368	5.57	0.04	22053				



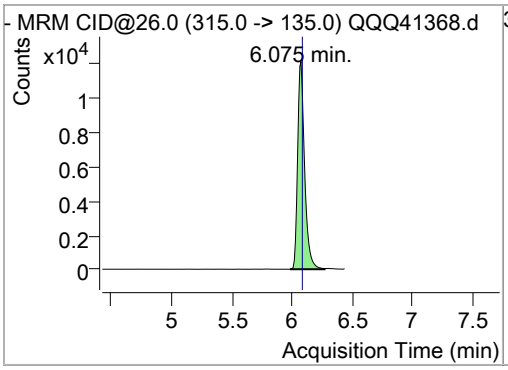
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorobutanesulfonic acid (PFBS)	0.6270	5.57	0.04	6044	298.9 -> 98.9	39.9	33.1	49.7

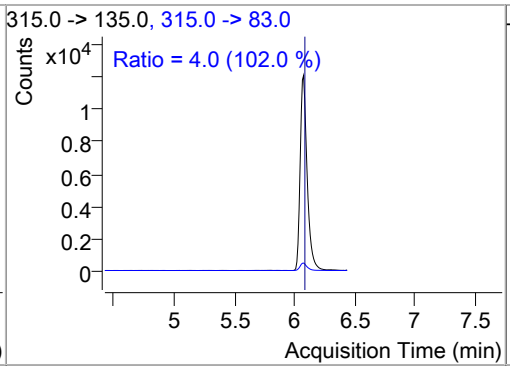


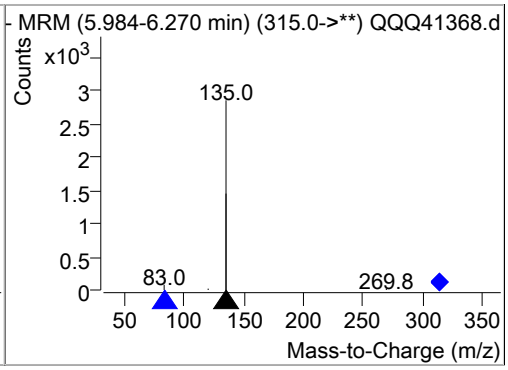




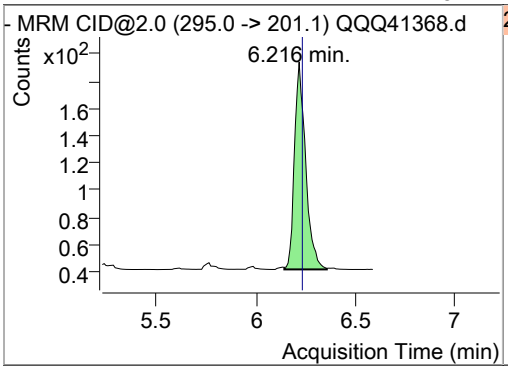
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
PFEESA	1.2497	6.08	0.00	48315	315.0 -> 83.0	4.0	3.1	4.7

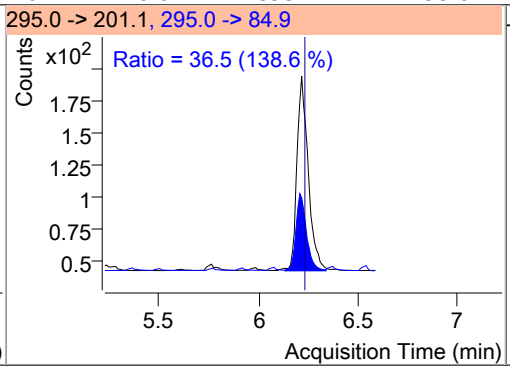


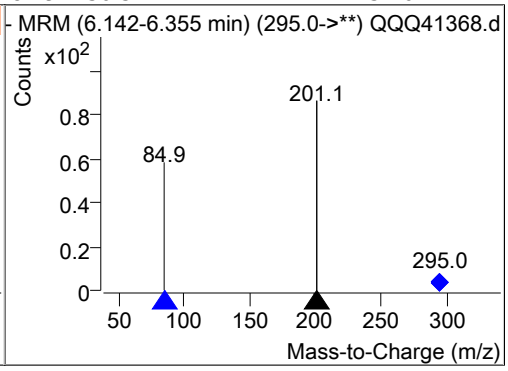




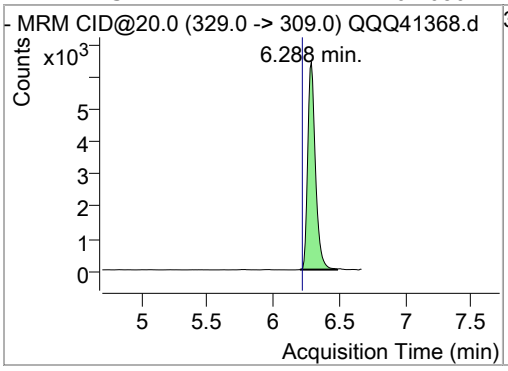
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NFDHA	1.1482	6.22	-0.01	595	295.0 -> 84.9	36.5	21.1	31.6

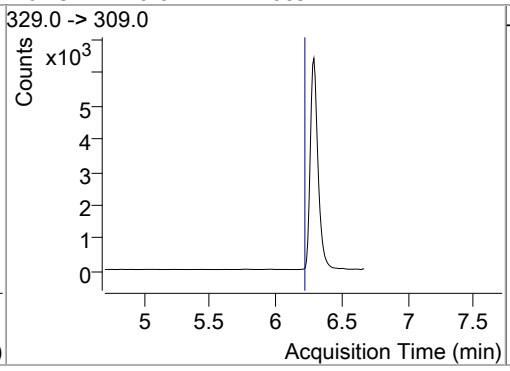


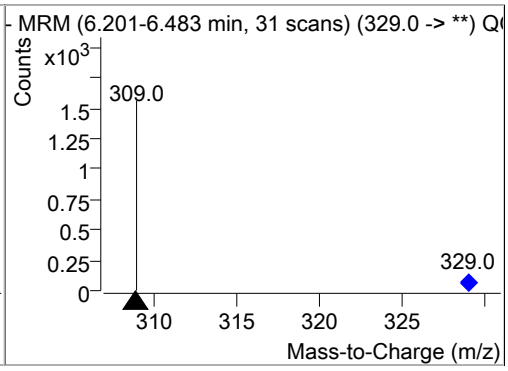




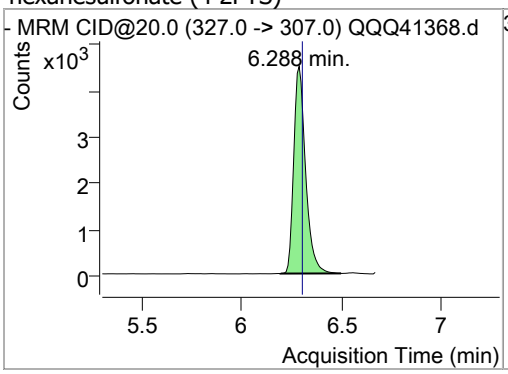
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-4-2FTS	6.2686	6.29	-0.01	26094				

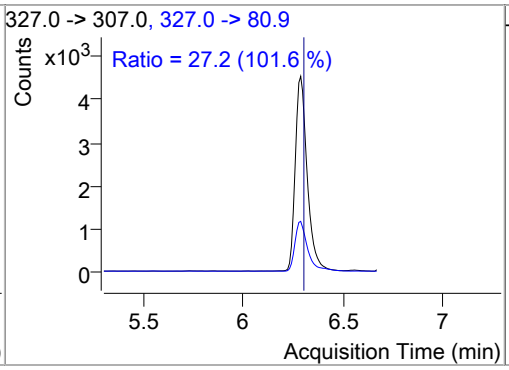


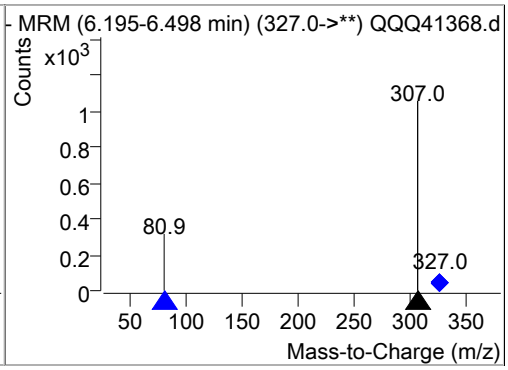




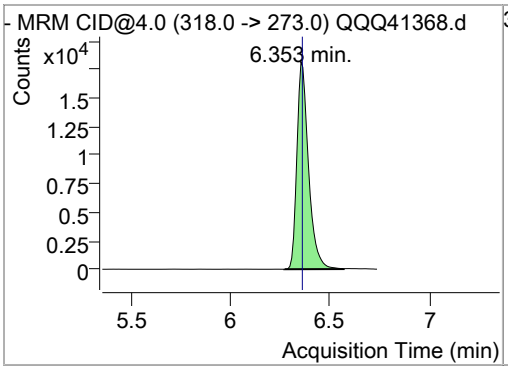
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	2.6854	6.29	-0.01	18458	327.0 -> 80.9	27.2	21.5	32.2

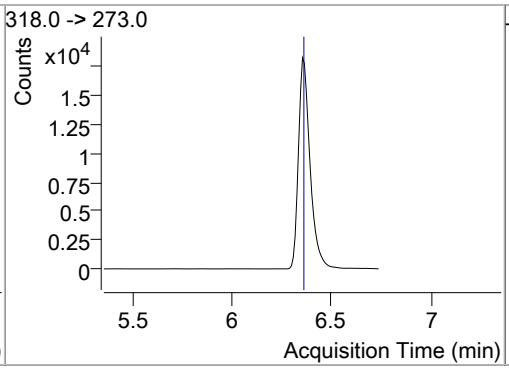


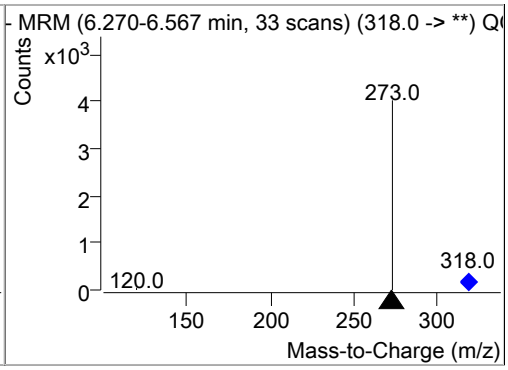




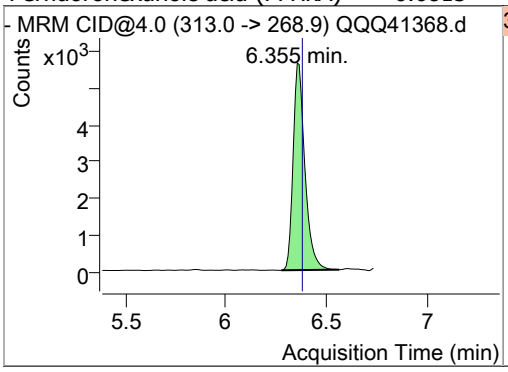
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M5PFHxA	3.5042	6.35	-0.02	73037				

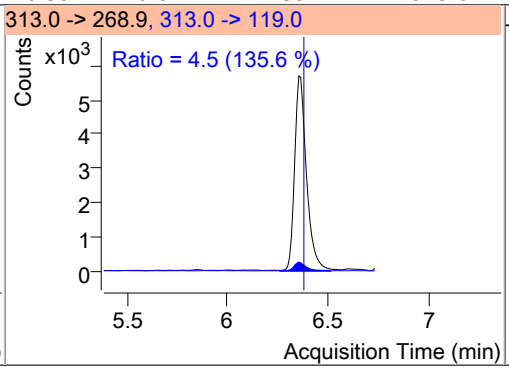


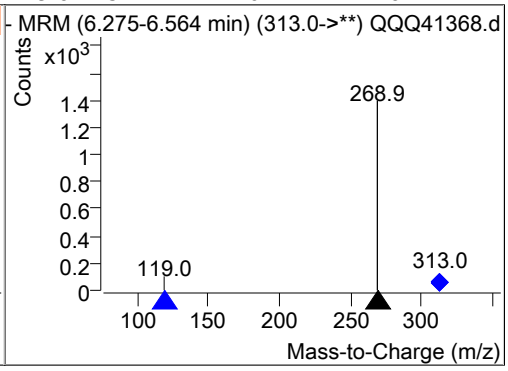




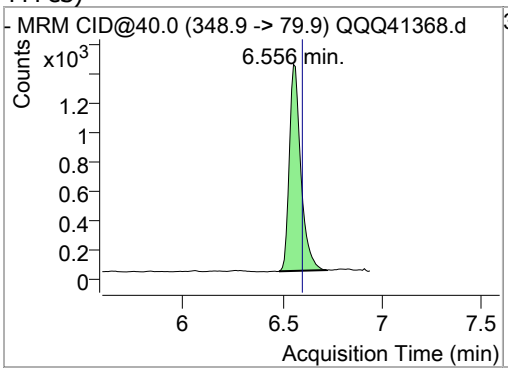
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanoic acid (PFHxA)	0.6815	6.35	-0.02	22997	313.0 -> 119.0	4.5	2.6	4.0

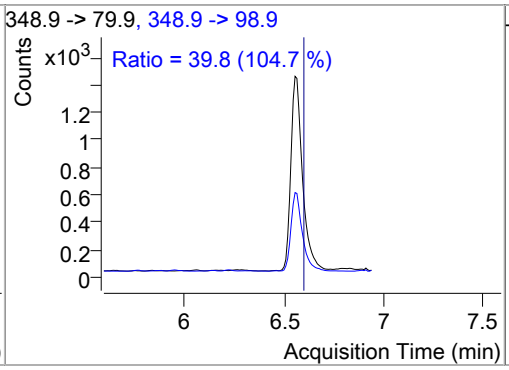


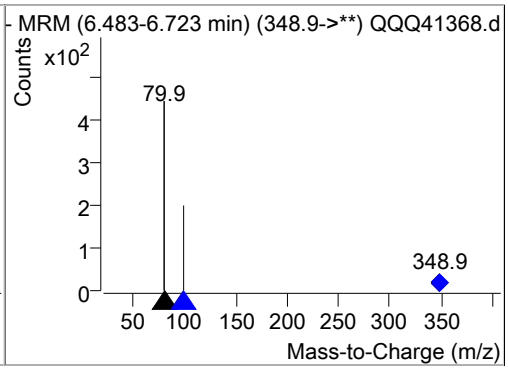




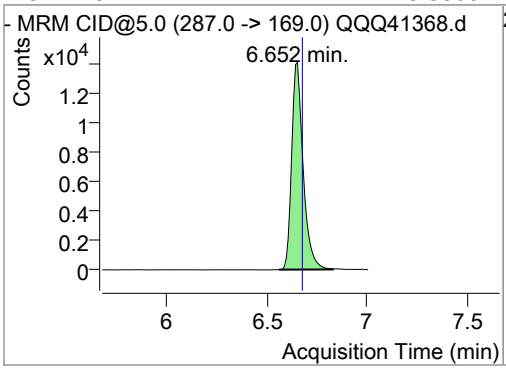
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-pentanesulfonate (L-PFPeS)	0.7204	6.56	-0.04	5673	348.9 -> 98.9	39.8	30.4	45.6

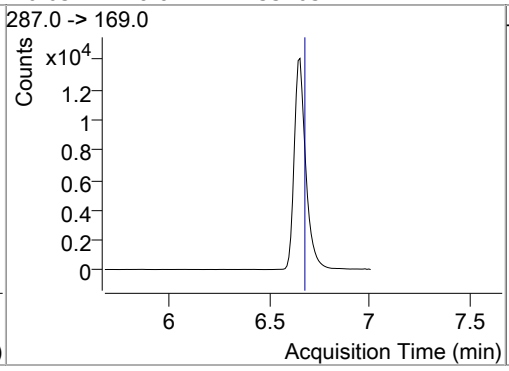


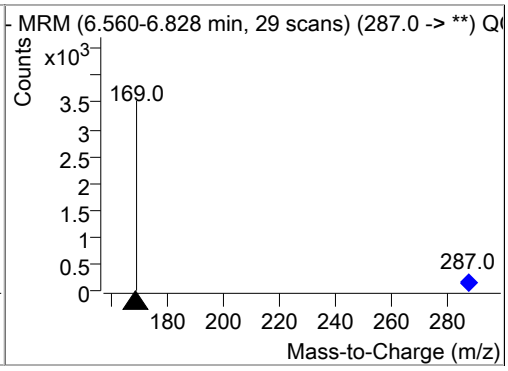




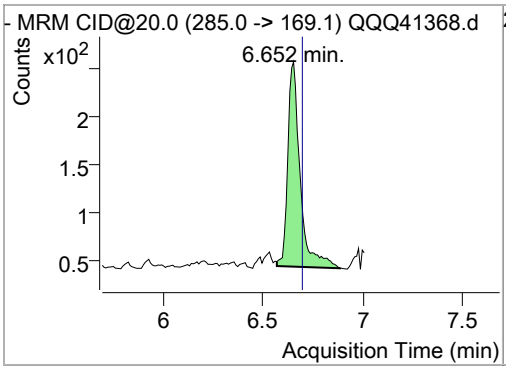
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3-HFPO-DA	15.3060	6.65	-0.04	55765				

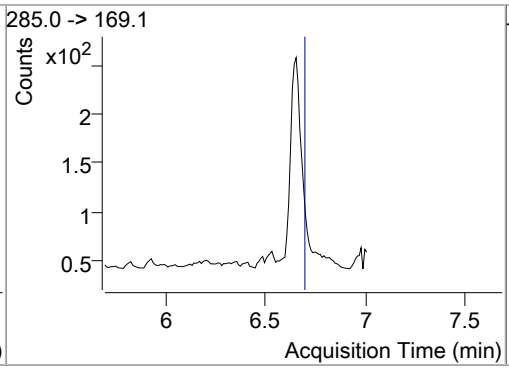


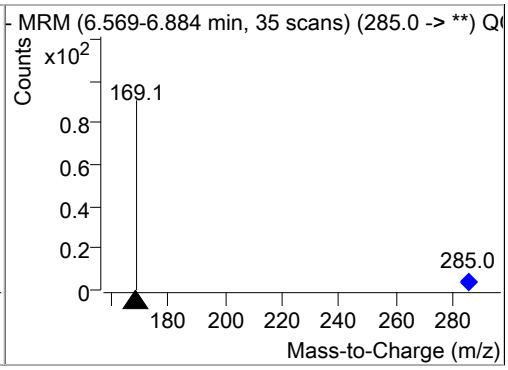




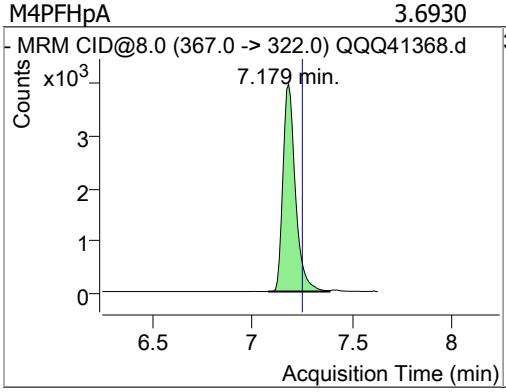
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
HFPO-DA	1.8592	6.65	-0.04	913				

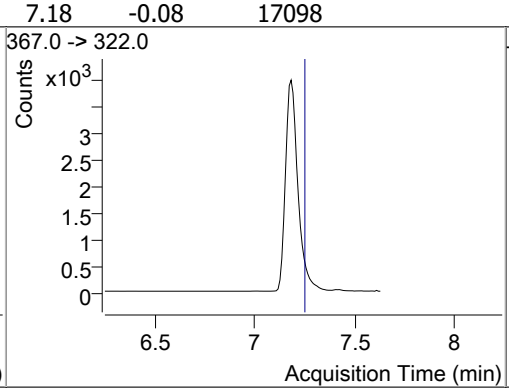


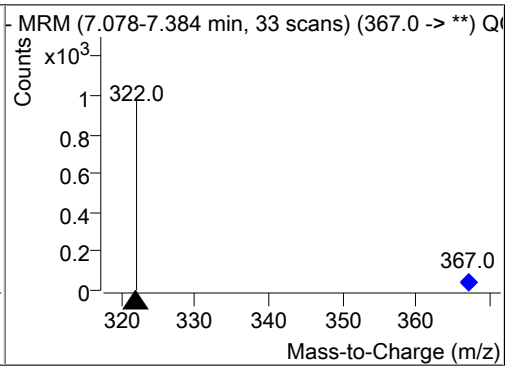




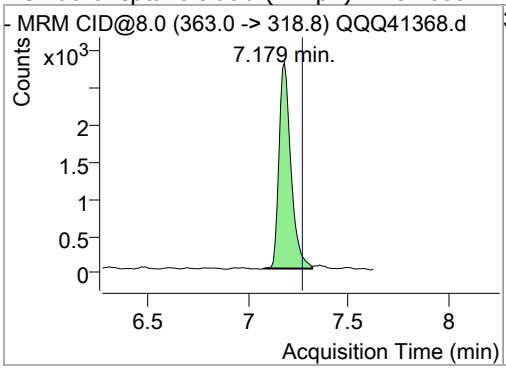
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M4PFHpA	3.6930	7.18	-0.08	17098				

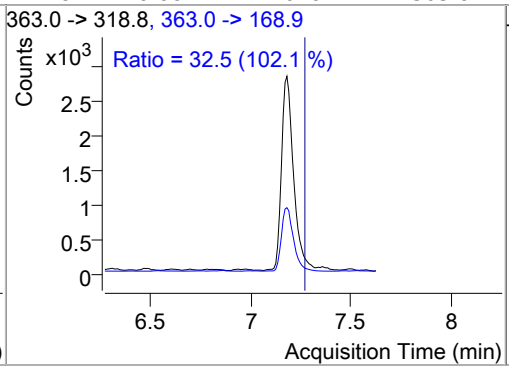


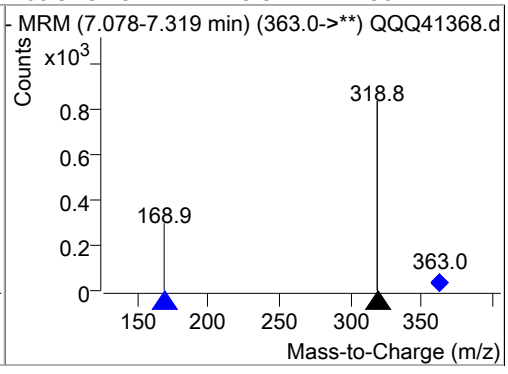




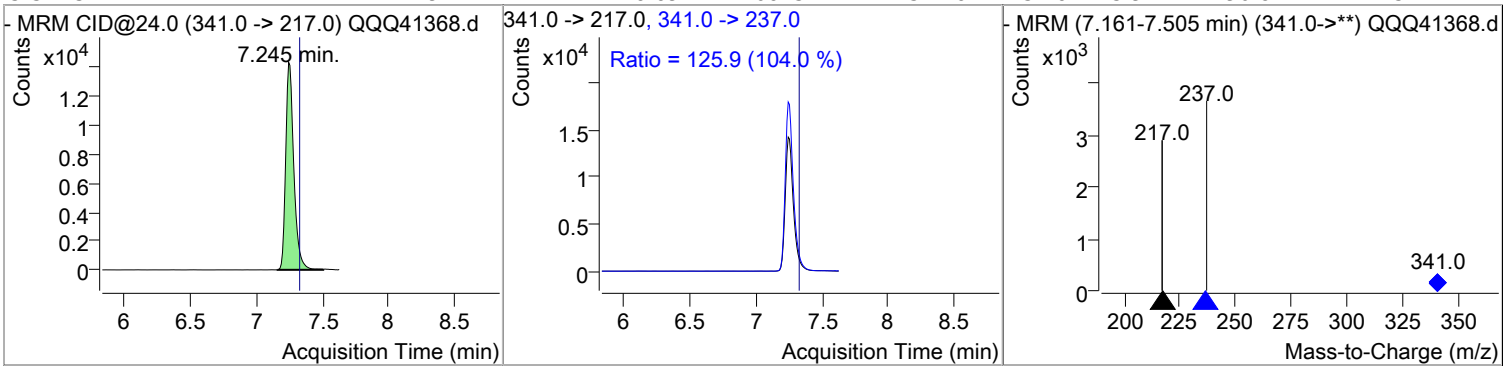
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroheptanoic acid (PFHpA)	0.7680	7.18	-0.08	11610	363.0 -> 168.9	32.5	25.5	38.2



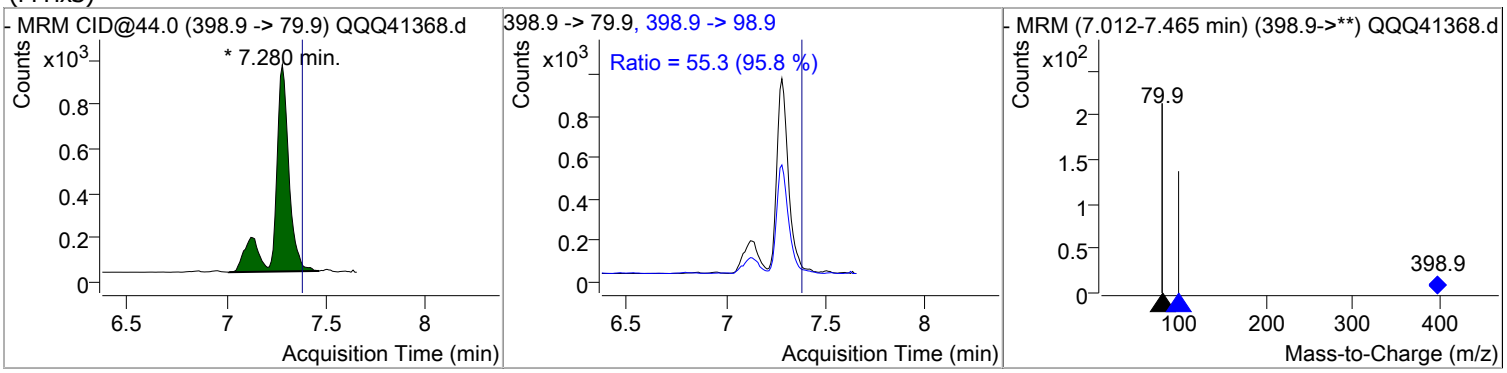




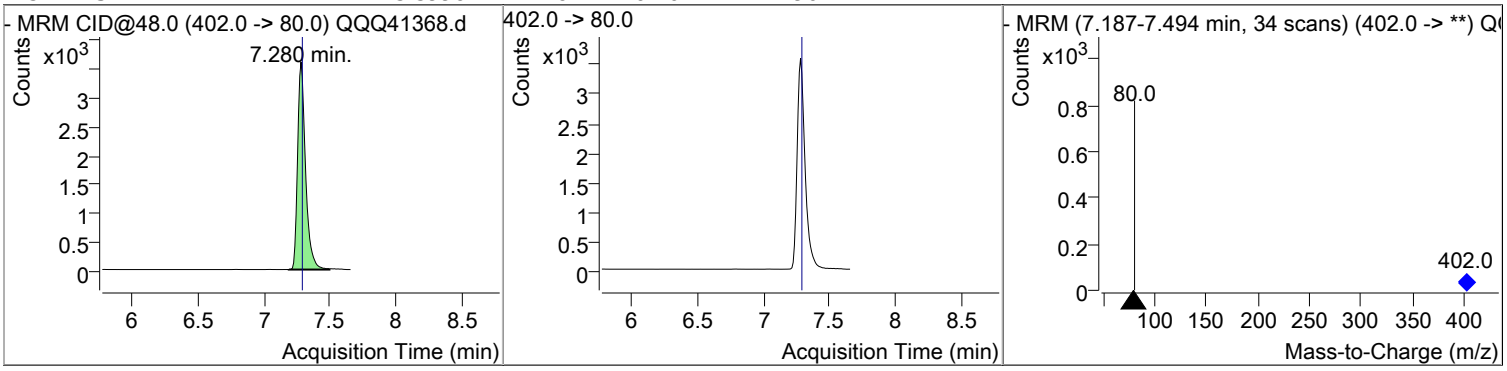
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
5-3FTCA	12.9121	7.24	-0.09	60237	341.0 -> 237.0	125.9	96.8	145.2



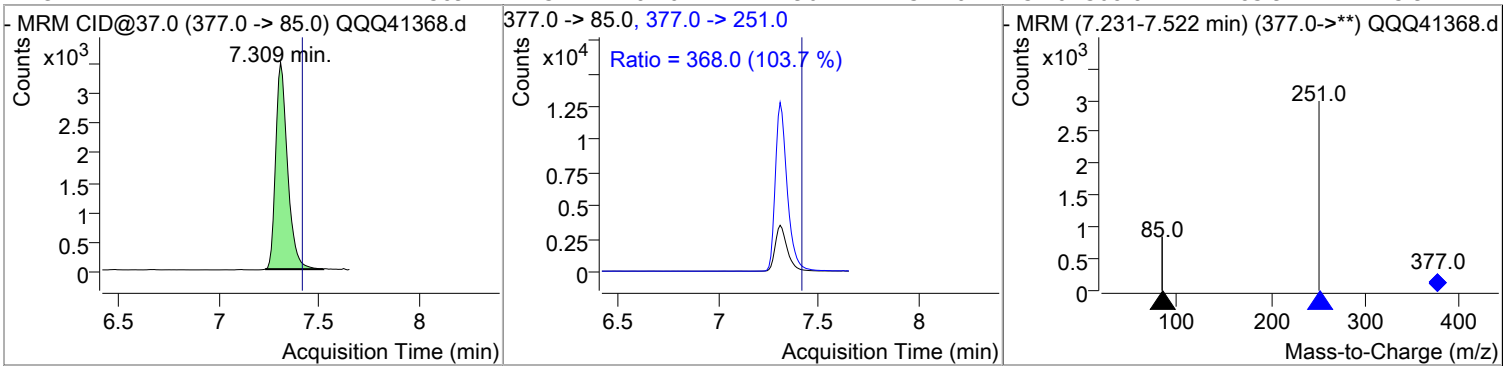
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorohexanesulfonic acid (PFHxS)	0.6378	7.28	-0.09	4614 (m)	398.9 -> 98.9	55.3	46.2	69.3



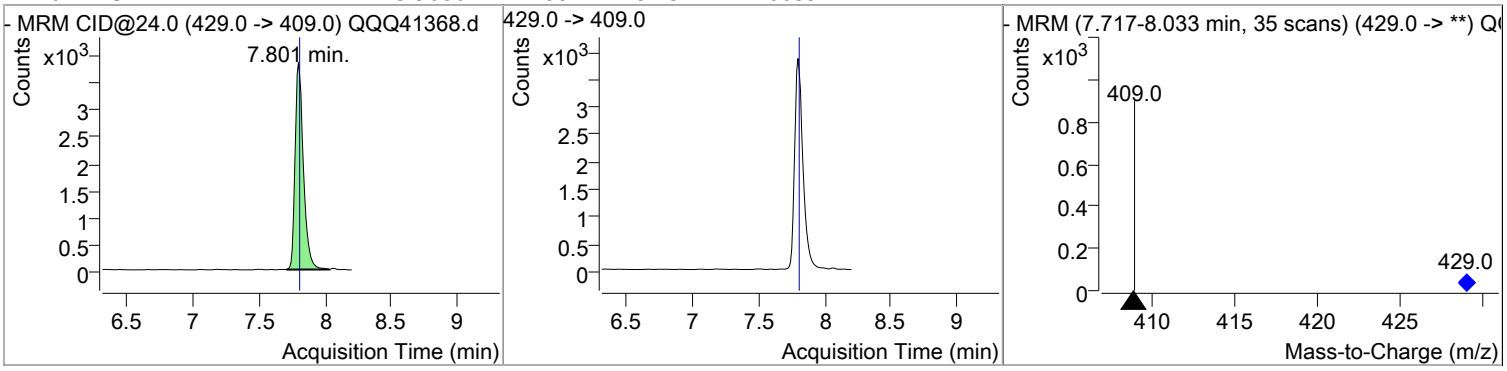
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M3PFHxS	3.3998	7.28	-0.10	14790				



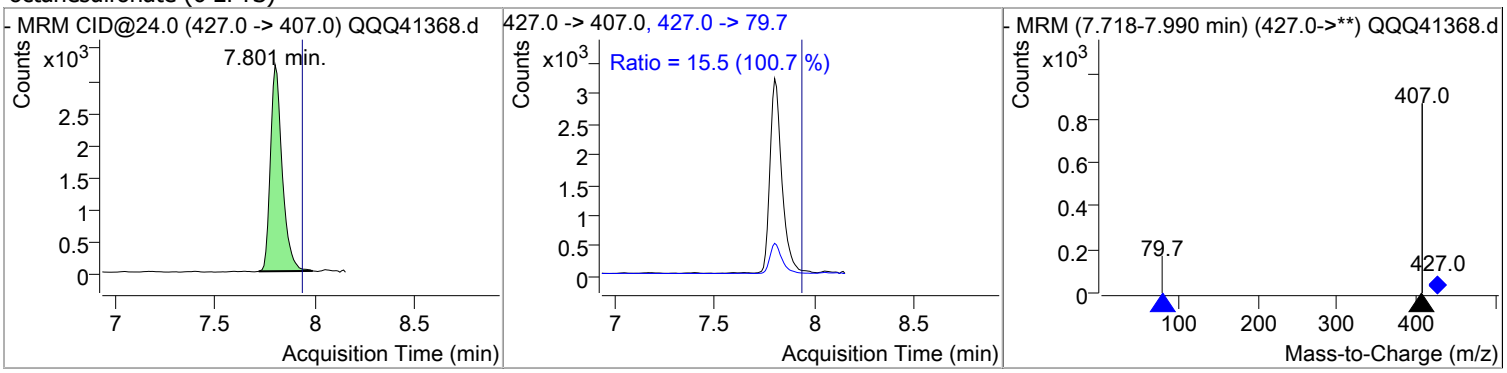
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
ADONA	1.1589	7.31	-0.10	14296	377.0 -> 251.0	368.0	283.9	425.9



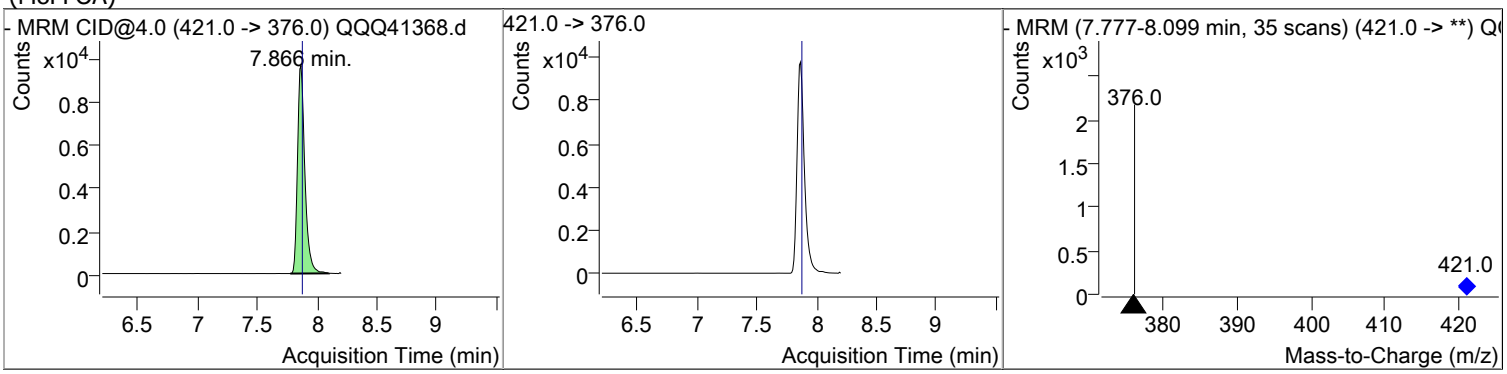
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-6-2FTS	5.9686	7.80	-0.13	16639				



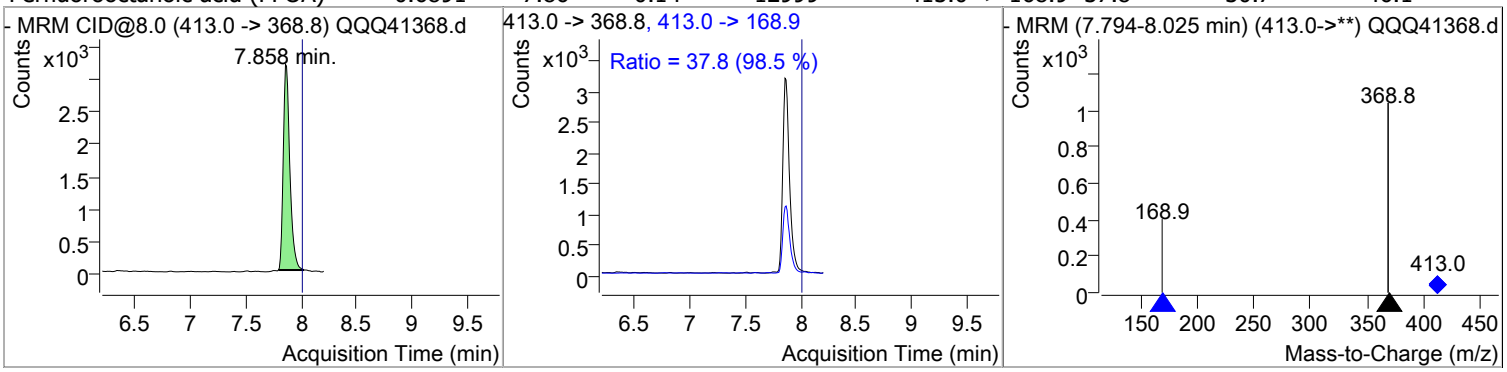
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	2.3795	7.80	-0.13	13129	427.0 -> 79.7	15.5	12.3	18.5



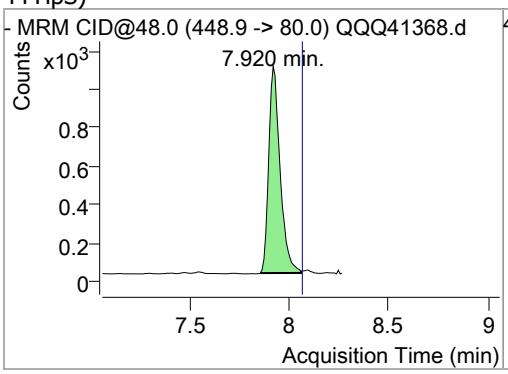
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	3.5504	7.87	-0.13	41466				

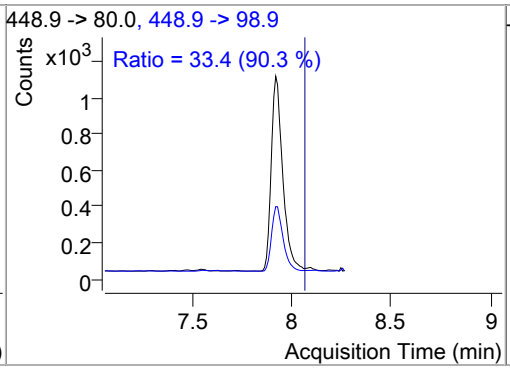


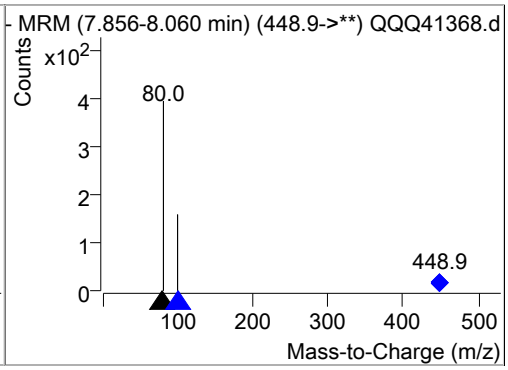
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanoic acid (PFOA)	0.6891	7.86	-0.14	12999	413.0 -> 168.9	37.8	30.7	46.1



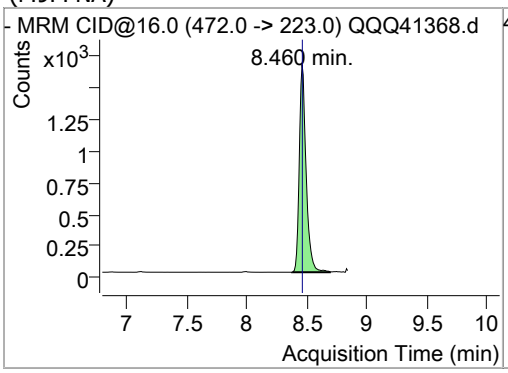
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-heptanesulfonate (L-PFHpS)	0.7133	7.92	-0.14	4257	448.9 -> 98.9	33.4	29.6	44.4

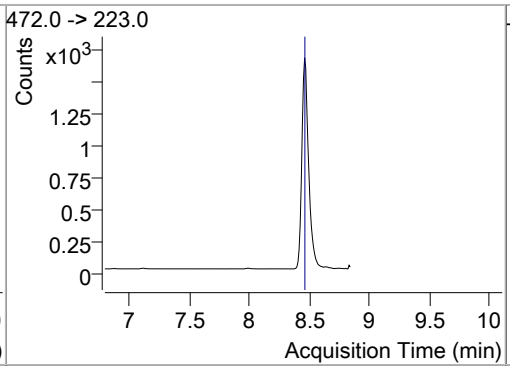


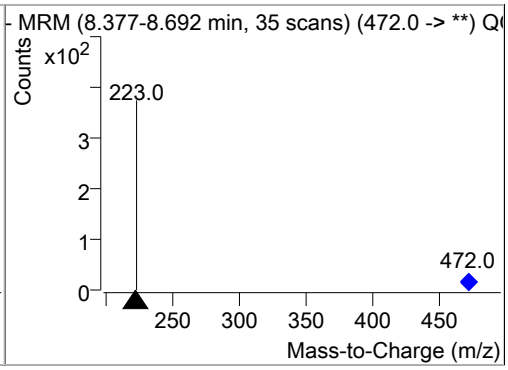




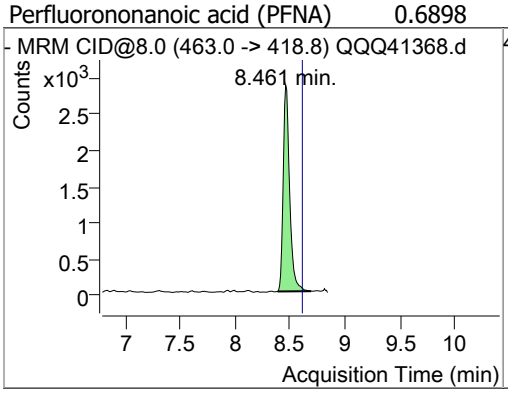
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	1.7515	8.46	-0.13	6517				

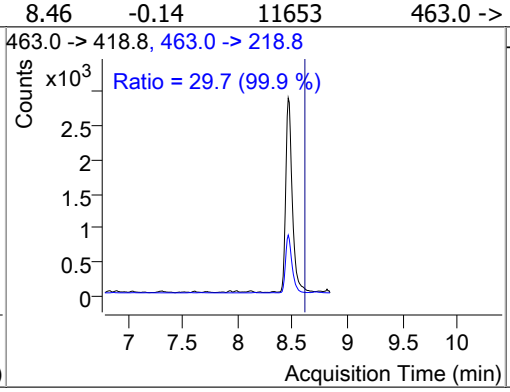


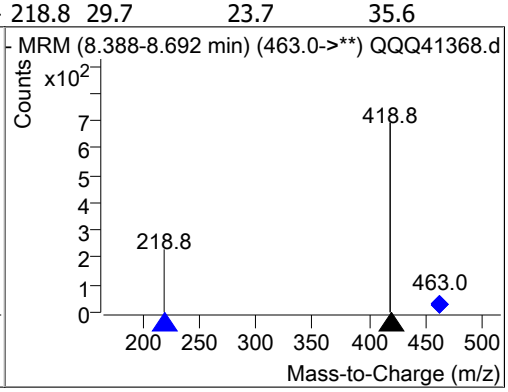




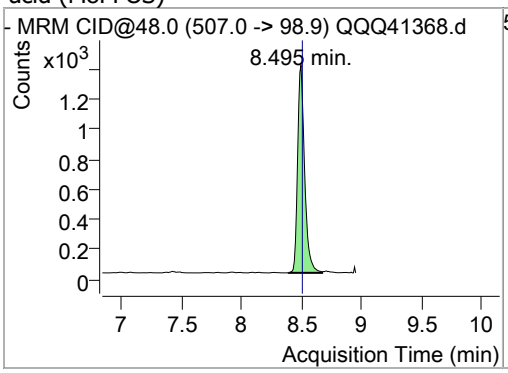
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanoic acid (PFNA)	0.6898	8.46	-0.14	11653	463.0 -> 218.8	29.7	23.7	35.6

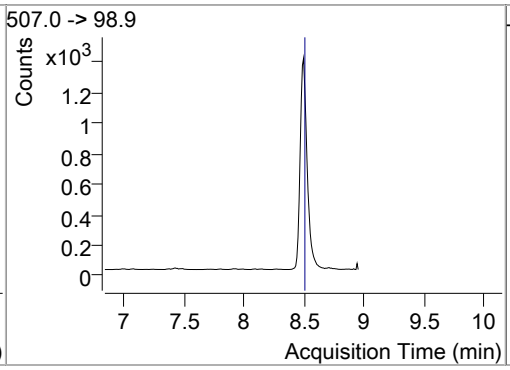


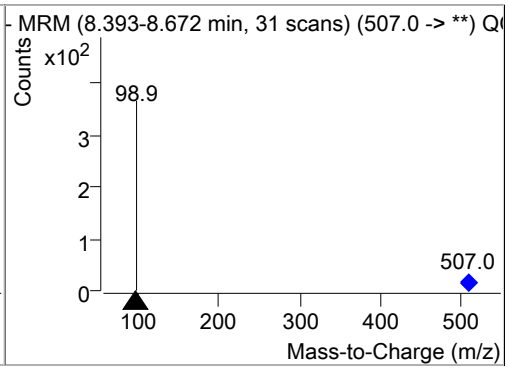




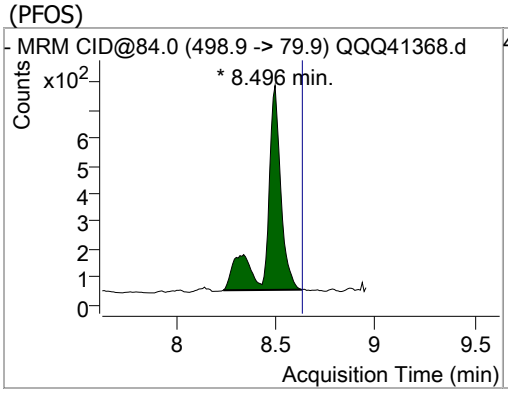
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	3.0958	8.50	-0.13	5623				

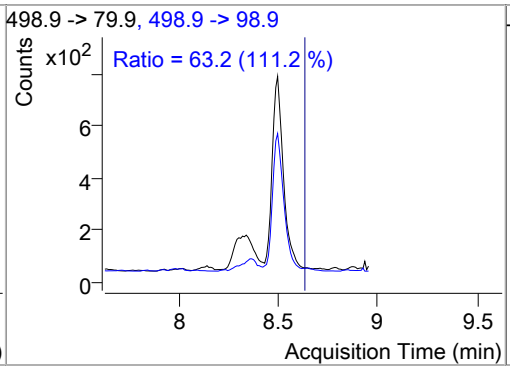


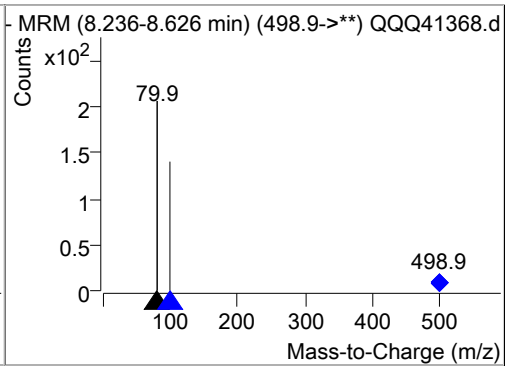




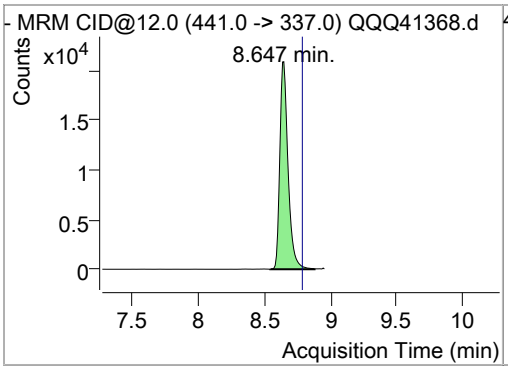
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorooctanesulfonic acid (PFOS)	0.6781	8.50	-0.13	3710 (m)	498.9 -> 98.9	63.2	45.5	68.3

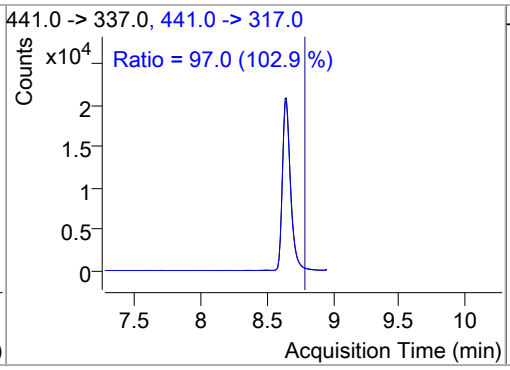


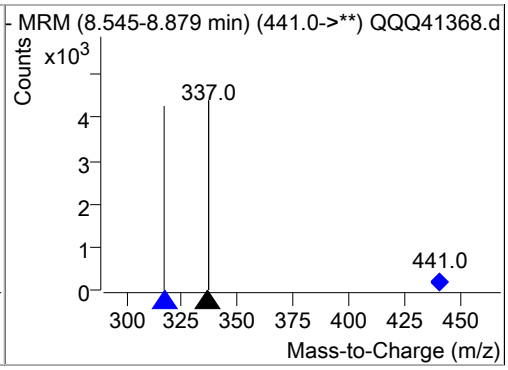




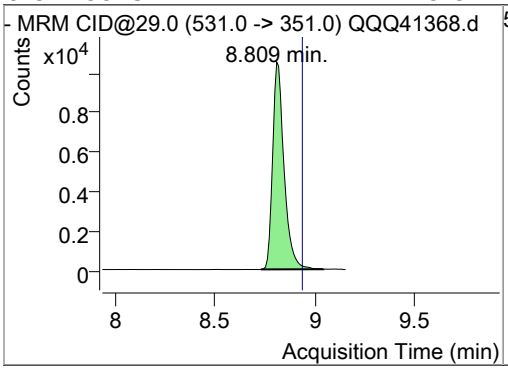
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
7-3FTCA	14.3846	8.65	-0.13	89857	441.0 -> 317.0	97.0	75.4	113.1

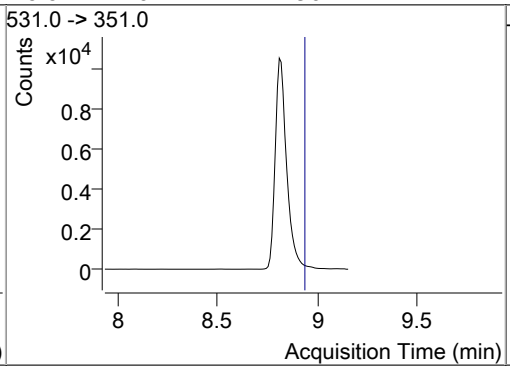


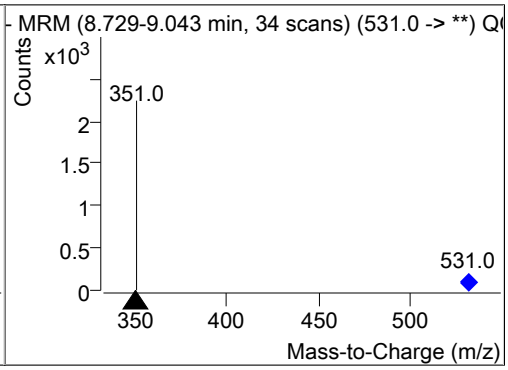




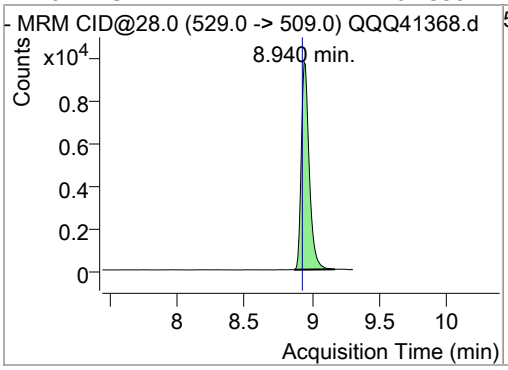
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
9-Cl-PF3ONS	1.2373	8.81	-0.12	41790				

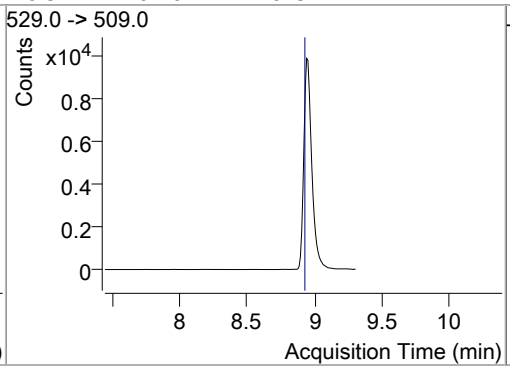


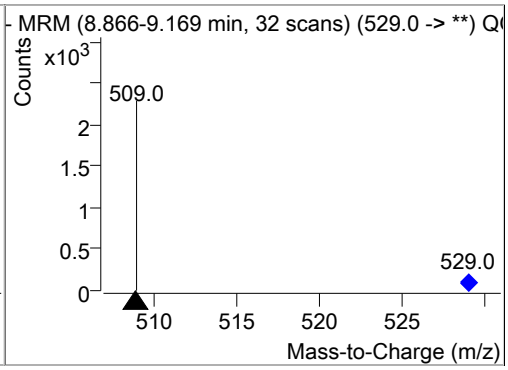




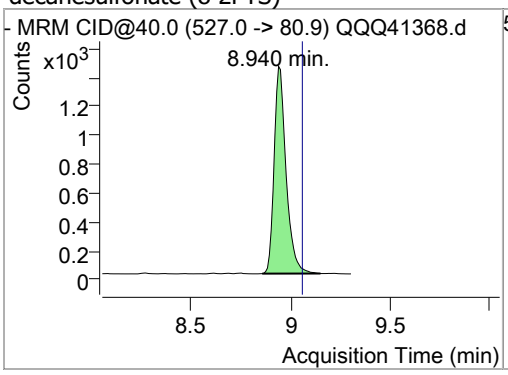
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2-8-2FTS	6.1550	8.94	-0.10	40297				

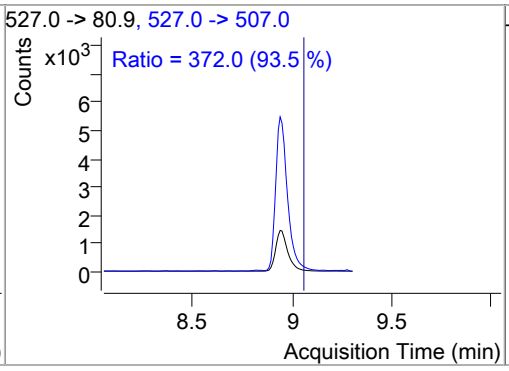


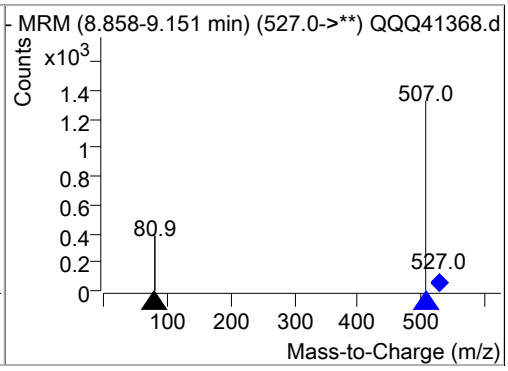




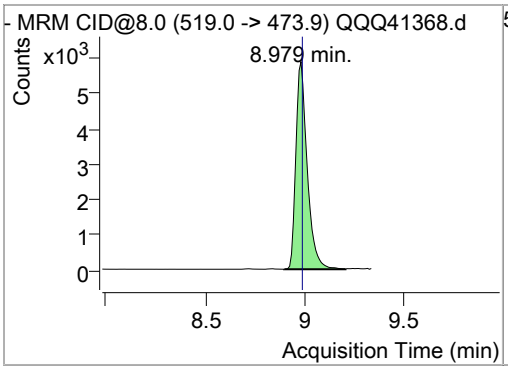
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	3.0302	8.94	-0.11	5979	527.0 -> 507.0	372.0	318.3	477.4

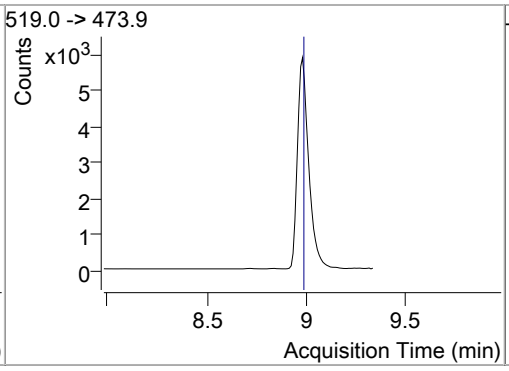


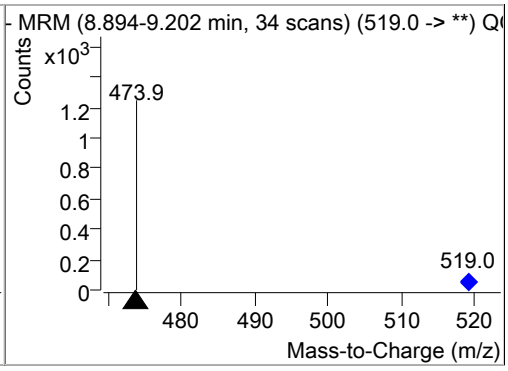




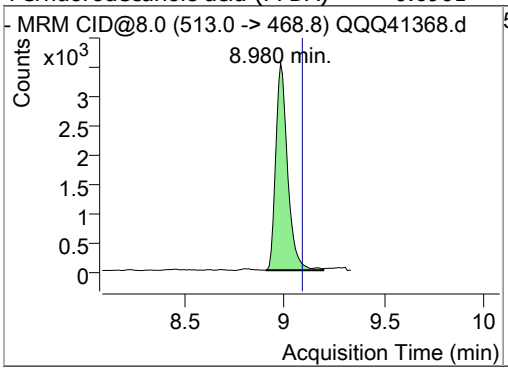
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M6PFDA	1.5436	8.98	-0.10	23100				

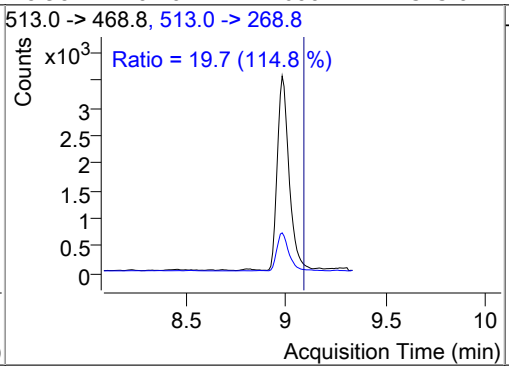


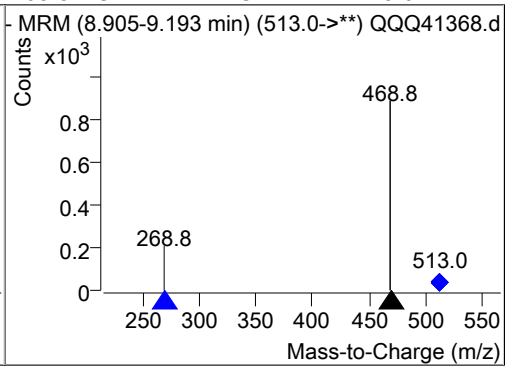




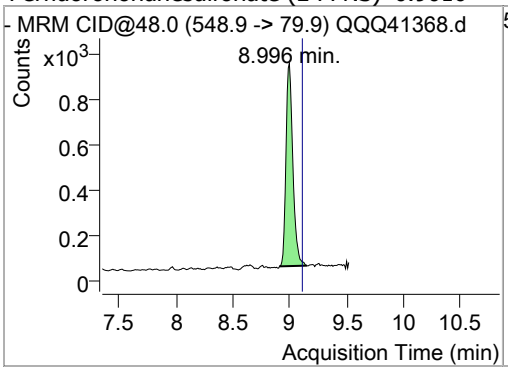
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorodecanoic acid (PFDA)	0.6901	8.98	-0.10	14600	513.0 -> 268.8	19.7	13.7	20.6

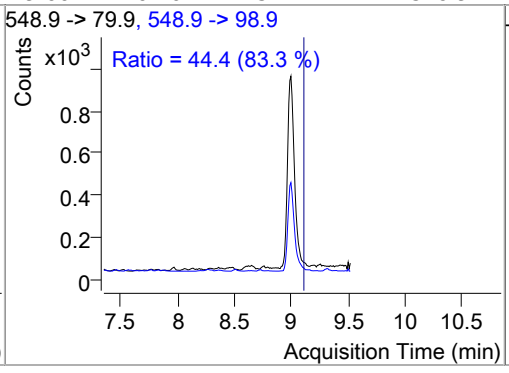


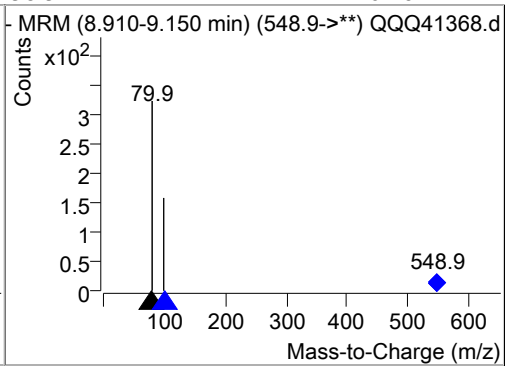




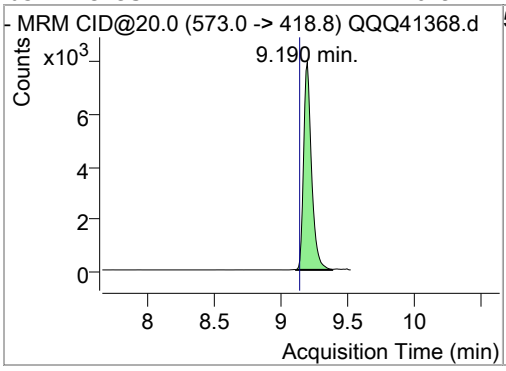
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorononanesulfonate (L-PFNS)	0.9016	9.00	-0.10	3771	548.9 -> 98.9	44.4	42.7	64.0

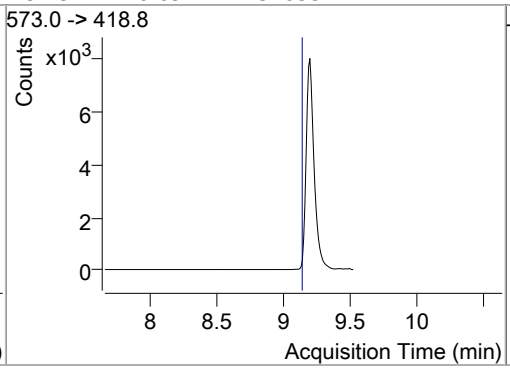


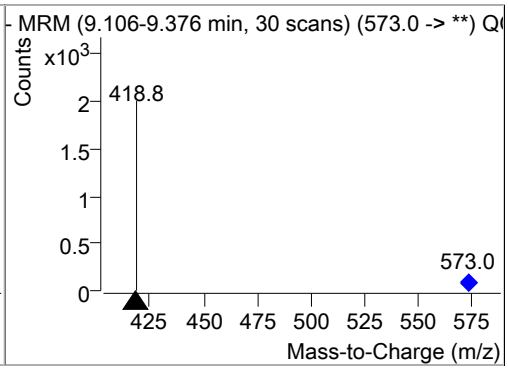




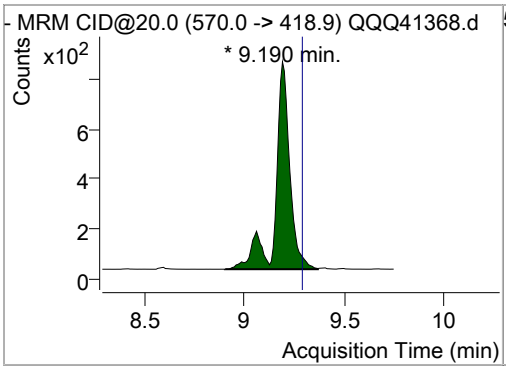
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-N-MeFOSAA	7.0194	9.19	-0.09	32853				

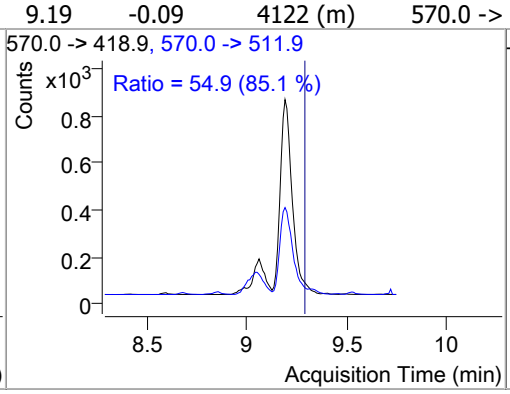


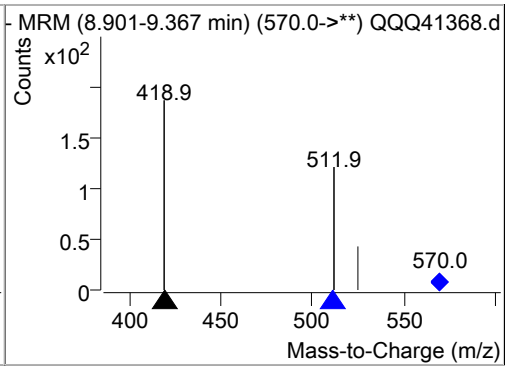




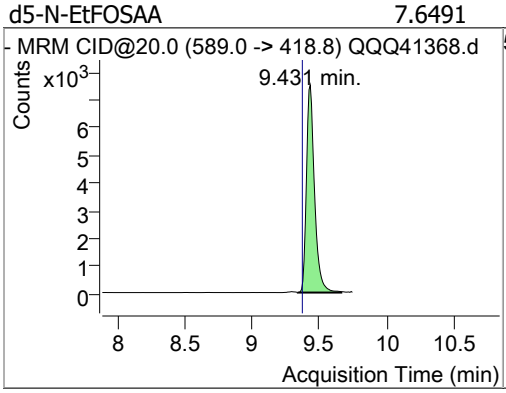
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-MeFOSAA	0.7201	9.19	-0.09	4122 (m)	570.0 -> 511.9	54.9	51.6	77.4

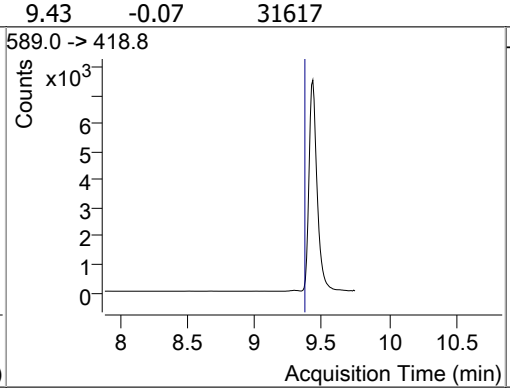


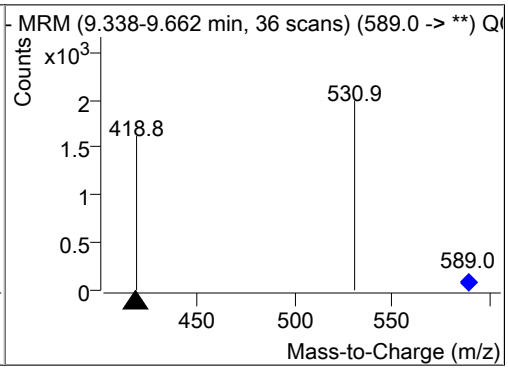




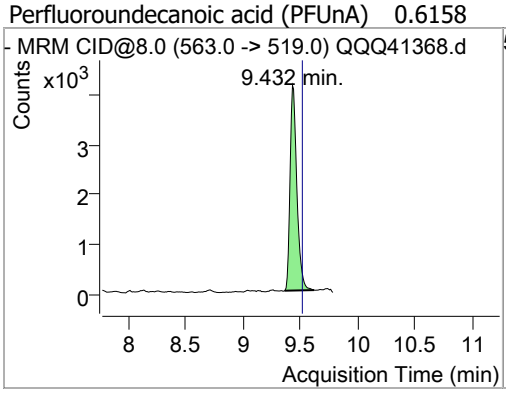
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-N-EtFOSAA	7.6491	9.43	-0.07	31617				

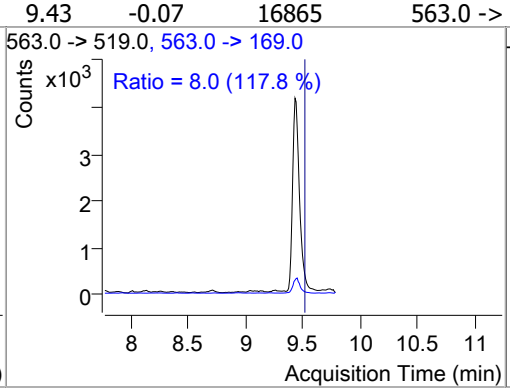


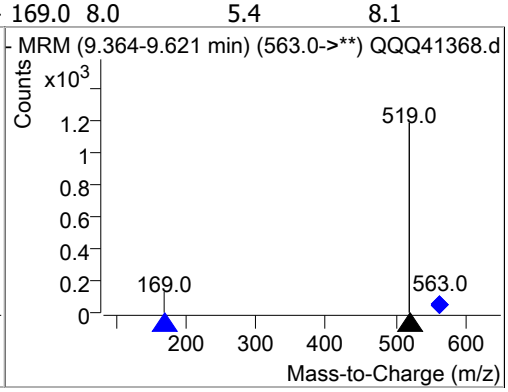




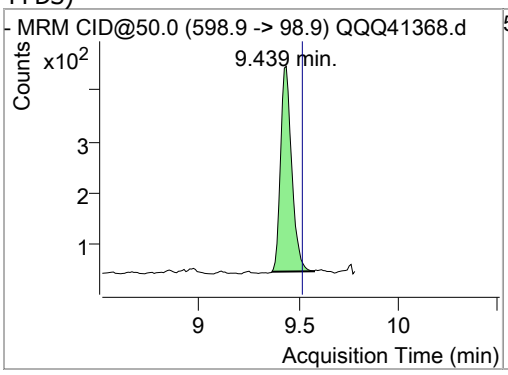
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoroundecanoic acid (PFUnA)	0.6158	9.43	-0.07	16865	563.0 -> 169.0	8.0	5.4	8.1

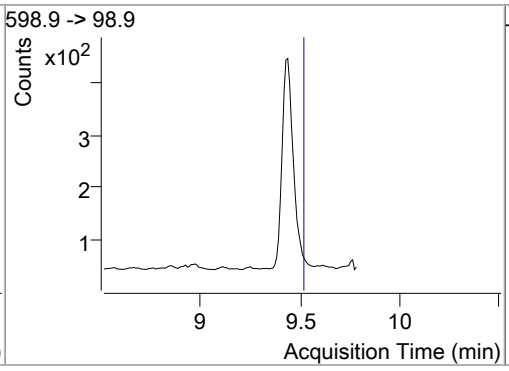


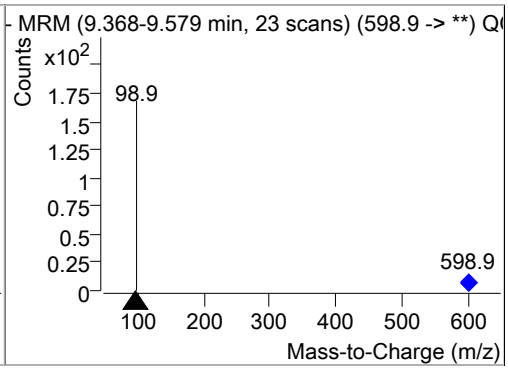




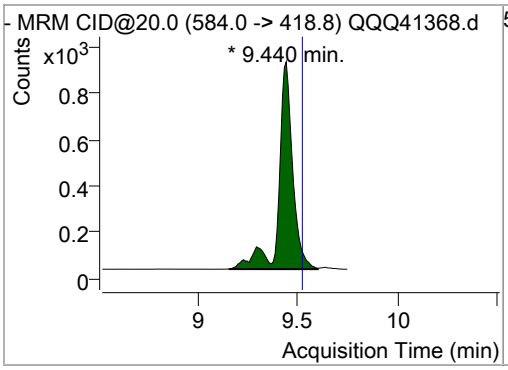
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-decanesulfonate (L-PFDS)	0.7672	9.44	-0.07	1551				

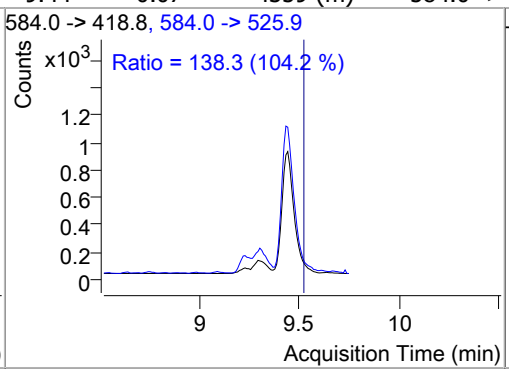


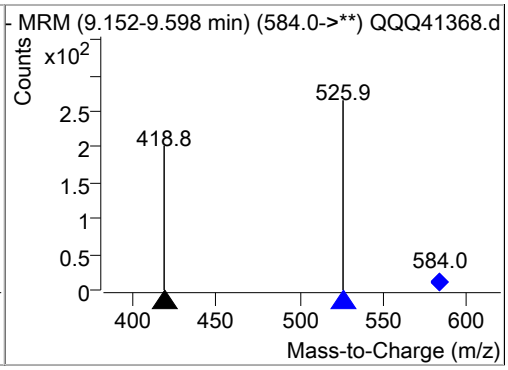




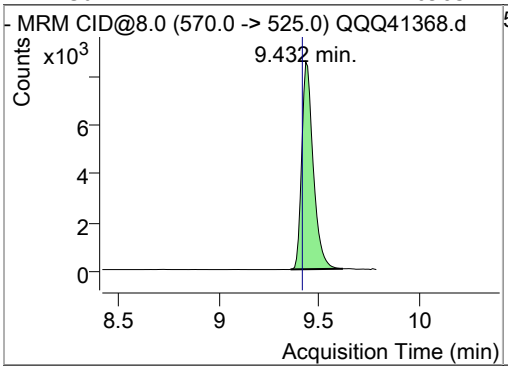
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
N-EtFOSAA	0.8027	9.44	-0.07	4359 (m)	584.0 -> 525.9	138.3	106.2	159.3

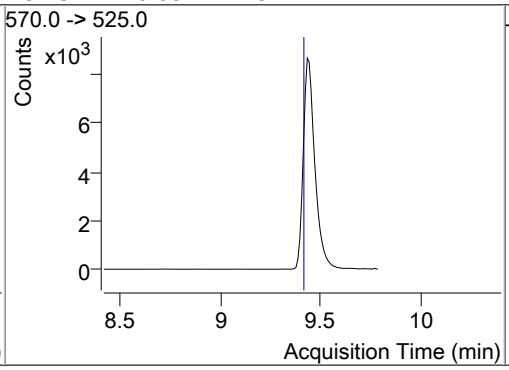


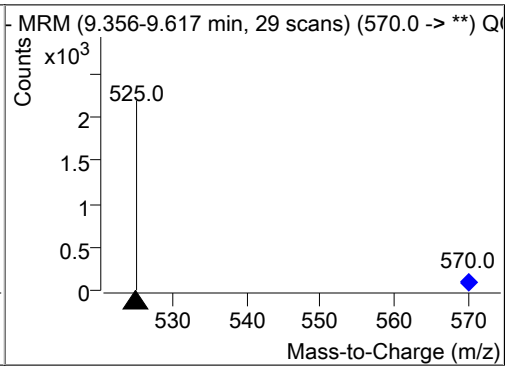




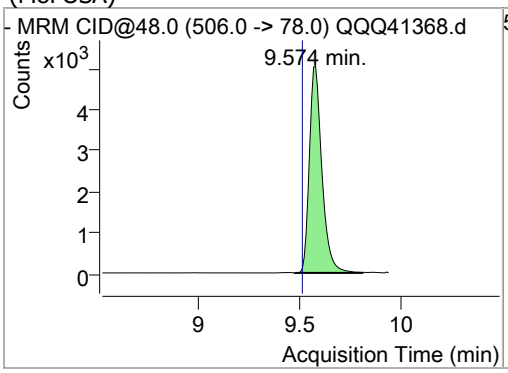
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M7PFUdA	1.6905	9.43	-0.08	34242				

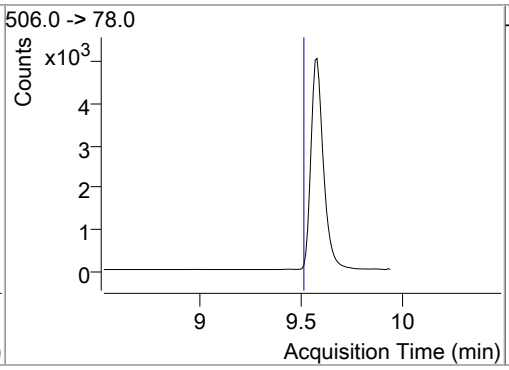


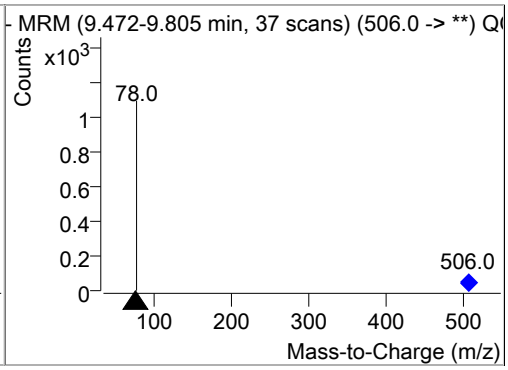




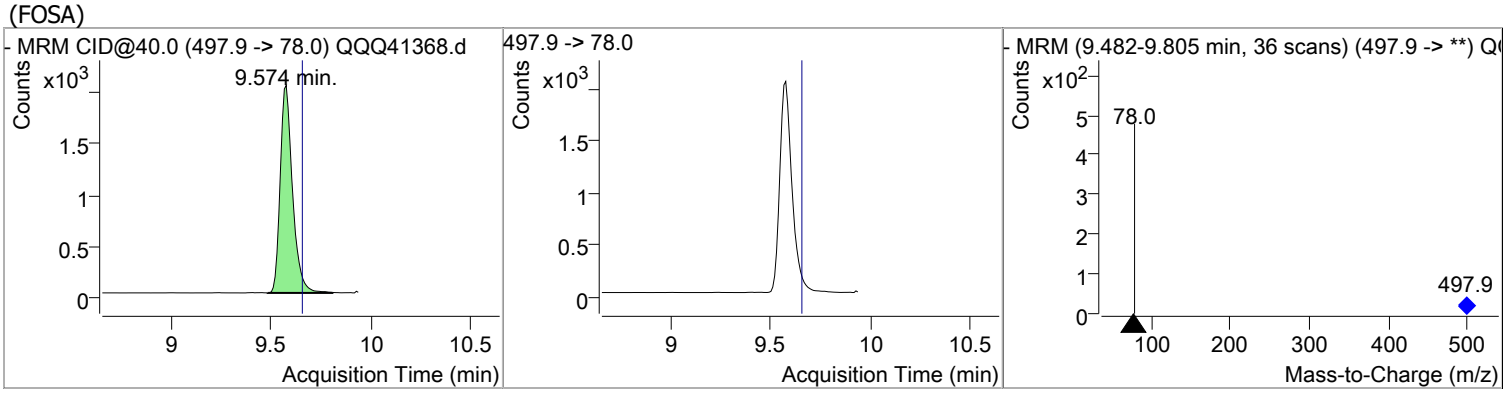
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	3.6307	9.57	-0.07	21608				



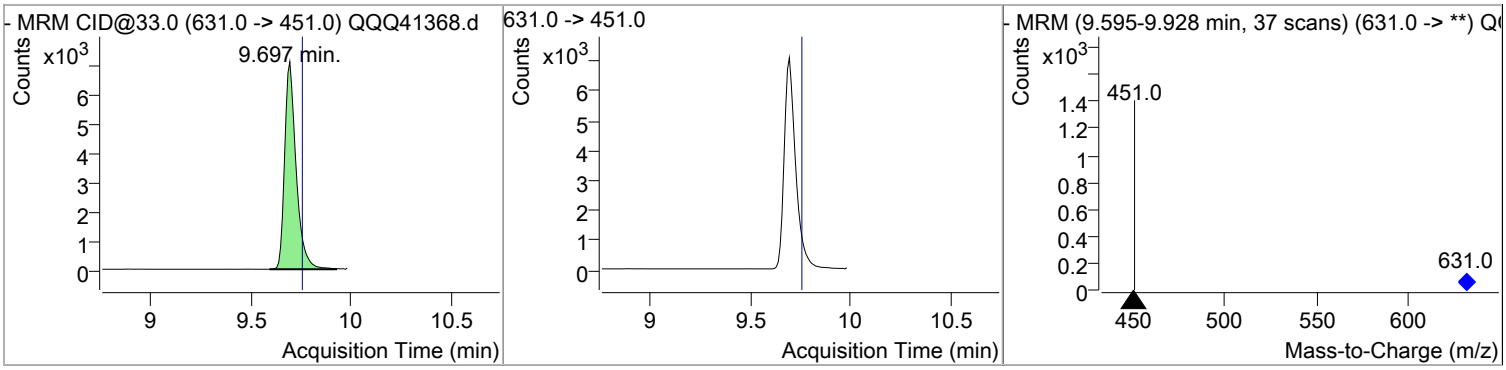




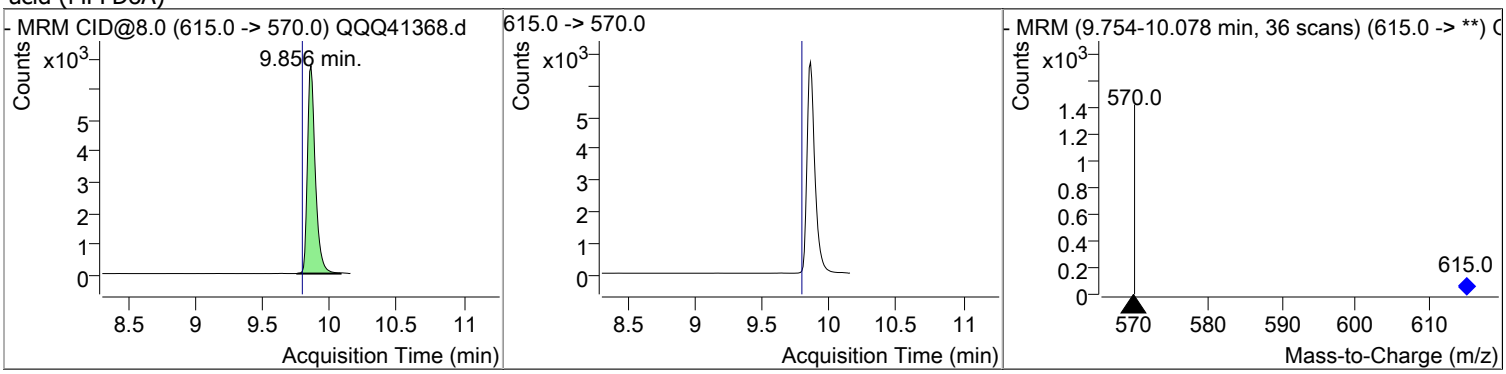
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-1-octanesulfonamide (FOSA)	0.7053	9.57	-0.07	8717				



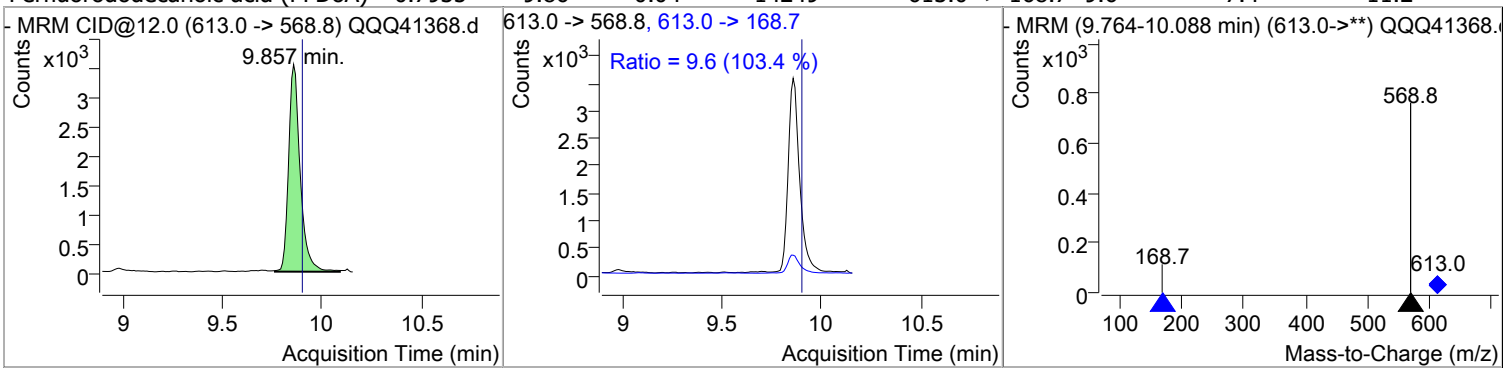
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
11-Cl-PF3OUdS	1.2084	9.70	-0.06	28120				



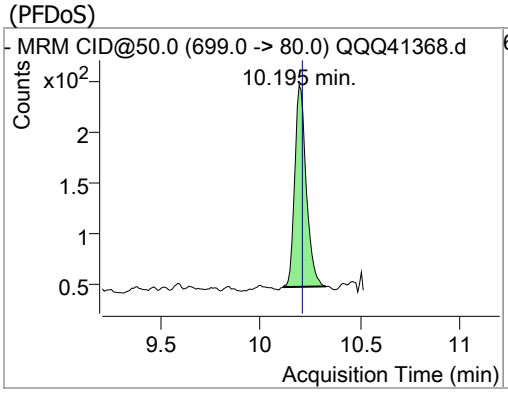
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	1.5510	9.86	-0.04	27619				

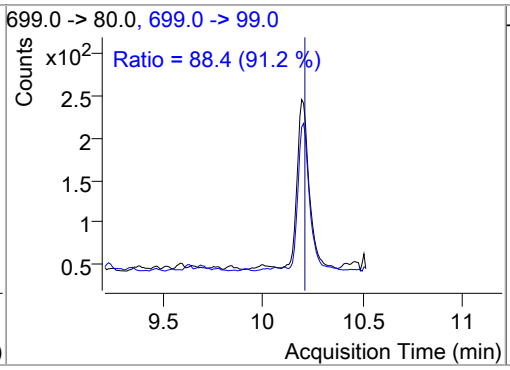


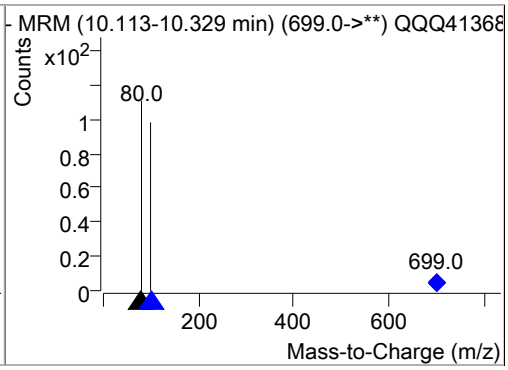
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanoic acid (PFDoA)	0.7935	9.86	-0.04	14249	613.0 -> 168.7	9.6	7.4	11.2



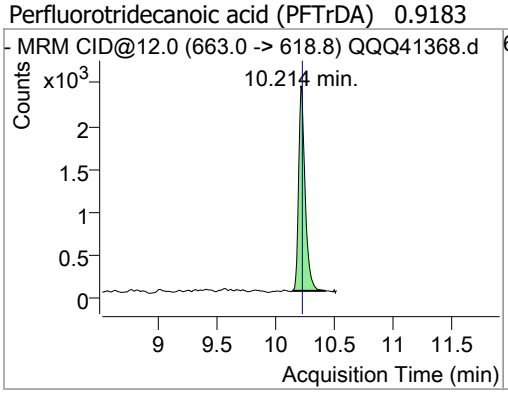
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorododecanesulfonic acid (PFDoS)	0.7727	10.19	-0.01	795	699.0 -> 99.0	88.4	77.6	116.4

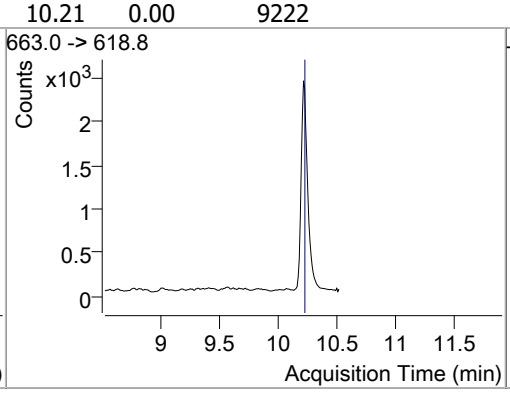


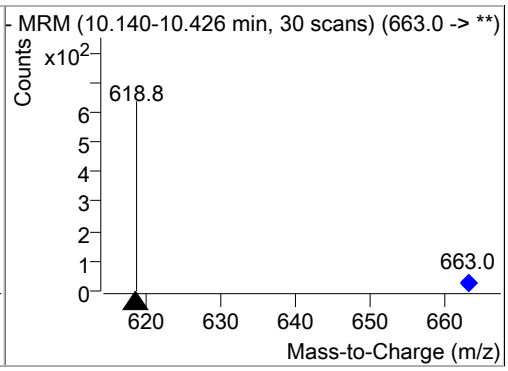




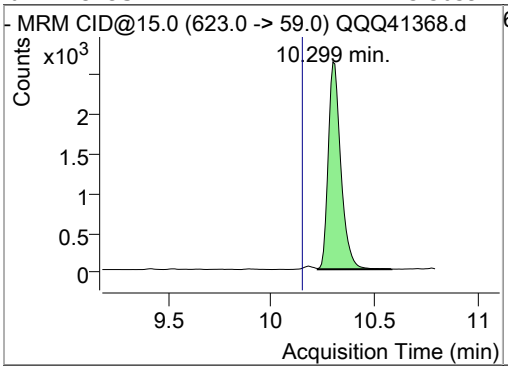
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotridecanoic acid (PFTrDA)	0.9183	10.21	0.00	9222				

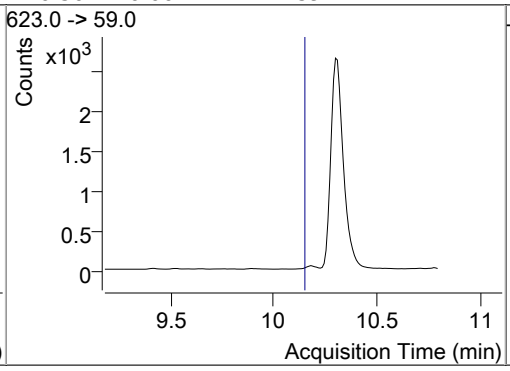


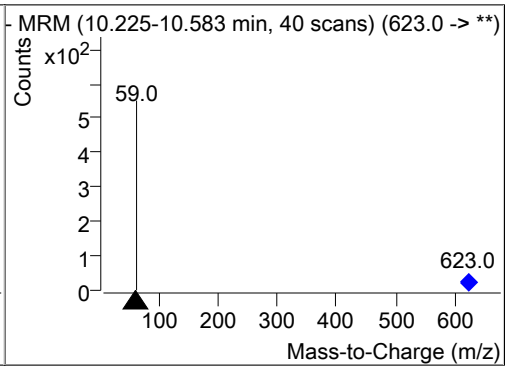




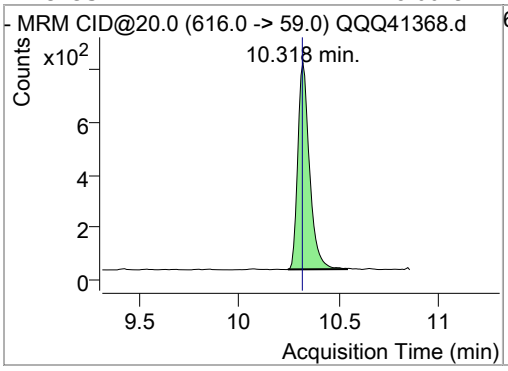
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d7-NMeFOSE	23.3639	10.30	0.00	11159				

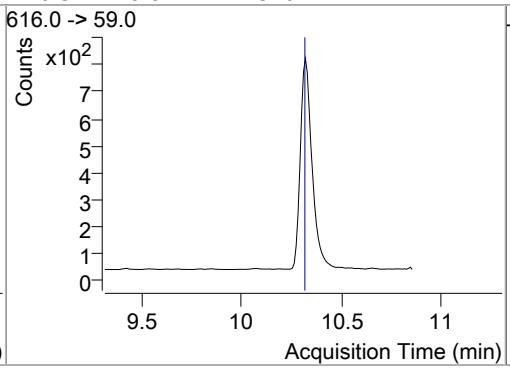


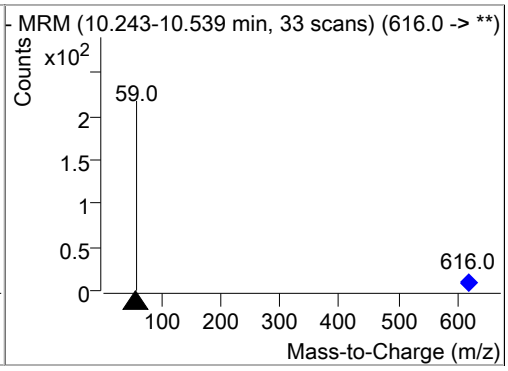




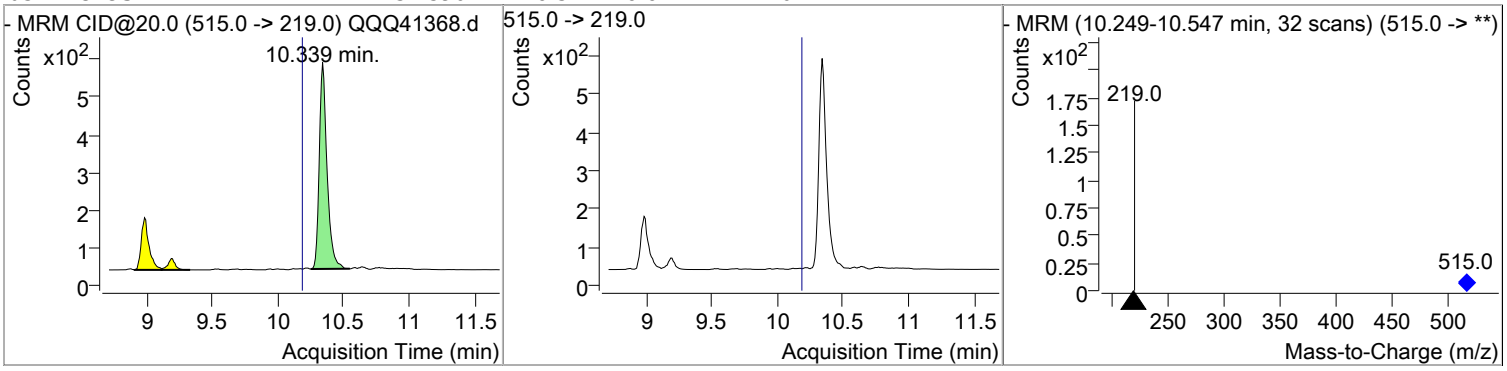
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSE	8.6619	10.32	0.01	3164				



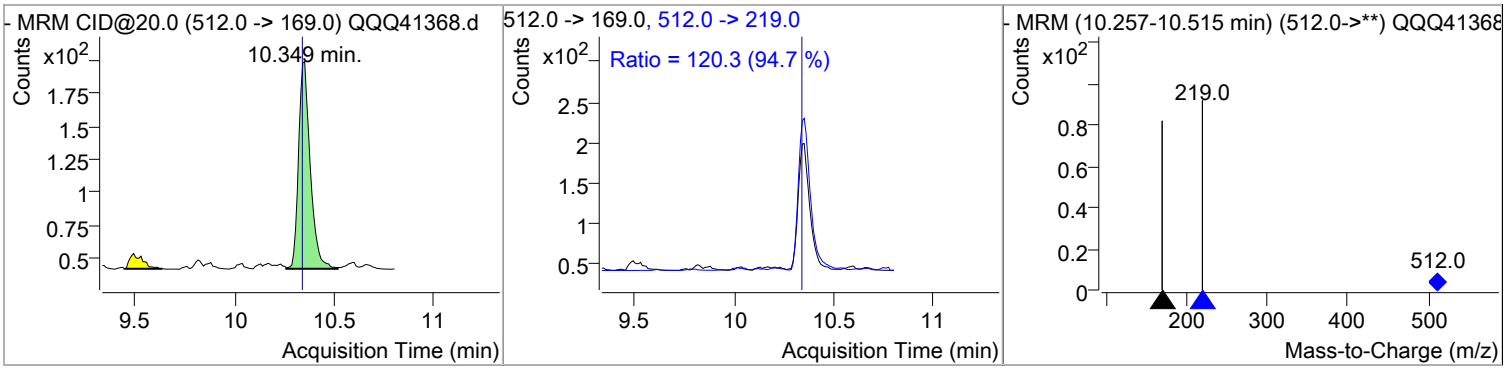




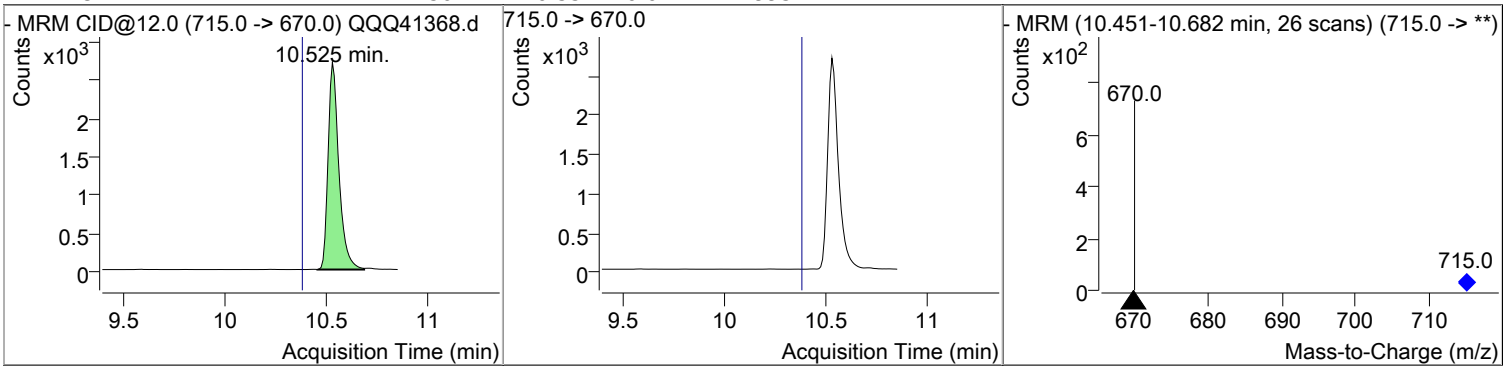
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d3-NMeFOSA	3.7596	10.34	0.01	2261				



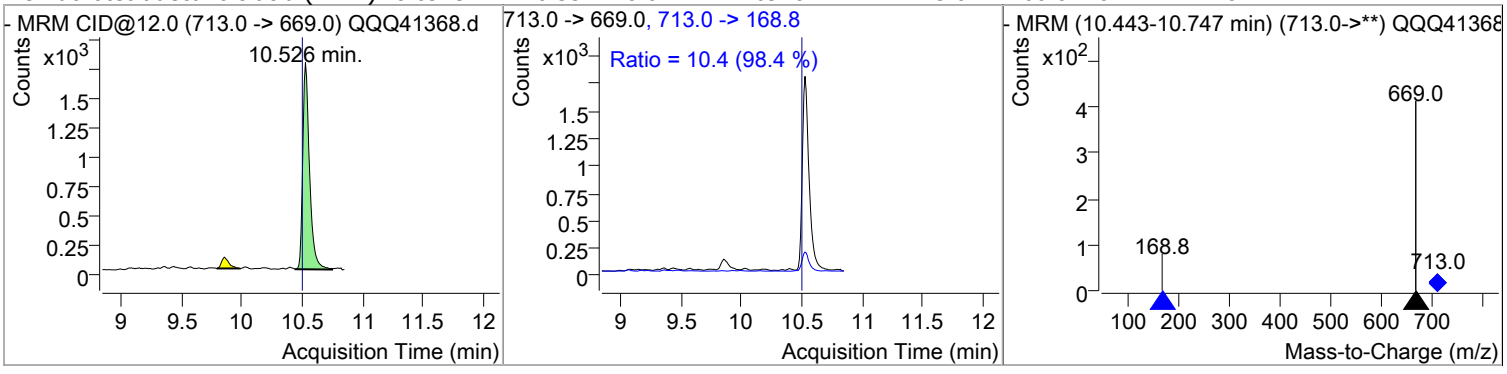
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NMeFOSA	0.7866	10.35	0.02	638	512.0 -> 219.0	120.3	101.6	152.5



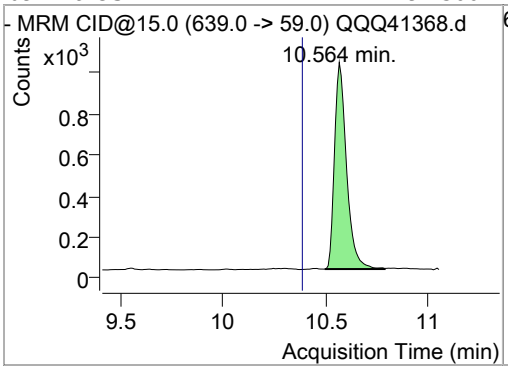
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
M2PFTeDA	1.2504	10.53	0.04	9934				

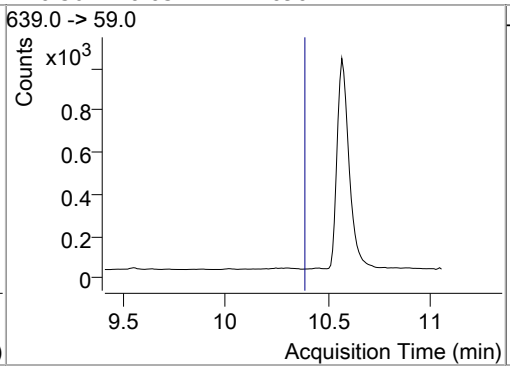


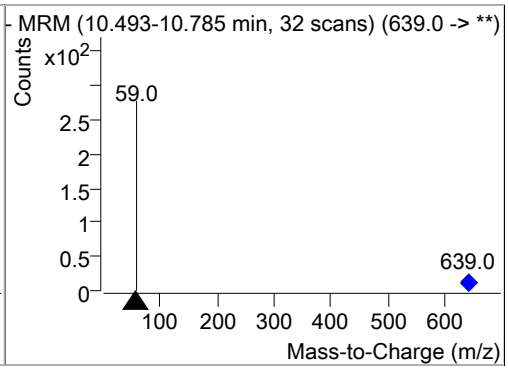
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
Perfluorotetradecanoic acid (PFTA)	0.8925	10.53	0.04	6910	713.0 -> 168.8	10.4	8.4	12.7



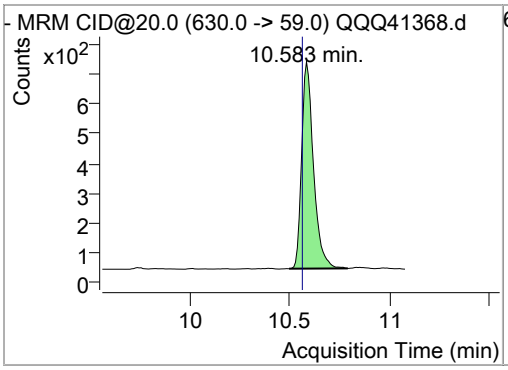
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d9-NEtFOSE	19.2366	10.56	0.03	4090				

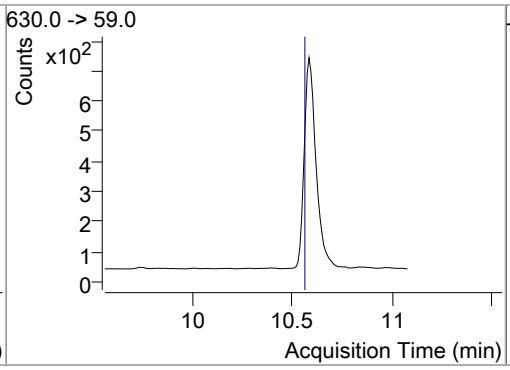


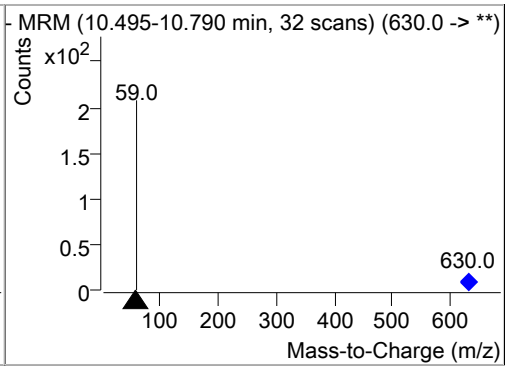




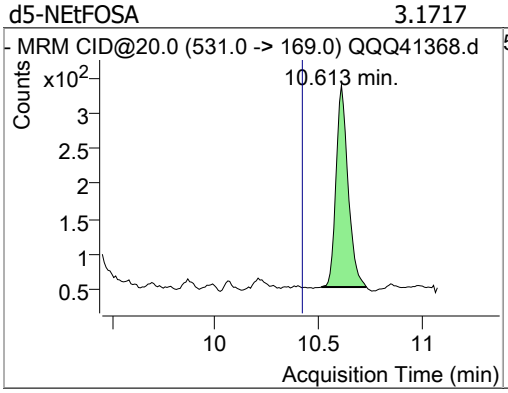
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSE	8.1746	10.58	0.03	2892				

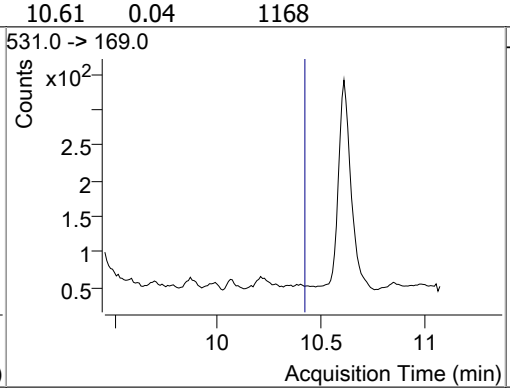


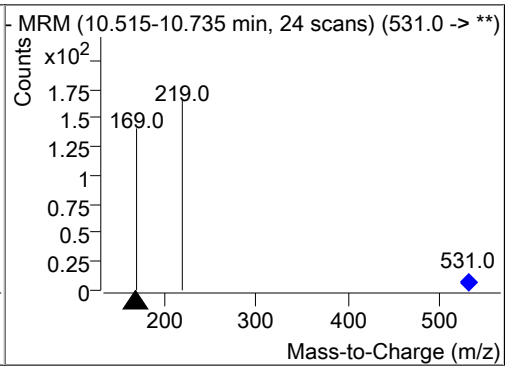




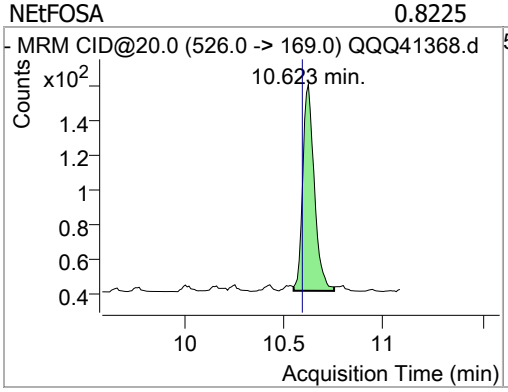
Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
d5-NEtFOSA	3.1717	10.61	0.04	1168				

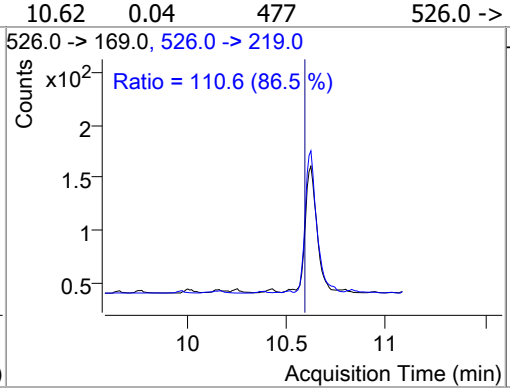


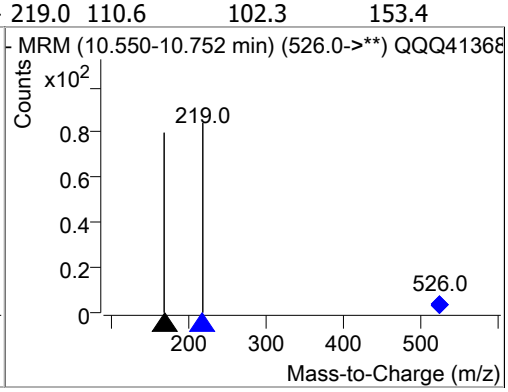




Compound	Conc.	RT	Dev(Min)	Resp.	QIon	QRatio	Lower	Upper
NEtFOSA	0.8225	10.62	0.04	477	526.0 -> 219.0	110.6	102.3	153.4







Batch Supplementary Data

Agilent Technologies

Batch Data Path File Name	D:\MassHunter\Data\QuantResults\2024-07-10A-1633.batch.bin		
Analysis Time Stamp	7/11/2024 6:57:24 PM	**Analyst Name**	YAL\UserQPFAS
Report Generation Time	7/11/2024 7:12:21 PM	**Report Generator Name**	YAL\UserQPFAS
Calibration Last Updated Time Stamp	7/10/2024 7:37:33 PM	**Batch State**	Processed
Analyze Quant Version	B.09.00	**Report Quant Version**	B.09.00
Acq. Date-Time	7/10/2024 11:00:27 AM	**Data File**	QQQ41368.d
Sample Type	Sample	**Sampe Name**	BG40502-BS2
Dil.	1	**Acq. Method File**	PFAS-EPA1633D2_ACQ_111522.m

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluoro-n-[13C4]butanoic acid (MPFBA)	1.343	3426	515	0.439			1.88			1132.28
Perfluoro-n-butanoic acid (PFBA)	1.347	698	117	0.236			1.53			22.94
PFMPA	2.327	974	127	0.419			2.10			∞
3:3FTCA	4.553	533	81	0.451			2.04			987.24
Perfluoro-n-[13C54]pentanoic acid (M5PFPeA)	4.829	85116	13636	0.370			2.02			132795.54
Perfluoro-n-pentanoic acid (PFPeA)	4.839	24259	3959	0.360			1.78			1322.34
PFMBA	5.541	13264	2854	0.370			1.83			∞
M3PFBS	5.566	22053	5120	0.297			1.55			499.10
Perfluorobutanesulfonic acid (PFBS)	5.567	6044	1359	0.325			1.62			22688.87
PFEESA	6.075	48315	12037	0.287			1.42			16813.19
NFDHA	6.216	595	152	0.214			1.67			5536.54
M2-4-2FTS	6.288	26094	6401	0.282			1.44			6178.44
1H,1H,2H,2H-perfluoro-1-hexanesulfonate (4 2FTS)	6.288	18458	4478	0.303			1.48			1625.67
M5PFHxA	6.353	73037	18127	0.297			1.89			∞
Perfluorohexanoic acid (PFHxA)	6.355	22997	5627	0.289			1.82			389.67
Perfluoro-1-pentanesulfonate (L-PFPeS)	6.556	5673	1416	0.241			1.89			363.67
M3-HFPO-DA	6.652	55765	14035	0.268			1.36			327.13
HFPO-DA	6.652	913	213	0.315			1.33			52.49
M4PFHpA	7.179	17098	3942	0.306			1.52			22831.42
Perfluoroheptanoic acid (PFHpA)	7.179	11610	2794	0.241			1.57			127.17
5-3FTCA	7.245	60237	14203	0.343			1.79			∞
Perfluorohexanesulfonic acid (PFHxS)	7.280	4614	936	0.453			1.61			∞
M3PFHxS	7.280	14790	3571	0.307			1.63			3350.38

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
ADONA	7.309	14296	3463	0.291			1.66			1636.58
M2-6-2FTS	7.801	16639	3841	0.316			1.75			1998.13
1H,1H,2H,2H-perfluoro-1-octanesulfonate (6 2FTS)	7.801	13129	3197	0.272			1.72			187.18
Perfluoro-n-[13C8]octanoic acid (M8PFOA)	7.866	41466	9708	0.322			1.42			84.57
Perfluorooctanoic acid (PFOA)	7.858	12999	3152	0.231			1.92			465.64
Perfluoro-1-heptanesulfonate (L-PFHpS)	7.920	4257	1074	0.204			1.75			∞
Perfluoro-n-[13C9]nonanoic acid (M9PFNA)	8.460	6517	1645	0.315			1.64			12210.13
Perfluorononanoic acid (PFNA)	8.461	11653	2851	0.305			1.67			396.20
Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	8.495	5623	1384	0.278			1.36			4020.75
Perfluorooctanesulfonic acid (PFOS)	8.496	3710	738	0.390			1.40			61.26
7-3FTCA	8.647	89857	20822	0.334			1.41			∞
9-Cl-PF3ONS	8.809	41790	10511	0.314			1.85			∞
M2-8-2FTS	8.940	40297	9794	0.303			1.84			24146.46
1H,1H,2H,2H-perfluoro-1-decanesulfonate (8 2FTS)	8.940	5979	1435	0.293			1.76			2347.45
M6PFDA	8.979	23100	5857	0.308			1.58			∞
Perfluorodecanoic acid (PFDA)	8.980	14600	3539	0.289			1.60			217.42
Perfluorononanesulfonate (L-PFNS)	8.996	3771	900	0.240			1.35			76.05
d3-N-MeFOSAA	9.190	32853	7967	0.270			1.48			48452.36
N-MeFOSAA	9.190	4122	826	0.466			1.64			5410.36
d5-N-EtFOSAA	9.431	31617	7512	0.324			1.44			∞
Perfluoroundecanoic acid (PFUnA)	9.432	16865	4092	0.257			1.87			215.31
Perfluoro-1-decanesulfonate (L-PFDS)	9.439	1551	400	0.211			1.33			189.17
N-EtFOSAA	9.440	4359	893	0.446			1.42			∞
M7PFUdA	9.432	34242	8590	0.261			1.92			∞
Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	9.574	21608	5032	0.333			1.36			∞
Perfluoro-1-octanesulfonamide (FOSA)	9.574	8717	2035	0.324			1.38			∞
11-Cl-PF3OUdS	9.697	28120	7068	0.334			1.57			850.17
Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	9.856	27619	6724	0.324			1.63			77915.43

Name	RT	Resp.	Height	Width	Resolution F.	Resolution R.	Symmetry	Plates	Capacity Factor	S/N
Perfluorododecanoic acid (PFDoA)	9.857	14249	3544	0.324			1.51			200.62
Perfluorododecanesulfonic acid (PFDoS)	10.195	795	197	0.217			1.67			85.97
Perfluorotridecanoic acid (PFTrDA)	10.214	9222	2392	0.286			1.85			49.55
d7-NMeFOSE	10.299	11159	2615	0.358			1.81			∞
NMeFOSE	10.318	3164	779	0.295			1.58			188.51
d3-NMeFOSA	10.339	2261	549	0.299			1.59			5349.88
NMeFOSA	10.349	638	157	0.258			1.28			773.97
M2PFTeDA	10.525	9934	2689	0.230			1.73			∞
Perfluorotetradecanoic acid (PFTA)	10.526	6910	1769	0.304			1.75			184.37
d9-NEtFOSE	10.564	4090	1003	0.292			1.74			108.35
NEtFOSE	10.583	2892	701	0.295			1.67			538.40
d5-NEtFOSA	10.613	1168	289	0.220			1.41			85.79
NEtFOSA	10.623	477	119	0.203			1.39			57.10

BENCHSHEETS

SDG: 24F1801

CLASS: PFAS

METHOD: EPA 1633 Draft 3

PREPARATION BENCH SHEET-AQUEOUS: BG40502

Prepared: **07/08/2024 17:39**

York Analytical Laboratories, Inc. - Stratford

Printed: 8/6/2024 8:03:40AM

Matrix: Water **Preparation EPA 1633 Prep** **Surrogate used: S24G076** **25** **ul**

Lab Number	Analysis	Initial (mL)	Final (mL)	Spike 1 ID	ul Spike 1	Spike 2 ID	ul Spike 2	Source ID	pH Data Initial	pH Data Acid	pH Data Basic	Decanted Y/N	Comments
24F1799-01 A	PFAS, EPA 1633 T	517.42	5						P4	6.3	PC-3		ammonium hydroxide added for
24F1799-02 B	PFAS, EPA 1633 T	518.28	5						P3	6.3	PC-3		ammonium hydroxide added for
24F1799-03 B	PFAS, EPA 1633 T	540.54	5						P6	7.0	PC-4		ammonium hydroxide added for
24F1799-04 B	PFAS, EPA 1633 T	522.47	5						P7	6.4	PC-4		ammonium hydroxide added for
24F1799-05 A	PFAS, EPA 1633 T	549.75	5						P8	5.7	PC-4		ammonium hydroxide added for
24F1801-01 B	PFAS, EPA 1633 T	541.25	5						P1	6.0	PC-3		ammonium hydroxide added for
24F1801-02 B	PFAS, EPA 1633 T	505.21	5						P5	5.0	PC-3		ammonium hydroxide added for
24F1801-03 D	PFAS, EPA 1633 T	557.57	5						P8	5.0	PC-3		ammonium hydroxide added for
24F1801-04 A	PFAS, EPA 1633 T	544.91	5						P6	5.5	PC-3		ammonium hydroxide added for
24F1802-01 A	PFAS, EPA 1633 T	542.14	5						P1	5.0	PC-5		ammonium hydroxide added for
24F1802-02 A	PFAS, EPA 1633 T	554.14	5						P7	6.3	PC-3		No AH added
24F1802-03 A	PFAS, EPA 1633 T	548.01	5						P2	6.4	PC-5		ammonium hydroxide added for
24F1804-01 A	PFAS, EPA 1633 T	559.05	5						P3	5.0	PC-5		ammonium hydroxide added for
24F1804-02 B	PFAS, EPA 1633 T	564.4	5						P4	6.4	PC-5		ammonium hydroxide added for
24F1807-01 A	PFAS, EPA 1633 T	545.66	5						P8	5.0	PC-5		ammonium hydroxide added for
24F1807-02 A	PFAS, EPA 1633 T	503.87	5						P5	6.5	PC-5		ammonium hydroxide added for
BG40502-BLK1	QC	250.02	5										ammonium hydroxide added for
BG40502-BS1	QC	250.15	5	S24G007	100								ammonium hydroxide added for
BG40502-BS2	QC	250.07	5	S24G007	20								ammonium hydroxide added for
BG40502-MS1	QC	561.63	5	S24G007	100			24F1801-03					ammonium hydroxide added for
BG40502-MSD1	QC	550.46	5	S24G007	100			24F1801-03					ammonium hydroxide added for

Reagents:

ID Number	Description	Lot Number	ID Number	Description	Lot Number

Preparation Performed by **J D** **Date:** **07/08/2024 17:39**

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

TERMS, CONDITIONS & LIMITATIONS

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

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

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

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

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

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

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

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

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
HETTLING PARK, CLERMONT, NEW YORK

Client: CPL Team, Latham, New York
SDG: 240625028
Laboratory: Adirondack Environmental Services, Albany, New York
York Analytical Laboratories, Inc, Stratford, Connecticut
Site: Hettling Park, Clermont, New York
Date: October 30, 2024

EDS ID	Client ID	Laboratory ID	Matrix
1	MW-1	240625028-001	Water
2	MW-4	240625028-002	Water
3	MW-5	240625028-003	Water
3MS	MW-5MS	240625028-003MS	Water
3MSD	MW-5MSD	240625028-003MSD	Water
4	MW-5 DUP	240625028-004	Water

A Data Usability Summary Review was performed on the analytical data for four water samples collected on June 24, 2024 by CPL Team at the Hettling Park Site in Clermont, New York. The samples were analyzed under the USEPA Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions, the USEPA Method Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS), and the USEPA Methods for the Determination of Metals and Trace Elements in Water and Wastes.

Specific method references are as follows:

Analysis	*Method References*
1,4-Dioxane	USEPA SW-846 Method 8270 SIM
PFAS	USEPA Draft Method 1633
Metals/Hg	USEPA Methods 6010C/245.1

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the USEPA Region II Data Review Standard Operating Procedures (SOPs), and the USEPA Data Review and Validation Guidelines as follows:

- SOP Number QA-HWSS-A-005, March 2022, Standard Operating Procedure for Validation of Semivolatile Data;
- SOP Number QA-HWSS-A-009, March 2022, Standard Operating Procedure for Validation of ICP-MS Validation;
- SOP Number QA-HWSS-A-011, March 2022, Standard Operating Procedure for Validation of Mercury Data;

- New York State Department of Environmental Conservation (NYSDEC) Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), April 2023;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

Organics

- Holding times and sample preservation
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

Inorganics

- Data Completeness
- Holding times and sample preservation
- Initial and continuing calibration verifications
- Method blank and field blank contamination
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- ICP Interference Check Sample recoveries
- ICP Serial Dilution
- Compound Quantitation
- Field Duplicate sample precision

Data Usability Assessment

There were no rejections of data.

The data are acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Semivolatile Organic Compounds by SIM (1,4-Dioxane)

Holding Times

- All samples were extracted within 7 days for water samples and analyzed within 40 days.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- The initial calibrations exhibited acceptable %RSD and/or correlation coefficients and mean RRF values.

Continuing Calibration

- The continuing calibrations exhibited acceptable %D and RRF values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC samples were not collected.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate percent recoveries (%R).

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	MW-5 ug/L	MW-5 Dup ug/L	RPD	Qualifier
None	ND	ND	-	-

Perfluorinated Alkyl Substances (PFAS)

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD), %R and/or coefficient of determination criteria were met.

Continuing Calibration

- The following table presents compounds that exceeded percent difference (%D) and/or RRF values <0.05 (0.01 for poor performers) in the continuing calibration (CCAL). A low RRF indicates poor instrument sensitivity for these compounds. Positive results for these compounds in the affected samples are considered estimated and qualified (J). Non-detect results for these compounds in the affected samples are rejected (R) and are unusable for project objectives. A high %D may indicate a potential high or low bias. All results for these compounds in affected samples are considered estimated and qualified (J/UJ).

CCAL Date	Compound	%D/RRF	Qualifier	Affected Samples
07/10/24 (1715)	6:2 FTS	-31.3%	J	3, 4
	FPrPA	-91.0%	UJ	3, 4
	FPePA	-71.6%		
	FHpPA	-40.0%		

Method Blank

- The method blank samples were free of contamination.

Field QC Blank

- Field QC samples were not collected.

Surrogate Spike Recoveries

- Several samples exhibited high and low surrogate percent recoveries. The associated compounds were qualified as estimated (J/UJ). See summaries on Form Is for details.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier
3	PFMPA	23.0%/8.95%/86.4	UJ
	PFMBA	OK/OK/30.1	
	11CL-PF3OUdS	OK/OK/44.0	
	9CL-PF3ONS	OK/161%/OK	None - Sample ND
	ADONA	OK/171%/35.0	
	FPrPA	OK/16.9%/66.5	None - See CCAL

Laboratory Control Samples (LCS)

- The LCS samples exhibited acceptable percent recoveries (%R) except for the following.

LCS ID	Compound	LCS %R	Qualifier	Affected Samples
BG40502-BS1	PFMPA	18.0%	UJ	1, 2, 4
BG40502-BS2	PFMPA	12.0%	None	See BS1

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	MW-5 ng/L	MW-5 Dup ng/L	RPD	Qualifier
6:2 FTS	5.74	5.65	2%	None

Total Metals & Mercury

Holding Times

- All samples were prepared and analyzed within 28 days for mercury and 180 days for all other metals.

Initial Calibration Verification

- All initial calibration criteria were met.

Continuing Calibration Verification

- All continuing calibration criteria were met.

Method Blank

- The following table lists method blanks with contamination and the samples associated with the blanks that had results qualified as a consequence of the blank contamination. Detected sample concentrations less than ten times (10x) the highest associated blank (after taking sample dilution levels, percent moisture and sample volume into account) are negated and qualified with a (U).

Sample ID	Compound	Conc. ug/L	Qualifier	Affected Samples
MBLK 07/02/24	Cadmium	1.367	U	1-4

Field Blank

- Field QC samples were not collected.

Matrix Spike/ Duplicate (MS/DUP) Recoveries

- The following table presents MS/DUP samples that exhibited percent recoveries (%R) and RPD values outside the QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier	Affected Samples
3	Silver	66.8%/OK/OK	UJ	All Samples

Laboratory Control Samples

- The LCS sample exhibited acceptable percent recoveries (%R).

ICP Interference Check Sample

- The ICP sample exhibited acceptable percent recoveries (%R).

ICP Serial Dilution

- The ICP serial dilution exhibited acceptable percent differences (%D).

Compound Quantitation

- EDS Sample 1 was analyzed at a 10X dilution for sodium due to a high concentration. The reporting limits were adjusted accordingly. No action was required.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was unacceptable for iron. These results were qualified as estimated (J).

Compound	MW-5 ug/L	MW-5 Dup ug/L	RPD	Qualifier
Aluminum	69.6	46.2	40%	None
Antimony	14.3	20.9	38%	
Barium	49.8	48.7	2%	
Calcium	17300	17200	1%	
Iron	257	56.4	128%	J
Lead	3.07	2.20	33%	None
Magnesium	4330	4350	0%	
Manganese	21.8	13.4	48%	
Nickel	2.40	20.0U	NC	
Potassium	522	518	1%	
Sodium	3460	3230	7%	

Please contact the undersigned at (561) 475-2000 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 11/1/24

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

1

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-1
Work Order:	240625028	**Collection Date:**	6/24/2024 11:35:00 AM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:07:00 PM
Surr: 1,4-Dioxane-d8	***73.2***	33-122		%REC	1	7/9/2024 5:07:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

NW 01301 24

2

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-4
Work Order:	240625028	**Collection Date:**	6/24/2024 3:30:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:16:00 PM
Surr: 1,4-Dioxane-d8	***21.0***	33-122	S	%REC	1	7/9/2024 5:16:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

MW 10/30/24

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:26:00 PM
Surr: 1,4-Dioxane-d8	***58.1***	33-122		%REC	1	7/9/2024 5:26:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

10/30/24

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5 Dup
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 8270 SIM FOR 1,4 DIOXANE						Analyst: **KL**
(Prep: SW3535A - 6/26/2024)						
1,4-Dioxane	***ND***	0.35		µg/L	1	7/9/2024 5:36:00 PM
Surr: 1,4-Dioxane-d8	***56.9***	33-122		%REC	1	7/9/2024 5:36:00 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

NW 10/30/24

Sample Information

Client Sample ID: 240625028-001C

York Sample ID: 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**5.35**		ng/L	0.434	1.64	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**6.94**		ng/L	0.323	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-85-9	**Perfluoroheptanoic acid (PFHpA)**	**1.93**		ng/L	0.656	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
355-46-4	**Perfluorohexanesulfonic acid (PFHxS)**	**0.892**	J	ng/L	0.628	1.69	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
335-67-1	**Perfluorooctanoic acid (PFOA)**	**6.15**		ng/L	0.388	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.758	1.72	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.480	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.693	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.04	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.813	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.684	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.637	1.85	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.730	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.952	1.85	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**5.66**		ng/L	0.212	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.813	1.85	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.841	1.76	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.22	1.78	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND		ng/L	0.979	7.02	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.89	7.09	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**2.50**	J	ng/L	0.305	7.39	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.462	3.29	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM

MJ 10130/24

Sample Information

Client Sample ID: 240625028-001C

York Sample ID: 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.98	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND	UJ PF-LCS J	ng/L	0.231	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.342	3.70	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:36	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.702	1.74	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.65	6.93	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.98	7.39	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.27	6.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.647	6.91	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
919005-14-4	ADONA	ND		ng/L	0.490	6.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.859	1.79	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.794	1.77	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:36	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	1.88	4.62	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	6.77	23.1	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	8.75	23.1	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.69	18.5	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.46	1.85	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.69	18.5	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.66	1.85	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:36	AM

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*132 %*	*25-150*
Surrogate: M5PFHxA	*127 %*	*25-150*
Surrogate: M4PFHpA	*138 %*	*25-150*
Surrogate: M3PFHxS	*121 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*119 %*	*25-150*
Surrogate: M6PFDA	*132 %*	*25-150*
Surrogate: M7PFUdA	*124 %*	*25-150*

MW 10/30/24

Sample Information

Client Sample ID: 240625028-001C **York Sample ID:** 24F1801-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 11:35 am	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*91.7 %*			*25-150*						
	Surrogate: M2PFTeDA	*75.2 %*			*10-150*						
	Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*122 %*			*25-150*						
	Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*119 %*			*25-150*						
	Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*126 %*			*25-150*						
	Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*128 %*			*10-150*						
	Surrogate: d3-N-MeFOSAA	*113 %*			*25-150*						
	Surrogate: d5-N-EtFOSAA	*119 %*			*25-150*						
	Surrogate: M2-6:2 FTS	*115 %*			*25-200*						
	Surrogate: M2-8:2 FTS	*104 %*			*25-200*						
	Surrogate: M9PFNA	*124 %*			*25-150*						
	Surrogate: M2-4:2 FTS	*126 %*			*25-150*						
	Surrogate: d-N-MeFOSA	*74.4 %*			*25-150*						
	Surrogate: d-N-EtFOSA	*54.5 %*			*25-150*						
	Surrogate: M3HFPO-DA	*131 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*70.9 %*			*25-150*						
	Surrogate: d7-N-MeFOSE	*84.9 %*			*25-150*						

Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	**Perfluorobutanesulfonic acid (PFBS)**	**0.636** J	J	ng/L	0.465	1.75	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
307-24-4	**Perfluorohexanoic acid (PFHxA)**	**0.606**	J	ng/L	0.346	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.703	1.98	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.673	1.81	1	EPA 1633 Draft 3	07/08/2024 17:39	07/10/2024 12:52	AM
								Certifications: NELAC-NY12058,NJDEP-NY037			

MW 10/30/24

Sample Information

Client Sample ID: 240625028-002C

York Sample ID: 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
335-67-1	**Perfluorooctanoic acid (PFOA)**	**0.417**	J	ng/L	0.416	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.812	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.515	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.742	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.12	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.871	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.732	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.683	1.98	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.782	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2991-50-6	N-EtFOSAA	ND		ng/L	1.02	1.98	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
2706-90-3	**Perfluoropentanoic acid (PFPeA)**	**0.651**	J	ng/L	0.228	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.871	1.98	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.901	1.89	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.31	1.91	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**2.45**	J	ng/L	1.05	7.52	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	2.03	7.60	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
375-22-4	**Perfluoro-n-butanoic acid (PFBA)**	**2.14**	J	ng/L	0.327	7.92	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.495	3.52	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	2.12	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND UJ	~~PF-LCS~~	ng/L	0.247	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.366	3.96	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 12:52	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.752	1.86	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.77	7.42	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM

NW 10/30/24

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Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	3.20	7.92	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.37	7.48	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.693	7.40	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
919005-14-4	ADONA	ND		ng/L	0.525	7.48	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.920	1.92	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.851	1.90	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 12:52	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND		ng/L	2.01	4.95	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND		ng/L	7.25	24.7	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND		ng/L	9.37	24.7	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
24448-09-7	* N-MeFOSE	ND	UJ	ng/L	3.95	19.8	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.56	1.98	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
1691-99-2	* N-EtFOSE	ND	UJ	ng/L	3.95	19.8	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM
4151-50-2	* N-EtFOSA	ND	UJ	ng/L	1.78	1.98	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 12:52	AM

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*155 %*	~~PFSa-H~~	*25-150*
Surrogate: M5PFHxA	*140 %*		*25-150*
Surrogate: M4PFHpA	*140 %*		*25-150*
Surrogate: M3PFHxS	*140 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*127 %*		*25-150*
Surrogate: M6PFDA	*108 %*		*25-150*
Surrogate: M7PFUdA	*76.9 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*39.7 %*		*25-150*
Surrogate: M2PFTeDA	*22.8 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*135 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*117 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*141 %*		*25-150*

MD 10/30/24

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Sample Information

Client Sample ID: 240625028-002C **York Sample ID:** 24F1801-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 3:30 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*102 %*			*10-150*						
	Surrogate: d3-N-MeFOSAA	*91.6 %*			*25-150*						
	Surrogate: d5-N-EtFOSAA	*81.5 %*			*25-150*						
	Surrogate: M2-6:2 FTS	*120 %*			*25-200*						
	Surrogate: M2-8:2 FTS	*108 %*			*25-200*						
	Surrogate: M9PFNA	*129 %*			*25-150*						
	Surrogate: M2-4:2 FTS	*174 %*	~~PFSu-H~~		*25-150*						
	Surrogate: d-N-MeFOSA	*26.9 %*			*25-150*						
	Surrogate: d-N-EtFOSA	*17.3 %*	~~PFSu-L~~		*25-150*						
	Surrogate: M3HFPO-DA	*147 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*8.54 %*	~~PFSu-L~~		*25-150*						
	Surrogate: d7-N-MeFOSE	*15.4 %*	~~PFSu-L~~		*25-150*						

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:** 3

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	0.421	1.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		ng/L	0.314	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.637	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.610	1.64	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
335-67-1	Perfluorooctanoic acid (PFOA)	ND		ng/L	0.377	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.735	1.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.466	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.673	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.01	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM

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Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.789	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.664	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.619	1.79	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.708	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.924	1.79	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		ng/L	0.206	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.789	1.79	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.816	1.71	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.18	1.73	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	5.74 J	~~PF-CCV~~	ng/L	0.951	6.82	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.84	6.89	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.296	7.17	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.448	3.19	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.92	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND UJ		ng/L	0.224	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND UJ		ng/L	0.332	3.59	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 13:41	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.682	1.69	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.61	6.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.90	7.17	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
763051-92-9	11CL-PF3OUdS	ND UJ		ng/L	1.24	6.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.628	6.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
919005-14-4	ADONA	ND		ng/L	0.475	6.78	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.834	1.74	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM

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Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.771	1.72	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 13:41	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND UJ	~~PF-ccv~~ J	ng/L	1.82	4.48	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND UJ	~~PF-CCV~~ J	ng/L	6.57	22.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND UJ	~~PF-ccv~~ J	ng/L	8.49	22.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.58	17.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.42	1.79	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
1691-99-2	* N-EtFOSE	ND		ng/L	3.58	17.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM
4151-50-2	* N-EtFOSA	ND		ng/L	1.61	1.79	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 13:41	AM

Surrogate Recoveries	Result	Acceptance Range
Surrogate: M3PFBS	*136 %*	*25-150*
Surrogate: M5PFHxA	*132 %*	*25-150*
Surrogate: M4PFHpA	*128 %*	*25-150*
Surrogate: M3PFHxS	*137 %*	*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*128 %*	*25-150*
Surrogate: M6PFDA	*109 %*	*25-150*
Surrogate: M7PFUdA	*106 %*	*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*84.4 %*	*25-150*
Surrogate: M2PFTeDA	*46.2 %*	*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*103 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*114 %*	*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*134 %*	*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*116 %*	*10-150*
Surrogate: d3-N-MeFOSAA	*98.1 %*	*25-150*
Surrogate: d5-N-EtFOSAA	*98.2 %*	*25-150*
Surrogate: M2-6:2 FTS	*77.4 %*	*25-200*
Surrogate: M2-8:2 FTS	*86.2 %*	*25-200*
Surrogate: M9PFNA	*126 %*	*25-150*
Surrogate: M2-4:2 FTS	*75.8 %*	*25-150*
Surrogate: d-N-MeFOSA	*61.9 %*	*25-150*
Surrogate: d-N-EtFOSA	*47.0 %*	*25-150*

MW 10/30/24

Sample Information

Client Sample ID: 240625028-003C **York Sample ID:** 24F1801-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate: M3HFPO-DA	*110 %*			*25-150*						
	Surrogate: d9-N-EtFOSE	*37.6 %*			*25-150*						
	Surrogate: d7-N-MeFOSE	*64.5 %*			*25-150*						

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Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		ng/L	0.431	1.62	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		ng/L	0.321	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		ng/L	0.651	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		ng/L	0.624	1.68	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
335-67-1	Perfluorooctanoic acid (PFOA)	ND		ng/L	0.385	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		ng/L	0.752	1.71	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-95-1	Perfluorononanoic acid (PFNA)	ND		ng/L	0.477	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
335-76-2	Perfluorodecanoic acid (PFDA)	ND		ng/L	0.688	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		ng/L	1.04	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		ng/L	0.807	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	ND		ng/L	0.679	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
376-06-7	* Perfluorotetradecanoic acid (PFTA)	ND		ng/L	0.633	1.84	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2355-31-9	N-MeFOSAA	ND		ng/L	0.725	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2991-50-6	N-EtFOSAA	ND		ng/L	0.945	1.84	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		ng/L	0.211	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM

NW 10/30/24

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Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
754-91-6	* Perfluoro-1-octanesulfonamide (FOSA)	ND		ng/L	0.807	1.84	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-92-8	* Perfluoro-1-heptanesulfonic acid (PFHpS)	ND		ng/L	0.835	1.75	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
335-77-3	* Perfluoro-1-decanesulfonic acid (PFDS)	ND		ng/L	1.21	1.77	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
27619-97-2	**1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)**	**5.65** J	~~PF-CCV~~ ~~L,J~~	ng/L	0.973	6.97	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND		ng/L	1.88	7.05	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
375-22-4	Perfluoro-n-butanoic acid (PFBA)	ND		ng/L	0.303	7.34	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
113507-82-7	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND		ng/L	0.459	3.27	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
151772-58-6	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		ng/L	1.96	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
377-73-1	Perfluoro-4-oxapentanoic acid (PFMPA)	ND UJ		ng/L	0.229	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
863090-89-5	Perfluoro-5-oxahexanoic acid (PFMBA)	ND		ng/L	0.340	3.67	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058	07/08/2024 17:39	07/10/2024 14:30	AM
2706-91-4	Perfluoro-1-pentanesulfonate (PFPeS)	ND		ng/L	0.697	1.73	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND		ng/L	1.64	6.88	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
13252-13-6	HFPO-DA (Gen-X)	ND		ng/L	2.96	7.34	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
763051-92-9	11CL-PF3OUdS	ND		ng/L	1.27	6.94	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
756426-58-1	9CL-PF3ONS	ND		ng/L	0.642	6.86	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
919005-14-4	ADONA	ND		ng/L	0.486	6.94	1	EPA 1633 Draft 3 Certifications: NELAC-NY12058,NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
79780-39-5	* Perfluorododecanesulfonic acid (PFDoS)	ND		ng/L	0.853	1.78	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
68259-12-1	* Perfluoro-1-nonanesulfonic acid (PFNS)	ND		ng/L	0.789	1.76	1	EPA 1633 Draft 3 Certifications: NJDEP-NY037	07/08/2024 17:39	07/10/2024 14:30	AM
356-02-5	* 3-Perfluoropropyl propanoic acid (FPrPA)	ND UJ	~~PF-CCV~~ ~~L~~	ng/L	1.86	4.59	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
914637-49-3	* 3-Perfluoropentyl propanoic acid (FPePA)	ND UJ	~~PF-CCV~~ ~~L~~	ng/L	6.73	22.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
812-70-4	* 3-Perfluoroheptyl propanoic acid (FHpPA)	ND UJ	~~PF-CCV~~ ~~L~~	ng/L	8.69	22.9	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
24448-09-7	* N-MeFOSE	ND		ng/L	3.66	18.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
31506-32-8	* N-MeFOSA	ND		ng/L	1.45	1.84	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM

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Sample Information

Client Sample ID: 240625028-004C **York Sample ID:** 24F1801-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
24F1801	240625028	Ground Water	June 24, 2024 2:25 pm	06/27/2024

PFAS, EPA 1633 Target List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 1633 Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1691-99-2	* N-EtFOSE	ND		ng/L	3.66	18.4	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM
4151-50-2	* N-EtFOSA	ND UJ		ng/L	1.65	1.84	1	EPA 1633 Draft 3 Certifications:	07/08/2024 17:39	07/10/2024 14:30	AM

Surrogate Recoveries	Result		Acceptance Range
Surrogate: M3PFBS	*128 %*		*25-150*
Surrogate: M5PFHxA	*133 %*		*25-150*
Surrogate: M4PFHpA	*128 %*		*25-150*
Surrogate: M3PFHxS	*125 %*		*25-150*
Surrogate: Perfluoro-n-[13C8]octanoic acid (M8PFOA)	*129 %*		*25-150*
Surrogate: M6PFDA	*117 %*		*25-150*
Surrogate: M7PFUdA	*118 %*		*25-150*
Surrogate: Perfluoro-n-[1,2-13C2]dodecanoic acid (MPFDoA)	*90.1 %*		*25-150*
Surrogate: M2PFTeDA	*62.0 %*		*10-150*
Surrogate: Perfluoro-n-[13C4]butanoic acid (MPFBA)	*127 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonic acid (M8PFOS)	*122 %*		*25-150*
Surrogate: Perfluoro-n-[13C5]pentanoic acid (M5PFPeA)	*138 %*		*25-150*
Surrogate: Perfluoro-1-[13C8]octanesulfonamide (M8FOSA)	*103 %*		*10-150*
Surrogate: d3-N-MeFOSAA	*95.5 %*		*25-150*
Surrogate: d5-N-EtFOSAA	*97.0 %*		*25-150*
Surrogate: M2-6:2 FTS	*66.7 %*		*25-200*
Surrogate: M2-8:2 FTS	*75.2 %*		*25-200*
Surrogate: M9PFNA	*117 %*		*25-150*
Surrogate: M2-4:2 FTS	*55.7 %*		*25-150*
Surrogate: d-N-MeFOSA	*26.0 %*		*25-150*
Surrogate: d-N-EtFOSA	*14.3 %*	~~PFSurL~~	*25-150*
Surrogate: M3HFPO-DA	*48.7 %*		*25-150*
Surrogate: d9-N-EtFOSE	*29.8 %*		*25-150*
Surrogate: d7-N-MeFOSE	*46.0 %*		*25-150*

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-1
Work Order:	240625028	**Collection Date:**	6/24/2024 11:35:00 AM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-001
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:10:03 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***ND***	100		µg/L	1	7/2/2024
Antimony	***13.5***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***16.1***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	5.00 ~~1.42~~ U	5.00	✓	µg/L	1	7/2/2024
Calcium	***11700***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***24.5***	50.0	J	µg/L	1	7/2/2024
Lead	***2.20***	5.00	J	µg/L	1	7/2/2024
Magnesium	***3020***	50.0		µg/L	1	7/2/2024
Manganese	***ND***	20.0		µg/L	1	7/2/2024
Nickel	***ND***	20.0		µg/L	1	7/2/2024
Potassium	***3020***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND*** UJ	10.0		µg/L	1	7/2/2024
Sodium	***59800***	500		µg/L	10	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

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Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-4
Work Order:	240625028	**Collection Date:**	6/24/2024 3:30:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-002
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:11:39 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***993***	100		µg/L	1	7/2/2024
Antimony	***14.7***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***59.2***	10.0		µg/L	1	7/2/2024
Beryllium	***0.31***	5.00	J	µg/L	1	7/2/2024
Cadmium	5.00 ~~***1.34***~~ U	5.00	~~J~~	µg/L	1	7/2/2024
Calcium	***10700***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***0.50***	50.0	J	µg/L	1	7/2/2024
Copper	***4.13***	5.00	J	µg/L	1	7/2/2024
Iron	***3830***	50.0		µg/L	1	7/2/2024
Lead	***13.4***	5.00		µg/L	1	7/2/2024
Magnesium	***3330***	50.0		µg/L	1	7/2/2024
Manganese	***103***	20.0		µg/L	1	7/2/2024
Nickel	***4.60***	20.0	J	µg/L	1	7/2/2024
Potassium	***512***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND***	10.0	UJ	µg/L	1	7/2/2024
Sodium	***5230***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***12.6***	10.0		µg/L	1	7/2/2024

Qualifiers:

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E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

MW 10/30/24

Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-003
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:13:16 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***69.6***	100	J	µg/L	1	7/2/2024
Antimony	***14.3***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***49.8***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	5.00 ~~1.44~~ U	5.00	✓	µg/L	1	7/2/2024
Calcium	***17300***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***257*** J	50.0		µg/L	1	7/2/2024
Lead	***3.07***	5.00	J	µg/L	1	7/2/2024
Magnesium	***4330***	50.0		µg/L	1	7/2/2024
Manganese	***21.8***	20.0		µg/L	1	7/2/2024
Nickel	***2.40***	20.0	J	µg/L	1	7/2/2024
Potassium	***522***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND*** UJ	10.0	✓	µg/L	1	7/2/2024
Sodium	***3460***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024

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X - Value exceeds Maximum Contaminant Level
E - Value above quantitation range-Estimate
S - LCS Spike below accepted limits (+ above)
Z - RPD outside accepted recovery limits
N - Matrix Spike below accepted limits (+ above)
T - Tentitively Identified Compound-Estimated Conc.

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Adirondack Environmental Services, Inc

Date: *11-Jul-24*

CLIENT:	Town of Clermont	**Client Sample ID:**	MW-5 Dup
Work Order:	240625028	**Collection Date:**	6/24/2024 2:25:00 PM
Reference:	Clermont Hettling Park / Hettling Park Grou	**Lab Sample ID:**	240625028-004
PO#:		**Matrix:**	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY - EPA 245.1 REV 3.0						Analyst: **AF**
(Prep: E245.1 - 6/26/2024)						
Mercury	***ND***	0.20		µg/L	1	6/26/2024 3:18:05 PM
ICP METALS - EPA 6010C						Analyst: **SM**
(Prep: SW3010A - 6/26/2024)						
Aluminum	***46.2***	100	J	µg/L	1	7/2/2024
Antimony	***20.9***	60.0	J	µg/L	1	7/2/2024
Arsenic	***ND***	5.00		µg/L	1	7/2/2024
Barium	***48.7***	10.0		µg/L	1	7/2/2024
Beryllium	***ND***	5.00		µg/L	1	7/2/2024
Cadmium	5.00 ~~***1.39***~~ U	5.00	✓	µg/L	1	7/2/2024
Calcium	***17200***	50.0		µg/L	1	7/2/2024
Chromium	***ND***	5.00		µg/L	1	7/2/2024
Cobalt	***ND***	50.0		µg/L	1	7/2/2024
Copper	***ND***	5.00		µg/L	1	7/2/2024
Iron	***56.4*** J	50.0		µg/L	1	7/2/2024
Lead	***2.20***	5.00	J	µg/L	1	7/2/2024
Magnesium	***4350***	50.0		µg/L	1	7/2/2024
Manganese	***13.4***	20.0	J	µg/L	1	7/2/2024
Nickel	***ND***	20.0		µg/L	1	7/2/2024
Potassium	***518***	50.0		µg/L	1	7/2/2024
Selenium	***ND***	5.00		µg/L	1	7/2/2024
Silver	***ND*** UJ	10.0		µg/L	1	7/2/2024
Sodium	***3230***	50.0		µg/L	1	7/2/2024
Thallium	***ND***	10.0		µg/L	1	7/2/2024
Vanadium	***ND***	20.0		µg/L	1	7/2/2024
Zinc	***ND***	10.0		µg/L	1	7/2/2024

Qualifiers:

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N - Matrix Spike below accepted limits (+ above)
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NW 10/30/24

APPENDIX C

New York Works
Former Hettling Farm Site
NYSDEC Site Number E411015
Cover Inspection Form

Time: 9:30 am

Date: 12/16/2024

Weather Conditions: 37'F - Cloudy

Were Photographs Taken ?: YES

Inspection Checklist:

A. Soil Cover:

The soil surface of the Site shall be inspected by traversing the area and examining it for the following:

		Yes	No
1.	Is there bare ground, or dead or damaged vegetation?	___	X
2.	Are there cracks, subsidence, or holes in the ground surface?	___	X
3.	Is there evidence of burrowing by animals?	___	X
4.	Is there disturbance of the surface material?	___	X
5.	Is there any erosion damage to vegetated or cleared areas?	___	X
6.	Is there discoloration or evidence of spills on the surface?	___	X
7.	Is there other evidence of disturbance to the area?	___	X
8.	Is there debris or trash present?	___	X

Comments *(Explanation required for each Yes answer in Section A):*

B. Asphalt and Gravel Cover:

The asphalt and gravel portions of the cover shall be inspected by traversing them and examining them for the following:

		Yes	No
1.	Are there cracks or holes in, or subsidence of the surface?	X	___
2.	Is there evidence of burrowing by animals?	___	X
3.	Is there any erosion or other damage to the surface?	___	X
4.	Is there discoloration or evidence of spills on the surface?	___	X
5.	Is there debris or trash present?	___	X
6.	Is there other evidence of disturbance to the area?	___	X

Comments (*Explanation required for each Yes answer in Section B):*

Some minor cracking of pavement but no evidences of subsidence or holes in pavement - noted as normal cracks that would appear in asphalt pavement.

C. Site Drainage

The perimeter of the Site near adjacent properties and in the intermittent ditch shall be inspected by traversing the area and examining it for the following:

		Yes	No
1.	Is there any erosion damage?	___	X
2.	Is there debris blocking drainage pathways?	___	X
3.	Is there evidence of ponding or puddling of water?	___	X

Comments *(Explanation required for each Yes answer in Section C):*

General Comments, Site Notes and Observations of Activities on Adjacent Parcels Which Could Interact With the Work:

Signature:

Peter Nedwell	12/16/2024	CPL
Inspector	Date	Organization



























































